Durham University

Durham E-Theses

Tradescant's rarities: essays on the foundation of the Ashmolena museum 1683 with a catalogue of the surviving early collections

Arthur MacGregor

How to cite:

MacGregor, Arthur (1983) Tradescant's rarities: essays on the foundation of the Ashmolena museum 1683 with a catalogue of the surviving early collections. Masters thesis, Durham University.

Use policy

The full-text may be used and/or reproduced, and given to third parties in any format or medium, without prior permission or charge, for personal research or study, educational, or not-for-profit purposes provided that:

- a full bibliographic reference is made to the original source
- a https://etheses.durham.ac.uk/id/eprint/10281/ is made to the metadata record in Durham E-Theses
- the full-text is not changed in any way

The full-text must not be sold in any format or medium without the formal permission of the copyright holders.

Please consult the full Durham E-Theses policy for further details.

Academic Support Office, The Palatine Centre, Durham University, Stockton Road, Durham, DH1 3LE
e-mail: e-theses.admin@durham.ac.uk Tel: +44 0191 334 6107
https://etheses.durham.ac.uk

ASHMOLEAN MUSEUM · OXFORD

TRADESCANT'S RARITIES

ESSAYS ON THE FOUNDATION OF THE ASHMOLEAN MUSEUM 1683 WITH A CATALOGUE OF THE SURVIVING EARLY COLLECTIONS

EDITED BY

ARTHUR MACGREGOR

11 MAY 1999

CLARENDON PRESS · OXFORD

1983

Thesis
1998/
MAC

[v.6]

D.Lit.2

Oxford University Press, Walton Street, Oxford OX2 6DP
London Glasgow New York Toronto
Delhi Bombay Calcutta Madras Karachi
Kuala Lumpur Singapore Hong Kong Tokyo
Nairobi Dar es Salaam Cape Town
Melbourne Auckland
and associates in
Beirut Berlin Ibadan Mexico City Nicosia

Oxford is a trade mark of Oxford University Press

Published in the United States by
Oxford University Press, New York

© *Ashmolean Museum, Oxford, 1983*
Published in co-operation with the Visitors of the Ashmolean
by the Delegates of the Press

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior permission of Oxford University Press

British Library Cataloguing in Publication Data
Tradescant's rarities.
1. Ashmolean Museum
I. MacGregor, Arthur
069'.09425'74 AM101.0774
ISBN 0-19-813405-3

Library of Congress Cataloging in Publication Data
Main entry under title:
Tradescant's rarities.
Includes bibliographies and index.
1. Ashmolean Museum. 2. Tradescant, John, d. 1638.
3. Tradescant, John, 1608–1662. I. MacGregor, Arthur,
1941– . II. Ashmolean Museum.
AM101.0777 1983 069'.09425'7 82-10963
ISBN 0-19-813405-3

Set by Eta Services (Typesetters) Ltd
Printed in Great Britain
at the University Press, Oxford
by Eric Buckley
Printer to the University

PREFACE

Humphrey Case
KEEPER OF THE DEPARTMENT OF ANTIQUITIES
ASHMOLEAN MUSEUM

A suitable room became available in 1976 for a new display of those objects in the Department's collections which are believed to have been in the Ashmolean Museum from its foundation in 1683. Most of these objects can be attributed to the collection of the John Tradescants, father and son, which had formed a major part of the donation which the University accepted from Elias Ashmole in October 1677. Generous contributions towards furnishing the new Tradescant Room were made by individuals and institutions here and in the United States: the Abraham Foundation Inc.; The Amey Roadstone Corporation; Suzette M. Davidson; The Garden Club of Virginia; Mr and Mrs Roderick S. Webster; and others anonymous. Mrs Davidson deserves special mention since she traces descent from Pocahontas, the daughter of Powhatan from whose confederacy of Indian tribes the Tradescants are likely to have obtained at least one of the surviving objects (No. 12).

The layout of the room was designed by the Department's staff, with Mr M. G. Welch, the Assistant Keeper concerned, playing a prominent role. The intention was to give the impression of a seventeenth-century museum, while using modern display techniques. The fenestration of the old Ashmolean in Broad Street was copied from a contemporary engraving (Pl. CLXXVI) and from nineteenth-century photographs; the panelling and mouldings were adapted from early seventeenth-century examples in the Principal's Lodgings, Brasenose College, by kind permission of the Principal and Fellows. Mounts within the cases were made in the museum's workshop by Messrs A. Field and S. Roberts, and constructional work and installation of fittings were carried out by the University Surveyor's Department under the enthusiastic and expert supervision of Mr P. J. Lockton, beginning in August 1977. The Vice-Chancellor, Sir Rex Richards, opened the completed room on 22 May 1978.

Much new information was obtained about the collection preparatory to the display. Mr Welch reindexed it with the voluntary assistance of Mrs E. Sandford Gunn, amplifying the manuscript index written in 1911 by Mr E. T. Leeds, former Keeper; Miss A. C. Western and her colleagues in the conservation laboratory, Mrs K. Kimber, Miss O. Rennie, Mrs G. Miles, Mrs J. Ralphs, and Mrs V. Hovell undertook a very thorough programme of conservation, the first comprehensive one known to have been made, during which many new features were revealed. It was decided to make the results of these programmes of work the basis of a printed catalogue to mark the tercentenary of the museum in 1983. The only previously printed catalogue of the collection since it had

been in the museum was the very summary one of 1836 by the Duncan brothers, former Keepers.[1]

Mr Welch was able to write two introductory chapters before he left the Department on 1 April 1978, on sabbatical leave prior to accepting a lectureship at University College, London. His successor, Mr A. G. MacGregor, from the York Archaeological Trust, was not appointed until September 1979 and thus faced a strenuous task if the project was to be finished in time. Fortunately Mrs Sandford Gunn was still at hand, and a balance remained from the funds employed in the gallery to contribute towards the salary of Miss A. London as temporary Departmental Assistant, and to enable Mr MacGregor to visit Denmark, Holland, and France to study other early European collections. Mr MacGregor also visited the German Democratic Republic under the British Council cultural exchange programme, and Mrs Sandford Gunn made private visits to museums in Vienna and Innsbruck. The General Board of the Faculties made a timely grant of the remainder of Miss London's salary. The task of translating the *Book of Benefactors* and the 1685 A and B catalogues was undertaken on a voluntary basis by Miss Gloria Moss.

The editing of the catalogue and the invitations to the numerous contributors to it have been Mr MacGregor's responsibilities, assisted throughout by Mrs Sandford Gunn. Contributors have included not only the Director of the Ashmolean Museum and staff of other departments in the Ashmolean but also staff of other museums in Oxford and many from elsewhere. Among these was Mr K. C. Davies of the Oxford University Museum, whose death in 1981 deprived us of a valued colleague. Mr MacGregor and Miss London have also written introductory chapters, and he and Mrs Sandford Gunn have contributed individual entries. The line-drawings were made in the Department's drawing office by Mrs P. Clarke and Mr N. A. Griffiths, with the exception of Figs 74–5 which are by Simon Blake. The photographs were taken in the museum's studio, many of them afresh by Miss D. Griffin. Typing was undertaken by Mrs J. Barlow, Mrs M. Gilson, and Mrs F. Holt. Many others have assisted the editor in various ways. In addition to those mentioned individually in the text, the advice of the following is gratefully acknowledged: Mr R. F. Ovenell, over the transcription of the *Book of Benefactors*; Mr P. H. Bartholomew, Mr G. W. Bond, Dr J. J. Coulton and Dr G. J. Piddock for translations; and Dr B. Atkins on mineralogical identifications. Mrs Z. Stos-Gale carried out X-ray fluorescence analyses at the Research Laboratory for Archaeology with permission from Professor E. T. Hall. Prudence Leith-Ross kindly commented on the two introductory chapters on the Tradescants. Others who have helped in a variety of ways include Dr A. Auer, Mr C. Blair, Mr J. Cherry, Dr H. Ginsburg, Dr M. Henig, Dr M. W. Hunter, Dr B. Juniper, Mr M. Maclagan, Dr R. Pankhurst, Mr A. Paterson, Mr W. Reid, Miss G. Seidmann, Mr D. Sturdy, Mrs V. E. Vowles, and Dr J. Willers. Scholars from many institutions referred to in the text have been consulted: those to whom we are particularly grateful include the staff of the Nationalmuseum, Copenhagen; the Rijksmuseum voor Volkenkunde, Leiden; the Horniman Museum, the Museum of Mankind, and the Victoria and Albert Museum, London; and the Museum für Völkerkunde, Vienna.

[1] Duncan 1836.

An opportunity has been taken of including, in separate sections, catalogue entries relating to objects surviving from the foundation collection but now in other departments of the Ashmolean or in other institutions in Oxford: coins and medals in the Heberden Coin Room; paintings in the Department of Western Art; ethnographic objects now in the Pitt Rivers Museum, zoological and mineralogical specimens in the University Museum, and manuscripts and printed books in the Bodleian Library.

CONTENTS

List of Figures xi

INTRODUCTORY ESSAYS

The Tradescants: Gardeners and Botanists *Arthur MacGregor* 3

The Tradescants as Collectors of Rarities *Arthur MacGregor* 17

Musæum Tradescantianum and the Benefactors to the Tradescants' Museum *April London* 24

The Foundation of the Ashmolean Museum *Martin Welch* 40

The Ashmolean as Described by its Earliest Visitors *Martin Welch* 59

Collectors and Collections of Rarities in the Sixteenth and Seventeenth Centuries *Arthur MacGregor* 70

Bibliography to the Introductory Essays 98

CATALOGUES

Introduction 107

Antiquities from the Foundation Collection of the Ashmolean Museum *edited by Arthur MacGregor and Elizabeth Sandford Gunn* 108

- The Americas 108
- Africa 140
- Asia 150
- Europe 186

Paintings from the Foundation Collection of the Ashmolean Museum 293

- Introduction: Paintings from the Tradescant Collection *David Piper* 293
- Catalogue of Paintings from the Foundation Collection of the Ashmolean Museum *Gerald Taylor* 297
  - Addenda 317
  - Appendix I. The Siege and Battle of Pavia 318
  - Appendix II. The Shells in the Portrait of John Tradescant the Younger with Roger Friend 326
  - Appendix III. Frames on the Tradescant/Ashmole Paintings 327

Appendix IV. A Concordance of the Original Numbering of the Paintings in Ash. Lib. AMS 8 (1685 catalogue A) with other Lists and Publications 330

Coins and Medals in the Heberden Coin Room, Ashmolean Museum, attributed to the Tradescant Collection *Nicholas Mayhew and Daphne Nash* 334

Coins 335

Medals 335

Ethnological Specimens in the Pitt Rivers Museum attributed to the Tradescant Collection *Lynne Williamson* 338

The Americas 339

Africa 340

Asia 342

Zoological Specimens in the University Museum attributed to the Tradescant Collection *Keith Davies* 346

Surviving Specimens explicitly attributed by Duncan to the Tradescant Collection 347

Mammals 347

Parts of Mammals 348

Heads and Beaks of Birds 348

Reptiles 348

Fish 348

Some additional surviving Specimens cited by Gunther as appearing in the 1656 Catalogue 349

Mineral Specimens in the University Museum and the Tradescant Collection *Brian Atkins* 350

Manuscripts and Printed Books associated with the Tradescants in the Bodleian Library *A. C. de la Mare* 351

Bibliography to the Catalogues 358

Guide to the Microfiches 375

Index 377

LIST OF FIGURES

		Page
1.	Paddle, No. 1	109
2.	Club, No. 2	111
3.	Club, No. 3	112
4.	Club, No. 4	113
5.	Club, No. 5: detail of decoration on head	116
6.	Club, No. 6: detail of decoration on head	117
7.	Club, No. 7: detail of decoration on head	118
8.	Club, No. 8: detail of decoration on head	119
9.	Self bow, No. 9	120
10.	Wampum belt, No. 10: detail of method of stringing	121
11.	Wampum belt, No. 10: schematic reconstruction of bead pattern	122
12.	Skin shirt, No. 11: schematic representation of constructional and decorative elements	123
13.	Skin shirt, No. 11: schematic representation of woven quill bands	124
14.	Skin shirt, No. 11: schematic representation of patterns on decorative bands	126
15.	Skin shirt, No. 11: schematic representation of patterns on decorative bands	127
16.	Skin shirt, No. 11: schematic representation of quill-wrapped slashed skin bands	128
17.	Skin shirt, No. 11: schematic representation of quill-wrapped fringe with beaver-claw bead	128
18.	Skin shirt, No. 11: schematic section through part of epaulet	129
19.	'Powhatan's Mantle', No. 12: schematic representation of construction of mantle and of decorative shell bead-work	131
20.	Skin pouch, No. 13: detail of shell bead-work	136
21.	Hammock, No. 16: detail of transverse woven bars and fringes	138
22.	Spur, No. 17	141
23.	Spur, No. 18	142
24.	Spur, No. 19	143
25.	Detail of spur from a portrait of Mohammed Ohadu, dated 1684, at Chiswick House	144
26.	Ivory spoon, No. 22	146
27.	Ivory spoon, No. 23	146
28.	Drum, No. 25: details of method of lashing on upper (larger) and lower (smaller) membranes	147
29.	Ivory horn, No. 26	149
30.	Keris, No. 28: blade	151
31.	Keris, No. 29: blade	153
32.	Keris, No. 30: blade	155

33. Spear shaft, No. 32, and self bows, Nos. 34–5 158
34. Self bows, Nos. 36–41 159
35. Shield, No. 42: schematic reconstruction of heraldic decoration 163
36. Rattan shield, No. 45: method of construction, including attachment of handles 168
37. Shield, No. 46: details of bindings and shell decoration 169
38. Archers' thumb-rings, Nos. 60–2 174
39. Sherbet-spoon, No. 69 177
40. Cradle drain, No. 70 178
41. Stirrups, No. 84: larger stirrup 187
42. Stirrups, No. 84: smaller stirrup 188
43. Model cannon and field-carriage, No. 86 190
44. Combined axe-pistol, No. 90: a, head and muzzle, b–e, expanded view of ornament 199
45. Pollaxe, No. 92: detail of head 205
46. Sword-blade, No. 94: markings on blade 208
47. Cinquedea, No. 95: schematic representations of a, hilt; b, underside of guard; c, inscription on blade 211
48. Knife, No. 96 215
49. Stone crossbow, No. 97, with string reconstructed 217
50. Stone crossbow, No. 97: engraved bone plaque 217
51. Dagger sheath, No. 98 219
52. Buckler, No. 99: a, cross-section, with elevation of boss; b, plan-view of handle-loop; c, detail of construction 221
53. Vineyard tool, No. 102 225
54. Gamahe, No. 189 248
55. Amulet, No. 190 249
56. Runic almanac, No. 194: back cover 255
57. Runic almanac, No. 194: 21 July–6 October 256
58. Runic almanac, No. 194: 7 October–26 December 257
59. Runic almanac, No. 194: 27 December–25 March 258
60. Runic almanac, No. 194: 4 April–1 July 259
61. Wooden spoon, No. 197 263
62. Wooden spoon, No. 198 264
63. Wooden spoon, No. 199 264
64. Lantern, No. 209: details of relief decoration. a, upper band; b, central band; c, lower band 267
65. Cradle, No. 210: detail of scroll-work 271
66. Roman jar, No. 211: with expanded view of graffito 273
67. Roman jar, No. 212 273
68. Anglo-Saxon pot, No. 213 274
69. Palissy-ware dish, No. 215 275
70. Alabaster panels, Nos. 218–21: artist's initials on lower edge 277
71. Carved cross, No. 228: disposition of scenes as numbered in the text 281

72. Carved cross, No. 229: disposition of scenes as numbered in the text 281
73. Chessman, No. 236 286–7
74. The siege and battle of Pavia: explanatory map 319
75. Frames on the Tradescant/Ashmole paintings: a, common method of frame construction; b, No. 274; c, No. 260; d, No. 258; e, No. 275; f, No. 29 328

INTRODUCTORY ESSAYS

THE TRADESCANTS GARDENERS AND BOTANISTS

Arthur MacGregor

Much of the evidence which survives to illuminate the Tradescants' progress from obscurity to comparative fame comes from published and unpublished material of primarily botanical interest. Indeed, it was their success as gardeners which provided the vehicle for their collecting activities and which ensured the powerful but sympathetic patrons under whom their passion for collecting could take root and flourish. Hence in reviewing the lives of the Tradescants, father and son, account must first be taken of their gardening careers.

The often-quoted statement by Anthony Wood[1] that John Tradescant the elder was of Dutch origin finds only qualified support today.[2] Following the discovery in the last century of 'two namesakes Robert Tradescant and Thomas Tradescant of Walberswick in the Countie of Suffolk',[3] more recent researchers have found possible East Anglian antecedents from the first half of the sixteenth century.[4] John Tradescant enters the historical record with his marriage to Elizabeth Day on 18 June 1607, at Meopham in Kent.[5] His bride was the daughter of a former vicar of the parish, James Day.[6] Although his date of birth is unknown, he would seem to have been about thirty when he married.[7]

Tradescant's master at the time is unknown,[8] but he was evidently well launched on his career. Within two years we learn of a journey undertaken to Flushing which had been bedevilled by passport problems to the extent that fruitless bribes had cost him more than the passage: in a letter dated November 1609, Tradescant sends thanks to William Trumbull, the English agent in Brussels, for his intercession, but tells him that 'your good will and labour hath not effected what you desired to do, for they have put me upon the

[1] Wood 1820, vol. 4, col. 357. The reference is absent from the first edition (1691) of *Athenæ Oxonienses*, but appears in the second edition, 'very much Corrected and Enlarged; with the Addition of above 500 new Lives from the Author's original Manuscript' (1721, vol. 2, col. 888). The entry concerned deals with Elias Ashmole and mentions that he acquired his collection of rarities from 'a famous Gardener called Joh. Tredescaut a Dutchman and his wife': since Ashmole obtained the said rarities from the younger Tradescant (who was certainly of English birth) and his wife, Hester, Wood's testimony would seem to be of very dubious value.

[2] Although dismissed by the Tradescants' first biographer, Mea Allan (1964, pp. 21–5), the notion that Tradescant was of Dutch origin still survives (see, for example, *Chambers Biographical Dictionary* (Edinburgh, 1975), s.v. Tradescant). Prudence Leith-Ross, who is currently compiling a new biography, does not entirely exclude this possibility.

[3] The quotation is from the younger Tradescant's will, as first reproduced in *Notes and Queries* ser. 1, 5 (1852), 367–8. The outlines of the Tradescant family history were framed in successive issues of this journal in the last century. See *Notes and Queries* ser. 1, 3 (1851), 119, 286–7, 353–5, 391–4, 469; 4 (1851), 182; 5 (1852), 266, 367–8, 474–5; 6 (1852), 198; 7 (1853), 295; 8 (1853), 513; ser. 4, 7 (1871), 284; ser. 5, 4 (1875), 80; ser. 6, 3 (1881), 147, 512.

[4] Allan (1964) has produced a somewhat speculative family tree.

[5] Meopham Parish Church Registers.

[6] As suggested by Golding-Bird 1934, pp. 89–90, 165. Allan (1964, p. 26) mentions the daughter of a local farmer of the same name as a possible alternative, but the true identity of Tradescant's bride is not in doubt.

[7] Calculated from his apparent age in later portraits (cf. Allan 1964, p. 29).

[8] Various suggestions made by Gardiner (1928, p. 308) and Allan (1964, p. 29) can be discounted on chronological grounds. There is no evidence to back their common assumption that Tradescant was working at the time in the vicinity of Meopham.

rack. I have given for every hundred an angel in one office besides many other "pedy" offices that hath half a crown apiece for the shares so the whole hath cost me 40s besides 24s the passage to Flushing.'[9]

Within a few months of this expedition, the purpose of which is unknown, Tradescant is known to have been in the household of the first of his influential employers, Robert Cecil, first Earl of Salisbury (*c.*1563–1612), at Hatfield House in Hertfordshire. Cecil had acquired the estate two years earlier from James I, in exchange for his mansion at Theobalds, and set about transforming the house and replanting the gardens. The principal façade was rebuilt to a design of Inigo Jones and many of the internal decorations effected by John de Critz, Serjeant-Painter to the King; Mountain Jennings was overseer of the parks and highways, while Tradescant laid out and stocked the gardens. Hatfield was already well provided with vines, some 30,000 of which had been sent to the Earl by Mme de la Boderie, wife of the French ambassador, and 500 more by the Queen of France.[10] Evidently Cecil now felt most need for trees, fruit, and flowers, and to acquire these Tradescant made another visit to the Low Countries and France in the autumn of 1611.

Crossing again to Flushing, the search for suitable specimens took him through Middelburg, Rotterdam, and Delft to Leiden and Haarlem. Detailed accounts of purchases survive among the Cecil papers at Hatfield:[11] they include fruit trees such as the 'rathe ripe' and other cherries, Spanish and other pears, quinces of several varieties, medlars, and apples, as well as 200 lime trees; also acquired were red, white, and black currants, vines, rose bushes, and bulbs, all rare and many apparently hitherto unknown in Britain.[12]

These acquisitions were dispatched by ship from Brussels to Hatfield, together with further purchases of fruit and walnut trees. Perhaps it was on this occasion that he made observations later recorded by John Parkinson:[13] writing of 'chardon' or cardoon artichokes (*Cynara cardunculus*), he says that 'John Tradescante assured mee, hee saw three acres of Land about Brussels planted with this kinde, which the owner whited like Endiue, and then sold them in the winter'. Parkinson also records a variety of strawberry 'that John Tradescante brought with him from Brussels long agoe, and in seven yeares could never see one berry ripe on all sides, but still the better part rotten, although it would every yeare flower abundantly, and beare very large leaves'.[14]

Tradescant next proceeded to Paris where, in the company of the British ambassador's gardener,[15] he called on Jean Robin, then *herboriste* to the French king, and later founder of what was to become the Jardin des Plantes. From Robin's own garden he bought a number of pomegranate, fig, and other trees. A long-lasting friendship seems to have

[9] Historical Manuscripts Commission 1936, p. 188.

[10] Amherst 1896, pp. 155–6; Gunther 1922, p. 328. Amherst notes that this number of plants exceeded the capacity of the vineyard: some were planted out in a nursery so they could be used to replace any that were 'defectyve or dying'.

[11] Hatfield House MSS, Gen. 11/25; Bills 58/2, 3, 31.

[12] Lists of acquisitions and the names of the nurserymen from whom they were obtained are reproduced in Gunther 1922, pp. 328–9, and Allan 1964, p. 38.

[13] Parkinson 1629, p. 520.

[14] Ibid., p. 528.

[15] Hatfield House MSS, Gen. 11/25 records among Tradescant's expenses 'for my Lord Imbassettors gardner to goe withe me two and fro in Parrys to by my things given him on Cronne 0:6:0.'

already begun, Tradescant recording that, in addition to those purchased, 'manye other Rare Shrubs give me by Master Robyns'.[16]

From Paris Tradescant went next to Rouen, where he bought an 'artyfyshall bird', a 'Chest of Shells with eyght boxes of Shells' seemingly to embellish the Hatfield gardens, and a 'great buffells horne', probably to fertilize them.[17] Further fruit trees bought in Rouen raised the number of specimens which reached Hatfield that December to nearly 1,000, many of them first-time introductions. Small wonder that Evelyn, when he visited the estate in 1643, found that 'the most considerable rarity besides the house (inferior to few for its Architecture then in England) was the Garden and Vineyard rarely well water'd and planted'.[18]

Several varieties included in the list of plants acquired on this journey[19] are illustrated in a manuscript, formerly thought to be a guidebook to the Hatfield gardens, known as 'Tradescant's Orchard'.[20] Although the Hatfield connection is not proven, the link with Tradescant is unquestioned. Some sixty-five varieties of fruits are illustrated in order of their respective dates of ripening. The author of the notes was evidently not Tradescant himself, who is referred to under one entry as follows: 'the Amber Plum which J.T. as I take it brought out of France and groweth at Hatfield' (Pl. CLXVIII). Indeed, some varieties can hardly have had time to start fruiting before Tradescant left Hatfield for good, within a few years of his first continental visit.

However, the opportunity for a further visit to France preceded his final departure; this time it was at the behest of William Cecil (1591–1668), who succeeded his father as Earl of Salisbury in 1611, and now turned his attentions to Salisbury House, the family's mansion in the Strand. Here John Gerard had tended the gardens for William's grandfather, Lord Burghley. They were now replanted under Tradescant's hand, seemingly with many hundreds of rose-bushes.[21] Indeed, so lavish was the new earl's spending on this and other projects that it may have been a factor in encouraging Tradescant to diversify his interests and prudently to obtain leases on some sixty acres of farm and woodlands in the manor of Hatfield.[22] However this may be, after three or four years at work on the gardens at Salisbury House, as well as Hatfield and the other Salisbury properties at Cranborne[23] (and, perhaps, at Canterbury), the relationship was finally severed.

From September 1614 Tradescant's name disappears from the Hatfield records, to reappear by midsummer of the following year at Canterbury.[24] His new master was Lord

[16] Hatfield House MSS, Bills 58/31. Tradescant's 'bill for his Chardges from Brussels to London in his returne from beyonde seas' (Hatfield House MSS, Gen. 11/25) is reproduced in Historical Manuscripts Commission 1976, p. 210.

[17] Hatfield House MSS, Bills 58/31. The shells were probably those destined to ornament the beds of the Hatfield streams, while powdered horn may have been used to manure the vines: Gerard (1597, p. 727) recommends 'shavings of horn . . . disposed about the rootes, to cause fertilitie'.

[18] Evelyn, *Diary*, 11 March 1643.

[19] Reproduced in Gunther 1922, pp. 328 9, and Allan 1964, pp. 38–48.

[20] Bod. Lib. MS Ashmole 1461. See below, No. 434, Pl. CLXVIII.

[21] Hatfield House MS, quoted in Allan 1964, p. 57.

[22] 'Rental of the Manor of Hatfield', quoted in Allan 1964, pp. 57 8.

[23] Lady Salisbury (1980, p. 116) records an account (Hatfield House MSS, Accounts 160/1) relating to a visit by Tradescant in November 1610 to Cranborne in order to plant trees.

[24] The earliest evidence of Tradescant's presence at Canterbury is in the form of a letter written by him on 23 July 1615 to Cecil's agents at Salisbury House, concerning rents due on farmland at Hatfield (Hatfield House MSS, Gen. 7/13; reproduced in Historical Manuscripts Commission 1971, 18).

Wotton (1548–1626), formerly Sir Edward Wotton, who had bought St. Augustine's Palace at Canterbury in 1612 from the second Earl of Salisbury. Here Tradescant again applied himself with imagination and energy: numerous exotics flowered for the first time in England, many of them introduced by his own hand following a visit to the Mediterranean in 1620 (see pp. 7–8). During this period under the patronage of Lord Wotton, he was apparently free to undertake other commissions, including, it has been suggested, laying out a garden at Chilham, Kent, an estate bought in 1616 by Sir Dudley Digges (1583–1639).[25]

By 1618, Digges was sent as the King's envoy on an embassy to Russia, and among the company was John Tradescant. Judging from Tradescant's diary of this 'Viag of Ambusad' via the North Cape to Archangel[26], his official duties were negligible. Several entries refer to opportunities for botanical field-work, the first ever recorded on Russian soil.[27] On Thursday 16 July, for example, the following entry appears: 'In that place wheare we anccored I desired to have the boat to goe on shore whiche was hard by, wher when we wear land we found many sorts of beryes, on sort lik our strawberyes but of another fation of leaf; I have brought sume of them hom to show with suche variettie of moss and shrubs, all bearing frute, suche as I have never seene the like.' The following week, on 20 July: 'On Munday I had on of the Emperor's boats to cari me from iland to iland to see what things grewe upon them, whear I found single rosses, wondros sweet withe many other things whiche I meane to bring with me.' No doubt this was the '*Rosa Moscovita*' which came to bloom in Tradescant's garden at South Lambeth.[28]

Later, on the first evening of the voyage home, he wrote: 'That night [5 August] we cam to ancor under Rose Iland, wheare I [and] divers [others] went on shore whear ther was a littill souldgers house poorly garded withe sum 10 men, whear we bought gras for our live sheepe, whear I gathered of all such things as I could find thear growing, which wear 4 sorts of berries, which I brought awaye with me of every sortt.' A section appended to the diary, headed 'Things by me observed', refers to several other plants, some of which seem to have been collected either in the form of seeds or as complete specimens, including:

> on sort of plant, bearing his frut like hedge-mercury, which made a very fine showe, having 3 leaves on tope of every stake, having in every leafe a berry about the bignes of a hawe, all the three berryes growing close together, of a finner bright red than a hawe, whiche I took up many roots, yet am afraid that non held, becuse at our being on ground we staved most of oure frese watter, and so wear faint to watter withe salt watter, but was made beleeve it was freshe, whiche that plant having but a long whit thin root, littill biger than a small couch gras; and the boys in the ship, befor I pe[r]seved it, eat of the berries, except sume of them com up amongst the earthe by chance.

Parkinson identifies white ellebor (*Veratrum album*) as among the species observed on this voyage: it 'groweth in many places of Germany, as also in some parts of Russia, in that aboundance, by the relation of that worthy, curious and diligent searcher and

[25] Allan 1964, p. 66: concrete evidence for this assumption has not been produced.

[26] Konovalov 1951, pp. 130–41. See No. 433 and Pl. CLXVII.

[27] See Hamel 1854, pp. 266–84; Boulger 1895.

[28] Tradescant 1656, p. 162.

preserver of all natures rarities and varieties, my very good friend, John Tradescante, often heretofore rembred, that, as hee said, a good ship might be laoden with the rootes hereof, which hee saw in an island there'.[29] Purple crane's-bill (? *Geranium moscoviticum purpureum*) is also recorded by Parkinson as originating in Muscovy and 'brought to us by Mr John Tradescant',[30] while others add larch to the list of introductions resulting from this expedition.[31] In all, some two dozen plants are recorded in Tradescant's quaint but perceptive diary, which demonstrates clearly the keen and discerning eye of its author, for all that it may have been 'written in a rude hand, and by a person unskilled in composition'.[32]

Wotton seems to have had little reason to complain of the absence of his gardener, and the garden at Canterbury continued to attract attention. Sir Henry Mainwaring wrote to Lord Zouch in a letter of 27 March 1620 that he had gone 'to see my Lord Wottons garden and to confer with his Gardener, for I do much desire that your Lordship should eat a Muske Mellon [*Cucumis melo*] of your own in Dover Castle this year'.[33] Further exotics were noted there by Parkinson: for example, a variety of mandrake (*Mandragora officinarum*), 'which I first saw at Canterbury, with my very loving and kinde friende John Tradescante, in the garden of the Lord Wotton, whose gardiner he was at that time'.[34] The 'Indian moly' (perhaps *Allium sativum*, true garlic, or *Allium moly*, a Mediterranean garlic) 'grew also with John Tradescante at Canterbury, who sent me the head of bulbes to see, and afterwards a roote, to plant it in my garden'.[35] Pomegranates also grew there: 'The wilde I thinke was never seene in England, before John Tradescante my very loving good friend brought it from the parts beyond the Seas, and planted it in his Lords Garden at Canterbury'.[36] Also mentioned is the 'Argier Apricocke', which, 'with many other sorts John Tradescante brought with him returning from the Argier voyage, whither hee went voluntary with the Fleete, that went against the Pyrates in the yeare 1620'.[37]

During the Algiers blockade of 1620–1[38] Tradescant was again released by Wotton, this time to serve as a gentleman volunteer on the pinnace *Mercury* under Captain Phineas Pett (see p. 36). The *Mercury*'s movements are uncertain between February, when she arrived off Alicante, and her return to England in September. Allan has suggested that Pett may have sailed through the Mediterranean as far as Constantinople, possibly as escort for British merchantmen; she also compiles from Tradescant's 1634 garden catalogue a list of plants from the Mediterranean area whose introductions could be explained in this way.[39] Some independent evidence exists for one plant, *Trifolium stellatum* (starry-headed clover), which was said to have been brought by Tradescant

[29] Parkinson 1629, p. 346.
[30] Parkinson 1640, p. 705.
[31] Boulger 1895, pp. 34–8.
[32] Black 1845, no. 824, xvi.
[33] PRO, State Papers Domestic, James I, CXIII, 1620, no. 41; Gardiner 1928, p. 310. 'Melon seeds of all sorts' were among the many seeds sent from Venice to James I by Sir Henry Wotton during the period of his ambassadorship there (Gunther 1922, p. 274 and n. 1). See also No. 443 below.
[34] Parkinson 1629, p. 378.
[35] Ibid., p. 141.
[36] Ibid., p. 430.
[37] Ibid., p. 579.
[38] See Corbett 1904, pp. 110–28; and No. 440 below.
[39] Allan 1964, pp. 100–6. Ducarel (1773, p. 6) had earlier been convinced that 'from some emblems remaining upon Tradescant's monument in Lambeth church-yard, it plainly appears that he had visited Greece, Egypt and other Eastern countries'. Corbett (1904, p. 116) notes, however, that the commander of the fleet, Sir Robert Mansell, was cautioned against sailing eastwards of Cape Spartivento at the southern tip of Sardinia.

from Fermentera, in the Balearics opposite Algiers.[40] There can be little doubt, however, that he collected others. Parkinson writes of varieties of 'corne flagge' (probably *Gladiolus illyricus*), that 'They grow in France and Italy, the least in Spaine, and the Byzantine, as it is thought, about Constantinople, being (as is said) first sent from thence. John Tradescante assured mee, that hee saw many acres of ground in Barbary spread over with them.'[41] The tradition that Tradescant joined the expedition to Algeria specifically for botanical purposes, however, 'that he might have an opportunity of bringing apricot-trees from that country'[42] is unlikely to be accurate.

In 1623 Tradescant found a new and more influential patron in George Villiers, the Duke of Buckingham (1592–1628), and was immediately set to work at Newhall in Essex. Formerly a mansion of Henry VIII, Newhall had been bought by Buckingham from the Earl of Sussex and was now undergoing extensive elaboration. Evelyn described Newhall in 1656, by which time it had been sequestered by Parliament, as

> a faire old house, built with brick ... Garden a faire plot, and the whole seate well accommodated with water; but above all the Sweete and faire avenue planted with stately Lime-trees in 4 rowes for neer a mile in length: It has 3 descents which is the onely fault, and may be reformed: There is another faire walk of the same at the Mall and wildernesse, with a Tenis-Court, and a pleasant Terrace towards the Park, which was well stored with deere, and ponds.[43]

Several entries in Buckingham's accounts relate to sums paid for the purchase of trees and other plants, including one of 1623, 'Paide to John Tradescant by his Lps order for his journey into the Lowe Countries for his charges and Trees bought for his Lp there, £124.14.–.' and one under the account for Buckingham's embassy to the Low Countries in September 1625, 'To John Tradescant for Trees £150.–.–.'[44] Perhaps on one of these occasions he 'brought a small Ozier from St Omers in Flanders, which makes incomparable Net-works'.[45] Buckingham entrusted more than his gardens to Tradescant, as shown by a further entry in the accounts for 1625: 'Paide to John Tradescant for his journey to Paris with my Lords stuff Trunks &c. by waie of Imprest £20.–.–.'[46] The occasion was Buckingham's three-week embassy to the French court, which concluded with his escorting home Henrietta Maria as the bride of Charles I. Tradescant did not return empty-handed either, for there are records of £100 'Given to John Tradescant for the buying of Trees flowers &c.' and of £20 'Given to the Kings Gardiners for divers Plantes presented to his Grace by John Tradescant'.[47]

In 1626 Tradescant was awarded by Buckingham 'the garnetter's place' at Whitehall, a sinecure which caused some jealousy among Tradescant's peers.[48] In 1627 he joined Buckingham's disastrous expedition to lay siege to La Rochelle.[49] With his earlier

[40] Pulteney 1790, p. 176. A visit by the fleet to Fermentera is recorded in Bod. Lib. MS Ashmole 824/15 (see No. 440 below.)

[41] Parkinson 1629, p. 190.

[42] *Notes and Queries* ser. 1, 3 (1851), 351, in which the younger Tradescant is mistakenly referred to; repeated by Brown 1890, p. 1032.

[43] Evelyn, *Diary*, 10 July 1656.

[44] BL Add. MS 12, 528 ('Sir Sackville Crowe's Book of Accompts ... on behalf of the Duke of Buckingham'), f. 12^{v}, no.25; f.28^{v}, no. 15.

[45] Evelyn 1664, p. 43.

[46] BL Add. MS 12,528, f.21^{v}, no. 19.

[47] Ibid., f.23^{v}, nos. 14 and 24.

[48] PRO, State Papers Domestic, Charles I, CLXVI, 1630, no. 35: here one James Haydon petitioned for a grant of benefit to compensate him for loss of income when the 'Garnetters place', bestowed on him by the King, was reassigned to John Tradescant by the Duke of Buckingham.

[49] See No. 441 below.

experience in the Mediterranean, Tradescant may have been a willing enough volunteer and a useful soldier: one report records that 'the winter comes one apace; our men indure much wett in ther trenches; & Jo: Tredescant one of our best ingeniers'.[50]

In the circumstances, there can have been little time for Tradescant (who seems to have escaped personal harm) to bend his mind to more peaceful pursuits, yet some botanical trophies were carried home: Parkinson records that the 'greatest Sea Stocke Gilloflower [probably *Matthiola sinuata*] was brought out of the Isle of Ree by Rochel by Mr. John Tradescant when the Duke of Buckingham was sent with supplies for Monsieur Subise',[51] while Johnson recalls that this plant 'was first sent over from the Isle of Rees by Mr. John Tradescant'.[52]

Buckingham's assassination in 1628 appears to have left Tradescant without a regular employer, until in 1630 he was appointed Keeper of His Majesty's Gardens, Vines, and Silkworms at Oatlands Palace in Surrey, with an annual salary of £100.[53] Finally, in 1637, he was offered the newly established post of Custodian of the Oxford Botanic Garden, which had been founded at a cost of over £5,000 by the Earl of Danby, opened in 1621, and planted with 'divers simples for the advancement of the faculty of medicine'.[54] Danby, whose London seat was at Chelsea,[55] may have been influenced in his choice of gardener by first-hand experience of Tradescant's prowess, for Tradescant had been his near-neighbour across the river at Lambeth since about the time of Buckingham's death.[56] At any rate, Danby seems personally to have conducted the negotiations, since a surviving manuscript records that 'he came to some reasonably good terms of agreement with John Tradescant of West Lambeth, designed for the gardener'.[57] Since the yearly stipend of '£50 or thereabouts' was only half the annual sum paid to Tradescant for his services at Oatlands, it may be conjectured that the Oxford duties were not considered demanding.[58] Tradescant, unfortunately, was never to take up the appointment, and died the following year.[59]

During the ten years in which the Tradescants had inhabited Lambeth, their house and garden had become internationally renowned. The location of their property has recently been established with some precision by David Sturdy.[60] The house lay on the line of the present South Lambeth Road, within about an acre of garden. An orchard of

[50] PRO, State Papers Domestic, Charles I, LXXXI, 1627, no. 59. A manuscript 'Journall of the voyage of Rease' in the British Library (Add. MS 26,051, f. 16') also mentions 'John the Dukes Gardiner' as an engineer, describing him as 'best of all this true and most deserving'. This testimony appears to deny Gunther's assertion that Tradescant accompanied the expedition 'apparently in the capacity of a collector of objects of natural history' (Gunther 1925, p. 282).

[51] Parkinson 1640, p. 624.

[52] Johnson 1633, p. 1099. A reference to this species had however already appeared under the name of *Leucoium marinum* in Gerard's *Herball* of 1597 (pp. 374-6), where it is described as growing 'neere unto the seaside, about Colchester, in the Isle of Man, neere Preston in Aundernesse, and about Westchester'.

[53] PRO, State Papers Domestic, Charles I, CCCII, 1635, no. 94. For details of the vineyards and gardens at Oatlands see Fletcher 1930, pp. 141-5; Forge 1970, *passim*.

[54] Gunther 1912, p. 1.

[55] I am grateful to Mrs Rosemary Nicholson for this information.

[56] Sturdy (1982, p. 1) notes that Tradescant's name does not appear in a parish tax assessment of 1628, but he must have settled in Lambeth late in that year, since a list of plants he records as growing there was begun in 1629 (see No. 436 below). Sturdy further observes that Tradescant showed no very marked interest in medicinal plants which might have recommended him for the Oxford post, but that his son was later to develop this aspect of the Lambeth garden (ibid., p. 2).

[57] Bod. Lib. MS Twyne 6, f. 287.

[58] Prudence Leith-Ross has pointed out (personal communication) that Tradescant's salary at Oatlands had to include all workmanship and materials, but possibly this was not so at Oxford.

[59] Churchwardens' Accounts of St. Mary at Lambeth, quoted in *Notes and Queries* ser. 1, 3 (1851), 394, record for the year 1637 8: 'Item, John Tradeskin; ye grct bell and black cloth, 5*s*.4*d*.'

[60] Sturdy 1982.

some two acres or more lay close by the garden. Although somewhat modified by later alterations, something of the original house can be seen in a late eighteenth-century water-colour reproduced by Sturdy, which shows also the adjacent building later occupied by Ashmole.[61] The environs were otherwise relatively undeveloped, to judge from a record of a visit to Ashmole's property by John Evelyn in 1678, when he noted that 'The prospect from a Turret is very fine, it being so neere Lond[on] & yet not discovering any house about the Country'.[62] As well as fulfilling the recreational needs of the family, the garden and orchard may also have served as a source of income from the sale of plants and fruit. Writing of plums, for example, Parkinson records that 'the choysest for goodnesse, and rarest for knowledge, are to be had of my very good friend Master John Tradescante, who hath wonderfully laboured to obtaine all the rarest fruits hee can heare off in any place of Christendome, Turky, yea or the whole world'.[63] Thomas Johnson acquired Tradescant's rose daffodil, 'from Master John Tradescant of South Lambeth [which] is the largest and stateliest of all the rest' described elsewhere by Parkinson as 'The Prince of Daffodils'.[64] Johnson records several other rare species flowering with Tradescant, including not only exotics such as bastard felwort (probably *Gentiana verna*), which 'grow not wilde in England that I know of', Virginian starworts (probably either *Aster novae-angliae* or *A. novi-belgii*), and Virginian snake-root or snake-weed (*Aristolochia serpentaria*), but also little-known native plants such as Our Lady's slipper (*Cypripedium calceolus*) from 'the North parts of this kingdome', painted sage (probably a form of *Salvia officinalis*), which 'was first found in a countrey garden, by Mr. John Tradescant, and by him imparted to other louers of plants', and bear's ears or mountain cowslips.[65] Tradescant's interest in the more obscure and less spectacular products of his native countryside is a facet of his professionalism often lost behind his association with more prestigious introductions from overseas. It is well illustrated in Johnson's account of one little-loved strawberry, *Fragaria fructu hispido* (a form of *Fragaria moschata*, the Plymouth strawberry):

> There is also kept in our gardens (onely for varietie) another Strawberrie which in leaves and growing is like the common kinde; but the floure is greenish, and the fruit is harsh, rough and prickely, being of a greenish colour, with some shew of rednesse. Mr. John Tradescant hath told me that he was the first that tooke notice of this Straw-berry, and that in a womans garden at Plimouth, whose daughter had gathered and set the roots in her garden in stead of the common Straw-berry: but she finding the fruit not to answer her expectation, intended to throw it away: which labor he spared her, in taking it and bestowing it among the lovers of such varieties, in whose gardens it is yet preserved.[66]

In addition to the plants credited to him in the text of Parkinson's *Paradisus*, a list of further species introduced between the year of publication (1629) and 1633 was appended by Tradescant to his own copy.[67] It comprises over 130 entries, several of them referring to more than one variety; amongst the sources given are the ever-generous

[61] Ibid., fig. 7.
[62] Evelyn, *Diary*, 23 July 1678.
[63] Parkinson 1629, p. 575.
[64] Johnson 1633, p. 135; Parkinson 1629, p. 102.
[65] Johnson 1633, pp. 437, 443, 489, 766, 785, 848. Mr Alan Paterson has pointed out (personal communication) that *G. verna* does in fact grow wild in the British Isles.
[66] Johnson 1633, p. 998.
[67] See No. 436 below.

'Mounser Robyne' and also René Morin of Paris. A full catalogue of some 750 species and varieties grown at Lambeth was subsequently prepared for publication in 1634, and a single copy is still extant.[68] In the same year the explorer Peter Mundy called on Tradescant and saw foreign plants in 'a little garden with divers outlandish herbes and flowers, whereof some that I had not seene elsewhere but in India, being supplyed by Noblemen, Gentlemen, Sea Commaunders etts'.[69] Presumably this 'little garden' formed a separate element within the grounds, functioning as a living collection of natural rarities. During a visit in 1638, Georg Christoph Stirn of Nürnberg saw 'all kinds of foreign plants which are to be found (enumerated) in a special little book which Mr Tradescant has had printed about them',[70] presumably the garden list mentioned above. A comprehensive review of the introduced trees and shrubs grown by the Tradescants at Lambeth has recently been published by P. J. Jarvis.[71]

Tradescant's will, dated 8 January 1638, and proven on 2 May 1638, lists leases on properties in Covent Garden and Longacre, which were left to his grandchildren, in addition to those at Woodham Water in Essex and at Lambeth, which went to his son John. (No mention is made of Elizabeth, his wife, who must be assumed to have predeceased him.)[72]

The early life of John Tradescant the Younger is rather shadowy. He was baptized at Meopham in 1608[73] and between 1619 and 1623 attended the King's School, Canterbury, close by Lord Wotton's garden where his father was employed. He married Jane Hurt in 1627;[74] at some time not precisely known a daughter, Frances, was born,[75] to be followed in 1633 by a son, John.

In 1634 Tradescant the younger was admitted a freeman of the Gardeners Company, although no record survives of his apprenticeship.[76] Three years later he made his first visit to Virginia, when it was recorded that 'In 1637 John Tredescant was in the colony, to gather all rarities of flowers, plants, shells, &c.'[77] He made further visits on two occasions, in 1642 and in 1654.[78]

In Tradescant's 1656 catalogue the Tradescants' name was linked with only five North American plants: blush bears' ears (*Dodecatheon meadia* L.), Virginian maple (*Acer rubrum* L.), another maple (*Platanus occidentalis* L.), Virginian or swamp cypress (*Taxodium distichum* L.), and white Virginian poplar (tulip tree) (*Liriodendron tulipifera* L.). Subsequently, they have been credited with *Aster tradescanti*[79] and with the spiderwort,

[68] Tradescant 1634: the surviving copy is in Magdalen College Library, Oxford (Arch. B.II.1.19); it is reproduced in Gunther 1922, pp. 334–45.

[69] Bod. Lib. MS Rawl. A315; reproduced in Temple 1919, p. 2.

[70] For Stirn's diary see No. 438 below.

[71] Jarvis 1979.

[72] PRO, Prob. 11/177/63; see *Notes and Queries* ser. 1, 7 (1853), 295; Lane Poole 1913, p. 68; Allan 1964, pp. 174–5.

[73] Meopham Parish Church Registers, quoted in *Notes and Queries* ser. 1, 5 (1852), 266; Golding-Bird 1918, p. 152: '1608: August the iiij daye John the sonne of John Tradescant was baptized eodem die.'

[74] Faculty Office Licence.

[75] At the time of her marriage in 1644 Frances was described as 'about nineteen'. Allan (1964, p. 179) accords her a birth in wedlock by giving her birthdate as *c.*1628.

[76] Allan (1964, p. 150) notes that the records of the Gardeners Company pertaining to this period were destroyed by fire in the eighteenth century.

[77] PRO, State Papers, Colonial Series, 1574–1660, vol. 1, no. 11. Allan's suggestion (1964, p. 165) that he had visited Virginia prior to 1637 is based on an influx of twenty-nine American plants recorded in the garden list (Tradescant 1634): this hypothesis finds no supporting evidence elsewhere and the plants in question could easily have arrived through intermediaries.

[78] Allan 1964, pp. 181, 189.

[79] e.g. Pulteney 1790, p. 176; *Notes and Queries* ser. 1, 3 (1851), 354.

Tradescantia virginiana.[80] Parkinson described the latter (Pl. CLXXVIII) under the name *Phalangium ephemerum Virginianum Ioannis Tradescant*:

The soon fading Spider-wort of Virginia, or Tradescant his Spider-wort. This Spider-wort is of late knowledge, and for it the Christian world is indebted unto that painfull industrious searcher, and lover of all natures varieties, John Tradescant (sometimes belonging to the right Honourable Lord Robert Earle of Salisbury, Lord Treasurer of England in his time, and then unto the right Honourable the Lord Wotton at Canterbury in Kent, and lastly unto the late Duke of Buckingham) who first received it of a friend, that brought it out of Virginia, thinking it to bee the Silke Grasse that groweth there, and hath imparted hereof, as of many other things, both to me and others . . .'[81]

Hence this attribution, and perhaps all the others listed here, should be to the elder Tradescant, whose North American introductions were all made via intermediaries.[82] Many no doubt arrived at Lambeth, like the spiderwort, in the care of interested friends, others as a result of a letter specifically requesting specimens, written by Tradescant at the command of the Duke of Buckingham (see pp. 19–20). Yet others came by way of exchange with gardeners who already had specimens of their own, such as '*Doronicum Americanum*', (probably *Arnica montana*, leopard's bane), said to have come from 'the French colony about the river of Canada and noursed up by Vespasian Robin the French Kings Herbarist at Paris, who gave Mr. Tradescant some rootes that hath encreased well with him and thereof hath imparted to me also'.[83]

Exchanges of seeds and plant specimens between botanists were an important feature of this formative period of gardening. A number of entries in Parkinson's *Paradisus* refer to plants or seeds received from the elder Tradescant: these include double cuckoo flowers (presumably a double-flowered form, now lady's smock, *Cardamine pratensis*), 'sent me by my especial good friend John Tradescante, who brought it among other dainty plants from beyond the Seas, and imparted thereof a root to me', and mountain valerian, received 'of the liberalitie of my loving friend John Tradescante, who in his travaile, and search of natures varieties, met with it, and imparted thereof unto me'.[84] Tradescant himself wrote in the annexe to his Russian diary: 'I found a bery growing lowe at my first landing whic in berry was muche lik a strabery but of an amber coller . . . I dried sume of the beryes to get seede whearof I have sent part to Robiens of Parris'.[85]

[80] Blunt (1950, p. 79, notes, however, that evidence for an earlier introduction of *Tradescantia* into Europe exists in an illustration by Georg Hoefnagel (1542–1600).

[81] Parkinson 1629, p. 152.

[82] Kingsbury (1935, p. 229) records that among certain letters which came from Virginia onboard the *Abigail* in 1623 was one from 'George Sandys to Mr John Tradesicant at my Lord Wottons house' (see also *Eighth Report of the Historical Manuscripts Commission* (1881), Appendix pt. 2, no. 41a). Its contents are unknown but it demonstrates none the less some degree of active contact with the Americas at this date. Tradescant was also a subscriber in 1616 to Captain Argall's Virginia plantation. See Kingsbury 1933, p. 58 and Brown 1890, p. 939: 'February 12, 1617. Captain Argall and his associates, here under named, allowed severall Bills of Adventure for transport of 24 persons, at their charge to Va. viz . . . John Tredescant, 1 Bill of £25.'

[83] Parkinson 1640, p. 323.

[84] Parkinson 1629, pp. 388–9.

[85] See No. 433 below. Other allusions to such exchanges of plants occur, for example, in the *Herball* of John Gerard, where the author records that he received of 'the curious and painful Herbarist of Paris', Jean Robin, a 'double yellow daffodil . . . which he procured by means of friends from Aurelia, and other parts of France . . . hyacinths . . . Turkie or Ginnie-hen flowers . . . wild saffron . . . gum succorie . . . dog's bane . . . herb Christopher . . . Indian cress'. The latter 'came first from the Indies into Spaine and those hot regions, and thence into Fraunce and Flanders, from whence I have received seeds from my loving friend John Robin' (Gerard 1597, pp. 98, 122, 126, 196, 225, 755, 829).

Robin is credited as the source of many of the exotics in the list of plants 'reseved since the impression of this booke', appended to Tradescant's copy of Parkinson's *Paradisus*,[86] including '*Iris Affracanus*' and '*Renunculus Asiaticus*'. In the same place is mentioned 'on German rose of Mr. Parkinson from Mounser Robine'. Others come from René Morin in Paris; Sir Peter Wyche, who was British ambassador in Constantinople in the year in question (1630); Humfry Slaynie (see p. 35), and others. Further specimens are simply recorded as coming from Brussels, Holland, France, or merely 'from forrin parts'. Parkinson describes a 'Strawberry headed Trefoile of Portugall' which 'perisheth yearely with mee, and Mr. Tradescant, who had it from Boel at Lishbone'.[87] Golding-Bird's claim, that the elder Tradescant paid £25 to an agent in 1617 to collect specimens in Virginia,[88] seems to be based on a misunderstanding of Tradescant's investment of the same sum in that year in the Virginia Company.[89]

Parkinson's *Theatrum Botanicum* lists several species for which the younger Tradescant is credited with the first introductions,[90] among them the branched burr-reed (*Sparganium ramosum*), columbine (*Aquilegia canadensis* L.), jasmine (possibly *Gelsemium* sp.), cypress (*Taxodium distichum* L.) and, possibly, the Virginian locust tree (*Robinia pseudacacia* L.).[91] Also recorded is a variety of fern 'which Mr. John Tradescant the younger, brought home with him from Virginia, this present yeare, 1638, presently after the death of his father'.[92]

Soon after returning from Virginia, Tradescant the Younger was appointed Keeper of His Majesty's gardens at Oatlands, 'in the place of John Tradescant, his father, deceased', the salary remaining at £100 per annum.[93] In October of the same year he married Hester Pookes, his first wife Jane having previously died.[94] Hester was already related by marriage to the de Critz family, among whom John de Critz had worked contemporaneously with Tradescant the Elder at Hatfield and at Oatlands, while the de Critz family was later to produce a series of portraits of all three generations of Tradescants.[95]

Some record of Tradescant's duties at Oatlands is contained in a bill, dated 12 April 1648, for expenses in respect of 'amending the Walks in the Vineyard Garden, and for Worke to be don to the Gardens at Oatlands, and for repaireing the Bowling Greene there'.[96]

From this time onwards, the younger Tradescant's acquaintance with Elias Ashmole developed. The relationship's progress can be charted from Ashmole's diary,[97] beginning on 15 June 1650, when 'My selfe, wife & Dr: Wharton, went to visit Mr: John Tradescant at South-Lambeth'. The relationship seems to have been friendly: the

[86] See No. 436 below.

[87] Parkinson 1640, p. 1109.

[88] Golding-Bird 1934, p. 165.

[89] PRO, State Papers, Colonial Series, 1574–1660, vol. 2, no. 33. See n. 82.

[90] Parkinson 1640, pp. 1206, 1367, 1465, 1477, 1550.

[91] Mr Alan Paterson points out (personal communication) that *S. ramosum* is a native British species. For a discussion of Tradescant's primacy over Robin in the introduction of *Robinia pseudocacia*, see Allan 1964, pp. 44–5. The *Dictionary of National Biography* (s.v. Tradescant) mentions a tradition that Tradescant the Younger was the first to grow pineapples in England, but the claim is unsubstantiated.

[92] Parkinson 1640, p. 1045.

[93] PRO, State Papers Domestic, Charles I, CCCCXXXII, 1639, no. 41 (docket).

[94] Drew 1943, p. 98: see under 'Extraordinarij recieptes for Buryalles 1634 . . . June first, Jane the wife of John Tradeskin, £00,12.00.' The record of registration of Tradescant's marriage to Hester Pookes is reproduced in *Notes and Queries* ser. 1, 8 (1853), 513.

[95] See Nos. 253, 262, 265, 269, 274 below.

[96] Ash. Lib. AMS 2, enclosure 4.

[97] Josten 1966, vol. 1, *passim*; 2. 530.

Ashmoles (and particularly Mrs Ashmole) stayed at Lambeth on occasion, and Tradescant accompanied Ashmole in August 1652 to attend a trial for witchcraft at Maidstone.[98]

The same year saw the death of Tradescant's nineteen-year-old son John, buried on 15 September next to his grandfather in the churchyard of St. Mary at Lambeth.[99] In the years that followed, various drafts of the catalogue of plants and rarities at South Lambeth were compiled by Tradescant in collaboration with Ashmole and Dr Thomas Wharton (see p. 24). Following publication of the catalogue in 1656,[100] our knowledge of Tradescant stems mainly from legal documents, such as the deed of gift of 1659 by which the collection of rarities was assigned to Ashmole, and the recensions in two subsequent wills (see pp. 41–2). He successfully answered a charge in 1661 of 'making shew of Severall Strainge Creatures without Authority from his Majesties Office of the Revells',[101] and in the same year was summoned (with many others) to face a charge of having 'wilfully . . . refused to pay their assessment for poor relief there, to the grave damage of all parishoners and inhabitants, in evil example . . . and against the peace',[102] an imputation which failed in court. His name also appears in two writs, a *Venire Facias* of January 1662 and a *Capias* of April in the same year, both concerning an indictment of the previous October and calling on a large number of citizens 'to answer touching certain trespasses, contempts and misdemeanours'.[103]

JohnTradescant the Younger died on 22 April 1662. Namesakes then still living in Walberswick received bequests in his will,[104] as did his widowed daughter, Frances, and four god-children. Family responsibilities fell to his widow, Hester. At her expense, a monument to all three John Tradescants was erected in the churchyard of St. Mary at Lambeth.[105] Ducarel described it in 1773: 'This once beautiful monument hath suffered so much by the weather, that no just idea can now, on inspection, be formed of the North and South sides', but from two views of the tomb preserved at Cambridge (Pl. CLXXV) could be seen the following:

On the East side	Tradescant's arms
On the West	A hydra, and under it a skull
On the South	Broken columns, Corinthian capitals, &c. supposed to be ruins in Greece, or some other eastern countries
On the North	A crocodile, shells &c. and a view of some Egyptian buildings

Various figures of trees, &c. in relievo adorn the four corners of this monument.[106]

[98] Ibid., 1. 94–5.

[99] Parish Register, St. Mary at Lambeth.

[100] Tradescant 1656. See Microfiche 5.

[101] PRO, State Papers Domestic, Charles II, XXXVIII, 1661, nos. 74 and 74 I. In response to an appeal by Tradescant against the charge, the King declared himself satisfied 'that the fact, in itself, is not onely of very harmelesse import, & not to bee found pr[e]judiciall to any person; but that it hath been practised & continued, uninterruptedly, by him & his Father, with the Allowance or good liking (at least) of our Progenitors, for many yeares past'.

[102] Powell and Jenkinson 1935, pp. 101–2.

[103] Ibid., pp. 125, 170.

[104] PRO, Prob. 11/308/72. See *Notes and Queries* ser. 1, 5 (1852), 167–81, 474–5; Allan 1964, pp. 198–9.

[105] Aubrey (1719, p. 11) records that 'the top Stone is a Table of good black marble, whereon is this Inscription: This monument was erected at the Charge of Hester Tradescant, the Relict of John Tredescant, late deceased, who was bury'd the 25th Day of April, 1662.'

[106] Ducarel 1773, pp. 10–11.

It was eventually repaired by subscription in 1773. A new leger slab was fitted to the tomb omitting the previous reference to the fact that it had been erected by Hester, but including an epitaph composed for but never added to the first tomb:

> Know, stranger, ere thou pass, beneath this stone,
> Lie JOHN TRADESCANT, grandsire, father, son.
> The last dy'd in his spring; the other two
> Liv'd till they had travelled art and nature thro
> As by their choice collections may appear,
> Of what is rare, in land, in seas, in air:
> Whilst they (as HOMER'S Iliad in a nut)
> A world of wonders in one closet shut.
> These famous antiquarians that had been
> Both gardiners to the ROSE and LILLY QUEEN,
> Transplanted now themselves, sleep here; and when
> Angels shall with their trumpets awaken men
> And fire shall purge the world, these hence shall rise
> And change their garden for a paradise.[107]

Following a second appeal in 1852 the upper slab was again renewed, the version of 1773 eventually finding its way to the Ashmolean Museum, where it is now displayed.[108]

All other trace of the Tradescants was gradually erased from Lambeth. Aubrey recorded in 1719 that:

> At South Lambeth, the farthest House was the House where John Tredescant liv'd, and shew'd his choice Collection of Rarities; where he had a garden stor'd with choice Plants; amongst others he had the Balm of Gilead Tree; Edm. Wyld, Esq; had some layers of it, which grew very well at Houghton-Conquest in Bedfordshire, 'till in the hard Winter the Mice kill'd it. I do not hear of any other now in England. The House and Garden Elias Ashmole bought; as also the Rarities, which he gave to the Musæum at Oxford. Very few rare plants are now remaining here; only a very fair Horse-Ches-Nut tree, some Pine-Trees and Sumach-Trees, Phylerea's, &c. and at the Entrance into the Gate, over the Bridge of the Mote, are two vast Ribs of a Whale.[109]

Dr William Watson published in 1750 a further note of the garden at Lambeth, 'many Years totally neglected and the House belonging to it empty and ruin'd yet though the Garden is quite cover'd with Weeds, there remain among them manifest Footsteps of its Founder'.[110] Among the plants surviving from the heyday of the garden were 'two trees of the *Arbutus* [Strawberry tree] the largest I have seen', which were among the species recorded in the garden by Ashmole in a list of trees he added to Tradescant's copy of the *Paradisus*.[111]

Any survivors of these specimens have long since disappeared in the late nineteenth-century housing developments which saw the demolition of the Tradescants' house in

[107] *Notes and Queries* ser. 1, 3 (1851), 286–7, 394 [corrected].

[108] For a prospectus for the appeal 'for the perfect restauration of the Tomb of the Tradescants, according to its original form', see Bod. Lib. Oxon. C.68, item 185. See also *Gentleman's Magazine* NS 37 (1852), p. 377; ibid. 39 (1853), p. 518. The gift to the Ashmolean is recorded in *Notes and Queries* ser. 6, 3 (1881), 512.

[109] Aubrey 1719, pp. 12–13.

[110] Watson 1750, p. 161.

[111] See No. 436 below.

1879 and the construction of Tradescant Road and Walberswick Street, named to commemorate the former leaseholders.[112] Today no plant specimens survive which can be linked directly with the Tradescants.[113]

Interest in them has been revived by more recent developments at Lambeth. The church of St. Mary at Lambeth was declared redundant in 1972; the churchyard became a wilderness, and the building itself, having been boarded up, was scheduled for demolition in 1976. In that year, thanks to the initiative of Mr and Mrs John Nicholson, admirers of the Tradescants, a stay of execution was obtained and a Tradescant Trust set up to focus interest and effort. By January of the following year the Friends of the Tradescant Trust had been formed, and in the next winter a public appeal was launched. Now, with the aid of funds raised and with major grants in aid from the Department of the Environment and the London Borough of Lambeth, a programme of repair and consolidation is in hand. It is hoped to reopen the church as a museum of garden history, while the churchyard has already been planted as a memorial garden where memory of the Tradescants is sustained by the trees, shrubs, and flowers with which their name is inextricably linked and which once flourished in their own garden at Lambeth.

[112] See Sturdy 1982, p. 10, for the destruction of the Tradescant house.

[113] There seems to be no convincing reason for attributing a *Hortus siccus* in the Bodleian Library (see No. 444 below) to the Tradescants. Gunther's statement (1925, p. 202) that it was 'probably collected by or for the Tradescants' is unsubstantiated; the holograph is indeed thought to be foreign (Black 1845, no. 1465). The recipe for glue to mount plant specimens appended to the volume is not in Tradescant's hand, as claimed by Allan (1964, p. 225), but in Ashmole's.

THE TRADESCANTS AS COLLECTORS OF RARITIES

Arthur MacGregor

The Tradescants amassed their collection of rarities as a parallel and subsidiary exercise to their botanical activities. By the time it was accumulating at Lambeth, shows of rarities had already become popular in London and indeed were viewed with a certain ennui by the most fashionable: Peacham in 1611 complained peevishly, 'Why does the rude vulgar so hastily post in a madnesse to gaze at trifles and toyes not worthy the viewing?'[1] Details are known of only one of these earliest seventeenth-century collections, and, fortunately, it is one with which the elder Tradescant may well have been familiar. Its owner was Sir Walter Cope (d. 1614), a politician who had been a member of the Elizabethan College of Antiquaries.[2] Cope was a close friend of the first Earl of Salisbury, Tradescant's patron and employer, and before falling into debt in later years kept a fashionable house known as Cope Castle in Kensington. In 1599 he was described as inhabiting a fine house in the Snecgas,[3] where he entertained the visiting Swiss, Thomas Platter, who recorded the occasion in his diary.[4] Platter was shown into 'an appartment, stuffed with queer foreign objects in every corner, and amongst other things I saw there, the following seemed of interest . . .'. There follows a list of some fifty entries, several of them referring to more than one object, and including weapons, holy relics from a Spanish ship which Cope had helped to capture, heathen idols, and numerous bone instruments. Geographically, the collection was very varied: ornaments, clothes, an artful little box, earthen pitchers, and porcelain from China; plumes, a Madonna made of feathers, a chain made of monkey-teeth, two dyed sheepskins, stone shears, a back-scratcher, and a canoe with paddles, all from 'India'; there was a Javanese costume, Arabian coats, cloaks, and musical instruments, and a pitcher and dishes from Turkey. Nor was the collection confined to artificial rarities, for among those from the natural world were the horn and tail of a rhinoceros, the horn of a bull seal, a round horn which had grown on an Englishwoman's forehead, a unicorn's tail, a 'flying rhinoceros', a hairy caterpillar, a 'sea halcyon's nest' and Virginian fireflies. Other accessions anticipating the Tradescants' collection were objects associated with persons of note, including the bauble and bells of Henry VIII's fool, the Queen of England's seal, and the Turkish Emperor's golden seal.

Following his detailed list, Platter continues that Cope also possessed, 'besides many

[1] 'Panegyrick verse' prefixed to *Coryat's Crudities* (see Coryat 1905, I. 114).

[2] For an account of the College of Antiquaries see van Norden 1946.

[3] The street has not been identified: Williams (1937, p. 171, n. 2) suggests Snow or Snor Hill.

[4] Ibid.

old heathen coins, fine pictures, all kinds of corals and sea-plants in abundance. There are also other people in London interested in curios, but this gentleman is superior to them all for strange objects, because of the Indian voyage he carried out with such zeal.' Three years later, Cope's collection attracted the attention of the young Duke of Stettin-Pomerania, who visited London in 1602 while on a grand tour of the principal European states. In the diary kept by the Duke's tutor and private secretary, Frederic Gerschow, are noted a number of the objects seen by Platter as well as others not previously recorded:[5] these include a little Indian bird phosphorescent by night; a 'passport given by the King of Peru to the English, neatly written upon wood'; and a 'musical instrument celebrated in ancient times, and called cymbalum'.

In its diversity of artificial and natural rarities, of antiquities, coins, and ethnological material, Cope's collection foreshadowed that which Tradescant was later to form at Lambeth. There is every likelihood that Tradescant saw it, and it may well have influenced or even inspired his own activities: not only was Cope on friendly terms with Tradescant's master, but Tradescant carried out a personal commission for Cope himself during his visit to Leiden in 1611, buying plants to the value of £38.[6]

The journey to Leiden would have provided Tradescant with an opportunity to view another famous collection, in the university's anatomy school, which included much besides anatomical and pathological specimens (see pp. 78–9) and was certainly open to the public during vacations;[7] it is not impossible that Tradescant paid it a visit between rounds of intensive buying at the local nurseries.

Mea Allan suggests that Tradescant's principal source of inspiration was the collection described by Evelyn in 1644 as belonging to Monsieur Morine, 'a person who from an ordinary Gardner, is ariv'd to be one of the most skillfull and Curious Persons of France for his rare collection of shells, Flowers and Insects'.[8] There seems to be some confusion, however, as to whether this was René Morin, with whom the elder Tradescant later exchanged specimens, or his younger brother, Pierre Morin, 'le jeune, dit troisième'.[9]

Although there seem to be few records of an early interest in collecting, the social customs and the natural and artificial rarities noted by Tradescant and carefully recorded in his Russian diary (see No. 433) provide some foretaste of this passion. Prevailing weather, the position of his ship, the condition of the sea, house types, furnishings, street paving, carts (which are compared with those in Staffordshire), sheep (compared with those in Norfolk), and horses are recorded; the principal crops are discussed, and harvest-times given. An interest in costume appears already: two men from 'Cross Island' on the Lapland coast who intercepted the *Diana* on 11 July 1618 to offer salted salmon for sale, are described as 'clad in lether, withe the skins of sheepe withe the firs syde inwards, bothe having crusifixes about the necks very arttifityally mad', and among the Sammoyets 'the men and women be hardli knowne on from the other, because they all wear clothes like mene, and be all clad in skins of beasts packed very curiouslie together, stockins and all'.

[5] Von Bülow 1892, pp. 25–7.
[6] Hatfield House MSS, Bills 58/3.
[7] Scheurleer 1975, p. 222.
[8] Allan 1964, p. 47; Evelyn, *Diary*, c.1–6 April 1644.
[9] Compare, for example, Warner 1954, pp. 169, 172, with vol. 2, p. 132, n. 3, of de Beer's 1955 edition of Evelyn's *Diary*.

Birds were also recorded and collected. On the night of 29 June there came 'a strang bird abord our shipe, whiche was taken alive and put to my costody, but dyed within two dayes after being 60 leaggs from the shore, whos like I yet never sawe, whos case I have reserved'. On 13 July 'many small birds cam abord the shipe, being sume 3 leags from the shore. I have thre of ther skins whiche were caut by myself and the rest of the company'. Collecting plants on 16 July (when a piece of snakeskin was also noted), Tradescant and some others flushed out '5 foulls suche as all those in the place whear we landed hardlie knewe, the ould ons wer great to the bignes of a fesant, the wings whit, the bodies green, the tayll blewe or dove coller. I would have given 5s. for one of their skins'.

It is, unfortunately, impossible to tell with certainty which, if any, of the North-European items later recorded in the 1656 catalogue[10] of the Lambeth collection were collected on this voyage; all of them could have been acquired later by purchase or gift. Among the possible souvenirs are boots from Lapland, Russian boots, shoes and stockings, boots from Muscovy, and 'the Duke of Muscovy's vest wrought with gold upon the breast and arms'. The only identifiably Russian objects to survive are the important abacus (No. 193) and, perhaps, a leather boot (No. 107).

The expedition to Algiers in 1621 would also have given opportunities for collecting. Among possible trophies of this expedition listed in the 1656 catalogue may be counted steel chains from Spain, a 'Portugall habit', a Moore's cap, Barbary shoes and spurs (see Nos. 17–19), two amulets (Nos. 24 and 190), a vest, and a cow's tail from Arabia. More doubtful are various items catalogued from Venice, Malta, Turkey, Jerusalem, and Damascus.[11]

Up to this point Tradescant may have been relying on his own travels and, perhaps, those of his friends to produce accessions, but new horizons opened with his alliance to the Duke of Buckingham. Buckingham was already a connoisseur with a princely art-collection who employed the talents of a scout, Balthasar Gerbier, to locate new masterpieces for his galleries. Evidence of Buckingham's awakening interest in rarities appears in 1625 in the form of a letter addressed to Edward Nicholas, then secretary of the Navy, signed by John Tradescant.[12]

Noble Sir

I have Bin Comanded By My Lord to Let Yr Worshipe Understand that It Is H Graces Plesure that you should In His Name Deall withe All Marchants from All Places But Espetially the Virgine & Bermewde & Newfownd Land Men that when they Into those Parts that they will take Care to furnishe His Grace Withe All maner of Beasts & fowells and Birds Alyve or If Not Withe Heads Horns Beaks Clawes Skins Fethers Slipes or Seeds Plants Trees or Shrubs Also from Gine or Binne or Senego Turkye Espetially to Sir Thomas Rowe Who is Leger At Constantinoble Also to Captain Northe to the New Plantation towards the Amasonians With All thes fore Resyted Raritycs & Also from the East Indes Withe Shells Stones Bones Egge-shells Withe What Cannot Com Alive My Lord having heard of the Dewke of Sheveres[13] & Partlie seene of His Strang Fowlls Also from Hollond of Storks A payre or two of yong ons Withe Divers kinds of Rufles

[10] Tradescant 1656. See Microfiche 5.

[11] Tradescant 1656, pp. 37, 40, 43, 46, 48–54; see also p. 7.

[12] PRO. State Papers Domestic, Charles I, IV, 1625, nos. 155–6.

[13] Claude de Lorraine, duc de Chevreuse, who acted for Charles I at Henrietta Maria's marriage ceremony in Paris. The duc de Chevreuse is not otherwise noted as a collector.

Whiche they theare Call Campanies this Having Mad Bould to present My Lords Comand I Desire Yr fortherance. Yr Asured Servant to Be Comanded till he is

John Tradescant

A more detailed list of requirements is appended:

To the Marchants of the Ginne Company & the Gouldcost Mr. Humfrie Slainy Captain Crispe & Mr. Clobery & Mr John Wood Cape marchant.
The things Desyred from those parts Be theese in primis
on Ellophants head with the teeth In it very larg
on River horsses head of the Bigest kind that can be gotton
on Seacowes head the Bigest that Can be Gotten
on Seabulles head withe hornes
of All ther strang sorts of fowelles & Birds Skines and Beakes Leggs & phetheres that be Rare or Not knowne to us
of All sorts of strang fishes skines of those parts the Greatest sorts of shellfishes shelles of Great flying fishes & sucking fishes withe what Els strang
of the habits weapons & Instruments
of ther Ivory Long fluts
of All sorts of Serpents and Snakes Skines & Espetially of that sort that hathe a Combe on his head Lyke a Cock
of all sorts of ther fruts Dried As ther tree Beanes Littill Red & Black In their Cods whithe what flower & seed Can be Gotten the flowers Layd Betwin paper leaves In a Book Dried
Of All sorts of Shining Stones or of Any Strang Shapes
Any thing that Is strang

Whether or not Tradescant benefited directly from these arrangements, or indeed from any disposal of material following Buckingham's assassination in 1628, he clearly was now in touch with many potentially fruitful contacts, and, with his move to Lambeth around 1628, was in possession of the house in which his collection was to develop into a nationally and internationally known spectacle and which was ultimately to give the house itself a new name – The Ark.

By the time The Ark received a visit from Peter Mundy, on home leave from the East India Company in 1634, a superficial examination of the contents already took an entire day. Mundy shows that the ultimate character of the collection was already well formed:

In the meane tyme I was invited by Mr Thomas Barlowe (whoe went into India with my Lord of Denbigh and returned with us on the *Mary*) to view some rarieties att John Tredescans, soe went with him and one freind more, where wee spent that whole day in peruseinge, and that superficially, such as hee had gathered together, as beasts, fowle, fishes, serpents, wormes (reall, although dead and dryed), pretious stones and other Armes, Coines, shells, fethers, etts. of sundrey Nations, Countries, forme, Coullours; also diverse Curiosities in Carvinge, painteinge, etts., as 80 faces carved on a Cherry stone [cf. Pl. CLXXIII], Pictures to bee seene by a Celinder which otherwise appeare like confused blotts, Medalls of Sondrey sorts, etts. Moreover, a little garden with divers outlandish herbes and flowers, whereof some that I had not seene elsewhere but in India, being supplyed by Noblemen, Gentlemen, Sea Commaunders, etts. with such Toyes as they could bringe or procure from other parts. Soe that I am almost perswaded a Man might in

one daye behold and collecte into one place more Curiosities than hee sould see if hee spent all his life in Travell.[14]

Royal benefaction came in 1635 with a warrant to William Smithsby, keeper of the Hampton Court Wardrobe, to 'deliver to John Treidescant king Henry the Eight his Cap, his stirrups, Henry the 7th his gloves and Combcase'.[15]

Georg Christoph Stirn described the collection three years later in July, 1638:

In the museum of Mr. John Tradescant are the following things: first in the courtyard ther lie two ribs of a whale, also a very ingenious little boat of bark; then in the garden all kinds of foreign plants, which are to be found in a special little book which Mr. Tradescant has had printed about them. In the museum itself we saw a salamander, a chameleon, a pelican, a remora, a lanhado from Africa, a white partridge, a goose which has grown in Scotland on a tree, a flying squirrel, another squirrel like a fish, all kinds of bright coloured birds from India, a number of things changed into stone, amongst others a piece of human flesh on a bone, gourds, olives, a piece of wood, an ape's head, a cheese etc.; all kinds of shells, the hand of a mermaid, the hand of a mummy, a very natural wax hand under glass, all kinds of precious stones, coins, a picture wrought in feathers, a small piece of wood from the cross of Christ, pictures in perspective of Henry IV and Louis XIII of France, who are shown, as in nature, on a polished steel mirror when this is held against the middle of the picture, a little box in which a landscape is seen in perspective, pictures from the church of S. Sophia in Constantinople copied by a Jew into a book, two cups of 'rinocerode', a cup of an E. Indian alcedo which is a kind of unicorn, many Turkish and other foreign shoes and boots, a sea parrot, a toad-fish, an elk's hoof with three claws, a bat as large as a pigeon, a human bone weighing 42 lbs, Indian arrows such as are used by the executioners in the West Indies – when a man is condemned to death, they lay open his back with them and he dies of it – an instrument used by the Jews in circumcision [cf. Pl. CLXXII], some very light wood from Africa, the robe of the King of Virginia, a few goblets of agate, a girdle such as the Turks wear in Jerusalem, the passion of Christ carved very daintily on a plumstone, a large magnet stone, a S. Francis in wax under glass, as also a S. Jerome, the Pater Noster of Pope Gregory XV, pipes from the East and West Indies, a stone found in the West Indies in the water, whereon are graven Jesus, Mary and Joseph, a beautiful present from the Duke of Buckingham, which was of gold and diamonds affixed to a feather by which the four elements were signified, Isidor's MS of de natura hominis [see No. 435, Pl. CLXIX], a scourge with which Charles V is said to have scourged himself, a hat band of snake bones.'[16]

Rasmus Bartholin, another foreign visitor, recorded his impressions in 1647 in a letter from Amsterdam, addressed to Ole Worm in Copenhagen.[17] Bartholin had recently been to Lambeth where he had seen:

[14] Temple 1919, pp.1–3. Nothing is known of the chamber or gallery in which the exhibits were housed. Sturdy (1982, p. 11) speculates that there may have been a purpose-built gallery in the garden, as was the fashion of the time.

[15] PRO, L.C. 5/134, p. 91. A number of other items later listed in the *Musæum Tradescantianum* may have been gifts from the royal household: these include 'Edward the Confessors knit gloves, Anne of Bullens Night-vayle embroidered with silver. Anne of Bullens silke knit-gloves, Henry 8 hawking-glove, hawks-hood, dogs-collar' (Tradescant 1656, p. 49). See also Nos. 84 and 104 below.

[16] See No. 438 below.

[17] Schepelern 1968, p. 273, no. 1536, translated here by Birgitte Speake. Ole Worm himself never met Tradescant, but his son Willum may have done so; apparently in response to some mention of Tradescant by Willum, Ole Worm wrote to the latter in London in 1652 that 'concerning Tradescant, I have heard that he was an idiot' (Schepelern 1968, p. 479, no. 1728). The text of Willum's original letter and the mischievous source of this opinion are unknown.

Mr Tredoscus's collection of rarities, which I looked at with special interest and admiration. However, it would have moved me to even greater admiration if I had not been convinced that your own well-stocked collection is far ahead of his,[18] although I did not have your museum catalogue to hand and have not been able to see the last edition. I cannot deny that he possesses wonderful objects in the form of natural curiosities brought home from India and he has promised to have a list of them printed.

Ten years later, after visiting a relation who lived at Lambeth, Evelyn called at 'John Tradescants Musæum', recording that:

> the chiefest rarities were in my opinion, the antient Roman, Indian and other Nations Armour, shilds and weapons; Some habits also of curiously colourd and wrought feathers: particulaly that of the Phoenix Wing, as tradition gos: other innumerable things there were too long here to recite, and printed in his Catalogue by Mr. Ashmole.[19]

Daniel Fleming's antiquarian interests were sufficiently whetted by a day spent 'goeing unto Tradeskins' in 1653 that he came back within the year, and again in 1662.[20]

Specialist scholars were naturally attracted by the collection. Thomas Johnson, in revising Gerard's *Herball*, records 'Indian morrice bells', made by inserting pebbles into dried and hollowed-out cases of fruits, which were then tied to the legs for dances. 'These do grow in most parts of the West Indies, especially in some of the Islands of the Canibals, who use them in their dances more than any of the other Indians. You may see these upon strings as they are here figured [Pl. CLXXIX], amongst many other varieties, with Mr. John Tradescant at South Lambeth.'[21]

John Ray's edition of Francis Willoughby's *Ornithology* refers to rare birds examined at The Ark. Under the entry for the dodo, for example, he notes that 'we have seen this Bird dried, or its skin stuft in Tradescants cabinet'. Another dried specimen, 'the bigness of a common Lark, hath a streight sharp Bill, a long Tail: And . . . all over of a blue colour', is initially identified as an Indian mockbird, '*Cæruleus Indicus*', but then, 'Upon second thoughts, however Tradescant might put the Epithete of Indian upon this bird, I judge it to be no other than the Caeruleus or Blue Ouzel of Bellonius [*Passeri Solitario congener*]'. A third specimen is tentatively equated with the Brasilian merula (blackbird) of Aldrovandi.[22] Allan's claim that live specimens of Virginian birds were included[23] cannot be substantiated.

The educational value of The Ark to the young did not go unappreciated, and its door seems to have been open to anyone with the desire to enter. It was mentioned by one author in an account of London, which city he judged 'of all places I know in England, is

[18] *mange Parasanger forud for hans*, literally 'many parasangs before his'. The *Oxford English Dictionary* gives 'parasang' as 'A Persian measure of length, usually reckoned as equal to between 3 and $3\frac{1}{2}$ English miles', and illustrates the metaphoric use of the term with a passage from Burton's *Anatomy of Melancholy*: 'Thou art many parasanges before me in means, favour, wealth, honour'.

[19] Evelyn, *Diary*, 17 September 1657.

[20] Magrath 1904, pp. 60, 80, 409; Historical Manuscripts Commission 1890, p. 21, nos. 243, 260; ibid., p. 29, no. 492.

[21] Johnson 1633, p. 1546.

[22] Ray 1678, pp. 154, 193, 194.

[23] Allan 1964, p. 133. The specimens referred to are perhaps the 'Virginia and other birds in great variety' kept in a garden at Lambeth belonging to Captain Foster (Hamilton 1796, p. 190), who was visited by Ashmole in 1669 (Josten 1966, 3. 1140). Interestingly, however, Borel (1649, p. 128) refers to the cabinet of 'Jean Tradesquin, à La maison des oiseaux'. Sturdy (1982, p. 12) suggests that if live birds were not in fact kept at The Ark the name might have derived from some sort of sign-post featuring birds and advertising the location of the museum.

best for the full improvement of children in their education, because of the variety of objects which daily present themselves to them, or may easily be seen once a year, by walking to Mr. John Tradescants, or the like houses or gardens, where rarities are kept, a Book of all of which might deserve to be printed, as that ingenuous Gentleman hath lately done his by the name of *Musæum Tradescantianum, a Collection of Rarities*'.[24]

Its appeal to the populace at large is alluded to in the refutation of the charge brought against Tradescant in 1661 by the Office of the Revells: in dismissing the case against him, the King ordered that 'the said Tredeskyn bee suffered, freely & quietly to proceed, as formerly, in entertaining & receaving all persons, whose curiosity shall invite them to the delight of seeing his rare & ingenious Collections of Art & nature'.[25]

A further reference to 'the Man who shows John Tradescants Rarities (which is extraordinary fine for those who have never seen such a sight)'[26] confirms its accessibility to the general public, presumably on a regular basis, and in this respect it was probably the first museum of its kind in Britain. A small entrance charge appears to have been levied.[27]

Finally, evidence quoted elsewhere in this volume implies strongly that credit for accumulating virtually the whole collection must go to the elder Tradescant. Tradescant the Younger no doubt made some additions, but there is no clear proof of any.[28] The father seems to have anticipated little development of the museum by the son, who none the less continued to operate it as a going concern, co-operated in the preparation of a catalogue, and took the legal steps which ultimately led to its transfer from Lambeth to Oxford after his death.

[24] Hoole 1660, pp. 284–5.

[25] PRO, State Papers Domestic, Charles II, XXXVIII, 1661, no. 74. See also p. 14, n. 101, above.

[26] Leigh 1673, p. 123. By this date the collection was, of course, in the care of Hester Tradescant (see p. 43).

[27] A few references to money spent on visits to South Lambeth survive in contemporary account-books. The Salisbury accounts contain the following reference for 1633–4 (Historical Manuscripts Commission 1971, p. 271): 'Paid for my Lord Cranborne and Mr. Robert going by water and for seeing John Tradeskins Antiquities, £0-9-0.' Sir Edward Deering's Household Book (BL Add. MS 22,466, f. 43) records on 9 May 1649, 'Given at John Tredskins 2*s.* 6*d.*', and on 22 March 1650, 'Given at John Tredskins 2*s.* 0*d.*' Daniel Fleming notes on 6 August 1653, 'Spent in going to Westminster and John Tradeskins 4*s.* 6*d.*'; the following year 'Spent in goeing into Tradeskins 4*s.* 6*d.*'; and in 1662 'spent at John a Tradeskins 2*s.* 6*d.* Item given for the site there unto four, 2*s.* Item for a boat thither and back again 2*s.*' (Historical Manuscripts Commission 1890, pp. 21, 29, 158, 191). In most of these references the entrance fee is unclear, the number of persons in the party being unstated and other charges such as transport (?and the cost of plants purchased) being combined in the total. If the fee 'for the site there unto' was 2*s.* for four people, then 6*d.* would appear to have been the entrance-charge.

[28] The younger Tradescant's visits to Virginia (see p. 11) provide the most obvious opportunities for initiative of this kind, but despite statements to the contrary (e.g. Allan 1964, p. 173) there is no record of what advantage was taken of them for the collection of artificial rarities.

MUSÆUM TRADESCANTIANUM AND THE BENEFACTORS TO THE TRADESCANTS' MUSEUM

April London

On 15 June 1650 Elias Ashmole recorded in his diary: 'My selfe, wife & Dr: Wharton, went to visit Mr: John Tradescant at South Lambeth.'[1] Plans to draw up a catalogue of the rarities contained in The Ark, with publishing expenses to be met by Ashmole,[2] were soon finalized, and by September 1652 Ashmole and Wharton had completed a draft. But, as Tradescant noted in the preliminary address 'to the ingenious reader', the final version emerged only after considerable delay: 'Presently thereupon my onely Sonne dyed, one of my Friends [Wharton] fell very sick for about a yeare, and my other Friend [Ashmole] by unhappy Law Suits was much disturbed.' It was not until 1656, then, that the *Musæum Tradescantianum: Or, A Collection of Rarities Preserved at South-Lambeth neer London by John Tradescant* was published.

The completed catalogue divides into two sections. The first lists rarities by subdivision into a further fourteen groups: 1. 'Birds', 2. 'Fourfooted beasts', 3. 'strange Fishes', 4. 'Shell-creatures', 5. 'Insects, terrestriall', 6. 'Mineralls', 7. 'Outlandish Fruits', 8. 'Mechanicks', 9. 'Other variety of Rarities', 10. 'Warlike Instruments', 11. 'Garments, Habits, Vests, Ornaments', 12. 'Utensils, and Householdstuffe', 13. 'Numismata', and 14. 'Medalls'. The second main section, the 'Hortus Tradescantianus', records the plants cultivated at south Lambeth. An earlier, much cruder form of the latter appears in the 1634 *Plantarum in Horto Iohannem Tradescanti, nascentium Catalogus*.[3] John Goodyer's copy, presumably a proof version, exists in Magdalen College, Oxford, but the letters of John Owen to Johannes de Laet attest to its circulation among Tradescant's contemporaries.[4] The *Plantarum* lists 768 plants, many being synonymous or double entries, as opposed to the 1701 plants recorded in the 1656 catalogue.[5] The precision which distinguishes the later version of botanical entries was not uniformly observed throughout the 1656 catalogue; notations in the first section are in fact often limited to such vague commentary as 'an Umbrella' or 'A Portugall habit'. But together the two sections reveal how the acquisitive abilities of both Tradescants led to the formation of an extraordinarily rich and varied collection.

How was this collection amassed? In the catalogue proper only the benefactions of Elias Ashmole and Thomas Wharton are consistently accredited through the use of the

[1] Josten 1966, 2. 530.
[2] PRO, Chancery Proceedings C 33/221/744; Josten 1966, 2. 621.
[3] Tradescant 1634; reproduced in Gunther 1922, pp. 334–45.
[4] See Bekkers 1970, pp. 16–17.
[5] Jarvis 1979, p. 225.

initials EA and TW, or the fully printed names. Other primary sources yield meagre or partial information. From 1629 to 1633 Tradescant recorded on the endpapers of his copy of Parkinson's *Paradisi in sole Paradisus Terrestris* a list of plants received each year, many from René Morin in Paris (see No. 436). The Public Record Office and the State Papers also contain relevant information: through royal patronage, for example, Tradescant secured 'king Henry the Eight his Cap, his stirrups, Henry the 7th his gloves and Combcase' (see Nos. 84 and 104). Each of these sources, however, is limited in both scope and specificity. Even the account books of the Salisbury family, famed for their comprehensive documentation, offer no list of separate objects donated by the first or second Earl. When each of these sources has been considered, then, one of the most illuminating remains the list of benefactors appended to the *Musæum Tradescantianum*. Arranged in order of degree from King Charles and Queen Henrietta Maria (anglicized to Queen Mary), through Archbishop Laud, to peers and nobles, doctors and captains, and substantial merchants and private citizens, these names provide an indispensable aid in determining the means of collection. There are of course considerable difficulties even in this list, due primarily to the recording of surnames only in many cases. It is impossible to determine, for example, exactly who 'Mr Browne' is: the miniaturist Alexander Browne? the botanist William Browne? the scholar Thomas (later Sir Thomas) Browne? Similar problems surround 'Mr Smith': whether or not Captain John Smith is referred to here cannot be assumed with any certainty. Several interesting features do, however, emerge from the list. Preliminary analysis reveals that many of the names were recorded at an intermediate stage of individual careers and subsequently remained unaltered. 'Mr Nicholas, Secretary to the Navy', for example, held that position from 1625 until 1641 when he was knighted and appointed Secretary of State. Similarly, 'Lord Goring' was raised to the peerage in 1628 and then created Earl of Norwich in 1644. The retention of obsolete titles suggests that accounts were kept in the 1630s and then transcribed directly by Ashmole and Wharton in their compilation of the catalogue. The possibility of such an earlier list gains credence from contemporary accounts which imply that by 1656 the collection had attained near-completion. Its fame was extensive enough by the mid-1630s to attract such visitors as Peter Mundy, whose impressions are recorded above (pp. 20–1). Mundy's note that it took a whole day to view 'superficially' the contents, taken in conjunction with a comment from Hartlib's *Ephemerides* for the period 1646–51, suggest that the collection was by this point solidly founded. The *Ephemerides* record that Robert Child informed Hartlib that Tradescant 'was willing, for an annuity of £100 to sell his chamber of rarities, most of which were represented very lively in a book, and his botanical garden, which together were really worth more than £1,000, and to let his son continue to look after the garden, as he had been brought up to do, thereby saving the cost of employing someone else'.[6] Although Hartlib is not an entirely reliable source, his account does contain several interesting features. The elder Tradescant's death in 1637/8 limits the formulation of this plan to the period between the early and middle 1630s – corroborating evidence of the collection's substance. It suggests further that he, rather than his son, was largely responsible for the consolidation of rarities, and, most

[6] Turnbull 1959, p. 24.

significantly, that the rarities and not simply the botanical specimens had been recorded in a book. Do the differences in detail and specific description between the two sections of the *Musæum Tradescantianum* suggest different sources? Did Ashmole and Wharton perhaps work from an account of the rarities originally compiled by the elder Tradescant, and rely on the son only for assistance with the botanical entries?

In the absence of documentation answers to these questions must remain speculative. Attempts to analyse how and when the collection was amassed, however, benefit considerably from the list of benefactors. Set against the events of the elder Tradescant's career, it maps a pattern of adherence to the men who successively functioned as the great patrons of their age, men who in turn controlled the fortunes of lesser functionaries, who are themselves also represented as benefactors.

Tradescant's first powerful patron was Robert Cecil, Earl of Salisbury. Tradescant entered into service as the Salisbury gardener during the height of his employer's dominance, which lasted from 1608 to 1612. At the point he was not only 'one of the wealthiest men in the country',[7] but exercised political influence comparable only to his successor, Buckingham. Appointed Secretary of State by Elizabeth in 1596, he was retained in this position by James, made Viscount Cranborne in 1604, Earl of Salisbury in 1605, and a Knight of the Garter in 1606. In the reign of King James, Cecil was building at Hatfield, Cranborne, and Salisbury House, and on Hatfield alone spent £40,000 between 1608 and 1612.[8] Tradescant's involvement in this munificence included a tour in 1611 to Leiden, Haarlem, Delft, Brussels, Rouen, and Paris, as described above (pp. 4–5). Cecil was also patron of Rowland Buckett and Richard Butler, possible benefactors to Tradescant's museum, and it was through his influence that Dudley Carleton (pp. 32–3) acquired the post of ambassador to Venice.

William Cecil, the eldest son of Robert, was twenty-one when his father died and he became second Earl of Salisbury. He had been married for four years to Catherine, daughter of Thomas Howard, a marriage designed to reconcile the two great families of Salisbury and Suffolk.[9] A pension of £3,000 per annum for twenty years was granted to Cecil in 1615; a sum which, with the income from fines and wood-sales, enabled him to continue the work on the various estates begun by his father.[10]

From these two great figures of Tradescant's early career a number of ancillary patrons can be traced through the benefactors' list, including 'Mr Munke', 'Mr Rowland Buckett', 'Mr Butler', and 'Lord Cambden'. 'Mr Munke' is most probably Levinus Munck, Robert Cecil's secretary, of whom Chamberlain reported to Carleton in 1623: 'Levinus Muncke died lately very rich for a clarke of the signet, his state falling out they say toward forty thousand pounds.'[11] He entered Parliament in 1601, became a director of the East India Company in 1609, and was also involved in the French Company. The first recorded reference to 'Mr Rowland Buckett' (d. 1639), is as the decorator of the organ-clock sent by Queen Elizabeth on behalf of the Levant Company to the Sultan of Turkey, Mahomet III; Buckett accompanied the gift. By 1608 he was employed by his

[7] Stone 1965, pp. 135–6.
[8] Ibid., p. 554.
[9] Aylmer 1974, p. 114.
[10] Stone 1965, pp. 283–4.
[11] Chamberlain, *Letters* (1939), 2. 502.

chief patron, Robert Cecil, working first at Salisbury House in London and then between 1609 and 1612 at Hatfield, where among other accomplishments he coloured 'the rocks in the great sestern . . . and the picture of Neptune in the East Garden'.[12] A member of the Painter-Stainers Company, he served as Warden (1623–4) and twice as Master (1626–7, 1630–1). At some point before 1636 he was employed by another Tradescant benefactor, James Hay, Earl of Carlisle. The wealth and prestige he acquired through patronage and position is reflected by his residence in London's most fashionable parish, St. Botolph without Aldersgate.

Another artist associated with the Salisbury family who might have known and then become a benefactor to Tradescant is Richard Butler (active 1609–50), who 'executed, at the rate of 6*s*. 4*d*. a square foot, the lights of the east window of the chapel at Hatfield, after designs by Martin van Bentheim'.[13] An alternate identification exists, however, in the person of William Butler (1535–1617/18). Aubrey records in his *Brief Lives* a biography of 'Butler, physitian; he was of Clare-hall in Cambridge, never tooke the degree of Doctor, though he was the greatest physitian of his time'.[14] The comment that he was 'not greedy of money, except choice pieces of gold or rarities' accords with Fuller's notation in the *Worthies of England* that Butler 'was better pleased with presents than money, loved what was pretty rather than what was costly; and preferred rarities before riches'.[15] Butler's court connections and Aubrey's quotation of anecdotes from James Bovey[16] (another benefactor) concerning his character suggest two further links with Tradescant.

Three further benefactors, higher on the social scale than those discussed previously, also have links with the Salisbury family: 'Lord Cambden', Sir Nicholas Bacon, and Sir Butts Bacon. Lord Campden is either Baptist (Noel) Viscount Campden or Baptist Hicks. The former, born in 1612, was married four times, first in 1632 to Anne, daughter of a Tradescant benefactor, William Fielding, first Earl of Denbigh, and his wife, the late Duke of Buckingham's sister, Mary Villiers. The alternative, Baptist Hicks, amassed a large fortune in trade, was knighted in 1603, created a baronet in 1620, and raised to the peerage as Baron Hicks and Viscount Campden. Stone records that Hicks became increasingly involved in money-lending and in this capacity was closely associated with a large number of peers.[17] Connections with Tradescant benefactors appear through his involvement with the Virginia Company, and through his brother, Sir Michael Hicks, who was secretary to both Robert and William Cecil. Hicks may also be the link with another benefactor 'Mr Offley', tentatively identified as Robert Offley, son of Hugh Offley, twice master of the Leathersellers Company, director of the Eastland Company (1579), and involved in the Spanish Company (1577). In his will, proved in 1594, Hugh Offley left £600 as an endowment for apprenticeships in London and £200 for the aid of boys in Chester.[18] Robert Offley was also an eminent London merchant and a member of the East India, North-West Passage, and Somers Islands, or Bermudas Companies. With Baptist Hicks and Dudley Digges among others, he was one of the purchasers of the

[12] Croft-Murray 1962, 1. 194.
[13] Ibid., 1. 195.
[14] Aubrey, *Lives* (1898), 1. 138.
[15] Fuller 1811, 2. 340.
[16] Aubrey, *Lives* (1898), 1. 141.
[17] Stone 1965, p. 432.
[18] Jordan 1960, p. 169.

Bermudas (1612), and the King recommended he serve as deputy treasurer of the company in 1622.[19]

The Bacon family, related to the Salisburys through marriage, included two members who contributed to Tradescant's museum, Sir Butts and Sir Nathaniel. Although minor figures in their own right, they are typical of the lesser benefactors to the collection in being connected with extremely powerful figures.[20] Sir Nicholas Bacon of Redgrave, son and heir of Sir Nicholas Bacon, Lord Keeper, and elder brother of Lord Chancellor Francis Bacon, married Anne Butts. Sir Butts Bacon was the younger son of this marriage. He was created a baronet in 1627 at Mildenhall, married Dorothy, widow of William Jermyn and daughter of Sir Henry Warner, and died in 1661. His brother Sir Nathaniel Bacon entered Corpus Christi College, Cambridge, in 1621, was made a Knight of the Bath at Charles's coronation, and graduated MA in 1628. On his monument in the church at Culford, Suffolk, he is described as 'well skilled in the history of plants, and in delineating them with his pencil'. He presented Tradescant with a small landscape painting (No. 254).

The complex relationships among the benefactors to the Tradescant collection operate in, as it were, a 'chain of command'. For this particular group, the Salisbury family occupies the pre-eminent position and their influence extends down through minor branches of the nobility, such as the Bacons, political appointees like Dudley Carleton, and employees like Rowland Buckett who subsequently acquired wealth in their own right. Affiliations within each of these groups in turn yield a number of benefactors: for example, the Bacon family has links with both 'Lady Killegray' and 'Mr Bushell'.

'Lady Killegray' is probably Mary, daughter of Sir Henry Woodhouse of Kimberley, niece of Sir Francis Bacon, and wife of Sir Robert Killegrew (1579–1633). She survived her first husband and married Sir Thomas Stafford, gentleman-usher to Henrietta Maria. The Countess of Warwick wrote disparagingly of her: 'she was a cunning old woman who had been herself too much, and was too long versed in amours'.[21] Her business ability is reflected in the grant of a patent which gave her the right to search and seal leather, and for this reason she supported the Glovers Guild strongly at court.[22]

Thomas Bushell (1594–*c.*1675) entered the service of Sir Francis Bacon in 1610, serving him until Bacon's disgrace in 1614, at which point he retired to the Isle of Wight in the disguise of a fisherman. He returned to London but on Bacon's death in 1626 retired for a further three years, emerging again in 1629 as the proprietor of an estate in Oxfordshire. Here he discovered around 1632 a spring and curious rock-formations from which he constructed 'famous Wells, natural & artificial Grotts & fountains . . . where he had two Mummies, and a Grott where he lay in a hamac like an Indian'.[23] Charles and Henrietta Maria visited the spectacle in 1636, and the following year Bushell obtained the grant of the royal mines in Wales where coins were minted under his wardenship. In his biography, *The Superlative Prodigall*, Gough speculates that Bushell's rise in favour

[19] Williamson 1913, p. 66.
[20] Simpson 1961, p. 93.
[21] Quoted in *Dictionary of National Biography*, s.v. Sir Robert Killigrew.
[22] Ashton 1979, p. 74.
[23] Evelyn, *Diary*, 18–24 October 1664.

probably originated in contacts with the King made prior to 1636 during the period in which he served as Bacon's secretary.[24] It was in this capacity that he was identified in a manuscript note to a British Library copy of the *Musæum Tradescantianum*: 'Secy to L Bacon I suppose'.[25] An ardent royalist, Bushell's fortunes fell around 1650, and he retreated to a house on Lambeth Marsh described by Aubrey:

> In the garret there, is a long gallery which he hung all with black, and had some deaths heads and bones painted. At the end where his couch was, was in an old Gothique nich . . . painted a skeleton incumbent on a matt. At the other end where was his pallet-bed was an emaciated dead man stretched out. Here he had several mortifying and divine mottos . . . and out of his windows a very pleasant prospect. At night he walkt in the garden and orchard.[26]

Tradescant left Hatfield for Canterbury in 1614/15 where he was employed by Lord Wotton. The garden at Chilham, near Canterbury, may have been planted by him (see p. 6) in 1616 for Sir Dudley Digges, a benefactor whose relationship to Tradescant is comparatively well documented.

After taking his degree at Oxford (1601) Digges travelled on the continent and later promoted the five expeditions mounted between 1610 and 1616 to discover the North-West Passage. In 1618 he was sent by James to negotiate a loan to the emperor of Russia, but was banished from court on his precipitate departure from Cholmogora.[27] Tradescant, who accompanied Digges, kept a record of the journey in diary form (No. 433). Richard Stanley, another benefactor to the collection, captained the ship in which Digges sailed to Russia. He was a commander in the East India Company's service and in 1623 sailed as master of the *Great James* with Captain Weddell. He voyaged to India and China in 1636 as vice-admiral of the Courteen fleet and ultimately supported Parliament during the Civil War.[28]

Digges's membership in numerous companies attests to his continued interest in exploratory travels: a director of the East India Company (1611), North-West Passage Companies (1612), and the Virginia Company (1609), his name also appears on the documents of the New England Venturers (1620), the Muscovy Company (1620), Bermuda Company (1612), Baffin Venturers (1615), and Hudson Venturers (1610). Chamberlain's *Letters* between 1619 and 1621 record Digges's efforts on behalf of the benefactor Dudley Carleton, noting that Digges was 'in a faire way to some preferment, being greatly favoured by the Lord of Buckingham and the Prince'.[29] Soon afterwards, however, he became leader of the parliamentary opposition and in 1626 attacked the Duke of Buckingham, for which he was briefly imprisoned in the Tower. After Buckingham's death, Digges received a grant of the reversion of the Mastership of the Rolls (1630), but did not succeed to the lucrative office until the death of the incumbent, Sir Julius Caesar, in 1636.

Tradescant's next trip abroad was in 1620–1 on an expedition under the command of the benefactor Phineas Pett, to Algiers to suppress piracy (see pp. 7–8). In 1625 he entered

[24] Gough 1932, p. 33.
[25] BL. no. 687 d.9.
[26] Aubrey, *Lives* (1898), 1. 132.
[27] Hamel 1854, pp. 395–6.
[28] *Dictionary of National Biography*, s.v. Swanley.
[29] Chamberlain, *Letters* (1939), 2. 265.

the service at Newhall of his most influential employer to date, George Villiers, Duke of Buckingham. By this time Buckingham's pre-eminence as dispenser of patronage was assured. His rise to power following an introduction to the King at Apethorpe in 1614 saw him successively favourite of James and Charles until his assassination in 1628. The policy of direct cash sales of titles which began in 1615 greatly contributed to forwarding Villiers's career. Between 1615 and 1628 the peerage as a whole swelled by more than half, the Earls alone increasing nearly one and a half times, and it was Buckingham who effectively administered this lucrative business, securing 'almost complete control over royal patronage'.[30] The substantial wealth and political power he achieved can be gauged by the plurality of offices he held between 1624 and 1628: Lord High Admiral; Master of the House; Lord Warden of the Cinque Ports; Chief Justice in Eyre, south of Trent; Gentleman of the King's Bedchamber; and Chief Clerk of the King's Bench.

In such a system of nepotism as then existed, where men angled for preferment with politic distribution of gifts, Tradescant's position within the Villiers household would have made him a natural beneficiary of courtiers' attentions. Buckingham was known to be a keen connoisseur, amassing paintings by Tintoretto, the Bassanos, Titian, and in 1625, Rubens's magnificent collection. A letter from Lady Anne Carleton to her husband in 1624 attests to the importance of such gifts: 'and be you assured heere [at Middelburg, where Italian and Spanish goods were being sold] are very rich and raire thinges, sufficient to make my Lord Buckingham a wonderfull sumtious present'.[31] Under Buckingham's command, Tradescant wrote to Edward Nicholas in 1625, requesting that he should 'In His Name Deall withe All Marchants from All Places' in the collection of rarities (see pp. 19–20), but the numerous benefactors to the collection who were also indebted to Buckingham for advancement suggest that it was not simply merchants who grasped the advantages to be gained from bestowing gifts upon the patron's employee. These benefactors will be grouped for the purposes of discussion into a number of categories: those with family connections, those whose career benefited from Buckingham's active intercession, and those who acted as his agents for the collection of antiquities.

The family connections include the Duchess of Buckingham, Lady Mary Villiers, Lady Denbigh, Laud, and Sir Clipsby Crew. Katherine, daughter and heir of Francis Manners, sixth Earl of Rutland, married Buckingham in 1620 and after his assassination married in 1635 Randal MacDonnel, Earl of Antrim. As she resided in Ireland after the second marriage until her death in 1649, her benefactions to the collection probably date from the period spent in England. Lady Mary Villiers, daughter of the Duke of Buckingham, was married to Charles Herbert, Lord Herbert of Shurland (1634/5) in an attempt to consolidate the fortunes of the Herbert and Villiers families. After the premature death of her first husband she married James Stuart, first Duke of Rutland, and later, in 1664, Colonel Thomas Howard. Lady Denbigh, the patron of Crashaw and sister of the Duke of Buckingham, married *c.*1607 William Feilding, (created First Earl of Denbigh 1622), who died fighting for the King in the Civil War. She followed Henrietta Maria to Oxford and then to Paris where she was converted to Catholicism, thereby

[30] Aylmer 1974, p. 258.

[31] Sainsbury 1859, p. 305.

prompting the Council of State to sequester her property in 1651. Each of these women benefited enormously from their affiliation with Buckingham, amassing considerable wealth. Not only were presents to family members a recognized means for ambitious men to further their careers, but Buckingham himself carefully arranged such perquisites as the £4,550 a year which the Duchess of Buckingham drew from her lease of the customs.[32]

William Laud, Archbishop of Canterbury, began his close relationship with Buckingham in 1622 when he was drawn into attempts to dissuade the Countess of Buckingham (Villiers's mother) from conversion to Catholicism. Educated at Oxford, Dean of Gloucester, 1616, Bishop of St. David's, 1621, and ultimately Archbishop, Laud was impeached for treason by the Commons in 1640, confined to the Tower in 1641, and executed in 1645. His real predominance over the Church began with the accession of Charles I. Laud was a noted collector who gave Bodleian Library 1,229 manuscripts in eighteen languages between 1635 and 1640.[33] 'Mr Dells', another benefactor to Tradescant's museum, is probably Laud's secretary who matriculated at St. John's College, Oxford, in 1619, took his BA in 1622/3, and MA in 1626. He acted as Laud's solicitor during his trial and after his employer's execution erected a memorial tablet to him in the chapel of St. John's College.[34]

Another benefactor known to Buckingham through family connections is Sir Clipsby Crew (1599–1649), son of Villiers's friend, Sir Ranulphe Crew. Sir Clipsby matriculated at Cambridge in 1616, was admitted to Lincoln's Inn in 1619, knighted in 1620, and was MP for Downton in 1624 and 1625 and for Callington in 1626. He was a friend of Herrick who addressed several poems to him, and perhaps of Sir Henry Wotton. Evelyn records that 'Sir Clepesby has fine Indian hangings, and a very good chimney-piece of Water Colours don by Breugle'.[35]

The next, and largest group of benefactors, may be categorized as those whose careers benefited from Buckingham's active intercession: Henry Vane, Edward Nicholas, Robert Heath, Lord Viscount Faulkland, George Goring, Dudley Carleton, Sir James Bagg, and Sir John Acmoote.

Sir Henry Vane's power was consolidated after 1625 by virtue of his strong support of royal policy. Educated at Oxford, knighted by King James in 1611, he purchased the post of Cofferer to the Prince of Wales in 1617, and in this capacity accompanied the King to the Isle of Wight. Here he met Sir John Oglander who 'attested' to the 'Blood that rained on the Isle of Wight', a rarity listed in the *Musæum Tradescantianum*.[36] Sir John Oglander (1585–1655) was, along with Buckingham, joint commissioner for levies in Hampshire. Hamel speculates that the 'Blood' may be some of the meteoric red dust which fell upon the Isle of Wight in 1177.[37] Tension between Vane and Buckingham in 1624–5 was resolved by mid-1625 and the former subsequently enjoyed a succession of promotions: Co-Cofferer of the King's Household (1625), Comptroller and Privy Councillor (1630), Treasurer of the Household and Secretary of State (1640). His

[32] Stone 1965, p. 428.
[33] See, e.g., Evelyn, *Diary*, 10–11 July 1654.
[34] Webster 1975, p. 377.
[35] Evelyn, *Diary*, 28 February 1648.
[36] Tradescant 1656, p. 44.
[37] See *Notes and Queries* ser. 1, 5 (1852), 386.

assumption of enormous power after Buckingham's assassination contributed to his amassing a fortune which by 1640 made him 'one of the richest commoners in England'. In 1641, however, the King deprived him of all court appointments, and Vane went over to the parliamentarians, with whom he was allied until his death in 1655.[38]

Edward Nicholas, to whom the letter written by Tradescant quoted above (pp. 19–20) was directed, served as secretary to Lord Zouch, Lord Warden, Chancellor, and Admiral of the Cinque Ports in 1618. When Buckingham assumed the position as Lord Warden in 1624, he retained Nicholas and further aided his career. In 1625 Nicholas became Secretary for the Admiralty and was admitted one of the Clerks of the Council by Charles in 1635 until 1641, when he was knighted and made Secretary of State. He left England in 1646 and settled in Normandy until the Restoration, when he resumed his position as Secretary of State, 1660–5. His benefaction, then, must have taken place between 1625 and 1641.[39]

Sir Robert Heath was educated at St. John's College, Cambridge, barrister at law, Inner Temple, 1603, bencher, 1617, MP for London 1621–2, and East Grinstead 1624–6, Recorder of London, 1618–21, Solicitor-General, 1621–5, Attorney-General, 1625, Sergeant-at-Law, 1631, and Chief Justice of the Common Pleas, 1631–4. Heath's rise to prominence again involves the patronage of George Villiers: 'he . . . belongs to the Lord of Buckingham',[40] writes Chamberlain in 1618. Heath's conservatism ultimately led to his dismissal from the office of Chief Justice in 1634, but he was subsequently made a Sergeant-at-Law in 1636, a Judge of the King's Bench in 1641, Master of the Court of Wards and Liveries, and appointed Chief Justice of the King's Bench by the King at Oxford, 1643. He was impeached by Parliament in 1644, fled to France in 1646, and died at Calais in 1649.

'Lord Viscount Faulkland' is probably Henry Cary, first Viscount Falkland, who entered Gray's Inn, 1590, matriculated at Queen's College, 1593, was knighted by Essex at Dublin Castle, 1599, and made Viscount Falkland, 1620. Under Buckingham's patronage he was appointed Privy Councillor in 1617, Comptroller of the Royal Household in 1618, and Lord Deputy of Ireland in 1622 ('Lord Buckingham is said to have procured him the post'.)[41] He was interested in Irish and New World colonization and was consequently involved in the Irish Companies and North-West Passage Companies (1612), was one of the 'Adventurers for Virginia', and purchased a tract of land in Newfoundland.

Two of the remaining members of the Buckingham circle, George Goring and Dudley Carleton, were political allies of Villiers. George Goring was knighted in 1608 and then promoted to the peerage in 1628 in order to 'buttress Buckingham's political position in the House of Lords'.[42] The rewards of such patronage extended beyond political to economic preferment: Goring, Stone writes, was 'the greatest customs entrepreneur of them all',[43] concerned in the Sugar Farm, butter export, wine and tobacco licences, and Customs Farm. He was also among the 'great aristocratic pluralists',[44] holding the

[38] *Dictionary of National Biography*, s.v. Vane.
[39] Aylmer 1974, pp. 78–9.
[40] Chamberlain, *Letters* (1939), 2. 180.
[41] Weber 1940, p. 21.
[42] Stone 1965, p. 105.
[43] Ibid., p. 428.
[44] Aylmer 1974, p. 126.

positions of Lieutenant of the Band of Gentleman Pensioners (1614–42), Queen's Vice-Chamberlain (1626–8), Master of the Queen's Horse (1628–39), and Vice-Chamberlain (1639–42). His connections with the royal family were of long standing: he participated with Buckingham in the French marriage preparations, 1624–5, attended the King to York in 1640, and Queen Henrietta Maria to the Netherlands in 1641–2, escorting her back to England in 1642–3. Since he was created Earl of Norwich in 1644, his benefaction to the collection must have been made before that date. After playing a leading role in the second Civil War, Goring was sentenced to death by the high court in 1649, but then set at liberty and permitted to rejoin Charles on the Continent.

Dudley Carleton served as ambassador to Venice and The Hague. He was made Vice-Chamberlain of the Household and member of the Privy Council in 1626, after which he returned to France and then The Hague for a further two years. Created Viscount Dorchester in 1628 as part of Buckingham's attempt to increase support in the House of Lords, he became chief Secretary of State responsible for foreign affairs after Buckingham's assassination.

Carleton's career as a collector began in 1603 with the amassing of manuscripts for his father-in-law, Sir Henry Savile, in Paris. Around 1615 he began to act for Lord Arundel, to whom he sent such presents as a 'Jupiter's head, a very fine bason of stone, wth an Ewer alla anticha, Aeneas flying from y^{e} sack of Troy'.[45] But with Buckingham's ascendence, Carleton transferred his allegiances, primarily to two of the established Buckingham adherents, Conway and Goring.

The two final members of this group to be discussed, Sir James Bagg and Sir John Acmoote, did not owe their preferment to inherent excellence. Sir James Bagg of Salcombe near Plymouth rose to prominence by assiduous attention to the court favourite. He was 'one of Buckingham's more nauseating sycophants',[46] referred to by contemporaries as 'bottomless' Bagg.[47] A member of Parliament, a merchant, and a shareholder in the Virginia Company, he was involved in 'one of the most sordid Star Chamber cases of the period'.[48] Sir John Acmoote is probably the 'Ackmoutie' referred to in Chamberlain's *Letters* between 1613 and 1620 as being at Padua and Venice. He participated as a 'dauncer' in a number of masques including Ben Johnson's *Pleasure Reconciled to Virtue* accompanied by, among others, Buckingham and Goring.[49]

Others who appear in the benefactors' list can be grouped as agents for the collection of antiquities for Buckingham: these include Sir Henry Wotton, Sir Thomas Roe, Mr Gage, Captain Weddell, and Mr Slany.

Sir Henry Wotton, brother of Tradescant's employer at Canterbury, Lord (formerly Sir Edward) Wotton, was appointed ambassador to Venice after serving as Essex's secretary, and remained there during 1604–12, 1616–19, and 1621–4. In the two latter periods he collected paintings and other works of art for Buckingham and the King. Wotton had expert knowledge of Venetian glass, a commodity much favoured by the English court. His known gifts to Tradescant include plant specimens such as Italian fennel.[50]

[45] Sainsbury 1859, p. 268.
[46] Stone 1965, p. 114.
[47] Aylmer 1974, p. 348.
[48] Pearl 1961, p. 111.
[49] Chamberlain, *Letters* (1939), 1. 496; ibid., 2. 14, 128, 200, 282.
[50] Allan 1964, p. 105.

After being knighted by James in 1603, Sir Thomas Roe's first major expedition was to the Amazon and Orinoco in 1609–10. In 1614 he was appointed ambassador to the court of Jehangir, Mogul emperor of Hindustan. He returned from this post in 1619 and presented James with 'two antelopes, a straunge and bewtiful kind of red-deare, a rich tent, rare carpets, certain ombrellaes and such like trinkets from the great Mogul'.[51] In 1621 he was sent to Constantinople as 'Ambassador to the Ottoman Porte' where he remained until 1628 continuing his collecting endeavours. Here he would have received the letter written to Edward Nicholas by Tradescant under the aegis of Buckingham, superscribed 'Espetially to Sir Thomas Rowe who is Leger at Constantinople'. Lord Arundel also vied for his attention in securing antiquities, placing him in an awkward position. His dependence upon Buckingham's patronage for advancement in England determined his primary loyalty, but conciliatory letters to Arundel reflect Roe's desire to offset displeasure by avoiding direct action: 'Therefore trusting y' his Grace will approve y' I have honestly moved to joyne in all chardges and y' y^e^ Collection by his advise, and my credit y' wee can make, shalbe putt into one stocke, and divided by some eaven course when they come into England.'[52] Roe's efforts on Buckingham's behalf were not entirely successful – he admits 'little sckyll'[53] in such matters, fears he 'may commit great errors',[54] and acknowledges that Arundel's agent, William Petty, enjoys far more success. An account by Edward Terry, chaplain to Sir Thomas Roe on this post, suggests, however, a source for the *Musæum Tradescantianum*'s 'Turkish vest' and the 'Rich vest from the great Mogull'.[55] Terry describes Roe's reluctance to petition the Mogul for gifts and then lists the presents which the ambassador was given:

> a cup of Gold most curiously enameled, and set all over the outside with stones (which were small Rubies, Turkesses, and Emeralds) with a Cover, or Plate to set it in, both of pure Gold, the brims of which plate, and the cover were enameled, and set with stones as the other, and all these together weighed twenty & four ounces of our English weight . . . an horse, or two, and sometimes a vest, or upper Garment made of slight Cloath of Gold, which the Mogul would first put upon his own back, and then give it to the Ambassadour . . .'[56]

In 1629–30 Roe served as a special envoy in Sweden and Poland, and after a long period in the political wilderness while he waited without success for Laud to advance his career, he was appointed Chancellor of the Order of the Garter (1637–42) and Ambassador Extraordinary to Hamburg, Ratisbon, and Vienna (1638–40). His commercial ventures included involvement in the Virginia Company (1607), the Levant Company (1621), the Guiana Company (1609), and the New England Venturers (1609).

Two possible identities exist for the 'Mr Gage' included in the benefactors' list. The first, Thomas Gage, was a Dominican who spent some years in the West Indies and Central America before returning to England at some time before 1640. He apostatized, and later, in 1648, published his famous book *The English–American: A New Survey of the*

[51] Chamberlain, *Letters* (1939), 2. 265.
[52] Sainsbury 1859, p. 283.
[53] Ibid.
[54] Ibid., p. 387.
[55] Tradescant 1656, pp. 47, 51.
[56] Terry 1655, pp. 396–7.

West Indies. Gage then served in an advisory capacity to Oliver Cromwell, urging the disastrous expedition mounted in 1654 against the Spaniards in Hispaniola and Jamaica. He died in 1655.[57]

His brother, George Gage, seems on balance the more likely benefactor. George Gage was a close friend of Tobie Mathew and together they were secretly ordained by Cardinal Bellarmine, SJ, in Rome, 1611. Gage served both diplomatic and artistic functions: he conducted negotiations with the Holy See for the marriage of Prince Charles to the Spanish Infanta, and acted for the Duke of Buckingham, Dudley Carleton, King James, and probably Lord Arundel in the purchase of works of art. He was imprisoned in 1652 and died still a prisoner.[58]

Two minor figures on the benefactors' list also have connections with Buckingham: Captain Weddell and Mr Slany. Weddell was an officer in the East India Company, who then commanded the King's ship the *Rainbow*. He may have been with Buckingham on the expedition to the Isle of Rhé on which Tradescant served as an engineer. He then returned to the service of the East India Company and subsequently worked with Sir William Courten.[59] Humphrey Slany was among the merchants directed to purchase and ship rarities in the letter written by Tradescant to Nicholas in 1625. His brother John was the captain and merchant-tailor of London eulogized by William Vaughan in *The Golden Fleece* (1626) for his settlement of Newfoundland.[60]

Among other benefactors who held significant positions at court were James Hay, Earl of Carlisle, and his acquaintance Sir William Boswell, Sir Kenelm Digby (who is further associated with Dr Bugg), and Sir John Trevor (who has links with Phineas Pett).

Of the Earl of Carlisle, Clarendon said that 'he was surely a man of the greatest expense in his person of any in the age he lived',[61] and his comment is supported by other accounts of the Earl's lavish extravagances. For example, a feast for the French ambassador held at Essex House in 1621 cost £3,300; on his embassy to Paris in 1616, Hay's horses were shod with silver. Born in Scotland in 1580, his rise was rapid: created Baron Hay in 1615, Viscount Doncaster in 1618, and Earl of Carlisle, 1622. He served a number of diplomatic missions as ambassador to Paris and Madrid, 1616 (accompanied by two other Tradescant benefactors, Goring and 'Ackmoutie'), to Germany, 1619–20, to Paris, 1622, to Paris and Madrid, 1623, and to Venice, 1628. His court appointments included Gentleman of the Robes, 1608, Master of the Great Wardrobe, 1613–18, and from 1631 until his death in 1636, Groom of the Stole. Carlisle supported his expensive tastes by selling baronies, through prudent marriages, by extracting enormous sums from merchant capitalists and colonists in his capacity as holder of the grant for the Caribbean islands, by his monopoly of Irish wine and tavern licenses, and (though he lacked real political importance) through his position as court favourite.[62]

Sir William Boswell (1580–1650) was Fellow of Jesus College, Cambridge, in 1606, secretary to Lord Herbert of Cherbury (ambassador at Paris, 1620), secretary to the Earl of Carlisle in 1628, and to Sir Dudley Carleton, ambassador at The Hague, to which post

[57] *Dictionary of National Biography*, s.v. Gage.
[58] Hervey 1921, p. 84, n. 2.
[59] Allan 1964, p. 148.
[60] Vaughan 1626, p. 19.
[61] Footnote to Carlisle's entry in the *Complete Peerage*.
[62] Stone 1965, pp. 107, 338, 432–3, 445, 462, 566.

he succeeded in 1633 when he was also knighted. He was a man of 'considerable cultivation' who corresponded with, among others, Johannes de Laet.[63]

Sir Kenelm Digby is accounted, without documentation, 'perhaps the chief benefactor to John Tradescant' by his biographer Petersson.[64] His scholarly interests, which ultimately culminated in his election to the Royal Society at the same time as Elias Ashmole, began at an early age. Tutored by Laud, then Dean of Gloucester, and by Allan, who in 1630 bequeathed valuable books and manuscripts to his pupil, Digby collected antiquities in his travels which included a voyage to Delos in 1627. Although Evelyn dismisses him as an 'arrant Mountebank', his friendship with such politically diverse figures as Laud, Henrietta Maria, Tobie Mathew, and Oliver Cromwell, suggests positive gifts. Digby converted to Anglicanism in 1630 and then reverted to Catholicism in 1635. By 1638 he had become a member of the Catholic circle through his close friendship with the Queen.[65]

Dr John Bugg paid tribute to Digby's scholarly interests by dedicating his own thesis, *De pleuritide vera et exquisita*, to him. Bugg was made free of the Company of Apothecaries in 1620, and in 1632, in an action taken by the Royal College of Physicians, was imprisoned as an 'empirick' – practising physick without a licence. In Leiden he subsequently attained the degree of MD (1633), and was granted a Cambridge licence on his return to England, his degree being incorporated at Oxford, 1635. He was a member of the tour led by the famous botanist Johnson in which the actual flora of England was explored and then recorded in Parkinson's *Theatrum Botanicum*.[66]

The *Autobiography* of Phineas Pett attests to the close links between two benefactors, Mr Pett and Sir John Trevor. Pett records that 'In December this year, 1599, I began a small model, which being perfected and very exquisitely set out and rigged, I presented it to my good friend Mr. John Trevor, who very kindly accepted the same of me'.[67] Pett's motives in offering the gift could hardly have been disinterested. Trevor had been appointed Surveyor of the Navy the previous year, a position which involved enormous power. The year in which he was knighted, 1603, also saw his appointment to the office of Steward and Receiver at Windsor Castle, Keeper of Upper Castle, near Chatham, and Keeper of the royal house and park of Oatlands, the latter position being assumed by Tradescant in 1630. In 1608 scandal threatened his career when he was accused with Sir Robert Mansell and Phineas Pett of fraud in the freighting of the ship *Resistance*, but after a reprimand from the King the three were freed. Trevor sold the Surveyorship in 1611 but retained his interest in the Virginia Company, of which he was a director.[68]

Phineas Pett became master-shipwright at Deptford in 1605, moved to Woolwich in 1607, in 1612 was appointed first master of the Shipwrights Company, and by 1630 was Commissioner of the Navy. He was a master-builder, perfecting frigate design in such ships as the *Sovereign of the Seas*. He was on two expeditions in which Tradescant also participated: against the Algerine pirates at Alicante in 1620, and accompanying Henrietta Maria on the *Prince Royal* from Boulogne to England in 1625.[69]

[63] Hervey 1921, p. 284, n. 1.
[64] Petersson 1956, p. 249.
[65] MacDonell 1910, p. xxiv.
[66] Parkinson 1640, p. 624.
[67] Perrin 1918, p. 14.
[68] Aylmer 1974, pp. 42–3.
[69] *Dictionary of National Biography*, s.v. Pett.

Two further benefactors with maritime interests can tentatively be identified. 'Captain Cleborne' is possibly Captain William Claiborne who was appointed Surveyor to Virginia by the Trinity Term Quarter Court, 23 June 1621. In 1624 he was authorized by the royal commission to act as one of the King's Council in Virginia, and acquired a considerable land grant.[70] Captain West is possibly Francis West, second surviving son of Thomas West, Baron de la Warr, and friend of both Captain Smith and Captain Claiborne. He accompanied Newport to Virginia in 1609 and for many years was involved in the government of Virginia and New England.[71]

Also associated with overseas settlement was Sir David Kirke. Knighted in 1633, he was involved in attempts at settlement in Newfoundland in the 1630s. He was one of the patentees of a grant of Newfoundland made by Charles in 1637 which ensured a monopoly of the island's trade exclusive of fishery. During the Civil War he continued to govern the island without the recognition of Parliament, until 1651 when commissioners were sent to replace him.[72]

Despite the predominance of names on the benefactors' list linked to Buckingham, there are representatives from opposing factions at court, including two members of the Howard family, the Countess of Arundel and 'Lady Maltravers'. Alathea, Countess of Arundel, was the daughter of Gilbert Talbot, seventh Earl of Shrewsbury who married Thomas Howard, Earl of Arundel, in 1606. In 1620 Alathea travelled to Antwerp where she sat for a portrait by Rubens, then moved on to Milan and Padua, arriving in Venice in 1621. There she competed with Sir Henry Wotton, the English ambassador and agent to Buckingham, in the purchase of paintings. In 1622 Alathea was called home after Sir Henry Wotton informed her of rumours that Antonio Foscarini had sold state secrets in her house. In 1626 she again incurred royal displeasure when her son Lord Maltravers suddenly married against the King's wishes the Duchess of Lennox's daughter. Since 'the larger part of the pictures drawings and *objets de vertu* collected by Thomas and Alathea, Earl and Countess of Arundel, followed them to the Netherlands when they finally left England in 1641',[73] gifts to Tradescant were presumably made before that date.

'Maltravers' was the designated title for the son and heir of the Earl of Arundel. On the death of his elder brother in 1623, the second son, Henry Frederick Howard, became Lord Maltravers. He had been made Knight of the Bath in 1616, and was summoned to Parliament in 1640 as Lord Mowbray, succeeding to the title of Earl of Arundel on the death of his father in 1646. As he married against the King's wishes, Elizabeth, daughter of Esme Stuart, third Duchess of Lennox, in 1626, the benefaction must have occurred between this date and 1640. A letter dated 9 September 1636 from Maltravers to the agent William Petty establishes that Maltravers was, like his parents, a collector of *objets d'art*: an interest which his wife, who died in 1673/4, clearly shared.[74]

Another benefactor acquainted with Sir Henry Wotton is 'Mr Francis Cline'. Born in the Baltic Provinces, Francis Clein is first recorded in Denmark, then in Venice for four years where he met Sir Henry Wotton; he returned to Denmark by 1617, visited England

[70] Brown 1901, p. 608.
[71] Osgood 1904, 1. 65.
[72] Beer 1908, p. 370.
[73] Hervey 1921, p. 473.
[74] Stoye 1952, p. 214.

briefly in 1623 when he secured royal patronage, and, after completing commissions in Denmark, settled in England some time before 1625. He carried out a number of works for the King until his appointment as principal designer to the Mortlake tapestry-works, for which he received £250 per year as salary, continuing there under the Commonwealth.[75]

William Murray also benefited from royal patronage. The benefactor cited in the list is probably the William Murray who was involved in negotiations for paintings to decorate Henrietta Maria's cabinet at Greenwich. One of the 'Groomes of his Ma^ties^ Bedchamber' during his life, he was granted a pension of £1,500 a year in 1625.[76]

'Mr. Thomas Herbert' had, perhaps, of all the benefactors the most intriguing relationship with the King. William Herbert, Earl of Pembroke, agreed to finance his relation's travelling, and when Charles sent Sir Dodmore Cotton to Persia as ambassador in 1627, Thomas Herbert accompanied him, recording his experience after his return in 1630 in a work entitled *An Account of some Yeares travaile*. At the outset of the Civil War he enlisted on the parliamentarian side, but his allegiances after this point are a subject of dispute. Foster maintains that after 1647 Herbert attached himself firmly to the royalist cause,[77] while Mackenzie argues that Herbert remained committed to the parliamentarians, profiting enormously from royalist spoils.[78] The former was certainly the interpretation adopted by contemporaries, and Herbert was rewarded for his services with a baronetcy at the restoration (1660). A letter from Herbert to Ashmole (9 September 1680) acknowledges his acquaintance with Tradescant. 'I find by your Letter that you do not now frequent ye Court as you haue formerly, having retyred your self to your house in South-Lambeth; a place I well know having bin sundry times at Mr. Tredescons, (to whom I gaue seuerall things I collected in my Trauailes.) & was much delighted with his gardens.'[79]

It is another reference in a printed work which enables us to identify tentatively the benefactor 'Mr Liggon' as Richard Ligon. He is the author of *The History of the Barbados*, the preface to which is inscribed 'Upper Bench Prison, July 12, 1653'. Ligon embarked for Barbados in 1647, after being 'bred a Faulconer'[80] in his youth, and remained there until 1650. In the account of his journey he carefully describes plant and animal life, mentioning some specimens, such as the humming-bird, which might have been given to Tradescant. In one of these descriptions he acknowledges a familiarity with the collection itself: 'Flies we have of so many kindes, (from two inches long with the great hornes, which we keep in boxes, and are shewed by John Tredescan among his rarities) . . .'[81]

The benefactor Mr Millen (d. 1637) had a professional relationship with Tradescant, as a comment in Parkinson's *Paradisus* makes clear: 'Master John Millen dwelling in Olde Streete, whom from John Tradescante and all other that haue had good hath stored himself with the best only, and he can sufficiently furnish any'.[82] Proximity to South Lambeth may account for Tradescant's acquaintance with two further artisans,

[75] Croft-Murray 1962, 1. 196–7.
[76] Sainsbury 1859, p. 211, n. 272.
[77] Foster 1928, p. xxxv.
[78] Mackenzie 1956, pp. 32–86.
[79] Josten 1966, 4. 1665.
[80] Ligon 1657, p. 4.
[81] Ibid., p. 63.
[82] Parkinson 1640, p. 575.

'Mr Gaspar Calthoose' and 'Mr. Lambert'. Kalthoff was a mechanic employed by Edward Somerset, Marquis of Worcester, between 1628 and 1663. Worcester's interest in mechanical studies and experiments led him to employ the Dutch mechanic who was then installed in the Vauxhall ordnance factory. The Act to dispose of Crown property (1649) exempted Vauxhall from sale. The grant was given to John Lambert in 1647, but this was subsequently overturned with its purchase in 1652 by John Trenchard. At the Restoration it was leased to Henry Lord Moore until the King acted upon a proviso in the lease and granted tenancy to Kalthoff. The Dutch *Patents for Inventions* includes two devices by Kalthoff: the first, in 1649, and the second, in 1653, both involve 'perpetual motion' machines. Worcester's *Century of the Names and Scantlings of such Inventions as at present I can call to mind to have tried and perfected*, first published in 1663, refers to Kalthoff as 'the unparalleled workman both for trust and skill'.[83] William Lambert was a gun-founder to the Marquis of Worcester, who like Kalthoff worked at Vauxhall. He served with the King of Spain during the Interregnum, and upon the Restoration petitioned Charles; he was allowed to return to Vauxhall in 1665.[84]

Two tentatively identified benefactors remain to be discussed: 'Mr Charleton, Merchant' and 'William Courteen, Esq'. William Courten is probably the great merchant knighted in 1622. Mr Charleton is possibly his son, William Courten (who may have adopted, as did *his* son, the surname Charleton), who was involved in considerable litigation after the death of his father. His mother was a daughter of Moses Tryon (perhaps the Mr Trion of the benefactors' list), and he himself married Catherine Egerton, daughter of the Earl of Bridgewater, who engaged for Courten's debts after his bankruptcy (1643). Courten subsequently retired to Florence where he died intestate in 1655. The famous collection of rarities in the Middle Temple which ultimately formed part of the foundation of the British Museum was owned by his son William Charleton.[85] British Library MS Sloane 3988 refers to Hester Tradescant selling objects to this William Charleton after John the Younger's death.

Ashmole's efforts in compiling and publishing the *Musæum Tradescantianum* were clearly appreciated by the collection's owners. In a diary entry dated 16 December 1659 Ashmole records the reward for his dedicated service: 'Mr Tredescant & his wife sealed & delivered to me the deed of Guift of all his Rarities',[86] an action which was to be strongly disputed.

[83] See Dircks 1865, p. 359.
[84] Ibid., p. 537.
[85] Evelyn, *Diary*, 16 December 1686.
[86] Josten 1966, 2. 768.

THE FOUNDATION OF THE ASHMOLEAN MUSEUM

Martin Welch

In late October 1677 the Oxford diarist Anthony Wood noted the acceptance by 'several heads of this university' of the proposed donation of John Tradescant's rarities.[1] The donor was Elias Ashmole, a leading figure in the intellectual world of his day, described by Wood as 'the greatest virtuoso and curioso that ever was known or read of in England before his time'.[2] His versatility was the gift that impressed his contemporaries, for as Josten comments, his mind 'applied itself with equal ease and readiness to matters of business, to law, history, genealogy, heraldry, music, numismatics, medicine, botany, natural history, and to the mysteries of astrology, alchemy, and magic',[3] qualifications which admirably equipped him to be a founder-Fellow of the Royal Society of London. Among his activities he had taken 'paines, care and charge',[4] in his own words, in the preparation and publication of the Tradescant catalogue. The collection he had catalogued was now in his possession and he offered to give it and his own coins and medals, together with all his manuscripts, to his former university. The essential condition attached to the gift was the construction of a suitable new building by the university to house it.

Wood was recording in 1677 the outcome of negotiations which had begun some years earlier. As early as 1670, reference to the proposal was made by Evelyn in a letter to John Beale: 'You heare [our *Alma Mater* men] talke already of founding a Laboratorie, & have beg'd the Reliques of old Tradescant, to furnish a Repositary'.[5] In a letter dated 3 July 1675,[6] Ashmole informed Thomas Hyde, Bodley's Librarian, that he had already broached the subject of this gift with Dr Thomas Barlow, Provost of the Queen's College and newly consecrated Bishop of Lincoln. His 'old and worthy friend' Barlow would approach the Vice-Chancellor on his behalf and Ashmole hoped that the matter could be settled that summer. Ashmole's condition was 'the building of some large Roome, which may have Chimnies, to keepe those things aired that will stand in neede of it'.[7] In all probability these proposals were being formed in Ashmole's mind before September 1674, for in a letter of thanks of that date Ashmole stated his intention to bequeath the gold chain and medal presented to him by the King of Denmark 'to a publique Musæum'.[8] As no such institution existed at this date, it is probable that Ashmole had in

[1] Wood 1820, vol. 4, col. 357; Josten 1966, 4. 1494–5.
[2] Wood 1820, vol. 4, col. 359; Josten 1966, 1. 1.
[3] Josten 1966, 1. 2.
[4] PRO, Chancery Proceedings C7/454/1; Josten 1966, 2. 768–71, 853–4.
[5] John Evelyn, unpublished MS quoted in Hunter 1981, pp. 146–7.
[6] Bod. Lib. 4° Rawlinson 156 *ad finem*; Josten 1966, 4. 1433.
[7] Ibid.
[8] Bod. Lib. MS Ashmole 1131, f. 330[r–v], dated 18 Sept. 1674; Josten 1966, 4. 1394–6.

mind the museum he intended to found, and in time this chain and medal did come to Oxford, where they are displayed.[9]

With the university's acceptance of his proposal Ashmole fulfilled the intentions of the last will of John Tradescant the Younger, made just one year before his death on 22 April 1662. In this he left his 'closett of Rarities' to his wife Hester, who before her death was to arrange for its bequest to either Oxford or Cambridge University.[10] This was the second will made by Tradescant in his endeavour to overrule the deed of gift by which he had presented the rarities to Ashmole in 1659 with effect from the deaths of himself and his wife.[11] We do not know whether Ashmole was informed of this change of mind before Tradescant's death, but on 14 May 1662 he filed a bill in Chancery against Hester Tradescant. Her written reply was sworn on 1 July of that year, but the case was not heard until 18 May 1664 when the court decided in Ashmole's favour. The case has continued to be argued by modern commentators.[12]

The Tradescants had been faced with the problem of the collection's future since the death of their only son and male heir John in 1652. Ashmole states that on 12 December 1659 they informed him that they had finally decided to give their 'Closet of Rarities' to him after their deaths.[13] Ashmole adds that it was Hester who first informed him of their decision. The reasons he recounts were his role in the publication of their catalogue and their awareness of his appreciation of the collection's value.[14] On 14 December Ashmole noted: 'This afternoone they gaue their Scrivenor instructions to draw a deed of Guift of the said Closet to me.'[15] The deed was sealed and delivered by John and Hester Tradescant to Ashmole on 16 December.[16] Ashmole insisted in his Chancery bill that the deed was drafted at John Tradescant's request and that its text was approved by both husband and wife. In the light of Ashmole's statements, it is difficult to accept Hester's insinuations that her husband had committed their collection under the influence of drink (she described him as 'distempered'), nor that the document was sprung on her at the last minute.[17] On delivery of the deed to Ashmole he was also presented with a milled shilling of Elizabeth I in the presence of witnesses to signify his possession of the collection. It was only then that Hester claimed she began to suspect that the bill 'might be prejudice to her'. At her insistence Ashmole gave the deed to her and allowed her to keep it until he should claim it. He is recorded by Hester as using the words 'I pray you take it and consider thereof, and if you like it not, I will not have it for a world . . .' Neither this statement nor his action in surrendering the sole document that proved his right to the collection suggest deliberate deceit on his part.

It has been argued that Ashmole used his legal training to suggest to the Tradescants a form of gift which is irrevocable without the consent of both parties: the document could then be surrendered without too much concern in the knowledge that the Tradescants could not deny its existence in the face of the evidence of those who had witnessed the

[9] See p. 312, n. 162.

[10] PRO, Prob. 11/308/72; Josten 1966, 3. 817.

[11] PRO, Chancery Proceedings C7/454/1; Josten 1966, 2. 768 71, 853 4. These references cover the entire development of the case, and the court's decision.

[12] Josten 1966, 1. 126 8, 143 4, 151 2; Allan 1964, pp. 191 4, 200 7; Piggott 1976, pp. 102 3 and n. 4.

[13] Bod. Lib. MS Ashmole 1136, f. 34'; Josten 1966, 2. 767.

[14] See n. 11.

[15] Bod. Lib. MS Ashmole 1136, f. 34'; Josten 1966, 2. 768.

[16] Ibid.

[17] See n. 11.

gift. Such arguments, however, seem to stretch our credulity to its limits. Deceit may rather have been practiced by the Tradescants, for in two successive wills John Tradescant sought to ignore Ashmole's claims and there is no evidence that Ashmole had knowledge of this change of heart. In the first will the collection was assigned to the King after their deaths. Hester later claimed that the fear that 'some private person might begg the same of his Majestie so as they should not be preserved to posterity' led to its alteration. That 'private person' might well refer to Ashmole who, as Comptroller of the Excise, had access to the royal court and might successfully petition the King on the basis of the deed of gift. They decided instead that one of the two English universities would form the most fitting home for their collection. Those who would wish to see Ashmole as an unscrupulous schemer suggest that he was informed of John Tradescant's decision to revoke the deed the day after it had been delivered, but that he decided to bide his time, preferring to start a court case against the widow rather than the husband. Again, however, our credulity is stretched. Ashmole in his Chancery bill stated that after John Tradescant's death he had requested the return of the deed of gift from Hester in order to secure his right of ownership on her death. She refused to acknowledge the existence of the deed at one moment and then at other times claimed she had burnt it. Her late husband and she both laboured under the illusion that the deed had been revocable on either side and seem to have expected Ashmole not to follow up his claim. If that was the case, they had misjudged their man, for Ashmole had shown a marked willingness in the past to defend through the law his rights as he saw them.

The Court of Chancery in deciding in Ashmole's favour ruled that he should 'have and enjoy all and singular the said Bookes, Coynes, Medalls, Stones, Pictures, Mechanicks and Antiquities' belonging to the collection on 16 December 1659. Hester Tradescant was to keep them in trust during her life, as provided in the deed. Two heralds, Sir Edward Bysshe and William Dugdale, were commissioned to draw up a list of all objects missing at Hester's house and Hester was required to supply Ashmole with all the information he sought concerning the collection. She had boasted to him in 1662 that her late husband had disposed of many specimens listed in the 1656 catalogue and acquired others in their place which the deed did not cover. She was now compelled to replace any missing objects.[18]

Despite the court action, Ashmole felt himself to be on sufficiently good terms with Hester Tradescant to turn to her for assistance in the crisis of the Great Fire of 1666. On the second day of the fire, part of his library and his collection were moved by river from his chamber in Middle Temple. They were stored at her house for a few days and then returned to Middle Temple, together with other books which he had sent to a relation for safety.[19] Ashmole's doubtless frequent visits to view 'his' collection in her house and to show the rarities to his friends and guests cannot have failed to irritate Hester. One such visit is mentioned by Ashmole's brother-in-law, Henry Newcombe, who saw the collection on 1 May 1667.[20] Hester seemingly retaliated by continuing to sell parts of the collection, doubtless convincing herself that they were objects not covered by the deed of

[18] PRO, Chancery Proceedings C33/221/774; Josten 1966, 3. 987–8.

[19] Bod. Lib. MS Ashmole 1136, f. 41; Josten 1966, 3. 1070–1.

[20] Parkinson 1852, p. 165; Josten 1966; 3. 1091.

gift nor the Chancery decision. William Charleton recorded purchases from Mrs Tradescant in May, June, and July 1667,[21] and Ashmole may have become aware of such transactions. It was perhaps to maintain a closer surveillance over the collection that Ashmole took out a lease on a neighbouring house in Lambeth in the autumn of 1674.[22] He had various extensions and alterations made to it and did not move in until 28 August 1675.[23] Shortly after his acquisition of his house, however, Ashmole cryptically records that an attempt to rob Mrs Tradescant was in some mysterious manner thwarted.[24] It is not improbable that Ashmole used this incident as a lever to persuade Hester to transfer the collection to his house. She certainly told her friends and neighbours that he bullied her into doing this, as she later admitted in one of the statements of a submission. This was written in Ashmole's hand except for the signatures and was signed by Hester on 1 September 1676.[25] Ashmole's version of the truth, as represented in the submission, was that Hester had persuaded him to take away the collection, refusing to listen to his request for her to continue to keep the rarities. It was only after she had threatened to throw them into the street that the transfer took place. This and the remaining statements recounted in this document give a picture of a woman who felt herself gravely wronged and persecuted by her new neighbour and former friend Ashmole. Josten has gone so far as to suggest signs of mental instability in Hester Tradescant's actions,[26] but there can be no doubt of Ashmole's insensitivity for her feelings in the measures he took to secure possession of the collection, which he regarded as his own. Hester Tradescant was found drowned in her own pond on 4 April 1678 and may have taken her own life.[27]

Ashmole's negotiations with Oxford University began, as we have seen, in the summer of 1675, not long after the transfer of the rarities to his house. It is not surprising that, in an attempt to save face, Hester Tradescant had boasted to her friends and visitors that 'I had made him promise me to bestow the said Rarities on the University of Oxford; and that I would force him to send them thither', though she admitted in the same submission that 'I never moved the said Mr Ashmole to any such thing when I delivered them to him or at any time since'.[28] Ashmole would not allow her the illusion of having given her late husband's collection to one of the universities stipulated in his last will. He was now the owner of the collection and would be the sole donor.[29] In a letter written to the Vice-Chancellor of Oxford on 26 May 1683, Ashmole explained his motives for the gift:

> It has of a long time been my Desire to give you some testimony of my Duty and filial Respect, to my honored mother the University of Oxford, and when Mr: Tredescants Collection of Rarities came to my hands, tho I was tempted to part with them for a very considerable Sum of money, and was also press't by honourable Persons to consigne them to another Society, I firmly resolv'd to deposite them no where,but with You.[29]

[21] BL. MS Sloane 3988; Gunther 1925, pp. 288 9.
[22] Josten 1966, 4. 1393, n. 5.
[23] Bod. Lib. MS Ashmole 1136, f. 53. Josten 1966, 4. 1438.
[24] Bod. Lib. MS Ashmole 1136, f. 51; Josten 1966, 4, p. 1397.
[25] Bod. Lib. MS Rawl. D.912, f. 668' '; Josten 1966, 4. 1450 2.
[26] Josten, 1966, 1. 209.
[27] Bod. Lib. MS Ashmole 1136, f. 58; Josten 1966, 4. 1607.
[28] See n. 24.
[29] Ash. Lib. AMS 1. Josten 1966, 4. 1721 2. Ashmole's acknowledgement here of the Tradescants' role in amassing the collection, together with the celebration of their genius as well as Ashmole's generosity in a contemporary *carmen academicum* entitled 'Museum Ashmolianum' (Bod. Lib. MS Ashmole 1136, ff. 173 4') disproves, as Josten (1966, 1. 254) has observed, the opinion that Ashmole 'tried to exclude the Tradescants from participating in the honour of the gift'.

We do not know what institution he meant by the phrase 'another Society', but it might refer to either Cambridge University or, conceivably, the Royal Society of London. Ashmole's loyalties to Oxford as a former student of Brasenose were augmented by the unexpected presentation of a Doctorate of Medicine (Phisick)[30] from a grateful university in 1669 in recognition of his task in preparing a catalogue of the consular and imperial Roman coins in the Bodleian Library between 1658 and 1666.[31]

One reason why negotiations between Ashmole and the university took so long was the expansion of Ashmole's original proposal for a 'large Roome' to house the rarities into a 'school' for the study of natural history or 'philosophical history', to use the terminology of the day. In a letter written in June or July 1677, before the university's formal acceptance of Ashmole's proposal, Humphrey Prideaux outlined the enlarged scheme to John Ellis;[32] after reference to Robert Plot's new book, *The Natural History of Oxfordshire*, Prideaux continues that the authorities 'are now on a designe of erecteing a Lecture for Philosophicall History to be read by the author of that booke; to which end, as soon as we are agreed on the ground, we shall built a school on purpose for it with a labratory annext and severall other rooms for other uses, whereof on is to hold John Tredeskins raritys, which Elias Ashmole, in whose hands they are, hath promised to give to the University as soon as we have built a place to receive them . . .' Dr Plot (1640–96) presented himself to Ashmole at Lambeth on 10 December 1677 bearing a letter of recommendation from the diarist John Evelyn.[33] His purpose was to enlist Ashmole's support in his bid to be made the first Reader of the 'Philisophicall Lecture upon naturall things' at Oxford. Somewhat cautiously Ashmole agreed only that 'if the University liked of him, he should haue my suffrage'.[34] The scheme for this lectureship came to nothing, but Plot was appointed the first Keeper (*Custos*) of the Ashmolean Museum and the first Professor of Chemistry at Oxford in 1683. Plot was the only son of a Kentish gentleman and was educated at the free school at Wye before matriculating at Oxford in 1658 from Magdalen Hall. In 1661 he took his BA, his MA in 1664, and the BCL and DCL in 1671. He left Magdalen Hall to be admitted to University College as a commoner some time around 1676. Early in his studies he became involved in the natural sciences and in 1670 proposed a grand scheme to travel throughout England and Wales preparing materials for a natural history of the kingdom. Only two volumes appeared, *The Natural History of Oxfordshire* in 1676 and *The Natural History of Staffordshire* in 1686. His reputation as a scholar rested largely on these two books and indeed the first led to his election as Fellow of the Royal Society. He was an ambitious man and though contemporaries found him witty, with an ability to present his learning to a wide audience, his writings reveal a credulity of the fantastic and a lack of critical scepticism. He could also be generous and gave his collections to the Ashmolean at the end of his keepership. His failure to be elected Warden of All Souls was counterbalanced to some extent by appointment as historiographer royal in 1688, while from 1687 onwards the patronage of Henry Howard, Duke of Norfolk and Earl Marshal, resulted in him holding

[30] Bod. Lib. MS Ashmole. 1136. f. 44^{v}; MS Ashmole 1292; Josten 1966, 1143, 1146–7.

[31] Bod. Lib. MS Ashmole 1136, f. 41; Josten 1966, 3. 1062.

[32] Thompson 1875, pp. 60–1; Josten 1966, 4. pp. 1482–3.

[33] Bod. Lib. MS Ashmole 1136, ff. 114–5^{v}; Josten 1966, 4. 1500–1. For Plot's career see *Dictionary of National Biography*, s.v. Plot.

[34] Bod. Lib. MS Ashmole 1136, f. 57^{v}; Josten 1966, 4. 1501.

various offices connected with the Court of Chivalry. His wide range of interests matched those of Ashmole, and the two must have felt they had much in common from the time of their first meeting.[35]

Sixteen days after Hester Tradescant's funeral, Ashmole 'removed the Pictures from Mr Tredescants House to myne'.[36] He also took on the lease of the Tradescants' house and garden, taking possession on 25 May 1679.[37] Ashmole's possession of the Tradescant's inheritance was now complete. Visitors came to his house to examine both his library and the Tradescant rarities. Hooke recorded calling on 28 April 1677: 'With Sir J Hoskins and Mr Hill to Mr Ashmole, Dugdale there. Saw tradeskants raritys in Garret. Saw Dees and Kellys and many other Books and manuscripts about chymistry, conjurations, magick, &c. made me exceeding welcome.'[38]

Evelyn on 23 July 1678 recorded that he had:

> Return'd, having ben to see Mr Elias Ashmoles Library and Curiosities, at Lambeth, he has divers MSS, but most of them Astrological, to which study he is addicited, though I believe not learned; but very Industrious, as his history of the Order of the Gartir shews, he shewed me a Toade included in Amber: The prospect from a Turret is very fine, it being so neere Lond: and yet not discovering any house about the Country. The famous John Tradescant, bequeth'd his Repositary to this Gent: who has given them to the University of Oxford, and erected a Lecture on them &c.: over the Laboratorie, in imitation of the R: Society: My deare friend Mrs Godolphin and my Wife were with us.[39]

Evelyn's description of Ashmole's manuscripts as mainly astrological presumably reflects what was shown on that visit. Black's catalogue of the Ashmole manuscripts in the Bodleian Library shows there is no truth in it.[40] Evelyn's assessment of Ashmole as 'not learned; but very Industrious' has frequently been quoted out of context. As far as astrology is concerned, we have also Lilly's testimony of 1667, that Ashmole was 'a good Proficient therein though its not his totall study, but onely for Recreation'.[41] Evelyn likewise seems to have misunderstood Ashmole's intention to found a lectureship for an accomplished fact.[42]

Such visits to Lambeth would have been encouraged by a description which appeared in the 1676 edition of *The Universal Angler*:

> I know, we Islanders are averse to the belief of these wonders: but, there be so many strange Creatures to be now seen (many collected by John Tradescant, and others added by my friend Elias Ashmole Esq; who now keeps them carefully and methodically at his house near to Lambeth near London) as may get some belief of some of the other wonders I mentioned. I will tell you some of the wonders that you may now see, and not till then believe, unless you think fit.
>
> You may there see the Hog-fish, the Dog-fish, the Dolphin, the Cony-fish, the Parrot-fish, the Shark, the Poyson fish, sword-fish, and not only other incredible fish! but you may there see the Salamander, several sorts of Barnacles, of Solan Geese, the bird of Paradise, such sorts of Snakes, and such birds-nests, and of so various forms, and so wonderfully made, as may beget wonder and

[35] Josten 1966, 4. 1751, n. 2.
[36] Bod. Lib. MS Ashmole 1136, f. 58; Josten 1966, 4. 1608.
[37] Bod. Lib. MS Ashmole 1136, f. 59; Josten 1966, 4. 1640.
[38] Guildhall Library, London, MS 1758, 'The Diary of Robert Hooke'; quoted in Josten 1966, 4. 1477.
[39] Evelyn, *Diary*, 23 July 1678; Josten 1966, 4. 1623–4.
[40] Josten 1966, 4. 1624 n. 1.
[41] Bod. Lib. MS Ashmole 421, f. 23^{v}; Josten 1966, 4. 1624 n. 2.
[42] Josten 1966, 4. 1500 n. 4, 1624 n. 3.

amusement in any beholder; and so many hundred of other rarities in that Collection, as will make the other wonders I spake of, the less incredible; for, you may note, that the waters are natures store-house, in which she locks up her wonders.[43]

Ashmole lost an important part of his own collection in a fire which completely destroyed his chamber at Middle Temple on 26 January 1679. His losses were listed as follows:

a Library of Bookes, the Collection of 33 yeares, mostly from abroad. A collection of neere 9000 Coynes & Medalls ancient & Moderne, being the Gather of 32 yeares, A large Collection of ancient Evidences & Scales of the English Nobility & Gentry. All the Great Seales of England from the Conquest hithertoo; with many of the Religious Houses, both in England & Scotland those of England depending at their severall Instruments. His Observations upon History, Coynes, Medalls, Heraldry, & some other Subjects (the effects of his Studies for about 30 yeares) which lay there for Improvement as he had leisure. Divers valuable Peices of Antiquity, & sundry Curiosities of Art & Nature.[44]

Ashmole's father-in-law, Sir William Dugdale, described these losses to Wood in some detail in a letter dated 13 May 1679.[45] Fortunately 'his cheif Manuscripts' and 'his Gold-coynes and medalls' had been safe at Lambeth at the time of the fire. Thomas Molyneux was told by Ashmole in 1683 that he regarded the brass coins he lost in this fire as of greater rarity than his gold coin collection.[46] Dugdale reported that all the silver coins had melted and that of 'The Copper coynes most are found, but miserably defaced'.[47] From the information supplied by Dugdale, Wood listed in detail other items including 'many subterranean antiquities, as rare stones such as Dr Plot describes in his Natural History of Oxfordsh. and Staffordshire' and 'a most admirable piece of antiquity made in the British times, viz. a chisel or ax framed from a flint stone, before the framing or working of iron was invented: the picture of which you may see in *The Antiquities of Warwickshire illustrated*, by Will. Dugdale, in his discourse of the town called Oldbury in that county'.[48]

Work began in the spring of 1679 on the construction of the Museum to house Ashmole's and Tradescant's collections. Wood records that 'the first foundation was laid 14 Apr. 1679',[49] but as he elsewhere states that the first stone was laid on 15 May,[50] he is probably referring here to the commencement of foundation digging for the basement laboratory. The site chosen was that of some newly demolished houses facing on to Broad Street between Exeter College and the recently constructed Sheldonian Theatre. It was purchased partly from Exeter College and partly from the City of Oxford for a little over £560 including legal fees.[51] During the foundation digging in April or early May, part of the wall of a neighbouring Exeter College privy appears to have collapsed, the effluent nearly overwhelming some of the workmen.[52] It caused some amusement in the

[43] Walton 1676, pp. 31–2; Josten 1966, 4. 1442.
[44] Bod. Lib. MS Ashmole 1136, f. 101; Josten 1966, 4. 1635.
[45] Bod. Lib. MS Wood F.41, ff. 113–14v; Josten 1966, 4. 1643–4.
[46] Anon. 1841, p. 324; Josten 1966, 4. 1727.
[47] Josten 1966, 4. 1643.
[48] Wood 1820, vol. 4, col. 358; Josten 1966, 4. 1635–6.
[49] Bod. Lib. MS Wood F.31, f. 141, derived from the printed account in Chamberlayne 1684, pt. 2, pp. 325–8.
[50] Wood 1820, vol. 4, col. 358; Josten 1966, 4. 1644.
[51] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97, WP *β*/21/5, *sub anno* 1677–8.
[52] Bod. Lib. MS Wood E.32, f. 26; Magrath 1904, pp. 286–7; Josten 1966, 4. 1642–3.

university, provoking the clownish pun that the museum 'was laid *fundamentaliter* and not *formaliter*.'[53]

There have been various attempts to prove that Sir Christopher Wren was the architect. The earliest assertion appears in *A Pocket Companion for Oxford* of 1756.[54] Much has been made of a letter written by Wren to Henry Oldenburg on 7 June 1668, describing the design of a projected college to house the Royal Society of London.[55] Marked similarities exist between this description and the design of the Ashmolean. There was to be a basement laboratory, a ground floor consisting of vestibule, library, and repository, and on the first floor a large room to house a collection of rarities. Additional small rooms are also mentioned, while the approximate length of the large rooms at 55 feet and the position of the staircase behind the vestibule are remarkably similar. Attempts to link the description to one of two surviving drawings of façades attributed to Wren have not, however, been satisfactory.[56] It is none-the-less possible that the university authorities when considering Ashmole's proposal between 1675 and 1677 approached Wren for advice, and that Wren showed them his ideas of 1668 for the Royal Society's college. Even if he was not consulted at this stage, his agreement might well have been sought because of the necessity to demolish a section of high wall with niches which he had designed next to the Sheldonian Theatre to take some of the Arundel Marbles.

There is no evidence that Wren drew up plans, sections, façades, or even a model of the Ashmolean. The only contemporary evidence we have as to the designer of the building is an engraving (Pl. CLXXVI) made *c.*1685 by Michael Burghers of the east front,[57] in the bottom left-hand corner of which are the words 'T. Wood Archit.' Thomas Wood (*c.*1645–95) was an experienced master-mason in an age when such a craftsman was expected to design as well as supervise building. Gunther's demonstration from the bills for building work that Wood received the same pay as the other masons, except when he undertook a special job involving detailed carving or the staining of a marble chimney-piece, and that Wood's supervision was limited to the masons and the labourers,[58] does nothing to disprove the probability that Wood designed the building. Colvin has pointed out that, on the contrary, as the building accounts contain no payments for designs, it is safe to assume that they were made by Wood himself.[59]

We can follow the progress of the building work in the Vice-Chancellor's accounts and in the collection of bills submitted to the Vice-Chancellor for payment.[60] By 5 August 1679 the sum of £467. 10*s.* 3*d.* had been spent in building the Musæum Ashmoleanum. Between 5 August 1679 and 25 October 1680, Henry Davis, the University Bailiff, was paid £30 'for overseeing the Worke of Dr Ashmole's Repository'. Davis appears to have been paid at the rate of £20 a year for this supervision as the Vice-Chancellor's clerk of works, co-ordinating the work of various specialist craftsmen and checking their bills.

[53] Bod. Lib. MS Wood E.32, f. 26. The author was Dr Lamphire, Principal of Hart Hall.

[54] Josten 1966, 4. 1483 n. 1.

[55] *Wren Society* 13 (1936), 48–9.

[56] BL Sloane Collection 5238 nos. 60, 66; *Wren Society* 5 (1928), pls. XXVII, XXVIII; Fürst 1956, p. 202 n. 551; Sekler 1956, p. 146 n. 1.

[57] Josten 1966, pl. XXI; Mallet 1927, 3. 496–502.

[58] Gunther 1925, pp. 297–300.

[59] Colvin 1954, pp. 693–4.

[60] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97. WP *β*/21/5, NW/3/5.

Wood submitted several bills in that year for the masons and labourers under him and also for tools totalling £1006. 0*s*. 11*d*. Richard Frogley, the carpenter, submitted bills totalling £216. 13*s*. 8*d*. and the joiner Mr Ransford was paid £1. 12*s*. 9*d*. A bill of £24. 7*s*. 7*d*. for ironwork was paid to William Young, and the plasterer John Dew submitted his bill for 8*s*. 9½*d*. In the following year up to 25 October 1681, in addition to the Bailiff's fee of £20, Wood's bills amounted to £343. 8*s*. 2*d*., with an additional £6. 14*s*. 7*d*. 'for Sawes & other Utinsills about the Repository'. Frogley was paid £71. 8*s*. 1*d*. and Dew £1. 1*s*. 6*d*. The bill from Bernard Rawlins of £140 shows that the roof was being leaded by the summer of 1681, and William Young the smith was paid £13. 7*s*. 6*d*. About 10 March 1681 part of the basement vaulting constructed in the previous year gave way, but the damage appears to have been minor, as is made clear by a bill reading 'March 25 for worke and Timber about the new floure that was broken down 6*s*. 8*d*.' Wood may have suffered an accident at about this time, for he was paid nothing on 9 April and the absence of his signature next to the entry and the presence of his mark suggests that he could neither work nor write for a short time, but by 23 April he was again being paid.[61] A gift of marbles from Sir George Wheeler, a traveller and collector of antiquities in the eastern Mediterranean, having been transported by river from London by 'Cully the Boatman' for 14*s*., the sum of £4. 13*s*. 3*d*. was spent in setting them up and in 'Cleansing the street before the Theater from Rubbish & laying stones out of the way'. This was presumably in advance of the impending visits of the Duke of Hanover's heir, the future George I, and of Charles II, who in March 1681 'was pleased to spend some time in viewing the *Marmora Oxoniensia* on the walls of the Theater yard'.[62]

In the year ending 12 October 1682, the Bailiff was again paid £20 and Wood's bills came to £440. 5*s*. The carpenters Frogley and William Longe were paid £242. 3*s*. 3*d*., and Dew received £62. 0*s*. 7*d*. for plastering. Rawlings was now glazing the building for £21. 12*s*. as well as completing the leading for £51. Young the smith received £53. 3*s*. 1*d*., while the joiner John Wild was paid £60 for panelling, or 'Wainscott', as the accounts describe it. Ashmole came to Oxford in mid-August 1682 and inspected the building on 17 August.[63] On 10 February 1683 Plot wrote to a donor to the new museum, Dr Martin Lister at York, and informed him that 'Our Repository is just now finish't.' The accounts for the year ending 30 October 1683 show the work drawing to its close. The Bailiff was paid only £10, while Wood received £106. 17*s*. 4*d*. for his work as 'Stone cutter', and £18. 19*s*. 6*d*. 'for the stained Marble Chimney piece, and for pitching work before the Repository'.[64] Thomas Robinson, a mason, had a bill for £31. 2*s*. 4*d*., while the carpenters Longe and John White were paid £23. 14*s*. 7*d*., and White was later paid a further £11. 7*s*. 6*d*. The joiner Wild received £120 for panelling; Dew had £3. 0*s*. 7*d*. for plastering and Rawlins £190. 4*s*. 8*d*. 'for Leading &c.' Young supplied the 'Casement, the Iron-Gate & other Workes' for £39. 11*s*. 5*d*., and the ironmonger Mr Burrows provided locks and bolts for £5. 10*s*. Dr Plot also purchased locks and keys for £7. 3*s*. 8*d*., and he and Christopher White acquired vessels and other items for the laboratory at a cost of £62. 6*s*. Two chests of drawers for storage of the smaller specimens were made at

[61] Ibid., NW/3/5, f. 236; Gunther 1925, 3. 299.
[62] Clark 1891–4, 2. 529.
[63] Bod. Lib. MS Lister 35, ff. 60–1[v]; Josten 1966, 4. 1706.
[64] Cole 1953, pp. 193–9.

£6 each by Minne and Wild respectively. The accounts for the year up to 6 September 1684 contain further payments to Rawlins 'for Arreurs for leading ye Repository' the sum of £23. 2*s*. 6*d*., and £11. 1*s*. 3*d*. to 'Minne ye Joyner for a Cabinet and other worke &c.' The overall cost exceeded £4,500; an enormous sum, which so exhausted the university finances that for some years afterwards the Bodleian Library was unable to buy books.[65]

The finished building consisted of a main rectangular block aligned east to west and with its north front facing on to Broad Street. The three great rooms made up this main block, with a fire-proof buttressed and vaulted basement laboratory, a ground-floor room for use as a lecture theatre and reception room or vestibule into which visitors entered by the impressive principal door on the east front up a short flight of steps. A small balcony existed outside the central of the five windows on the north front on this floor. The first-floor room was to house the rarities, and the space provided of approximately 56 by 25 feet must have made their arrangement much less congested than in the Lambeth houses of the Tradescants and Ashmole. Access to the upper and lower great rooms was by a wooden staircase added to the south front of the building. Off the east side of the staircase there were various small chambers which were used as library rooms and also provided the curator with a study. Separate access to one of these chambers on the ground floor was provided by an entrance on the east front. The structure was finely built and has been justly described as 'a handsome example of late 17th-century Renaissance design'.[66]

Plot had written to Lister in February 1683 to arrange for delivery of the collection which had been promised by Lister. He informed Lister that on 'Fryday next [16 February 1683] I goe for London to fetch down Mr. Ashmoles Collection towards furnishing this House, when I guess I shall spend about a month in Catalogueing and Boxing them up'.[67] Ashmole noted that on 15 February 'I began to put my Rarities into Cases to send to Oxford.'[68] In a further letter to Lister, written on 24 February, Plot informed him that 'I have been all this week at Mr. Ashmoles packing & boxing up his donation, which amounts to 26 Boxes, some of them 5. other 4. foot long, a yard over & two foot deep, all filld: . . .'[69] On 14 March Ashmole records: 'The last load of my Rarities sent to the Barge. This afternoon I relapsed into the Gout',[70] and we learn that Plot left London for Oxford the next day. The Vice-Chancellor's accounts record £9. 6*s*. being paid 'to Cully the Bargman for carriage of the Goods in ye Ashmolean Repository'.[71] The final stage of the journey to the Museum was by cart, and Wood tells us that on 20 March 'Twelve Cart-loads of Tredeskyns rarities Came from Mr Ashmole at Lond[on] at his new Elaboratory at Oxon.' He adds that 'Doctor Plot soon after or then, [was] mad Custos'.[72] Wood further records that 'By the beginninge of May following the rarities were all fixed in their distinct cabinets & places, and the roome furnished in every part of it.'[73]

[65] Thomas Hyde's letter of resignation as Bodley's Librarian, 10 March 1701, printed in Macray 1890, pp. 170–1.

[66] Royal Commission on Historical Monuments, England, 1939, p. 14.

[67] See n. 63.

[68] Bod. Lib. MS Ashmole 1136, f. 75; Josten 1966, 4. 1714.

[69] Bod. Lib. MS Lister 35, ff. 62–3^{v}; Josten 1966, 4. 1714–15.

[70] Bod. Lib. MS Ashmole 1136, f. 75^{v}; Josten 1966, 4. 1715.

[71] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97, WP*β*/21/5, *sub anno* 1682–3.

[72] Bod. Lib. MS Wood's Diaries 27, f. 12^{v}; Josten 1966, 4. 1717.

[73] Bod. Lib. MS Wood F.31, f. 141^{v}; Josten 1966, 4. 1719.

On his visit in August 1682 Ashmole had dined with the Vice-Chancellor, and their discussion must have included the future administration of the new institution. A copy of the *Statuta Bibliothecae Bodleianae* with a dedication to Ashmole inscribed on 21 September 1677 by Dr Thomas Barlow, Bishop of Lincoln, is now in the Bodleian Library: Josten was probably correct to suggest that this may have been sent to Ashmole for use as a model when drafting the statutes of the museum.[74] Soon after his visit Ashmole sent his proposals to Dr John Fell, Dean of Christ Church and Bishop of Oxford. A copy of his letter or a draft of it survives, dated 30 September 1682. In this he made clear his intention to endow a professorship of chemistry as a necessary adjunct to the donation of his rarities and indicated his wish that Plot should be the first holder of the chair. He proposed:

1. That there shalbe setled at Oxford a Professor of Naturall History & Chemistry, which with the Musaeum, shalbe called Ashmolean, the Lecture to be first read by Doctor Plot.

2. That the Rarities now in the Phisick & Anatomy Schoole there (except such as are necessary for the Anatomy Lecture) shalbe brought into the said Musaeum, when Mr: Ashmole sends downe his Rarities thither, & set up with them. And that all such Rarities as shalbe hereafter given to or bestowed upon the University, shalbe placed there, as soon as bestowed.

3. That the Vice Chancellor the Deane of Christ-Church & Principall of Brasenose Colledge for the tyme being, shall visit the said Musaeum once in 3 yeares, in the tyme of the Longe Vacation, the Tuesday fortnight before Michaelmas.

4. That not any of the Rarities, Bookes or other things shalbe lent or taken out of ye Musaeum by any person upon any pretence whatsoever.

5. That the Rarities &c: shalbe open to be shewed throughout the yeare, except Sundaies, and Hollidaies (unless there be an especiall occasion) from eight of the Clock in the Morning untill Eleven; & from two to five in the afternoone in the Sommer halfe yeare, & from two to foure in the Winter. And constant attendance to be there given during these tymes, by the Person that shalbe appointed and undertake to shew the same.

6. That a Catalogue of all the Rarities shalbe made by the Professor within two yeares after they shalbe placed in the Musaeum, & that an addition be made theretoo every yeare, of what shalbe placed therein, & by whom bestowed.

7. That Mr. Ashmole shall for the present Endow the Professor with 20 li: per annum, for the payment whereof during his lyfe, he shall give his personall security to the University. The first payment to commence at Midsomer 168– And shalbe obliged to setle Lands in perpetuity after his & his wives death, to the like yearely value. Yet in case the said University shall happen to be dissolved in their lyfetyme, then the said Obligation not to be binding to him, his heires or Executors. But if Mr: Ashmole shalbe inclined sooner to lay out any Money in a Perpetuity to the annual value aforesaid, then the University shall use their diligence to procure a good Bargaine, which Lands shalbe setled to the use of Mr: Ashmole & his wife, so longe as they or either of them shall live, and after to the use of the succeeding Professors.

8. That the Professor for the tyme being, shall have 40 li: per annum out of the profits & advantages arising by shewing the said Rarities, towards the support of himselfe & him that shall shew the same, & the overplus to be yearely deposited in the Vice Chancellors hands & transfer'd

[74] Bod. Lib. MS Rawl. A.284, f. 1; Josten 1966, 4. 1492–3. The statutes are as promulgated on 20 June 1610, with additions of 1613, 1615, and 1621.

to his Successors, to be disposed of, for buying in of other Rarities, or otherwise as Mr Ashmole shall consent unto.

9. That the Professor shalbe named appointed & removed from tyme to tyme by Mr Ashmole during his lyfe, and by his wife after his death, which Professor shall have the Custody of the Musaeum & Rarities, and shall read the Lectures, according to his Obligation.

10. That Mr Ashmole soe endowing a Professor as aforesaid shalbe acknowledged a Benefactor and Founder, & that all Honors & Respects done or fit to be done to such Benefactor & Founder, shalbe paid & allowed to him.

11. That Mr: Ashmole shall have power from tyme to tyme to make Rules & Orders to be observed by the Professor, & such person as shall shew the Rarities for the good Government & ordering of the said Musaeum, which being confirmed by the Chancellor Masters & Schollers of the said University shall have the force of a Statute.[75]

Several of the proposals were unfortunately not carried out. Some specimens were transferred from the Anatomy School and the Bodleian, but von Uffenbach in 1710 was to note that the Anatomy School contained many specimens 'which do not belong at all to an anatomical museum, but would be much more suitable to an art gallery (*Kunst-Kammer*) like the Ashmolean Museum'.[76] More seriously, Ashmole never completed the arrangements for the endowment of the chair in chemistry. In *The Antiquities of Berkshire*, published in 1719, Dr Richard Rawlinson recorded Ashmole's intention to provide 'an ample and generous Allowance to the Keeper of his Musaeum' by this endowment, but added that 'this publick Principle was stifled in Embrio by the influence of a Person who was possessed of an eminent Post in the Church'.[77] A marginal note in Rawlinson's own hand reveals that the clergyman was 'Dr. Tillotson late archbishop of Canterbury'. Tillotson had delivered four lectures on the Socinian controversy in 1679–80 and published them in 1693 in answer to doubts of his orthodoxy. Apparently these lectures were 'not undeservedly, and unanswerably attacked by a Member of this University',[78] and Tillotson so resented this attack that he persuaded his friend Ashmole not to endow the chair. The second holder of the keepership of the Ashmolean Museum, Edward Lhuyd, confirms that the chair was never endowed, commenting that 'It has been lately published that . . . he has founded a Natural History Lecture in the same place; but however the mistake happen'd there was no Grounds for such a Report, no Lecture as of any Foundation, having been read there, nor the least word of anything like it in the Statutes of the Museum'.[79] The result was that the only source of income for staff of the museum was derived from the admission fees charged to visitors. This was inevitably an uncertain financial basis and, as time went on, became increasingly inadequate.

The keeper's post came to be regarded as a sinecure which could be neglected, and, according to Thomas Hearne, the appointment of George Huddesford, President of Trinity College, as keeper in 1732 with a salary of £50 per annum 'whether he do any thing there or not' persuaded Sir Hans Sloane to withhold a gift of £20,000 he had proposed to give to the university for the museum.[80] Hearne also understood that Sloane

[75] Bod. Lib. MS Rawl. D.912, ff. 670–1v; Josten 1966, 4. 1707–9.

[76] Von Uffenbach 1753–4, pp. 117–18; Quarrell and Quarrell 1928, p. 24.

[77] Rawlinson 1719, pp. xxi–xxii; Josten 1966, 4. 1500 n. 4.

[78] Ibid.

[79] Bod. Lib. MS Ashmole 421, f. 91; Josten 1966, 4. 1500 n. 4.

[80] Salter 1921, pp. 31, 261.

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

had earlier considered 'sending many Curiousities to the Univ.',[81] but they came instead ultimately to form the foundation collection of the British Museum.

The opening of the Ashmolean Museum on 21 May 1683 was the highlight of an official visit to the university by James, Duke of York, shortly to be James II, accompanied by the Duchess, Maria Beatrice, and their daughter, Princess Anne. Anthony Wood describes the royal party as leaving the Sheldonian Theatre for 'Ashmoles Musaeum where after they had heard an English speech spoken by Doctor Plot ye Curator, in ye second upper roome, they were entertained first with rarities in the upper room, & afterwards with a sumptuous banquet there, at the charge of ye Universitie. Then they went downe to the Elaboratory, where the[y] saw some experiments to their great satisfaction.'[82] The City of Oxford had presented the royal visitors with gloves,[83] and the university gave presentation copies of Plot's *Natural History of Oxfordshire* and Wood's *Historia et Antiquates Univ. Oxon.* The books and other entertainment cost the university £124. 11*s.* 6*d.*[84] Ashmole was absent, however, explaining in a letter of apology to the Vice-Chancellor on 26 May 'I also intended when they [i.e. the rarities] were brought down, to have accompanyed them, & personally made a Present of My Respects and them at Oxford; but being detained by necessary Occassions in this Place' he could not.[85] He appears to have been prevented by poor health. The university replied to him with a formal letter of thanks in Latin dated 4 June 1683.[86]

Three days after the royal opening the museum held a private viewing day for senior members of the university (its Doctors and Masters).[87] In the middle of September, Wood informs us that 'the Elaboratorie was quite finisht', and Plot began to teach a chemistry course as Professor, though still without any endowment other than the fees he acquired from admission charges to the Museum.[88] Those who registered for the course are listed by Wood as Mr John Massey (Merton College), Stephen Hunt (Trinity College), William Smith and Nathaniel Boys (University College), and a non-member of the university, or *laicus*, Charles Harrys. 'These had meetings in ye larg room over the Elaboratory every friday in ye afternoone to talke of chymicall matters – & were framd into a solemn meeting on oct. 26.'[89] They formed the nucleus of a larger body of scholars which constituted itself as 'The Philosophical Society of Oxford' on 11 March 1684.[90] The records of its proceedings are preserved from 26 October 1683 to 3 June 1690,[91] and under Plot's energetic guidance it corresponded with the Royal Society of London and a similar society founded in Dublin in December 1683.[92] Among the subjects discussed were new accessions to the museum collections. The minutes of the meeting on 24 February 1685 for example record that: 'A Horne was communicated by Dr. Plot said to be a Horne, which grew behind the Head of a Woman, who was shew'n in London about

[81] Salter 1915, p. 372.
[82] Bod. Lib. MS Wood D.19 (3), f. 57^{v}; Josten 1966, 4. 1719–20.
[83] Clark 1891–4, 3. 52; Schultz 1938, pp. 139–40.
[84] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97, WP *β*/21/5, *sub anno* 1682–3.
[85] Ash. Lib. AMS 1; Josten 1966, 4. 1721–2.
[86] Bod. Lib. MS Rawl. D.912, ff. 664–5^{v}; Josten 1966, 4. 1723–4.
[87] Bod. Lib. MS Wood's Diaries 27, f. 26^{r}; Josten 1966, 4. 1720–1.
[88] Josten 1966, 4. 1730.
[89] Bod. Lib. MS Wood's Diaries 27, f. 44^{v}; Josten 1966, 4. 1730.
[90] Josten 1966, 4. 1730 n. 8.
[91] Bod. Lib. MS. Ashmole 1810, 1811.
[92] Ibid. 1813.

14 yeares since, and is reported to have shed her horne once in 3 yeares: This was sent by Mr Ashmole to be laid up in his Repository.'[93]

A keen contributor at the Society meetings was a young Welshman, Edward Lhuyd (1660–1709), who had come up to Jesus College at the age of twenty-two in October 1682. Soon after the opening of the museum he was employed by Plot as an assistant and was appointed the first under keeper (*Procustos*) in 1684 or 1685.[94] He had been educated at Oswestry Grammar School, and although never proceeding to a degree, he became a considerable scholar and is remembered today as a distinguished founder of the study of Celtic philology and as a biologist, geologist, and antiquary. Contemporaries described him as 'honest Lhuyd',[95] and Thomas Hearne considered him a 'person of singular Modesty, good Nature, & uncommon Industry', mentioning Sloane's opinion that Lhuyd was 'ye best Naturalist now in Europe'.[96] His scholarship earned him an honorary MA from Oxford, conditional on his lecturing on natural history once a year for six years,[97] and a Fellowship of the Royal Society in November 1708. His election as Superior Beadel of Divinity at Oxford in March 1709 preceeded only shortly his premature death on 30 June of the same year.[98]

The Statutes, Orders, and Rules for the Ashmolean Museum had not been established in time for the opening, and Ashmole sent a draft of the form he wished these to take in a letter dated 1 September 1684, which was read in Convocation on 19 September.[99] What appears to have been the final version was approved by Ashmole on 21 June 1686[100] and formed the basis for a printed broadsheet in Latin entitled *Instituta Ashmoleana* (Pl. CLXXVII) which appeared in 1714. The 1686 version reads thus:

Statutes, Orders & Rules, for the Ashmolean Museum, in the University of Oxford

Because the knowledge of Nature is very necessarie to humaine life, health, & the conveniences thereof, & because that knowledge cannot be soe well & usefully attain'd, except the history of Nature be knowne & considered; and to this [end], is requisite the inspection of Particulars, especially those as are extraordinary in their Fabrick, or useful in Medicine, or applyed to Manufacture or Trade: I Elias Ashmole, out of my affection to this sort of Learning, wherein my selfe have taken & still doe take the greatest delight; for which cause alsoe, I have amass'd together great variety of naturall Concretes & Bodies, & bestowed them on the University of Oxford, wherein my selfe have been a Student, & of which I have the honor to be a Member: lest there should be any misconstruction of my Intendment, or deteriorating of my donation, I have thought good, according to the Acts of Convocation, bearing date June 4: Anno 1683 and Sept: 19th. Anno 1684 to appoint, constitute & ordaine as follows.

1. I Ordaine that the Vicechancellor for the tyme being, the Deane of Christchurch, the Principal of Brazenose, the Kings Prophessor in Phisick, & the two Proctors, or their Deputies, be Visitors of the said Museum.

2. That there be a solemne Visitation of the said Musaeum yearely, upon the Munday next after Trinity Sunday at eight of the Clock in the Morning to be continued by adjournment, as it shall be found necessary; wherein shalbe examined the State of the said Musaeum, both in

[93] Ibid. 1810, f. 92; Josten 1966, 4. 1756.
[94] Ash. Lib. AMS 7, f. 6; Josten 1966, 4. 1824 n. 1.
[95] *Dictionary of National Biography*, s.v. Lhuyd.
[96] Doble 1885, p. 244.
[97] His lectures were published in J. H. Luick, *De Stellis Maris* (Leipzig, 1733), and in G. Huddesford, *Lithophylacii* (2nd edn., 1760).
[98] Gunther 1945, p. 42.
[99] Ash. Lib. AMS 1; Josten 1966, 4. 1743–5.
[100] Bod. Lib. MS Bodley 594, p. 111; Josten 1966, 4. 1745.

reference to the diligence & fidelity of its Custody, & the accessions made from tyme to tyme, by new Donations.

3. That the whole Donation already given or to be given, be distributed under certaine heads; and a number to be fixed to every particular; & accordingly to be registred in the Catalogue of them.

4. That the said Catalogue be divided into parts, according to the number of the Visitors,[101] soe that the worke of Visitation may be expedited, each Visitor comparing his part & seeing that all particulars are safe and well conditioned, & answering to the Catalogue, As is done in the Visitation of the Bodley Library.

5. That beside the Catalogue, which is to remaine in the Musaeum, another to be in the hands of the Vicechancellor, for the preventing of fraude or embezelment;[102] into which, at the tyme of the Visitation, all the additions made in the precedent yeare shalbe entred: And that every future Vicechancellor shalbe obliged, to deliver the same Catalogue over to his Successor, when he delivers to him his Bookes & Keyes.

6. That whatsoever naturall Body that is very rare, whether Birds, Insects, Fishes or the like, apt to putrefie & decay with tyme, shalbe painted in a fair Velome Folio Booke, either with water colors, or at least design'd in black & white, by some good Master, with reference to the description of the Body itselfe, & the mention of the Donor, in the Catalogue;[103] which Booke shalbe in the Custody of the Keeper of the Musaeum, under Lock & Key.

7. That if there be in the said Musaeum many particulars of one sort, it may be lawfull for the Keeper of the Musaeum aforesaid, with the Consent of three of the Visitors, whereof the Vicechancellor to be one, to exchange it for somewhat wanting; or to make a Present of it, to some Person of extraordinary quality.

8. That as any particular growes old & perishing, the Keeper may remove it into one of the Closets, or other repository; & some other to be substituted.

9. That all Manuscripts given to the Musaeum, shalbe kept by themselves in one of the Closets, or other repository, which shalbe called the Library of the Musaeum, to the end the Curious & such other as are desirous, may have the View of them; but noe person to use or transcribe them, or any part of them, but only such as the Keeper shall allow or appoint.

10. That the Musaeum shalbe open, & attended by the Keeper or the Under-Keeper in the same manner, & at the same tymes, as the Bodley Library is; and at other tymes, if a particular or especial occasion shall require.

11. That the Rarities shalbe shewed but to one Company at a tyme, & that upon their being entred into the Musaeum, the dore shall be shut; and if any more Company or Companies come before they be dispatcht, that they be desired to stay below, till that other come forth.

12. That no part of the Furniture of the Musaeum, nor Bookes out of the Library or Closets, be lent unto or carried abroad by any Person or Persons, upon any occasion, or pretence whatsoever, unless to be delineated or engraved, for the preservation of its memory, in case it be perishable.

13. That the Custody of the Musaeum during my Lyfe, to be at my appointment, who have at present named Doctor Robert Plott thereto; under the Title of Keeper, with an Allowance or Pension to him & his Successors, in the same Employment, not exceeding the some of Fifty pounds per annum, the same to commence at Michaelmas One thousand six hundred eighty, six, & to be deteyned by him out of the Perquisits of the Musaeum. And in case of Vacancies

[101] Ash. Lib. AMS 7–10, 12–14.
[102] Ash. Lib. AMS 11.
[103] No such book survives in the Ashmolean Museum.

after my decease, that then the Nomination and disposall of the Keepership, shall be in my Widdow during her lyfe & after her decease in the aforesaid Visitors or the Maior part of them.

14. That the Nomination & Removall of the Under Keeper shalbe in me during my lyfe, and after my decease in my Widdow during hers, & after her decease in the aforesaid Keeper & his Successors, and at all tymes he shalbe under his & their Survey & correction. And the said Keeper shall allow unto him a Sallary out of the Perquisits also, not exceeding the some of Fifteene pounds per annum, the same to commence at Michaelmas one thousand six hundred Eighty six. And further the said Keeper shall allow a person, to sweepe & clense the Musaeum & Closetts, with such other things therein preserved as he shall appoint, a reward not less than forty shillings a yeare, out of the Perquisits also.

15. That a third Person shalbe chosen by the said Keeper, to be in readiness to performe the Office of the Underkeeper, when & at such tymes as Sicknes, or other allowable Occasions shall cause his absence; And that the said Keeper shall allow him for his particular service, out of the aforesaid Perquisits, so much money as he shall thinke convenient, not exceeding the some of Five pounds per annum.

16. That at the tyme of each Visitation, the Keeper (of the Musaeum) shall render to the Visitors, a true & perfect Account of all the Profitts & Emoluments, that have been made or received in the preceding yeare, by shewing the Rarities;[104] the same annual Account to end at Michaelmas before.

17. That a Honorary of Six halfe Guinies be yearely paid by the said Keeper upon the aforesaid Munday next after Trinity Sunday into the hands of the Vicechancellor for the use of the said Visitors; to be layd out either in an Entertainment, as is done in the Visitation of the Bodley Library, or in Gloves, as is done to the Visitors of the Savilian Lecture, at the choice of the said Visitors, or the major part of them; & that this Honorary be paid by the said Keeper, out of the Profits by him received.

18. That the Overplus of the said Profits after the aforesaid Honorary & Pensions, and the Allowance for sweeping & making cleane the Roomes be discharged, shalbe deposited in a Box or Chest, to remaine in the Library of the said Musaeum, with two different Lockes & Keyes, the one Key to remaine with the Vicechancellor for the tyme being, & the other with the Keeper of the Musaeum for the tyme being; the said Money to be layd out in Painting or drawing such naturall Bodies, as are neere perishing, or in buying more Rarities, or Manuscripte Bookes, or other incident Charges, but not in anything that doth not relate to the said Musaeum.

21 June 1686.
E: Ashmole.

Ashmole maintained the proprietary control declared in this document until his death on 18 or 19 May 1692, and did what he could to encourage the donation of rarities and books to his museum. On 23 September 1683 he recorded his first meeting with Lister, who had already offered additions to the museum's collection.[105] Ashmole also recorded on 10 October 1683 that 'I gaue Mr: Heysig, a Booke of the Garter, my wife gaue him 3 gold Buckles'.[106] John Heysig, a scholar and tutor to a Swedish nobleman, visited Oxford the next day,[107] and it was presumably on this visit that he presented a runic carving, three wooden runic calendars, and two Swedish coins,[108] doubtless encouraged by

[104] Ash. Lib. AMS 5, ff. 1–29; AMS 6.
[105] Bod. Lib. MS Ashmole 1136, f. 77^{v}; Josten 1966, 4. 1731.
[106] Ibid., f. 78; Josten 1966, 4. 1732.
[107] Clark 1891–4, 3. 76; Josten 1966, 1. 275; 4. 1732 n. 9.
[108] Ash. Lib. AMS 11, f. 661^{v}; Josten 1966, 4. 1732 n. 9. See No. 194.

Ashmole's gifts and advice. Some time about the year 1684 Thomas Braithwait of Ambleside, Westmorland, gave a coin collection to the university. Thomas Barlow (Bishop of Lincoln) wrote to the Vice-Chancellor on Ashmole's behalf requesting that the collection should go to the Ashmolean Museum and referring to an agreement between Ashmole and the university that in future all rarities offered to the university should be housed there.[109] Ashmole visited Oxford between 23 and 28 July 1684 and presumably called at the museum, though the purpose of his visit is not recorded.[110] Early in 1685 he sent 'a Persian Gum supposed to be a Mastick, and Windsor Castle, in straw-work, made by Mr. Clerk a German' as well as Mary Davis's horn, to join his collection.[111] His father-in-law, Sir William Dugdale, made his will on 10 August 1685, leaving all his manuscripts to the university to be placed in the Musaeum Ashmoleanum, 'Desiring that the presse, wherein they shall be so kept, may have an Inscription thereon importing that they were myne, and of my gift . . .'[112] Dugdale died on 10 February 1686,[113] and the bequeathed forty-eight volumes duly arrived in Oxford on 29 June.[114] Ashmole made out his own will on 6 September 1686, giving his manuscripts and the gold chains and medals presented to him in recognition of his scholarship, various named paintings, and other pamphlets and books, to his museum.[115] In 1687 he presented 220 Roman and 336 English, Scottish, and foreign silver coins[116] to be added to those he had already given. He encouraged his fellow scholars to follow his and Dugdale's example by leaving their books and notes to the museum, as is revealed in two letters by Aubrey to Wood in the autumn of 1688.[117] Aubrey was attempting to persuade Wood to hand over those of Aubrey's manuscripts which had been left in his care to the Ashmolean. Aubrey states Ashmole's opinion that there was 'such good care and method taken' that books were safer in the museum than in the Bodleian or the University Archives.[118] Anthony Wood was persuaded of the advantages of the Ashmolean and in his will dated 24 November 1695[119] bequeathed all his own manuscripts to it except for those already given to the Bodleian.

Ashmole was also concerned at the state of the pictures hanging on the stone walls of the museum, and Aubrey wrote on his behalf on 31 December 1691 requesting the Keeper 'to let the Pictures hang reclining from the Walls: otherwise the salt, and saltpetre in the Walls, will hurt the Canvess; as you have a sad instance of the Queens picture in the room within by the Laboratory'.[120]

Plot was fully occupied in the museum's early years with preparing catalogues and lecture-courses and with the Philosophical Society. He had resigned the secretaryship of the Royal Society of London in November 1684, which he had held for two years,[121] presumably because his duties in Oxford made it difficult for him to attend the Society's

[109] Josten, 1966, 4. 1735–6.
[110] Bod. Lib. MS Ashmole 1136, f. 80^v; Josten 1966, 4. 1739–40.
[111] Bod. Lib. MS Ashmole 1810, ff. 86, 92; Josten 1966, 4. 1754, 1756.
[112] PRO, Prob. 11/382/41; Josten 1966, 4. 1802.
[113] Bod. Lib. MS Ashmole 1136, f. 88^v; Josten 1966, 4. 1814.
[114] Josten 1966, 4. 1816 n. 8.
[115] PRO, Prob. 11/410/97; Josten 1966, 4. 1828–32.
[116] Ash. Lib. AMS 9, ff. 58–98; Josten 1966, 4. 1836.
[117] Bod. Lib. MS Tanner 456a, ff. 34–5; Bod. Lib., MS Aubrey 12, f. 2; Josten 1966, 4. 1859–62.
[118] Bod. Lib. MS Aubrey 12, f. 2. See Ashmole's statutes of 1686, clause 9 (p. 54 above).
[119] Bod. Lib. MS Top. Oxon. b.9; Clark 1894, 3. 502–4, App. II.
[120] Bod. Lib. MS Ashmole 1814, f. 98–9^v; Josten 1966, 4. 1887.
[121] *Dictionary of National Biography*, s.v. Plot.

meetings. He seems gradually to have spent less and less time in the museum, however, and from 1687 onwards he was regularly in London, having been appointed Registrar of the Earl Marshal's Court in that year.[122] The following year he was appointed Historiographer Royal,[123] and we learn from surviving correspondence between Lhuyd and Lister that by August 1689, Plot was considering resigning the keepership.[124] Lhuyd turned to Lister to support him for the post, but feared that Ashmole would appoint George Smalridge, a protégé and relative of Ashmole, who was then a tutor at Christ Church. Fortunately for Lhuyd, Smalridge had no desire for the appointment, though he did his best not to offend his patron's feelings on the issue. Lhuyd asked Lister to remind Ashmole that some two years before he had promised Lhuyd the post and that it was only this promise that had persuaded him to remain and to catalogue all the 'Naturall bodys' for a mere £12 a year. Plot resigned the professorship of chemistry on 12 November 1689, and at the beginning of 1690 the chair was conferred on Edward Hannes, who delivered his inaugural lecture on 7 July of that year.[125] The appointment was made by the Vice-Chancellor, presumably because Ashmole had forfeited his right to appoint with his failure to endow the chair as he had promised.

On 1 October 1689 Lhuyd informed Lister that Plot's 'Deputy' had resigned.[126] As a result of this a private agreement was reached by which Lhuyd acted as Plot's deputy and received half the Keeper's income, namely about £20 a year. It was not until January 1691, however, that Plot finally resigned, handing the keys of the museum to the Vice-Chancellor in the presence of Lhuyd. He then recommended Lhuyd as his successor, adding that Ashmole was prejudiced against Lhuyd and that Ashmole's consent to the appointment might prove difficult to obtain. This prejudice may have amounted to no more than resentment at Lhuyd's lack of interest in alchemy and astrology.[127] Ashmole gave his consent soon after, however, and Lhuyd, finally free of Plot's patronage, wrote to thank Lister for his help in 'this happy deliverance out of his clutches; for (to give him his due) I think he's a man of as bad Morals as ever took a Doctors degree'.[128] Lhuyd's judgement of Plot was harsh, but it came from a man who became a far greater scholar than Plot and had had to wait long in his shadow.

Lhuyd's first year as keeper was marred by the first robbery the museum suffered. The open display and accessible storage, combined with the impossibility of one guide overseeing a party of visitors, even when their number was restricted as the statutes required, made losses inevitable. Lhuyd was fairly certain of the identity of the thief, a Dutchman or German, who had praised all the specimens which disappeared. On Lister's advice he wrote to a private collector, William Charleton (see p. 39), for advice in tracing the stolen items and particularly on which London dealers to contact.[129] He visited London himself and was reimbursed £4 10*s*. from the Vice-Chancellor's account

[122] Bod. Lib. MS Ashmole 1136, f. 98; Josten 1966, 4. 1845.
[123] See n. 121 above.
[124] Bod. Lib. MS Lister 35, ff. 134-5ᵛ; Josten 1966, 1. 291-2. See also ibid., 4. 1865, n. 1.
[125] Josten 1966, 4. 1867 n. 2.
[126] Bod. Lib. MS Lister 35, f. 136ᵛ; Josten 1966, 4. 1868. The deputy is that required in Ashmole's statutes of 1686, clause 15 (see p. 55 above).
[127] Josten 1966, 1. 298.
[128] Bod. Lib. MS Lister 36, f. 8ᵛ; Josten 1966, 4. 1878-80.
[129] BL MS Sloane 3962, ff. 288-90ᵛ; Josten 1966, 4. 1883-4.

for this journey,[130] but none of the objects were recovered. His fears that Ashmole would blame him personally for the theft, however, proved groundless.[131]

Ashmole paid his last visit to Oxford in July 1690, a very sick man, according to Wood. He arrived from Bath on 15 July and was entertained two days later in the upper room of his museum by the Vice-Chancellor and some thirty leading members of the university. 'Mr Ashmole was carried in a chaire or sedan was placed at ye end of that place & the Doctors standinge about him, Mr. Ed Hannes of Ch. Ch. chymical professor spoke a speech to him – afterwards they went to dinner – Mrs Ashm. Jack Cross & Mr. Sheldon dined together in Doctor Plots study'.[132] Sunday 20 July was spent 'in ye musaeum with Doctor Plot',[133] and they left the next day.

The foundation of this museum was Ashmole's crowning achievement. Although it was principally his donation of the Tradescant collection which made it possible, nothing should detract from his vision, which saw the building as more than a 'repository' for 'rarities', and as the first institution at Oxford devoted solely to the study of the natural sciences. Although an unhappy intrigue persuaded him to withold the endowment he had promised and could have afforded, the tribute paid to him in his epitaph in Lambeth Church has in the event remained apt: 'Mortem obiit 18 Maii 1692, anno aetatis 76, sed durante Musaeo Ashmoleano Oxon. nunquam moriturus.'[134]

[130] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97, WP *β*/21/5, *sub anno* 1694–5.

[131] Bod. Lib. MS Lister 36, f. 32[r–v]; Josten 1966, 4. 1883–4.

[132] Josten 1966, 4. 1873.

[133] Bod. Lib. MS Wood's Diaries, 34, f. 35[v]; Josten 1966, 4. 1874.

[134] 'He passed away 18 May 1692, at the age of 76, but while the Ashmolean Museum at Oxford endures he will never die.'

THE ASHMOLEAN AS DESCRIBED BY ITS EARLIEST VISITORS

Martin Welch

On 23 May 1683 'Yeomen beadles went to severall Coll. & halls to give notice to all Doctors and Masters that the Musaeum Ashmoleanum would be open the next day.' Anthony Wood continued that on 24 May 'Those Doctors & masters that pleased retird to ye Musaeum which is ye upper room, where they veiwed from one till 5 of ye clock what they pleased. Many that are delighted with new phil. are taken with them; but some for ye old – look upon them as ba[u]bles – Ch. Ch. men not there . . .'[1] The Revd Thomas Dixon told Sir Daniel Fleming that at the time of the arrival of the Tradescant collection from Lambeth, the Ashmolean laboratory had come to be referred to as the 'Knick-knackatory',[2] a view perhaps shared by the Christ Church men whose absence Wood noted.

The earliest visitor whose first-hand impressions survive was the physician and naturalist Thomas Molyneux (1661–1733). In a letter from London to his brother in Dublin dated 17 July 1683 he said:

Of this college viz. University, I was also acquainted with Dr. Plott, to whom I had a letter from Dr. Grew; he was very civil and obliging, and shewed me all the new building on the west side of the theatre, built of square freestone, containing, as the inscription over the door intimates, the *Museum Ashmoleanum*; *Schola Historiae Naturalis, et Officina Chymica*. It consists only of these three rooms, one a-top of the other, and a large staircase. The Museum Ashmoleanum is the highest; the walls of which are all hung round with John Tradescant's rarities, and several others of Mr. Ashmol's own gathering; his picture hangs up at one end of the room, with a curious carved frame about it, of Gibbins his work.[3]

Molyneux next described a visit to Ashmole in Lambeth, and then continued:

But to return now again to his museum in Oxford; to which, as Dr. Plot told me, one Mr. Cole, an apothecary in Bristow, and Dr. Lister of York, design very suddenly to add their collections. Under this rome is the *Schola Hist. Nat.*, very spacious and high, curiously wainscoted; at the end a very pretty white marble chimney-piece stained up and down with red, inch deep, (as Dr. Plott assured me,) by an art invented by one at Oxford. In this place Dr. Plott reads lectures to all that goes thro' a course of the chymistry with him, and to those only, till there a public salary be settled upon him for it. Under this is the *Officina Chymica*, the greatest part of which is under ground, and therefore it is very cold, even in the summer time, according to the small judgement I have in those sort of things; as yet it is very well contrived with great variety of furnaces, and those very convenient for all the operations in chymistry . . .

[1] Bod. Lib. MS Wood's Diaries 27, f. 26v; Josten 1966; 4. 1720–1.

[2] Magrath 1913, p. 90; Josten 1966, 4. 1718.

[3] Anon. 1841, p. 324; Josten 1966, 4. 1727–8.

Molyneux's description shows that the principal method of display of the larger Tradescant rarities was to hang them round the walls. The portrait of Ashmole with a frame by Grinling Gibbons is frequently referred to by later visitors. (It is now in the Founder's Room, where portraits of Charles II and James II also bear frames attributed to Gibbons.)[4] Lister's gifts to the museum are well documented, and earned him an honorary MD from the university in 1683, but this is the only source to mention William Cole of Bristol as a potential donor. He is not listed in the Ashmolean's Book of Benefactors (see Microfiche 1), though an entry of £2. 3*s*. in the Vice-Chancellor's accounts for October 1695 to October 1696 may be relevant, being recorded as 'Item to Mr Lloyd for a Journey to Bristol'.[5]

Plot acted as guide to another visitor, the collector Ralph Thoresby of Leeds, on 26 May 1684.[6] After visiting several colleges, he admired the Sheldonian Theatre and then viewed the Arundel marbles displayed in the open air around it: 'Was much taken with the ancient altars, and inscriptions and statues, Greek and Latin, given by the Lord Howard, and was courted for my own.' The courting was presumably the work of Thoresby's host and guide, Nathaniel Boys of University College. The party next visited the Bodleian Library, and then continued to:

> the Anatomy Schools, where, besides the skeletons and stuffed skins, were many considerable rarities; but the chief of all was in the *Museum Ashmoleanum*, which is absolutely the best collection of such rarities that ever I beheld, amongst which is the most entire mummy (sent by Dr. Huntingdon from Egypt) in Europe. Could have contentedly spent a long time in a thorough view of the several rarities, which the ingenious Dr Plot (to whom I was singularly obliged for his extraordinary civilities) has almost promised to print the catalogue of, with Mr. Ashmole's picture before. Then was shown the rarities that ditto most courteous Doctor had collected for his history of Staffordshire; as likewise the *Scrinium Listerianum* presented to the University by my father's ingenious friend Dr. Lister, formerly of York, now of London. I was exceedingly courted for some of my coins, and almost won upon by his most obliging carriage, but kept off promising till I see how it please God to dispose of me as to marriage, posterity, &c. After a stately treat at University College by Mr Boyse, (the Proctor this year) where we had ditto ingenious Dr Plot's company, with much ado got out of town, but rode unreasonably hard to reach our journey's end at Banbury.

Thoresby never became a donor to the Ashmolean, his collection being inherited in 1725 by Ralph, his eldest son; nor did Plot publish the Ashmolean's catalogue. The donor of the mummy was Aaron Goodyear, but Huntington gave other Egyptian antiquities to the Museum. Ralph Thoresby paid a second visit to the Ashmolean on 30 May 1695,[7] which was marred only by the absence of the 'excellent Mr. Llhydd', whom he had hoped to meet.

The first published description of the Ashmolean and one freely used by subsequent writers appeared in Edward Chamberlayne's *Angliae Notitia*.[8] It must have been printed early in 1684, as the election of the Proctors in April of that year is placed in the *Errata*.

[4] Josten 1966, 4. 1711–12.
[5] Oxford University Archives, Vice-Chancellor's Accounts, 1666–97, WP *β*/21/5, *sub anno* 1695–6; Josten 1966, 4. 1727 n. 7.
[6] Hunter 1830, pt. 1, p. 174; pt. 2, pp. 428–9.
[7] Ibid., pt. 1, p. 303.
[8] Chamberlayne 1684, pt. 2, pp. 325–8.

The description reads like an official prospectus and may have been supplied by Plot, as Gunther suggested:[9]

The Museum, a large and stately Pile of squared Stone, was built at the Charge of the University, who found such a Building necessary, in order to the promoting, and carrying on with greater ease and success, several parts of useful and curious Learning, for which it is so well contrived and designed.

It borders upon the West end of the Theatre having a very magnificent Portal on that side, sustained by Pillars of the Corinthian Order, with several curious Frizes, and other Artificiall Embellishments. The Front about Sixty Feet, is to the Street, Northward, where is this Inscription over the entrance in guilt Character *Musaeum Ashmoleanum, Schola Naturalis Historiae, Officina Chimica* . . .

It consists of ten Rooms,[10] whereof the three principal and largest are Publick, being each in length about 56 Feet, and in Breadth 25. The uppermost is properly the *Musaeum Ashmoleanum*, where an Inferior Officer always attends, to shew the Rarities to Strangers. The middle Room is the School of Natural History, where the Professor of Chemistry, who is at present Dr. Plott, Reads 3 times a Week, on Mondays, Wednesdays, and Frydays, during the time of the Chymicall course, which continues an entire Month, concerning all Natural Bodies, relating to, and made use of in Chymical preparations, particularly, as to the Countries, and places where they are produced, and found, their Natures, their Qualities and Virtues, their effects, and by what Marks and Characteristicks they are distinguished one from another, Natural from Artificial, true from Sophisticated, with their several mixtures and preparations in Tryals and Experiments, with the entire process of that Noble Art, very necessary to the cure of Diseases, when carefully managed by Learned and skilful Persons.

The Lower Room, to which there is a descent by a double pair of Stairs, is the Laboratory, perchance one of the most beautiful and useful in the World, furnished with all sorts of Furnaces, and all other necessary Materials, in order to use and practise. Which part is with very great satisfaction performed by Mr. Christopher White, the skilful and industrious Operator of the University, who by the direction of the Professor, shews all sorts of Experiments, chiefly relating to that course, according to the limitation established by the Order of the Vice-Chancellor.

Near adjoyning to the Laboratory are two fair Rooms, whereof one is designed for a Chymical Library, to which several Books of that Argument have been already presented: the other is made use of as a Store-room for Chymical preparations, where such as stand in need of them, are furnished at easie rates: the design of this building being not only to advance the Studies of true and real Philosophy, but also to conduce to the uses of Life, and the improvement of Medicine. Near the *Musaeum* is a handsome Room fitted for a Library of natural History and Philosophy. The other remaining Rooms, are the lodging Chamber and Studies of the Keeper of the *Musaeum*, whereof one, which is most convenient, is sometimes employed and made use of for private courses of Anatomy.

Accessions are continually made to the *Musaeum* by several worthy Persons as Dr. Robert Huntington, who hath given Hieroglyphicks, and other Ægyptian Antiquities: Mr. Aaron Goodyear, to whose generous favour they owe there an entire Mummy:[11] and the eminently Learned, Martin Lister, Dr. of Physick who has presented the University with a large Cabinet of Natural Rarities of his own Collection, and of several Roman Antiquities, as Altars, Medals,

[9] Gunther 1925, p. 308.

[10] There are now eight rooms.

[11] This mummy had been given to the Bodleian Library in 1681 but was transferred to the Ashmolean in 1683 (Macray 1890, p. 149 and n. 2). It is no longer in existence.

Lamps Ec. found here in England: So that it is justly believed that in a few years it will be one of the most famous Repositories in Europe.[12]

Huntington and Goodyear's donations both appear with Lister's in the Book of Benefactors. Chamberlayne's description formed the basis for the accounts given by two foreign visitors, one in 1711 by C. H. Erndtel,[13] who had letters of introduction to Lhuyd, but was conducted round 'all the Rarities' by Lhuyd's servant, as the Keeper was not then in Oxford. His brief description of the museum, however, is totally dependent on Chamberlayne. An earlier visitor to the museum was H. L. Benthem, who recorded his impressions in 1694.[14] He mentions seeing a portrait of a man 152 years old, (No. 275), Henry VI's iron cradle (No. 210), Anne Boleyn's straw hat,[15] and Augustine's bishop's crook,[16] but otherwise his descriptions are equally derivative.

In view of this tendency to rely on a standard description we are fortunate to have a very detailed early account by a wealthy German scholar, Zacharias Conrad von Uffenbach. Born in Frankfurt-am-Main in the year that the Ashmolean was opened, he travelled extensively over northern Europe, staying in Oxford in August and September 1710 during a tour of Lower Saxony, the Netherlands, and England. His account, clearly intended as a private record, was published at Ulm in 1754,[17] twenty years after his death. He had perfected the useful art of taking detailed notes without being detected, by writing within his coat poacket, and his record may thus be particularly accurate. He was not, however, impressed by the rarities: 'For England the natural history specimens are to be found here in fair order. But on our first entrance we wondered not a little that there should be such talk made over this museum outside this island, and more particularly of course within it. For to take one instance, Herr Burgmeister Reimers in Lüneburg, who is only a private person, has certainly as many specimens again as one meets here and far more important ones.'[18] Elsewhere he adds that:

The specimens in the museum might also be much better arranged and preserved, although they are better kept than those in Gresham College, London,[19] which are far too bad considering their splendid description. But it is surprising that things can be preserved even as well as they are, since the people impetuously handle everything in the usual English fashion and, as I mentioned before, even the women are allowed up here for sixpence; they run here and there, grabbing at everything and taking no rebuff from the *Sub-Custos*.[20]

It is clear from Uffenbach's account that clause 11 of the statutes (see p. 54) of 1686 was not being observed, for when he and his brother attempted to visit this Museum on the afternoon of 23 August, the upper room was so crowded with country folk (*Manns- und Weibsleute vom Lande*), as it was market day, that they thought it better to come another day.[21] This overcrowding was a result of financing the museum solely from admission

[12] See Macray 1890, pp. 325 8.
[13] Erndtel 1711, p. 52.
[14] Benthem 1694, pp. 329 30.
[15] Possibly the straw hat listed in Tradescant 1656, p. 50, which is not, however, attributed to Anne Boleyn.
[16] Ash. Lib. AMS 2. Given by Lady Dorothea Long in 1683.
[17] Von Uffenbach 1753 4, vol. 3; Quarrell and Quarrell 1928.
[18] Von Uffenbach 1753 4, 3. 121 2; Quarrell and Quarrell 1928, p. 26.
[19] Belonging to the Royal Society of London. See p. 87 below.
[20] Von Uffenbach 1753 4, 3. 129; Quarrell and Quarrell 1928, p. 31.
[21] Von Uffenbach 1753 4, 3. 118; Quarrell and Quarrell 1928, p. 24.

charges, but the failure of the museum's staff to keep order was only one aspect of a lack of diligence. Lhuyd had died on 30 June 1709 and had been succeeded as keeper by one of his assistants, David Parry. The Uffenbach brothers had an appointment with Parry on the afternoon of 6 September which Parry failed to keep, and he was late for a second appointment on 13 September.[22] Uffenbach commented that:

the present Proto-Custos, as he is called, Mr. Parry, is too idle to continue it [i.e. a catalogue begun by Lhuyd], although he is little inferior to his predecessor Lloyd in natural history or in the knowledge of Cambrian, Anglo-Saxon and other languages. But he is always lounging about in the inns, so that one scarcely meets him in the museum, as I have already said; if it were not for this he could yet do well as he is still a young man a little over thirty.[23]

Parry was not to live up to the promise he had shown as Lhuyd's assistant, but Uffenbach was far more scathing about Parry's *Subcustos*, describing him as a 'ridiculous fellow'.[24] Uffenbach considered the catalogues to be:

a bad description consisting, it is true, of six volumes in 4, each a finger in thickness, but with the specimens only designated by one word. The first volume is a *catalogus librorum quos prima vice donavit Elias Ashmole an. 1685* and with it a *catalogus animalium*.[25] The second volume is a *catalogus numismatum*, including 398 *recentiora*, several Roman and three hundred pure English, though many are entered twice over.[26] Vol. 3 is *materia medica*.[27] Vol. 4 is *fossilia & vegetabilia & lapides terrae, conchae*.[28] Vol. 5 is *catalogus lapidum pretiosorum*.[29] Vol. 6 is *de cochleis tam terrestibus fluviatilibus quam marinis*.[30]

One could wish that the catalogues or indices, bad as they are, were published, or, better still that an accurate description of this museum could be made, like that of the Royal Society Museum in London,[31] although as far as the *lapides* are concerned, Lloyd, the former learned and diligent *Custos* of this museum, has, I believe, commenced one.[32]

Uffenbach was able to examine for himself Lhuyd's catalogue and collection of figured fossils on 13 September:

When Mr Parry arrived he showed us the stones down in the hall of the Ashmolean. They are in three very large low presses. There is a splendid quantity and variety of these stones, such as I have never in all my life seen together before. It is unnecessary to describe them here; moreover it would be impossible, as this has been very well done by the collector himself, Mr. Lluyd in his *Lithophylacium*[33] in octavo: as only 125 copies of this book were printed for some of his own friends,

[22] Von Uffenbach 1753–4, 3. 153–4; Quarrell and Quarrell 1928, pp. 48–9.

[23] Von Uffenbach 1753–4, 3. 128–9; Quarrell and Quarrell 1928, p. 31.

[24] Von Uffenbach 1753–4, 3. 127; Quarrell and Quarrell 1928, p. 30.

[25] Catalogue of the first instalment of books given by Elias Ashmole in 1685; catalogue of animals. Ash. Lib. AMS 11.

[26] Catalogue of coins; 'modern items'. Ash. Lib. AMS 9, AMS 11.

[27] Remedial substances used in the practice of medicine. Ash. Lib. AMS 10, AMS 11.

[28] Fossils, plants, stones, earths, and shells. Ash. Lib. AMS 10, AMS 11.

[29] Catalogue of precious stones. Ash. Lib. AMS 8, AMS 11.

[30] Of terrestrial, riverine, and marine shells. Ash. Lib. AMS 7, AMS 11.

[31] Grew 1681.

[32] Von Uffenbach 1753–4, 3. 128; Quarrell and Quarrell 1928, p. 31.

[33] Lhuyd 1699. The refusal of the university to finance the publication of the museum catalogue resulted in it being published privately at the expense of a number of Lhuyd's friends including Hans Sloane, Samuel Pepys, and Isaac Newton. He dated the preface 1 November 1698 at Montgomery, and his absence from Oxford resulted in the limited edition of 120 copies containing many printing inaccuracies. Lhuyd prepared a second edition before his death in 1709, but this was not published until 1760; see Gunther 1945, pp. 21–4. See *Dictionary of National Biography*, s.v. Lhuyd.

at a cost of one guinea, and none of these are now available, Mr. Parry, who helped Mr. Lluyd in his collating, is going to publish it again, and in a greatly augmented edition. I must just say of the classification (of the stones) that following the description in the book they are faultlessly arranged according to class and species, and also so conveniently that the larger stones are to be seen uncovered in the big drawers, the smaller ones in round boxes according to size. Those placed there together are numbered, so that one can find them in the catalogue, and also that they might not get mixed up with each other, as might happen if they were lying loose.

In the last cupboard was also a large drawer with all manner of antiquities, likewise collected by Mr. Lluyd, and excavated in England. These consisted of various *fibulae*, lamps, sacrificial knives, and so on. Especially curious were the remains of a beautiful urn of red pottery, on which appear a number of designs illustrating the rites at Roman burials.[34]

Uffenbach gives by far the most detailed description of the early arrangements, noting also the positions of the small library rooms off the staircase:

. . . the natural history specimens . . . are in the biggest and most important room or hall in the house, which, however, looks more dignified from outside than from inside. Below is a spacious place of honour or vestibule, and, on the left, the library of Thos. [*sic*] Wood.[35] Down in the vestibule stands the great iron cradle of which Benthem makes mention.[36] On the walls of the staircase hang many pictures but they are nothing very special. Arrived at the top of the stairs one sees another door which leads into the little room in which is the *Bibliotheca MSta Ashmoleana*.[37] But this time as stated, we only saw the museum. This in the hall at the top of the stairs to the left . . .

We noticed various very large goats' horns, one of which was four span in circumference. For this realm is everywhere very prolific in horn, and moreover all horned creatures are extraordinarily well furnished with them. We also saw two of the white *caudae setosae vaccarum*, such as Borrichius, and we too, had observed in the *Schola Anatomica*.[38] Then we noticed different *Cornua Ammonis* [ammonites], such a size as I have never seen before. Farther on was the head of a ram with four horns for, as I have remarked above, England is a *terra maxime cornifera*,[39] and the cows have terrific horns, as large indeed as our oxen. There is also a very beautiful stuffed reindeer. It has antlers like an elk, but otherwise resembles a stag in size and form, with hair nearly the length of one's little finger and almost as stiff as horse-hair, picked out or sprinkled with grey-white or black and white. Here, also, is a stuffed Indian ass, white with dark brown stripes or rings, such as I had already seen in Berlin. Likewise we saw an extraordinarily big tortoise as also the skin of a Turkish goat: it is very large, yellowish-white with very long, soft and rather crinkled hair, inches in length and as soft as silk. In the windows stood about thirty glass vessels with all kinds of Indian botanical specimens, plants and flowers in spirit. As inscribed on them in gold lettering, they are *ex dono Cl. Viri D. Jacobi Pound, M.B. (Med. Baccalaurei)*.[40] We further noticed a very large *dens molaris* [molar tooth] over a finger in length and two inches thick. The accompanying memorandum: "This is supposed to be one of the teeth of the Danish Giant

[34] Von Uffenbach 1753–4, 3. 128; Quarrell and Quarrell 1928, p. 49. This samian vessel, which was illustrated in Camden's *Britannia* (1586), still survives in the museum collections.

[35] See Bod. Lib. MS Wood's Diaries.

[36] See n. 14 above, and No. 210.

[37] The Ashmolean Manuscript Library.

[38] 'Bristly cows' tails'. Borrichius talks of a 'cauda vaccae Indicae alba, setosa instar equinae, eaque duplo major' (quoted in Gunther 1925, p. 255). For the Anatomy School collections see below, p. 88.

[39] 'A land very productive of horns'.

[40] See Ash. Lib. AMS 2; Ayliffe (1714, p. 476) described this donation thus: 'The Rev. Dr. Pound has also given hereunto many excellent collections of Plants and Animals brought with him from China, and preserved in Spirits of Wine, etc.'

Warwick found by M. Brown near pont freat Castle an. 1700." is a prodigious supposition. *Credat Judaeus Apella, non ego.*[41] Also, a very long and wide skin of a *serpens candisorius* [?white snake], white with brown spots, about twelve feet long and one and a half wide. In several of the glasses, in brandy, were sundry strange creatures, likewise presented by the above mentioned Pound, such as a few snakes and amongst them a small rattle-snake. Also a crocodile, a salamander, etc. In one corner stood a cabinet in which were many beautiful *lapides pretiosi* [precious stones], such as I have seldom seen in such profusion and in the centre were several fine *lapides florentini* [Florentine stones], an uncommonly good *glosso-petra*,[42] about seven inches long and two wide at the back, a lovely light green stone almost like jasper and various beautiful crystals also, amongst them two pieces with moss imbedded in them. A splendid topaz, bigger than a walnut. An amethyst, as large again as the above, but faulty. In the cabinet were also some drawers containing about thirty specimens of old and new, but bad, coins.[43] Furthermore the Knight of St. George and the Dragon well cut in amber.[44] Likewise the Crucifixion of Christ, very delicately carved on a peach-stone with the signature N. B.[45] Again the Birth of Christ in just the same style, as also a representation of the Saviour. Further cherry-stones carved in the same way. Also Apollo fairly well cut in coral,[46] a *calendarium runicum*[47] on eleven little wooden tablets, (the remaining one having been lost), each a finger in length and not quite two fingers in breadth. An *abacus indicus*[48] which consists of a little wooden box in which are some round bullets [balls] that can be moved with [along] a wire. Earrings of dyed straw, the size of a nut and shaped like pearls such as women are said to have worn in Spain in by-gone years.[49] Also several artistic objects of turned ivory.[50] Several beautiful *rosaria* in crystal and other materials.[51] Various curious specimens of all sorts of *succinum* [amber],[52] amongst them some with flies and one specially beautiful with a spider. Two gold chains, one of which was presented to Ashmole by Friedrich Wilhelm Elector of Brandenburg,[53] the other by the King of Denmark,[54] together with the coins (medals) suspended from them.

We were then shown a very curious stone, for when it was struck a piece of money [coin] was found in the centre, which had grown into the stone, or rather the stone had grown around it.[55] Also a very large Indian writing tablet with leaves of black paper and a cover beautifully lacquered in red.[56] An extraordinarily curious horn which had grown on the back of a woman's head.[57] It was exactly like a horn, except that it was thinner and browner in colour. It is certainly somewhat of a curiosity, and it appears that men-folk bear their horns in front and such women theirs behind. It was noted on a label that it originated from a Mary Davis of Saughall in Cheshire *an aet. 71 an. Dn. 1668.*[58] No doubt it will have been mentioned in the *Transactiones Angl.*, or in the *Hist. nat.* of Cheshire, and can be looked up there. The horn was blackish in colour, not very thick or hard, but well proportioned.

[41] 'Apella the Jew may believe it, but I don't.' (Horace, *Satires*, 1. 5. 100.) Von Uffenbach's favourite term for expressing scepticism.

[42] Fossilized shark's tooth. For a discussion of such teeth as these, see Murray 1904, pp. 68–73.

[43] See Ash. Lib. AMS 9.

[44] No longer surviving.

[45] No longer surviving: but see discussion of extant fruitstones under No. 186 below.

[46] No longer surviving.

[47] The runic calendar given by John Heysig in 1683 (see Microfiche 1). Only ten tablets now survive (see No. 194 below).

[48] The Russian bead calculator or *schety*. See No. 193 below.

[49] No longer surviving.

[50] See the ivory balls, Nos. 239–48 below.

[51] See the rosaries, Nos. 121–3 below.

[52] See the amber objects, Nos. 120, 123, 177–80 below.

[53] Bod. Lib. MS Ashmole 1136, f. 61^{v}; MS Ashmole 1131, f. 369^{v}; Josten 1966, 4. 1670–1.

[54] Bod. Lib. MS Ashmole 1136, f. 50^{v}; MS Ashmole 1131, f. 369; Josten 1966, 4. 1389–90.

[55] No longer surviving.

[56] See the Burmese manuscripts, Nos. 80–3 below.

[57] No longer surviving. Von Uffenbach (1753–4, vol. 3, fig. 1) illustrates the horn. An engraving of Mary Davis with horns intact appears in Ormerod 1882, p. 566.

[58] 'At the age of 71 in the year 1668'. John Pointer described it as 5 inches long in 1749 (Pointer 1749, p. 105).

At a window was a very large *cochlea bivalvis* [bivalve shell], but only one half of it was there. Further a cabinet with five drawers full of great shells.[59] Another cabinet with smaller shells, none of which were perfect, or which one could not see better in Holland. Near this cabinet stood an enormous cabbage-stalk from five to six feet in height and over an arm in thickness. By the windows hung several sorts of carved and printed panels, and amongst these was the portrait of John Tradescant, curiously painted as though he were standing out from the clouds – perhaps because of the name, *quasi transcendat coelos*.[60] Amongst the carvings was Andromeda with Perseus, incomparably carved in alabaster on a black wooden panel.[61] It is a pity that this beautiful old work of art is so badly mounted; also that several pieces are missing. There was still another cabinet with a *materia medica*,[62] in which were all manner of *gummi*, *boli*, *terrae sigillatae* [medicinal gums, clays, and 'stamped earths'], together with some fossils and drugs. With them (for what reason I do not know) was a stone stated to be a petrified heel of a shoe,[63] and certainly very much resembling one; although it is difficult to believe, since the hole in the middle through which heels were formerly fixed to the shoe quite obviously had been recently bored.

Further on we saw all kinds of Indian weapons, and articles of clothing.[64] A number of nails which had been melted into a lump by lightening were lying in a basket on a table.[65] In a case I found a very well-wrought Indian idol, or, as the *Custos* called it *Brachmanus*.[66] He declared that the stone was unknown, but it appeared to me as a sort of steatite, from which the Indians normally make their gods, although it had red veins (which I had not seen before) and was very lightly polished. The ridiculous fellow who was showing us the specimens and who is a *Sub-Custos* and Scholar of a College (the *Custos* himself, Mr. Parry, cannot show strangers over the museum for guzzling and toping) announced in all earnest that the material for these gods was made of rice, boiled and then dyed.

In a cupboard were all manner of foreign costumes, amongst them curious caps made of different kinds of very beautiful grey-coloured feathers, such as the upper classes in India wear for protection against the sun. On the wall next to this cupboard were hanging many more dresses in particular foreign fashions in shoes;[67] further an Indian lantern without glass or horn: that is to say made of plaited and painted reeds or rushes, quite transparent and prettily made.[68] They may be all very well in India where there is no wind, but not in England where it is never calm. In the centre of the hall hangs the portrait of the founder Ashmole, life-size, standing before a table, one hand holding a book in folio entitled *History of the Garter*, which he had written and published. He wore one of the chains mentioned above to which, doubtless, the words under the picture refer: *praemia honoraria* [honourable rewards].

Uffenbach also described the classical reliefs and inscriptions around the Sheldonian Theatre, noting that as well as the 169 pieces kept in the open air 'there were several more statues at the Ashmoleanum'.[69]

[59] See Ash. Lib. AMS 7.

[60] 'As if they rise above the sky'. The portrait was of John Tradescant the Elder. See No. 253, Pl. CXXIII.

[61] No longer surviving.

[62] Ash. Lib. AMS 10 lists the *materia medica* present *c.*1685. No longer surviving.

[63] No longer surviving.

[64] The term 'Indian' was used indiscriminately at this time (see p. 96). For North American Indian material see Nos. 2–4, 10–13 below.

[65] Described by John Pointer (1749, p. 160).

[66] i.e. Brahmin; a 'Brackmans vest of Leaves of Aloes' is among the garments listed at Lambeth by Tradescant (1656, p. 47). Probably the Burmese Buddha, No. 79 below.

[67] See the various items of footwear, Nos. 20–1, 47–59, 107–13 below.

[68] Possibly one of the Chinese lanterns listed in Ash. Lib. AMS 25.

[69] Von Uffenbach 1753–4, 3. 121–6; Quarrell and Quarrell 1928, pp. 26–30. For the history of these marbles see Haynes 1975; von Uffenbach 1753–4, 3. 98; Quarrell and Quarrell 1928, p. 10.

The most distinguished thing about the theatre is on the walls outside: namely the excellent *Marmora Arundelliana* or *Oxonienia*, a description and explanation of which exists in folio,[70] rare even in England. They are certainly unusually beautiful, and I doubt whether in their open air positions they are enough prized or suffiently protected from destruction, though it is true that they are partly in niches. Another wall has been built around the theatre, on which the iron-work and pagan busts as also a statue of *Sheldonianus*[71] are to be seen; but this is left open at times and mischievous youths might easily do damage, to say nothing of wind and weather.

The other busts and decorations on the outer wall are so badly and so coarsely fashioned that I was astounded, and indeed they look better in the book frontispieces than in fact. This time we only took a general look at the superb sculptures, as I wanted first to look up the description of Prideaux, and also because our time was short. We found there were 169 of them, placed in the following order. Towards the *Museum Ashmoleanum* 60, on the right of the chapel 6, left of the chapel 7, and on the wall next to the printing-house 92. Prideaux, it is true, only describes 150 as far as I can remember, but he omitted several busts on which there is no inscription.[72]

On August he visited the laboratory at the Ashmolean after attending a lecture on bone structure given in English by Dr Lavater:

The place which has been allotted to him for this *cursus anatomicus* is under the Ashmolean, a small vaulted room behind the *laboratorium*, very well suited for anatomy on account of the low temperature. After the lecture was over, he had intended to see the *laboratorium*, all the more so because we could ask Dr Lavater to explain everything and especially to show us the use and purpose of everything; but he excused himself on the plea that he could not know what everything was for. . . . But to return to the *laboratorium*, I must admit that it is very well built. It is as long or as deep as the Ashmolean though not so wide. It is vaulted throughout and fitted with many really curious furnaces with architectural and other embellishments of the most costly description, most of them planned by Boyle.

It should be remarked that this *laboratorium* was much used by the Royal or London Society in its early stages, when it was in its most flourishing state, and many valuable experiments and discoveries were made here. But after the Society had become proud and great and had established itself in the capital, as usually happens, it deteriorated, and this shall be told in its proper place.[73] At the same time, it is lamentable that, after the Society had changed to London for good, this excellent *laboratorium* has not been maintained in the condition so praised by Benthem, p. 350 seq.[74]

The present Professor of Chemistry, Richard Frewyn, troubles himself very little about it. The operator, Mr White (who is said to be very much debauched) still less. The result is that the furnaces look entirely uncared for, though, as mentioned above, they are still fairly intact and not only are the finest instruments, crucibles and other things belonging to the place almost all of them lying in pieces, but everything is covered in filth. Who could imagine that so fine and worthy an undertaking should receive so little attention? Indeed who would believe such a thing of England, which we foreigners hold so much in awe that we believe all subjects, and chemistry in particular, to be passing there through a golden age? Is it not marvellous that Gottfried in

[70] Prideaux 1676.

[71] Archbishop Gilbert Sheldon of Canterbury (1598–1677).

[72] Von Uffenbach 1753–4, 3. 97–8; Quarrell and Quarrell 1928, pp. 9–10.

[73] See von Uffenbach 1753–4, 2. 545–52; Quarrell and Mare 1934, pp. 97–103.

[74] See Bentham 1694, pp. 350–1; Quarrell and Quarrell 1928, pp. 37–8.

London, a German by birth, and a Venetian Jew, also in London have far finer and better *laboratoria* than the Royal Society and the Apothecaries who have such a high reputation especially in Kew near London and elsewhere.[75]

Uffenbach was not alone in detecting signs of neglect. On 9 June 1711, Hearne noted that Dr Richard Middleton Massey had donated to the Bodleian Library 'divers things also formerly in the *Muséum Ashmol*, but he complains yt he cannot find them; & indeed several other things are there Missing'.[76] By the middle of the eighteenth century Dr Rawlinson complained, on 7 February 1753, 'how ill your natural curiousities had been preserved in the Museum & that the famous Tredescants Collection was much the worse for wear, and ever worse if possible by the conduct of some Keepers and their understrappers'.[77] Rawlinson was describing the keepership of Dr George Huddesford, President of Trinity College, a man according to Hearne 'reported to be tinged with ill principles', and whose election in 1732 appeared highly irregular, having the 'very pernicious consequence' of turning Sir Hans Sloane against the university.[78] Gough wrote in 1780 that 'Nothing can equal the negligence with which the Ashmolean Museum was kept. The librarian being one of the Heads [of a College] put in a scholar for 5*l.* who made a perquisite of shewing the curiousities, which lay in the utmost confusion. Lhwyd's fossils were tumbled out of their papers, and nobody regarded or understood them till his catalogue of them was republished by Mr Huddesford the late librarian, son of Dr Huddesford'.[79]

William Huddesford in fact proved more conscientious than his father, and his keepership (1755–72) saw several important additions to the museum's collections including a collection of crystals, minerals, and metallic bodies from Cornwall given by William Borlase in 1758.[80] It was no doubt as a measure of reform that the Visitors of the Ashmolean decided on 8 January 1755 that a number of damaged or decayed specimens should be removed from the museum.[81] In this they were invoking clause 8 of the statutes of 1686 (see p. 54), though there is no evidence that they made any attempt to replace the specimens removed with new ones. In the case of the dodos they were in any event too late, for the species was extinct.[82] One of them had come from the Tradescant collection in Lambeth, where it was catalogued in 1656,[83] and noted by the naturalist John Ray: 'We have seen this Bird dried, or its skin stuft in Tradescant's Cabinet'.[84] The other was probably that mentioned by T. Crossfield on 15 July 1634 in his diary when discussing the activities of 'm^{r} Gosling, sometimes schollar to m^{r} Camden, Engineer who bestowed the Dodar (a blacke Indian bird) upon ye Anatomy Schoole'.[85] Of these two specimens a charred skull and bones of the foot remain in the University Museum, Parks Road, Oxford (see No. 419).

[75] Von Uffenbach 1753 4. 3. 136 9: Quarrell and Quarrell 1928, pp. 36 8.

[76] Doble 1889, 3. 174.

[77] Bod. Lib. MS Rawl. C.989, f. 188.

[78] Salter 1921, p. 31.

[79] Gough 1780, p. 134, note *p*. Such neglect was not unique, for Pennant (1771, p. 53) notes that at Edinburgh University 'The *Musaeum* had, for many years, been neglected; but, by the assiduity of the present Professor of natural history, bids fair to become a most instructive repository of the *naturalia* of these kingdoms.'

[80] See Microfiche 1.

[81] Gunther 1925, p. 361.

[82] The specimens had at least been recognizable as late as 1749, when Pointer (1749, p. 157) noted the presence of 'Dodar-Birds, one of which watches, whilst the other stoops down to drink'.

[83] Tradescant 1656, p. 4.

[84] Ray 1678, pp. 153 4, pl. XXVII.

[85] Queen's College Library, Oxford, MS 390, Diary of T. Crossfield.

Neglect must have resumed in the later years of William Huddesford, or during the keepership of his successors, for nothing appears to have been done with Borlase's collection, no specimens of which survived into Gunther's day, when, furthermore, only two out of nearly 1,800 fossils collected by Lhuyd, Plot, and Lister could be found. As Gunther commented, 'Borlase might as well have sent his treasures to Twickenham to add to the decorations of his friend Pope's grotto'.[86] The museum was not thoroughly reorganized until the appointment of John Shute Duncan in 1823, when the collections were redisplayed following the plan of Dr Paley's Natural Theology. The work of J. S. Duncan and his brother P. B. Duncan, who succeeded him as keeper in 1825, enshrined in the first printed catalogue of the Ashmolean Museum collections published in 1836, marks a watershed in the history of the Ashmolean, anticipating the end of its function as a centre of scientific teaching and research as conceived by Ashmole, Plot, and Lhuyd.

[86] Gunther 1925, p. 223.

COLLECTORS AND COLLECTIONS OF RARITIES IN THE SIXTEENTH AND SEVENTEENTH CENTURIES

Arthur MacGregor

Prior to the sixteenth century, collections amounting to what we should now call museums were unknown.[1] Certainly there were royal treasuries in every country of Europe, containing regalia alongside precious vessels, plate, coins, and gifts from foreign princes and dignitaries which, had they been publicly displayed, would have formed very splendid exhibitions. The idea of public exhibition was, however, as foreign to the curators of these treasure-houses as it was to those responsible for their enrichment.

Among the later medieval secular princes, Jean de France, Duke of Berry (1340–1416) was an exception to this general rule. Schlosser has drawn a contrast between the activities of Jean's brothers, who all possessed immensely richer treasuries and were lavish patrons of the arts, and those of the Duke of Berry himself, generally recognized as the forerunner of the great princely collectors of the Renaissance.[2] His taste embraced antique coins, sculpture, and vases, which he procured via agents dispatched to Italy specifically for this purpose, and paintings which he acquired through a dealer (one of the earliest recorded examples of such a person). Engagingly, the scope of his collecting activities extended beyond aesthetic refinement to include some of the elements which were to become commonplace in bourgeois collections of the succeeding two centuries, articles which to the modern eye approach the category of bric-à-brac, but which were then held to be truly rich and strange: whales' teeth, ostrich eggs, and coconuts lay next to the horn of a unicorn, and the entire Gospel of St. John could be seen written on a piece of paper smaller than a silver coin.[3]

While Jean de Berry's collection was amassed with the intention that it should be contemplated and enjoyed, those admitted to see it must have been few. A greater degree of public accessibility was afforded by other collections which grew up within certain medieval cathedrals and churches, some of which, notably at Saint-Denis,[4] were fabulously rich. Religious houses were also repositories of large numbers of relics, objects which were enthralling not only for their saintly associations but also for the rich mounts or shrines with which they were often invested. From an inventory of St. Omer, dated 1346, it can be seen that purely secular objects capable of inspiring public awe could also

[1] Certain Roman period collections are admittedly remarkably similar to their Renaissance counterparts. The Renaissance taste for collecting, however, does not appear to stem from emulation of classical forerunners.

[2] Von Schlosser 1908, p. 23.

[3] Taylor 1948, pp. 50 f.

[4] For the treasures of Saint-Denis see Fezensac 1973; id. 1977; Fezensac and Gaborit-Chopin 1977.

find their way into these collections: as well as a drop of the Virgin's milk and a fragment from a martyr's shroud, St. Omer boasted a crystal goblet from King Solomon's temple, griffins' eggs, giants' bones, and 'thunderstones'.[5] At special festivals associated with some German medieval cathedrals, the contents of the treasuries were periodically placed on public display, commonly on a seven-year cycle. From the descriptions which survive[6] it is clear that there was a similar mixture of holy and secular objects and that these occasions had enormous appeal.

In England too, churches and cathedrals formed a focus for the kind of public appetite now catered for by museums. In addition to the richness of stone and wood carving, stained glass, plate, and relics, the public could occasionally wonder at objects of purely secular significance: Stow records seeing in St. Lawrence Jewry 'the shanke bone of a man (as it is taken) and also a tooth of a very great bignes hanged up for shew in chaines of iron uppon a pillar of stone', and mentions that in the cloister of St. Mary Aldermanbury 'is hanged and fastned a shanke bone of a man (as is said) very great and larger by three inches and a halfe than that which hangeth in St. Lawrence Church in the Jury, for it is in length 28 inches and a halfe of assisse'.[7]

In the course of the sixteenth century the secularizing influence of Protestant strictures on the veneration of relics coincided with a dramatic increase in the flow of exotic material reaching Europe from the New World and from the Orient, producing a climate in which private collections could grow and flourish. By the end of the century there were in England a sufficient number of them to attract the attention of less scrupulous dealers and the irony of the sceptical: Thomas Nashe writes of these gullible magpies that 'a thousand guegawes and toyes have they in their chambers, which they heape up together, with infinite expence, and are made beleeve of them that sell them, that they are rare and pretious thinges, when they have gathered them upon some dunghill'.[8] Whatever the critical shortcomings of the 'wise Gentlemen of this musty vocation', they stood at the threshold of England's 'museum age'. Their activities and those of their seventeenth-century heirs did not, however, take place in isolation from the rest of Europe, for the same processes can be traced from the Mediterranean to Scandinavia.

In Italy collecting gratified the nobility's educated tastes and fondness for rich display, and its origins owed much to their interest and involvement. The well-developed system of patronage which extended from the princely courts to the principal artists and intellectuals of the day also aided the development of scholarly collections which formed an essential part of the activities of natural scientists and others. Mechanical wonders, applied arts, and antiquities were also to be found in Italian collections of the sixteenth century. Contemporary painting and sculpture, however, tended to be separated from these more prosaic items in a manner which was not to be emulated in northern Europe until the later part of the following century. Apart from this feature, much can be found in common between the earliest Italian collections and those in the north, which drew from them at least some of their inspiration. Of particular importance to the development of museological interest in Italy were what have been called 'the

[5] Altick 1978, p. 6.
[6] Wittlin 1949, pp. 91–2.
[7] Stow 1971, i. 275, 291.
[8] Nashe 1910, i. 183.

encyclopaedic efforts of the Medici to capture the essence of the New World'.[9] Cosimo de Medici (1519–74) is known to have obtained South American objects, in some instances via Spain, and under his sons, Francesco and Ferdinand, the scope of the collection was widened to include material from Africa, India, China, and Japan. Natural history specimens were added, and, to an increasing extent, antiquities. However, by the time the Treasure-House or *ceimeliarcha* of the Medicis was visited by Evelyn in 1644, its character was predominantly that of an art-historical collection: Evelyn saw there 'hundreds of admirable Antiquities, Statues of Marble & Mettal, Vasas of Porphyry . . . Pictures . . . of the famous Persons & Illustrious men, whither excelling in Arts or Armes to the number of 300'.[10] Many smaller precious items were disposed within and upon richly ornamented cabinets, while some remnants of the formerly more mixed character of the collection were to be distinguished in the armoury: here were 'many antique habits, as that of Chineze Kings, the sword of Charlemain: an Italian lock for their wanton Wives or jealous Husbands . . . such rare tourneries in Ivory, as are not to be describ'd for their curiosity'.[11]

Among those to whom the Medicis, to their credit, were patrons, was Ulisse Aldrovandi (1522–1605), a polymath like themselves. In his native Bologna, Aldrovandi was successively Professor of Botany and of Natural History, and was responsible for the founding of a botanic garden in 1567. Compiling an impressive collection of his own, he published thirteen illustrated folio volumes on zoology and mineralogy which were to become standard works of reference for collectors,[12] as well as being of immense scientific value.

The catalogue of another Bolognese museum, that of Ferdinando Cospi, was published in 1677,[13] together with an illustration of its internal arrangements (Pl. CLXXXI), following the example of the similarly illustrated guide to the museum of Francesco Calceolari (*fl.* 1566–86) in Venice.[14] In Naples the collections of Ferrante Imperato (*c.* 1550–1631) reflected its owner's interest in natural history and formed the basis of a publication by him in 1599.[15]

Michele Mercati (1541–93), physician and curator of the Vatican botanic garden, formed a collection there which embraced both natural rarities and antiquities, including mummies and flint implements (whose true significance he was among the first to recognize).[16] While the basis of Mercati's collection was purely secular, it has been suggested that in the galleries of another Roman museum, painted to represent the terrestrial and celestial spheres, Athanasius Kircher (?1601–80) sought no less than to form a microcosm of the entire realm of the intellect and of the spirit.[17] Kircher, a Jesuit priest, wrote widely on science, art, music, and philology; he was particularly well supplied with ethnographic material, sent to him from every part of the known world which had been penetrated by members of his society.[18]

[9] Heikamp 1972, p. 45.

[10] Evelyn, *Diary*, *c.*24 October 1644. The historical paintings are said to have been taken out of the museum of Paulus Jovius.

[11] Ibid., *c.*24–5 October 1644.

[12] Reference to Aldrovandi can be found, for example, in Tradescant 1656 (pp. 10, 12–14, 16–17).

[13] Legati 1677; Murray 1904, p. 89.

[14] Ceruti and Chiocco 1662; Murray 1904, pp. 83–4.

[15] Imperato 1599; Murray 1904, p. 85.

[16] Mercati 1574; Murray 1904, pp. 29, 81.

[17] Bazin 1967, p. 62.

[18] Bonanni 1709, with an illustration of the interior; Bazin 1967, pp. 86–7.

Among the best-known of the private collections formed by the Roman gentry was that of Francesco Angeloni (*ante* 1575–1652). He too received a visit from Evelyn, on whose authority we have it that Angeloni had one of the best collections of medals in Europe, in addition to Roman and Egyptian antiquities, Indian habits and weapons, dried animals, shells, and a 'Sea-mans Skin'.[19]

By the time of Evelyn's Italian tour the establishment of small private museums had become a fashionable pursuit followed by numerous citizens: it has been calculated that by the end of the sixteenth century there were already some 250 *musei naturali* in Italy.[20]

Switzerland was the home of several collections of considerable historical importance. Most famous of these was that of Conrad Gesner (1516–65), successively Professor of Greek at Lausanne and of Physic and Natural History at Zürich. He was a prodigious writer on mineralogy, zoology, and botany, interests which were reflected in the composition of his natural history collection.[21] This collection was acquired on Gesner's death by Felix Platter of Basel (1536–1614), who added it to his already considerable cabinet of art, coins, and curiosities.[22] Basel also claims the earliest municipal museum in Europe, dating from 1671, when the city and the university put on display an important collection which they had jointly inherited from Basilius Amerbach, and which included drawings, paintings, sculptures, and medals. Part of this collection had formerly belonged to Amerbach's father and part to Erasmus. As early as 1578 Amerbach had built a special gallery to house the collection, to which a select number of the public were admitted.[23] By the middle of the seventeenth century the Zürich municipal library also possessed a collection of paintings, scientific instruments, and natural history specimens, gathered together in a cabinet of curiosities.[24]

North of the Alps the influence of the Hapsburgs was as important to the development of collecting as that of the Medicis was in Italy. Their contribution was, however, in the nature of example rather than in patronage, for several members of the imperial family founded collections which were to become models of their type.

The commonly used name for collections of this type was in German *Kunstkammer*, yet works of art as we understand the term (and indeed as it was understood by the Medicis) played only a minor role in them: the alternative terms, *Wunderkammer* and *Raritätenkammer*, more accurately described their character. Wherever paintings and sculpture did occur, they were to be found stored or catalogued along with other 'artificial rarities', and were frequently valued more for content than artistic excellence, particularly those concerning historical subjects. Only in the later seventeenth century was there a general move towards the establishment of specialized art collections.[25]

One of the most renowned collections was that of Archduke Ferdinand of Tirol (1529–95). Ferdinand acquired Schloss Ambras near Innsbruck from his brother, the Emperor Maximilian II, in 1563, and proceeded to fill it with a remarkable collection of rarities of

[19] Evelyn, *Diary*, 10 November 1644; ibid., 13 February 1645.

[20] Bazin 1967, p. 62.

[21] Murray 1904, pp. 24–5.

[22] Ibid., p. 97. The collection, which was dispersed in the eighteenth century, received a visit from John Ray in 1663. At this time it still contained 'a good collection of minerals, stones, metals, dried fish and other natural and artificial rarities . . . disposed in a good method, the names being set to each one' (Ray 1738, p. 85).

[23] Lapaire 1969, pp. 10–11.

[24] Ibid., p. 11.

[25] As, for example, at Dresden under Augustus the Strong (Menzhausen 1977, p. 12).

all kinds. The bulk of the collection was housed in eighteen pine cabinets. Most categories of exhibit found in other collections of the age were represented: there was an impressive array of gold and silver plate (including works by Cellini), bronzes, ironwork (including tools), coins, uncut and worked minerals, alabasters, corals, porcelain, glass, and ivory. One case contained a collection of musical instruments ranging from lutes and zithers to alpenhorns. Arms and armour filled another case. A further special feature of the Ambras collection was its woodcarving, representing one of the principal arts of the Tirol: the collection included an entire series of saints honoured by the Hapsburg house. There were also historical portraits representing emperors from the imperial Roman and German dynasties, the Hapsburgs themselves naturally featuring prominently. The ethnographic collection was well-provided with Far Eastern, African, and American material.[26] Elsewhere in Austria, Karl von Steirmark (d. 1590) had a collection of some importance at Graz. Musical instruments formed a significant element in his cabinet, which also contained a number of Mexican objects.[27]

At Munich, Duke Albrecht V of Bavaria (1528–79), brother-in-law of Ferdinand of Tirol, possessed a most impressive collection. It had been founded by his father, William IV, but was expanded by Albrecht to include some 3,500 items.[28] A patron of music and the arts, Albrecht centred his collection on aesthetics and on antiquities, including some 400 bronzes, mostly collected on a historical basis; hence the quality of his Roman imperial and other busts, for example, was of less concern to him than the completeness of the set. Scherer indeed noted that of almost 200 busts in Albrecht's collection, many were fakes or clumsy restorations, and the majority were misidentified.[29] As well as numerous coins, medals, and gems, which provided further sources of historical interest, the collection included weapons of Turkish and local manufacture, tools, utensils, and costumes. Albrecht's historical bent was again detectable in exhibits such as the costume and sword worn by Francis I when he was captured at Pavia, and other items belonging to the Winter King. Another personal obsession manifested itself in series of plaster casts of deformed limbs and paintings of dwarfs, human deformities, bearded women, and convicted criminals, the latter complimented by an inventory enumerating their crimes – one such person was said to have been wholly or partially responsible for the murder of 745 people.[30] Much of Albrecht's collection was lost in the sack of Munich by the Swedes in 1632.

Rudolf II (1552–1612) established at the Hradschin Palace in Prague one of the most impressive artistic centres of his time. As well as being an outstanding patron, Rudolf built up a truly remarkable collection which has frequently been likened to his own personality in its immense richness and lack of purposeful direction. In it he sought emotional and aesthetic gratification, rather than an expression of scientific order. Paintings predominated: he was said to have had some 800 pictures of high quality, probably the largest collection in northern Europe.[31] Sculpture also formed an important element. If an original work of art which took his fancy could not be bought,

[26] Von Schlosser 1908, pp. 35–72.
[27] Heikamp 1972, p. 8.
[28] Bazin 1967, p. 72.
[29] Scherer 1913, pp. 12–13.
[30] Ibid., p. 19.
[31] Händler 1933, p. 76; Evans 1973, pp. 176–83.

he would have it copied by skilled artists.[32] Curiosities of nature were to be found alongside those of art in the four vaulted rooms which housed the collection: misshapen and weird animals were strangely at home with instruments of magic, alchemy, and astrology, which formed another obsession of this most ambiguous of princes. During the first half of the seventeenth century the collection was very largely dispersed during a succession of disasters: in the calamities of the Thirty Years' War some pieces had to be sold off to meet expenses; fifteen wagon-loads of treasures were carried off to Munich by Maximilian of Bavaria; in 1631 the Saxon occupying forces sent fifty cart-loads to enhance the collections of the Elector in Dresden; and finally much of the remainder was seized by the Swedes in 1648.[33]

Apart from the Hapsburgs, many heads of principalities had their own splendid collections. Among the most important was that of Augustus of Saxony (reigned 1553–86). Augustus's *Kunstkammer* was founded at Dresden *c.* 1560, and by the time an inventory of its contents was drawn up in 1587 by his successor, Christian I, the list filled 317 double pages.[34] The originality and vision which led Augustus to this initiative were manifested throughout the collection. Many of its features were purely practical: implements, tools, scientific instruments, and books were richly represented and formed an important pool of resources for the scholars, scientists, and craftsmen who were at the forefront of Saxony's industrial expansion in the sixteenth century. Surgical instruments were displayed along with lists of sufferers cured with their aid; a cabinet in the form of a stag was provided on one side with an apothecary's chest containing medicaments derived from the stag, along with prescriptions for their use.[35] Protestant mistrust of the representational arts led to their neglect in the earliest Dresden collection and it was only around the middle of the seventeenth century that this aspect came to be developed, though even then exhibits were grouped along with those already mentioned, in traditional *Kunstkammer* style. At Dresden technical virtuosity was more highly prized than abstract aestheticism. Lathe-turned ivories and other pieces were produced to a standard which is hard to match even today. Micro-carving, particularly that carried out on nuts and fruit-stones, was cherished for the skill it expressed. As a result, the lathes, tools, and magnifying glasses associated with the production of these objects were equally venerated in the collection and frequently were themselves provided with ornately worked mounts. In the same manner as the Italian collectors venerated artistic objects, the technical wonders of the Dresden collection were invested with an almost mystical significance, gained from the belief that as expressions of complex mathematical principles they reflected something of the divine principles on which the entire universe depended.[36] Natural rarities were also represented in Augustus's museum: alongside unicorn and rhinoceros horns there was an impressive collection of minerals, including a collection of emeralds found occurring naturally in the Indies.[37] The whole collection of rarities was housed in a series of attic rooms above the Elector's living-quarters in the

[32] Von Schlosser 1908, p. 78.
[33] Ibid., pp. 78–82; Händler 1933, pp. 68–76.
[34] Menzhausen 1977, p. 12.
[35] Scherer 1913, pp. 23, 27.
[36] Dr J. Menzhausen, personal communication. I am grateful to Dr Menzhausen for discussion of this aspect of the Dresden *Kunstkammer*.
[37] *Zeitschrift für Museologie und Antiquitätenkunde* 2, no. 2 (1879), p. 9.

Dresdener Residenz Schloss. Under Augustus the Strong (reigned 1697–1733) the importance of the *Kunstkammer* was reduced in favour of a series of more specialized collections, particularly the famed 'Green Vaults' where masterpieces of applied art were displayed in a series of mirror-lined rooms. Fine arts were given their due prominence in separate galleries at this time. Large parts of the seventeenth-century collections of paintings, scientific instruments, and applied art can still be seen in Dresden today.

At Kassel the collection founded by Elector Wilhelm IV (1567–92), containing both natural and artificial rarities, attracted widespread interest. Among its admiring visitors were von Uffenbach, who particularly noted two stuffed human skins, one of them a most realistically preserved army deserter.[38] In the early years of the following century, by which time the collection had been inherited by Wilhelm's son, Moritz the Learned (1572–1632), the young Ole Worm (see p. 80) also visited it and may have been influenced by what he saw in the formation of his own collection in Copenhagen.

At Heidelberg the Elector Karl Ludwig (1632–80) founded a cabinet which he added to by purchases of coins and other antiquities from Italy.[39] John Ray was impressed both by the collection and by the Elector's understanding of it: on a visit to Heidelberg in 1663, he records that 'after dinner his highness was pleased to call us into his closet, and shew us many curiosities, among others . . . a purse made of Alumen plumosum . . . two unicorn horns each eight or ten foot long . . . an excellent and well digested collection of antient and modern coins and medals of all sorts, in which the Prince himself is very knowing'.[40] In 1685 Lorenz Beger, librarian and antiquary to the Heidelberg electors, published an account of the collection.[41] The same year saw the death of Karl II, who left the collection to the Elector of Brandenburg. Beger, who was charged with the task of delivering the collection to its new owner, was taken into employment by him as counsellor and librarian, with charge of the combined collection at Berlin.[42]

The earliest collections of the Electors of Brandenburg, amassed during the sixteenth century, were entirely lost during the period of the Thirty Years' War, together with the inventories of them drawn up in the early 1600s.[43] They were refounded in the seventeenth century under the Great Elector, Friedrich Wilhelm, (ruled 1640–88), perhaps with encouragement from the enthusiastic Johan Maurits of Nassau (see p. 78), who was appointed governor of Brandenburg in 1647. The collections contained a marked number of antiquities, gathered initially from the elector's own territories: Roman finds in particular came from Cleve, some perhaps as a result of excavations carried out by von Heimbach, employed there as official *antiquarius*.[44] They were further enlarged by purchase: the collection of Erasmus Seidel was acquired in 1642 and was later joined by twenty-two sculptures formerly belonging to Gerrit Reynst of Amsterdam (see p. 79), so that by the time a new inventory was made in 1672 the collection boasted sixty-two bronze statuettes, eighty-seven bronze vessels and utensils, ninety-five brooches, 100 gems, numerous vessels of pottery and glass, and other antiquities.[45] To these

[38] Von Uffenbach 1753–4, 1. 13.
[39] Murray 1904, p. 99.
[40] Ray 1738, p. 71.
[41] Beger 1685.
[42] Heres 1977, p. 97.
[43] For accounts of the early history of the Brandenburg collections see Heres 1977 and Hildebrand and Theuerkauff 1981.
[44] Heres 1977, p. 95.
[45] Ibid., p. 96.

were added in 1680 the collections of Hermann Ewich of Xanten.[46] The Elector also had a keen interest in ethnographic material: as Crown Prince he had visited the collection at Leiden (see pp. 78–9) and from there had sent his father some East Indian rarities. After his succession he employed the services of a Dutch army officer named Polemann, stationed in Batavia, to procure numerous weapons and other specimens, including Chinese lacquerwork, ivories, and porcelain.[47] In 1685, with the death of the Elector, the entire Heidelberg collection fell to the Brandenburgian Elector, together with its curator, Lorenz Beger. Finally, in 1698, the collection of the Roman antiquary Bellori was added as a crowning glory.[48] Under Beger's care a massive three-volume inventory was compiled, detailing not only the contents but also the disposition of the Duke's exhibits; it showed that a number of them were scattered around the living-quarters, while others were grouped in a sumptuous *Kunstkammer* (see Pl. CLXXXIII).[49] With its rehousing in three chambers on one of the upper floors of the Berliner Schloss in 1703, the collection reached a climax which was, unfortunately, to be short-lived, for after the accession of the 'Soldier King' (Friedrich Wilhelm I) in 1713, the collection was plundered as a source of revenue (as on one occasion when the best part of the gold medal collection was melted down), or of gifts, notably for Augustus the Strong who prudently preserved them at Dresden.[50]

At the close of the Thirty Years' War, ended by the Peace of Münster in 1648, a new collection was founded at Schleswig by Friedrich, third Duke of Gottorp (1597–1659). Much of the credit for its success is due to Adam Olearius (1603–71), appointed keeper of the ducal library and *Kunstkammer* in 1649. Olearius, a widely travelled Dutch mathematician and astronomer, added a great many ethnographic and other items to the collection, and in 1651 travelled to Holland to oversee the transfer to Schloss Gottorp of the collection of Paludanus, purchased by the Duke after the latter's death.[51] In addition to important collections of Eskimo material from Greenland, there were items from other regions including a necklace of animal teeth and claws from South America (cf. Nos. 14–15), and natural history specimens from South America and Africa: among these were horns of various animals, including bezoar, wild ox, and rhinoceros, and the antlers of elk. A catalogue was published by Olearius in 1666[52] and the collection was eventually annexed to the Danish royal *Kunstkammer* in the mid-eighteenth century.[53]

Elsewhere in Germany collections began to be formed by private citizens, important early examples being the Praun and Imhoff collections, both in Nürnberg.[54] Others had an academic basis, one of the most interesting being that founded by August Hermann Francke (1663–1727) at Halle.[55] Although it was begun only in the last decade of the seventeenth-century, the Francke collection preserved the essentially varied character of earlier German cabinets of rarities. This was at least partly assured by the way in which

[46] Ibid., p. 95.
[47] Scherer 1913, p. 36.
[48] Staatliche Museen zu Berlin, 1973.
[49] Heres 1977, p. 98.
[50] Ibid., pp. 105–6.
[51] Dam-Mikkelsen, in Dam-Mikkelsen and Lundbæk 1980, p. xx. On Paludanus see p. 79.
[52] Olearius 1666.
[53] Dam-Mikkelsen, in Dam-Mikkelsen and Lundbæk 1980, p. xxxiii.
[54] Scherer 1913, p. 41.
[55] Storz 1962; id. 1965.

the collection was built up: its principal contributors were missionaries, many of whom had trained under Francke at Halle and whose activities took them to all corners of the known world. The collection reflects this: for example, Malabar is represented by a distinct category of *res malabaricae*. The exotic ethnographic material which forms the bulk of this collection was complemented by objects of more local origin and by natural history specimens including minerals, shells, and animals, the latter either dried or preserved in spirits and including a number of deformed specimens.

In Holland the taste for collecting was pursued with no less vigour than in Germany. In Leiden was to be found one of the most dramatic and best-known collections of its day: this was the Kabinet van Anatomie en Rariteiten belonging to the medical faculty of the university.[56] It was housed in a lecture-hall in the form of an amphitheatre, the Theatrum Anatomicum, built within a former church, the Falibagijnenkerk, and completed in 1593.[57] An important element in this collection was formed by the series of skeletons, restored as in life and disposed about the lecture theatre itself (Pl. CLXXXIV).[58] In addition to various animals, ranging from a ferret to a horse, the rearticulated skeletons of a number of notorious criminals could be seen. These included the remains of a sheep-stealer from Haarlem and of a woman strangled for theft; more impressively, one could see 'The Sceleton of an Asse upon which sit's a Woman that Killed her Daughter' and also 'The Sceleton of a man, sitting upon an ox executed for Stealing of Cattle'.[59] Four human skins, including one of a 'Molacca Woman above 150 Yeares old' were also displayed here.[60] During the summer months, when the anatomy hall was open to the public, two skeletons formed a set-piece on the centre of the dissecting-table, symbolizing Adam and Eve on either side of the Tree of Knowledge. These exhibits were not merely of anatomical interest: they symbolized the transience of human life, a point emphasized by the pennants bearing moralizing inscriptions carried by several of them, while Adam and Eve alluded to the awful consequences of original sin.[61] Other human and animal remains were displayed on the beams above the theatre and in various chambers and cupboards in other parts of the building. Of particular interest were many specimens of natural history from China, Africa, India, and the Americas,[62] the latter mostly originating from the Brazilian expedition of Count Johan Maurits of Nassau.[63] Numerous ethnographic specimens on display included material from the Americas, the Far East, Africa, Scandinavia, and Russia.[64] Antiquities were also represented here, including a series of mummies and shawabtis from Egypt and Roman antiquities from Nijmegen.[65] Paintings included a series illustrating the Four Humours and various portraits including one of Rudolf II;[66] there were also exhibited

[56] A. Klasens, 'Universiteit, Universitaire Collecties, Musea' (MS of oration delivered to University of Leiden, 1970. University of Leiden Library, A 10 3206).

[57] Scheurleer 1975, p. 217.

[58] Such animated skeletons achieved widespread popularity following the publication of Vesalius's illustrated *Fabrica* (Heckscher 1958, n. 179). They also made an impact on contemporary painting, as in Salvator Rosa's *Humana Fragilitas* (Fitzwilliam Museum, Cambridge: Salerno 1963, p. 110, Tav. XV).

[59] Witkam 1980, p. 39.

[60] Ibid., p. 42.

[61] Scheurleer 1975, pp. 221–2.

[62] Barge 1934, p. 57.

[63] Whitehead 1979, pp. 430–1. Johan Maurits was Governor-General of Brazil for the period 1637–44.

[64] Witkam 1980, pp. 40–2.

[65] Schneider, in Rijksmuseum, Amsterdam, 1975, pp. 113–22.

[66] Barge 1934, pp. 43–4.

moralizing engravings alluding, like the skeletal exhibits, to the transience of life.[67] So popular did the anatomy school display become that successive editions of catalogues in a variety of languages were produced almost annually: over sixty editions are known, but the total number may have run into hundreds.[68]

A second museum in Leiden, situated in the Physic Garden, was visited by Dr Edward Brown in 1668, who found there 'many natural and artificial curiosities, and many sorts of optic glasses',[69] and later by Northleigh,[70] who describes and discusses several natural history specimens.

Older than both these Leiden collections was that which the physician Bernard Paludanus (Berent ten Broecke) (1550–1633) compiled in his native Enkhuizen. Paludanus had been a student at Padua and had travelled widely in the Levant and in Egypt. Some rarities in his collection originated in those travels, but others were acquired from travellers and merchants, most famous among whom was Jan Huygen van Linschoten, who worked as an agent of the Portuguese in India. From him Paludanus received examples of oriental writing-materials and other items.[71] Among the many visitors to Paludanus's cabinet was Duke Friedrich I of Württemberg (ruled 1593–1608). The Duke's secretary, Jakob Rathgeb, compiled a descriptive inventory of the collection during their visit in 1592 and eventually published an account of it.[72] From this we learn that it comprised some eighty-nine cabinets and chests of carefully identified minerals, plants, animals, and birds, together with arms, costumes, ivories, and other artificial rarities from China and from the East and West Indies.[73] Following Paludanus's death, part of his collection went to the anatomy school in Leiden,[74] but the bulk of it was bought for the collection at Schloss Gottorp.

Amsterdam was the home of a number of important private collections, no doubt encouraged by the many commercial links which developed during the sixteenth and seventeenth centuries between the Netherlands on the one hand and the Americas and East Indies on the other. The Reynst brothers for example were the sons of a wealthy shipowner who had made a fortune in trading with the Indies. The fame of their cabinet of rarities stemmed less from oriental objects, however, than from its incorporation of the collection of the Venetian doge, Vendramin.[75] Another well-known Amsterdam collection was amassed by Jacob Swammerdam (1606–78) and his son Jan (1637–80); the father was a druggist and the son a qualified physician, although ill health prevented him from practising.[76] From a sale catalogue prepared after the death of the younger Swammerdam we learn that the collection was composed approximately of one-third natural history specimens, one-third artificial curiosities, and one-third coins.[77] The

[67] Schleurleer 1975, pp. 223–4.

[68] Witkam 1980, p. vi and *passim*. See also descriptions by Evelyn (*Diary*, 28 August 1641) and Northleigh (1702, pp. 36–8).

[69] Brown 1677, p. 6.

[70] Northleigh 1702, pp. 31–6.

[71] Lach 1970, pp. 20–1.

[72] Rathgeb and Schickhart 1603; see also Lack 1970, pp. 20–1. The published account deals in detail only with natural curiosities, but a manuscript catalogue in the Royal Library, Copenhagen (Gl.k.S. 3467, 8) includes *artificiosa*: an account of this manuscript has recently been published by Dr H. D. Schepelern (1981).

[73] Hunger 1928, pp. 360–1.

[74] Paludanus had earlier been offered a professorship at Leiden on condition that he should bring with him his collection of rarities: see Hunger 1928, p. 360.

[75] Bazin 1967, p. 83. On Vendramin see Wittlin 1949, p. 83.

[76] Engel 1939, pp. 320–1. The elder Swammerdam is recorded as a benefactor of the Royal Society (Grew 1681, p. 5).

[77] Murray 1904, p. 111.

Indian curiosities of Matthys de Boer were sufficiently renowned to attract a visit from Cosimo de Medici in 1667.[78] By the end of the century there were in the region of sixty zoological cabinets alone in the Netherlands, some of which changed hands for large sums of money: after acquiring the cabinet of Albert Seba (1665–1736) in 1717, the Czar of Russia paid 30,000 florins for the anatomical and zoological collections of Frederik Ruysch (1638–1731).[79]

In Denmark two important collections eclipsed all others, namely those of Ole Worm and of the royal household in Copenhagen. Worm (1588–1654) has been justifiably compared in museological importance with Aldrovandi and Gesner.[80] His formal education included the study of philosophy, theology, and medicine at the universities of Marburg, Giessen, Strasbourg, and Basel. While in Basel, he may have seen Gesner's collection, by then in the possession of Felix Platter. More certain are his recorded visits to Ferrante Imperato in Naples in 1609 and to Paludanus in Enkhuizen in 1610.[81] During 1611 he spent six weeks at Kassel, where he became well acquainted with Moritz the Learned's *Kunstkammer*.[82] The collection which Worm eventually formed in Copenhagen (Pl. CLXXXV), where he became successively Professor of Latin and of Medicine, is of interest not only for its content but also for its utilization as a source of reference material in Worm's medical treatises and as a teaching aid.[83] It has been suggested that the foundation of the collection was rooted in an attempt to realign the basis of scholarship from a speculative to a practical and demonstrative basis, somewhat akin to English Baconian principles.[84] A summary catalogue of the collection, dated 1642, was followed by a more sumptuous volume published the year after Worm's death, which also contained an exposition of his museological theory.[85] From this catalogue we learn that the collection included fossils, plants of general as well as medicinal interest, animals (including sawfish, 'sea unicorns', and parts of mermaids), Egyptian and other antiquities,[86] and ethnographic material. Many additions came in response to the publication of the 1642 summary catalogue, while others were gifts from students, notably Icelanders.[87] The reputation of the collection was enormous: a contemporary source[88] recounts that 'many royal persons and envoys visiting Copenhagen ask to see the museum on account of its great fame and what it relates from foreign lands, and they wonder and marvel at what they see. As evidence of having seen it they testify with their own hand in a book remaining with him.' After Ole Worm's death his son Willum (1633–1704) appears to have had no ambition to maintain the collection on a private basis and therefore, under provision of the will, it passed to the royal cabinet.[89]

Although some interest in collecting had been manifested by earlier monarchs, credit

[78] Engel 1939, p. 259.

[79] Engel 1939, no. 727. One of Ruysch's macabre anatomical exhibits is reproduced by Whitehead (1971, fig. 35). Both collectors went on to build up important new cabinets after the sale.

[80] Schepelern 1971, p. 369.

[81] Ibid., p. 371.

[82] Ibid., pp. 371–2.

[83] Ibid., p. 367.

[84] Cf. ibid., p. 382; it seems, however, that Worm was unaware of Bacon's work.

[85] Worm 1655, *passim*.

[86] Worm also occupies an important place as the founder of antiquarian and runological studies in Denmark.

[87] Schepelern 1971, p. 376.

[88] Quoted by Dam-Mikkelsen in Dam-Mikkelsen and Lundbæk 1980, pp. xix–xx.

[89] Ibid., p. xxxiii.

for the foundation of the Danish royal *Kunstkammer* must go to Frederik III (1609–70).[90] Frederik's upbringing had been directed towards a career in the Church rather than on the throne; hence he absorbed more scholarship than the average monarch. He travelled in the Netherlands and in France from 1628 to 1630 and served as Archbishop of Bremen between 1634 and 1644, during which time he was exposed to the mainstreams of European taste in which collecting was now thoroughly fashionable. A further impetus came in 1645 when he was installed as governor of Schleswig-Holstein, just as his cousin, the third Duke of Gottorp, was planning his *Kunstkammer* at Schleswig. Within five years Frederik had acceded to the Danish throne and had begun his own collection which, by 1653, already occupied several rooms in the royal palace: a later inventory mentions that one room contained natural rarities, another art objects, and another guns; there were also cabinets of mathematical instruments, medals, East Indian objects, and architectural models. It quickly became overcrowded with acquisitions, notably the entire Worm collection which arrived in 1655, and was eventually transferred in the late 1670s to the upper floor of a new building, designed to house the collection along with a library and an arsenal. An illustrated catalogue was published in 1696,[91] and later inventories of the early eighteenth century demonstrate continuing expansion, culminating in the absorption of the Gottorp collection *c.*1750.

The interest taken by the French royal court in collecting exotic ethnographic material can be traced from the time of the three exploratory voyages to North America carried out between 1534 and 1541 by Jacques Cartier (1491–1557). Cartier brought back to François I not only tales of his discoveries but also physical evidence in the form of weapons, clothing, and even Indians.[92] The idea quickly developed that these 'nouvelletez' should be housed together, and subsequently they were placed under the control of the Cosmographer Royal, André Thévet (1502–90).[93] Thévet had himself already made a successful expedition to Brazil and was responsible for introducing to the collection a number of items from that area, including a wooden club and a feather cape. Towards the end of the century, Jean Moquet, apothecary to Henry IV, was placed in charge of a 'cabinet de singularitez' which was installed at the Tuileries, and in his dual capacity made several transatlantic voyages in search of both plants and rarities.[94] All the surviving material from these earlier collections was in turn transferred to the Cabinet du Jardin des Plantes Medicinales,[95] established in 1633 by Louis XIII, and there they remained for the entire seventeenth century, largely subordinated to the interests of the apothecaries whom the garden and the collection principally served.

Among the nobility were some who took a more positive interest in collecting. A remarkable collection was possessed by the Duke of Montmorency (1493–1567), and is well known from inventories compiled in 1556, 1560, and 1568.[96] Its composition reflected vividly the interests of its owner. In keeping with his distinguished military career, weapons were particularly well represented: they included English, Spanish, and

[90] This account of the Danish royal *Kunstkammer* is based on Dam-Mikkelsen in ibid., pp. xix–xxxiii.
[91] Jacobæo 1696, *passim*.
[92] Fardoulis 1979, pp. 16–19.
[93] Ibid., p. 17.
[94] Ibid., p. 18.
[95] Ibid., p. 19.
[96] Mirot 1920, *passim*.

Turkish bows; crossbows; English, German, and Turkish swords; pikes, halberds, and even Brazilian clubs. Similarly, there were many large diagrams and charts illustrating military formations, sieges, naval battles, and fortifications, and a large collection of maps. Montmorency had also a collection of paintings of kings, emperors, and other notables, and a magnificent library concerned with history, genealogy, heraldry, military matters, and navigation.

From the following century the collection of Gaston, Duke of Orleans (1608–60) may be singled out. His collection of coins and medals,[97] which eventually formed the basis of the Cabinet du Roi, was seen in 1644 by Evelyn,[98] who also admired the Duke's 'incomparable collection' of shells and agates. On Evelyn's authority we have it that the Duke was very knowledgeable not only in medals but also in plants, so that 'nothing of that kind escapes him'. This latter interest led him to found a botanic garden at Blois as a compliment to his natural history collections, which were eventually bought in 1660 by Colbert and which were to form the foundation of the Cabinet d'Histoire Naturelle.[99]

Among the earliest of the French bourgeois collections was that of Bernard Palissy (1510–90), the Huguenot potter and philosopher.[100] As well as enamels and pottery, in which he was a craftsman and innovator (see Nos. 214–16), Palissy's collection included by *c.*1575 a wide range of natural history specimens on which he partly based his philosophical views. His large shell-collection contained foreign as well as local varieties, and fossils were also richly represented. One of Palissy's particular interests was petrifaction, the basis of which he discussed: no doubt his interest was fuelled by the tales he records of whole companies of men and animals and even entire villages turned to stone.[101]

Petrifactions were also well represented in the cabinet of Jean Savaron (1566–1622), including a snail, an egg, a mushroom, several nuts and fragments of wood, and an antique salt-cellar with the salt still in it.[102] More important, however, were his collections of medals in bronze and precious metals: over 7,000 are mentioned,[103] representing kings, emperors, popes, consuls, and other historic persons.

The most considerable French collector of the early seventeenth century was undoubtedly Nicolas-Claude Fabri de Peiresc (1580–1637), a councillor in the parliament of Aix-en-Provence and an authority on natural history, astronomy, antiquities, numismatics, and linguistics.[104] He maintained agents in Asia, Africa, and the Americas, who kept him supplied with a stream of fresh material. One of these, named Samson, acquired a collection of classical statuary which would have formed the crowning glory of Peiresc's collection had it not gone astray at Smyrna, eventually to be purchased there for the Earl of Arundel (see p. 84).[105] From another agent, a Franciscan friar who was dispatched on two occasions to the East, came large numbers of manuscripts, coins, antiquities, and natural history specimens.[106] Indeed it was said that hardly a ship entered a French port without some strange animals, exotic plants, antique

[97] Murray 1904, pp. 91–2.
[98] Evelyn, *Diary*, 1 April 1644.
[99] Murray 1904, p. 92.
[100] Morley 1852, pp. 86–7; Murray 1904, p. 90.
[101] Morley 1852, pp. 175–6.
[102] Vernière 1892, pp. 60–2.
[103] Ibid., p. 62.
[104] Bonnaffé 1884, pp. 245–7; Bazin 1967, p. 87.
[105] Bonnaffé 1884, p. 245.
[106] Murray 1904, p. 91.

sculptures, inscriptions, manuscripts in Coptic, Arabic, Hebrew, or Chinese, or fragments of antiquity unearthed from the Bosphoros or the Peloponnese, which was not destined for Peiresc.[107] Surrounded by these treasures in his mansion at Aix, which also contained a remarkable library and an observatory, Peiresc carried on a correspondence with leading artists and scholars, including Rubens, William Camden, and Sir Robert Cotton.

Peiresc's contemporary, Paul Contant (*c.*1572–1632), combined a professional interest as an apothecary with a taste for natural and artificial rarities which led to his founding a botanic garden with a cabinet of natural history in his native Poitiers. A catalogue of this collection was published with the title of *Le Jardin et Cabinet Poétique de Paul Contant*,[108] but its somewhat fanciful character belies the seriousness of Contant's pursuits, which took him on several extended journeys through France, Germany, and Italy, visiting established cabinets and building up his own. In the process he acquired a number of zoological specimens including a sawfish, a swordfish, and an armadillo, together with several deformed specimens and others of fabulous nature such as a dragon and a remora (see p. 93). The Contant collection was not merely of natural history, however, including also much ethnographic material such as clothing, weapons, and a canoe, the latter eulogized in the catalogue.[109]

Pierre Borel (1620–71) of Castres also deserves attention, not only for his natural history collection (which included relics of giants and unicorns, rare herbs such as tea, and also powder to turn water into wine), but also for the list of over 200 contemporary cabinets which he published in his catalogue.[110] In addition to the location of each cabinet, together with the name of its owner, this guide gives some instances of particular specializations: hence under Paris are listed collections famed for antiques (those of the King and the Duke of Orleans), antiquities (M. Gau), flowers and shells (including that of M. Robin, surgeon), plants (including that of the three Messieurs de Morin)[111] and some sixteen others, mostly specializing in painting and ranging from 'le petit patissier vis à vis de S. Germain' to the abbots of Saint Ambroise and Lumagne, and M. Feydeau, canon of Notre Dame.

An important collection founded with predominantly academic aims towards the end of the seventeenth century was housed in the library of the abbey of Saint Geneviève. In the preface to a catalogue of this collection published in 1692, its creator, Father Claude du Molinet, explains that he strove to collect and to exhibit only items which would be of value in the study of the sciences: astronomy, mathematics, and, above all, history, whether natural, ancient, or modern.[112] The collection quickly grew to an impressive size, helped by the fact that it incorporated the bulk of the former Peiresc collection. Facing the entrance to the Sainte Geneviève collection was an alcove containing examples of foreign clothing and weapons, principally Persian, Indian, and American, above which were three tiers of urns, figures, lamps, and other antiquities (Pl. CLXXXVI). By the alcove were two cupboards with shelves full of exotic birds, animals,

[107] Bonnaffé 1884, p. 245, quoting Naudé.
[108] Contant 1609.
[109] Ibid., pp. 68–9.
[110] Borel 1649, pp. 124–31.
[111] Cf. vol. 2, p. 132, n. 3 of de Beer's edition of Evelyn's *Diary*.
[112] Du Molinet 1692, preface.

and petrifactions, together with ornaments and footwear from various countries; above were a further two shelves displaying Chinese vases and figures, and various sorts of coral. Other cabinets disposed about the gallery held respectively large numbers of medals, coins, weights and measures, scientific instruments, intaglios, deities, and various other antiquities, while rare animals, birds, and fish stood on and under cupboards. Around the walls were portraits of kings of France. Lister found plenty to admire there during a visit in 1698,[113] though nothing pleased him more than the opportunity of seeing what remained of Peiresc's collection. By this time there were many cabinets in Paris to attract the visiting savant: Lister particularly mentions those of Boucot, Morin, Butterfield, and Tournefort;[114] the latter is also singled out for mention by Brice, along with the natural history cabinet of the brothers Geoffroy.[115] Further information on these and other collectors in seventeenth-century France is given by Bonnaffée.[116]

Seventeenth-century British cabinets of rarities were almost exclusively in the hands of the wealthy middle classes or of academic institutions. There seems to have been little taste for them among the nobility, who were essentially collectors of fine art. A royal coin-cabinet was formed in 1609–11, however, under the influence of Sir Robert Cotton (whose own interests were more particularly centred on manuscripts and inscriptions),[117] and Charles I acquired in 1627 the entire Gonzaga cabinet of Mantua, through the intervention of Daniel Nys, a Flemish dealer in Venice.[118] Some part, at least, of Hubert's collection is said originally to have belonged to Charles I.[119] On Lister's authority we know that Charles II received 'many curious presents . . . (as one of shells from the states of Holland many of which I have seen in other hands) but he suffered them all to be dissipated and lost'.[120] Thomas Howard, second Earl of Arundel (1586–1646), dubbed by Horace Walpole the 'Father of Vertu in England', is remembered for his outstanding collections of statuary, engraved gems, paintings, and manuscripts, but showed no recorded interest in rarities. The Duke of Buckingham, one of the foremost arbiters of fashion of his day, was again not primarily interested in this aspect of collecting, although the appeal for specimens written on his behalf by the elder Tradescant (see pp. 19–20), three years before Buckingham's death, implies at least a nascent interest.[121]

As outlined above, the Tradescants' museum was by no means the earliest in London, although it was for a time the best known. A catalogue to another collection of somewhat similar character appeared within a few years of the publication of *Musæum Tradescantianum* and shortly after the death of the younger Tradescant.[122] This gave 'The names of the Rarities that are to be seen at that place formerly called the Music House, near the West End of St Pauls; You may see every afternoon that which hath been seen by those that are admirers of God's works in Nature, with other things that hath been seen by Emperours, Empresses, Kings and Queens and many other sovereign

[113] Lister 1699, pp. 121–3.
[114] Ibid., pp. 57–63, 77, 80, 130.
[115] Brice 1752, pp. 163–4, 381–2.
[116] Bonnaffée 1884, *passim*.
[117] Piggott 1976, p. 12.
[118] Bazin 1967, p. 83.
[119] Murray 1904, p. 127, n. 2.
[120] Lister 1699, p. 58. Lister was at the time describing the collection of Boucot, which contained 'an Hippocampus about 4 inches long; it was given him by my Lady Portsmouth, possibly out of King Charles's collection'.
[121] The cabinet of 'Monsieur le Duc de Bouckingan', listed by Borel (1649, p. 128) was presumably that of the second Duke (1627–87).
[122] Hubert n.d., p. 1: an undated (?earlier) edition of Hubert 1664.

princes.' The collection was quite clearly open to the public, for the catalogue goes on: 'the Gentlemen of these Rarities can show thousands of other rarities of Nature besides the things aforementioned, to those that are more curious, and will be at some more charge: on Mondays & Thursdayes things of the sea; Tuesdays and Fridays things of the land; Wednesday and Saturdays things of sea land and air'. Private parties and foreign ambassadors were catered for 'in three or four tongues'.[123] This collection belonged to one Robert Hubert, alias Forges, and was amassed by him, in his own words, 'with great industry, cost and thirty years travel in foreign countries'.[124] The varied exhibits included a 'sea morce of Greeneland [which] does sleep hanging on the Rocks by the great teeth of the upper jaw', a 'king crab of the Moluccos Island', two sorts of armadillo, and 'a piece of oaken wood turned into jasper . . . that a cardinal had in Rome for a great rarity'. The list of benefactors to the museum is even more astonishing than its contents, including Charles I, Charles II, several members of ruling Scandinavian and German families (some of them, like the Elector of Saxony and the Duke of Holstein, with cabinets of their own), the Duke of Orleans, and Monsieur de Believre, 'Great President of France', university professors from Strasbourg, Heidelberg, Prague, and Utrecht, and physicians in Hamburg, Nürnberg and Augsburg. Among the other names are two which figure among the Tradescants' benefactors: Sir Thomas Roe and Mr Povey, 'Treasurer to His Royal Highnesse the Duke of Yorke'. Not mentioned in this list but credited in the text with former ownership of certain specimens are James I, the King of France, Johan Maurits of Nassau, the Duke of Florence, and Cardinal Richelieu. Clearly Hubert well understood the inherent appeal vested in his collection by its aristocratic associations. Another of Hubert's benefactors, 'Esquire Courtine, a lover of vertue and Ingenuity', was a West Indies merchant with an important cabinet of his own.[125] His son, William Courten (1642–1702), who also adopted the alias Charleton, inherited his debts as well as his collection and as a result was forced to leave the country. For some twenty-five years Courten travelled around Europe on what has been described as 'in effect one long collecting expedition', before returning to England under his assumed name around 1684.[126] His rarities, installed in ten rooms at the Temple, attracted the attention and admiration of scholars as well as society: Ray took a week in 1687 to examine this 'repository of rare and select objects of natural history and art so curiously and elegantly arranged and preserved that you could hardly find the like in all Europe';[127] Evelyn found it in 1690 'one of the most perfect assemblys of rarities that can be anywhere seene';[128] Thoresby judged it 'perhaps the most noble collection of natural and artificial curiosities, of ancient and modern coins and medals, that any private person in the world enjoys . . . there is, I think, the greatest variety of insects and animals, corals, shells, petrifactions, &c. that ever I beheld'.[129] The fact that Thoresby's enjoyment of the collection was interrupted by a visit from the Countess of Pembroke and other ladies from

[123] Ibid., pp. 25–7.

[124] Ibid., p. 27.

[125] Altick 1978, p. 14. He appears also to have been a benefactor to the Tradescant museum (see p. 39).

[126] Ibid.

[127] Raven 1950, p. 229.

[128] Evelyn, *Diary*, 16 December 1686; ibid., 11 March 1690.

[129] Hunter 1830, pt. 1, p. 299. Thoresby valued the collection at some £7,000–£8,000. Courteen eventually bequeathed his collection to Sloane, but also gave natural history specimens to the Ashmolean (see Microfiche 1).

the court is evidence that the collection's appeal extended far beyond narrow specialist circles.[130]

Many less-illustrious cabinets had by now been built up in London, each with a flavour of its own. James Petiver (1663–1718), a wealthy apothecary of Aldersgate, had a particular interest in botany, entomology, and zoology: his collection was augmented by many contacts he maintained in the East and West Indies. In an appeal somewhat akin to that issued by Tradescant, Petiver issued the following statement: 'I humbly entreat that all practitioners in Physick, Sea-Surgeons or other curious persons, who travel into foreign countries, will be pleased to make collections for me of whatever plants, shells, insects & c they shall meet with, preserving them according to directions that I have made so easie as the meanest capacity is able to perform, the which I am ready to give to such as shall desire them'.[131] These 'directions' showed how specimens could be preserved in 'Rack, Rum or brandy'.[132] Petiver was judged to have 'taken great pains to gather together the productions of nature in England, and by his correspondents all over the world procured . . . a greater quantity than any man before him'.[133] Unfortunately, 'he did not take equal care to keep them, but put them into heaps, with sometimes small labels of paper, where they were many of them injured by dust, insects, rain, & c.'[134] Both Petiver (described as 'wretched both in looks and actions') and his collection aroused the displeasure of von Uffenbach: 'Everything is kept in true English fashion in prodigious confusion in one wretched cabinet and in boxes . . . He offers all foreigners who come to him a sample of his collection; but he takes care to ask a vast sum for it, so I declined with thanks'.[135] A series of catalogues of the Petiver collection was eventually published between 1695 and 1717.[136]

The interests of another apothecary and collector, John Conyers, who had premises in Shoe Lane, were different in nature. He was described by Aubrey as possessing 'a world of Antique curiosities' found during excavations in the Ruines of London.[137] He is known to have made records of Roman and other finds made in digging the Fleet ditch and to have observed kilns found under the north transept of St. Paul's, producing drawings of the pottery and descriptions of the stamps encountered.[138] His collections, built up over some thirty years,[139] were reorganized in 1691 and a proposal made to open them 'to such as shall be curious to see them'. Having had a somewhat equivocal judgement passed on them by the Athenian Society, however, Conyers appears to have sold them about two years later.[140]

Part of the Conyers cabinet was bought by Dr John Woodward (1665–1728). Woodward's interests were primarily in minerals, fossils, and shells, his collections of which were ranked among the very best in England. He published a scholarly account of English and foreign fossils and made a particular study of petrifaction. Roman and other antiquities were also represented in his collection. One of these items, an iron shield which

[130] A point noted by Altick (1978, pp. 14–15).
[131] Brooks 1954, pp. 180–1.
[132] Whitehead 1971, p. 52.
[133] Brooks 1954, pp. 179–80.
[134] Ibid.
[135] Von Uffenbach 1753–4, 2. 583; Quarrell and Marc 1934, pp. 126–7.
[136] Petiver 1695–1703; id. 1716–17.
[137] Bod. Lib. MS Top. Gen. c24, f. 244^{v}, quoted in Munby 1977, p. 420.
[138] Ibid.
[139] Murray 1904, p. 135.
[140] Ibid., pp. 134–6.

had previously belonged to Conyers, created a notable controversy among antiquaries who were unable to agree about its age; it brought scorn upon Woodward from many (justified) sceptics, notably Pope.[141]

One of Woodward's contemporaries, Sir Hans Sloane (1660–1753) was to set new standards in amassing what ultimately became the foundation collection of the British Museum. His combination of scientific ability and considerable wealth enabled him to form a collection of some 100,000 specimens,[142] including some 32,000 coins and medals, and 12,500 botanical specimens, in addition to material from the collections of Courten (left to Sloane in a bequest) and Petiver (for which he paid £4,000).[143]

By this time, however, the first institutional museum had already been founded in London under the auspices of the Royal Society, which had gained its charter in 1662. Within a few years of this date the Society's 'Repository' of natural and artificial rarities was being formed at Gresham College, taking the form of 'a theatrical building resembling that of Leyden in Holland'.[144] The acquisition in 1665 of a ready-made collection, purchased for £100 from a certain Mr Hubbard, soon put it on a firm footing, while donations from individual members ensured its continuing growth. Murray recognized that 'Mr Hubbard' was almost certainly Robert Hubert (see pp. 84–5) and pointed out several points of coincidence between Hubert's catalogue and that of the Royal Society collection published in 1681 by Nehemiah Grew (1628–1711), a botanist and physiologist.[145] The performance of scientific experiments and the compiling of rarity cabinets were twin pursuits which appealed equally to the early members of the Royal Society, interests which were reflected in the character of the museum. Grew's catalogue combines descriptions of 'artificial matters' with those of animals, plants, and minerals, encompassing 'not only things strange and rare but the most known and common amongst us', preferring 'clear and full descriptions' to 'mystick, mythologick and Hieroglyphick matters'.[146] Despite this bold declaration of intent in the catalogue, the basis of the collection itself could hardly be described as rigorous: Ned Ward found it a 'Ware-house of . . . Antiquated Trumpery . . . Rusty Reliques and Philosophical Toys', incorporating 'an Aviary of dead Birds . . . sundry sorts of serpents . . . Abortives put up in Pickle, and abundance of other Memorandums of Mortality'.[147] Grew's catalogue had led von Uffenbach to expect much from the Repository, but he was to be disappointed: 'It consists', he writes, 'of what appear to be two long narrow chambers, where lie the finest instruments and other articles (which Grew describes), not only in no sort of order or tidiness but covered with dust, filth, and coal-smoke, and many of them broken and utterly ruined. If one inquires after anything, the operator who shows strangers round . . . will usually say: "A rogue had it stolen away," or he will show you pieces of it, saying: "It is corrupted or broken".'[148] Even allowing for von Uffenbach's customarily jaundiced eye, one must agree with Altick that 'it is doubtful if the nation gained much when the decrepit collection was presented to the British Museum in 1779'.[149]

[141] Ibid., pp. 120–2; Levine 1977, *passim*.
[142] Whitehead 1971, p. 53.
[143] Altick 1978, p. 15.
[144] Gunther 1925, p. 286.
[145] Murray 1904, pp. 131–3.
[146] Grew 1681, preface.
[147] Ward 1699, pt. 3, pp. 9–10.
[148] Von Uffenbach 1753–4, 2. 545–6; Quarrell and Marc 1934, p. 98.
[149] Altick 1978, p. 14.

Outside London other museums had developed both in private and in institutional hands, most notably in Oxford. In addition to the Ashmolean Museum, there were collections belonging to the Anatomy School, the Bodleian Library, and St. John's College. Evelyn records a visit to the Bodleian in 1654 where, in addition to many rare books and manuscripts, he was shown a number of rarities. 'In the Closset of the Tower', he writes, 'they shew Josephs parti colourd Coate, a Muscovian Ladys Whip, some Indian Weapons, Urnes, Lamps: &c: but the rarest, is the Whole Alcoran written in one large sheete of Calico, which is made up in a Priests Vesture or Cape after the Turkish, & the Arabic Character so exquisitely written, as no printed letter comes neere it: Also a rolle of Magical Charmes or Periapta, divers Talismans, some Medails'.[150] Progressing to the 'Physick Or Anatomie Schole', which occupied part of the first floor of the Bodleian quadrangle, Evelyn found it 'adorn'd with some rarities of natural things; but nothing extraordinary, save the Skin of a Jaccal, a rarely Colour'd Jacatroo, or prodigious large Parot, two humming birds, not much bigger than our humble bee'. On an earlier visit, in 1638, Stirn was shown West Indian and Egyptian idols, a portrait of Queen Elizabeth in featherwork, 'a piece of the salt pillar' (which may have been intended for Lot's wife), and a coat attributed to Joseph 'which he wore when he was sold to the Egyptians'.[151] The French traveller Monconys also left a record of his visit to the Anatomy School in 1663:

there are several sorts of animals, fishes, birds and other curiosities; but there was nothing that I had not seen in thousands of places. There is a skin of a man, and one of a woman, and they show a small cube of wood, in which, though no joint is perceptible, there is a thick copper ring, without sign of soldering, passed through the middle of one of the faces . . . In a small room they showed us a skin robe of many colours, so they have to say that it was Joseph's. And there too we saw a black marble in the middle of which was a lizard, formed so perfectly that it appears to be petrified: but I believe it to be merely a *lusus naturae*, that has shaped the animal in white marble, unless it be a drawing 'par une filament'.[152]

Further accounts of the Anatomy School collection and lists of its exhibits (including human anatomy, zoology, botany, mineralogy, and artificial rarities) are reproduced by Gunther.[153] At St. John's College Evelyn saw 'the Library, & the 2 Skeletons, which are finely clense'd, & put together: observable are also the store of Mathematical Instruments, all of them chiefly given by the late A: Bishop Lawd, who built here an handsome Quadrangle'.[154] One personal collection at Oxford which attracted Evelyn's attention was 'that most obliging & universaly Curious Dr. Wilkins's, at Waddum', which included:

Transparent Apiaries . . . adorn'd with variety of Dials, little Statues, Vanes &c . . . He had also contrivd an hollow Statue which gave a Voice, & utterd words, by a long & conceald pipe which went to its mouth . . . He had above in his Gallery & Lodgings variety of Shadows, Dyals, Perspe[c]tives . . . & many other artif[i]cial, mathematical, Magical curiosities: A Way-Wiser, a

[150] Evelyn, *Diary*, 10–11 July 1654.
[151] Hager 1887, p. 452.
[152] De Monconys 1666, 2. 52; translated in Gunther 1925, p. 254. The wooden cube incorporating the copper ring is illustrated in Gunther 1925, p. 277.
[153] Ibid., pp. 252–79.
[154] Evelyn, *Diary*, 12 July 1654.

Thermometer; a Monstrous Magnes, Conic and other Sections, a Balance on a demie circle, most of them of his owne & that prodigious young Scholar, Mr. Chr: Wren.[155]

John Bargrave (1610–80), a canon of Canterbury Cathedral, built up a collection which is of particular interest here on account of its similar character to the Tradescant collection. Included in Bargrave's collection were, for example, 'native Viginian money' including 'Ranoke' and 'Wapenpeake', and other North American material such as a 'cravat', a girdle, and a small pair of gaiters made of porcupine quills, 'sent to me by Mr Tymothy Couley, now a merchant in London, by way of gratuity, he being one of the 162 slaves I redeemed from Argeers when I went thither by King Charles 2 commission.'[156] As well as these slaves, Bargrave acquired from Algiers a pair of 'red leather buskins' and a 'miniature painting of the King of Argeers'. His varied cabinet included other categories of material: classical antiquities and other items from Italy; natural rarities such as a petrified toadstool, 'a large sea-horse's tooth, said to be good against poison, next to an unicorn's horn', an 'eagle stone, propitious for childbirth, and the finger of a Frenchman',[157] artificial rarities such as a cutaway model of a human eye, steel cylinders for optical experiments and for viewing *trompe l'œil* pictures, other optical devices, and manuscripts including 'A fair book in folio with effigies of Alexander 7th and all the College of Cardinals'.[158]

In Norwich could be seen the cabinet of Sir Thomas Browne (1605–82), antiquary, natural historian, and philosopher. Visiting Norwich in 1671, Evelyn found Browne's house and garden 'a Paradise & Cabinet of raritics, & that of the best collection, especially Medails, books, Plants, natural things'.[159] It has been suggested that Browne's whimsical *Musaeum Clausum*, published in 1684 but composed at an earlier date, may have owed its inspiration to the *Musæum Tradescantianum* of 1656.[160]

Ralph Thoresby (1658–1725) of Leeds was an assiduous collector whose cabinet attracted the attention, the covetousness, indeed, of many of his contemporaries, not least at Oxford (see p. 60). It included numerous coins and medals, manuscripts and autographs, zoological, botanical, and mineral specimens, and a wide range of British and foreign artificial curiosities. One of the latter was a 'Tomahaw, or fighting Club from North-Carolina: it is a yellowish hard Wood like Box, above two Foot long, tapering from a little more than an Inch broad at the Handle, to three Inches at the other End, where it terminates in a Knob or Ball eight Inches round: Upon one side is drawn an odd Figure supposed to represent one of the Idols whose assistance they implore'; it was brought to Thoresby by the Attorney-General Christopher Gale.[161] Under the category of 'Humane Rarities' were to be found such diverse specimens as one of the horny excresences which grew on the thumbs, fingers, and toes of one Nathaniel Hulme of

[155] Ibid., 13 July 1654.

[156] Robertson 1867, pp. 137–40. Bargrave (who was a contemporary of the younger Tradescant at the King's School, Canterbury) undertook his well-known mission to Algiers in 1662.

[157] Bargrave records that while in France he had been offered the entire body of a child by the Franciscans, but refused it, being then 'outward bound for the grand tour of France' (Robertson 1867, p. 131).

[158] Ibid., pp. 117–39.

[159] Evelyn, *Diary*, 18 October 1671.

[160] Heckscher 1958, n. 191.

[161] Thoresby 1715, p. 472.

Bolton, and 'a pugill of the dust (unmix'd with earth) of a noble Countess, not easily distinguished from common dust and ashes'.[162]

Three Scottish collectors may serve to complete this brief and necessarily selective survey. Sir James Balfour (1600–57), having compiled a library of excellent quality and antiquarian flavour, and appreciating (in the words of his biographer) that 'things and events involved in obscurity are often illustrated by ancient coins, rings, collars, bracelets, seals, and other remains of a former age, he carefully collected this precious antiquarian material, and arranged it in cabinets as a supplement to his library'.[163] His younger brother, Sir Andrew Balfour (1630–94), returned to Scotland about 1667 after some fifteen years of foreign travel, bringing with him a collection in which were represented costumes and weapons, natural history, mathematical and surgical instruments, and a cabinet of *materia medica*, which he continued to augment in later years.[164] After Balfour's death his collection passed to his countryman, Sir Robert Sibbald (1641–1722), who had already built up a cabinet of his own and had published the first systematic natural history of Scotland. Murray recounts that in 1697 Sibbald presented Balfour's collection to the University of Edinburgh, adding numerous specimens of his own and publishing a handbook to the combined display for the use of students, although it was his hope that it would be open to the public at large.[165] Visiting it within a few years of its opening, Defoe found that the museum contained 'a vast Treasure of Curiosities of Art and Nature, domestic and foreign, from almost all Parts of the World; and is greatly valued by the Virtuosoes, containing some Rarities that are not to be found, either in those of the Royal Society at London, or the Ashmolean at Oxford'.[166] Sadly, it failed to survive to form the basis of a permanent collection, and within fifty years had been almost entirely dissipated.[167]

Plainly the collection built up at Lambeth by the Tradescants was by no means unique; it was, rather, a characteristic product of its age, similar to many other cabinets of rarities to be found over a large part of the European continent. The elder Tradescant's methods of acquisition – by personal contact with ambassadors and overseas merchants,[168] by written appeal (in the name of the Duke of Buckingham) and by foreign travel on his own part – can all be paralleled elsewhere. Missionary priests figure prominently in the formation of other collections such as Kircher's in Rome and Francke's at Halle; Evelyn records the passage through London of a vast collection of rarities 'as in my life I have not seene', collected by Jesuits in China and Japan and destined for display in Paris.[169] Shops sprang up in the course of the seventeenth century to cater for this increasing appetite: Borel mentions a 'Magasin des Indes' in Lisbon,[170] while Evelyn records purchases made in Pozzuoli, and in the Piazza Navona in Rome, the latter thronged with merchants selling antiquities, medals, and other curiosities;[171] other purchases were made at shops selling shells, Indian artefacts, and maps in

[162] Ibid., p. 431.
[163] Sibbald, quoted in Murray 1904, p. 151.
[164] Ibid., pp. 151–2.
[165] Ibid., pp. 153–5.
[166] Defoe 1748, pp. 79–80.
[167] Murray 1904, p. 155.
[168] Witness his contacts with, for example, Sir Peter Wyche and Sir Thomas Roe, and the letter from Virginia referred to on p. 12, n. 82.
[169] Evelyn, *Diary*, 22 June 1664.
[170] Borel 1649, p. 128.
[171] Evelyn, *Diary*, *c.*8 February 1645; ibid., 20 February 1645.

Amsterdam, while natural and artificial rarities, particularly those made of tortoise-shell and ivory, were freely available in Dieppe.[172] One such shop was to be found in Paris, called 'Noahs-Arke, where are to be had for mony all the Curiosities naturall or artificial imaginable, Indian or Europan, for luxury or Use, as Cabinets, Shells, Ivorys, Purselan, Dried fishes, rare Insects, Birds, Pictures, and a thousand exotic extravagances'.[173] By the beginning of the eighteenth century at the latest there were similar merchants in London: von Uffenbach was pleasantly surprised to find one at Charing Cross in 1710, who displayed 'an extremely elegant cabinet of coins . . . a superabundance of statues', had two rooms full of antiquities, and 'as many as 200 to 250 of all kinds of statuettes, idols, "utensilibus" and other such things'.[174] Gifts and exchanges are known to have taken place between collectors of like tastes: letters survive which were written by Francke in the hope of acquiring unwanted duplicate specimens from other collectors,[175] the generosity of the Medicis in distributing South American and other rarities amongst some of the European ducal courts is well recorded,[176] while Friedrich Wilhelm's eagerness to bestow gifts from the Berlin *Kunstkammer* on Augustus the Strong of Saxony verged on the prodigal.[177] Occasionally entire cabinets would change hands for cash, as when Petiver's was sold to Sloane or when Peter the Great bought outright the cabinets of Seba and Ruysch. Other instances have been given of collections which, like that of the Tradescants, were bequeathed more or less intact on the death of their creators, as when the Heidelberg collection passed to the Elector of Brandenburg, when Sloane acquired Courten's cabinet, and when Sibbald inherited the collection of Sir Andrew Balfour. Yet others were dispersed or assembled in time of war, as witnessed by the destruction of Rudolf II's cabinet or the annexation of the Gottorp collection by the Danish crown. Hence there was great mobility of collectable material between different individuals and different centres, which helps to account for the traits in common which can be traced through several collections. Certain examples may be drawn from the various categories of material in the Tradescant collection to illustrate this point.

The Tradescants' collection of birds was impressively widespread in geographical origin, ranging from a penguin, through Brazilian, Virginian, and other New World species, to peacock, cassowary, birds of paradise, and northerly specimens such as a 'Gorara'[178] or Colymbus' from Muscovy and a soland goose (gannet) from Scotland. Perhaps the best-known exhibit was the 'Dodar, from the Island of Mauritius', a species also represented by a leg in Hubert's collection and by more complete specimens in the Anatomy School at Oxford, at Leiden, and at Gottorp.[179] More widely appreciated (and collected) were the 'Barnacles', of which the Tradescants had four sorts. Barnacle geese attracted the curiosity of collectors on account of the tradition, enshrined in their name,

[172] Ibid., *c.*21–4 August 1641; ibid., 21 March 1644. In describing the beak of a rhinoceros bird, seen in a collection at Delft, Ray (1738, p. 25) mentions that it would be worth twelve florins at Amsterdam.

[173] Ibid., 3 February 1644.

[174] Von Uffenbach 1753–4, 2. 464–5; Quarrell and Mare 1934, p. 37.

[175] Storz 1962, p. 195.

[176] Heikamp 1972, p. 11.

[177] Heres 1977, p. 106.

[178] Hamel (1854, p. 292) gives the Russian word 'Gagara'. This specimen could have been brought back from Russia by the elder Tradescant.

[179] For the London specimen see Hubert 1664, p. 9; the Royal Society's catalogue (Grew 1681, pp. 60–1) later records what is probably the same item. The Oxford dodo is mentioned by Gunther (1925, p. 360), that at Leiden by Ray (1678, 2. 153), and the Gottorp specimen (which, according to Hamel, originally belonged to Paludanus) by Olearius (1666, p. 23).

that they sprang from barnacle shells adhering to driftwood and trees rather than from eggs (Pl. CLXXX). As late as 1678 renewed credibility was given to this theory by Sir Robert Moray, President of the Royal Society, who claimed to have observed such shells, 'having within them little birds perfectly shap'd . . . making up a perfect Sea Fowl'.[180] Borel had the bill and wing of a barnacle in his collection, along with a piece of wood which had acted as host to the shells,[181] and the collection in the Physic Garden at Leiden also boasted 'Barnacles, a sorte of Geese sayd to grow in Scotland on trees'.[182]

The Tradescants' collection of animals compares favourably with any of its day in variety and in diversity of origin: Brazil,[183] Virginia, the West Indies, Greenland, Ireland, Cape Verde, 'Ginny' (West Africa), Arabia and India are all mentioned as sources. One further source, St. James's Park, is also of some interest: although the doe's head and horns from St. James's would have been from a native species, it may be noted that others (like the cassowary already mentioned, which 'dyed at S. James's, Westminster') may have been imported live to one or other of the zoos then well known in London[184] and been acquired after they had died there.

The 'Bucks head with one horn double branched' and the 'Rams head with an upright cloven horn' recorded in the Tradescant catalogue are gentle reflections of a taste which manifested itself in more gruesome form in several contemporary collections. It was perhaps in continental collections that the taste for *Misgebohrte* (deformed foetuses) was particularly prevalent: Schloss Ambras had its share of freakish and misshapen specimens, both in the form of foetuses and as subjects for paintings, such as a deer with four ears, giants, and *Haarmenschen*;[185] Albrecht V's penchant for pictures of freaks, criminals, and severed heads has already been mentioned, and the Munich collection also included plaster casts of deformed limbs.[186] The Francke collection at Halle had a number of such *Naturspielen* ('freaks of nature'), including one chicken with two beaks and four others each with four legs.[187] The taste for specimens of this sort extended beyond these Germanic collections and manifests itself also in the Danish royal collection,[188] and in the Borel collection at Castres.[189]

Swordfish, from which the Tradescants had several swords, were understandably popular on account of their appearance, as were the snouts of sawfish. The fact that the 'Unicornu marinum' is recorded among the fish in the Tradescant catalogue shows that the origin of the long tusks which had formerly commanded exceptional interest (and

[180] Quoted in Whitehead 1971, p. 51, n. 8.

[181] Borel 1649, p. 534: 'Le bois ou s'engendrent les Oyes d'Escosse, qui naissent de la pourriture des navires, l'aisle & le bec d'un de ces oyseaux'.

[182] Murray 1904, p. 32.

[183] Dr Peter Whitehead has observed (personal communication) that several of the Brazilian specimens listed in the Tradescant catalogue for which Markgraf is cited as the authority are identified with greater precision than the *Historia Naturalis Brasiliae* which he published with Piso in 1648 would have allowed. One possible explanation for this might be that the Tradescants acquired actual type specimens, duly identified, brought back by Markgraf following Johan Maurits of Nassau's governor-generalship of Brazil from 1637 to 1644 (see Whitehead 1979).

[184] Frederik, Duke of Württemberg, visiting London in 1592, saw a wolf and six lions and lionesses at the Tower, 'two of them upwards of a hundred years old' (Rye 1865, pp. 19–20). Paul Henzner visited the same zoo in 1598, recording one lion and three lionesses, a tiger, a lynx, a wolf, a porcupine, and an eagle (ibid., p. 297), and Stirn adds a leopard to the exhibits seen in 1638 (Hager 1887, p. 449).

[185] For further details and for a portrait of these hair-covered people, see Gamber and Beaufort-Spontin 1978, pp. 29, 48–9, Abb. 3–4.

[186] Von Uffenbach (1753–4, vol. 3, fig. 4) illustrates a cast of a deformed foot formerly preserved at Oxford.

[187] Franckesche Stiftung, Halle, MS Catalogue, p. 167, nos. 14–15.

[188] Jacobæo 1710, pp. 5–8.

[189] Borel 1649, p. 133: 'un chat à deux testes'.

fabulous prices) as unicorn horns were here recognized as coming from an aquatic species (the narwhal).[190] Another favourite exhibit represented here is the remora, a sucking fish (*Echeneis remora*) anciently believed to have the power to bring ships to a halt by attaching itself to the keel. Contant praises the properties of a specimen in his own 'Cabinet Poétique';[191] another is to be found in the catalogue of the Gottorp *Kunstkammer*, where its power to stop a ship is again alluded to;[192] and Platter makes the same observations concerning a specimen in Sir Walter Cope's collection.[193]

Under the heading of minerals (*Fossilia* in the text), the Tradescant catalogue lists a typically varied assortment of materials, including not only true fossil and other mineral specimens such as ammonites, belemnites, and various rock samples, but also rarities such as 'carbones ex Ætnâ'; two varieties (*orientalis* and *occidentalis*) of Bezoar stone, a calcareous concretion produced internally by the Bezoar goat (and other animals), greatly valued for antidotal or talismanic purposes; 'mummia', a resinous substance from mummies, also invested with medicinal powers;[194] and a selection of medicinal earths from various sources, usually made up into small cakes and sometimes, as in the case of the Lemnian earth listed in the catalogue, stamped with a device indicating the place of origin and sold under the name of *terra sigillata*.[195]

Among the artificial rarities are several which fall into well established categories occurring in other collections. Some are there by virtue of their association with historical persons: these include Edward the Confessor's gloves, Ann Boleyn's veil and gloves, Henry VIII's gloves, stirrups, hawk's hood, and dog-collar, a 'Trunion' of Captain Drake's ship, Count Mansfield's pole-axe, called Pussacon, the knife 'wherewith Hudson was killed in the North-West passage, or Hudson's Bay', and Little Jeffrey's boots and masking suit.[196] These may be compared with such items as Francis I's sword and various objects associated with the Winter King which were held in the Munich *Kunstkammer*,[197] Maximilian I's lathe which was preserved in the Wilczek collection,[198] and a great many of the items in Hubert's collection whose previous associations were carefully catalogued (see p. 85).

Other entries in the Tradescant catalogue refer to items whose particular interest lay in technical virtuosity, such as the 'nest of 52 wooden-cups turned within each other as thin as paper' and various miniature objects: some of the latter were purely technical *tours de force*, such as 'Halfe a Hasle-nut with 70 pieces of housholdstuffe in it', one cherry-

[190] The term is that used in Worm's catalogue (Worm 1655, pp. 282–7), which is also cited elsewhere in the *Musæum Tradescantianum*. Ashmole's copy of the *Museum Wormianum* is in the Bodleian Library, Oxford (Ashmole 1713). Tradescant the Elder's interest in such horns is recorded in a letter from one Mr Pory to Sir Thomas Lucy, in 1632. The author relates that 'two Bristol men, after the expense of two summers in discovering a North West passage, are returned back *re infecta*; only I heard John Tradescant tell my Lord of Ca. that they had discovered an island where were store of unicorns' horns, long and wreathed like that at Windsor, which I have heard to be nothing else but the snout of a fish, yet very precious against poison' (Williams 1848, p. 189).

[191] Contant 1609, p. 71.

[192] Olearius 1666, p. 41, Tab. XX.

[193] Williams 1937, p. 173.

[194] Various authorities on the virtues of 'mummy' are quoted in Murray 1904, pp. 53–3.

[195] A selection of such tablets is illustrated in Valentini 1704, p. 1, Tab. 1.

[196] 'Little Jeffrey' was Jeffery Hudson (1619–82), a dwarf who entered the Duke of Buckingham's household at the age of nine. At a dinner given by Buckingham in honour of Charles I and Henrietta Maria, Hudson emerged from a pie, much to the delight of the Queen, into whose service he later passed. For his remarkable career see *Dictionary of National Biography*, s.v. Hudson.

[197] Scherer 1913, pp. 19–20.

[198] Von Schlosser 1908, fig. 81.

stone 'holding 10 dozen of Tortois-shell combs, made by Edward Gibbons' and another 'with a dozen of wooden-spoons in it', a 'set of Chesse men in a pepper-corn turned in Ivory', and 'Flea chains of silver and gold with 300 links a piece and yet but an inch long'.[199] Others, including 'A Cherry-stone, upon one side S. Geo: and the Dragon, perfectly cut: and on the other side 88 Emperours faces' (Pl. CLXXIII), and those still surviving which are discussed below (Nos. 181–4), had some artistic pretensions. Some at least of these are of English workmanship (see p. 294), but they were also much favoured on the Continent. The best-known collection is in the 'Green Vaults' at Dresden, where there is one particularly famous cherry-stone carved with 180 heads.[200] Menzhausen has characterized these pieces as typical *Kunstkammerstücke*, pieces in which technology, science, and art are combined in harmony, here manifested respectively by needle-fine tools to carry out the carving, optical magnifiers for use by the craftsman, and his inherent skill.[201] Their appeal was not limited to Germany, however: while viewing the Count of Lyons's collection in Paris, Evelyn noted 'a Chaplet of admirable invention, the intaglias being all upon fruite-stones'.[202] Variations on this idea, in the form of finely carved nuts made to contain prayers in miniature and probably of Dutch origin, are to be found in the Nationalmuseum in Copenhagen, the Rijksmuseum in Amsterdam, and at Dresden.[203]

Ethnographic material forms a major part of the surviving collection. Discovery of the Americas and the development of contacts with the Far East had revolutionized the European concept of the world, and cabinets of rarities provided excitingly tangible displays of physical evidence of its lesser-known inhabitants. Every continent then known is represented in the Tradescant collection. The material from North America is some of the earliest to survive. One entry in the 1656 catalogue, referring to 'A Canow & Picture of an Indian with his bow and Dart, taken 10 leagues at Sea. Ano.-76', must surely relate to the Eskimo brought back on Frobisher's first voyage in search of the North-West Passage in 1576,[204] or to one of the series of drawings of a man, woman, and child brought back by him the following year.[205] Its loss, along with several other items of Greenlandic and Canadian origin,[206] is a major mishap. Other objects relating to early exploratory voyages in this area reached Schloss Gottorp, some of them in the company of abducted Eskimos, and others formerly in the Danish royal collections can still be seen in Copenhagen.[207] For material from Virginia the Tradescants may have benefited from

[199] Tradescant 1656, pp. 36–9. Altick (1978, p. 7) quotes a reference of 1578 to a London smith, Mark Scaliot, who produced 'a lock, of iron, steel, and brass, of eleven several pieces, and a pipe key, all which weighed but one grain of gold. He also made a chain of gold, of forty-three links, which chain being fastned to the lock and key, and put about a Flea's neck, the Flea drew them with ease. Chain, key, lock, and flea, weighed but one grain and a half'.

[200] Heres 1980, pp. 2–8.

[201] Menzhausen 1977, p. 26.

[202] Evelyn, *Diary*, 1 March 1644.

[203] Menzhausen 1977, pp. 125–6.

[204] Cheshire *et al.* (1980, p. 31) conjecture that John White may have been among those who made pictorial records of this Eskimo; Lucas de Heere certainly did and one of his drawings still survives (reproduced in Hulton and Quinn 1964, 1. 142; ibid., vol. 2, pl. 146a).

[205] Rye (1865, p. 206) suggests that the 'dead Indian' who caused so much excitement among the 'holiday fools' in Shakespeare's *Tempest* may have been one of three Eskimos imported by Frobisher in 1577.

[206] These include 'A Greinland-habit' and a 'Match-coat from Greenland of the Intrails of Fishes', together with boots, shoes, snow-shoes, and weapons (Tradescant 1656, pp. 45–8). Of historical interest is the 'Knife wherewith Hudson was killed in the North-West passage, or Hudson's Bay' (ibid., p. 46).

[207] Meldgaard, in Dam-Mikkelsen and Lundbæk 1980, pp. 3–4.

the friendship of the father with Captain John Smith[208] and, more certainly, from the several visits to the area by the son. It would appear that the elder Tradescant had some correspondence with resident Americans[209] but none of the Virginian rarities surviving or lost can be shown to have been acquired through any of these channels. With increasing colonization during the sixteenth and seventeenth centuries, notably by the Dutch and Portuguese in the southern part of the continent and by the French and English in the north, an ever-increasing flow of material came back to European collectors. Regrettable losses among the Tradescants' Virginian material and that from Central or South America include Amazonian and Indian crowns made of feathers, a match-coat of feathers, 'Divers sorts of pictures wrought in feathers', a 'Bracelet made of thighes of Indian flyes', and Amazonian and Virginian tobacco pipes. Similar objects survive from other early collections, however: in Copenhagen, for example, are feather crowns and cloaks and a necklace of flies' wings from Brazil.[210] It is noteworthy that Cosimo de Medici sent the Duke of Bavaria in 1572 'a portrait of Our Lady made of all kinds of feathers' recently arrived from Mexico, and others reached the cabinets of Rudolf II and Ferdinand II of Tirol.[211] Other items from the Americas, notably weapons and garments, were to be found in many of the collections discussed above, including the Medici and Ambras collections, the Anatomy School at Leiden (which exhibited 'A Mallet, or hammer that the Savages in New Yorke kill with'),[212] at Sainte Geneviève in Paris, and in Bargrave's cabinet at Canterbury.

During the sixteenth and seventeenth centuries European contact with Africa was for the most part limited to coastal trading in the east and west, with more intensive commercial intercourse along the Mediterranean littoral. The Portuguese, and later the Dutch, were the major powers involved in African commerce and in the slave trade with the southern parts of the Americas. Two pictures by Albert Eckhout, now in the Nationalmuseum, Copenhagen, but painted during Johan Maurits of Nassau's Brazilian expedition, show Africans transported to an American landscape.[213] More generally, the impact of Africa on European collections was registered in the form of West Coast material, principally from the area between Senegal in the north and the Congo estuary in the south, with Portuguese-held Sherbro in Sierra Leone playing an important part in supplying carved ivories and other collectable items for the European market. This was the area identified by the elder Tradescant in his plea for material from 'Gine or Binne or Senego', and represented in the 1656 catalogue by items such as bows, arrows, darts, quivers, knives, drums, bracelets, plates, drinking-cups, and a lantern. The ivory trumpet (No. 26) and spoons (Nos. 22–3) in the present catalogue are typical collectors' items. A collection of similar trumpets survives among the remnants of the Copenhagen royal collection,[214] and both spoons and a trumpet are represented at Schloss Ambras.[215] East African material was much scarcer, but a drum, possibly from Madagascar, still

[208] Tradescant was certainly left a share in a trunk full of books in Smith's will (reproduced in Deane 1867, pp. 2–4).

[209] See p. 12, n. 82.

[210] Nationalmuseet, Copenhagen. See Due, in Dam-Mikkelsen and Lundbæk 1980, pp. 24–30.

[211] Heikamp 1972, pp. 11, 16.

[212] Witkam 1980, p. 41.

[213] Nationalmuseet, Copenhagen. See Due, in Dam-Mikkelsen and Lundbæk 1980, pp. 40, 43.

[214] Nationalmuseet, Copenhagen. See Lundbæk, in Dam-Mikkelsen and Lundbæk 1980, pp. 48–9.

[215] Von Schlosser 1908, p. 59, fig. 47.

survives in the Copenhagen collection.[216] The possibility that Tradescant the Elder may have collected such items as the Barbary shoes and spurs and the 'Moores cap' listed in the catalogue has already been mentioned, but Moorish and more especially Egyptian antiquities were among the most heavily traded collectors' items. Among the earliest imported specimens which survive today are those which reached Leiden in the early 1620s from Sakkara and elsewhere in Egypt.[217]

The Turkish conquest of Constantinople in 1453 and the subsequent northerly expansion of the Ottoman empire in the sixteenth century brought Europe into more direct contact with the Middle East. Weapons were particularly sought-after acquisitions among early collectors, but the commercial contacts which developed and the diplomatic activities of ambassadors such as Sir Thomas Roe led to wider relationships. Tradescant's Turkish vest, tooth-brush, ink-horn, and various items of clothing are of interest in this context, as well as more exotic specimens such as the 'Rich vest from the great Mogull'. Ole Worm describes two forms of Turkish quiver in his collection, one of which held a bow as well as arrows.[218]

There seems little doubt that most of the material reaching early European collections from the Far East and the Pacific islands would have arrived on merchant ships, principally those of the Portuguese, whose trading stations, established successively in Malacca, in Japan, and at Macao, had given rise to a flow of oriental material to the west since the mid-sixteenth century. Dutch East India merchants were to share in this trade from the beginning of the following century, and Spain too had a hand in it: Hakluyt records among the cargo of the *Madre de Dios*, taken by the English fleet in 1592, 'elephants teeth, porcellan vessels of China, coco-nuts, hides, eben-wood as blacke as jet, bedsteds of the same, cloth of the rindes of trees very strange for the matter, and artificiall in workmanship'.[219] The English failed to establish a successful foothold in Japan,[220] but first Portuguese and Spanish, and later Dutch ships kept the west supplied with Japanese commodities. Although the term 'Indian' was used without precise meaning by the Tradescants and their contemporaries, material from the Indian subcontinent became increasingly common in the West following the establishment of Dutch and English stations there in the early seventeenth century. The specimens of oriental epigraphy, Indian paper, various musical instruments, weapons, and vessels, together with Chinese armour, dishes, and 'Birds-nests from China', Japanese weapons, and more southerly specimens such as the 'Molocco sword' and shield may all have resulted from these contacts.

In its varied constituent elements, therefore, the collection built up by the Tradescants at Lambeth was not unique, but was, rather, in the mainstream of European collecting in the sixteenth and seventeenth-century tradition. It was by no means the earliest of its kind, nor was it 'the most extensive in all Europe'.[221] There can be no doubt, however, that the rarities inherited by Ashmole and later dispatched by him to Oxford in twelve cart-

[216] Nationalmuseet, Copenhagen. See Lundbæk, in Dam-Mikkelsen and Lundbæck 1980, p. 62.
[217] Schneider, in Rijksmuseum, Amsterdam 1975, pp. 113–22.
[218] Flindt, in Dam Mikkelsen and Lundbæk 1980, p. 73.
[219] Hakluyt 1904, pp. 116–17.
[220] For reference to the short-lived English factory in Japan, see under No. 42 below.
[221] Allan 1964, p. 156.

loads represented the best-known and most catholic collection of specimens assembled in Britain to that day. Furthermore, at a time when the doors of other private museums were closed to all but the most socially acceptable, the Tradescants' collection had been open to any who cared to make the journey to Lambeth, an accessibility which was happily maintained when the Ashmolean Museum opened in 1683 as the first public museum in the country.

BIBLIOGRAPHY TO THE INTRODUCTORY ESSAYS

Allan, M., 1964. *The Tradescants, their Plants, Gardens and Museum 1570–1662* (London).

Altick, R. D., 1978. *The Shows of London* (Cambridge, Mass. and London).

Amherst, A., 1896. *A History of Gardening in England*, 2nd edn. (London).

Anon., 1841. 'Gallery of illustrious Irishmen no. XII: Sir Thomas Molyneux, Bart., . . . Part I', *Dublin University Magazine* 18, 305–27.

Ashton, R., 1979. *The City and the Court 1603–1643* (Cambridge, London, New York, Melbourne).

Aubrey, J., 1719. *The Natural History and Antiquities of the County of Surrey* 1 (London).

—— *Lives*, 1898. '*Brief Lives*', *chiefly of Contemporaries set down by John Aubrey, between 1669 & 1696*, ed. A. Clark (Oxford).

Aylife, J., 1714. *The Antient and Present State of the University of Oxford* 1 (London).

Aylmer, G. E., 1974. *The King's Servants: The Civil Service of Charles I 1625–1642* (London and Boston).

Barge, J. A. J., 1934. *De Oudste Inventaris der Oudste Academische Anatomie in Nederland* (Leiden and Amsterdam).

Bazin, G. E., 1967. *The Museum Age* (Brussels).

Beer, G. L., 1908. *The Origins of the British Colonial System 1578–1660* (New York).

Beger, L., 1685. *Thesaurus ex Thesauro Palatinos Selectus* (Heidelberg).

—— 1704. *Numismatum Modernorum Cimeliarchii Regio-Electoralis Brandenburgici* (Coloniæ Brandenburgicæ).

Bekkers, J. A. F. (ed.), 1970. *Correspondence of John Morris with Johannes de Laet (1634–1649)* (Assen).

Benthem, H. L., 1694. *Engeländischer Kirch- und Schulen-Staat* (Lüneburg).

Black, W. H., 1845. *A Descriptive, Analytical, and Critical Catalogue of the Manuscripts bequeathed unto the University of Oxford by Elias Ashmole, Esq.* (Oxford).

Blunt, W., 1950. *The Art of Botanical Illustration* (London).

Bonanni, P., 1709. *Musæum Kircherianum sive Musæum a. P. Athanasio Kirchero in Collegio Romano Societatis Jesu* (Rome).

Bonnaffée, E., 1884. *Dictionnaire des Amateurs français au XVII^e Siècle* (Paris).

Borel, P., 1649. *Les Antiquitez de la Ville et Compté de Castres d'Albigeois* (Castres).

Boulger, G. S., 1895. 'The first Russian botanist', *Journal of Botany* 33. 33–8.

Brice, G., 1752. *Description de la ville de Paris*, 9th edn. (reproduced in P. Codet (ed.), 1971. *Hautes Études Médiévales et Modernes* 12) (Paris and Geneva).

Brooks, E. St. J., 1954. *Sir Hans Sloane, the great Collector and his Circle* (London).

Brown, A., 1890. *The Genesis of the United States* (London and Cambridge, Mass.).

—— 1901. *English Politics in Early Virginia History* (Boston and New York).

Brown, E., 1677. *An Account of Several Travels through a Great Part of Germany* (London).

Bülow, G. von., 1892. 'Diary of the journey of Philip Julius, Duke of Stettin-Pomerania, through England in the Year 1602', *Transactions of the Royal Historical Society*, NS, 6. 1–67.

Camden, W., 1586. *Britannia* (London).

Ceruti, B., and Chiocco, A., 1662. *Musaeum Francisci Calceolari Junioris* (Verona).

Chamberlain, J., *Letters*, 1939. *The Letters of John Chamberlain*, ed. N. E. McClure (American Philosophical Society, Memoirs 12) (Philadelphia).

Chamberlayne, E., 1684. *Angliae Notitia: or the Present State of England* (London).

Cheshire, N., Waldron, T., Quinn, A., and Quinn, D., 1980. 'Frobisher's Eskimos in England', *Archivaria* 10. 23–50.

Clark, A. (ed.), 1891–4. *The Life and Times of Anthony Wood, antiquary, of Oxford, 1632–1695, described by Himself (1682–1695)* (Oxford).

Cole, J. C., 1953. 'The painting or staining of

marble as practised by William Byrd of Oxford and others', *Oxoniensia* 17–18. 193–9.

Colvin, H. M., 1954. *A Biographical Dictionary of English Architects 1660–1840* (London).

Contant, P., 1609. *Le Jardin et Cabinet Poétique de Paul Contant* (Poitiers).

Corbett, J., 1904. *England in the Mediterranean. A Study of the Rise and Influence of British Power within the Straits 1603–1713* 1 (London, New York, Bombay).

Coryat, T., 1905. *Coryat's Crudities* (Glasgow).

Croft-Murray, E., 1962. *Decorative Painting in England 1537–1837*, 1 (London).

Dam-Mikkelsen, B. and Lundbæk, T. (eds.), 1980. *Ethnographic Objects in the Royal Danish Kunstkammer 1650–1800* (Copenhagen).

Deane, C., 1867. *The last Will and Testament of Captain John Smith; with some Additional Memoranda Relating to Him* (Cambridge, Massachusetts) (reprinted from *Proceedings of the Massachusetts Historical Society*, January, 1867).

Defoe, D., 1748. *A Tour thro' the Whole Island of Great Britain* 4 (London).

Dircks, H., 1865. *The Life, Times and Scientific Labours of the Second Marquis of Worcester, to which is added a Reprint of his Century of Inventions, 1663* (London).

Doble, C. E., 1885. *Remarks and Collections of Thomas Hearne* 1 (Oxford Historical Society 2) (Oxford).

—— 1889. *Remarks and Collections of Thomas Hearne* 3 (Oxford Historical Society 13) (Oxford).

Drew, C. (ed.), 1943. *Lambeth Churchwardens' Accounts 1504–1645 and Vestry Book 1610* (Surrey Record Society 44) (London).

Ducarel, A. C., 1773. *A Letter from Dr. Ducarel, F.R.S. and F.S.A. to William Watson, M.D. F.R.S. upon the early cultivation of Botany in England; and some Particulars about John Tradescant* (London), reprinted from *Philosophical Transactions* 63. 79–88.

—— 1854. *Testamenta Lambethana. Being a Compleat List of all the Wills, and Testaments Recorded in the Archiepscopal Registers at Lambeth from A.D. 1312, to A.D. 1636.* (London).

Du Molinet, C., 1692. *Le Cabinet de la Bibliothèque de Sainte Geneviève* (Paris).

Duncan, P. B., 1836. *A Catalogue of the Ashmolean Museum* (Oxford).

Engel, H., 1939. 'Alphabetical list of Dutch zoological cabinets and menageries', *Bijdragen tot de Dierkunde* 27. 247–346.

Erndtel, C. H., 1711. *The Relation of a Journey into England and Holland, in the Years 1706 and 1707* (London).

Evans, R. J. W., 1973. *Rudolph II and his World* (Oxford).

Evelyn, J., 1644. *Sylva, or a Discourse of Forest-Trees and the Propogation of Timber* (London).

—— *Diary*, 1955. *The Diary of John Evelyn*, ed. E. S. de Beer (Oxford).

Fardoulis, A., 1979. 'Le Cabinet du Roi et les ancien Cabinets de Curiosités dans les Collections du Musée de l'Homme) (unpublished Diplôme de l'Université de Paris).

Fezensac, B. de Montesquiou, 1973. *Le Trésor de Saint Denis* 1 (Paris).

—— 1977. *Le Trésor de Saint Denis* 2 (Paris).

—— and Gaborit-Chopin, D., 1977. *Le Trésor de Saint Denis* 3 (Paris).

Fletcher, B., 1930. *Royal Homes near London* (London).

Forge, J. W. L., 1970. *Oatlands Palace*, 4th edn. (Walton and Weybridge Local History Society Paper 1) (Walton and Weybridge).

Foster, Sir W., 1928. *Thomas Herbert Travels in Persia 1627–1629* (London).

Fuller, T., 1811. *The History of the Worthies of England*, ed. J. Nichols (London).

Fürst, V., 1956. *The Architecture of Sir Christopher Wren* (London).

Gamber, O. and Beaufort-Spontin, C., 1978. *Curiositäten und Inventionen aus Kunst- und Rüstkammer* (Kunsthistorisches Museum, Wien) (Vienna).

Gardiner, D., 1928. 'The Tradescants and their times, *c.*1600–1662', *Journal of the Royal Horticultural Society* 53. 308–17.

Gerard, J., 1597. *The Herball or Generall Historie of Plantes* (London).

Golding-Bird, C. H., 1918. *The Story of Old Meopham* (London).

—— 1934. *The History of Meopham* (London).

Gough, J. W., 1932. *The Superlative Prodigall: a Life of Thomas Bushell* (Bristol).

Gough, R., 1780. *British Topography* 2 (London).

Grew, N., 1681. *Musaeum Regalis Societatis or a Catalogue and Description of the Natural and Artificial Rarities Belonging to the Royal Society and preserved at Gresham Colledge* (London).

Gunther, R. T., 1912. *Oxford Gardens* (Oxford).

—— 1922. *Early British Botanists and their Gardens, based on Unpublished Writings of Goodyer, Tradescant and Others* (Oxford).

—— 1925. *Early Science in Oxford* 3 (Oxford).

—— 1945. *Early Science in Oxford* 14 (Oxford).
Hager, H., 1887. Appendix II to review of Schaible, K. H., *Geschichte der Deutschen in England* (1885), in *Englische Studien* 10. 445–53.
Hakluyt, R., 1904. *The Principal Navigations, Voyages, Traffiques & Discoveries of the English Nation* 7 (Hakluyt Society, extra ser.) (Glasgow).
Hamel, J., 1854. *England and Russia; Comprising The Voyages of John Tradescant the Elder, Sir Hugh Willoughby, Richard Chancellor, Nelson, and Others, to the White Sea, etc.* (tr. J. S. Leigh) (London).
Hamilton, Revd. Dr, 1796. 'A short account of several gardens near London . . . upon a view of them in December 1691', *Archeologia* 12. 181–92.
Händler, G., 1933. *Fürstliche Mäzene und Sammler in Deutschland von 1500–1620* (Studien zur Deutschen Kunstgeschichte 297) (Strassburg).
Haynes, D. E., 1975. *The Arundel Marbles* (Oxford).
Heckscher, W. S., 1958. *Rembrandt's Anatomy of Dr Nicholaas Tulp* (New York).
Heikamp, D., 1972. *Mexico and the Medici* (Florence).
Heres, G., 1977. 'Die Anfänge der Berliner Antiken-Sammlung: zur Geschichte des Antikenkabinetts 1640–1830', *Staatliche Museen zu Berlin, Forschungen und Berichte* 18. 93–130.
—— 1980. 'Kunstreiche Kirschensteine', *Dresdener Kunstblätter* 24. 2–8.
Hervey, M. F. S., 1921. *The Life Correspondence and Collections of Thomas Howard, Earl of Arundel, 'Father of Vertu in England'* (Cambridge).
Hildebrand, J. and Theuerkauff, C. (eds.), 1981. *Die Brandenburgisch- Preußische Kunstkammer: eine Auswahl aus den alten Beständen* (Berlin).
Historical Manuscripts Commission, 1890. *The Manuscripts of S. H. le Fleming, Esq. of Rydal Hall* (London).
—— 1936. *Report on the Manuscripts of the Marquess of Downshire* 2 (London).
—— 1971. *Calendar of the Manuscripts of the Most Honourable the Marquess of Salisbury* 22 (London).
—— 1976. *Calendar of the Manuscripts of the Most Honourable the Marquess of Salisbury* 24 (London).
Hoole, C., 1660. *A New Discovery of the old Art of Teaching Schoole* (London).
Hubert, R., n.d. and 1664. *A Catalogue of Many Natural Rarities . . . Collected by Robert Hubert*, alias Forges (London).
Hulton, P. H., and Quinn, D. B. (eds.), 1964. *The American Drawings of John White* (London and Chapel Hill).
Hunger, F. W. T., 1928. 'Bernardus Paludanus (Berent ten Broecke). (1550–1633)', *Janus* 32. 353–64.
Hunter, J., 1830. *The Diary of Ralph Thoresby, F.R.S.* (London).
Hunter, M., 1981. *Science and Society in Restoration England* (Cambridge).
Imperato, F., 1599. *Dell' Historia Naturale di Ferrante Imperato Napolitano. Libri XXVIII* (Naples).
Jacobæo, H., 1696. *Museum Regium* (Hafniae).
—— *c.*1710. *Museum Regium* new edn. (Hafniae).
Jarvis, P. J., 1979. 'The introduced trees and shrubs cultivated by the Tradescants, at South Lambeth, 1629–1679', *Journal of the Society for the Bibliography of Natural History* 9. 233–50.
Johnson, T., 1633. *The Herball of Generall Historie of Plantes gathered by John Gerarde . . . very much Enlarged and Amended by Thomas Johnson* (London).
Jordan, W. K., 1960. *The Charities of London 1480–1660. The Aspirations and the Achievements of the Urban Society* (London).
Josten, C. H., 1966. *Elias Ashmole 1617–1692* (Oxford).
Kingsbury, S. M. (ed.), 1933. *The Records of the Virginia Company of London* 3 (Washington).
—— (ed.), 1935. *The Records of the Virginia Company of London* 4 (Washington).
Konovalov, S., 1951. 'Two documents concerning Anglo-Russian relations in the early seventeenth century', *Oxford Slavonic Papers* 2. 128–44.
Lach, D. F., 1970. *Asia in the Making of Europe* (Chicago and London).
Lane Poole, R., 1913. 'An outline of the history of the de Critz family of painters', *Walpole Society* 2. 45–68.
Lang, R. G., 1963. 'The Greater Merchants of London in the Early Seventeenth Century' (University of Oxford D.Phil. thesis).
Lapaire, C., 1969. *Schweizer Museumsführer*, 2nd. edn. (Bern).
Legati, L., 1677. *Museo Cospiano annesso a quello del famoso Ulisse Aldrovandi* (Bologna).
Leigh, R., 1673. *The Transposer Rehears'd: Or the Fifth Act of Mr. Bayes's Play* (Oxford).
Levine, J. M., 1977. *Dr Woodward's Shield, History, Science and Satire in Augustan England* (Berkeley, Los Angeles, London).
Lhuyd, G., 1699. *Lithophylacii Britannici Ichnographia* (London).
Ligon, R., 1657. *A True and Exact History of the Island of Barbados* (London).

Lister, M., 1699. *A Journey to Paris in the Year 1698* (London).

McClure, N. E. (ed.), 1939. *The Letters of John Chamberlain* (Philadelphia).

MacDonell, A. (ed.), 1910. *The Closet of Sir Kenelm Digby Knight Opened* (London).

Mackenzie, N., 1956. 'Sir Thomas Herbert of Tintern; a Parliamentary "Royalist"', *Bulletin of the Institute of Historical Research*, vol. 29, no. 70, pp. 32–86.

Macray, W. D., 1890. *Annals of the Bodleian Library, Oxford* (Oxford).

Magrath, J. R., 1904. *The Flemings in Oxford* 1 (Oxford Historical Society 44) (Oxford).

—— 1913. *The Flemings in Oxford* 2 (Oxford Historical Society 62) (Oxford).

Mallet, C. E., 1927. *A History of the University of Oxford* (London).

Menzhausen, J., 1977. *Dresdener Kunstkammer und Grünes Gewölbe* (Leipzig).

Mercati, M., 1574. *Metallotheca Vaticana* (Rome).

Mirot, L., 1920. *L'Hôtel et les Collections du Connétable de Montmorency* (Paris).

Monconys, B. de, 1666. *Journal des Voyages de Monsieur de Monconys* (Lyon).

Morley, H., 1852. *Palissy the Potter* (London).

Munby, J., 1977. 'Art, archaeology and antiquaries', in J. Munby and M. Henig (eds.), *Roman Life and Art in Britain* 2 (British Archaeological Report 41) (Oxford).

Murray, D., 1904. *Museums: their History and their Use* 1 (Glasgow).

Nashe, T., 1910. *Works of Thomas Nashe*, ed. R. B. McKerrow (London).

Norden, L. van, 1946. 'The Elizabethan College of Antiquaries' (University of California at Los Angeles Ph.D. thesis).

Northleigh, J., 1702. *Topographical Descriptions* (London).

Olearius, A., 1666. *Gottorfische Kunstkammer* (Schleswig).

Ormerod, G., 1882. *The History of the County Palatine and City of Chester* 2, 2nd edn. (London).

Osgood, H. L., 1904. *The American Colonies in the Seventeenth Century* (New York).

Parkinson, J., 1629. *Paradisi in sole Paradisus Terrestris* (London).

—— 1640. *Theatrum Botanicum, The Theater of Plantes, or an Universall and complete Herball* (London).

Parkinson, R., 1852. *The Autobiography of Henry Newcombe* (Chetham Society 26) (Manchester).

Pearl, V., 1961. *London and the outbreak of the Puritan Revolution: City Government and National Politics, 1625–43* (London).

Pennant, T., 1771. *A Tour in Scotland 1769* (Chester).

Perrin, W. G. (ed.), 1918. *The Autobiography of Phineas Pett* (Navy Records Society 51) (Colchester).

Peterrson, R. T., 1956. *Sir Kenelm Digby, the Ornament of England, 1603–1665* (London).

Petiver, J., 1695–1703. *Museum Petiverianum* (London).

—— 1716–17. *Petiveriana* (London).

Piggott, S., 1976. *Ruins in a Landscape* (Edinburgh).

Pointer, J., 1749. *Oxoniensis Academia: or the Antiquities and Curiosities of the University of Oxford* (London).

Powell, D. L. and Jenkinson, H., 1935. *Surrey Quarter Sessions Records, Order Book and Sessions Polls 1661–1663* (Surrey Record Society 36) (London).

Prideaux, H., 1676. *Marmora Oxoniensia, ex Arundellianis, Seldenianis, aliisque Conflata* (Oxford).

Pulteney, R., 1790. *Historical and Biographical Sketches of the Progress of Botany in England* (London).

Quarrell, W. H., and Mare, M., 1934. *London in 1710 from the Travels of Zacharias Conrad von Uffenbach* (London).

Quarrell, W. H. and Quarrell, W. J. C., 1928. *Oxford in 1710 from the Travels of Zacharias Conrad von Uffenbach* (Oxford).

Rathgeb, J., and Schickhart, J., 1603. *Wahrhaffte Beschreibungen zweier Reisen* (Tubingen).

Raven, C. E., 1950. *John Ray, Naturalist. His Life and Works*, 2nd edn. (Cambridge).

Rawlinson, R., 1719. 'Some Memoirs of the Life of Elias Ashmole', *The Antiquities of Berkshire* (London).

Ray, J., 1678. *The Ornithology of Francis Willoughby* (London).

—— 1738. *Travels through the Low Countries, Germany, Italy and France*, 2nd edn. (London).

Rijksmuseum, Amsterdam, 1975. *Leidse Universiteit 400: Stitchting en Eerste Bloei 1575–ca.1650* (Amsterdam).

Robertson, J. C. (ed.), 1867. *Pope Alexander the Seventh and the College of Cardinals by John Bargrave, D.D., Canon of Canterbury (1662–1680) with a Catalogue of Dr. Bargrave's Museum* (Camden Society 92) (London).

DEPARTMENT OF ANTIQUITIES, ASHMOLEAN MUSEUM, OXFORD.

Royal Commission on Historical Monuments, England, 1939. *An Inventory of the Historical Monuments in the City of Oxford* (London).

Rye, W. B., 1865. *England as seen by Foreigners in the days of Elizabeth and James the First* (London).

Sainsbury, W. N. (ed.), 1859. *Original Unpublished Papers Illustrative of the Life of Sir Peter Paul Rubens, as an Artist and a Diplomatist* (London).

Salerno, L., 1963. *Salvator Rosa* (Milan).

Salisbury, M., Marchioness of, 1980. 'The Manor House, Cranborne, Dorset', in A. Lees-Milne and R. Verey, *The Englishwoman's Garden* (London), pp. 116–21.

Salter, H. E., 1915. *Remarks and Collections of Thomas Hearne* 10 (Oxford Historical Society 67) (Oxford).

—— 1921. *Remarks and Collections of Thomas Hearne* 11 (Oxford Historical Society 72) (Oxford).

Schepelern, H. D., 1968. *Breve fra og til Ole Worm* 3 *1644–1654* (Copenhagen).

—— 1971. *Museum Wormianum* (Odense).

—— 1981. 'Naturalienkabinett oder Kunstkammer', *Nordelbingen: Beiträge zur Kunst und Kulturgeschichte* 50. 157–82.

Scherer, V., 1913. *Deutsche Museen* (Jena).

Scheurleer, Th. H. L., 1975. 'Un amphithéâtre d'anatomie moralisée', in Th. H. L. Scheurleer and G. H. M. P. Meyjes (eds.), *Leiden University in the 17th Century* (Leiden), pp. 217–77.

Schlosser, J. von, 1908. *Die Kunst- und Wunderkammern der Spätrenaissance* (Leipzig).

Schultz, T. E., 1938. 'The Woodstock glove industry', *Oxoniensia* 3. 139–52.

Sekler, E. F., 1956. *Wren and his place in European Architecture* (London).

Simpson, A., 1961. *The wealth of the Gentry 1540–1660* (Cambridge).

Staatliche Museen zu Berlin, 1973. *Museum Bellorianum: Antiken-besitz eines römischen Archaologen im 17. Jahrhundert* (Berlin).

Stone, L., 1965. *The Crisis of the Aristocracy 1558–1641* (Oxford).

Storz, J., 1962. 'Das Naturalien- und Kunstkabinett der Franckeschen Stiftungen zu Halle an der Saale', *Wissenschaftlichen Zeitschrift der Martin-Luther-Universität Halle-Wittenberg* 11. 193–200.

—— 1965. 'Hauptbibliothek, Archiv und Naturalienkabinett der Franckeschen Stiftungen', in F. Hofmann *et al.*, *August Hermann Francke: das humanistische Erbe des grossen Erziehers* (Halle), pp. 96–108.

Stow, J., 1971. *A Survey of London*, ed. C. L. Kingsford (Oxford).

Stoye J. W., 1952. *English Travellers Abroad 1604–1667. Their Influence in English Society and Politics* (London).

Sturdy, D. 1982. 'The Tradescants at Lambeth', *Journal of Garden History* 2. 1–16.

Taylor, F. H., 1948. *The Taste of Angels: a History of Art Collecting from Ramases to Napoleon* (Boston).

Temple, Sir R. C. (ed.), 1919. *The Travels of Peter Mundy, in Europe and Asia, 1608–1667* 3 (Hakluyt Society ser. 2, vols. 45–6) (London).

Terry, E., 1655. *A Voyage to East-Anglia* (London).

Thompson, E. M., 1875. *Letters of Humphrey Prideaux to John Ellis* (Camden Society 15) (London).

Thoresby, R., 1715. *Ducatus Leodiensis: or, the Topography of the Ancient and Populous Town and Parish of Leedes* (London).

Tradescant, J., 1634. *Plantarum in Horto Iohannem Tradescanti nascentium Catalogus* (n.p.).

Tradescant, J., 1656. *Musæum Tradescantianum or a Collection of Rarities Preserved at South-Lambeth neer London* (London) (reproduced here as Microfiche 5).

Turnbull, G. H., 1959. 'Robert Child', *Publications of the Colonial Society of Massachusetts* 38. 21–53.

Uffenbach, Z. C. von., 1753–4. *Merkwürdige Reisen durch Niedersachsen, Holland und Engelland* (Ulm).

Valentini, M. B., 1704. *Museum Museorum oder Vollständige Schau-Bühne aller Materialien und Specereyen* (Frankfurt-am-Main).

Vaughan, W., 1626. *The Golden Fleece Divided into three parts* (London).

Vernière. A., 1892. *Le Président Jean Savaron, érudit, curieux, collectionneur, et ses rapports avec les savants de son temps* (Clermont-Ferrand).

Walton, I., 1676. *The Universal Angler, Made so, by Three Books of Fishing The First Written by Mr Izaak Walton; the Second by Charles Cotton Esq; the Third by Col. Robert Venables* (London).

Ward, N., 1699. *The London Spy* 1 (London).

Warner, M. F., 1954. 'The Morins', *National Horticultural Magazine* (1954), 168–76.

Watson, W., 1750. 'Some account of the remains of John Tradescant's garden at Lambeth', *Philosophical Transactions* 46. 160–1.

Weber, K., 1940. *Lucius Cary, Second Viscount Falkland* (New York).

Webster, C., 1975. *The Great Instauration, Science, Medicine and Reform 1626–1660* (London).

Whitehead, P. J. P., 1971. 'Museums in the history of zoology', *Museums Journal* 70. 50–7, 155–60.

—— 1979. 'Georg Markgraf and Brazilian zoology', in E. van den Boogaart, H. R. Hoetink, and P. J. P. Whitehead (eds.), *Johan Maurits van Nassau-Siegen 1604–1679* (The Hague), pp. 424–71.

Williams, C., 1937. *Thomas Platter's Travels in England, 1599* (London).

Williams, R. F., (ed.), 1848. *The Court and Times of Charles the First . . . by Father Cyprien de Gamache* 2 (London).

Williamson, J. A., 1913. *Maritime enterprise 1485–1558* (Oxford).

Witkam, H. J., 1980. *Catalogues of all the Chiefest Rarities in the Publick Anatomie Hall of the University of Leyden* (Leiden).

Wittlin, A. S., 1949. *The Museum: its History and its Tasks in Education* (London).

Wood, A., 1820. *Athenæ Oxonienses*, 3rd edn., ed. P. Bliss (London).

Worm, O., 1655. *Museum Wormianum seu Historia Rerum Rariorum* (Amsterdam).

CATALOGUES

INTRODUCTION

All the objects catalogued here can be identified with some measure of certainty in the Ashmolean Museum's manuscript catalogues dated *c.*1685 (AMS 8 and AMS 18, otherwise known as 1685A and 1685B). Items inserted at a later date in these catalogues have been excluded, with the exception of No. 79, the entry for which is in the same hand as the primary record and is likely to be little removed from it in time. The 1685 entries are reproduced here in each case, following the description of the object and preceding its discussion. For a complete transcript and translation of the 1685 catalogues, see Microfiches 2–4. Wherever an item can be equated with an entry in the *Musæum Tradescantianum* of 1656, the relevant entry from that catalogue is also reproduced. For the entire text of the 1656 catalogue, see Microfiche 5. In a few cases, objects are identified in the 1656 catalogue, although no corresponding entry appears in those of 1685. The absence of a later entry may be explainable by oversight or temporary loss, or it may be that the items concerned were not included in the original donation of 1683, but arrived at a later date.

Inevitably, some doubt must be attached to the pedigree of certain objects. For example, only generalized and multiple entries can be found in the 1685 catalogues to correspond with some of the footwear (Nos. 50, 52, 55–7, 109). Similar uncertainty hangs over some of the items to which the less specific entries in the 1656 catalogue may refer: for example, many of those identified here with Tradescant's 'Rare and antient pieces carved in Ivory' might be expected to have merited individual description had they been exhibited at Lambeth. In each case, however, the evidence is presented so that the balance of probabilities can be judged by the reader.

ANTIQUITIES FROM THE FOUNDATION COLLECTION OF THE ASHMOLEAN MUSEUM

Edited by Arthur MacGregor
assisted by Elizabeth Sandford Gunn

With contributions from James Allan, David Brown, Robert Charleston, Anna Somers Cocks, Audrey Butt Colson, Valerie Cumming, Blanche Ellis, William Fagg, Christian Feest, Nicholas Gendle, James Harle, Patricia Herbert, Lewis Hill, Alfred Janata, Marion Johnson, Jonathan King, Christopher Lloyd, Ian Lowe, Arthur MacGregor, Edward McEwen, Alan McGowan, William Paterson, Nigel Ramsay, William Ryan, Elizabeth Sandford Gunn, Diana Scarisbrick, Raymond Singleton, June Swann, Gerald Taylor, Kenneth Teague, Mary Tregear, Geoffrey Turner, Jon Whiteley, Guy Wilson.

The objects are grouped in the catalogue primarily by continent of origin and subsequently by function. The authorship of individual contributions is noted at the end of each entry, and indebtedness for further advice is expressed in footnotes.

THE AMERICAS
(including Greenland)

1. PADDLE (Fig. 1). Made from a single piece of spruce or fir (*Picea* or *Abies* sp.) with two lanceolate blades. The paddle is extremely weathered and eroded, particularly in the soft areas of spring growth of the xylem or interior wood, but the basic outline is unaffected. Because of this erosion it is not now possible to determine whether the tips of the blades were originally fitted with bone plates: if not, then they may have been pointed, and have become flattened through wear. As well as being eroded, the wood is spongy from worm infestation, which has resulted in slight crushing of the edges of the blades.

The handle is of oval cross-section and was formerly equipped with a hand-grip consisting of a plate of bone or, perhaps, walrus ivory, which may also have strengthened the paddle. This was offset slightly to one side so that the plate would have passed across the palms of the hands of the person using the paddle, the different textures of the materials aiding the grip of the canoeist (or, more correctly, 'kayaker'). The plate was let into the handle and secured with twelve wooden pegs, remains of two of which survive. Drip-rings may have reinforced the function of the bone plate in preventing water running on to the grip as the paddle was being used; surface erosion has removed any trace of their former presence. One further feature is the presence of two holes, one in each blade: they have no apparent functional significance and, since they show traces of ferrous staining at the edges, may result from nails being used to display the paddle on a wall after collection.

1685 B No. 742: *Quatuor Remi qui supra dictis naviculis aptantur*

Dimensions: Length 2.09 m; Width (max) of blade 120 mm.

There is strong circumstantial evidence that this paddle is the only surviving item from a group of three kayaks and four paddles in the foundation

collection.[1] There is very little Arctic material in the 1656 catalogue: all the items listed have now disappeared, together with the kayaks and the other paddles mentioned in the 1685 catalogue. This example, which would appear to have been collected in the period between the compilation of the two catalogues, is probably from West Greenland.[2] The most likely means of acquisition at this time would be from a whaling expedition, since this was a period of intensive whaling activity around Greenland.[3]

Kayaks were by this time becoming a common feature of museum collections: Frobisher and Davis collected several,[4] as did Tunes;[5] Purchas recorded seeing one hanging in the house of Sir T[homas] Smith.[6]

Birket-Smith says that the double-bladed paddle, *pautit*, used in kayaks of this period, was equipped with lanceolate blades. He describes succinctly the action required to propel the kayak: 'The paddle is held with both hands. The blade is not carried perpendicularly into the water, but rather obliquely, so that the lower edge is nearest the kayaker, the blade moving like a paddle on a paddle-steamer. With every stroke the hand nearest to the blade is moved slightly nearer the latter and, after the stroke, again withdrawn. The paddle is thus in a perpetual gliding movement, from one side to another, in the hands of the rower.'[7]

The largest collection of early double paddles is the group of six in the Nationalmuseum, Copenhagen, all described as Greenlandic.[8] Two are of the same general shape, with lanceolate blades;[9] the first of these is very similar to the Ashmolean example except that it is fitted with

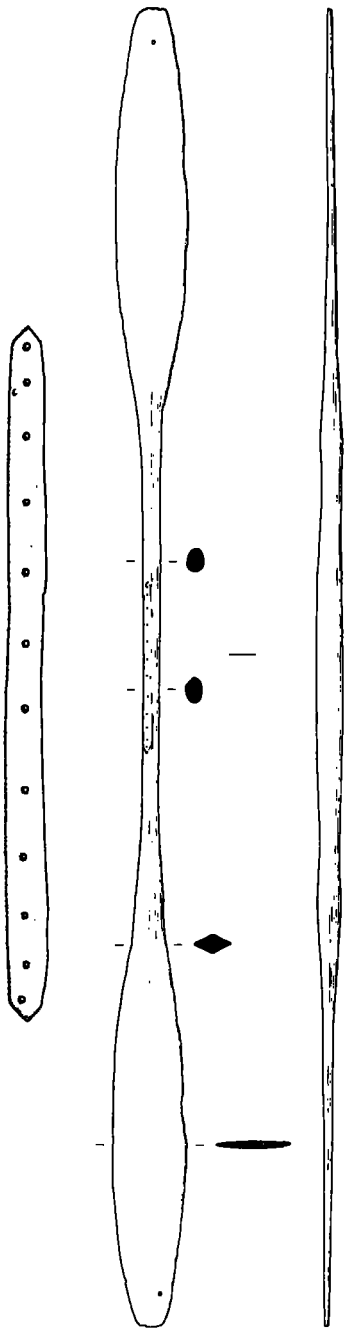


Fig. 1. Paddle, No. 1. Scale 1:12. (Detail of recess for hand-grip, Scale 1:3)

[1] When the 1886 catalogue of 'Anthropological Objects transferred from the Ashmolean to the Pitt Rivers Museum' (AMS 25) was compiled, this paddle was given the number 791. At that time it bore an old label numbered 739, relating it to a group of items numbered 738–42 in the 1685 catalogue and including (738) 'three boats commonly called canoes made of the skins of wild animals' and (742) 'four oars which fit the above small boats'.

[2] It has been suggested by Dr David Zimmerly (personal communication) that it may be from the MacKenzie Delta area. The documentation, however, seems sufficiently secure to preclude this possibility. I am grateful to Dr Zimmerly, to Dr J.-L. Rousselot, and to Mr C. J. Spring, for help in connection with this paddle.

[3] Gad 1970, pp. 217–58.

[4] Gosch 1897, p. 36, n. 3.

[5] Tunes records acquiring 'a great number of those small Vessels [kayaks] made to carry only one man' and 'A great Boat or Shallop forty five foot in length [an umiak] which might conveniently carry fifty persons': see de Poincy 1666, p. 118.

[6] Gosch 1897, p. 36, n. 3.

[7] Birket-Smith 1924, pp. 272–4.

[8] Meldgaard, in Dam-Mikkelsen and Lundbæk 1980, pp. 10–11.

[9] Nationalmuseet, Copenhagen, nos. ELc9, ELc23.

drip-rings of bone and bone blade-tips. The more common type of Greenlandic paddle has parallel or near-parallel sides to the blades which are often also fitted with bone edges. There are early examples of such paddles in Aberdeen, and in several Dutch collections.[10] Published accounts of voyages sometimes mention paddles, but usually in a non-specific manner. Baffin, for instance, noted on his 1612 expedition to Greenland that the paddle was 'broad at each end like our oares'.[11] Nicholas Tunes, who visited Davis Strait and Greenland from the Netherlands in 1656, talks of the way 'The middle of these Oars is beautifi'd with a bone or precious horn, as well as the ends, and by that place they hold them that they may not slip out of their hands.'[12]

A number of depictions of Eskimos from different parts of the eastern Arctic have survived from the sixteenth and seventeenth centuries, some of them showing paddles. The earliest realistic depiction of an Eskimo with a paddle is that by Lucas de Heere of a Baffin Eskimo man brought to England by Frobisher and painted in 1576.[13] The paddle in this picture has nearly parallel-sided blades, edged and tipped with bone, and drip-rings. In 1577 a man, woman, and child were brought to England by Frobisher. They were painted by several people, and various originals and copies of paintings by John White have survived.[14] While the paddles are shown less realistically in these paintings than in that by de Heere, some do show pointed double-bladed paddles, usually with drip-rings. During the following century, drawings, paintings, and engravings show paddles with lanceolate blades, and again they are usually equipped with drip-rings.[15] From these examples it seems likely that they may also originally have been fitted to the Ashmolean paddle.

J. C. H. King

2. BALL-HEADED CLUB (Fig. 2). The proximal half of the shaft has rounded edges and a zigzag pattern of irregularly-shaped pieces of brass (and a few of copper) driven into the surfaces of the sides. Four rows of the same material are found around the lower end, as well as irregular patterns at the butt end and on the upper side of the shaft. X-radiographs show these pieces to be angular fragments of sheet metal partially driven into the wood and bent over at right angles. The distal half has a flat cross-section and both expands and curves towards the oval head. The upper edge of this section bears a row of twelve cut-out triangular depressions containing remains of pitch but no trace of the material formerly inlaid. On both sides, bordering the design area just noted, is a groove which follows the curved edge, containing the same resinous substance as above as well as two tiny pieces of shell inlay. An irregular pattern of brass inserts is concentrated near the striking zone of the ball-head. A hole for the insertion of a carrying or suspension string appears at the junction of the proximal and distal halves. The dark wood[16] is well polished and shows no distinct tool-marks. The club is badly worm-eaten but has recently been conserved.

1656 p. 46: *Tamahacks, 6 sorts.*

1685 B no. 133: *Quinque alia instrumenta bellica ex India occidentali, Lignea, eae extremitates quae ictus dant globulis capitis infantis magnitudinis armantur. Haec etiam Tamahacks dicuntur.*

Dimensions: Length 0.54 m; Diameter of ball (max) 112 mm; Depth of depressed sections, 3 mm.

Bibliography: Bushnell 1907b, pl. G; Holmes 1908, p. 271, fig. 85; Peterson 1965, p. 85, fig. 1.

See discussion under No. 4.

3. BALL-HEADED CLUB (Fig. 3). The lower end of the shaft (which has an oval cross-section) is broken off, making the weapon approximately 100 mm shorter than it originally was. The remainder of the shaft has an almost rectangular cross-section, and both expands and curves towards the oval ball-head. On the right side of the club, near the head, a chevron-like hatched area is faintly discernible. Another differently-shaped hatched zone on the left side is less well defined. A hole for a

[10] For the Aberdeen paddle see Reid 1912, pp. 511–4, pl. XXXVI, fig. 2, and Souter 1934, *passim*; see also Whitaker 1954, pp. 99–104, and ibid. 1977, pp. 41–5, for a general discussion of the appearance of Eskimos and their kayaks off Scotland. For the Dutch examples see Nooter 1971, *passim*.

[11] Gosch 1897, p. 135.

[12] De Poincy 1666, p. 111.

[13] For a general discussion of Eskimo portraiture see Birket-Smith 1959. For a description of the first European portrait see Sturtevant 1980, *passim*.

[14] The de Heere, White, and other Frobisher-derived portraits are discussed in detail in Cheshire *et al.* 1980, *passim*, and those that survive are discussed and illustrated in Hulton and Quinn 1964, pp. 43–7, pls. 62, 63, 84, 85a, 147. On the possible significance of a picture formerly in the Tradescant collection see p. 94.

[15] For instance in de Poincy 1658, p. 193.

[16] The wood has not been sampled but is superficially similar to that of No. 3 (see n. 17).

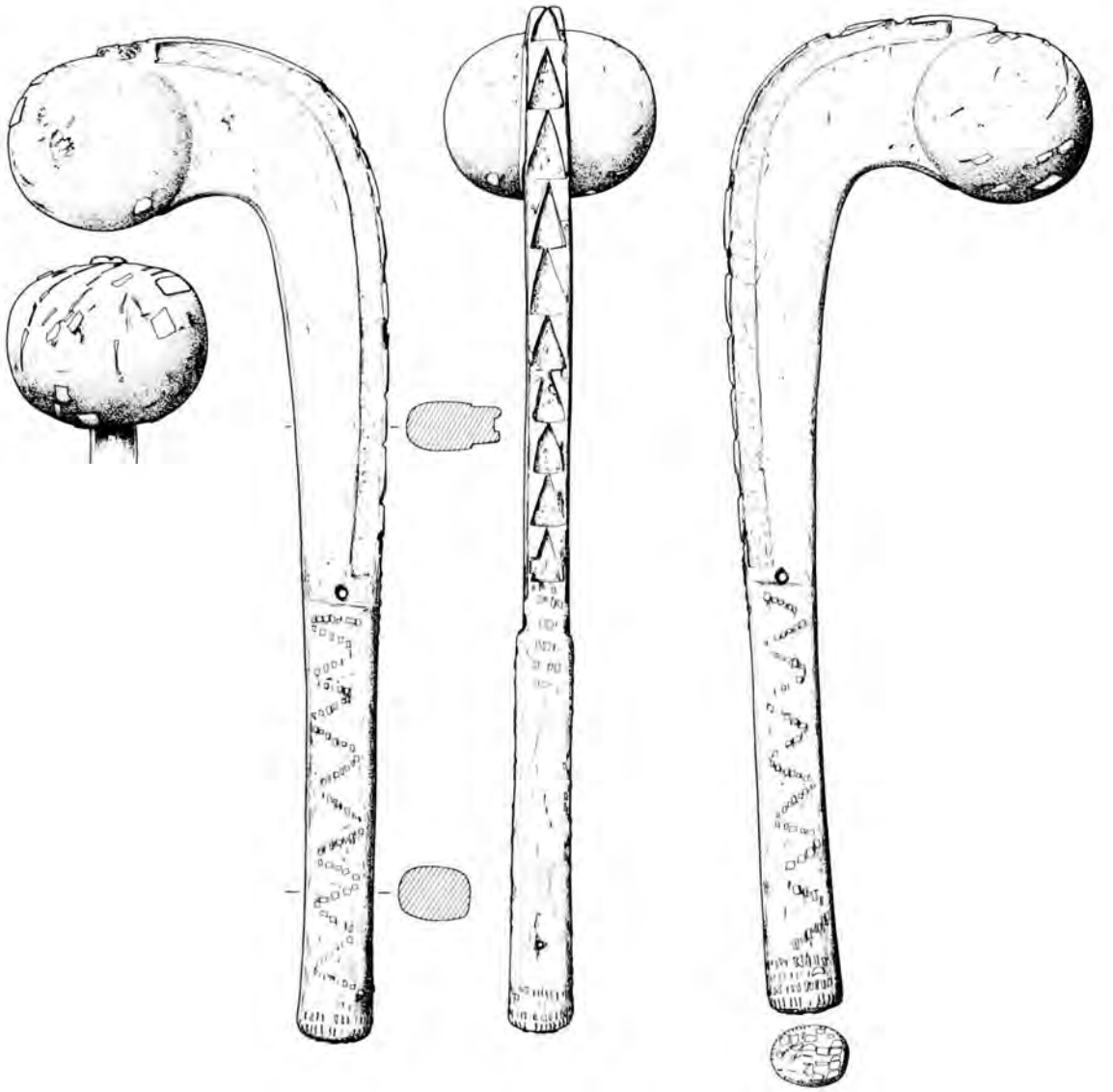


Fig. 2. Club, No. 2. Scale 1:4

carrying or suspension string has been made at the point where the two different cross-sections of the shaft meet. Immediately below the hole a row of shallow incisions extends around the shaft. The dark brownish-red wood[17] is well polished, but the carving is irregular as a result of the growth of the wood. The club is badly worm-eaten but has recently been conserved. There is a long crack in the lower front section of the shaft.

1656 p. 46: *Tamahacks, 6 sorts.*
1685 B no. 134: *Quinque alia instrumenta bellica ex India occidentali, Lignea, eae extremitates quae ictus dant globulis capitis infantis magnitudinis armantur. Haec etiam Tamahacks dicuntur.*

Dimensions: Length 0.50 m; Diameter of ball (max) 104 mm.

Bibliography: Bushnell 1907b, pl. G; Holmes 1908, p. 271, fig. 85.

See discussion under No. 4.

[17] Identified from a thin section by Miss Dorothy Catling as probably from the family *Cornaceae* (dog wood) or, less probably, *Cyrillaceae*.

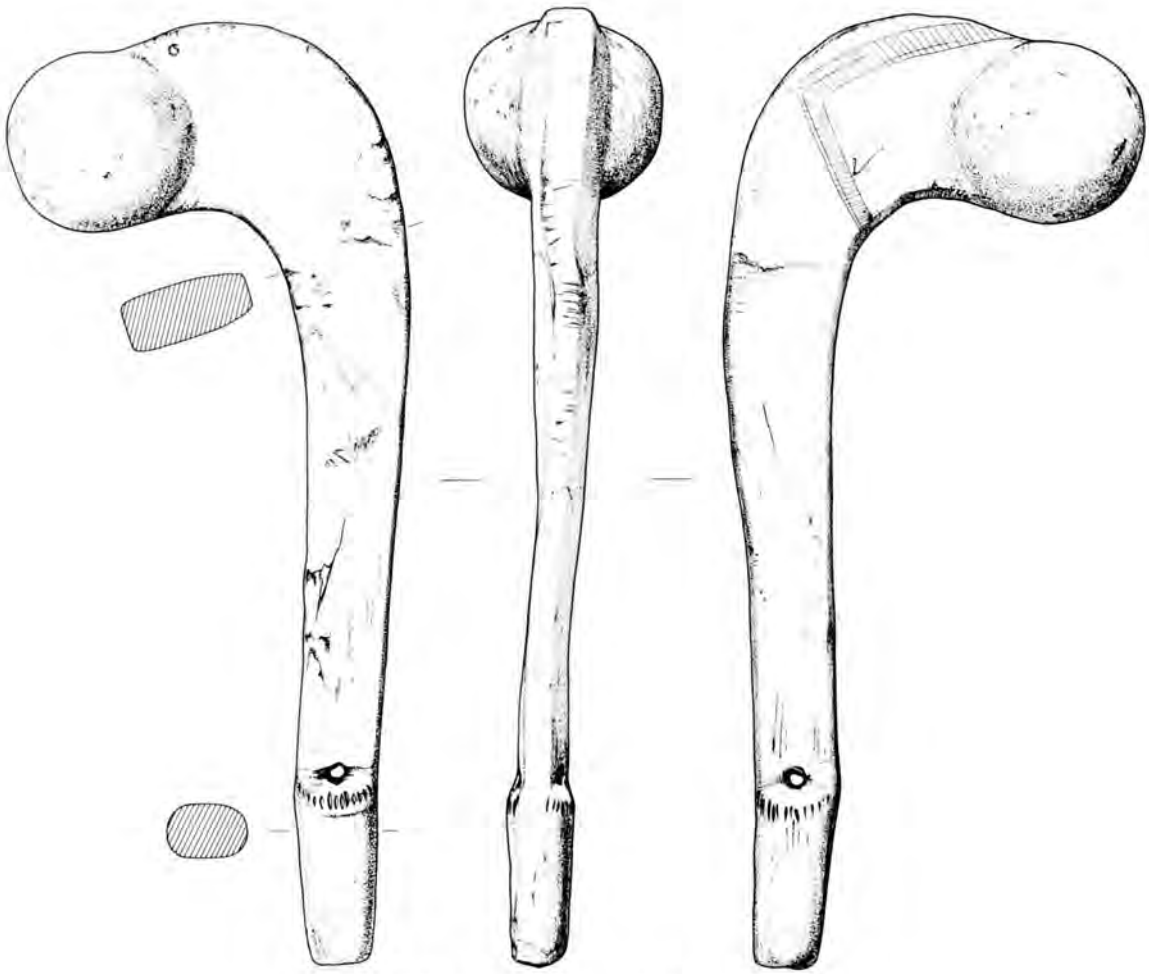


Fig. 3. Club, No. 3. Scale 1:4

4. BALL-HEADED CLUB (Fig. 4). The cross-section of the shaft is flattened, with a squared lower and a rounded upper edge throughout its length. It expands only slightly and curves towards the fairly round ball. The lower edge of the shaft continues as a shallow and tapering ledge on the ball. It represents the lower jaw of an animal, probably a snake, whose eye-sockets appear as conical indentations on both sides of the shaft. There are no traces of any cement in the sockets, but it is possible that the eyes were once inset or inlaid. All over the shaft, but especially on the sides, are incised designs consisting primarily of triangle, diamond, and zigzag patterns, with both hachure and cross-hachure. Some are faint and others have probably disappeared. A limited number of small, irregularly shaped pieces of brass and copper has been driven into the ball-head and into adjoining portions of the shaft. The shaft, which has been broken and repaired in the past, is perforated by an irregular transverse hole. The darkened, yellowish brown wood[18] is polished and had the least number of worm-holes of the three ball-headed clubs in the Tradescant collection prior to recent treatment. Some loss of wood on the ball-head, upper edge, and on the left side adjoining to the break zone has not been restored.

1656 p. 46: *Tamahacks, 6 sorts.*

1685 B no. 135: *Quinque alia instrumenta bellica ex India occidentali, Lignea, eae extremitates quae ictus dant globulis capitis infantis magnitudinis armantur. Haec etiam Tamahacks dicuntur.*

[18] The wood has not been sampled but is unlike that of No. 3 (see n. 17).

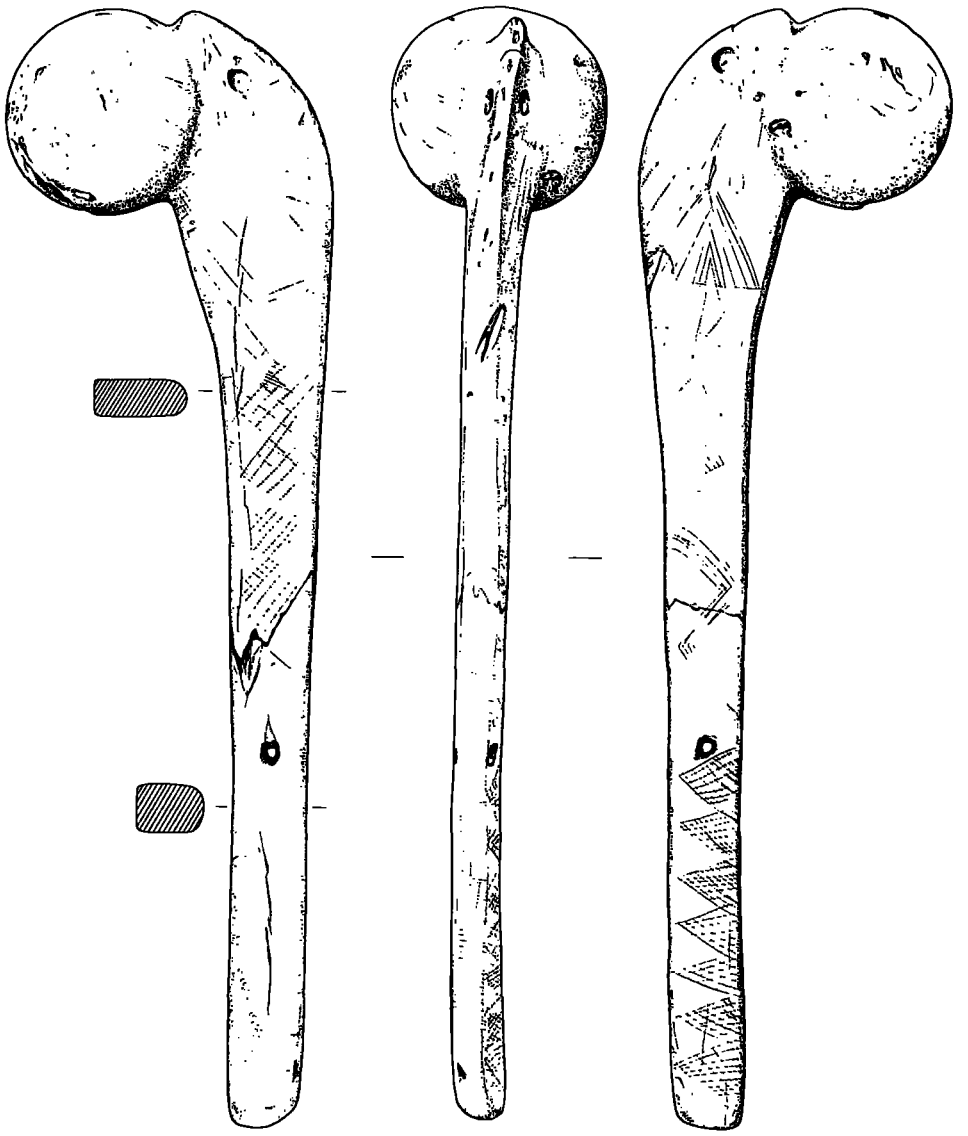


Fig. 4. Club, No. 4. Scale 1:4

Dimensions: Length 0.58 m; Diameter of ball (max) 108 mm.

Bibliography: Bushnell 1907b, pl. G; Holmes 1908, p. 271, fig. 85.

The term 'tomahawk' was introduced from the language of the Algonquian tribes of Virginia into colonial American English, where it was soon used for both wooden clubs of various shapes and for the hafted metal hatchets and axes of European origin which were introduced early to the native populations of eastern North America and employed by them mainly as weapons. Modern anthropological usage tends to restrict the term to metal axes, but early authors extended it to include clubs from outside eastern North America.[19]

Of the various types of clubs used in native North America, the ball-headed type had a generally northern distribution. It was found by European observers from the northern Chesapeake Bay area to the Canadian Maritimes, and from the Atlantic

[19] Feest 1965, p. 41; Peterson 1965, pp. 4–5; Holmes 1908, *passim*. See also Nos. 5–8.

coast to the Midwest. In historic times some Cree and Ojibwa groups carried the weapon into the northern Plains country, as far west as Montana and Saskatchewan.[20] Fur traders are said to have been responsible for its introduction to the Okanagan and Shuswap of the intermontane area of British Columbia.[21] A similar type of club seems to have occurred in limited numbers among the tribes of the Canadian Pacific coast, an example of which was collected as early as 1778 by Captain James Cook.[22]

There is some variation within the type, based on several distinctive features such as curvature, cross-section, shape and relative size of the ball, shape of the proximal end, use of points to arm the club, or use of carved, incised, or inlaid decoration. It appears that some of the variation is due to distributional and/or historical factors.[23]

Although the three surviving Tradescant clubs from north-eastern North America are the earliest securely dated examples of their kind to survive, there are others in ethnographic collections dating from the seventeenth century as well as from the early eighteenth. A few more are illustrated, and many more are described (however sketchily) in the written sources of the period. Three almost identical and highly decorated clubs now in Copenhagen, Stockholm, and Skokloster would seem to have come from the same master-carver, perhaps among the Delaware of New Sweden; another one in Copenhagen is probably likewise of Delaware origin.[24] A club in the Museum voor Volkenkunde in Leiden may have originated in the New Netherlands; still others in Paris and London look like early pieces but are even less well documented than those mentioned above.[25] In American collections there is only one supposedly seventeenth-century weapon of this type, attributed on the basis of tradition to King Philip, the famous Pokanoket chief.[26] One of the more important items for comparison is a picture dated 1710 of Nicholas (or Etow Oh Koam), a Mahican who together with three Mohawks became known during their visit to England as the 'Four Kings of Canada'.[27]

Before turning to the comparative material, the internal relationship between the Tradescant clubs should be discussed. Nos. 2 and 3 resemble one another in their strikingly curved shafts, each changing in section from a round proximal end to flat distal end, and in their oval heads. No. 4 differs on all those counts; it carries also representational carving (the snake-head holding the ball in its mouth) and even its wood seems to be different. There is, nevertheless, good reason to believe that No. 4 shares some of the cultural background of the other two: it has in common with No. 3 the rather similar incised designs, and like No. 2 it is decorated with irregular pieces of brass and copper, a feature so far not reported from other early clubs of the north-east. If an explanation was to be sought for the seeming contradiction between basic differences and unusual similarities, one could assume that No. 4 was acquired from another group (perhaps as loot or booty in war) and afterwards adapted to the use of the makers of Nos. 2 and 3.

The closest similarities to Nos. 2 and 3 are shown by the club now in Leiden and that in the 1710 painting of Nicholas the Mahican. The Leiden club is slightly less curved, but fully agrees in terms of the cross-section and the position of the perforation for the carrying-string (as do many of the other early clubs). The weapon carried by Nicholas, on the other hand, has a flat cross-section from end to end but duplicates the strong curvature. The representational carving on No. 4 (as well as its other features) is much less easily compared with the available early material in other collections. While balls carved in the shape of human heads or lizard-like animals crouching above the ball appear on several clubs (both early and later),[28] only late eighteenth- and nineteenth-century clubs from the western Great Lakes area (Ottawa, Ojibwa) show the ball held in the mouth of an animal.[29] In view of the frequent representational carving of the proximal end in early examples, the lack of such features on the Tradescant clubs is noteworthy.[30]

Shell inlays appear both on the seventeenth-century clubs from New Sweden and from New England, as well as on a club in the Horniman

[20] Feest 1965, pp. 44–5.
[21] Dietschy 1939, p. 126.
[22] Kaeppler 1978, pp. 256–7, fig. 558; Peterson 1965, p. 86, fig. 7.
[23] Feest 1965, pp. 42–50.
[24] Birket-Smith 1920, pp. 155–60, pl. 2; Linné 1955, pp. 85–7, Taf. 1; Rydén 1963, pp. 114–16, figs. 7–8.
[25] Bushnell 1908a, unnumbered illustration; Bushnell 1907b; Dietschy 1939; Feest 1980b, p. 55, pls. 61–2; Becker 1980.
[26] Bushnell 1907b; Salwen 1978, p. 171, fig. 6.
[27] Sturtevant 1974, p. 126.
[28] Birket-Smith 1920, pl. 2; Rydén 1964, figs. 7–8; Feest 1965, p. 49; Benndorf and Speyer 1968, pp. 78–9, 104, 107, Abb. 64; Hodge 1973, p. 103.
[29] Feest 1968, p. 38, Taf. 9c.; Benndorf and Speyer 1968, p. 94, Abb. 64; Hodge 1973, pp. 103–4; Maurer 1977, p. 106.
[30] Birket-Smith 1920, pl. 2; Rydén 1963, figs. 7–8; Hassrick 1960, pp. 39–40, fig. 36.

Museum in London, which in several respects resembles an Iroquois club drawn by J. Grasset de St. Sauveur in 1797.[31] Most of the early shell inlay consists of tubular wampum beads. It is just possible, but not very likely, that the groove parallel to the edge of No. 2 was once inlaid with wampum. The triangular depressions, however, are matched by similar depressions on the sides of the shaft of the club attributed to the so-called King Philip, where the inlay is also missing. In both cases the inlays must have been flat. Brass and copper inlays as on the clubs numbered 2 and 3 are so far unreported from any other ball-headed club. They appear, however, on Northern Iroquoian pipe-bowls of the seventeenth century, both recovered archaeologically and collected at the time, as well as on at least one wooden club of another type from the northeast. While being reminiscent of the much later decoration of clubs with brass tacks, the copper and brass pieces driven into the head may also have served to add weight to the striking end of the weapon.[32]

There is also no very close early parallel for the incised decoration of Nos. 3 and 4. Other than the faint incisions mentioned by Bushnell on a possibly early club now at the Museum of Mankind, London,[33] there are only much later examples.[34]

On the basis of the above comparisons, a southern New England or Mahican origin for the clubs Nos. 2 and 3 would seem to be indicated. No. 4 may originally have been of a more western workmanship, and adapted by the makers of Nos. 2 and 3.

C. F. Feest

5. CLUB (Fig. 5, Pl. I). Paddle-shaped club of dark wood,[35] rectangular in section. The head expands smoothly to a squared-off end, accidentally chipped on either side. The shaft tapers gently to an expanded, concave-sided terminal. Incised decoration covers both faces of the head, comprising two fields each with a central rhomboid element enclosing and surrounded by linked spiral motifs; notched rectangular panels occupy some of the corners. Bands of multiple chevrons enclose and separate the ends of the two fields.

1656 p. 46: *Tamahacks, 6 sorts.*
1685 B nos. 128–32: *Quinque instrumenta bellica ex India occidentali, ex ligno brasiliano confecta, quae vulgo Tamahacks appelantur.*

Dimensions: Length 1.40 m; Thickness 19 mm.

See discussion under No. 8.

6. CLUB (Fig. 6, Pl. I). Paddle-shaped club of dark wood,[36] similar in form to No. 5. The head is broken at either side and one side of the terminal is missing. Incised decoration on either face of the head is similar to that on No. 5.

1656 p. 46: *Tamahacks, 6 sorts.*
1685 B nos. 128–32: *Quinque instrumenta bellica ex India occidentali ex ligno brasiliano confecta, quae vulgo Tamahacks appelantur.*

Dimensions: Length 1.34 m; Thickness 21.5 mm.

See discussion following No. 8.

7. CLUB (Fig. 7, Pl. I). Paddle-shaped club of dark wood,[37] similar in form to No. 5. Incised decoration on either face of the head is only partly executed, the design on the uncut areas being laid out with incisions filled with black pigment. On the more complete face, two fields are each divided by intersecting diagonal lines; the upper and lower triangular areas so formed each enclose a central rhomboid element flanked by smaller triangles, all enclosing linked spirals, while the lateral triangular areas contain linked spirals only. In the lower field the lateral triangles are bordered with chevron ornament. On the less complete face, the upper field, which is partially finished, has a design corresponding to that in the lower field on the opposite face; the lower field is blank. Transverse lines mark the sites of intended bands of chevron ornament on both faces.

1656 p. 46: *Tamahacks, 6 sorts.*
1685 B nos. 128–32: *Quinque instrumenta bellica ex*

[31] Birket-Smith 1920, pl. 2; Rydén 1963, figs. 7–8; Bushnell 1907b, p. 98; Sturtevant 1974, p. 120; Salwen 1978, p. 171, fig. 6; Feest 1980b, p. 55, pl. 61; Becker 1980.

[32] Birket-Smith 1920, p. 67, pl. 2, fig. 7; Brasser 1978, p. 87, fig. 5; Dwight 1821, p. 118; also George R. Hammell (personal communication) who supplied some of the above references. See also Feest 1965, p. 46.

[33] Bushnell 1970b, p. 99.

[34] Krickeberg 1954, p. 179, Taf. 39a–b; Feest 1968, p. 65, Taf. 9a; Benndorf and Speyer 1968, pp. 93, 104, 107, Abb. 64–5.

[35] A thin section of the wood has been examined microscopically by Miss Dorothy Catling, who identifies it as *Brosimum*, almost certainly *B. caloxylon* Standl., closely related to the Bloodwood Cacique of Panama. According to Record and Hess (1943, pp. 380–3), *Brosimum* is widely distributed throughout tropical America: the *B. caloxylon* frequently utilized by the Indians was obtained not as fresh timber but from old trunks from the forest floor, from which all but the heartwood had been stripped by insects and decay. It was held to have many supernatural and medicinal qualities, and was used for carving and for the production of symbols of office for tribal chiefs.

[36] Superficially identical with the timber described in n. 35.

[37] As n. 36.

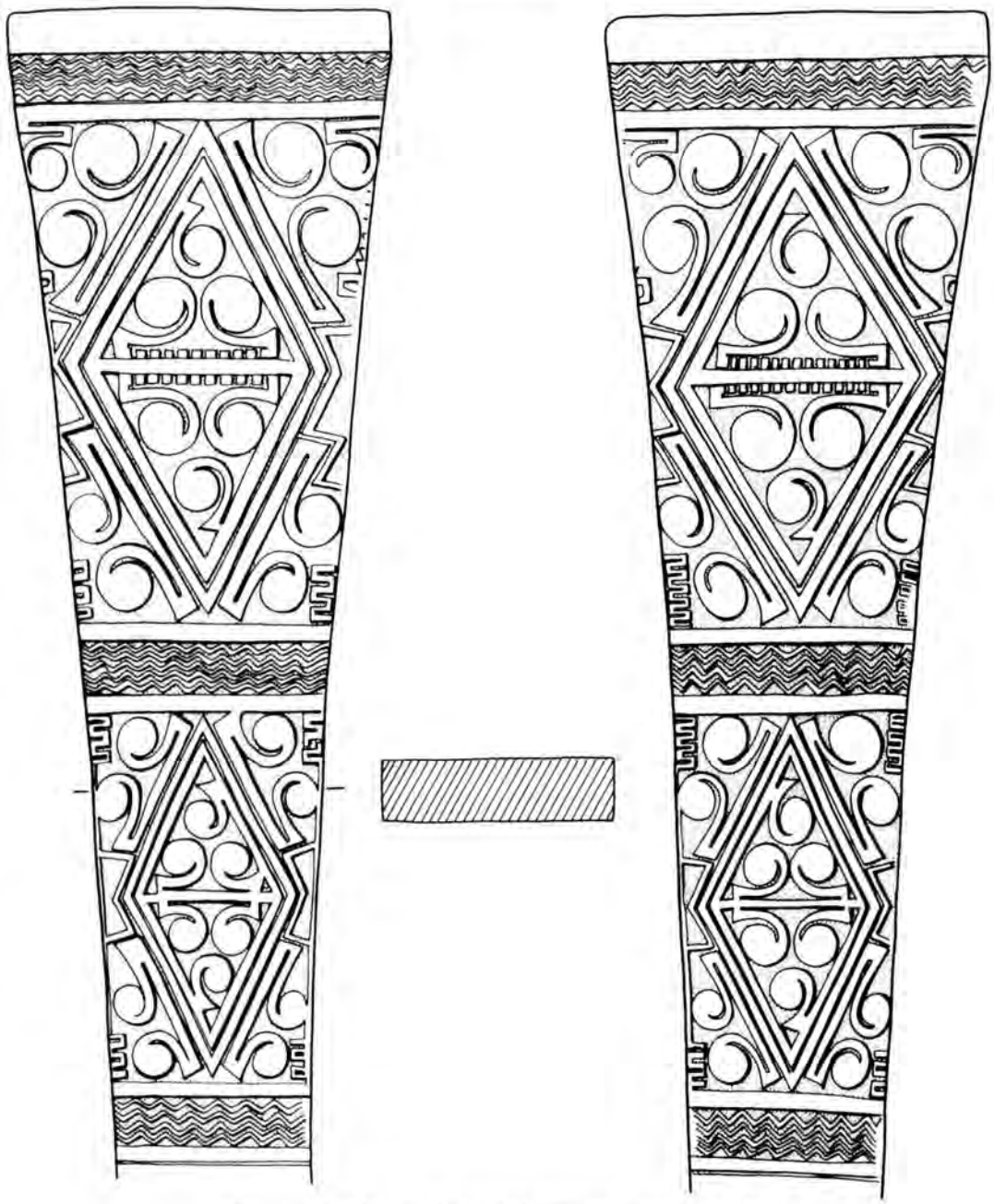


Fig. 3. Club, No. 5; detail of decoration on head. Scale 1:2

India occidentali, ex ligno brasiliano confecta, quae vulgo Tamahacks appelantur.

Dimensions: Length 1.24 m; Thickness 17.5 mm. See discussion under No. 8.

8. CLUB (Fig. 8, Pl. I) of dark wood[38] similar in form to No. 5. The expanded terminal has been chipped and has a drilled perforation for suspension. Incised decoration covers both faces of the head: a central field, bounded by double borders filled with dots and with narrow medial expansions, is surrounded by and encloses multiple linked

[38] Thin section identified microscopically by Miss Dorothy Cutling as *Brosimum*, probably *B. caloxylon* (see n. 35).

Fig. 6. Club, No. 6: detail of decoration on head. Scale 1:2

spirals; on one face is an open triangular feature near the top, while on the other face a rhomboid motif at the top is matched by a pair of converging double lines at the bottom. Bands of chevron ornament line the top and bottom of the decorative panels.

1656 p. 46: *Tamahacks, 6 sorts.*
1685 B nos. 128–32: *Quinque instrumenta bellica ex India occidentali, ex ligno brasiliano confecta, quae vulgo Tamahacks appelantur.*

Dimensions: Length 1.14 m; Thickness 18.5 mm.

On typological grounds, these clubs can be assigned with near certainty to the South American tropical forest area, a conclusion supported by the timber analyses of Nos. 5 and 8.[39] So far it has proved

[39] See n. 35.

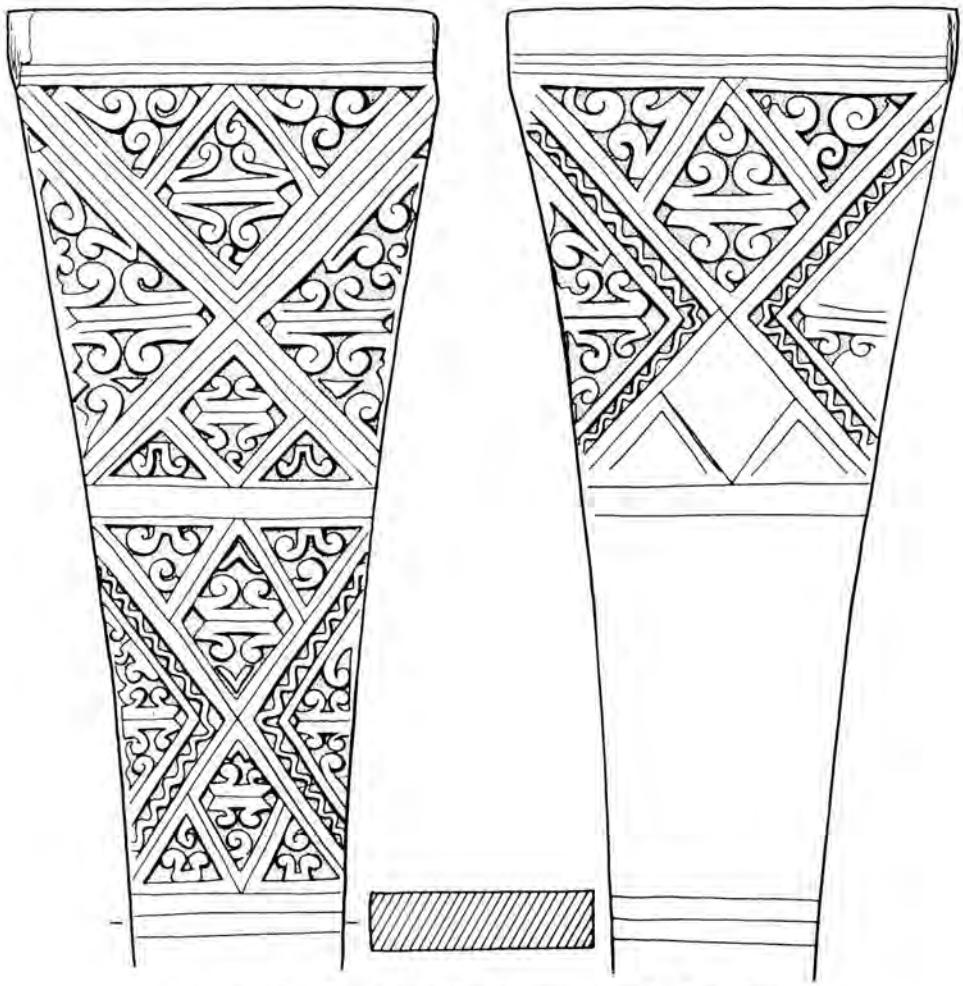


Fig. 7. Club, No. 7: detail of decoration on head. Scale 1:2

impossible to identify their exact origins, but comparisons may be drawn with clubs assigned to the general area of Brazil and Guiana which are to be found in several European collections. The ornament on Nos. 5 and 6, for example, resembles that on three clubs in the Nationalmuseum, Copenhagen,[10] a club formerly in the Musée du Trocadéro, Paris and another in the Museum of Mankind, London.[11] The decoration on No. 7 is akin to that on a club in Copenhagen, on one in Florence, and on one in Munich.[12] No close parallels have been noted for No. 8.

While the clubs considered here bear some resemblance to those listed above, they have certain unusual features which seem to exclude a Guianese origin. For example, the background to the decoration is cut away, creating a patterning in strong

[10] Nationalmuseet, Copenhagen, nos. EHb18–20. See Stolpe 1927, I(12), II(7), and III(6); Due, in Dam-Mikkelsen and Lundbæk 1980, pp. 32–3. The rhomboid motifs involved in the decorative schemes of these clubs have been interpreted by Stolpe (1927, I) as headless human figures, some of the spirals representing limbs and others being merely filling-in ornament. The linked spirals may also be compared with the 'scorpion's tail' pattern found in tattoos of the Akawaio of British Guiana (Butt 1957, pp. 40–54; id. 1961, pp. 149–54).

[11] See Stolpe 1927, II (8). Museum of Mankind, London, no. 4913: See Stolpe 1927, II(6). This club was obtained by exchange from the Ashmolean Museum in 1868 and may originally have formed part of the group discussed here. A second club in the Museum of Mankind (no. 1971, AM.5.3), formerly in the Leverian Collection and thought to have originated in the Guianas, also bears comparison with our Nos. 5–8.

[12] Nationalmuseet, Copenhagen: see Stolpe 1927, III(2). Museo Nazionale di Antropologia ed Etnologia, Florence, no. 287: see Stolpe 1927, III(3). Ethnographisches Museum, Munich, no. 143: see Stolpe 1927, III(5).

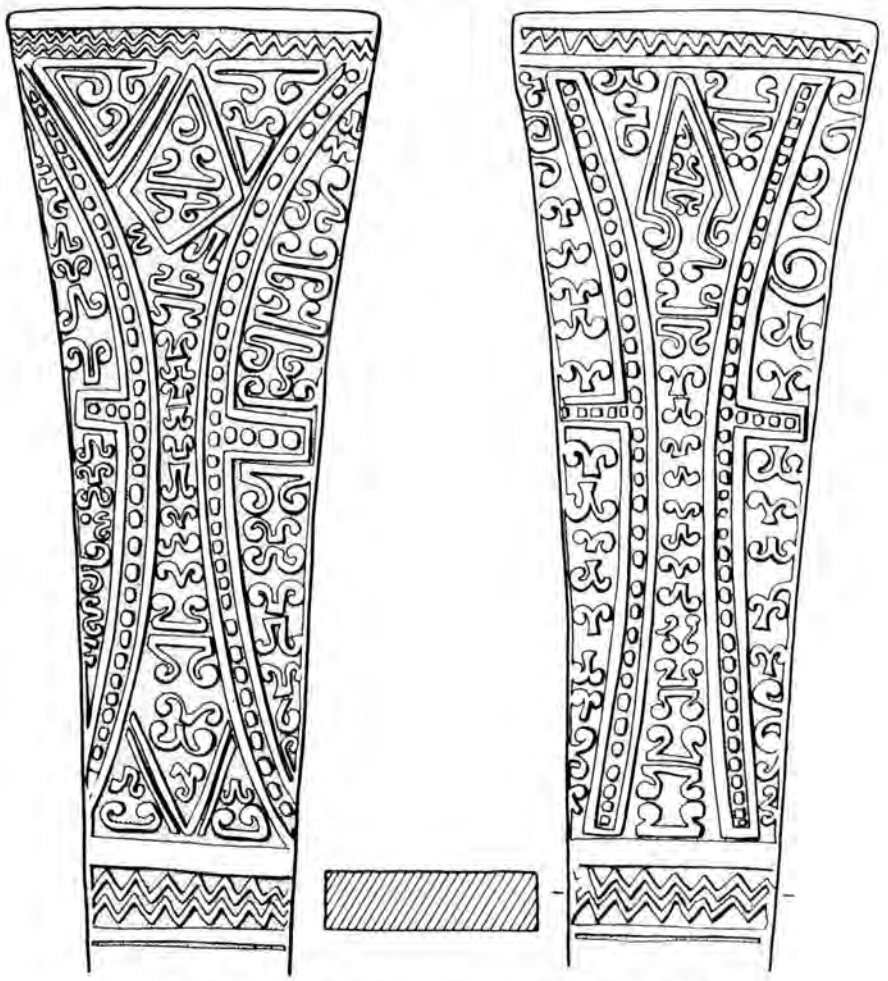


Fig. 8. Club, No. 8: detail of decoration on head. Scale 1:2

relief, contrasting with the fine incision work found on patterned clubs from the Guianas.[13] Another difference is in size and shape: Roth shows types of spatulate and paddle-shaped clubs from the Uapes River, North-west Amazon, and also variations in shape of Guiana clubs;[14] of the latter it is his 'obsolete Type a', from the upper Rio Negro, which is nearest in form to the Ashmolean specimens. Guiana clubs in general are short, in the region of 0.4 m, compared with an average of 1.28 m for those in the Ashmolean. It may be noted that by the end of the nineteenth century it had become increasingly difficult to obtain clubs in the Guianas and many other areas of South America, because inter-group hostilities in which clubs would be used had become very infrequent. Owing to the extension of Christian missions and colonial administration, followed by the establishment of national governments, warfare gradually died out, and clubs, no longer needed, ceased to be manufactured. Those obtainable became less and less decorated, many being completely plain.

Although Roth describes an instance of open warfare reported from the Makushi Indians, Carib

[13] The difference is made clearly discernable in a work by Zerries (1966–7, pl. 2), who illustrates a club very similar to our No. 7 side by side with several others of the more typical incised kind. One tentative explanation for this peculiarity is that the 'abnormal' clubs may be the products of Bush Negroes: this suggestion finds some support from Professor A. N. Figueiredo (personal communication), who notes certain correspondences with products of the Djukas of Surinam and the Samarcâ of French Guiana.

[14] See Roth 1924, pl. 36B, for clubs from the Uapes, and ibid., 172, fig. 58 for variations in the shape of Guiana clubs.

speakers of the Rupununi district of Guyana, in which, after a number of poisoned arrows had been shot, war-clubs were used in close personal combat,[45] the customary use of clubs was during surprise attacks. This often took the form of creeping up on a settlement at night or just before dawn, firing the thatch, and clubbing the inmates as they were forced to emerge through the doors of their huts to escape the flames and smoke. The short clubs of the area were more suited to this method of fighting. However, among the Yanomamö of the Brazilian-Venezuelan border, club fights still occur within and between villages. Their clubs are quite plain, in the form of poles some 2.5 m to 3 m in length, which may be sharpened to a long point so that they can be used as pikes.[46]

A. Butt Colson

9. SELF BOW (Fig. 9). Made from a single piece of reddish-brown hardwood with a flat back and rounded belly. There is a shallow groove 1 m in length cut into the back of the bow. One half of the bow has taken a set (in other words, become distorted), while the other remains reasonably straight. There are no nocks for holding the bowstring, but the tips abruptly taper in thickness from 21 mm to 8 mm.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 24: *Tres alii arcus ex ligno brasiliano elaborati, eadem cum prioribus figura, sed breviores.*

Dimensions: Length 1.63 m; Width (max) 31 mm; Thickness (max) 15 mm.

This specimen is probably of Brazilian origin. Brazilian Indian bows fall within the category of self bows, i.e. they are invariably made from a single piece of wood. The limbs are tapered at either end and may or may not have notches cut to receive the bowstring. Bows of various cross-sections were produced which were not confined to any particular tribe or geographic area, and consequently it is impossible to do more than attribute this specimen to the general area of Brazil, particularly as the bowstring is missing and there are no arrows associated with the weapon.

Bows were made with the most primitive of tools, stone axes and shell planes for shaping, scrapers and sandstone for smoothing, sometimes followed by the use of leaves of the *lixeira* tree which have siliceous crystals naturally occurring in their composition. The wood was worked when wet, presumably because it was easier to cut in this state. A number of different woods were used, including palms and *Leguminosae*. Straightening the stave was achieved by anointing it with hot palm-nut oil and heating over a fire.[47] Bows made in this fashion from green wood probably did not last long and must have lost their cast in a short time, as indicated by the set which such bows usually adopt. However, there was no shortage of materials, and a bow could be replaced in a comparatively short period of time with a minimum of labour and virtually no cost.

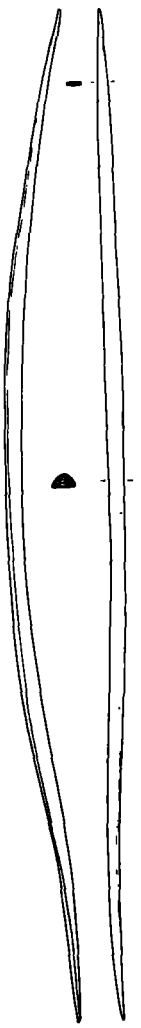


Fig. 9. Self bow, No. 9. Scale 1:12

[45] Roth 1924, p. 583.
[46] Chagnon 1968, ch. 5.
[47] Heath and Chiara 1977, p. 38.

Within the short range dictated by the length and weight of the arrows used with the bow, these weapons were surprisingly effective and quite capable of fulfilling all the requirements of hunting and war.

E. McEwen

10. WAMPUM BELT (Figs. 10–11, Pl. II). Eight rows of white and purple shell beads are aligned between nine warps of leather cord on wefts of vegetable fibre. The shell beads are of the type generally known as wampum. Made of the shell of *Mercenaria mercenaria* L.,[48] they are cylindrical in shape, with lengths ranging from 5 to 8 mm (but mostly between 5 and 6 mm), and with diameters between 3 and 4 mm. X-radiography clearly shows that the beads were drilled from both ends. The perforations vary somewhat in diameter, and most of them appear cylindrical rather than conical. This seems to indicate the use of metal drills in combination with the native technique of drilling from both ends, which was necessary only as long as the perforations were conical. The dark beads range in colour from a light, reddish purple to an almost black blue.

The warps each consist of two thin leather thongs which are S-twisted together. The fifth warp exhibits a Z-twist, but this seems to be secondary and made after the original twist had been unravelled. The weft is a two-ply, Z-twisted vegetable fibre yarn, made most probably of *Apocynum*,[49] also known as 'Indian hemp'.

The beads are each held in place by two wefts passing through the perforation and on either side of the adjacent warps. At the edge warps, the pair of wefts cross over each other before going through the next row of beads.

The surviving 114 purple and 198 white beads represent certainly less than half the original number. Besides losses at both ends, there are three major sections and one minor section within the design area where beads have been lost. The remaining patches of woven beadwork have over the years slightly parted along the warp. Despite the fact that some rearrangement of beads has obviously taken place in the past (one can be documented from a series of (undated) photographs in Ashmolean archives), the original pattern can be reconstructed with some confidence. The design consisted of at least four, but probably five or more repetitions of a unit of 168 or 176 beads each (70 or 78 purple, 98 white) forming groups of wide and narrow diagonal bars framing two horizontal and two vertical lines. The pattern should probably be read dark on white.

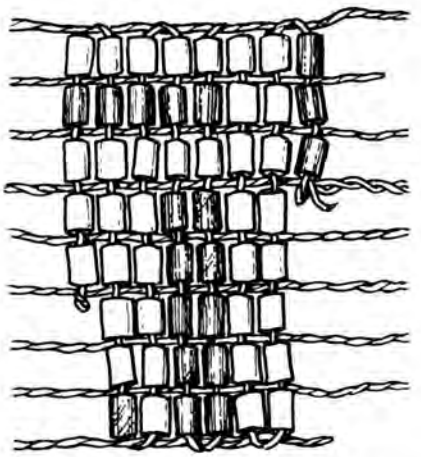


Fig. 10. Wampum belt, No. 10: detail of method of stringing. Scale 1:1

1656 p. 51: *Black Indian girdles made of Wampam peek, the best sort.*

1685 B no. 270: *Armillae indica nigra ex Wampampook compositae*, or,

1685 B no. 271: *Armilla Indica alba ex Wampampook facta.*

Dimensions: Length (max) of warp 495 mm; Width 53 to 60 mm.

Bibliography: Bushnell 1906, pp. 172–3.

'Wampum' and 'peake' are two more or less synonymous abbreviations of the colonial American English word 'wampumpeake', which itself was derived from an eastern Algonquian word meaning 'white strings (of shell beads)'. In modern usage, 'wampum' refers to white and purple tubular shell beads made from a number of different marine shells by both Indians and whites in north-eastern North America. The beads were either strung or woven into belts, bracelets, collars, caps, or the like.

[48] Identified by Ms Solene Whybrow, British Museum (Natural History).

[49] Identified by Dr W. C. Sturtevant. Dr Sturtevant, who studied the North American material from the Tradescant collection in 1960 and again in 1967, had been invited to contribute the entries for the wampum belt and the three ball-headed clubs in the present catalogue, but regretfully had to refuse since he had other obligations. He kindly gave all of his notes on the North American material in the Tradescant collection to the present author who herewith acknowledges his indebtedness and gratitude. See also Feest 1967, p. 10, n. 41.

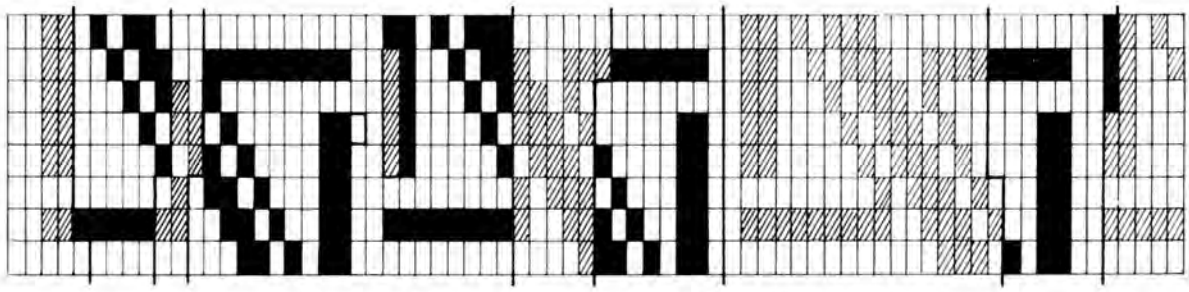


Fig. 11. Wampum belt, No. 10: schematic reconstruction of bead pattern

These products were used for personal ornamentation, as mnemonic devices in ceremonial and political contexts, and as expressions of material and spiritual values by members of both Iroquoian and Algonquian tribes of the north-east.[50]

While it cannot be doubted that wampum was made in smaller quantities, especially by coastal populations before the arrival of Europeans, large-scale production was clearly a function of the availability of metal drills, which helped to reduce enormously the time necessary for their manufacture. In particular the production of belts, for which hundreds and even thousands of beads were necessary, would not have been easy in pre-European times. It is in the form of belts, on the other hand, that most wampum survives today, because hundreds of belts were made for use in negotiations and other forms of inter-ethnic relations, as well as for ceremonial purposes (not to mention those made simply as ornaments). One native tradition suggests that the Iroquois originally made their belts of cylindrical beads cut from porcupine quills,[51] but, on the whole, evidence from the early sources frequently shows that functions later served by wampum were earlier served by other kinds of shell beads, for instance of the disc-shaped sort.[52]

Although there are earlier references to wampum belts in the written sources, those mentioned in the 1656 catalogue may be the earliest to be collected in any museum.[53] A comparison of entries in the 1656 and 1685 catalogues, however, reveals some discrepancies between the descriptions and the surviving item. The printed catalogue mentions exclusively black belts or 'girdles', while twenty-nine years later two items referred to as *armillae* are distinguished on the basis of colour, one black and the other white. Even though *armillae* clearly means 'bracelets', and though such wampum bracelets exist, 'belts' are probably intended.[54] A belt now in the Pitt Rivers Museum,[55] which was among the items transferred from the Ashmolean Museum in 1886, may be considered as being possibly of Tradescant origin. Although the two items differ in so many details as to suggest different native origins in north-eastern North America, they are similar in dimensions. This similarity in size may help to explain the terminological confusion noted above: while both belts are clearly not bracelets, both are too short to be worn as belts (which does not preclude their use as mnemonic belts). If these two belts are identical with the two *armillae* of 1685, the one now at the Ashmolean should, on the basis of overall impression, be regarded as the white one, while that now at the Pitt Rivers Museum would, be contrast, be the black one mentioned in the catalogue. Either or both could be identical with the 'girdles' of 1656.

The conventionalized designs on belts used in politics and ceremony were associated with specific meanings, which may not have been the case with designs of belts used for personal ornamentation. The designs do not form a coherent code, and cannot be read by anyone not instructed in the meaning of a specific belt. Traditionally, tribes participating in the 'protocol of wampum' en-

[50] Speck 1915 and 1919; Slotkin and Schmitt 1949; Krickeberg 1954, pp. 218–37; Henry 1972, pp. 198–232; Tooker 1978, pp. 422–4; Wilcox 1976, and the literature cited there.

[51] Tooker 1978, p. 424.

[52] Feest 1967, pp. 7–21.

[53] The Royal Society collection, which was later merged with that of the British Museum, received three belts ('girdles'), two strings, and two pairs of bracelets in 1669 as a gift of Governor John Winthrop of Connecticut. See Birch 1756–7, 2, 418–19.

[54] The naturalist John Banister, writing about wampum at the time the 1685 catalogue was compiled, does distinguish between 'armilla', 'balteus', and 'corona' as three varieties of articles made of woven beads (Ewan and Ewan 1970, p. 322).

[55] Pitt Rivers Museum, No. A.M. 833. See No. 354.

trusted the safe keeping of belts and their messages to specific officials who would pass their knowledge down through the generations. Whenever belts have become dissociated from the traditional interpretation of their design, only vague guesses based on the known interpretations of similar designs are possible. European colonists of the early colonial period looked at wampum primarily (but somewhat incorrectly) as a substitute for money, so no efforts were made to enquire into the meaning of the designs.

Virtually the same design as on the Tradescant belt appears on a belt of supposed Huron origin in the Bibliothèque Nationale collection at the Musée de l'Homme in Paris; dated by Hamy alternately to the seventeenth and eighteenth century,[56] it was probably collected slightly later than the Tradescant belt, but is in an almost perfect state of preservation. The colour scheme is reversed on the Paris belt, so that a white design appears on a dark background, and there is a continuous white border on both sides which makes the purple negative shape stand out as a swastika-like positive design. The design units are between 25 and 27 (rather than 22 or 23) beads long, because both purple and white diagonal bars are two or three (rather than one, two, or three) beads broad. The unit is represented eight times completely and twice in part. At a width of eight beads, the Paris belt consists of 1,818 pieces of wampum. Unfortunately, the significance of the design of the Paris belt is also unknown, and thus it can shed no light on the meaning of the pattern on the Tradescant belt. It is not unlikely, however, that the designs displayed by both these belts were purely decorative and without conventionalized meaning. They resemble most closely some of the patterns found on north-eastern twined belts, bags, prisoners' ties, and burden straps, decorated with polychrome false embroidery in moose hair.[57]

C. F. Feest

11. SKIN SHIRT (Figs. 12–18, Pls. IV–V). A knee-length closed tunic made of caribou skin, probably frost-dried, and decorated with fringes and porcupine quillwork in a variety of techniques.

[56] Hamy 1897, vol. 1, pl. 1.

[57] See Brasser 1975, figs. 11–15, 30–51.

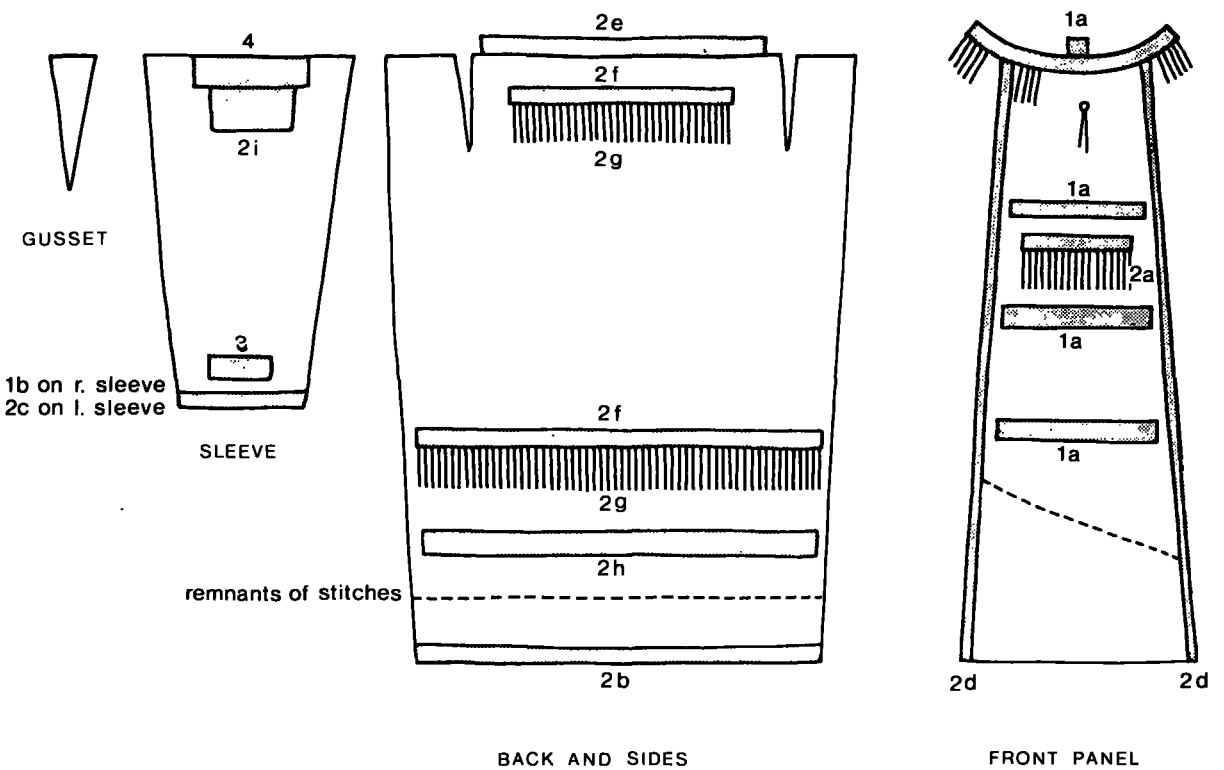


Fig. 12. Skin shirt, No. 11: schematic representation of constructional and decorative elements

A single skin forms the back and sides of the garment, supplemented by a wide front panel cut from a second skin. One-piece sleeves, cut straight at the base and tapering slightly to the cuff, are set with slight puckering into vertical slits at the shoulders. Small triangular gores, one in each armpit, may serve to piece out the material rather than as structural features. There is a third small insertion at the rear of the left sleeve. Both sleeves are seamed on the underside for the whole of their length. The front panel is cut slightly shorter than the main piece, to leave an oblong neck aperture.

All structural stitching (except for some obvious replacements) is done with rather coarse, Z-twisted sinew thread. Seams are top-sewn on the inside of the garment, in many places with no more than two stitches per centimetre. The stitch-holes appear as fine slits, indicating the use of an awl rather than a needle.

Both front and back panels show profuse lesions inflicted in life by warble-fly (*Hypodermatidae*) larvae. A cut over the left breast, perhaps sustained in fighting, has been carefully repaired with sinew thread, as have some smaller rents. Part of the base of the front panel has at some time been cut away.

The decorative bands on the shirt are attached by top-sewing to small folds taken up in the skin. The sewing is somewhat casual but seems to be in keeping with the age of the garment. The bands themselves may be older; all except no. 3 on the sleeves (Fig. 15) have raw, untrimmed edges, which suggests that they were cut from other clothing and reused. The four types of quillwork employed are:

1, a–b	woven quill bands;
2, a–i	slashed skin bands wrapped with quills;
3	skin strips quill-wrapped in pairs;
4	quill-wrapped slats mounted on a separate skin base.

The quills are used in their natural white, or dyed yellow, orange, red, and brownish-black.[38] The degree of fading that has occurred may be judged by examining the unexposed reverse sides of the work, where some quills now orange retain their pristine red. Where 'black' is mentioned below, a brownish-black is to be understood; the dimensions given for the bands represent mean widths.

1 Woven quill bands

For woven quillwork a warp of sinew or vegetable fibre is stretched between the tips of a small wooden bow and spaced by slides of perforated birch bark which also act as battens. Quills, moistened for flexibility, are passed parallel to the warp, over and under a sinew or fibre weft (Fig. 13). The weft elements are packed closely together, and the quills present an evenly corrugated surface which becomes fairly rigid as they dry.[39]

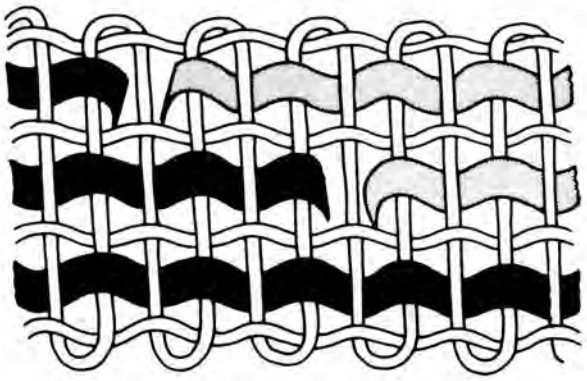


Fig. 13. Skin shirt, No. 11: schematic representation of woven quill bands

(a) Three bands, each 37 mm wide, crossing the front panel: one small piece, 38 mm × 42 mm, superimposed on the neckband. All have eleven rows of quill, and may have been cut from one continuous length. Orange, (faded) red, black, and yellow strips; at intervals of 150 mm the yellow encroaches on the black in groups of three rectangular panels (Fig. 14). The two upper bands are sewn on inside-out, showing the trimmed-off ends where individual quills begin and end; the stitching does not differ from that holding other bands.

(b) Band, 30 mm wide, on lower edge of right sleeve. Nine rows of quill; alternating fields of white and orange, separated by narrow black columns (Fig. 14).

2 Slashed skin bands, quill-wrapped

Bands of skin slashed to form fine fringes. Each strand of fringe is wrapped with quill and held parallel with the rest by a length of sinew or fine skin thong laid across and secured by a sinew lashing; the lashing passes round the restraining thong and in turn round each fringe strand (Fig. 16). Below the lashing the fringe may be cut short or

[38] The dyes have not been tested but are typical of those, mainly vegetable, used in American Indian quillwork.

[39] See Orchard 1916, pp. 54–8; id., 1974, fig. 142.

left to hang free for some distance. In some cases the wrapping process is repeated, with a further restraining thong or thongs.

(a) Band, 25 mm wide, loosely attached below upper woven-quill band, across front; band (badly worn) along front of neck. Alternating fields of white (originally yellow) and orange, separated by narrow bands of black. Basal edge of neckband reddened, possibly with ochre. Fringe elements solidly quill-wrapped. Fringe held by sinew thong secured by sinew lashing. Below this lashing every second strand is cut short, the remainder extending into a pendent fringe. These free-hanging strands are quill-wrapped at short intervals, in white, black, and orange. The extremities are solidly wrapped in strips of smooth (?cherry) bark[60] and knotted back into a loop. Each knot is covered by a bead made from a beaver claw with the tip removed[61] (Fig. 17). Many beads are now missing.

(b) Band, 22 mm wide, along the bottom edge of the back, extending from the seam of the front panel on the right side but failing by 22 mm to meet the equivalent seam on the left. Alternating fields of orange and white quill, separated by black bands enclosing orange or white rectangles (Fig. 14). The fringe is bound with sinew to a fine thong of skin, which produces a firmer and more prominent ridge than the sinew-over-sinew lashing of other fringes. Below the lashing most of the ends are trimmed short, but signs remain of an original pendent fringe, possibly similar to 2(a).

(c) Band, 20 mm wide, on lower edge of left sleeve. Similar in construction to 2(b) but with the lashing of sinew over sinew, not skin. Fields of orange alternating with black fields containing white panels (Fig. 14).

(d) Two vertical bands, 25 mm wide, outlining the front panel. Left-hand band: red (faded) fields alternating with clusters of black and white bands (Fig. 14 or 15). Right-hand band: alternating orange (not faded red) and white fields separated by smaller areas of yellow and black bands (Fig. 15). The sequence of colours is irregular. Each strand of fringe is wrapped with a single colour. The lashing is of sinew over a fine skin thong as in 2(b). Fringe ends clipped short, except at lower left where some irregular projections suggest that an original pendent fringe was trimmed off when the band was reused for this garment. These two bands are attached by the seams which hold the front and back panels together, and so must have been inserted when the shirt itself was made.

(e) Band, 23 mm wide, across shoulders and back of neck (Fig. 15). Similar to 2(c) and 2(d), but almost all the lashing is worn away, leaving the quill-wrapped strands jutting freely.

(f) Bands, 27 mm wide, across back of shoulders and across lower back. Fields of orange and white, separated by black bands with white flecks (Fig. 15). The flecking is produced by interspersing light and dark quills on the same strand of fringe; these are the only bands with individual strands wrapped in more than one colour. Lashing of sinew over a skin thong. The outer strands are trimmed off close to the lashing.

(g) Bands, 13 mm wide, with long fringe, sewn to lower edges of 2(f). Predominantly orange and white fields interrupted irregularly by black bands. Slashed, quill-wrapped section similar to (a) but narrower, bound with sinew over sinew. The pendent fringe wrapped at intervals with quill (no bark) and the terminal loops covered by beaver-claws.

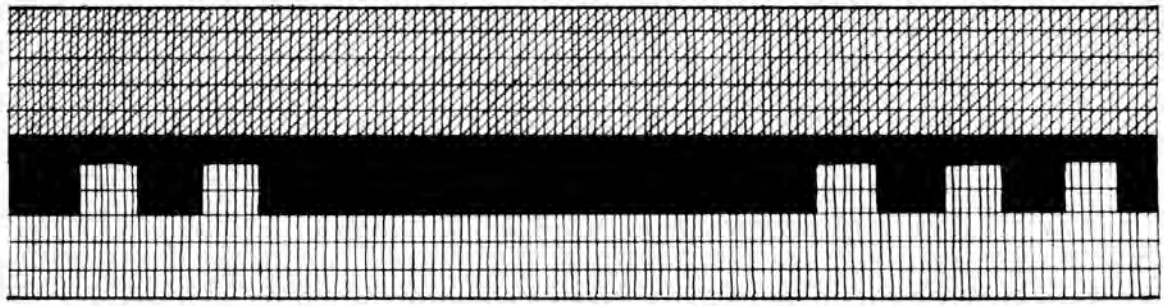
(h) Band, 38 mm wide, across lower back. Fields of orange and white, separated by black/white/black bands (Fig. 15). Skin very finely slashed. Extremities bound with sinew over sinew and cut short, except for groups of three strands which project at intervals for 30 mm. All these projecting strands are wrapped with white quill regardless of the colour of the section above the lashing.

(i) Band, 100 mm wide, stitched to lower edge of epaulet. A wide piece of skin, very finely slashed, the strands quill-wrapped and divided by five sinew lashings into five separate transverse zones, the upper pair orange, the lower pair white, with a central band of alternating black and white panels. The outer edge is clipped rather roughly, but with no indication of any former pendent fringe.

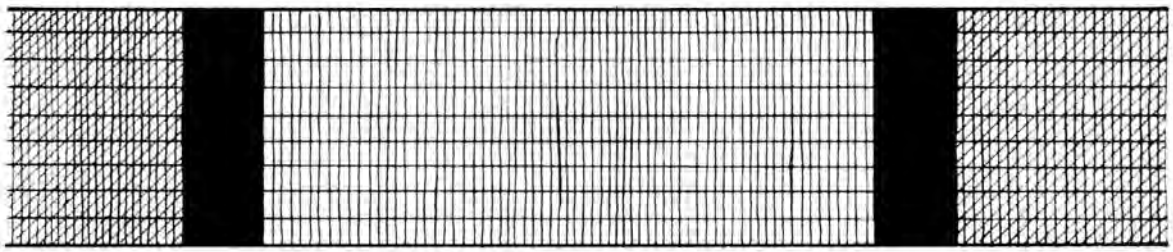
3 Short bands, 36 mm wide, sewn just above the wrist on each sleeve. Both bands contain nine elements, each comprising a pair of skin strips bound one to the other by quills wrapped over and under in figure-of-eight formation. Regularly spaced cross-lashings of fine sinew hold the pairs

[60] Pointed out by Dr Norman Feder, Denver Art Museum, 1970, and since confirmed.

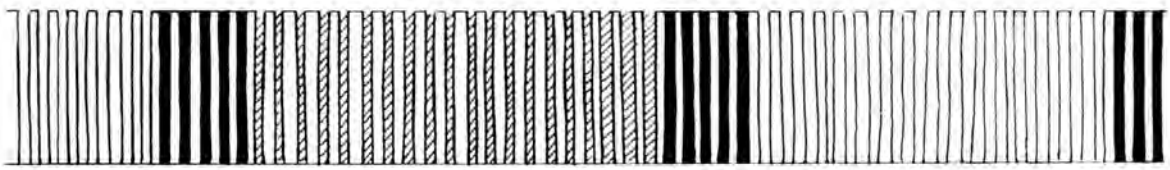
[61] Identification of the beaver claws by Dr Randolph Peterson, Royal Ontario Museum, confirmed by Miss Daphne Hills, British Museum (Natural History). Intensive beaver-trapping by Indians was rife in the St. Lawrence basin in the early seventeenth century. Although seeds, shells, and later tin cones were widely used as fringe pendants in this manner, no other example with beaver claws has come to notice.



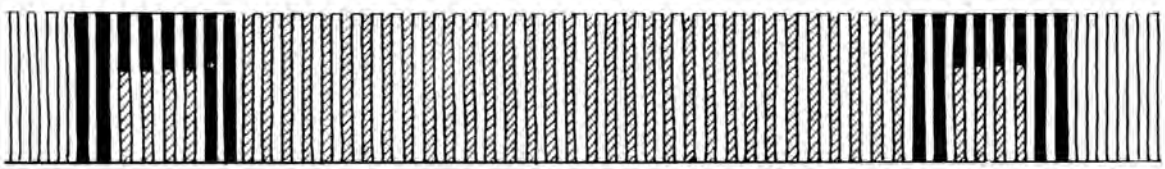
1a



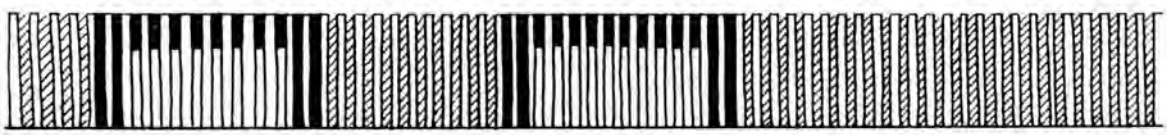
1b



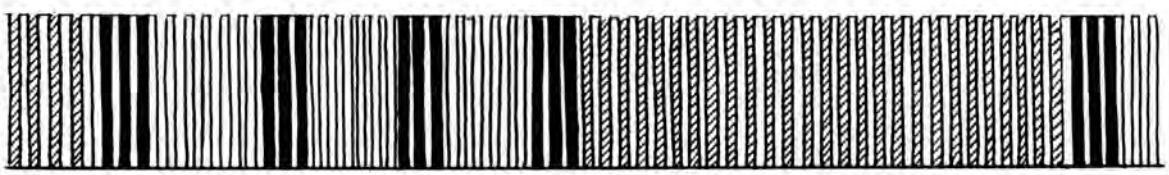
2a



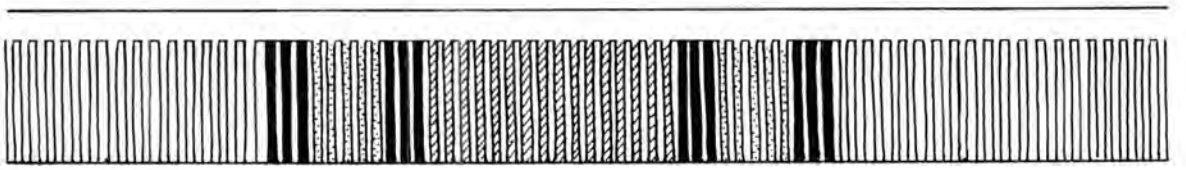
2b



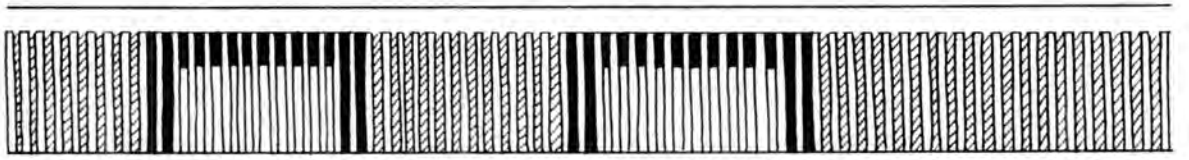
2c



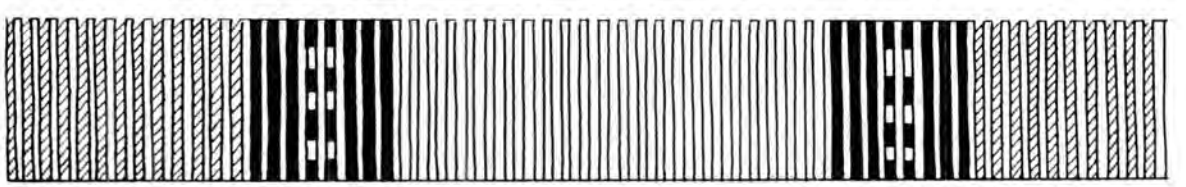
2d (left)



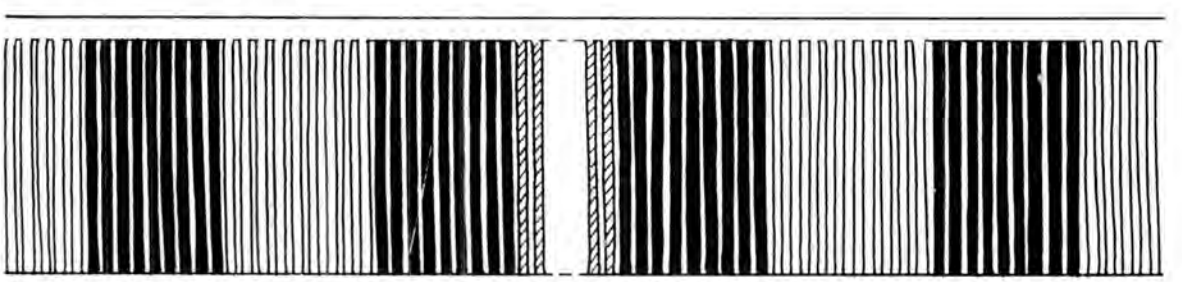
2d (right)



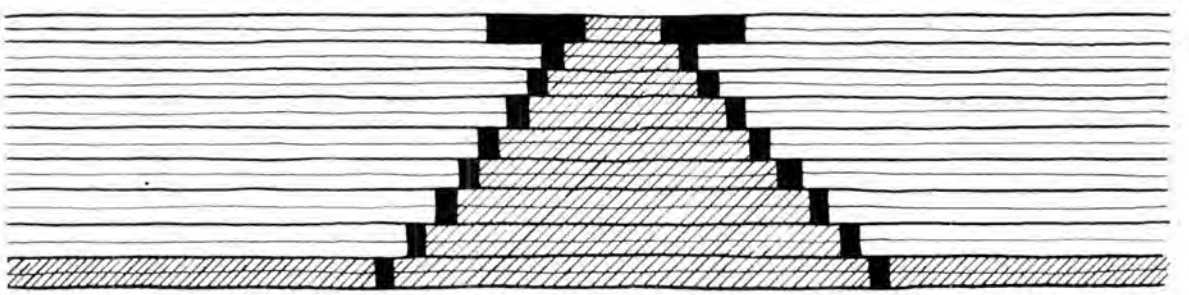
2e



2f



2h



3

black orange yellow white

Figs. 14 (opposite) and 15 (above). Skin shirt, No. 11: schematic representation of patterns on decorative bands

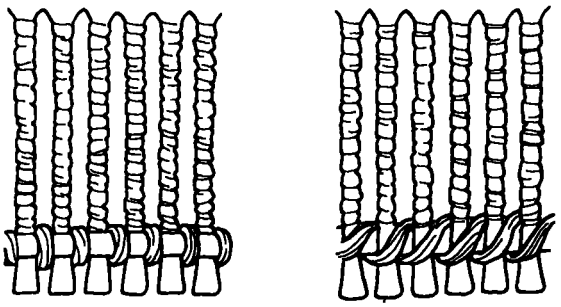


Fig. 16. Skin shirt, No. 11: schematic representation of quill-wrapped slashed skin bands

together. The quill colours are arranged to form a truncated pyramid in orange outlined in black, on a white background (Fig. 15). The apex of the pyramid points upward on the right sleeve, downward on the left.

4 Band, 51 mm wide, of quill-wrapped slats mounted on a heavy skin backing, forming the main part of the epaulet on left shoulder. The band consists of twelve slats of birch bark, solidly wrapped with quill. The black pyramids rise on a white field. The backing is a rectangle of thick skin, probably moose, which bears traces of red pigment. At one end this skin base is pierced, the slats passing through it and being cut off underneath. At the other end they are cut off on the face. At both ends they are secured by a length of bird-quill which lies across the face of the slats, pierces the face at both sides, and returns on the underside (Fig. 18). This bar of bird-quill is fastened also by sinew stitching which passes between the slats and ties the exposed section of the bar to its extension under the base. The front quill bar is dyed red, the hind one dark blue; they are stripped but not split. Each slat is further secured to the skin backing by lengthwise hidden stitches which do not penetrate to the under-surface of the skin and are revealed only by abrasion due to wear. This stitching must have been done as each slat was wrapped and set in place, and the fineness of its execution is such as could hardly have been achieved without the use of a steel needle.

In the middle of the chest below 1(a) (upper) is a pendant sewn directly to the shirt and consisting of two quill-wrapped thongs, one white, one red, and

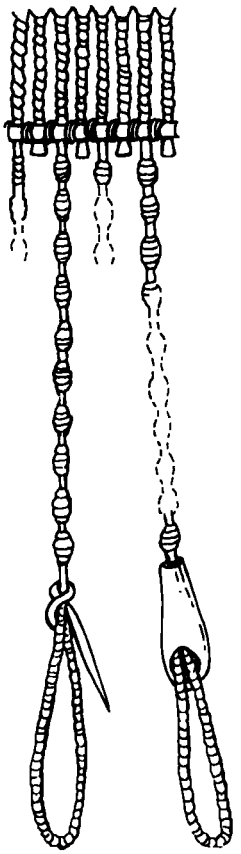


Fig. 17. Skin shirt, No. 11: schematic representation of quill-wrapped fringe with beaver-claw bead

each ending in a quilled loop. A line of stitch-marks, running the whole width of the back piece roughly halfway between 2(b) and 2(h), suggests the loss of a decorative band; and there are indications of the original presence of an epaulet on the right shoulder.

1656 p. 47: *A Match-coat from Virginia of Deer-skin*, or, *A Match-coat from Canada*.[62]
1685 B no. 209: *Vestis Indica nostratis subuculae formam exprimens, manicata.*

[62] See discussion of 'match-coat' under No. 12. One suspects that Strachey's form 'mantchcor' is a nasalized dialect variant of his 'matchkore', a word with an obviously generalized meaning. Since the Virginian Indians of Strachey's time (*c.*1610) did not themselves wear 'a Coat Ierkin [or] dublet' it seems likely that the primary sense of 'skin robe' was extended by them to include the tailored upper garments of the colonists. In trade the term 'matchcoat' was adopted for coats of a rough material dubbed 'matchcloth'.

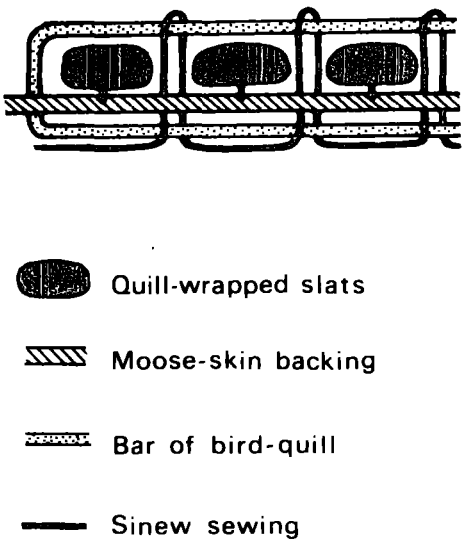


Fig. 18. Skin shirt, No. 11: schematic section through part of epaulet

Dimensions: Length (overall) 1.26 m, (sleeves) 0.62 m plus 30 mm fringe; Width (shoulders) 0.55 m.

Bibliography: Bushnell 1908b, p. 494; Burnham 1981, p. 234, n. 17.

This shirt is generally believed to be older by some three generations than any other surviving skin garment from the North American Indians. As such it should afford invaluable information on aboriginal clothing in early seventeenth-century Canada, but in the absence of precise contemporary documentation it remains something of an enigma. The materials and the techniques of manufacture and decoration are clearly Indian, but the unusual cut of the skins and the rather slipshod treatment of the decorative bands suggest that the shirt as a whole cannot safely be regarded as 'typical' of any given area.

The determination of provenance should depend on reconciling the availability of the caribou skins of which the shirt is made, its structural features, the style of ornamentation, and the records of travellers. The woodland caribou, *Rangifer c. caribou*, occurred throughout eastern Canada north of the St. Lawrence, as well as in the Maritime Provinces and northern Maine, and at some time in northern Michigan and Minnesota, being replaced west of Hudson Bay by the slightly differing Barren Grounds caribou, *R. arcticus*.[63] Within this area it is among the Maritime peoples, exemplified by the Micmacs, that we find the tradition of a one-piece skin shirt, albeit of moose skin which is big enough to encircle a human body while caribou is not.[64] The cutting of back and sides in one piece and the addition of a front panel cut from a second skin may conceivably represent a compromise between the one-piece tradition and the limitations imposed by the size of available skins, but surviving examples of this construction, whatever its origin, are rare.[65] As late as 1724, moreover, the Micmac were described as 'generally . . . naked, except a sort of blankett girt about them'.[66] More recently these people have regarded an open-fronted skin coat, preponderantly European in style, as their aboriginal dress. In Labrador and Quebec the Montagnais-Naskapi hunters have for over 200 years used a flared open coat, decorated not with quillwork but with elaborate curvilinear designs impressed and painted, and the women's dresses have detached sleeves. Fully tailored, closed, and sleeved garments were restricted to the Eskimo and their immediate Indian neighbours in the subarctic. Here, as on the northern plains, the front and back panels of upper garments were normally of equal size and sewn together at the sides. On structural grounds, then, the Tradescant shirt cannot be automatically referred to any recognized tradition.

The several techniques employed in the quillwork decoration are already well documented from specimens dating from the eighteenth and nineteenth centuries.[67] The fact that most such examples come from the Great Lakes area and further west and north may reflect the dearth of early museum material from the Maritimes and lower St. Lawrence, rather than an original distribution which excluded these eastern areas. The wrapping of fringe elements occurs widely; the use of parallel slats of bark or rawhide is known from the eighteenth to the present century; and paired fringe elements plaited together with quill and confined at the extremities may be seen on a Huron pouch, catalogued in 1725, in the Sloane collection

[63] Miller and Kellog 1955, pp. 811–15.

[64] Wallis and Wallis 1955, p. 78, quoting Nicolas Denys.

[65] The one example so far noted is a caribou-skin shirt from the Dogrib Indians of the North-West Territories collected in 1859 for the Royal Scottish Museum, Edinburgh (no. 781.2A). It has some Europeanized features, including a high military-style collar and sleeves gathered into cuffs. While its construction might be regarded as supporting the attribution of northern Athapaskan affinities to the Tradescant shirt, it must be remembered that the two specimens are over 200 years apart in age.

[66] Wallis 1959, p. 59.

[67] See Orchard 1916.

at the Museum of Mankind in London.[68] No tradition of *woven* quillwork, however, has been reported from the north-east; it is most highly developed in the central and north-western regions of subarctic Canada, among the Athapaskan tribes and the Ojibwa-Cree. It is interesting that the combination of woven quillwork with quill-wrapped closed fringe into an epaulet, broadly similar to that on the Tradescant shirt although separated from it in time by a century and a half, appears on a Cree coat of *c.*1780.[69] Cree country was remote indeed from the Canada of early seventeenth-century white settlement, but was already touched by the fur trade. A complex commercial network, dominated until 1649 by the Hurons with their Ottawa and Nipissing allies, funnelled vast quantities of beaver pelts to the French in Quebec from as far away as the Hudson Bay and Manitoba.[70] It would have been physically possible for a shirt from the far interior to reach the ports of Trois-Rivières or Québec; but if this particular one was made by a skilled Cree or Ojibwa craftswoman, how is the lack of finesse in the attachment of the splendid quilled ornaments to be accounted for?

A highly tentative suggestion is that it was put together somewhere along the southern limit of tailored clothing, probably north of Lake Huron, by a woman not fully familiar with the medium, using fine quillwork pieces traded or captured from another tribe to the west.[71] (It may be significant that the fringed band across the back of the shoulders (2(g), upper) resembles in appearance and position the band which commonly borders the yoke seam on eighteenth and nineteenth-century Athapaskan shirts, even to the presence of terminal loops and single large bead pendants on the fringe.) The carefully repaired rents show that the shirt had good use; and the facts that all the stitching is in sinew, and that the vertical decorative bands are held by the structural seams, show that it was not cobbled up for sale to a white man, nor radically 'improved' after collection.[72] One can only speculate as to why it should have been made at all for home use.

The furs which the Hurons sent east were transported by canoe, and Iroquois pressure required a precautionary detour far to the north, to reach Québec by way of the Saguenay river. The Hurons of that period were as sparsely clad as the Micmacs,[73] and it may well be that their paddlers made shift to equip themselves with warmer clothing for the northerly autumn journey, with some finery for business confrontations. As possible suppliers one may, again tentatively, nominate the Nipissings of the area north of Georgian Bay, who traded far into the north-west.

The 1685 catalogue description of the garment as resembling 'a shirt of our own' (*nostratis*) prompts the question of European influence. Linen shirts were traded in large numbers to the Indians,[74] but the cut and neckline do not here suggest a European model. The epaulet recalls the European military epaulet, but appears to antedate it. Elaboration of the shoulders was characteristic of European male costume until well into the first half of the seventeenth century, but the Indian version must perhaps be regarded as an independent development. Firmer evidence of the post-contact manufacture of the shirt lies in the assumed use of trade needles in the fixing of the slats, and of commercial thread weft (not proven) in the woven quillwork, and the probability that the fine fringes were slashed with a metal blade. Inter-tribal trade carried such goods far ahead of the white men who landed them.

The Tradescant shirt has been meticulously and lovingly studied by the late Harold B. Burnham and by Mrs Dorothy K. Burnham, both of the Royal Ontario Museum, to whom the Ashmolean Museum is deeply indebted. The technical analyses quoted above are theirs, but the suggestion as to provenance is my own.

G. E. S. Turner

12. 'POWHATAN'S MANTLE' (Fig. 19, Pls. VI–VII). Four tanned hides of the white-tailed deer(*Odocoileus virginianus*, also called *Dama virginiana*)[75] are each cut straight on two adjacent sides and are sewn together with sinew thread to form a larger, almost rectangular flat piece of leather. Its border is not cut and preserves some of the holes made in stretching the hides preparatory to tanning them. For some reason, but perhaps because of the shape of the hides, the vertical seam

[68] Turner 1955, pp. 61–2, pl. XVc.

[69] National Museum of Man, Ottawa, no. NMM III-X-229: illustrated in Brasser 1976, p. 54.

[70] Hunt 1940, *passim*.

[71] The transferring of sound quilled or beaded ornaments from old clothing to new was a widespread custom, continued to the present time.

[72] It is possible that the band 2(a) is not in its original position.

[73] See Trigger 1969, p. 8. Trigger also states that the Hurons obtained clothing from their Algonquian neighbours to the north.

[74] Hennepin 1697.

[75] Identified by Miss Daphne Hills, British Museum (Natural History).

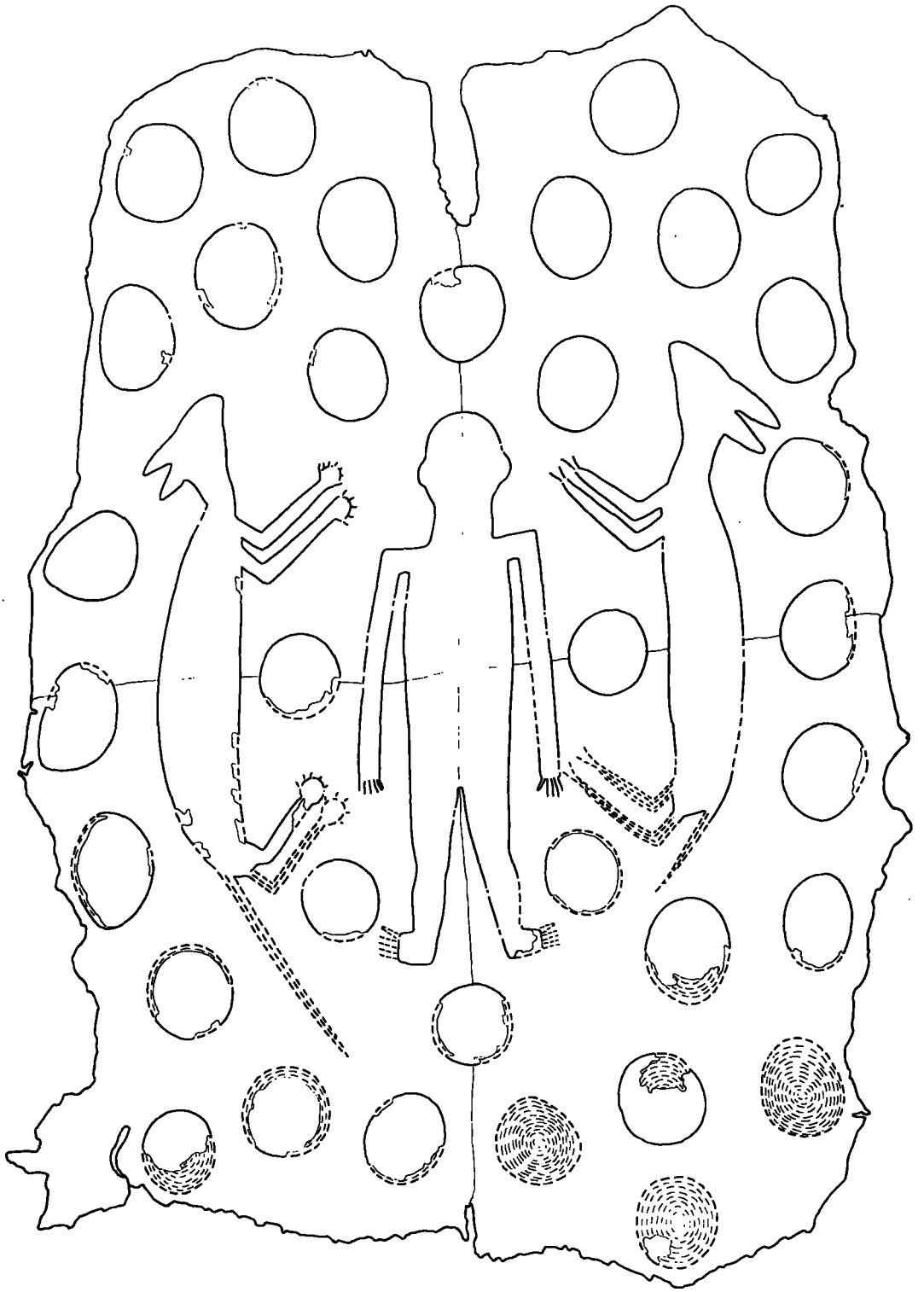


Fig. 19. 'Powhatan's Mantle', No. 12: schematic representation of construction of mantle and of decorative shell bead-work. Missing areas of bead-work are reconstructed with broken lines, on the evidence of surviving stitch-holes

does not extend the full length of the skin, but ends at some distance from both the bottom and, more noticeably, the top.

In addition to the holes caused by stretching the hides, and numerous others which are clearly the result of various modes of mounting the skin for display by means of nails, there are still more holes which cannot be explained in these ways. Several of them are now covered by shell appliqué, but pairs of rather large and regular holes are clearly visible in both the upper left and lower right hides. The fact that the paired arrangement appears twice would require a systematic explanation. None of those which have been previously proposed (arrow or bullet holes, holes made by using the skins as backpacks before sewing them up, damage caused by insects), however, is convincing.

The shell bead-work originally consisted of a central standing human figure flanked by two upright quadrupeds and surrounded by thirty-four discs. This design was made by spot-stitching shells of *Marginella roscida* Redfield[76] with sinew thread having a slight S-twist. The shells used for the animals and discs are ground at one side to form beads ready for appliqué; those used for the central figure are ground at both sides, reducing them to about half their original size. Most stitches do not penetrate right through the skin, so the thread can be seen only in a few places on the back. Some shells have been lost, especially on the lower part of the mantle: here two discs are completely missing and a third almost completely gone, while several more have lost about a third of their shells. This is probably largely the result of post-collection vandalism, resulting from the greater accessibility of the lower part when the piece was hung up on display. There is no indication of heavy aboriginal wear in this section. Likewise, the lower extremities of both the human and the two animal figures show heavy loss of shells. As the appliqué stitches are still visible, the original outlines of the design fortunately can be reconstructed (Fig. 19).

The human figure (of unspecified sex) is shown in frontal outline with indications of ears, square shoulders, arms more or less parallel to the body and ending in five-digit hands; the feet are shown in outward profile with five toes each, the thumbs and big toes both being clearly differentiated from the rest.

The two animals resemble one another in terms of their overall outline, but are clearly distinguished by their tails and paws. The left-hand animal has a long tail and round paws with five digits, while the tail of the right-hand animal is shorter, and the legs taper to a cloven hoof. There are some differences between the two in the way in which the shells are aligned to form the body. The discs are made up of counter-clockwise outward spirals. While in some circles the spiral ends are easily discernible, in others a concentric line encloses the spiral.

In 1976, when the item was exhibited outside Oxford for the first time since being moved from Lambeth in the seventeenth century,[77] the skin was cleaned and made more pliable. There is some evidence for earlier conservation measures (probably before the twentieth century): several tears along the edges, and one angular rent in the upper left skin, have been sewn with dark brown, three-ply, Z-twisted yarn, using two different techniques. A comparison of the illustrations of the skin published since 1888 with the present state does not indicate any significant loss of shells or change in the outline.

1656 p. 47: *Pohatan, King of Virginia's habit all embroidered with shells, or Roanoke.*

1685 B no. 205: *Basilica Pohatan Regis virginiani vestis, duabus cervorum cutibus consuta, et nummis indicis vulgo Coris dictis splendide exornata.*

Dimensions: Length (max) 2.35 m; Width (max) 1.6 m.

Bibliography: Tyler 1888, pp. 215–17, pl. XX; Bushnell 1907a, p. 39, pl. 5; Holmes 1910, p. 539; La Farge 1962, p. 66; Burland 1965, p. 123; Blow 1967, p. 75 (with coloured illustration); Feest 1967, p. 10; Woodward 1969, p. 145; Barbour 1970, pp. 231–2; Coe 1976, p. 79; Feest 1978, p. 262, fig. 5.

Judging from the measurements published by Tyler, Bushnell, and Coe, it would appear that 'Powhatan's Mantle' has undergone dramatic changes in its dimensions. Tyler gives the length as 2.2 m and the width as 1.6 m; less than twenty years later Bushnell gives 2.33 m and 1.5 m respectively; another seventy years later, Coe finds it shrunk to 2.13 m.[78] Unfortunately, the previous descriptions and interpretations of this invaluable object do not go much beyond the standard set by the measurements.

[76] Identified by Ms Solene Whybrow, British Museum (Natural History). *Marginella roscida* occurs locally on the Virginia Atlantic coast, making unnecessary any speculation about trade with the West Indies to get *Marginella nivosa*, the species identified for Tyler (1888).

[77] See Coe 1976, p. 79.

[78] Tyler 1888, p. 217; Bushnell 1907a, p. 39; Coe 1976, p. 79.

The short description of 1685 contains an error which is not corrected by Tyler's repetition of it 200 years later, namely that the 'habit' consists of two pieces of deerskin; Bushnell was the first observer to note the correct number of four.

The 1656 entry is problematic because it refers to the *Marginella* shells as 'roanoke', a usage not supported by other evidence. Generally, the term appears to have been reserved for small disc-shaped beads made from conch shells.[79] The 1685 catalogue corrects the identification of the shells as roanoke and substitutes the term *cori* (cowrie) which is also not quite correct but at least differentiates between the 'roanoak' of the 'Virginian purse' (No. 13) and the shells on 'Pohatan, King of Virginia's habit'.

Because their representation is rather stylized, the identification of the two animals flanking the human figure has posed some problems. Tyler avoided an answer by saying: 'It is uncertain whether the two quadrupeds represent, in the conventional manner of picture-writing, some real animal of the region, or some mythical composite creature such as other Algonquian tribes are apt to figure.'[80] Bushnell likewise noted that the significance of the decoration was unknown.[81] On the assumption that conventionalized forms of the shapes of real animals (either of natural or supernatural character) are intended, the right figure should be identified as a white-tailed deer, as this is the only member of the order of *Artiodactyla* to occur in tidewater Virginia. This in turn would indicate that the proportions between the flanking animals and the central human figure are about correct, thus excluding smaller animals from consideration in the identification of the left animal. This would seem to leave the mountain lion (*Felis concolor cougar* Kerr) as the sole choice, as this is the only animal of comparable size having a long and smooth tail which occurs in eastern Virginia.

'Powhatan's Mantle' is the only surviving example of five 'match-coats' and habits supposedly made by the Algonquian Indians of Virginia listed in the 1656 catalogue. The colono-Indian word 'match-coat', which appears in other catalogue entries, was derived from a Virginian Algonquian word which John Smith spells 'matchcores' and glosses 'skins, or garments'.[82] Smith's contemporary, William Strachey, lists two differently glossed spellings: 'matchkore', meaning 'a stagges skin', and 'mantchcor', meaning 'a Coat Ierkin dublet er clls what', but both appear to represent the same word.[83] Although 'Powhatan's Mantle' is not referred to as a 'match-coat', one would assume that – at least, if it really was a garment – it would also fall into that very broad category.[84] On the other hand, there is good reason to question the use of this shell-decorated skin as a garment, as well as its attribution to the wardrobe of the native ruler over much of tidewater Virginia at the time of the first English settlement in this area.

Owing to the warm climate, upper garments were relatively rare among the Virginia Algonquians, being chiefly worn in winter and/or by members of the native upper class. According to John Smith, 'the better sort use large mantels of deare skins not much differing in fashion from the Irish mantels'.[85] The only picture illustrating their use is found in Robert Beverley's *History and Present State of Virginia*, dated almost a hundred years later. By that time, trade cloth had taken the place of hides, but the manner of wearing the 'mantle' wrapped over the shoulders had remained traditional and does indeed resemble the way in which the Irish *fallaing* was worn,[86] being tied over one shoulder, as shown by several early illustrations from both coastal Virginia and North Carolina.[87]

For a better understanding of the manner of wearing skins of this kind, one can consider an apparently similar type of garment whose use is much better documented: the bison-skin robes of the Plains Indians.[88] These measure (excluding those made for the use of children) from about 1.8 m to 2.5 m in length, and from about 1.3 m to 2.15 m in width. A random sample of twelve Plains robes for which measurements were readily available had mean dimensions of 2.13 m by 1.65 m, which is almost identical with the measurements of 'Powhatan's Mantle'.

There are, however, notable differences between the two types of skin. Most bison robes are split; they consist of a bison skin cut lengthwise into two

[79] Feest 1967, pp. 13–14, 16–17, 19.
[80] Tyler 1888, p. 217.
[81] Bushnell 1907a, p. 39.
[82] Arber 1884, pp. 44, 381.
[83] Strachey 1953, pp. 180, 192.
[84] See also the discussion in n. 62.
[85] Arber 1884, pp. 66, 361; Strachey 1953, p. 71.
[86] Beverley 1947, p. 163; cf. Quinn 1966, pp. 23–4, pls. 2–5, 8, 10.
[87] Feest 1978, p. 260, fig. 4; Hulton and Quinn 1964, 1. 88; ibid., vol. 2, pls. 33, 38–40.
[88] e.g. Feest 1980a, pp. 51–6, pls. 35, 69, 70; Coe 1976, pp. 188–9; Maurer 1977, pp. 125, 152; Krickeberg 1954, pp. 19–73, Taf. 1–6.

approximately equal parts which are then sewn back together again. 'Powhatan's Mantle' consists of four deerskins sewn together by a horizontal and a vertical seam. The designs on most Plains robes are painted, although a few examples of decoration with glass bead or porcupine quill appliqué are known. As the Plains robes were worn horizontally, their design orientation is likewise horizontal; that of 'Powhatan's Mantle', however, is vertical. There are a few examples of robes from eastern North America with at least a secondary vertical orientation. Like most of the few other extant seventeenth- and eighteenth-century north-eastern skin robes, they are only about half the size of the Plains robes (or of 'Powhatan's Mantle'). Their use as garments is doubtful; this also applies to the somewhat larger, vertically oriented and very problematic Ojibwa robes.[89] Nor were all of the painted skins of the Plains used as garments: the so-called 'winter counts', for example, were historical records painted on hide. Very similar records are reported from seventeenth-century coastal Virginia where the painted skins were kept in native temples.[90] Skins with pictographic paintings were also used as wrappings for sacred bundles, as among the Menominee and probably other tribes of the Great Lakes area.[91]

Thus, even if 'Powhatan's Mantle' was shaped like a garment, it need not necessarily have been worn as one; but in fact its vertically orientated design precludes consideration as such, as the analogies with both Plains robes and Irish mantles imply. A feature which may have misled past observers into thinking of it as a garment is the incomplete seam between the upper left and right hides, which superficially resembles a V-neck. To wear a skin this way would, however, be unique in native North America.

As to the ornamentation of Virginia Algonquian skin 'match-coats', it appears that most of them (like those from neighbouring North Carolina) were fringed, a feature conspicuously absent from the item in the Tradescant collection. Some of the skin garments were painted, 'some imbroidered with white beads, some with copper'.[92] While the use of shell bead appliqué on such robes is thus proven, the only detailed confirmation comes from English Jesuit sources on early Maryland. The Annual Letter of 1639 remarks: 'The only peculiarity by which you can distinguish a chief from the common people is some badge; either a collar made of a rude jewel, or a belt, or a cloak, oftentimes ornamented with shells in circular rows.'[93] If this seems to describe part of the bead appliqué on 'Powhatan's Mantle', it may be because this item was to be seen in London at the time the Annual Letter was being compiled there. Rather than supplying new information about Maryland, it may be based on personal observations of the compiler in the Musaeum Tradescantianum.

When Tyler first published 'Powhatan's Mantle' in 1888 he tried to substantiate the references in the early catalogue of the Tradescant collection to its association with Powhatan by checking the written sources on early Virginia. We can do the same in order to ascertain (1) whether there is any positive indication that Powhatan wore a skin like the 'mantle' and (2) whether it is likely that the Tradescants received a skin garment given by Powhatan to the English.

The 'match-coats' actually worn by Powhatan are repeatedly described. During the first encounter with Captain John Smith in early January of 1608, Powhatan wore 'a great covering of Rahaughcums',[94] to which a contemporary annotator added the observation: 'the skinne very well dressed and artyficially sowed togethur'.[95] Later, Smith elaborated on his earlier version by adding 'and all the tayles hanging by'.[96] This is clearly not our piece, but the one Barbour had in mind when suggesting that Powhatan's mantle may have been made of racoon skins, like one of the lost Tradescant 'match-coats' (1656 p. 47).[97] Another meeting between Smith and Powhatan took place in February 1608, when the Virginia Algonquian ruler wore 'a faire Robe of skin as large as an Irish mantle',[98] apparently without striking decoration and probably somewhat smaller than the Tradescant skin. Later during the same year, when Powhatan was given the presents sent to him from England, 'he gave his old shoes and his mantle to Captain Newport'.[99] As the mantle – which is not described in any detail – was given to Newport,

[89] Feest 1979, pp. 85–8, 101–2.
[90] Feest 1974, p. 158.
[91] Skinner 1921, p. 340; Feest 1979, pp. 87–8.
[92] Arber 1884, p. 66.
[93] Hall 1910, p. 125.
[94] Arber 1884, p. 19.
[95] Barbour 1969, 1. 185.
[96] Arber 1884, p. 400.
[97] Barbour 1970, p. 232.
[98] Arber 1884, p. 102.
[99] Ibid., pp. 125, 438.

there is no reason to assume, as Tyler has done, that John Smith could ultimately have given the mantle to Tradescant. Moreover, although we know that in his will Captain Smith left part of his library to John Tradescant, he does not seem to appear in the list of donors to the museum published with the 1656 catalogue.[100]

The questions that remain after all the previous assumptions about 'Powhatan's Mantle' have been placed in doubt are: (1) what was the shell-decorated skin, if not a garment?, and (2) how did it acquire its unsubstantiated association with Powhatan? There is probably little chance now of complete answers, but some of the following hypotheses may be found more convincing than those previously made.

The earliest notice we have of 'Powhatan's Mantle' is the 1638 report of Georg Christoph Stirn on his visit to the Tradescant collection, when he remarks on having seen there 'the robe of the King of Virginia'.[101] This allows for the possibility that both the skin and some of the other material from Virginia had been collected there by Tradescant the Younger who had been in the colony in 1637. By that time Powhatan had been dead for nineteen years, and the Virginia Algonquians had been in an almost permanent state of war with the colonists since 1622.[102] Tradescant may have acquired the skin from one of the veteran colonists, together with the attribution which certainly would not have compromised the sale.

It is an elementary principle of collecting that items connected with memorable persons have enhanced interest. As a result, the collectors' market has always supplied more artefacts associated with notorious people than those persons could ever have owned. None of the objects customarily associated with the Aztec ruler Montezuma, for example, were ever in his possession: of the objects ascribed to him by tradition, both the battleaxe and the feather cloak are Brazilian, the emerald is from Colombia, and only the feather head-dress and shield came from Mexico at all.[103] An entry in the sale catalogue of Sir Ashton Lever's museum of 1806, 'Similitude of Pondiac the Indian Chief, cut in stone with his own hands',[104] is a well-known instance of over-attribution.

Even though many such attributions turn out to be spurious, there is usually some background to explain them. In the case of 'Powhatan's Mantle' it seems quite likely that the skin came from one of the native temples which were closely associated with the treasure-houses of the ruling families among the Virginian Algonquians.[105] 'All kinds of Treasure, as skinnes, copper, pearle, and beades' were stored there,[106] as well as the 'winter counts' painted on skins noted above. These temples were occasionally destroyed or looted as part of the strategy of cultural and even physical genocide which was put into effect after the Indian uprising of 1622.[107] The temple/treasure-house theory also supplies the only hint regarding the object's iconography. At the four corners of Powhatan's treasure-house in Orapakes, says John Smith, 'stand 4 Images as Sentinels, one of a Dragon, another of a Beare, the 3 like a Leopard, and the fourth like a giantlike man: all made euill favordly, according to their best workmanship'.[108] Even though the images at Orapakes were probably carved, two (the 'leopard'/puma and the anthropoid) seem to duplicate figures represented on the skin.

C. F. Feest

13. SKIN POUCH (Fig. 20, Pl. III). A roughly rectangular pouch decorated with two arrow-shaped pieces of shell bead-work at its bottom and two identical pieces at its opening. The pouch consists of a piece of tanned animal skin,[109] light brown and fairly heavy. This has been folded lengthwise and sewn together at one side with a sinew showing no discernible twist. A small, wedge-shaped piece of skin has been inserted to form the bottom of the bag. The stitches are barely visible on the outside, the seams probably being sewn inside-out. Below the bottom and above the upper end of the side seam the skin is cut into thongs which serve as warps for the attached bead-work.

The number of warps is 35 and 36 in the top flaps of the pouch, and 33 and 36 in the bottom flaps. These diminish to 15 and 17, and 15 and 16 respectively, as the flaps taper to their narrowest section before expanding again. The expansion of the tip is formed by doubling back some warps from

[100] Tyler, 1888, p. 217; Feest 1967, p. 10, n. 41; Barbour 1970, p. 232. See also Microfiche 5.
[101] See p. 21 and No. 438 below.
[102] Feest 1978, pp. 256–7.
[103] Anders 1978, pp. 69–71.
[104] Leverian Museum 1979, 15th day, lot 1684.
[105] Feest 1966, p. 73.
[106] Arber 1884, pp. 80, 376; Strachey 1953, p. 62.
[107] Feest 1978, pp. 256–7.
[108] Arber 1884, pp. 80, 376; Strachey 1953, p. 62.
[109] The species has not been determined, but is probably deer.

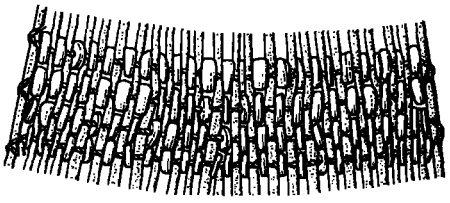


Fig. 20. Skin pouch, No. 13: detail of shell bead-work. Scale 1:1

the point, and also by doubling them back at the edge. The outer two warp-strands continue through a globular shell bead at the tip of each flap and are subsequently knotted together. These beads (one pertaining to one of the bottom flaps is missing) appear to have been made from the shell of *Oliva nana*.[110] Between the warps, close to 6,000 shell beads are fastened in a manner resembling that used in wampum belts by means of a two-ply, Z-twisted sinew yarn. The disc-shaped beads are made from the shell of *Saxidomus aratus* or *S. graciles*.[111] They are generally white but some have a reddish or bluish tinge. The majority of the beads measure 0.5 to 1 mm in length and 3 to 4 mm in diameter, with perforations ranging from 1 to 2 mm. Some beads have a length of up to 2 mm and an even smaller number are as thin as 0.3 mm. Less than ten beads measure up to 4.5 mm in length. None of the aberrant types of bead are functionally distinguished on the pouch.

The paired weft passes through each bead (and sometimes two beads) and on either side of the warp. The two wefts exchange positions irregularly, sometimes after every one, two, or three beads or warps. This technique resembles (but due to its irregularity is different from) twining. At the edge warps the wefts also cross before going through the next row of beads.

Just above the lower flaps are two rows of shell beads made by grinding off each end of a *Marginella* shell,[112] and then sewing it to the leather using a simple over–under spot stitch and a Z-twisted sinew yarn. Of the original number of around seventy beads, only forty remain, most of them in the lower row.

There is an old crease across the centre of the pouch which would seem to be aboriginal and not the result of treatment after collection. Two holes in the crease, however, are the result of having formerly been mounted with nails. Close to the side fold, a slightly irregular cut extends almost to the centre crease. Its age cannot be safely determined, but it is assumed that the cut is not part of the basic design of the pouch, although it enlarges the somewhat narrow opening.

1656 p. 51: *Virginian purses imbroidered with Roanoake.*
1685 B no. 370: *Quatuor perae coriaceae indicae, nummo Roanoak dicto exornatae.*

Dimensions: Length (overall, exclusive of large beads) 0.77 m; Width (max) 110 mm.

Bibliography: Bushnell 1907a, pp. 39–40, pl. VI; Sturtevant, in Hulton and Quinn 1964, I.112; Feest 1967, pp. 10–11.

While it is unfortunate that only one of the four purses in the 1685 collection survives, we should be grateful to have even one, as it is the only known representative of its type. Since neither pictures nor written sources describe the type, we cannot be sure of its exact usage and its distribution, beyond the information supplied by the catalogue entries. The 1656 catalogue refers to them only as 'Virginian', which at that time could indicate almost any area south of New England and north of Florida. The likelihood that the 'purse' came from the Chesapeake Bay area is increased by the fact that this was the only area within the Middle Atlantic region intensively colonized by the English. The use of the Virginian Algonquian word 'roanoak' to refer to the shell beads is less indicative because the word has become part of colonial American English. The disc type of shell bead ('roanoak' in its most specific sense) which predominates on the pouch is of very frequent occurrence in prehistoric and early historic sites of Virginia. It seems to have been the kind of bead used by at least the sixteenth and seventeenth-century south-eastern Algonquians for most of the purposes for which many historic tribes of the north-east employed wampum.[113] In this connection the virtual identity of the techniques employed in the manufacture of wampum belts and of the appendages on the Tradescant pouch is remarkable.[114] The presence of some aberrant beads on the pouch which resemble the wampum type should not, however, be overstressed.[115]

[110] Identified by D. F. W. Baden Powell. For measurements of these three beads and comparative data see Feest 1967, p. 10.
[111] Identified by D. F. W. Baden Powell.
[112] Tentatively identified as *Marginella roscida* Redfield by Ms Solene Whybrow, British Museum (Natural History).
[113] Feest 1967, pp. 8–21.
[114] Cf., No. 10.
[115] Bushnell 1907a, p. 40.

Since the pouch does not have – and never had – any kind of strap or band by which it could be carried around the neck or over the shoulder (as other types of bags were worn in eastern North America, including Virginia), it is likely that it was folded along the central crease and worn over the belt. Asymmetrically-folded pouches worn in this way are illustrated in John White's late sixteenth-century drawings from coastal North Carolina. Some of these are cut from leather and sewn; others are whole skins of small animals.[116] In fact, the Tradescant 'purse' with its four beaded appendages added in pairs to both ends of the pouch would appear to stylize the shape of such a whole-animal-skin pouch.

The only other type of symmetrically folded belt-pouch in eastern North America – sometimes referred to as a 'slit-pouch' – is of a different construction: it is rectangular, closed at both ends, and is accessible through an opening cut across the central crease. This type is known from an illustration of 1710 showing an Iroquois (Mohawk) Indian,[117] as well as from a number of nineteenth-century specimens in museums, most of them from the Midwest.[118] In historic times, these were used as shot-pouches, but the type is probably older than the introduction of firearms in North America. The term 'purse' used in the 1656 catalogue is somewhat misleading, since the concept of money was foreign to the economies of the native tribes of North America. However, various types of shell beads – including 'roanoak' – were accepted as money by the seventeenth-century colonists along the Atlantic coast at a fixed rate of exchange, and the appendages of the pouch could therefore have been converted into cash.

C. F. Feest

14. JAGUAR-TOOTH PENDANT (Pl. VIII). Single jaguar (*Panthera onca*)[119] tooth, bound with vegetable fibre, probably *Bromelia*. Two longitudinal splits and many smaller splits in the enamel.

1656 p. 51: *Variety of Chains, made of the teeth of Serpents and wilde beasts, which the Indians weare.*
1685 B no. 265: *Armillae indicae 12 ex serpentum ferarumque aliarum dentibus compositae.*

Dimensions: Length 79 mm; Width 23 mm.

See discussion under No. 15.

15. STRING OF OCELOT TEETH (Pl. IX). A string of seven teeth of ocelot (*Felix pardalis*),[120] each having a single perforation to admit the string. The perforations have been bored from both sides and one tooth has a second hole through the central section. One tooth has been broken in half and one piece is now missing. Although the teeth are strung on a single string, the cords are intricately entwined so as to hold them securely. The string is of cotton; an additional short length of another fibre, probably *Bromelia*, is attached to one tooth.

1656 p. 51: *Variety of Chains, made of the teeth of Serpents and wilde beasts, which the Indians weare.*
1685 B no. 265: *Armillae indicae 12 ex serpentum ferarumque aliarum dentibus compositae.*

Dimensions: (teeth) Length (max) 47 mm; Width (max) 12 mm.

Necklaces of teeth were used in the Americas not merely for ornamentation or to indicate the presence of a skilled and fearless hunter in the family, but also as protective charms, often worn by children. The use of tooth necklaces of various kinds has been discussed by Roth.[121]

The distribution of both jaguar and ocelot is widespread, both being found throughout Central and South America except at high altitudes in the Andes, in the extreme south of Patagonia, and in Tierra del Fuego. The jaguar is often referred to as a 'tiger' in the New World and is an important animal symbol over a widespread area, signifying ferocity and strength, indicating a powerful hunter and associated, according to some mythologies, with darkness and night. This importance is of some antiquity, and the jaguar figures in many ritual, symbolic, and artistic contexts in the ancient civilization of both Central America and the Andean region.

American Indians often kill jaguars, fearing attacks on themselves or on domesticated animals. The skin is valued for ornamentation, for making satchels, and for trade. The teeth are sometimes

[116] Hulton and Quinn 1964, 2, pls. 38, 48, 131. Beverley (1947, pp. 165, 183, 184) copies this type from the engravings after John White's drawings as if the same type had also occurred in Virginia.

[117] Sturtevant 1974, p. 126.

[118] Skinner 1921, pp. 329–30; Vatter 1925, p. 94, Taf. XVIII; Feest 1968, p. 63, Taf. 12b; Benndorf and Speyer 1968, pp. 67, 105, Abb. 34; Hodge 1973, p. 8; also two examples collected among the eastern Dakota in 1856, now in the Náprstkovo Muzeum, Prague (nos. 22215, 22249).

[119] Identification of teeth provided by Miss Daphne Hill, British Museum (Natural History).

[120] Identification as n. 119.

[121] Roth 1924, pp. 114–17, 432–3, pl. 141b.

used for necklaces and it is possible that the single tooth (No. 14) was one of a pair bound back-to-back to form a pendant. The use of jaguar-teeth has been discussed by Roth, who has a photograph of a necklace incorporating a jaguar-tooth which was worn by a Patamona Indian (a Carib group of the Guiana Highlands).

The ocelot teeth (No. 15) would have had less value as a protective charm, but their skins were highly prized, and these animals were sometimes kept as pets if captured young.

A. Butt Colson

16. HAMMOCK (Fig. 21, Pl. X). Cotton hammock, in which the scale lines (for suspension) are missing, the ends of the warp threads being simply knotted together. The warps are united by a series of woven bars (Fig. 21), each bar involving two pairs of weft strands which interlace between every second warp. The majority of the bars are woven in contiguous pairs, effectively producing bands involving eight threads; at either end of the hammock, however, are two single bars. The ends of each pair of weft threads have been neatly knotted to form tassels, many of which are now incomplete.

1656 p. 53: *Hamaccoes, five severall sorts.*

1685 B no. 422: *Quinque lectulae indicae Hamaccoes vulgo dictae, quarum duae ex corticibus arboris cujusdam complicatae, duae ex Lino, altera, ex Xylino implexae.*

Dimensions: Length 2.30 m; Width (max) 1.30 m.

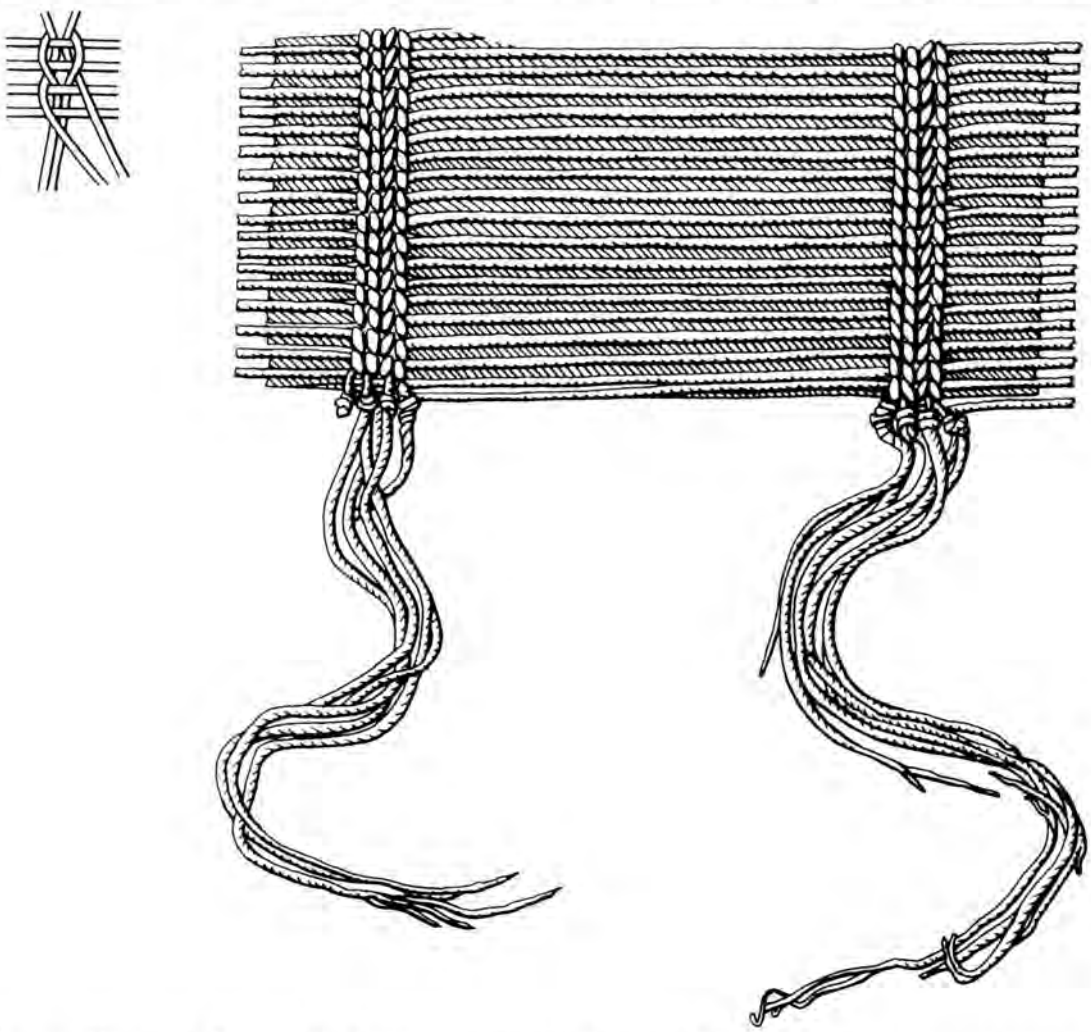


Fig. 21. Hammock, No. 16: detail of transverse woven bars and fringes. Scale 1:1. (Inset: schematic representation of plaiting)

Hammocks, used for sleeping and lounging in, were found in the possession of Amerindians of the Caribbean islands and the tropical forest area of South America at the time of the first European contacts. Today they are still made by Amerindian groups of the South American continent, although those on general sale are mainly factory-made imitations, brightly coloured and less comfortable.

Several varieties of fibre have been used in the manufacture of hammocks, such as those of the ite palm (*Mauritia flexuosa*), wild pineapple (*Bromelia* sp.), and homespun cotton. The latter is generally considered to be the most comfortable.

They are made by accumulating large balls of cotton thread, the cotton being home-grown and then spun by the women using a simple spindle. A wooden frame is set up, consisting of two posts with a crossbar joining them together at the top. The distance between the posts determines the length of the body of the hammock. The warp threads are assembled on the frame by walking round and round the posts, unwinding the cotton on to them. It is thus tightly and evenly wound, proceeding from bottom to top. Using this method a front and a back set of horizontal warp strands are obtained. Weft threads are then finger-woven vertically up and down the warp, forming 'bars' which link front and back warp threads together. The distance between the bars of the weft and the number of threads used in each bar will determine the strength and durability of the body of the hammock, the arrangement used in this example being particularly effective.

When all the bars have been woven the hammock is slipped off its frame and the scale lines are attached to either end. These are made from strong cotton cord, consisting of a number of threads twisted together to form a thick ply, and are threaded through the terminal loops of the warp threads. The scale lines are arranged carefully by length, the shortest in the centre of the hammock and the others increasing in length towards the edges: on them will depend the even suspension of the hammock and its spread.[122]

The absence of scale lines on this example may imply that the body of the hammock was taken off its frame and acquired by the collector without having been completed, or, more likely, that it was roughly used at some stage and the scale lines broke or became unravelled. The point of greatest friction is where the scale lines are bound closely together at their apex, with cotton or other thread, since it is here that the hammock ropes are inserted for suspension. Their loss is particularly regrettable since, while the material of the hammock and the mode of weaving are widespread in distribution, the length, method of attachment, and other features of the scale lines are the next diagnostic feature of importance.[123]

The various techniques employed in weaving hammocks have been described by Roth: the method used in this example conforms to his Type A2i.[124] This method is widely distributed in the Guianas and surrounding areas, and, referring to Guyana, Roth states that it is in use among Carib- and Arawak-speaking groups.

A. Butt Colson

[122] Good hammocks are nearly as wide as they are long and the correct way to sleep in them is from corner to corner. A nearly flat position may be obtained in this way, rather than the curved posture which Europeans tend to adopt by sleeping up and down the centre.

[123] Compare, for example the collections of Akawaio (Guyana), Arekuna (Venezuela), and Wayana (Surinam, French Guyana, Brazil) hammocks in the Pitt Rivers Museum.

[124] Roth 1924, pp. 381–99, esp. p. 384, no. 462, fig. 196.

17. SPURS (Fig. 22). Pair of iron prick spurs,[1] of large size, with long straight sides tapering towards rectangular terminals, both of which are pierced with two horizontal slots. The sides are of round section except for their under-surface behind the foot, where a flat triangle is emphasized with incised lines. A vertical rectangular loop above the junction of neck and sides is decorated with a simple pattern of double incised lines on its top and outer surfaces. The short neck is of square section with bevelled edges. Between it and the goad is a large circular disc or neck-plate, flat in front and convex behind. The long, plain, rounded, heavy goad, which swells to considerable thickness at its centre, tapers to a point. Spur leathers missing.

1656 p. 48: *Barbary Spurres pointed Sharp like a Bodkin*, or, *Spurres from Turkey*.
1685 B no. 754: *Duo calcaria Barbarica ferrea*.

Dimensions: Length (overall) 285 mm, (neck and goad) 118 mm; Span 82 mm.

See discussion under No. 19.

18. SPURS (Fig. 23). Pair of iron prick spurs with traces of gilding on all surfaces. The sides, base of the neck, and goad are of fairly round section, slightly faceted to octagonal. Straight sides; a small double step on the upper and lower surfaces next to each terminal, the latter small and rectangular, each pierced with two horizontal slots. A scrap of leather remains attached to one terminal. A small, plain, rectangular loop rises behind each heel, leaning a little over the neck, its top edge decorated with a square in relief. Short neck. Round neck-plate, both surfaces of which are convex; the rear surface is more curved than the other and has eight surface sections lightly defined. Next to it a thickened collar forms the base of the long goad, which swells before tapering to a point.

1656 p. 48: *Barbary Spurres pointed sharp like a Bodkin*, or, *Spurres from Turkey*.
1685 B no. 754: *Duo calcaria Barbarica ferrea*.

Dimensions: Length (overall) 253 mm, (neck and goad) 105 mm; Span 60 and 64 mm.

See discussion under No. 19.

19. SPURS (Fig. 24). Pair of iron prick spurs with straight, round-section sides flattening a little near the slender rectangular terminals, each of which has two horizontal slots. One spur has a side broken, leaving a small stump. Although it would still fit closely around the back of a wearer's heel, the sides of the complete spur have been opened beyond their original span. The incomplete spur shows signs of having had quite a narrow span.[2] Rectangular vertical loop above the junction of neck and sides, decorated with a simple incised line pattern, as is the flat triangular surface beneath it. The loop has a keyhole-shaped perforation through front and back. The short, rounded quadrangular neck expands towards the flat circular neck-plate, behind which the long goad swells very slightly before tapering to a point. The rear surface of the neck-plate is decorated with a pattern of two interlaced double-line squares forming an eight-pointed star, in and around which is a scrolled line pattern, inlaid in silver. The goad has similar scroll decoration between double lines.

1656 p. 48: *Barbary Spurres pointed sharp like a Bodkin*, or, *Spurres from Turkey*.
1685 B no. 754: *Duo calcaria Barbarica ferrea*.

Dimensions: Length (overall) 282 mm, (neck and goad) 146 mm; Span (distorted) 107 mm.

By 1236 the Islamic Moors, who had formerly dominated the Iberian Peninsula, had receded before the Christian armies into their last European province of Granada. At about this time the rowel spur first made its appearance in Europe and began to replace the older prick spurs with their single-point goads. By the end of the fourteenth century most European knights wore rowel spurs and rode with long stirrup-leathers and almost straight legs. The Moors in southern Spain did not adopt rowel spurs but continued to wear *acicates* or prick spurs. They rode *à la gineta* with short stirrup-leathers and bent knees. These different styles can be seen on the

[1] The spurs are described as worn with the terminals of the sides at the front of the spur and the goad at the back.

[2] Compare the span with that of a pair of Moorish spurs in the Armouries, HM Tower of London (no. VI 217): these have incised and silvered stylized strapwork decoration on their flat, round neck-plates. Their overall length is 278 mm and their span 74 mm.

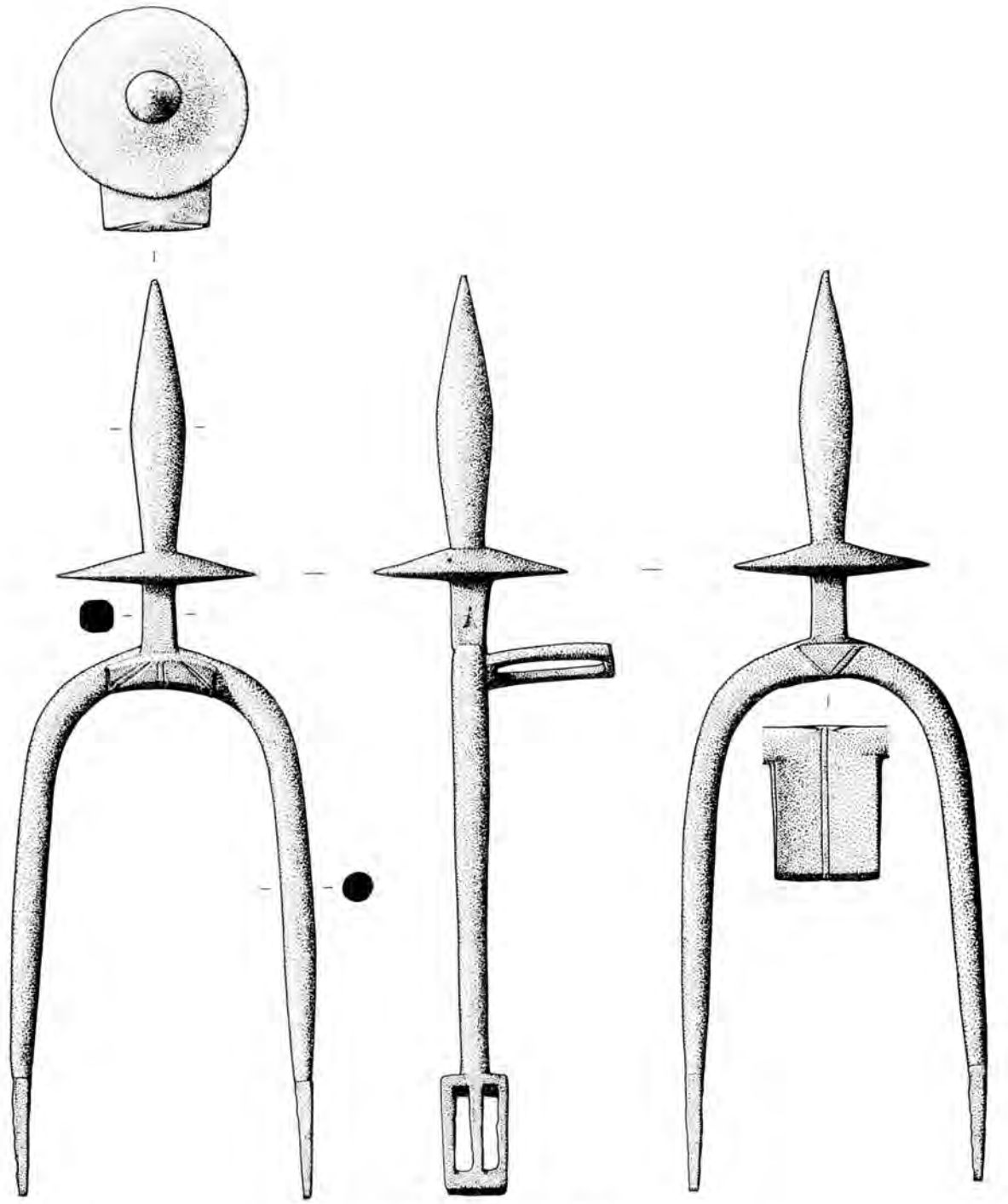


Fig. 22. Spur, No. 17. Scale 1:2

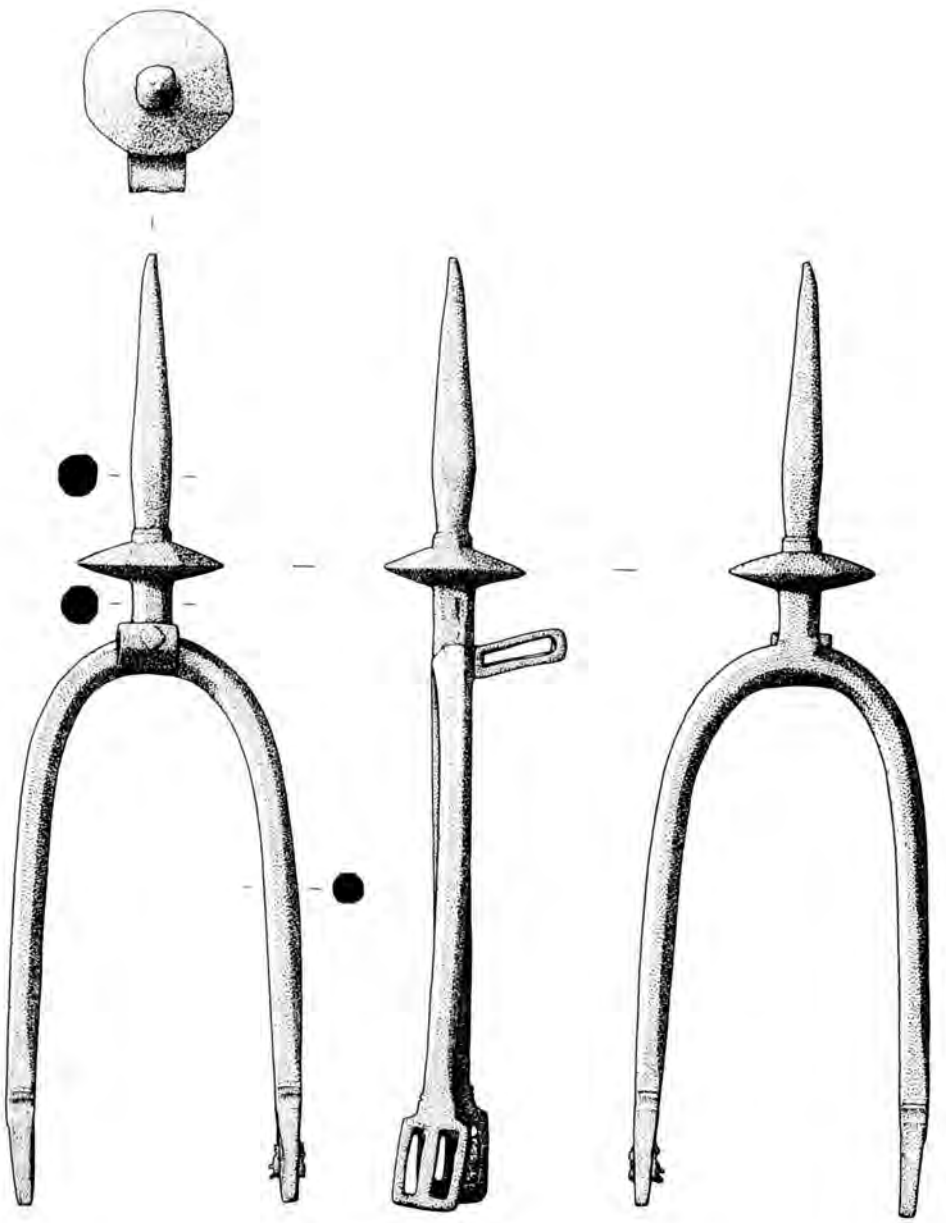


Fig. 23. Spur, No. 18. Scale 1:2

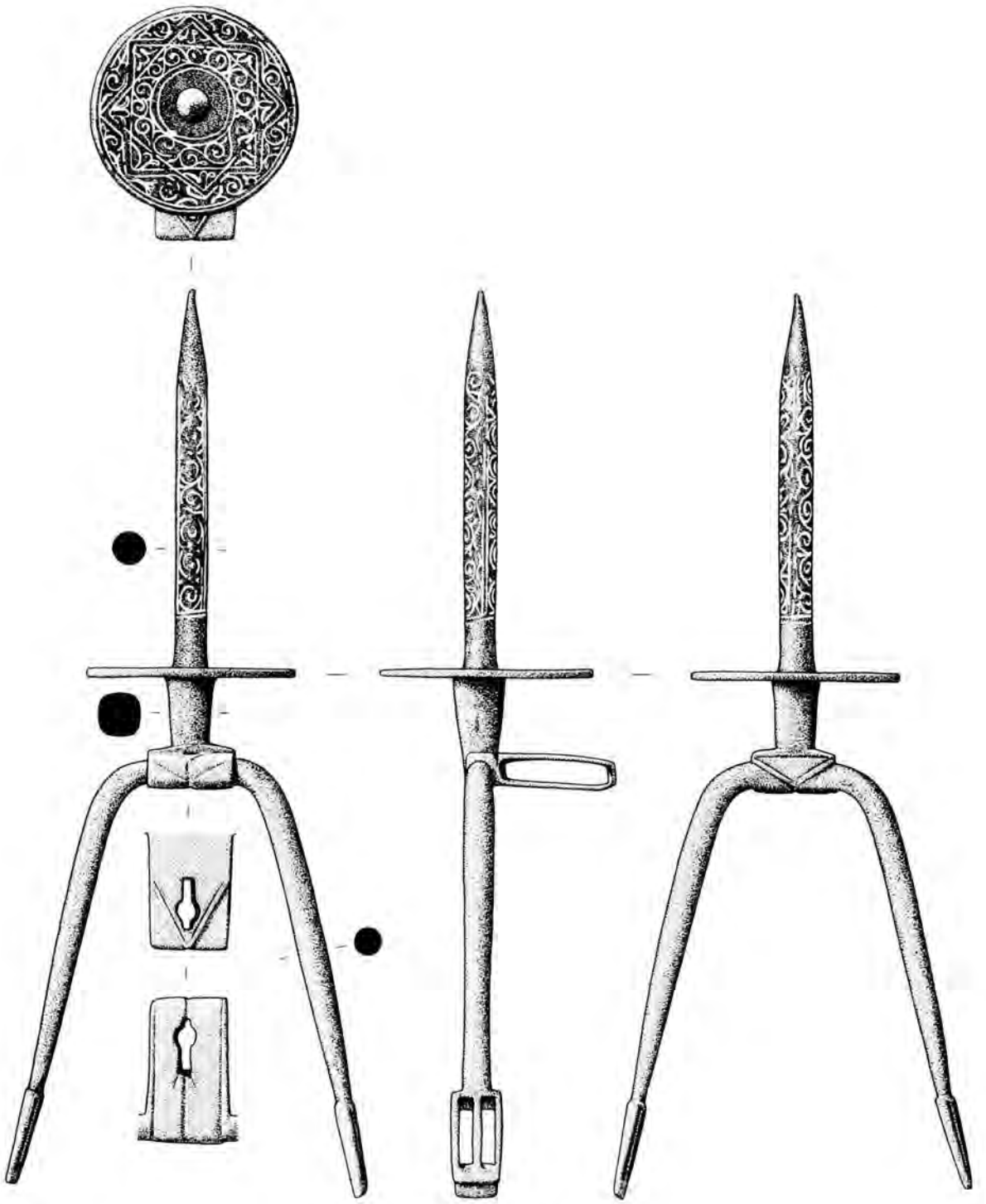


Fig. 24. Spur, No. 19. Scale 1/2

centre panel of an early fifteenth-century Spanish altar-piece in the Victoria and Albert Museum:[3] the Moorish King at the Battle of Puig is shown riding *à la gineta* with prick spurs, while the Spanish King rides in the European manner wearing rowel spurs.

The post-medieval prick spurs of the Moors of southern Spain and Barbary in North Africa (of which the nearest part to Spain later became Morocco) increased in size, and by the seventeenth century had developed into the very typical form represented by Nos. 17–19 in this collection. Long straight sides with rectangular, double-horizontal-slot terminals, combine with straight necks, encircled near the heels by large discs or neck-plates, from the centres of which project the long pointed goads. An extra leather passed through the upright loop behind the heel to support the weight behind the foot which would otherwise drag the goad downwards. Rubens painted a spur of this type, of similar proportions to No. 18, the smallest pair in this collection, worn by a Moor in *A Lion Hunt* of 1621.[4] He must have seen Moors with the Spanish army in the Netherlands before his own visit to Spain a few years later. The Rubens spur is worn low on the foot just above the line between the boot and its sole. A spur-leather is buckled around the instep, attached to the spur terminals in the usual way. An extra spur-leather lies above it across the instep and joins the spur at the back of the heel, where the method of attachment is not clear; there does not appear to be an upright loop behind the heel. Both leathers have decorative buckles.

An exceptionally clear illustration of a Moroccan prick spur appears on the equestrian portait of Mohammed Ohadu, dated 1684, now at Chiswick House, London.[5] While he was in London from 1681–2 as ambassador from the King of Morocco to Charles II, Ohadu became famous for his displays of horsemanship in Hyde Park. His large spur, of similar size to Nos. 17 and 19 in this collection, is worn low on the heel, with the leather around the back of his heel apparently vertically ridged and that above his instep decorated with a lattice pattern (Fig. 25).

The style represented by the spurs considered here continued to be worn almost unchanged until modern times in north Africa, making it impossible typologically to date them closely; however, the paintings by Rubens and Kneller described above show that the type was already in use in the seventeenth century when the Tradescant collection was formed. The 1656 catalogue included 'Barbary Spurres' and 'Spurres from Turkey', without stating how many in either case, while in 1685 two Barbary spurs were recorded. The three pairs discussed here are all typical of that region of North Africa formerly known as Barbary. The Islamic riders of Turkey also wore prick spurs, but there appears to be no evidence for the use of the specific Barbary style in that country. The 'Spurres from Turkey' may now be lost, or alternatively the description may have been applied to one of the pairs of spurs described above.

B. Ellis

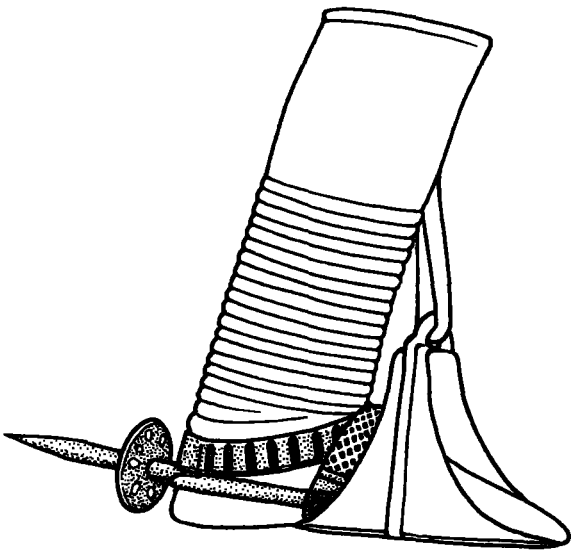


Fig. 25. Detail of spur from a portrait of Mohammed Ohadu, dated 1684, at Chiswick House

[3] Victoria and Albert Museum, no. 1217–1864. This altar-piece was painted in the first quarter of the fifteenth century and is ascribed to Marzal de Sas: see Kauffmann 1970, p. 69, pl. 4.

[4] Christie's, *Sale Catalogue of the Northwick Collection* (London, 1965), Lot 39 (illustration, history, and bibliography). Sotheby's, *Sale Catalogue of the Somerset de Chair Collection* (London, 1975), Lot 66. Now in a Spanish private collection.

[5] *The Morocco Ambassador*, by Godfrey Kneller, the background by Jan Wyck. Listed in an inventory of Chiswick *c.*1740, in Lord Burlington's hand ('Morocco Ambassadour, Sr G and old Wyke'), and in another of *c.*1753, probably made shortly after the death of Lord Burlington ('Morocco Embassador in ye 20th of Charles ye 2nd – ye figures by Sr G Kneller, the background and horse by Wyke'), and in a typescript catalogue of pictures in the Devonshire collection (no. 326), all now at Chatsworth. Kneller may have worked up the pictures from an earlier painting of 1682: Vertue (*Notebooks*, I. 116) mentions a 'picture of a Morocco Embassador half length by ye life . done by Mrs Rosse. dated 1682. his name & Title above she painted this picture at the same time as Kneller painted him in Oyl he sitting to them both at once.' I am indebted to Mr N. W. Cearns, Custodian at Chiswick House, for details of this painting.

20. CLOGS (Pl. XLII). Pair of men's wooden toe-peg clogs. Made straights (in other words, for either foot) with a 51 mm stilt under the ball and heel. Slightly pointed toe and 'insole' at heel, with a narrow waist. The lacquered 'insole' is decorated with a marbled effect. The toe-peg of one clog has been broken and is partially missing.

1656 p. 48: *Chappenes, 20 sorts.*
1685 B no. 342: *Calapediorum tres species, totae ligno elaboratae.*

Dimensions: Length 245 mm.

In the 1886 catalogue these were catalogued as 'A pair of Japanese clogs' from the Island of Joanna, which is between Mozambique and Madagascar.[6] The style, without the marbling, has survived around the shores of the Indian Ocean to the present day. A pair of clogs in the Nationalmuseum, Copenhagen, provenanced to the Ottoman Empire, exhibits the same constructional and decorative features.[7]

J. M. Swann

21. SANDAL (Pl. XL). Double-soled sandal, the rawhide lower sole neatly sewn to the polished and decorated upper sole with fine leather thonging. The upper sole has an embossed pattern consisting of a central diamond shape embellished by a strip of leather thong which also serves to hold the two thicknesses of the sole together. In front of the diamond and behind it is a pattern consisting of four stamped circles surrounded by an embossed border; the most forward of the circles had been pierced by the toe-thong, of twisted leather, fixed by knotting the two ends together underneath the rawhide sole. At the toe another small strip of leather thong serves both as decoration and to hold the two thicknesses together. A piece of tape is also attached there, perhaps for hanging up the sandal, but this is probably a later addition, as it would be most inconvenient in wear.

The inset strap, of decorated leather, is sewn into a slit on either side of the upper sole by a further strip of thonging which passes through both thicknesses of the sole. The strap is shaped by folding round the toe thong to form three thicknesses, the whole being held in place by the thong itself, which pierces the two upper thicknesses and ends in a large, flat knob formed from coiled leather, beaten and shaved into shape.

1685 B no. 328–35: *Calceorum 8 paria.*

Dimensions: Length 261 mm.

The construction of the strap and toe-knob is typical of modern Hausa sandals; it is also found among the Tuareg and sometimes the Moors, and elsewhere in West Africa (e.g. Ashanti) where there has been Hausa influence. The decoration of the sole could well be of Hausa inspiration, but all modern Hausa sandals, and those of the neighbouring peoples, seem to have rounded ends to the toe and heel, in contrast to the almost Turkish-looking pointed toe and heel of this sandal. The decoration on the strap looks as if it may have been done with a roulette, which would suggest a Mediterranean rather than a West African origin; it could, however, have been executed with a fine comb and a steady hand.

It is known that large numbers of sandals were exported from Hausaland in northern Nigeria to North Africa in the nineteenth century, and this was probably an old established trade. Hausa artisans were also to be found in North Africa. Moreover, the Hausa leather tradition itself probably has Mediterranean origins. Descriptions of older North African dress, in common with such illustrations of it as are available, generally show some form of shoe or boot rather than sandals, though sandals must also have been worn. Given the probable changes of technology and fashion over the centuries, it is not possible to give an exact provenance for the sandal, though it seems likely that it was collected in North Africa.

M. Johnson

22. IVORY SPOON (Fig. 26). Spoon carved from a single piece of ivory with a long, shallow bowl. The handle is carved in the form of a nude male figure with long arms folded across the body. The face is disproportionately large, having a broad flat nose and a pointed chin or, more probably, a beard. The large eyes are set somewhat to the side of the face, sloping downwards towards the nose. The legs are remarkably short, giving the figure an ungainly appearance. On the head is a truncated conical head-dress.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.*
1685 B no. 554: *Cochlearia 4 indica ex ossibus conflata. 2 fracta.*

Dimensions: Length 160 mm.

See discussion under No. 23.

[6] Ash. Lib., AMS 25, no. 149.
[7] Nationalmuseet, Copenhagen, nos. EFc2,3. See Flindt, in Dam-Mikkelsen and Lundbæk 1980, p. 76.

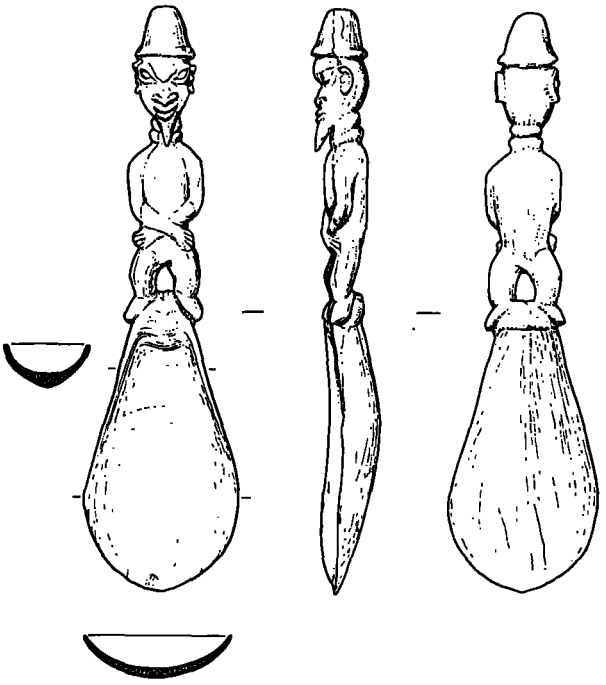


Fig. 26. Ivory spoon, No. 22. Scale 1:2

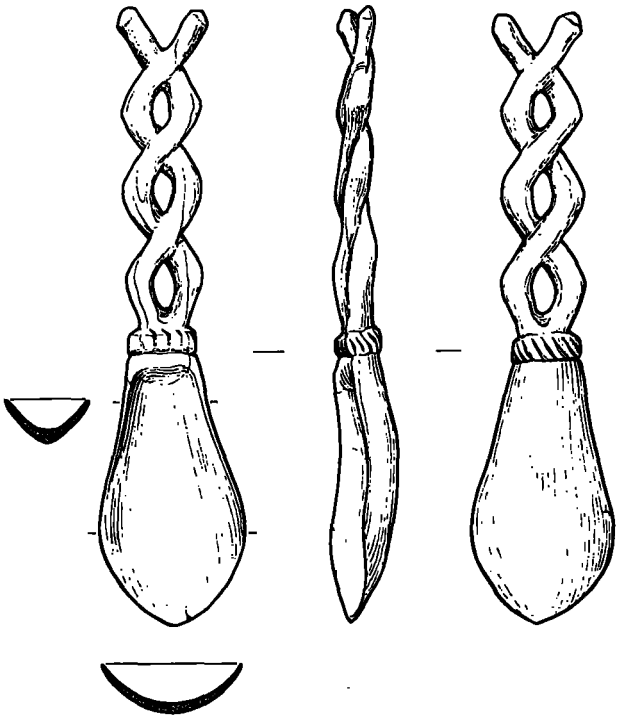


Fig. 27. Ivory spoon, No. 23. Scale 1:2

23. IVORY SPOON (Fig. 27). Spoon carved from a single piece of ivory. The bowl is very similar to that of No. 22 but the handle is carved as two interlaced rods.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 B no. 554: *Cochlearia 4 indica ex ossibus conflata. 2 fracta.*

Dimensions: Length 151 mm.

These ivory spoons share a common African origin and can almost certainly be classified as Afro-Portuguese.[8] They are somewhat inferior in quality to the many beautiful spoons preserved in museums, dating in at least one case from the last years of the fifteenth century.[9] This inferiority is unfortunately sufficient to prevent us from making an identification between the two main divisions of Afro-Portuguese ivories – the Sherbro-Portuguese, made by (or by craftsmen from) the Sherbro or Bulom of Sierra Leone, and the Bini-Portuguese, made at (or by craftsmen from) Benin in southern Nigeria.[10] It is however also possible that they could have come from another centre of ivory-carving such as Gabon or Dahomey, areas which had been in contact with the Portuguese.

The two spoons appear to be from a very late stage in the decadence of the Afro-Portuguese mode, but this is hardly a sufficient explanation for their strange appearance, since it is hard indeed to imagine them gracing the same royal and noble tables as the other much finer specimens known elsewhere.[11] They must surely have been made for some more lowly foreigner, such as a ship's officer or even perhaps an ordinary seaman. For their interest in Afro-Portuguese studies, however, they are at least equal to the finer spoons in the known corpus,

[8] Six spoons and one fork now in the Museum of Mankind, London, are illustrated in Fagg, 1959: some represent Sherbro work (pls. 41, 44, 45), while others are probably Benin work (pls. 40, 42, 43, 46).

[9] Andree (1914, pp. 36–8) describes the spoons which have been in the Wieckmann collection at Ulm since the early sixteenth century. Andree (1901, pp. 156–9) also describes four spoons at Braunschweig. The Vienna collection contains six spoons and one fork, which were published in *Mittheilungen Wiener Anthropologischen Gesellschaft* 29 (1899), 61–5.

[10] In the light of present knowledge, rather more Afro-Portuguese specimens may be considered to be Sherbro than Bini.

[11] For instance the spoons in the Nationalmuseum, Copenhagen, nos. EAc 135–8 (Lundbæk, in Dam-Mikkelsen and Lundbæk 1980, p. 48) or the Museum of Mankind, London (see n. 8).

which is otherwise free of any examples of degeneration.[12]

W. B. Fagg

24. AMULET CASE WITH KORANIC SCRIPT (Pl. XI). Silver amulet case, made from four sheets (the body, the fixed cap, the cap and body of the removable end) with four soldered suspension loops. The body is separated into fields by thick wire strips, each field decorated with narrow silver wires containing areas of enamel or forming small rings. Opposite the suspension loops a red stone is set in a silver surround, with white, green, and yellow enamelled half-palmettes on either side. On either side of the body are six panels of enamelled vegetal forms, alternately green and yellow; at each end a band of arabesque in green enamel. On each cap is a double rosette in green enamel. The case contains two lengths of paper bearing Koranic *suras* (chapters) or verses, liberally interspersed with talismanic invocations, in a Maghribi (North African) hand.

1656 p. 37: *Turkish Alkaron in a silver box.*
1685 A no. 442: *Alcoranum Turcicum in pyxide argentea rubino ornata varijsque coloribus encausto picta.*

Dimensions: (case) L. 77 mm, D. 21 mm; (texts) L. 377 mm and 203 mm.

This is a North African object, but its date is difficult to determine on artistic grounds alone. The technique of filigree enamel, of which this case is representative, is a Berber art practised today in the Grande Kabylie, between Algiers and Bougie, and in the Anti-Atlas, south of Marrakesh. It goes back in origin to ancient Iran, whence it was transmitted to Europe in the Dark Ages, and to Byzantium. It probably came to North Africa with the Jewish and Moorish refugees from Spain at the time of the Christian reconquest. Modern colours of enamel include blue, bright orange, and a yellowy green, and the designs are more elaborate, but the technique used is the same. Other examples in Oxford are to be found in the Pitt Rivers Museum.[13] Amulet cases of this form have been found in Iran in Sassanian contexts, and were widespread throughout the Islamic world in medieval and post-medieval times.[14]

J. W. Allan

25. DOUBLE-MEMBRANE DRUM (Fig. 28, Pl. XII). Worked from a single piece of wood, which shows a multitude of adze marks. The membranes are of elephant-skin[15] lashed longitudinally with

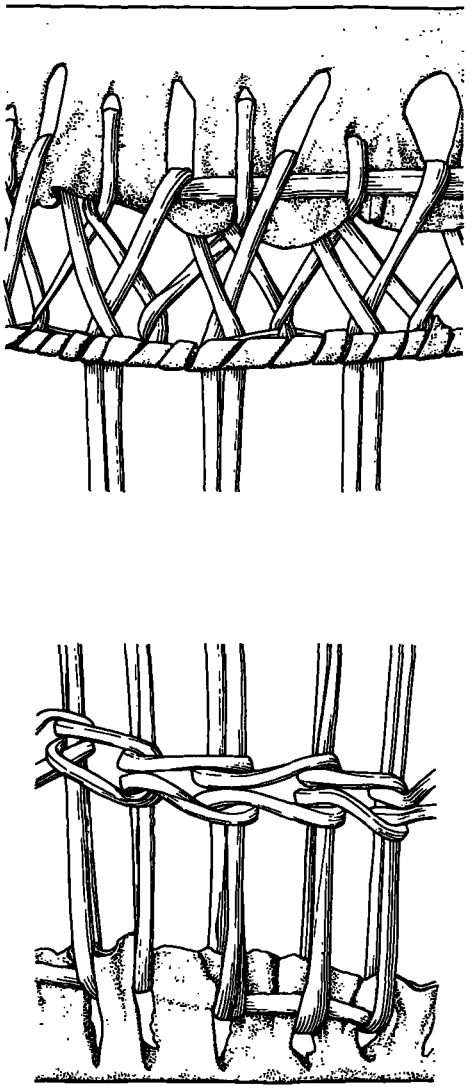


Fig. 28. Drum, No. 25: details of method of lashing on upper (larger) and lower (smaller) membranes. Scale 1:2

[12] Cases of degeneration are, however, not unknown among end-blown Afro-Portuguese ivory horns.

[13] The authoritative work on the subject is Camps-Fabrer, 1970.

[14] For an example see Allan 1982, no. 1.

[15] Identification by Miss Daphne Hills, British Museum (Natural History), who considered that the skin probably came from the ear of a very young elephant.

pairs of elephant-hide strips; a few hairs remain on some strips. The lashings (Fig. 28) pass through holes in the skins, which have stretched under tension. A continuous band of interlooped hide strip is worked around the lashings above the smaller membrane, with the remains of a carrying-strap attached at one point. A more complex band of X- or V-shaped patterns is made by the thongs below the larger membrane; a narrow over-wrapped hide encircles the drum below the patterned lashing. The vestiges of a carrying-strap are attached to this band also. When the drum is moved an object can be heard moving freely inside: this could be a charm.

1656 p. 45: *Drums of two sorts; 1. from Ginny of a whole piece of wood*, or, *Ginny Drum made of one piece.*
1685 B no. 169: *Tympanum pyramidale ex uno ligni frustro conflatum utraque extremitas corio tegitur varijs nervis constricto.*

Dimensions: Height 0.59 m; Diameter (max) 205 mm.

Bibliography: Bassani 1978, pp. 23–4, pl. 51.

This drum was attributed by Tradescant to 'Ginny' (Guinea), which at most times during the last three and a half centuries was probably understood to define the whole coastal area of west Africa from Senegal to at least the mouth of the Congo. The drum can be certainly associated with two other drums which clearly came from the same village area, or at least from the same tribe, which were reproduced in a woodcut by Praetorius;[16] unfortunately, no further attribution comes from this association, since Praetorius allots his pair to Muscovy.

The most exhaustive study of this drum has been made by Wachsmann, who gives valuable data from the Uganda area, including some from his own fieldwork.[17] He gave the first identification of the membranes as made of elephant's ear, and this opinion has been firmly supported by more recent examination.[18] Wachsmann cites a drum seen and drawn by Czekanowski in 1907 in Ruanda, which showed marked similarities with, but also marked differences from, the Tradescant drum; he does not, however, offer any firm conjecture about its origins.[19]

Bassani leans towards a Bakongo derivation for the Tradescant and Praetorius drums. However, Huguette Van Geluwe rebuts this view and firmly classes them with the Ubangi tribes of north-west Zaïre, in particular the Ngbandi tribe,[20] citing the numerous drums from this area illustrated by Boone.[21] This identification seems the most reasonable so far, but after careful study of Boone's plates the case does not yet appear to be proved: in the early seventeenth century, it would have been extraordinary for three such drums to have found their way down the Congo to the coast or to the region of Gabon from so far inland. If a work comparable to Boone's existed on the former French Equatorial Africa, equally close or closer correspondences might be noted very much nearer to the coast.

W. B. Fagg

26. IVORY HORN (Fig. 29). Carved from a single elephant-tusk. Ornamented externally with nine sweeping flutings terminating in regular scalloped ends, leaving an undecorated band at the mouth. The general appearance suggests that this was a side-blown horn, an impression enhanced by a slight thickening of the four flutings on the inner curve at the broken narrow end, which may indicate the former presence of an *embouchure* just beyond the break, and confirmed by the description of 1685 (below). The integral terminal is now missing; there are traces of an attempted repair in the form of three peg-holes let into the broken surface, one of them still containing an iron peg. A small perforated lug protrudes from near the centre of the inner curve. Much of the surface is marked by striations from the carving process which subsequent polishing has failed to remove.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.*
1685 B no. 755: *Lituus indicus eburneus, curvatus; una extremitas humanae manus speciem exhibet. In media parte foramen habet ad canendum aptatum.*

Dimensions: Length 381 mm; Diameter (max) 96 mm.

Bibliography: Wachsmann 1970, pp. 97–103.

This broken blast-horn or trumpet belongs to a small group of up to a dozen specimens preserved in early museum collections, whose common denominator is the scalloped fluting which ornaments the

[16] Praetorius 1620, pl. XXX.
[17] Wachsmann 1970, pp. 97–108.
[18] See n. 15.
[19] Czekanowski 1917, p. 381, fig. 184.
[20] Bassani 1978, pl. 13; Huguette Van Geluwe, Musée Royal de l'Afrique Centrale, Tervuren, personal communication.
[21] Boone 1951, *passim*, pls. XVII, XXIV.

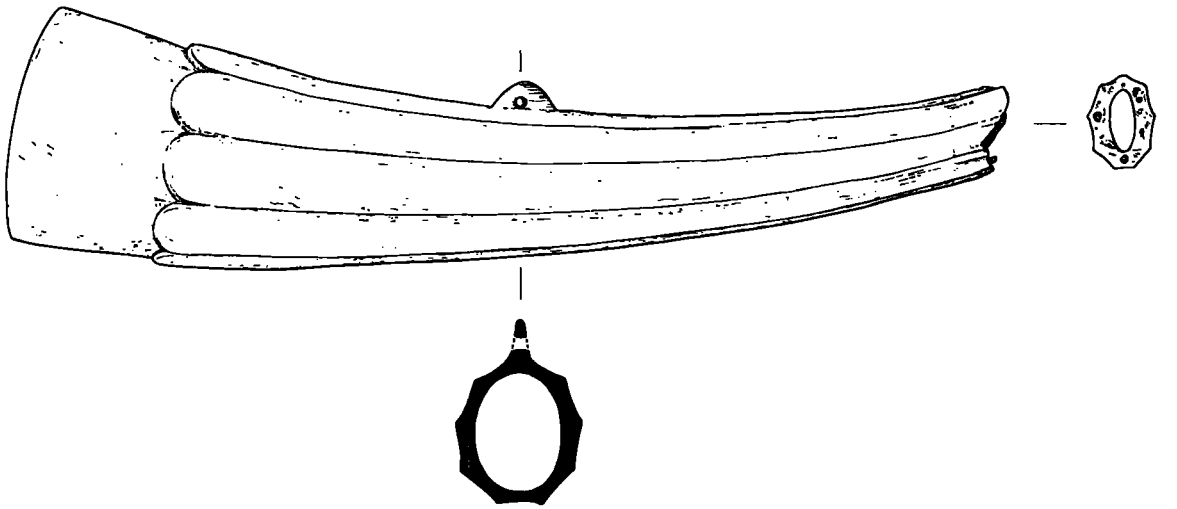


Fig. 29. Ivory horn, No. 26. Scale 1:3

greater portion of the exterior.[22] The fluting would appear to be a European trait, but it is improbable that these horns are to be classified as Afro-Portuguese in view of their characteristically African lozenge-shaped *embouchure* placed almost centrally on the inner curve of the tusk. They are usually provided with one lug for suspension, generally on the outside curve. The narrow or distal end (in terms of elephant anatomy) is carved in most cases with a crocodile-headed terminal,[23] but the horn shown in the well-known illustration in Praetorius's *Theatrum Instrumentorum*[24] has a more elaborate terminal in the form of a seated figure, possibly a European but in any case wearing a European hat.[25] According to the 1685 description, this particular example terminated in a human hand-form.

It is difficult to assign the group with certainty to any particular point on the West African littoral. It is unlikely that it can be attributed to any of the Nigerian tribes: Benin, in particular, together with its related vassal tribes, is ruled out by the position of the *embouchure* on the inner rather than the outer curve, which is the rule at Benin. The carved terminal illustrated in Praetorius's drawing is reminiscent of the richly carved sceptres or staves of the Kingdom of Kongo or the Ivory Coast, from which have come a considerable number of carvings in ivory, including a number of representations of seated Europeans in similar headgear. The Sierra Leone area might also be considered. On balance, the Ivory Coast seems the most probable point of origin, and this tends to be corroborated by the reference in the 1685 catalogue, when the horn was presumably still intact, to the finial in the form of a human hand, since the Akan tribes (Ashanti, Baule, Anyi, etc.) make quite frequent use of hand finials on umbrellas, spokesmen's staffs, etc.

W. B. Fagg

[22] For example, one in the Musée de l'Homme, Paris, illustrated in Leiris and Delange 1968, p. 2, pl. 3. There are two such horns in the Nationalmuseum, Copenhagen (nos. EGc15, 17: see Lundbæk, in Dam-Mikkelsen and Lundbæk 1980, p. 49), which lack a detailed provenance: but EGc15 has similar flutings and is complete with a small lug on the outer curve. Mr Ezio Bassani, whose advice is gratefully acknowledged, considers that the suspension loop suggests European influence; he dates the specimen to the beginning of the sixteenth century. The other horn, EGc17, is also complete, but lacks the lug.

[23] The specimen in the Musée de l'Homme, Paris, no. D 33.6.3, is a fine example of this style.

[24] Praetorius 1620, pl. XXX.

[25] The horn illustrated by Praetorius does not appear to have survived. By coincidence, his illustration also shows two drums similar to No. 25 in this catalogue.

ASIA
(including the Pacific Islands)

27. SADDLE (Pl. XIII). Wooden saddle-tree, the sides beneath the side-flaps, and the underside, covered with birch bark above a layer of sinew. A padded seat of brown leather is attached to the saddle-tree by large, dome-headed nails. The seat is decorated with Moresque floral scroll-work painted in green and black. Side-flaps of inverted onion shape are attached either side of the saddle-tree by two large dome-headed nails and three smaller ones. Beneath the flaps each side of the saddle is pierced by a rectangular slot for attachment of the stirrup-leathers. Wooden bow covered with sinew, the original leather cover now missing. Wooden cantle, shaped like an Islamic arch and covered with black leather decorated with tooled borders painted in gold with running foliate scroll-work. From the borders spring three tooled leaves similarly painted with scroll-work. The wooden wings or saddle-boards extend just forward of the bow and considerably to the rear of the cantle, where they are covered with black leather, tooled and painted with similar decoration to that on the cantle.

1656 p. 54: *Tartarian saddle with stirrups of wood with a hollow wherein he keeps his meat alwayes warm.*
1685 B no. 448: *Ephippium Tartaricum, ligneis Staticulus dotatum.*

Dimensions: Length (overall) 413 mm; Width 286 mm.

Saddles of this general form can be found in many collections in Eastern Europe. Some appear to be of European manufacture, for instance a saddle made in Poland in the late seventeenth century and now in Wawel Castle, Krakow.[1] However, this type of saddle appears to be Asiatic in origin, and most of those which survive are believed to have been made in Russia, Turkey, or Persia. Many examples of both sixteenth- and seventeenth-century date are preserved in the Armoury of the Kremlin, Moscow,[2] and a number of Russian saddles, which formed part of the trophies sent to the Emperor by Stephen Bathory, King of Poland, after his campaigns against Russia between 1579 and 1582, are now in the Waffensammlung, Vienna. Most of these and other surviving saddles of this type are richly decorated, in contrast to the Ashmolean saddle which has decoration of much poorer quality. It has been suggested that the floral patterns on this saddle are typical of Tartar decoration, while the form of the saddle with its arched bow and its saddle-boards extending well to the rear is also consistent with a Tartar origin.[3] Similar decoration is found on a supposedly Tartar quiver now in the Waffensammlung, Vienna, which is believed to have formed part of the booty captured by Archduke Ferdinand of Tirol during his campaigns against the Turks in 1556 and 1564.[4] It is therefore reasonable to suggest that the Ashmolean saddle is of Tartar origin and probably dates from the late sixteenth or early seventeenth century.

There is no reason to doubt that this is the saddle described in both the 1656 and 1685 catalogues as 'Tartarian', and it is interesting to note that at that time it was complete with wooden stirrups, now missing. It is known that, because they had little iron, the Tartars often used stirrups of wood, although few now survive. G. M. Wilson

28. KERIS (Fig. 30, Pls. XIV, XV). A keris consisting of four separable parts: blade (*wilah*), guard (*ganja*), collar (*mendak*) and grip (*ukiran*). There is no sheath.

The blade and guard[5]
Dapur (the form). A straight blade (*wilah bener*) known as *sarpa tapa* (snake in meditation). In cross-

[1] Wawel Castle, Krakow, no. 3971; illustrated in Szablowski 1969.

[2] See, for example, Kremlin, Moscow 1958, pls. 211, 212; id. 1969, pl. 136; id. 1979, pp. 146–7.

[3] I am indebted for this suggestion to Dr Z. Zygulski, Curator of the Muzeum Narodowe, Krakow.

[4] I am indebted to Dr Ortwin Gamber for this information.

[5] In the descriptions Javanese technical terms have been employed where possible to point to the many features of the keris significant in identification, with translations where they might be helpful. The descriptions follow the custom of examining the blade with the point upwards and the tail of the *ganja* to the right, while the keris is reversed to describe the collar and grip. Some use has been made of material collected on short visits to Java in 1975 and 1982, but regrettably it has not been possible to consult many sources in Java while writing about the Tradescant keris. The main sources consulted besides those in the bibliography and notes were: Anon. 1951; *Encyclopædie 1917–21*; Frankel 1963, pp. 14–23; Groneman 1910–13; Hamel 1967–71; Hill 1956, pp. 7–98; van der Hoop 1949; Huyser 1917–18; Meijer 1917; Moebirman 1973.

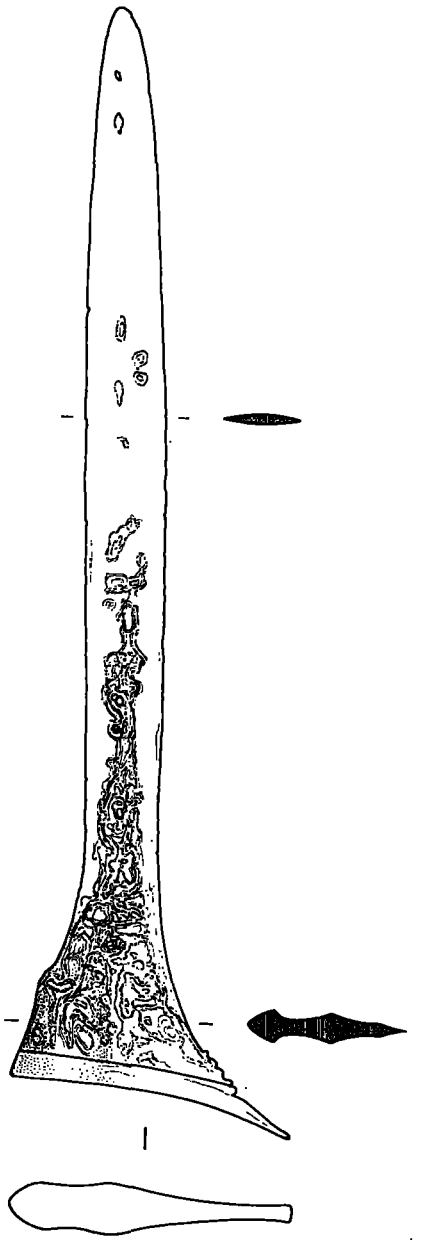


Fig. 30. Keris, No. 28: blade. Scale 1:2

section it is smoothly curved like a convex lens. On the *sorsoran* (lower third of the blade), there is a plain *gandik* (lit. 'cylindrical stone pestle') of medium length at the front, with a *pécétan* (lit. 'thumb print') behind it. At the rear is a *grènèng* (serrated edge) with four teeth. The *ganja* is straight with a single *tingil* (lit. 'thorn') immediately below the rear of the blade. From below, the *ganja* has a conventional lizard form. In this case it is broad, with a blunt head and tail.

Pamor (the nickel-iron and the patterns worked with it in the blade). The blade is built of alternate layers of steel and nickel-iron laminated parallel to the flat surface of the blade. This is known as *pamor mlumah* (flat *pamor*) in Java. The surface of the blade is smooth, and perhaps once was polished. The *pamor* is difficult to see because of the condition of the blade (see below). It is impossible to tell if the *ganja* is pamored or not. The visible *pamor* is a fine one and the upper half of the blade appears as small bright islands, irregularly shaped and randomly spaced in two rows on either side of the centre line. In the lower half of the blade, the *pamor* has more layers exposed, forming large, irregularly-shaped islands within islands. The impression is of the random *pamor*, *beras wutah* (scattered rice-grains) below, and *udan mas* (golden rain) above. There is a small crack through the centre of the blade just above the *pécétan* deriving from a fault in the forging. This may have been welcomed by the original owner, as such cracks were seen as being fortunate.

The tip of the blade is bent, and there is nick and notch damage along both edges. There is also some surface tarnishing and rust-pitting. The tail of the *ganja* is bent. The *pamor* is worn.

The collar (*mendak*)

The *mendak* is of delicately worked brass, and consists of a narrow cylinder below a broader cup which supports the grip. The cup can be revolved on the cylinder, but as it is impossible to remove this grip without risk of damage, it is uncertain whether the cylinder and cup are fixed together or not. The decoration from the top to the bottom is as follows: Upper cup: a border of thirty-seven small balls (*meniran*); a border of twisted wire (*tumpangsari*); a toothed ring with alternate large and small triangles projecting downwards. The small triangles (*untu walang*) have a series of short chisel-marks on their faces descending from the edges. Of the original seven triangles, six remain. The large triangles (*ungkul-ungkatan*) have plain edges; each triangle is decorated with a single scroll wire with tiny balls on its outer edge. Of the original eight triangles, only three remain.

Lower cylinder: a plain washer (*damping* [?]); a border of twisted wire (*tumpangsari*); a plain washer (*damping* [?]); four square jewel mounts alternating with four flat squares incised with diagonal crosses;

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

a toothed ring (*ripandan*) of equilateral triangles projecting upwards; a border of twisted wire (*tumpangsari*); and a border of twenty-eight tiny balls (*meniran sorsoran*). All the stones are missing from their mounts. Each triangle has a small ball in the centre; of the original ten triangles, one is missing.

The grip[6] (*ukiran*)

The grip is carved from a close-grained, gold and reddish-brown hardwood. It portrays a demi-god as a human figure leaning to the right, sitting with the knees drawn up towards the chest. The right hand is grasping the shin, the left the knee. The fingers of both hands are extended into curling scrolls or tendrils. The face is mask-like, with round bulging eyes and a large bulbous nose. The face, eyebrows, mustachios, and ears are all worked into curling tendrils. The hair is drawn back smoothly from the curls of the forehead. The tresses wave gently down to the small of the back where the ends are curled. The upper part of the hair is tied into five braids which hang down to just below the shoulders where the ends are curled.

The figure is pigeon-chested and pot-bellied. A band below the stomach at the front suggests a loincloth, but the body is otherwise naked, with the genitals represented by a flower pattern. The toes are split into pairs and extended to form part of the seat, which is elaborately worked with sprouts and curling tendrils. There are two complex motifs at the front and the rear of the seat which may represent highly stylized Garudas. It is noteworthy that the decoration beneath the feet is cut away behind. Below the seat is a plain wooden knob, the *bungkul*, which rests in the top of the *mendak*. Apart from a crack in the buttocks, the wood of the *ukiran* is in good condition.

1656 p. 46: *Poisoned Creeses or Daggers: 2 waved, 2 plain.*

1685 B no. 117: *Pugio anceps in mucronem exit. Manubrium simiae imaginem exprimit. Vagina lignea.*

Dimensions: Length (overall) 380 mm.

Bibliography: Solyom and Solyom 1978, pp. 12, 34; Griffith-Williams 1937, p. 128; Winstedt 1912, pp. 22–3, plus. V, VI.

The blade, *ganja*, *mendak*, and hilt are are clearly Javanese in style. Yet the type of *dapur* is not precisely described in the published works on central Java. It closely resembles the form *jalak dinding*, but this would normally have no *grènèng*, while another similar form, *jalak ngore*, has *grènèng* only on the *ganja*. The related *tilam* forms (*upih*, *petak*, and *sari*) introduce further variants in details absent from this specimen. Most probably we are dealing with a keris tradition which is very closely related to those of central Java but different from them. Which tradition this may be is, however, uncertain. The strong, blunt-nosed *ganja* is of a form usually associated with Tuban. The polish of the blade, accepting that it is original, would also suggest a *pasisiran* (coastal) source.

The *mendak* is of a form well developed in central Java, yet it differs from it in details of ornament. The grip is also distinctive. The smooth, relaxed carving and undercutting of the feet suggest a tradition with conventions drawing on some Chinese or Buddhist inspiration, or possibly a Chinese hand. In sum, the clues identified could place the source of the keris as being on the north coast of Java, anywhere from Cheribon to Gresik, though the closeness of the features to central Javanese conventions suggests Tuban as a possible source. However, it is impossible to rule out an east Javanese ascription, for the blade is also similar to ancient east Javanese types and the hilt has a Hindu-Buddhist form. The data available are insufficient to estimate a date, but on stylistic grounds this keris gives the impression of being the earliest of the three Tradescant keris.

See further discussion under No. 30.

29. KERIS (Fig. 31, Pls. XIV, XVI). A keris consisting of four separable parts: blade, guard, collar, and grip.

The blade and guard

Dapur. A sinuous blade (*keris lukluk*) known as *sarpa lumaku* (moving snake) with eleven *luk* (curves). In cross-section a raised central spine (*ada-ada*) is flanked by concave surfaces on both sides. On the *sorsoran* there is at the front a plain *tlalé gajah* (lit. elephant's trunk'). Below it is a *jalèn* or *lambé gajah* (lit. 'elephant's lip'), and below that a *jalu memet* (lit. 'cockspur'). Behind is a *pécétan* with a *tikel alis* (lit. 'eyebrow') above. In the centre are two *sogokan* (grooves) on either side of a straight *janur* (lit. 'spine

[6] For grips in a similar style see Stone 1934, p. 523, fig. 670(2) (reverse of *raksha* hilt); Nationalmuseet, Copenhagen, no. EDb 20, accessioned 1690: see Wulff and Pedersen in Dam-Mikkelsen and Lundbæk 1980, p. 148; Steinmann 1954, p. 127, fig. 1(a) (Java).

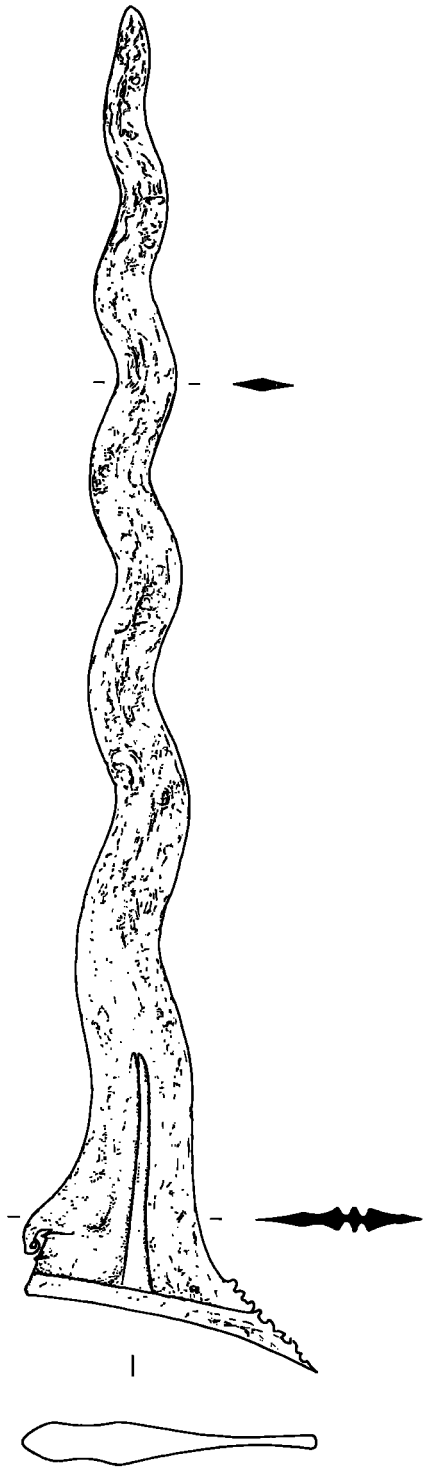


Fig. 31. Keris, No. 29: blade. Scale 1:2

of coconut-frond'). At the rear is a *srawiyan* groove, and along the edge is a *grènèng jénggot* (beard) above *ron dạ* (a cut shaped like the letter *dạ* in Javanese script). The *ganja* is a straight one with a slight flare towards the tail, type *sebit lontar* (lit. 'torn pandanus leaf'). Along the rear edge are *grènèng* including two *ron dạ* and a *ripandan* (pandanus thorn).

Pamor. Both blade and ganja are worked with *pamor mlumah*. The surface is slightly rough, with thin layers of *pamor* exposed in the *sogokan*. On either side of the spine the *pamor* is revealed as broad islands which are contained within a fine outer line roughly following the edges of the blade. The impression is of the random *pamor, beras wutah*.

The collar (*mendak*)

A plain silver cylinder with a wooden (bamboo?) core.

The grip (*ukiran*)

This is carved from a close-grained hardwood. It portrays a seated figure with elbows on the knees and the arms crossed. The head has a large projecting nose and large eyes. There is also a wide, closed mouth from above which mustachios curl downwards to run into the general pattern. Straight hair tapers down to the middle of the back. The figure is elaborately decorated with intricate scroll-like patterns of the opening shoots of plants. The basal knob (*bungkul*) is of smooth plain wood. The tip of the nose has been knocked off; otherwise the grip is in excellent condition. It is a stylized version of the Garuda, the man–eagle mount of Vishnu.

1656 p. 46: *Poisoned Creeses or Daggers: 2 waved, 2 plain.*

Dimensions: Length (overall) 380 mm.

Bibliography: Solyom and Solyom 1978, pp. 12, 34; Griffith-Williams 1937, p. 128; Winstedt 1912, pp. 22–3, pl. VI.

The grip resembles the *Gajah Mati* type as illustrated by Suhari,[7] but is much larger, and differs from it in detail considerably. Attempts to find an identical or closely similar grip have proved unsuccessful, so one can only consider those with broader stylistic resemblances. There are two well-known possibilities, the *hulu pekaka* (kingfisher hilt) particularly associated with Patani and Kelantan on the east coast of the Malay peninsula, and the large nosed bird/man figures usually ascribed to Cheribon and

[7] Suhari 1923, p. 18.

the north coast of Java. The styles of the former have a short body, sharply bent back and a long, frequently curved or even curled beak. Though the decoration is deeply carved and extensive, the detail is very different from that of the grip in question, in which the hair style particularly is a feature found only on certain hilt styles from Java, Bali and Madura. Some Cheribon grips do have upright or slightly bent figures and large blunt noses. They are also large and have elaborate detailed carving. Thus they are undoubtedly closer in style to the grip of this keris than are the kingfisher hilts of Patani and Kelantan, even when one takes into account its age and the possibility that Malay kingfisher grips may have drawn inspiration from north Java at an early period. It is probable that Cheribon is the source for this grip.

The *ḍapur* of the blade closely resembles *keris balebang* as illustrated by Raffles and described by Jasper and Pirngadie.[8] The traditional features of a *jalu memet, grènèng jénggot*, and the form of the *tlalé gajah* suggest only a Javanese style, as does the *pamor*. The simple *mendak* is unhelpful, for it does not match the quality of the blade and grip, and can only reflect the temporary poverty of its owner. Generally the evidence indicates a Javanese keris, probably from the north coast, with style characteristics that do not conflict with a pre-seventeenth century date.

See further discussion under No. 30.

30. KERIS (Fig. 32, Pls. XIV, XVII). A keris consisting of four separable parts: blade, guard, collar, and grip.

The blade and guard

Ḍapur. A sinuous blade (*keris lukluk, sarpa lumaku*) with thirteen *luk*. In cross-section the blade is broad and rather thin, with a raised central spine (*ada-ada*) flanked by concave surfaces on both sides. On the *sorsoran* there is at the front a *kembang kacang* (lit. 'opening beansprout') which almost touches a marked *jalu memet* below. On the *kembang kacang* is an elaborate *jénggot*. Below is a *lambé gajah*. Behind is a *pécétan* from which a deep *sogokan* (*njajeng*) runs to the top of the *sorsoran*, matched by a *sogokan* (*wingking*) on the other side of a central spine (*janur*). Beyond the *sogokan* on both sides are *srawiyan* ridges. Along the rear edge are *grènèng*.

The *ganja* is a straight one, flaring towards the tail, with *grènèng* at the rear. The head is pointed and projecting, the tail broad and blunt. The tail is bent.

Pamor. No *pamor* is visible.

The collar (*mendak*)

A simple cylindrical brass ring with two pairs of parallel grooves round it in the lower half. It bears a striking resemblance to a European walking-stick ferrule.

The grip (*ukiran*)

The grip is of carved wood, fairly straight and remarkably long. The lower part is particularly long. It is carved into columns, gently twisted to give a rope-like appearance. A narrow wreath of leaves separates it from the *mendak*, and a broad one from the upper grip. Above there is a monster head on the obverse. The most prominent feature of the obverse head is an open mouth displaying projecting teeth in the lower jaw; the upper jaw and lip are missing. There is a hole through the base of the mouth. Above is a small nose and two round eyes under a 'fisherman's hat'. The smooth wood and pouched receding chin give the head a reptilian look; the whole face is contorted as if with fear, pain, or anguish. The head on the reverse is of a European wearing a helmet. The mouth is open, gagged with a cable which curves round behind the jaw and then curls round like mustachios to frame a chain gorget at the throat. Below is a face-mask with human features, apart from two small cat's ears projecting from its upper corners, giving it the appearance of a European demon. The mouth is also open and gagged with a chain which hangs from the cable above. Below the mask is a rosette with nine petals. The sides of the upper part are filled in with the sharp open leaves of a plant. It is noteworthy that the eyes on all three faces have been rendered by piercing holes, and that the whole carving is vigorous and forceful.

1656 p. 46: *Poisoned Creeses or Daggers: 2 Waved, 2 plain.*

Dimensions: Length (overall) 482 mm.

Bibliography: Solyom and Solyom 1978, pp. 12, 34; Griffith-Williams 1937, p. 128; Winstedt 1912, pp. 22–3, plus, V, VI.

The grip, in the style of certain hilts found on seventeenth-century European hunting swords,[9] would appear to be quite unique as a keris grip. A form of hilt with a helmet as a pommel known as

[8] Raffles 1817, p. 296; Jasper and Pirngadie 1930, p. 217.

[9] For information on the hilts of European hunting swords of this period and advice on this keris handle, I am indebted to Mr A. V. B. Norman, Master of the Armouries, HM Tower of London.

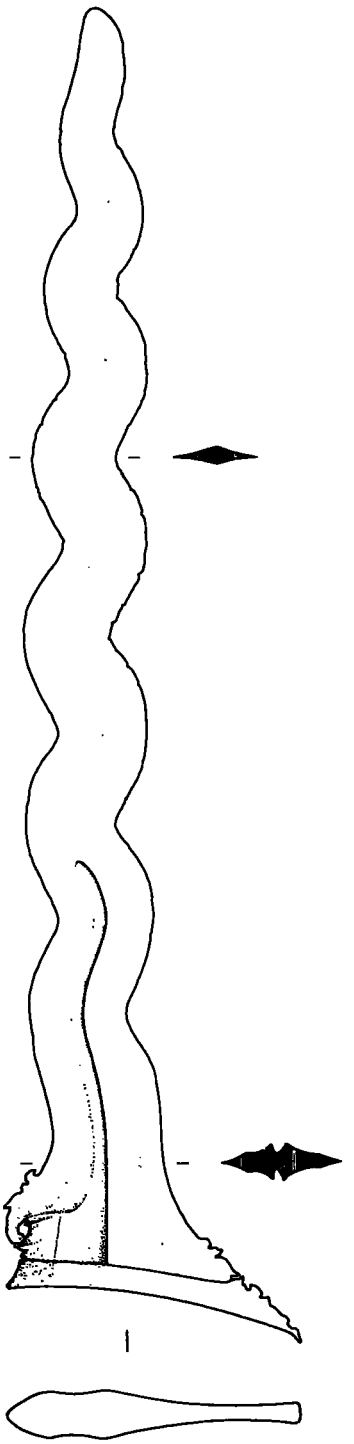


Fig. 32. Keris, No. 30: blade. Scale 1:2

landhian pulasir (i.e. cuirassier) and *landhian langsir* (i.e. lancer) carved in Madura has been traced to the early nineteenth century,[10] but the resemblance is superficial. Is this keris grip then of European origin and quite distinct from the blade? Is it a replica or adaptation of a European model carved for South-East Asian use? Or is it even a South-East Asian model for the European form? Was it made for a South-East Asian or a European?

The normal keris hilt is designed like a pistol grip, to be held with the index finger along the blade. Because of its length, the hilt on this example would be very clumsy held in that manner unless one had a very large hand. It can, however, be held comfortably with all four fingers wrapped round it, a grip associated with swords and chopping knives in South-East Asia. Either this is a sword-hilt attached to a keris knife-blade, or it was commissioned for someone who held a keris unconventionally in a large hand (e.g. a European).

In carving technique and theme the grip lacks the precise, skilful, and subdued treatment found in the highly conventionalized products of South-East Asian craftsmanship. The piercing of the eyes to represent pupils is unusual in South-East Asia, as is the nine-petalled rosette. The grip is therefore unlikely to be a South-East Asian design; on the contrary, it would appear to follow a European tradition very closely. This is confirmed by the hole through the base of the mouth, which has no obvious purpose in a South-East Asian context, but could be for attaching a knuckle-guard on a European knife. There is no sign of welding on the *ganja* which could suggest the knuckle-guard originally was attached to this keris blade.

The blade is singularly uninformative. While the *dapur* could be within the Javanese tradition, the thin broad blade with a pronounced central spine, the tight curves, the type and positioning of *sogokan*, *ganja*, and *grènèng* all indicate it is not central Javanese. These are features which suggest an origin in Bali, but one would expect the blade to be rather stronger and heavier were this so. The lack of *pamor* implies primarily a debased craftsmanship rather than a very early date. In sum, the blade could have been made anywhere in South-East Asia away from the centres of high court culture.

Thus the evidence points to the keris having a sword hilt of European workmanship which has been attached to an unidentified keris blade of quite

[10] See Le Roux 1946.

separate origin. Unfortunately the wood of the grip has not been identified, but the collar would indeed appear to be a European ferrule. One is left free to speculate about who put together this combination of European sword-hilt and ferrule on a South-East Asian keris blade. A European who admired the blade? A South-East Asian who saw the apotropaic qualities in the hilt for his keris? A collector who saw the fantasy of the hilt was in keeping with the exotic blade?

Dating this keris has proved impossible from the blade. The hilt style on European hunting swords has been tentatively dated to the last quarter of the seventeenth century. If this hilt was indeed in the Tradescant collection at South Lambeth, it would be a very early example of the type and of some interest to European specialists, but the 1656 catalogue entry is too vague in its description for certainty.

In South-East Asia, keris were, and still are, weapons, ceremonial or dress arms, and ritual objects endowed with spiritual powers. The court keris-smiths (*empu*) were of high status. Each keris they made was carefully and intricately worked with special sacred observances to induce the magical and other properties desired. Every part of the keris could be in itself a magnificent piece of craftsmanship, but the skill of the armourer lay in the way in which metals, gems, wood, and other materials were blended together to produce a balanced and ordered work of art in which the minutest detail was charged with meaning. The blade was the most important part of the keris. It symbolized a man's character and possessed spiritual powers which would assist him in his ambitions. The collar, grip, and sheath, though also having powers deriving from their form and materials, were essentially accessories to grace the blade. They were changed according to their owner's rank and fortunes, as well as to suit the occasion for which the keris was to be worn or displayed.

The identification of keris rests on an elaborate traditional lore, somewhat akin to heraldry. It is generally accepted that Java is the homeland of keris, but they were manufactured from Aceh in the west to Mindanao in the east for many centuries and there is no information for many areas and periods. The best records available are from the central Javanese courts of Surakarta and Yogyakarta, in the form of manuscripts, pattern books, and keris of known history. In traditions such as these, styles of keris are associated with particular *empu*, their royal designers and clients, and certain courts and periods, some beginning with the divine *empu* Ramadi in *c.* AD 230. However valuable these traditions are for establishing styles, many questions remain about the early history of the keris, for the earliest dated keris is reported to bear a Saka date equivalent to AD 1342 on the blade. Even a sound historical framework for study is problematic, for Javanese historical literature presents many difficulties in interpretation.[11] One also has to deal with a working tradition of keris-smiths being commissioned to make replicas of ancient styles, which continues up to the present. Thus identification of early keris is a difficult task even for the best-known manufacturing areas and historical periods with our present state of knowledge. Since the three keris considered above were apparently first catalogued in 1656 and may have been collected some decades earlier, they are of great interest as authentic early examples of keris. Duncan listed them as Malayan, an opinion which, surprisingly, was not challenged by Winstedt.[12] The new accounts above concentrate on description because of the lack of available data and examples for comparison. Two of the keris (Nos. 28–9) are established as Javanese, though their exact locations and dates are necessarily tentative. On stylistic grounds Javanese scholars would tend to place them rather earlier. The third keris (No. 30) with the European grip has the poorest and therefore the most difficult blade, and its origins remain dubious.

L. G. Hill

31. SWORD-BLADE (Pl. LXVIII). Straight, single-edged blade of iron expanding towards a cleaver-like tip which is now considerably rusted. Both back and edge curve upwards slightly at the tip. The wide back has a medial ridge, while the edge has been deformed by a great many cuts. The tang is down-curved, springing from the blade at an obtuse angle to the edge; it is now rusted and is broken midway along its length where it becomes more angled.

1656 p. 45: *Molocco Sword.*
1685 B no. 108: *Gladius ferreus, ad mucronem multo*

[11] For a modern discussion of the historical difficulties, see Ricklefs 1978.
[12] Duncan 1836, p. 179; Winstedt 1912.

latior est quam ad manubrium, dorsum obtusum habet ac crassum, manubrium ligneum, vitro ornatum et nigro capillo.

Dimensions: Length (overall) 0.87 m.

Single-edged blades of this general type appear to have been used throughout the Malayan archipelago, from Malaya itself to the Moluccan and Tanimbar Islands in the south east. They are found on various of the *parang* swords and hunting knives used in Borneo, Malaya, and Sumutra; on the *opi* swords from Welter Island, on the *campilan* swords found in Bornea and the Philippine islands, and especially on the *klewang* swords which were popular throughout the archipelago.[13] The hilts and scabbards of these *klewang* swords vary greatly from area to area, and because of this many swords can confidently be ascribed to particular localities or individual islands. It is therefore unfortunate that only the blade of this example survives, for without a hilt it is impossible to be certain of its place of origin. However, there seems no reason to doubt that this blade is what remains of the sword listed in the 1685 catalogue, and although this entry is not particularly descriptive it does mention that the handle was of wood decorated with black hair. Many *klewang* hilts are decorated at the pommel with large tufts of hair, often horse-hair, dyed in a variety of colours, and this use of hair seems to have been popular over a large area. It is found on swords from the Philippine Islands, from Borneo, and the Celebes,[14] and from some of the smaller islands at the eastern end of the Malayan archipelago, including Tanimbar, Sawoe, and Timor.[15] Many of the swords from these islands have blades with straight, rather than angled tangs, but an example from Sawoe in the Museum of Mankind has a slightly angled tang, and two examples from Celebes, now in Leiden, one with the hilt decorated with tufts of hair, have angled tangs which, like the tang of the Ashmolean blade, become more angled part-way along their length. These two Leiden blades are otherwise considerably different in form from this example, but close parallels to the Ashmolean blade can be found in three swords, one from Sawoe and two from Timor, in the Museum of Mankind.[16]

The available evidence suggests, therefore, that this blade, and the wooden hilt decorated with tufts of black hair which once accompanied it, may have originated in the eastern end of the Malayan archipelago. A correspondence with the 'Molocco sword' of the 1656 catalogue is possible, and there is certainly no reason to doubt that this blade could have formed part of a sword from the general area of the Moluccan islands.

G. M. Wilson

32. SPEAR SHAFT (Fig. 33). A long, dark, cane shaft widening towards the butt end which is roughly worked to a point. The tang of a point or head would appear to have been inserted into a rough socket at the other end. A long split runs for half the length of the shaft with another three shorter deep cracks and a number of less developed cracks spreading from the blade end.

1685 B no. 156: *Cannae duae geniculatae.*

Dimensions: Length 2.22 m; Width (max) 22 mm.

It may be that this shaft could have originated from India or South-East Asia, but little firm evidence can be found. A spear with a very similar shaft is illustrated by Egerton, who describes it as coming from Singapore and having a 'watered blade, bamboo shaft with deep gold ferrule of repussé and filigree work'.[17] The shaft, however, does not appear to have a comparable worked butt. Another spear from Malaya is illustrated by Stone: it has a long silver ferrule and a shaft described as 'wooden', but the illustration appears to show either nodes at regular intervals along the shaft, or a wooden shaft carved to represent nodes.[18]

A short spear and keris were used by the Malays and peoples of the Celebes: according to Egerton, a spear was used at the start of a fight, after which both were 'used alternatively'.[19] The Malays used wooden-headed spears for throwing, but steel-headed ones for thrusting.[20] The often ornate Malay spear-heads were protected by sheaths which were frequently decoratively carved.[21] The origin of this shaft must however remain uncertain at the present time.

E. Sandford Gunn

[13] Respectively: Stone 1934, pp. 481–2 and Solc n.d., p. 2; Stone 1934, p. 476; ibid., pp. 159–60; ibid., pp. 361–3.

[14] For instance, one in the Museum of Mankind, London (no. 1952 As 8 26); Vianello 1966, pp. 35–7, pls. 106, XXVI; ibid., p. 37, pl. 112.

[15] For instance (Sawoe), Museum of Mankind, London, no. 5157, and two further examples in the Rijksmuseum voor Volkenkunde, Leiden; (Timor) Museum of Mankind, London, no. 5621.

[16] Respectively: nos. 5157, 5621, 5622.

[17] Egerton 1896, pp. 96, 98, fig. 23, no. 260.

[18] Stone 1934, p. 573, fig. 740, no. 2.

[19] Egerton 1896, p. 98.

[20] Stone 1934, p. 574.

[21] Ibid., p. 573.

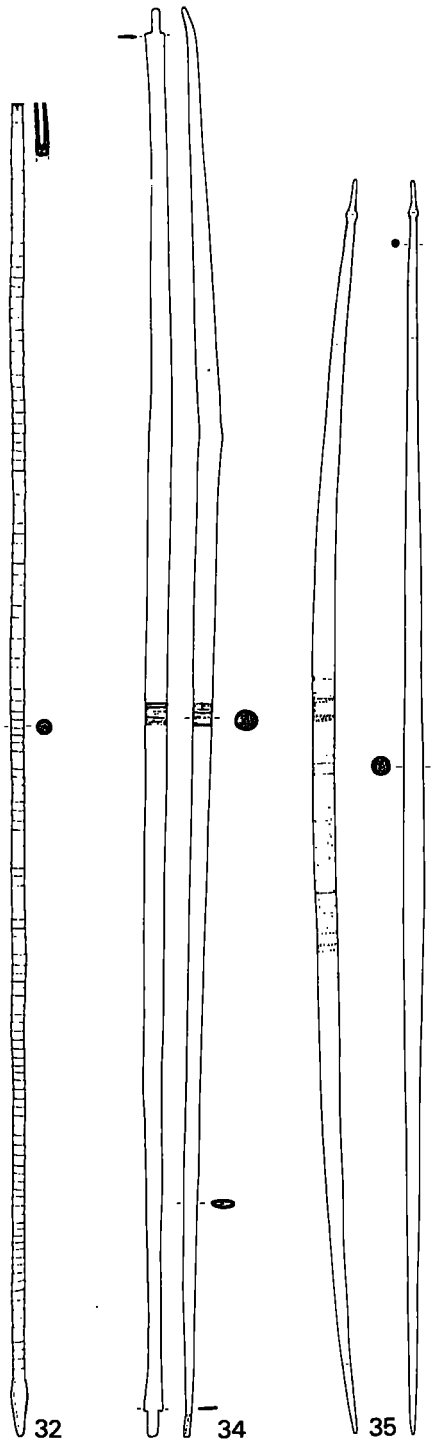


Fig. 33. Spear shaft, No. 32, and self bows, Nos. 34–5. Scale 1:12

33. COMPOSITE BOW (Pl. XVIII). A highly decorated composite bow made of wood, horn, and sinew, brilliantly painted in red, green, and gold, and lacquered. The 'gold' is in fact silver, but the lacquer gives a gold cast to the decoration. The main theme of the decoration consists of vermillion carnations against a green background.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

Dimensions: Length (around the curves) 1.26 m, (nock to nock) 0.88 m; Width (max) 45 mm; Thickness (mid-limb) 32 mm.

Composite bows are made from wood, horn, and sinew glued together in laminations. The process of manufacture in the highest examples took a matter of months or even years. The sinew, which is elastic and enormously strong in tension, forms the back[22] of the bow. The horn, which resists compression, forms the belly, whilst wood is used as a neutral layer between the horn and sinew and forms the frame to which they are bonded, giving shape to the complete weapon. In order to take maximum mechanical advantage of the materials used, composite bows are invariably reflexed: that is to say, they bend in the unstrung position to a greater or lesser degree in the opposite direction to that which they assume when drawn. This greatly increases the efficiency of the weapon, and a good composite bow will outshoot a simple self bow to a marked degree.

This example is undoubtedly from the Indian subcontinent. There are a number of distinctive styles of composite bow from India: this particular specimen could perhaps be categorized as an L-shaped bow.[23] With this type the reflex of the limbs is not achieved by a smooth curving of the limbs away from the belly side but by an abrupt reversion of the ridge section and ear of each limb, so that they are almost at ninety degrees to the limbs themselves. The handle is shaped and raised towards the back of the bow.

E. McEwen

[22] For the non-specialist reader, it should be noted that the 'back' of the bow is the side which faces away from the archer while shooting, and the 'belly' is the side which faces him. The 'ears' of a composite bow are the stiff unbending extremities in which the nocks for the string are cut. They are almost always set back at an acute angle from the main body of the bow.

[23] Very little has been published specifically on the Indo-Persian composite bow in its various forms, but the following works may be consulted: Irvine 1903; McEwen 1974; id. 1979; Emeneau 1953; Egerton 1896.

34. SELF BOW (Fig. 34). An unusually long bow of hardwood.[24] The entire length is wrapped spirally with a fine fibre, possibly hemp, which is painted an orange red. There is an additional band of unpainted fibre 46 mm in length situated 1.13 m from one end of the bow. At 0.65 m from the same end there is a swelling indicating a knot in the wood beneath the fibre wrapping. The bow is roughly round in section, tapering to an oval section towards the ends, with no clear indication of a handle section. The tips at either end are cut to form distinct flaring shoulders for holding the loops of the bowstring which is, however, missing.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

1685 B no. 21: *Arcus ex India orientali, longitude 8 pedes metitur, ligno constans teriti, recto, incrustatione rubicunda obducto; nervo dotatus est.*

[24] Identified by Miss A. C. Western as perhaps *Papilionaceae*, possibly *Koompassia* sp.

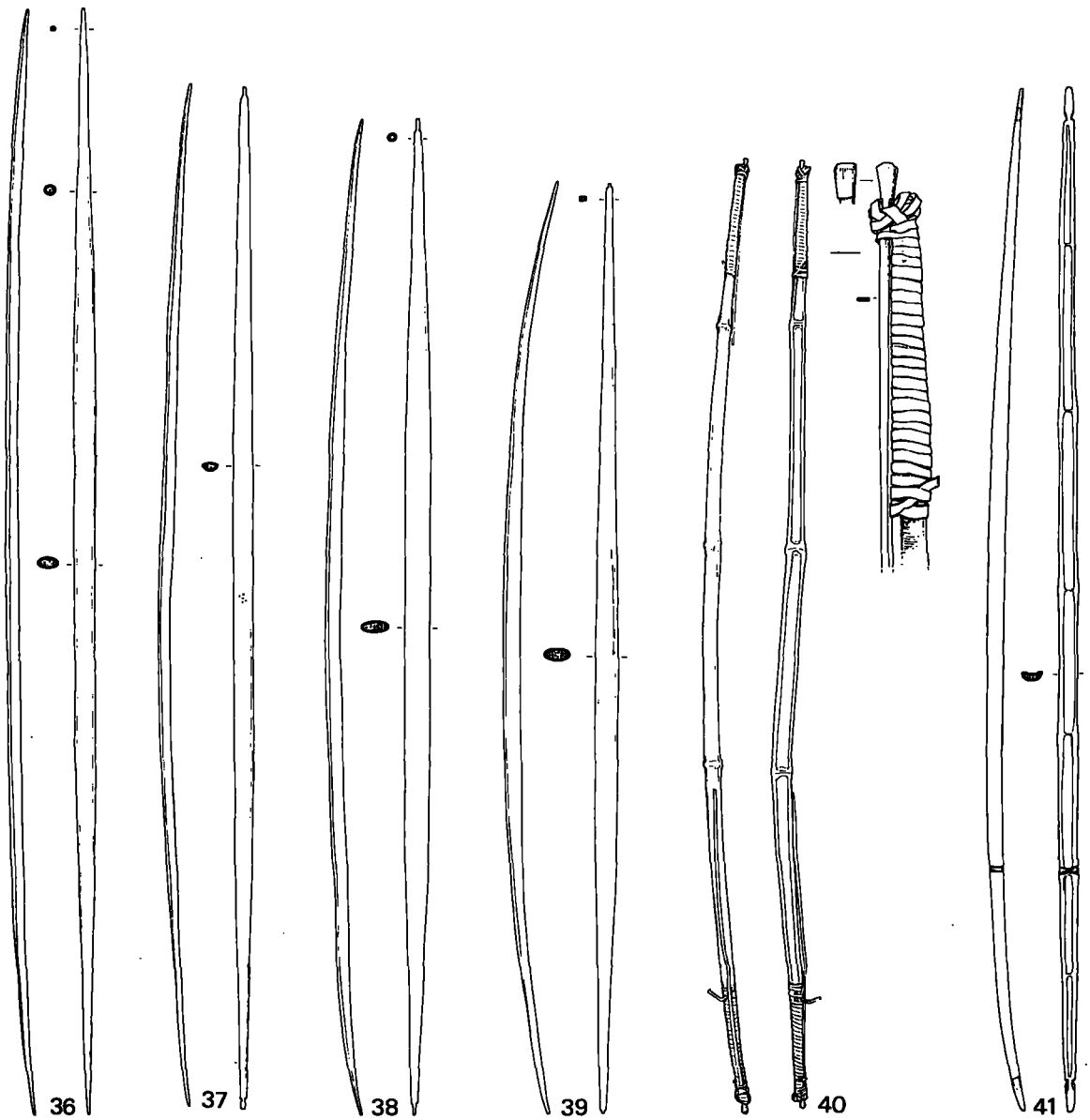


Fig. 34. Self bows, Nos. 36–41. Scale 1:12. (Detail of No. 40, Scale 1:4)

Dimensions: Length (tip to tip) 2.27 m, (nock to nock) 21.9 m; Width (max) 31 mm; Thickness (max) 35 mm.

This bow resembles Japanese bows in length and in the formation of its nocks.[25] However, the workmanship is relatively crude and, although wooden self bows are mentioned in Japanese literature, few, if any, examples exist; extant specimens are of composite construction made from bamboo and hardwood glued together. The 1685 catalogue lists this bow as being from India, and this seems to be the most likely place of origin, particularly in view of the characteristically Indian fibre wrapping.

See further discussion under No. 35.

35. SELF BOW (Fig. 34). A long bow of palm wood, round in section, thickest at the centre and tapering towards the ends. There are no nocks, the bowstring having been held in place by thick bindings of fibre a few millimetres from either extremity. One of these bowstring 'stops' is, however, now missing. The whole bow is wrapped with a fine fibre, painted and lacquered. The bow is decorated in yellow, red, black, and green with geometric designs.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

Dimensions: Length 2 m; Diameter (max) 28 mm.

Probably from southern India or Ceylon. In terms of archery equipment, at least, these areas have so much in common that differences, if they ever existed, are not discernable.

Despite the superiority of the Indian composite bow, the simple self bow was never superseded. Probably too, in areas of monsoon, the bow of one piece of wood had much to recommend it: a good soaking in rain and the steamy heat of the jungle would have little lasting effect on the palm wood or bamboo bow and in any case it could be cheaply and quickly replaced, but the composite bow, which would have taken many months to make, would not have survived in good working order without special care and attention to keeping it dry.

The self bow seems to have been recognized as being the bow of the Hindu. It is frequently to be seen in the hands of Rāma and other heroes of Hindu legend. This must have been recognized by the Muslims too, for in miniature paintings from Mughal translations of such epics as the *Rāmāyana* and *Mahābhārata* the weapon can be seen used in opposition to the more efficient composite bow, but always in the hands of some Hindu hero and seemingly on even terms.

The more primitive tribesmen such as the Bhils, Santhals, and Bhumeas use simple self bows of split bamboo to the present day. With the heavy, viciously-barbed heads fitted to the bamboo arrows used with these bows, deer and wild pig were frequently shot. Poison was used for larger animals such as tiger and leopard.[26]

In Ceylon the Veddahs used bows which, when strung, were as long as the archer using them and sometimes longer. These interesting people are said to have shot with great force upon occasion by drawing the bow with the feet placed against the handle and pulling with both hands: a very strong bow could be drawn in this way.[27]

In much of India the self bow was fitted with a double string and a small pocket of leather or other material to convert it to a stone or pellet-bow (*gulail* or *ghulel*) used for birds and small game.[28]

36. SELF BOW (Fig. 34). A bow of palm-wood painted black on the back. It has a flattened oval section and tapers in width from the centre to the tips, although the thickness is almost constant throughout. There are no nocks and the string would have been held by coils of rattan bound to the bow a few millimetres from the ends. Bows of this type were fitted with bamboo strings, but the string in this case is missing.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

Dimensions: Length 1.85 m; Width (max) 36 mm; Thickness (max) 17 mm.

This bow, which is not certainly from the foundation collection, probably originates from New Guinea.

See further discussion under No. 41.

37. SELF BOW (Fig. 34). A flat bow made of hardwood.[29] The bow tapers in width from its widest at the centre to the tips at either end, but

[25] Elmy and Paterson 1970.
[26] Lee 1960.
[27] Longman and Walrond 1894, pp. 43, 84–5.
[28] Egerton 1896, p. 101.
[29] Identified by Miss Dorothy Catling as *Maclura*, a genus found in temperate Asia, Africa, and America. A common name of the American species, *M. pomifera*, is bow-wood.

varies little in thickness. A group of five decorative impressions appear close to the centre of the belly. There is a split in the wood 460 mm from one end. The bow has nocks carved into the wood to receive the bowstring. No handle or grip is indicated.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 28: *Tres arcus admodum compressi, quorum unus 6 pedes longus, alteri duo 5 pedes & 4 uncias metitur.*

Dimensions: Length 1.74 m; Width (max) 42 mm; Thickness (max) 17 mm.

Probably from the New Hebrides. See further discussion under No. 41.

38. SELF BOW (Fig. 34). A wide flat bow of hardwood[30] but with long shoulders rather than nocks cut into either end to hold the bowstring. The bowstring is missing.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 29: *Tres arcus admodum compressi, quorum unus 6 pedes longus, alteri duo 5 pedes & 4 uncias metitur.*

Dimensions: Length 1.70 m; Width (max) 38 mm; Thickness (max) 18 mm.

The bow has *New Guinea* written on it, but it may be from the New Hebrides.

See further discussion under No. 41.

39. SELF BOW (Fig. 34). A flat bow made from a single piece of hardwood.[31] The bow is widest in the centre and tapers in width and thickness towards both ends. There is a split in the wood 270 mm from one end. The ends of the bow are cut to form short shoulders for the attachment of the bowstring. The bowstring is missing. There is no identifiable handle or grip.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 30: *Tres arcus admodum compressi, quorum unus 6 pedes longus, alteri duo 5 pedus & 4 uncias metitur.*

Dimensions: Length 1.58 m; Width (max) 39 mm; Thickness (max) 20 mm.

Probably from the New Hebrides. See further discussion under No. 41.

40. SELF BOW (Fig. 34). Made from a single piece of thick-walled bamboo split in half. The bow is widest in the centre and tapers a little towards both ends. It is crudely made and not even straight. The nodules have not been removed from the hollow inside of the bamboo which faces the back of the bow. Each end is wrapped with leather thonging, covering 180 mm at one end and 198 mm at the other, the thonging holding the bamboo bowstring in place (Fig. 34). The bowstring is not complete, only 0.57 m remaining at one end and 0.54 m at the other. The main body of the bowstring is 5 mm wide by 1 mm thick. It is enlarged at each end to 10 mm wide by 1.5 mm where it is tied by the leather thonging to the bow tips.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 31: *Arcus alter paululum compressus; nervo vel ex ligno vel arundine facto praeditus; 5 pedes cum semisse longus.*

Dimensions: Length 1.63 m; Width (max) 30 mm; Thickness (max) 20 mm.

Probably from New Guinea. See further discussion under No. 41.

41. SELF BOW (Fig. 34). A self bow split from a section of bamboo. The inside of the cylindrical stem forms the back of the bow; the nodules have not been removed. Deep nocks are cut into the bamboo at both ends. There are traces of black pigment on the back. The bow has a label reading 'Torres Straight ? Islands' stuck to its back at approximately the centre. There is a binding of what may be thin rattan 0.49 m from one end of the bow. This binding, only 10 mm across, twists on itself to form a knot in the centre.

1656 p. 45: *Bows 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*
1685 B no. 33: *Duo arcus riminibus hic illic circumligati.*

Dimensions: Length 1.77 m; Width (max) 30 mm; Thickness (max) 21 mm.

The wide and flat shape of the bow is typical of Melanesian bows in general. The provenance given on the label may well be correct.

Bows from Melanesia are invariably self bows, usually with a flattened oval section. According to Skinner, lengths range from 2.25 to 4.5 m depending on the tribe and, of course, the individual who used the bow.[32]

[30] As n. 29.
[31] As n. 29.
[32] Skinner 1965; id. 1966.

The bows in the collection are typical in form, but Nos. 37–9 are unusual in that they are made from hardwoods. In New Guinea the preferred material was black palm or bamboo, but east of the Solomon Islands mangrove and other hardwoods were used.[33] On this basis the bows numbered 37–9 are ascribed to the New Hebrides.

D. I. Bushnell[34] illustrates three bows from the Ashmolean Museum (seemingly our Nos. 37–9), which he attributes to Virginia. Neither of the early catalogue entries appropriate to these bows gives any specific place of origin, however, and the derivations given here are based on the size and design of the bows.

Bow No. 40 has the remains of its bowstring but all the others are lacking their strings. It may be thought that bamboo or rattan would be unsuitable for bowstrings, but the material is good providing that the bow is long enough or the draw short enough to allow a wide string angle, or, in other words, providing that the bowstring does not form an acute angle under the fingers of the archer when he holds the bow at full draw. Such strings require the arrow nock to be at least 5 mm wide, but in the case of New Guinea arrows there is no nock, the arrow being held against the flat bowstring with the thumb and forefinger in what Morse described as a secondary or tertiary release.[35] In the New Hebrides, bowstrings were made from the fibre of the inner bark of the hibiscus, in contrast to the bamboo strings of New Guinea.[36]

Bows were often extremely heavy, exceeding 45 kg draw weight, and many reports testify to the powerful shooting of Melanesian archers, if not to their long-range accuracy.

Arrows were very long (*c.*1.75 m), although draw lengths were not excessive – approximately 0.58 m. The arrow was made in two parts, a sugar-cane shaft[37] around 10 mm in diameter, with a hardwood or less frequently a bone foreshaft and arrowhead up to 0.6 m in length. Often the arrowhead was delicately and intricately carved with barbs, so that arrows were difficult to remove and the victim's demise made more certain by pieces of the arrowhead breaking off inside the wound, which would later become infected with tetanus. Fletchings were not generally applied to these arrows, although the practice was not unknown in the New Hebrides.[38] In contrast to the usual arrow, the fletched arrow was notched to hold the bowstring.

Owing to the weight of the arrows, shooting must have been mostly carried out at relatively short ranges, but with light arrows distances of up to 250 m could be reached.

There are great difficulties in identifying the origins of old bows, particularly when the simplest of them are little more than tapered pieces of wood or bamboo. In the case of the bows listed above, the difficulties are further increased by the absence (except in one case) of bowstrings, and of course the arrows with which they were used.

E. McEwen

42. SHIELD (Fig. 35, Pl. XIX). Round, convex shield constructed of a number of wooden panels covered with leather. The leather is covered with a layer of gesso which has been painted or lacquered dark brown. On the front of the shield are six bronze bosses arranged laterally in two rows of three. They take the form of slightly domed eight-petalled rosettes and are decorated with double incised-line borders and with a human head raised on the central flat. These bosses cover the heads of six iron nails, four now missing, which were presumably intended to attach the handles to the rear of the shield. The ends of the two remaining nails are hammered over, and around them traces of a buff-leather handle or pad are attached to the rear of the shield by iron nails with pyramidal heads. A series of nail-holes suggests that originally an arm-pad of rhomboid shape was attached laterally to the rear of the shield beneath the handles. The ends of the buff-leather carrying-strap or brace are still attached to the rear of the shield, at the top by five dome-headed nails, at the bottom by two flat-headed nails. The rest of the strap is now missing. In the centre of the back of the shield is a rectangle of leather which has not been gessoed.[39]

The front of the shield is decorated in gold and black lacquer as follows: in the centre a panel of symmetrical leaf-work involving a quartered shield painted in white and red (bearing the arms: quarterly, 1 and 4, sable between three fleurs-de-lis or, a chevron humetty gules and a border or, ensigned on the top with an escutcheon argent with

[33] Id. 1967.
[34] Bushnell 1907a.
[35] Morse 1885.
[36] Skinner 1967.
[37] Id. 1964.
[38] Id. 1967.
[39] This is painted with the museum identification *ANTHR. CAT. 228* (see Ash. Lib. AMS 25).

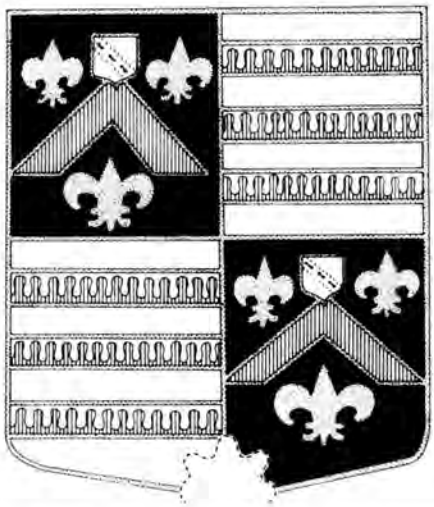


Fig. 35. Shield, No. 42: schematic reconstruction of heraldic decoration. Scale 1:2

a bend and three mill-rinds on the bend all within a border or; 2 and 3, on a field of uncertain colour, three bars nebuly argent and gules bordered or; the whole within a border), then within a double-line border a narrow band of linked quatrefoils and ovals surrounded by dots; and at the edge a broad frieze, again within a double-line border decorated with formal swags of fruit, vegetables, and flowers surrounded by birds. Some of this decoration has now been lost; the surface is much crazed, and is scored by a number of deep cuts. The back of the shield is similarly decorated at the edge with a frieze of running serpentine scroll-work within double-line borders. Within this frieze and around the handle the back is freely painted in gold and black with: at the top, a branch of a fruit tree on which sit two squirrels and around which hover a bird and two dragon-flies; at the bottom, a branch of a flowering shrub, probably a peony, on which sits a bird and past which flies another; and, on either side, a flowering branch.

1656 p. 45: *Targets several sorts, viz: Knight Templers, Britaine, Isidore the Monk, Roman, Japan, Graecian, Roguza,* or, *Targets from the East India of Reeds, Leather, Skins, and Crocodill-skin.*

1685 B no. 13: *Clypeus ligneus rotundus: in convexa parte duo sunt circuli quorum inter maximum sunt varii flores avesque eleganter depicta; inter alterum vero insigne est pernobile. An gallicus sit?*

Dimensions: Diameter 0.54 m.

Bibliography: Ffoulkes 1912, pp. 58–9, no. 164, pl. 17.

It is impossible to determine the country of origin of this shield with certainty, since the available evidence is contradictory. In form, although not in decoration, it may be compared to a large group of round wooden shields covered with gessoed and painted leather which were popular in Italy in the late sixteenth century. It has been suggested that many of these may have been made in Naples, but shields of this type were certainly made in many other centres as well, including Florence and Venice.[40] On the back of these shields are two vertical handles, of either leather or wood, which straddle a rhomboid arm-pad, and this arrangement also appears to have been present on the Ashmolean shield. Many also have a leather carrying-strap, another feature originally present on this shield. However, the decoration of these Italian examples is generally very different to that found on the Ashmolean shield. Many are painted with classical scenes and some with contemporary or near-contemporary European military scenes, whereas the decoration of this shield appears to be rather oriental in style. Also of interest is a group of Venetian shields which are constructed in exactly the same way as the other Italian shields, but are painted and sometimes tooled with Moorish designs which, according to Mann, imitate those found on Spanish leather-work.[41] A considerable number of examples of this type of shield survive in the Armoury of the Doge's Palace, Venice, and in other collections. Some are believed to have been carried by the body-guard of Wolf Dietrich von Raittenau (1559–1617), Prince Archbishop of Salzburg, and these include seventy which still survive in the Museum Carolino Augusteum, Salzburg.[42] Like the Ashmolean shield, a number of these Venetian shields have coats of arms painted as the central motif on the front surface.[43]

Despite such similarities, however, the formal scroll-work which forms the dominant decorative motif of these Venetian shields is very different in style from the freely-painted foliage and naturalistic scenes which appear on this shield. Ffoulkes believed that at least the back of this shield was decorated in Indian or Persian Style, and certainly the birds and

[40] Respectively: Boccia 1969; Laking 1920–2, 4, 238.
[41] Mann 1962, 1, 195, no. A 313.
[42] di Carpegna 1969, p. 32, no. 179.
[43] For instance, Museo Stibbert, Florence, no. 176.

the flowering and fruiting trees found here are similar to those found occasionally in seventeenth-century Persian and Indian miniatures, as, for instance, on a Punjabi miniature by Abd-al-Halām Multānī, one of a series of 157, dated 1686, which illustrate the epic poem, *Khāvarānnameh*.[44] The arabesque and swag ornament on the outer frieze of the front of the Ashmolean shield is also reminiscent of Persian and Indian art. A large leather-covered wooden shield in the Museo Bargello, Florence, recently described as Persian and of early seventeenth-century date, bears lacquered arabesque decoration of somewhat similar form, and seems to be one of those referred to in the seventeenth-century Medici inventories as '*all Indiana*', a description which presumably refers to the technique of decoration rather than to the country of origin of the shield.[45] In the Metropolitan Museum of Art, New York, is a round leather-covered wooden shield[46] which bears on the front lacquered decoration similar to that on the front of the Ashmolean shield, with a central shield of arms surmounted by a crest in the form of a barred helmet, and a wide outer frieze, with very similar decoration to that on the Bargello shield mentioned above. The shield bears four bosses in the form of cockle-shells. It has been suggested that the form of the crest is possibly Spanish or Portuguese and that the cockle-shells might refer to the town of Santiago.[47] Certainly if such shields were made in India for the European market they could well have been exported through the Portuguese colony of Goa.

Despite this evidence which suggests a possible Mughal origin for the Ashmolean shield, even closer parallels to the decoration on the shield can be found on various objects made in Japan and decorated in the *namban*, or foreign, style. For instance, the many-petalled symmetrical flowers (probably peonies) which appear in the lower scene on the back of the shield may be compared to the almost identical flowers engraved on a *shakudo* bowl from a tea-set, now in the Victoria and Albert Museum, which was made in Japan for the European market in about 1730.[48]

The swags, flowers, fruit and fruit trees, squirrels, birds, and dragon-flies found on the Ashmolean shield can be compared with some of the *namban* designs to be found in volume 6 of *Soken Kisho*, a Japanese pattern-book published in 1781.[49] These designs seem to have been based on the tooled decoration found on some Dutch and Spanish leather-work of the late seventeenth century which, together with Chinese influences, formed the basis of much of the distinctive *namban* style.[50]

It seems probable, therefore, that the shield was at least decorated in Japan, in the *namban* style considered appropriate for objects intended for export to Europe. The coat of arms on the front of the shield has not yet been identified, and, if this shield was decorated in Japan, it is possible that the arms are imaginary or at least misunderstood. Because the shield is constructed in exactly the same way as the large group of Italian shields mentioned above, it is conceivable that it was made in Italy and later decorated in Japan. Surviving examples of arms and armour made in Europe and decorated in Japan are rare, but include a German sword-blade reforged and tempered in the Japanese manner.[51] However, it is clear from the diary of Richard Cocks, Captain of the English factory established at Firando in Japan in 1605, that it was by no means uncommon for European arms and accoutrements to be decorated by Japanese craftsmen.[52]

However, it seems more probable that the shield was both made and decorated in Japan. It has even been suggested that it may have been made and decorated in Europe in imitation of the *namban* style, and although this seems to be very unlikely, it does help to demonstrate that at present few definitive conclusions about it can be reached. In all probability, however, it dates from the first half of the seventeenth century, although, if entirely European, it may be slightly earlier.[53]

A round wooden shield in the Waffensammlung, Vienna, which has been dated to about 1600,[54] may

[44] BL Add. MS 19766 (81a); see Titley 1977, pl. 23.

[45] Museo Bargello, Florence, no. M 778 (see Boccia 1980, p. 141, no. 266). I am grateful to Stuart Pyhrr, Assistant Curator of Arms and Armor, Metropolitan Museum, New York, for bringing this shield to my attention.

[46] Metropolitan Museum, New York, no. 14.25.728.

[47] I am indebted for this suggestion to Mr Helmut Nickel, Curator of Arms and Armor, Metropolitan Museum, New York.

[48] Victoria and Albert Museum, London, no. M 1458–1926; see North 1978, pp. 37–8. Designs including peonies were not uncommon in Japanese art of the Edo period (see Watson 1981, nos. 186, 369, 404).

[49] Victoria and Albert Museum, London, no. O.8.C.2.

[50] North 1978, pp. 38–9.

[51] Milward 1940.

[52] Thompson 1882–3, 1. 154, 230; ibid., 2. 23.

[53] If, as suggested, the shield is Japanese, it probably dates from before 1641, by which time Japan had almost cut itself off from contact with Europe (see Watson 1981, p. 20).

[54] Waffensammlung, Vienna, no. A 915; see Gamber and Beaufort-Spontin 1978, p. 91.

be compared to the Ashmolean shield in that it combines both European and Japanese features. It was undoubtedly made in Japan for export, probably to Holland, but it bears European silver mounts. The outside is covered with fish-skin, but the inside bears a marked resemblance to the inside of the Ashmolean shield both in construction and decoration, being both equipped with a padded arm-rest and decorated with similar lacquer-work. The four bosses depict Leda and the Swan in typically European classical style and must date to the late sixteenth or early seventeenth century. There are several other shields, all of unknown origin, which may be related to the Ashmolean shield both in form and decoration. They are all of round, convex form, made of wood covered with leather, decorated in brown and black, gold, and sometimes other coloured lacquers, with similar motifs and patterns similarly arranged and involving on the front of all but two a central shield of arms. Sometimes these arms are very complex, and so far none has been identified. The backs of all the shields, whether plain or decorated, bear traces of a rhomboid arm-pad. All but that in New York (mentioned above) and one sold in Munich in 1981 (see below) either have or had six bosses on the outside. The shields differ from each other chiefly in the exact form of decoration. Closest in style to the Ashmolean shield is one in the collection of the Marquess of Bath, at Longleat House, Wiltshire, which is almost identically decorated, differing only in detail from the ornament on the Ashmolean shield. The style, the motifs, and the arrangement are so close that both shields must have been made in the same workshop, if not by the same hand. Another similar shield is in the Wallace Collection.[55] The back of this shield is now in very poor condition but it appears to have had a rhomboid arm-pad and to have been decorated with an outer band of scrolling foliage surrounded by a panel of leaf-work which has now almost completely disappeared. The front is decorated in almost identical fashion to the front of the Ashmolean shield. A very similar shield to that in the Wallace Collection, from the collection of Karl Gimbel, was sold at auction in Berlin in 1904.[56] Apart from a differently charged shield of arms, the decoration appears to be virtually the same as that on the example in the Wallace Collection, and its bosses, of which four of the original six survive, appear to be identical to those on the Ashmolean shield.

There is a very similar shield in the Armeria Reale, Turin, which is said to have been made in Japan in the nineteenth century.[57] It has six bosses of the same distinctive form as those on the Ashmolean shield and is similarly decorated on the front with a central coat of arms, bearing a cross, surrounded by symmetrical leaf-work which is very close in style and form to that similarly placed on the Ashmolean shield.

Another similar shield with six bosses of this very distinctive type was sold at auction in Munich in 1981.[58] It was described in the sale catalogue as of Venetian manufacture, but there is little doubt that it is of oriental origin. Like the Ashmolean shield and other related examples, the front of this shield is split by a narrow band of ornament into two principal areas of decoration, a large central section and a smaller outer frieze. The central section does not contain a shield of arms, which is the dominating feature of the other shields of this type, but instead is decorated with freely-drawn flowers and flowering shrubs, similar to those on the back of the Ashmolean and Longleat shields, inhabited by a long-tailed peacock-like bird and a deer. Around this central section is a narrow band decorated with an egg-and-dart type motif. Beyond this the wide outer frieze is decorated with elaborate foliate scrolls and flowers. The back is decorated with four panels of foliage within a narrow frieze ornamented with a pattern similar to but more simplified than that on the front of the shield.

A further similar shield without a central coat of arms on the front is in the collection of the Duke of Norfolk at Arundel Castle. It has six brass bosses in the form of cockle shells which are almost identical to those on the shield in New York mentioned above and discussed below. In place of a coat of arms the central section of the Arundel shield is decorated with a figure of Victory surrounded by monstrous scrolls involving dragons' heads. Outside this is a narrow frieze decorated with the linked trefoil ornament found on a number of the other shields of this type. Beyond this again is a broad outer frieze decorated with alternating swags of fruit and flowers, mermaids, and demi-figures emerging from honeysuckle ornament. The back of the Arundel

[55] Wallace Collection, London, no. A 315.

[56] Rudolf Lepke's Kunst-Auctions-haus, *Waffen und Kunstsammlung Karl Gimbel: Baden-Baden* (Berlin, 30 May–3 June 1904), lot 159, illustrated in the catalogue.

[57] Armeria Reale, Turin, no. F 99; see Angelucci 1980, p. 230.

[58] Graf Klenau, *Auktion 192: Alte Waffen* (Munich, 4 April 1981), lot 19; illustrated on p. 9 of the catalogue. Now in the Armouries, HM Tower of London, no. XXVI 156A.

shield is decorated in the same way as the Ashmolean and Longleat shields with four scenes: at the top two squirrels sitting on pendulous flowering branches; at the bottom two branches of peony on which sit two birds; and at either side naturalistic foliage and flowers. Attached to the centre of the back is a rhomboid arm pad made of buff-leather padded with straw. At the narrower end is a padded leather hand-grip, and in the centre a buff-leather arm-strap. A further arm-strap, originally attached to the wider end is now missing.

The shield in New York mentioned above may also be compared to the Ashmolean shield, although the form of the decoration is not as close as that on the other shields already discussed. The inside of the shield is lacquered black but is otherwise undecorated. Iron and bronze nails and nail-holes indicate the former presence of an arm-pad, and one of the two handles formed of leather stuffed with hair still survives, though now detached. The central decorative feature of the outside of the shield is a shield of arms charged with gules a lion passant or surmounted by a barred helmet. The arms are surrounded by leaf scroll-work but of quite different form to that on the other shields discussed, and by a narrow and then a wide frieze decorated in the same way as the shield sold in Munich in 1981, elements of which may be compared with *namban* decoration in the *Soken Kisho* pattern-book.

Another shield, from Cotehele House, Cornwall,[59] may also be compared to the Ashmolean shield. It is constructed in exactly the same way, and on the front bears six fluted octagonal bosses of bronze and tooled decoration over-painted in white and red, depicting a figure scene of warriors. It has been suggested that this decoration may also be Japanese, in the style of seventeenth-century Dutch leather-work.[60]

There seems no doubt that the Ashmolean shield is the round wooden shield described in the 1685 catalogue, but there appears to be no justification for the suggestion made there that the shield may be of French manufacture. The shield cannot definitively be identified in the 1656 catalogue, although it may be one of the ten targets there listed, one of which is said to have come from Japan.

G. M. Wilson

43. SHIELD (Pl. XX). Circular shield of thin wood covered with very thin leather on both faces. The handles are missing, but a central perforation is visible, through which is passed a twist of metal wire which may have been used to attach the specimen for display purposes. The whole surface is stained red; the obverse face is decorated with inter-linked pairs of circles in a cruciform arrangement and bears the painted number *164*.[61] The reverse side has a series of much-faded painted circles in encircling bands, outlined in places with lines of small dots; this face has the painted number 7.[62] The edges of the specimen have suffered some damage, which reveals the wooden base.

1656 p. 45: *Targets from the East India of Reeds, Leather, Skins, and Crocodill-skin.*

1685 B no. 7: *Clypeus indicus rotundus; a centro ad ambitum unum metitur pedem. In parte convexa corio rufo vestitur.*

Dimensions: Diameter 0.60 m.

See discussion under No. 44.

44. SHIELD (Pl. XXI). The method of construction is similar to that of No. 43. The flattened umbo form is, however, encircled by motifs resembling split roundels, small crescents, and lines of small silvered roundels. The reverse face has similar decoration, all of which is much faded. The handles comprise a leather arm-grip and wooden hand-grip attached to the shield at either end by leather thongs. A stuffed-hide pad is held in place under the handles by the thongs passing through each corner. The obverse face bears the painted number *161*.[63] The condition is fair, but some lateral compression has taken place.

1656 p. 45: *Targets from the East India of Reeds, Leather, Skins, and Crocodill-skin.*

1685 B no. 8: *Clypeus indicus, ligneus & rotundus, a centro ad ambitum 11 metitur uncias. panno tegitur varie ornateque depicto.*

Dimensions: Diameter 0.54 m.

Both these shields (Nos. 43 and 44) have been made with finesse; considerable skill would have been needed to overlay the slight wooden base with such thin leather on both faces. The attribution given by earlier authors has proved problematical. At one time they were regarded as having been donated by

[59] At present on loan to the Victoria and Albert Museum, London.

[60] I am grateful to Mr A. R. E. North of the Victoria and Albert Museum for this suggestion.

[61] The number 164 refers to Duncan 1836, p. 184, where nos. 161–4 are entered as 'Ornamental shields from South Sea Islands' and attributed to Reinhold Forster.

[62] Referring to the 1685 catalogue number.

[63] See n. 61.

Rheinhold Forster and provenanced as from the South Seas;[64] many specimens in the Ashmolean collection were erroneously listed as having been part of Forster's considerable collections, some of which reached Oxford.[65] An alternative suggestion was that these shields could have come from Chinese Tartary, but this is now thought to be unlikely.[66]

The overlaying of leather on to a wooden base was a common method of constructing shields, especially in parts of India where the circular form, *dhal*, was widely used. The *dhal* varied in form from almost flat to strongly convex and usually had handles affixed to ring-bolts, which passed through the shield and were rivetted to bosses on the outer edge.[67] The metal bosses were frequently decorated, and the more ornate shields had intricately worked bosses.[68] A pad was set between the handles, which acted as a cushion for the knuckles, and shield No. 44 has a basic pair of handles with such a cushion, although the form is much cruder than on most Indian examples. The enclosed object, which rattles when the shield is moved, could be a charm. The handles are attached by leather strips passing through the shield, which is an unusual method of attachment for shields from India. All the *dhal* described by Lord Egerton have metal rivets and bosses, but they were mainly collected in the nineteenth century.[69] There are no handles and no cushion present in shield No. 43, and it is possible that it was collected before completion, since it would have been useless for defensive purposes in its present form. The edges of Indian shields usually had a pronounced lip at the rim, which gave additional strength and prevented warping.[70] The condition of these shields demonstrates the distortion which can occur and the importance of a well-constructed rim.[71]

The use of circular shields in India is long established: they are depicted in Gandharan sculptures of the first and second centuries AD.[72] At a later date Correa, who visited India in 1514, described the Nair of Calicut thus: 'a servant of the King, a gentleman of birth whom they call Nair, came on board . . . he had a very thin round shield with slings of wood and vermillion, which glittered much'.[73] In Ceylon both circular and rectangular forms of shields were constructed, usually of wood with both faces covered with either elephant or buffalo hide, which was treated with glue and then decorated with lacquer, lead, steel, and silver. Single and double grips were used.[74] The general descriptions, however, do not closely resemble these particular specimens.

The general form of these shields suggests a provenance in the Indian subcontinent, but the decorative motifs are not typical of that area, and a north African attribution has been suggested.[75] The small crescents which are liberally painted over the whole surface are considered to be typical of the Moroccan area, and are regularly used as decorative forms in jewellery.[76] Crescentic forms are also used in the decoration of textiles. It has been suggested that the large painted devices or split roundels resemble the bifurcated Turkish tulip form.[77] However, a closer analogy could well be a decorative form known as the serrated carnation head, from which the pattern could have been derived.[78] The north African provenance is, however, adamantly refuted by those who can find no parallels from that area and who feel that the construction method suggests an Indian origin.[79]

There appear to be no firmly provenanced shields of similar type in other collections, but there are two red-painted shields in the founding collection of the Nationalmuseum, Copenhagen, which are remarkably close in form.[80] The decoration is of split roundels arranged in concentric circles, and each shield has small metal bosses. These shields are attributed to India.

It would seem likely therefore, on present evidence, that both these shields came from the Indian subcontinent, but the lack of comparative material makes a definite attribution impossible.

E. Sandford Gunn

[64] Duncan 1836, p. 184.

[65] Pitt Rivers Museum holds the Forster specimens transferred from the Ashmolean in 1886. Two similar shields (Ash. Lib. AMS 25, nos. 224, 226) were transferred at that time; no. 226 also has a rattling enclosure which, it was thought, might be shot.

[66] Ash. Lib. AMS 25.

[67] Stone 1934, pp. 206–7.

[68] Robinson 1967, p. 113.

[69] Egerton 1896, pp. 3, 111, 118, 134, 139.

[70] Robinson 1967, p. 113.

[71] Ibid.

[72] Ibid., p. 112.

[73] Egerton 1896, p. 80.

[74] Deraniyagala 1942.

[75] Dr James Allan, personal communication.

[76] Camps-Fabrer 1970.

[77] Lane 1957, pl. 423.

[78] Boukobza 1974, pls. 24, 42, 47.

[79] Mr John Picton, personal communication.

[80] Nationalmuseet, Copenhagen, no. EDb 71–2; see Flindt, in Dam-Mikkelsen and Lundbæk 1980, p. 108.

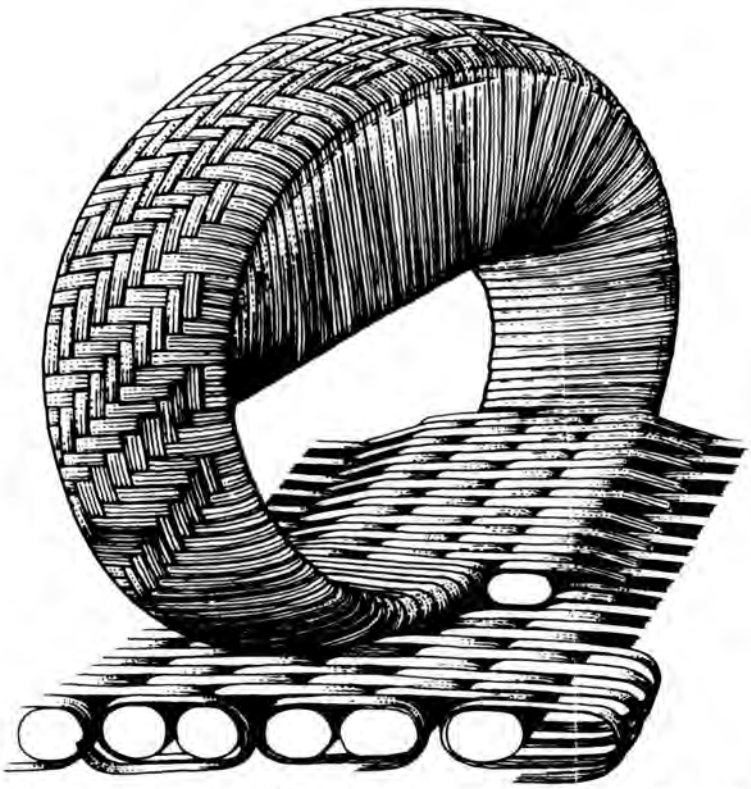


Fig. 36. Rattan shield, No. 45: method of construction, including attachment of handles. Scale *c.*1:1

45. RATTAN SHIELD (Fig. 36, Pl. XXII). Circular rattan shield, probably of *Calamus* sp.[81] Tightly coiled rattan forms the framework, bound with lengths of split rattan radiating from the centre; each split cane passes around two of the coiled bands at a time. The rim of the shield is carefully held by a densely worked rattan band. There are two handles of coiled rattan bound with split canes in a basketwork pattern worked into the back of the shield (Fig. 36).

1656 p. 45: *Targets from the East India of Reeds, Leather, Skins, and Crocodill-skin.*
1685 B no. 12: *Clypeus indicus orientalis rotundus, ex arundinibus implexus.*

Dimensions: Diameter 0.59 m.

Rattan is widely used for a variety of purposes in South-East Asia. The shields of the Malay peoples were often circular and usually of woven cane or wood.[82] This particular style of shield is thought to have been used for a popular game played in the Eastern Small Sunda Islands (Flores, Timor, and Sumba): two men stand face to face, each with a rattan shield in one hand and a whip of flexible wood in the other hand; the aim of each is to strike the opponent with the whip while using the shield for defence. The game is called *cacik*. A similar shield in Leiden is known to have been used for this game on the island of Flores, but this possesses only a single wooden handle in the middle, lacking any rattan covering.[83] Another rattan shield resembling the Ashmolean specimen, with two rattan worked handles, probably came from western Borneo or south Celebes.[84] These rattan shields may have been imported by the Flores, Timor, and Sumba peoples for their *cacik* game from Borneo.[85]

[81] Dr J. B. Ave, Rijksmuseum voor Volkenkunde, Leiden, personal communication.
[82] Stone 1934, p. 555.
[83] Rijksmuseum voor Volkenkunde, Leiden, no. 1833–24; this shield has a diameter of 0.52 m. Information concerning both this shield and the game of *cacik* was given by Dr J. B. Ave.
[84] Rijksmuseum voor Volkenkunde, Leiden, no. 16–326. This shield reached Leiden Museum in 1861. Information from Dr J. B. Ave.
[85] Dr J. B. Ave, personal communication.

A shield made by the same method is in the collections of the Franckesche Stiftung at Halle; the handles on this example are, however, simply over-wrapped with cane and attached to the shield with interwoven canes. The handles are placed further apart than on the other shields mentioned. The decoration is dark in colour, consisting of two concurrent bands of small triangles with the apexes aligned with the shield centre; both faces are decorated in this manner. The specimen was given to the collections by a Borneo missionary, Hupe, in 1847, and was said to have been used by Dyaks.[86]

A very similar shield is in the collections in Vienna and is attributed to Atchin,[87] but is not considered to have been used in a game;[88] its handles are similar to those of the Ashmolean specimen and the main face is decorated with a large black-stained star, which closely resembles the pattern on another shield in the Ashmolean collection.[89] An Atchin origin is thought unlikely by other authorities, who claim that shields from that area are plaited differently and have decorative copper stars.[90] A shield of Batak (Sumatra) type, with open-work brass bosses, is illustrated by Stone, while Lehmann illustrates a rattan shield from Sumbawa with two handles, which appears to be more meanly constructed.[91]

For the present, an origin in the general area of South-East Asia is all that can be postulated for this shield, which must surely be one of Tradescant's 'Targets from the East India of Reeds'.

E. Sandford Gunn

46. SHIELD (Fig. 37, Pl. XXIII). One-piece shield of wood,[92] decorated with shells. The shield is basically rectangular in shape, slightly waisted on the longer sides. It is convex in both longitudinal and transverse axes, in the latter case developing a 'keel' which becomes increasingly pronounced towards the centre. On the reverse is an integral grip: a raised spine extending the length of the shield increases in height and width towards the centre, where the hand-grip is formed by a rectangular opening, transversely cut. At one end of the spine is an expanded terminal; the other end is missing. Bindings of palm-wood[93] are nailed along either side, while a narrow strip of the same material is nailed to form a midrib. Towards either end are three encircling bands of five such strips, threaded at regular intervals through the shield and the midrib strip and round the outer bindings (Fig. 37).

The obverse face is set with discoid and pear-shaped fragments of shell (a number of which are now missing), recessed into the surface and in some cases held in place by small iron pins. The degree of wear and the method of mounting the shells makes identification difficult, but the large cowries could be the Indo-Pacific *Ovula ovum* L. or, perhaps, polished sections of the common Indo-Pacific tiger cowrie *Cypraea tigris* L.[94] Much of this face has been treated with a black pigment, but a rectangular central section, flanked at each end by a pair of curvilinear decorative motifs, has been left untreated. A long gash and several stab-marks may have been sustained in use.

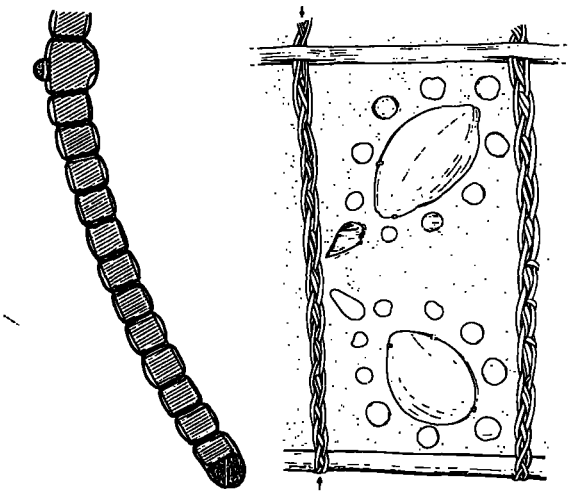


Fig. 37. Shield, No. 46: details of bindings and shell decoration. Scale 1:3

1685 B no. 2: *Scutum Indicum Ligneum; 4 pedes longum, unicum tantum Latum. media parte paululum gracilescit, ad extremitates aliquantulum est Latius. parte convexa conchis venereis albis ossibusque undique exornatur. circumferentiam totam ambit vimen.*

Dimensions: Length 1.24 m; Width 270 mm.

[86] Dr J. Dietze, personal communication.

[87] Museum für Völkerkunde, Vienna, no. 10474; collected in 1880.

[88] Dr Alfred Janata, personal communication.

[89] No. 1685 A no. 12A. This entry is a later insertion in the 1685 catalogue.

[90] Dr J. B. Ave, personal communication.

[91] Stone 1934, fig. 714, no. 21; Lehmann 1912, Taf. 81.

[92] Identified by Miss Dorothy Catling as from the soap-berry family *Sapindaceae*, which contains some 150 genera and 2,000 species distributed around the tropical regions of the world. As yet a more precise identification has not proved possible.

[93] Identified by Miss Dorothy Catling.

[94] Identified by Ms Solene Whybrow, British Museum (Natural History).

Shields of this type, which are normally attributed to the Alfuren peoples,[95] are common throughout the Molucca islands. They share a common structure but with variations both in shape and decoration, and include short, narrow parrying-shields with a pronounced longitudinal curve, and longer, wider shields which would offer better defence against missiles. The parrying-shields are those most commonly illustrated in the literature and were used throughout the islands by men and boys.[96] This example, of the larger form, comparable with two shields now in the Museum of Mankind, London,[97] has been variously provenanced to Buru Island in the south, and to the north and central Moluccas.[98]

These are variations also in the decoration of this type of shield, although all forms are ornamented with inlaid pieces of shell. The larger shields have relatively large shell fragments inlaid in sparse fashion, as described above, and the smaller parrying-shields are inlaid with smaller pieces demonstrating sharper tool-work in a style typical of later nineteenth-century Melanesian artefacts. Indigenous religious beliefs in the Moluccas included both animism and ancestor-worship: it is possible that these shield decorations represent stylized human figures.

From the sixteenth century onwards the various European powers tried to establish trading posts in the islands, which since the twelfth century had been at the centre of the spice trade, especially that in cloves. The Dutch achieved particular success, and from the seventeenth century their control and monopoly of the spice trade led to an impoverishment of the islands and to an increase in piracy and warfare among the local population. War-dances (*tjakalele*) featuring shield play became major parts of festival and ceremonial. European accounts of the peoples of the interior of the Moluccas describe them both as 'rude, inoffensive people' and 'robust, strong limbed and addicted to war'.[99]

K. Teague

47. BOOTS WITH INTEGRAL STOCKINGS (Pl. XXV). Thick-soled knee-length fabric boots from China. The leg and uppers are made of black satin-woven silk, lined with coarse white cotton.[100] The uppers of the foot are made in two parts, with a seam at either side of the foot and a band across the front: they are made as a traditional Chinese slipper, and are lined with blue dyed cotton. The leg is made in two parts seamed up the front and back and is interlined with cotton. The leg is longer at the front than at the back, and has a curved upper edge. The whole is sewn with a cotton binding on to a rigid sole 25 mm thick, which has an upturned toe tapering to 8 mm in thickness guarding the front of the foot. The sole wedge is covered by a bias-cut white cotton layer, and the sole itself is covered by thin leather sewn in place with three rows of cotton stitching. The sole is constructed of layers of cotton sewn tightly together to build up to the required depth of the wedge.

Stockings made to be worn with these boots also survive (Pl. XXVb). The sole of the stocking is of stitched coarse cotton of several layers. The uppers of the slipper section are in two parts, seamed at front and back; this part is made of a fine cotton and is stitched on to the leg which is of fine silk. Up to the ankle this silk is white, and above that a coffee colour, with a black silk bound edge curved to match the boot, which it is designed to top. Just below the binding is a coloured braid, which also would show above the boot. The leg of the stocking is padded, and lined with a coarse soft cotton. The padding is arranged in simple longitudinal stitched quilting, each rib being packed with strands of tow-like material and with silk waste.

1685 B no. 318: *Calapedia quorum superiores partes & circumferentiae solearum nigro holoserico obducuntur.*

Dimensions: Height 430 mm; Length (sole) 280 mm.

[95] However, the British Museum (1925, p. 96, fig. 82c), attributes a small parrying-shield to the Bugis, Celebes; and Kükenthal (1896, p. 144, Taf. XVII, fig. 30) attributes another to the Tobela in Halmahera. The term 'Alfuren' is generic for all peoples of the interior of the Moluccan Islands and may also be rendered as Alfoer, Alforas, Alforen, Alfores, Alforias, Alfourous, Alfours, Alfurs, Arafuras, Harafuras, and, in north-west New Guinea, Arfaks. The name simply means 'inlander' and may be derived via Portuguese from the Arabic article *al* and the preposition *fora* (without) (cf. Crawford 1856, pp. 283–5). 'Alfuren' was applied to those people not under government control, which was not extended effectively to the interior until after 1900.

[96] British Museum, 1925, p. 96, fig. 82c; Buschan 1923, p. 882, Abb. 550, 3; Juynboll 1930–1, p. 89, Taf. IX, fig. 4; Kükenthal 1896, p. 144, Taf. V, figs. 35a–b, 36a–b, and Taf. XVII, fig. 30; Sotheby Parke Bernet & Co. (*Catalogue*, 9 May 1977) 14–15, no. 26; Tauern 1918, Taf. 89; Horniman Museum, London, no. HM 0593.

[97] British Museum 1925, p. 97, fig. 83c. The Museum of Mankind shield most closely resembling the example considered here was received from the Nationalmuseum, Copenhagen, in 1818 (Wulff and Pedersen, in Dam-Mikkelsen and Lundbæk 1980, p. 144, no. EDb 58–60).

[98] Comments kindly provided by Dr P. H. Pott and Dr J. B. Ave, Museum voor Volkenkunde, Leiden.

[99] Crawfurd 1856, pp. 283–5.

[100] The tulle covering now on these boots is a modern conservation measure.

The design of these boots is a modification of the traditional riding-boots of the Manchu, the rulers of China in the Ch'ing dynasty (1644–1911). The thick, rigid-soled, turned-up-toe shape fits firmly into the big stirrup which the Manchus used. This style of boot became part of Manchu court dress and was adopted into general use. This relatively shallow-soled version with fine silk legs is a dress boot of the seventeenth century. A much more exaggerated version can be seen in Chinese operatic and theatrical dress of the present day. Such boots would be worn with wide baggy trousers bound to the leg and tucked into the tops of the boots, which are usually hidden by a long gown.

The quilting of the stockings is traditional for Chinese winter wear, but the use of fine silk for the legs of the stocking points to a good quality garment, probably for dress wear.

Although boots from six different sources are listed in the 1656 catalogue (on p. 48), none of the entries is appropriate for this pair; they could, however, have been mis-identified. Equally, in view of the separate listing of boots mentioned above, it would seem unlikely that the boots discussed here could be equated with the 'shoes from China' recorded elsewhere (1656 p. 50).

M. Tregear

48. ANKLE BOOT (Pl. XXVII). Man's ankle boot of green velvet. Tan leather sole with dark brown felt over it, white stitched. Made straights; damaged and seemingly unworn. It is possibly of turned welt construction. There is a round, slightly overhanging toe and no heel. The centre-front opening extends for 103 mm with four pairs of lace-holes, buttonhole-stitched. There is a 40 mm opening at the back top with two pairs of lace-holes, but the laces are missing. The lining is of brown leather. Bronze mail decorates the quarters.

1656 p. 50: *Shooes from . . . Mogull.*
1685 B no. 304: *Calcei viridi holoserico compositi, lorica aereis annulis concatenata obducti ea pars quae extremos pedis digitos tegit ferrea lamina munitur.*

Dimensions: Length 268 mm.

The use of felt suggests indoor wear or possibly a display model. The toe is reminiscent of the European style of the late sixteenth and early seventeenth centuries, and the buttonhole-stitching is a feature of European footwear from the seventeenth century. The chain-mail decoration, however, suggests a Saracen origin. A date around 1600 may be postulated.

J. M. Swann

49. SHOE (Pl. XXVIII). Man's shoe of natural-coloured basket-weave straw worked in a particularly fine pattern above the toes. Thonged leather sole made straights, unworn. Rounded, upcurved toe. No heel. White hessian lining and sock.

1656 p. 50: *Shooes from . . . China.*
1685 B no. 338: *Calcei viminibus implexi.*

Dimensions: Length 265 mm.

This type of shoe was used in China for summer wear and dates from the eighteenth century or earlier.

J. M. Swann

50. SHOE (Pl. XXIX). Child's shoe of red silk. Leather sole made straights and unworn. Narrow, square, upcurved toe. Stacked leather heel, 13 mm high, nailed on. There is a winged vamp, and there are no quarters. The brown leather sock is star-stamped. Silver thread embroidery on the upper.

1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 190 mm.

The type of shoe is oriental, but distinctive characteristics are lacking. This example has previously been attributed to Albania,[101] but this is unlikely since the heels of seventeenth-century European shoes were generally wooden-pegged.

J. M. Swann

51. SHOE (Pl. XXX). Man's shoe of red silk. Red leather sole, lobed at heel, with five impressed lines along centre; made straights and unworn. The toe is pointed and upcurved. There is no heel. The vamp is triple-lobed. Peak at the back of quarters, which are turned in for wear. Red leather lining and sock, with four impressed lines. Upper decorated with silver embroidery and sequins. The sole has a green leather cut-out design at the upcurved toe.

1656 p. 50: *Shooes from . . . Barbery.*
1685 B no. 308–9: *Calapediorum duo paria ex Moorlandia, quorum unum rubro corio conflatum, aureo*

[101] Ash. Lib. AMS 25, no. 425.

fimbriatum, caeruleo duplicatum. Alterum ejusdem fere est figurae, sed corio caeruleo, aureo, rubro, viridi obductum.

Dimensions: Length 280 mm.

This type of shoe survived on the Indian subcontinent until at least the early twentieth century.

J. M. Swann

52. SHOES (Pl. XXXI). Pair of men's shoes of faded silk (? once cream) over leather. The brown leather sole is of thonged construction, made straights and worn. The toe is pointed and upcurved. There is a 15 mm stacked heel. The vamp is lobed. Red felt has been used for the quarters, lining, and sock, and for the appliqué rosettes decorating the vamp. The remainder of the upper and the area under the upcurved toe is embroidered with silver thread.

1656 p. 50: *Shooes from . . . East India.*
1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 290 mm.

Like No. 51 this type was found on the Indian subcontinent until the early years of this century. This example resembles those of the nineteenth century.

J. M. Swann

53. SHOE (Pl. XXXII). Man's shoe of cream cloth and brown suede. Five-six layer sole of brown leather thonged together. May have been worn. Pointed toe. No heel. The upper has string-sewn seam at centre front. Suede quarters cut to high point at centre back. Upper has floral embroidery in silk and is decorated with a yellow silk tassel at the toe.

1656 p. 50: *Shooes from . . . Mogull.*
1685 B no. 305: *Calceorum duo paria, serico auroque neto sunt acupicta, Pars extrema, qua pedes teguntur, cristis sericis exornantur.*

Dimensions: Length 238 mm.

String-work decoration as it appears on this shoe has a wide distribution from the Balkans to the Far East, but the embroidery style suggests Persia. Shoes of this style were still in use there in the eighteenth century.

J. M. Swann

54. SHOES (Pl. XXXIII). Pair of men's brown leather shoes. Sole narrows to 7 mm at waist and has two impressed lines along the centre, made straights, unworn. Pointed, upcurved toe turned back on vamp and stitched down. No heel. There are traces of an instep strap and a broken strap each side of side seams, and a pair of slits near back of quarters for a narrow strap or lace. Quarters cut very high into a peak at the back. The vamp is decorated with alternate red and green wool appliqué leaves.

1656 p. 50: *Shooes from . . . Turky.*
1685 B nos. 301–3: *Calceorum Turicicorum 3 paria, quod pedis superiorem ambit partem holoserico rubri coloris obductum.*

Dimensions: Length 270 mm.

A miniature of Babur walking in the Garden of Fidelity at Kabul, dated *c.*1590,[102] shows a gardener wearing shoes of this style, which survived at least until the nineteenth century in the Afghan and North-West Frontier region. The decorative appliqué leaves are typically Indian in shape.

J. M. Swann

55. MULE (Pl. XXXVII). Woman's mule originally of red velvet, now faded to brown. The brown leather sole is inscribed with an *X*, made straights, and unworn. There is a white cloth rand and a square, slightly upcurved toe. No heel. The throat is square and the vamp is short. The sock is of green velvet. Silver-thread embroidery and sequins decorate the upper, along with a central rosette of blue and red beads.

1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 259 mm.

Although the shape of the toe could be seventeenth-century, the embroidery style suggests a later date, perhaps after 1730, so that this may not be one of the group of items referred to in the 1685 catalogue. A Turkish origin is likely for this piece.

J. M. Swann

56. MULE (Pl. XXXVIII). Man's mule shoe of black velvet. Thonged sole, unworn, and 6 mm white felt middle sole. Square domed toe. Two-lift, inserted wedge heel, plus top piece above the sole. Silver-thread embroidery and sequins.

1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 263 mm.

This mule is of Chinese origin and dates from the eighteenth century or earlier.

J. M. Swann

[102] Victoria and Albert Museum, no. I.M. 276–1913.

57. MULES (Pl. XXXIX). Pair of men's red velvet mules. The leather sole is continued up the heel breast and as a very thin top piece. The sole is made straights and unworn. The toe is square and out-flared. The 52 mm pegged heel is covered with brown leather. There is a white kid rand and a brown leather lining. The sock forepart is of brown leather, with red velvet at the heel.

1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 245 mm.

The continuation of the sole up the heel breast is a common feature at the time of the introduction of heels in about 1600, but it is not compatible with the other fashion features of these mules which suggest a date of about a century later. These examples may be shoemakers' exhibition work, although the stitching is not particularly fine, being six stitches per cm on the heel cover. They are western European in style but were reputedly made in China.[103] They date from the late seventeenth to early eighteenth century.

J. M. Swann

58. SANDALS (Pl. XLI). Pair of sandals made of vegetable fibre. The flat sole of rawhide is attached at the centre of the front and back and at each side at the waist. The shoe tapers from a square toe to a narrow square heel. The sock is interwoven in four sections. Two twisted thongs are attached at the centre of the toe and at either side at the waist.

1656 p. 50: *Sandals made of twigs.*
1685 B no. 350: *Sandalia. Pars solae superior cuiusdam forsan arboris pelle complicata; inferior corio confecta. Ansam habent, qua pedibus astringuntur.*

Dimensions: Length 214 mm.

These sandals would have been worn by a Japanese youth and the style, worn with the divided-toe *tabi*, goes back to at least the early seventeenth century.

J. M. Swann

59. CLOG (Pl. XLIII). Child's wooden toe-peg clog with a 23 mm stilt under the ball and heel, fluted on the outer sides. The 'insole' has a pointed lotus-shaped forepart and is pointed at the back of the heel. Chip-carved leaf decoration.

1656 p. 48: *Chappenes 20 sorts.*
1685 B no. 342: *Calapediorum tres species, totae ex ligno elaboratae.*

Dimensions: Length 179 mm.

The style occurs in Malaya from the eighteenth century and possibly earlier.

J. M. Swann

60. ARCHER'S THUMB-RING (Fig. 38). Ovate thumb-ring of banded agate, thicker on one side than the other; pointed expansion at one end hollowed on the underside to fit the thumb; flat facet of irregular width on upper and lower surfaces.

1656 p. 36: *Cornelian thum-cases of the Turks.*
1685 A no. 39: *Annulus ex Leucachate quo utuntur Turci in sagittando.*

Dimensions: Length (max) 39 mm; Width (max) 33 mm; Internal diameter 22 mm.

Bibliography: Arkell 1935a, p. 303, pl. XX; Morse 1922, pl. II.

See discussion under No. 62.

61. ARCHER'S THUMB-RING (Fig. 38). Ovate thumb-ring of banded agate; pointed expansion at one end, hollowed on the underside to fit the thumb. Flat facet on upper and lower surfaces, forming on the lower surface a marked angle at junction of ring and expansion.

1656 p. 36: *Cornelian thum-cases of the Turks.*
1685 A no. 40: *Idem iterum* [*Annulus ex Leucachate quo utuntur Turci in sagittando*].

Dimensions: Length (max) 42.5 mm; Width (max) 32.5 mm; Internal diameter 22 mm.

Bibliography: Arkell 1935a, p. 303, pl. XX.

See discussion under No. 62.

62. ARCHER'S THUMB-RING (Fig. 38). Ovate thumb-ring of cornelian; pointed expansion (chipped at the tip) at one end, hollowed on the underside to fit the thumb; a less marked point diametrically opposite provides an improved seating for the bowstring. Flat facet on the upper and lower surfaces.

1656 p. 36: *Cornelian thum-cases of the Turks.*
1685 A no. 135: *Annulus e Corneolo quo utuntur Turci in sagittis emittendis.*

Dimensions: Length (max) 46 mm; Width (max) 34 mm; Internal diameter 23 mm.

Bibliography: Arkell 1935a, p. 303, pl. XX; Morse 1922, pl. II.

[103] Ash. Lib. AMS 25, no. 138.

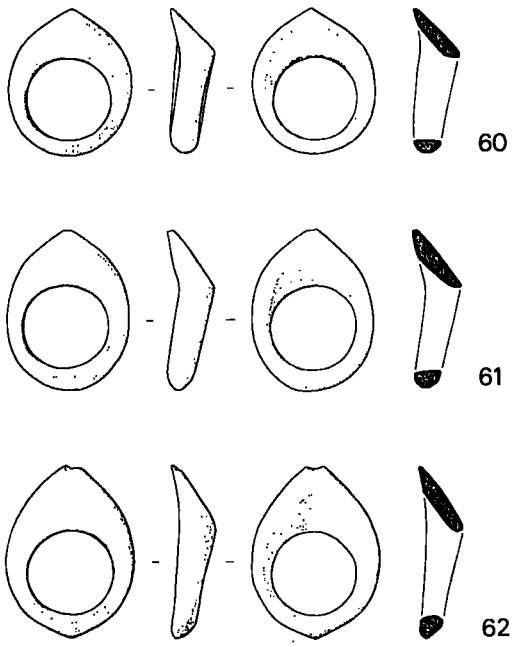


Fig. 38. Archers' thumb-rings, Nos. 60–2. Scale 1:2

All three thumb-rings are of a basic form which was widely used in the Middle East from Turkey to northern India during the Mughal period. Their provenance has been suggested as India, with emphasis on the city of Cambay.[104] There is nothing in their form to cast doubt on this attribution.

A majority of oriental archers drew their bowstring with the thumb, supported by the index finger across the base of the thumb-nail, with some variations in style.[105] This contrasts with another widely used method, in which the fingers were hooked around the string, a technique traditionally used by English archers as well as by most modern bowmen. This latter method is not well suited to short but powerful composite bows, made from horn and sinew on a wooden core (e.g. No. 33), as the relatively sharp angle of the string at full draw pinches the fingers in an unacceptable manner. To draw and release the string of such a bow, some protection for the thumb was needed. This could be provided by some type of leather thumb-stall,[106] but the use of a ring was widespread. The most simple rings were made from bone or horn, but persons of status would have them made from semi-precious stones, ivory, or metal, including silver and gold. The shaping required considerable care and attention, as an accurate fit to suit the thumb of the user and his particular style of shooting was essential. In most existing specimens adjusted in this manner, the hole for the thumb is slightly oval, so that the ring has to be turned through ninety degrees from its final position to slip over the thumb joint; when turned to the shooting position it cannot then be pulled off the thumb.

The shape of the inner and outer surfaces is complementary. If too little material is cut away, the string will put excessive pressure on the inside of the thumb, while if too much is removed it may be difficult to retain the string on the inner surface of the ring when drawing the bow. Some differences of detail can be seen in the cross-sections of the rings discussed here (Fig. 38). There have been many and varied designs.[107] The minor pointed expansion on No. 62 is a feature developed to a much greater extent on some other rings.

W. F. Paterson

63. RING (Pl. LXXXII). Cornelian ring. Rounded hoop with projection at the base, scutiform shoulders, and raised bezel with pyramidal finial imitating a pointed diamond.

1685 A no. 137: *Annulus e Corneolo.*

Dimensions: Diameter (internal) 13 mm.

Bibliography: Arkell 1935b, p. 302, pl. XX, Fig. 9.

A similar sixteenth-century Persian ring carved from the solid stone is reproduced by Dalton.[108] Another example is illustrated by Battke,[109] who also cites examples excavated on sites dating from the sixth and seventh centuries. Arkell suggests that the ring is an amulet, the red colour of cornelian being by association good for the blood, and therefore propitious for fertility, with these properties being further reinforced by the small phallic emblem at the base of the hoop.[110]

D. Scarisbrick

64. STONE BEAD (Pl. LXXVII). Spherical bead of yellowish-green serpentine with a network of black veins. Pierced from both ends, extensively chipped at either end of the string-hole.

[104] Arkell 1935a, p. 303.
[105] Latham and Paterson 1970, pp. 51–5, fig. 17.
[106] Ibid., fig. 17a.
[107] Stone 1934, pp. 14–17.
[108] Dalton 1912, no. 2344.
[109] Battke 1938, no. 39.
[110] Arkell 1935b, p. 297.

1685 A no. 277: *Globulus e marmore gruino.*[111]

Dimensions: Diameter 25 mm.

See discussion under No. 68.

65. STONE BEADS (Pl. LXXIX). String of fifty-six banded agate and other chalcedony beads, varying in colour from pinkish to grey. Pierced from both ends. Recently restrung.

1685 A no. 111: *Torques ex Achatibus Jaspidibusque variorum generum*, or,
1685 A no. 114: *Torquis ex Leucachatibus aliquantulum rufescentibus.*

Dimensions: Length (string, overall) 0.53 m; Diameter (beads, max) 12 mm.

Bibliography: Arkell 1936, pl. III, no. 18.

See discussion under No. 68.

66. STONE BEADS (Pl. LXXIX). String of four ellipsoid stone beads, respectively, of pink jasper agate, white agate, multicoloured chalcedony, and a black mineral, possibly silicified wood. Restrung at some time in the recent past.

1685 A no. 111: *Torques ex Achatibus Jaspidibusque variorum generum.*

Dimensions: Length (string, overall) 76 mm, (beads, max) 25 mm; Diameter (beads, max) 14 mm.

Bibliography: Arkell 1936, pl. III, no. 17.

See discussion under No. 68.

67. STONE BEADS (Pl. LXXIX). Necklace of forty-nine spherical white chalcedony beads. Apparently pierced from both sides. Restrung at some time in the recent past.

1685 A no. 113: *Monilia tria ex Leucachatibus.*

Dimensions: String (overall) 477 mm; Diameter (beads, max) 12 mm.

See discussion under No. 68.

68. STONE BEADS (Pl. LXXIX). String of 164 spherical milky-coloured chalcedony and carnelian beads, arranged alternately, with two extra carnelian beads at one end. The beads appear to have been perforated from both ends.

1685 A no. 116: *Torquis ex Leucachatibus, et achatibus citrinis, alternatim positis.*

Dimensions: Length (string, overall) 1.15 m; Diameter (beads, max) 11 mm.

Bibliography: Arkell 1936, pl. III, no. 18.

The stone beads described here (Nos. 64–8) are typical of many which were used for personal ornament in north Africa, western Asia, India, and, probably, in Europe. Similar beads were still available in the markets of Cairo, El Fasher, and Omdurman during the 1920s and 1930s when Arkell undertook a quest to discover their source with the help of bead merchants in Egypt, the Sudan, and India.[112] As a result of this venture, Arkell was able to conclude that the source of many of these beads lay in the Gujarat area of India, with Cambay as an important centre.[113]

The first detailed account of the working and exporting of agate and carnelian beads from the area was made *c.*1518 by Duarte Barbosa, who describes the bead industry at Cambay thus:

> At Cambaya are many skilful turners who make . . . beads of sundry kinds, black, yellow, blue and red and many other colours, which are carried hence to many other places. Here too are many workers in stones . . . A great amount of work is also done here in coral, *alaquequas* (carnelians) and other stones; so that in this city the best workmen in every kind of work are found.
>
> Beyond this City of Cambaya, further inland, is a town called Limadura. Here is found an *alaquequa* rock which is a white, milky or red stone which is made much redder in the fire. They extract it in large pieces and there are cunning craftsmen here who shape it, bore it, and make it up into divers fashions, that is to say, long, eight-sided, round and olive-leaf shapes . . . The dealers come hither from Cambaya to buy them and they [thread them and] sell them on the Red Sea coast, whence they pass to our hands by way of Cairo and Alexandria. They take them also to Arabia and Persia, and to India where our people buy them to take to Portugal. And here they find great abundance of *Babagoure*, which we call . . . chalcedony, which are stones with grey and white veins in them, which they fashion perfectly round, and after they are bored the Moors wear them on their arms in such a

[111] The translation of *gruinus* was entered in the 1911 MS catalogue by Leeds as being 'a rare Mediaeval translation of the old French "*gruin*", a speckled limestone pebble'. The term was then still used in the Vosges.

[112] The large collection of stone and glass beads as well as other items of personal ornament obtained by Arkell in Egypt and the Sudan in the 1920s and 1930s was donated to the Pitt Rivers Museum, Oxford, along with his MS notes and offprint collection. There is a particularly interesting series showing the stages involved in the making of an agate bead (1971.15.664.1–7), and another series (1971.15.665.1–8) demonstrates the stages in the manufacture of a carnelian bead; both series having been purchased by the donor from a lapidary firm in Cambay. The finished beads resemble the form of the four strung beads in the Ashmolean collection (No. 66).

[113] Arkell 1936, *passim*.

manner that they touch the skin, saying that they are good to preserve chastity; as these stones are plentiful they are not worth much.[114]

Early in the seventeenth century the carnelian industry was moved from Limodra; the stones were still sorted and fired there, but the cutting and polishing was undertaken at Cambay. The trade continued along the established routes, sea or overland, and continues to the present day, although the stone beads have been replaced by glass copies from the factories of Venice and Gablonz.[115]

The carnelian and chalcedony necklace (No. 68) shows a particularly attractive balance of the qualities of the two stones, both of which were held, however, to have amuletic as well as aesthetic significance. Carnelian was highly regarded in India as a protection against the evil eye, but it was also considered to be helpful in encouraging 'wakefulness' and to have curative uses.[116] European lapidaries attributed various virtues to carnelian, including the ability to give courage in battle; red carnelian was also thought capable of staunching the flow of blood.[117] The *Dispensary* of Renodaeus, published in 1608 and translated into English in 1657, records that carnelian, if carried with the person, 'recreates the minde, cohabits sad dreams, expels fear, preserves the carrier from witches and harms'.[118] A child wearing chalcedony would, according to a Greek nautical lapidary, be saved from shipwreck and drowning, while Marbode considered that the stone would bring victory.[119]

Strings of pearls and beads ornamented many cabinets of curiosities. A painting in 1666 by Johann Georg Haintz, now in the Kunsthalle, Hamburg, shows the various treasures of such a cabinet with strings of beads arranged ornamentally.[120] Stone beads might well have been worn by those who were unable to afford precious gems, but illustrations and mention of these more modest necklaces are noticeably lacking from the standard European works concerning jewellery, and they are rarely portrayed in sixteenth- and seventeenth-century portraits. A painting by Petrus Christus of Bruges, however, shows the interior of a goldsmith's shop where various beads can be seen hanging in an alcove behind the figures of St. Eloy or Eligius, Dagobert, King of France, and St. Godeberta, who stand surrounded by the essential tools of the goldsmith.[121] Whether these particular beads were made in India or in Europe, possibly along the Seine or at Idar-Oberstein in Germany, is a matter of conjecture. The few remaining beads in the Ashmolean have all been restrung and it is not possible to associate all of these with particular entries in the 1685 catalogue.

E. Sandford Gunn

69. SHERBET-SPOON (Fig. 39). Spoon of boxwood or perhaps pear-wood. Long handle gradually widening towards the end, with a central ridge; the end once decorated with pierced arabesque design, now largely missing. Under the neck a short area of chevron pattern and a projecting area of pierced arabesque. Deep and narrow pointed bowl, part of one side of which is missing.

1685 B no. 555–68: *Cochlearia 14 ex ligno facta.*

Dimensions: Length 310 mm.

The dating of such sherbet-spoons is problematic, but today they are made in Abadeh, midway between Isfahan and Shiraz, in Iran. This town has long been famous for such products, and was probably the source of this sherbet-spoon.[122] Other sherbet-spoons of this type are in the Victoria and Albert Museum, London.

J. W. Allan

70. CRADLE DRAIN (Fig. 40). Made from a single piece of wood. The upper end is carved in the form of an oblong bowl, and the tubular stem tapers slightly. The drilled hole emerges close to the bottom of the bowl, near its lower end. Although the specimen has been smoothed after shaping, slight circumferential marks visible near the lower end indicate that the tube has been turned.

1656 p. 53: *Gurgolets to poure water into their mouthes without touching it.*

Dimensions: Length 218 mm.

The function of this pipe is to drain the urine from a female baby out of a specific type of cradle. Johansen[123] describes the type as follows: 'The bedposts form two bows at the head and foot and are connected by a stick, which runs lengthwise over

[114] Ibid., p. 301.
[115] Ibid.
[116] Rivett-Carnac 1900, p. 10.
[117] Evans 1922, pp. 41, 194.
[118] Ibid., p. 151.
[119] Ibid., pp. 24, 35.
[120] Hansmann and Kriss-Rettenbeck 1966, p. 112, no. 299.
[121] Reproduced in Smith 1908, p. 155, pl. XXIV.
[122] Gluck and Gluck 1977, pp. 347, 352.
[123] Johansen 1963, p. 210, fig. 6.

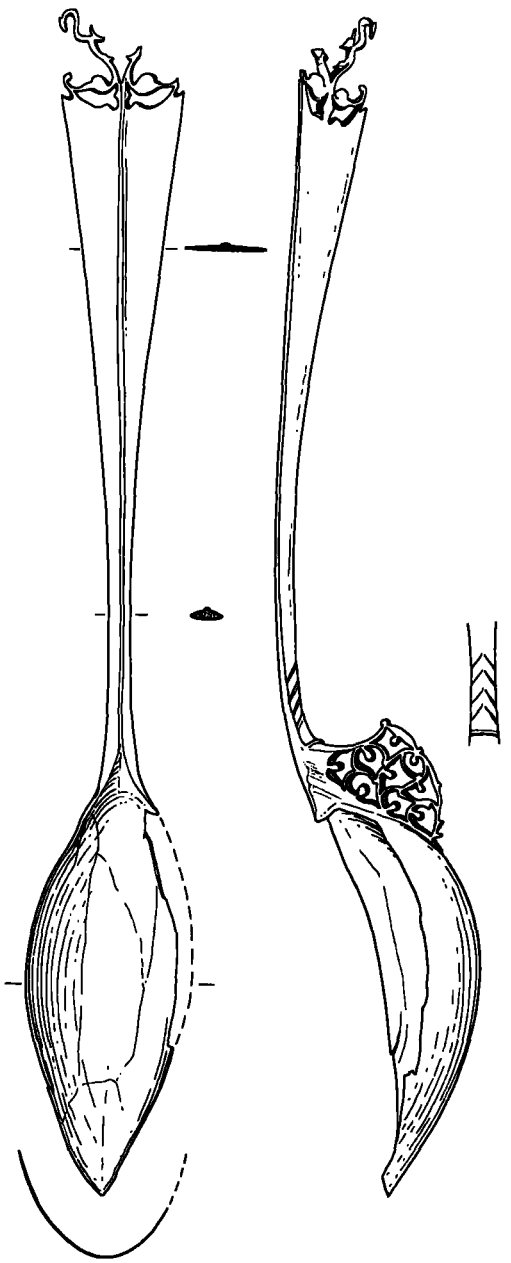


Fig. 39. Sherbet spoon, No. 69. Scale 1:2

the bed and holds the mosquito-blanket in place.' In such a cradle the baby's arms and legs are tightly wrapped with woollen bands, which also hold the pipe in place; furthermore, the baby is bound to the cradle. The pipe passes through a hole in the bottom of the cradle, under which is frequently placed a pot or bowl.

There exists a male counterpart to this female accessory, resembling more closely a tobacco-pipe, the high bowl being intended to hold the child's penis. The use of the plural in the 1656 catalogue entry (*Gurgolets*) hints at a male and female pair. Of eighteen specimens now in the Museum für Völkerkunde in Vienna,[124] sixteen are represented by eight pairs of this description. Among these Viennese items, one female piece from Alapli[125] in north-western Anatolia looks like the twin of the Tradescant example, save for the turning-marks which are very clearly marked in this case.

The 'Baskets to carry those Gurgolets' formerly in the Tradescant collection (1656 p. 53) in all probability originally had a different function (and, perhaps, provenance), whereas an 'Indian cradle' mentioned in the same context (1656 p. 52) might have been one of the type briefly described above. None of these items survives in the collection today.

Johansen, who relates this portable type of cradle to a less sophisticated Mongolian type with a built-in semitube to drain off the urine, lists its distribution as follows: 'among Kirghiz, Kazakh, Uzbek, Turkmen, Karakalpak, Azerbeijan, in Eastern Turkestan, Afghanistan, the Caucasus, Persia, Turkey, and even in Syria and the Lebanon'.[126] Tajikistan may be added to this list.[127] This distribution corresponds to the domain and sphere of influence of the Turkic peoples from Eastern Turkestan (Uighurs) to Asia Minor (Ottoman Turks). Along the southern fringe of this vast area the cradle alone is used without the ingenious device of the tube for drainage. Evidence of the latter's use seems to be totally absent from central Afghanistan,[128] south-western Persia,[129] and from

[124] Museum für Völkerkunde, Vienna, nos. 13181/2, 'Asia Minor', 1881; 13390/1, Tiflis, 1881; 92350/1, 1917; Alapli near Bendereregli on the Black Sea coast, Anatolia, 1917; 96162–96165, Samarkand, 1891; 96394/5, Caucasus, 1891; 121723, Turkey, 1881; 149442, Afghanistan, 1969; 157216/1,2, Tashqurghan in northern Afghanistan, made by the turner Abdul Aziz in 1975 (this item, collected in the same year by A. Janata, is called locally *shumak*, and is used together with the cradle, *gawara*, and a glazed pot, *towak* (157214/15), made in Shiberghan); 157318/9, collected 1975 in Kabul, probably of Badakhshan-Tajik origin.

[125] See n. 126, no. 92350. It should be mentioned that pipes of the type under discussion were for sale on market-day (Sunday 26 March) in 1978 in the Kolkhoz market of Bukhara in the Soviet Socialist Republic of Uzbekistan (slide collection of A. Janata, Uz. 273).

[126] Johansen 1963, p. 209.

[127] Andreev 1958, pl. 70, nos. 6–7, and pl. 71, nos. 1–5; Kislyakov and Pisarchik 1966, pl. 69, nos. 1–3, and pl. 70, no. 7.

[128] Author's own field research: see Janata 1970, fig. 2a.

[129] Löffler and Friedl 1967, p. 150, fig. 32; Löffler, Friedl, and Janata 1974, pp. 92 ff.

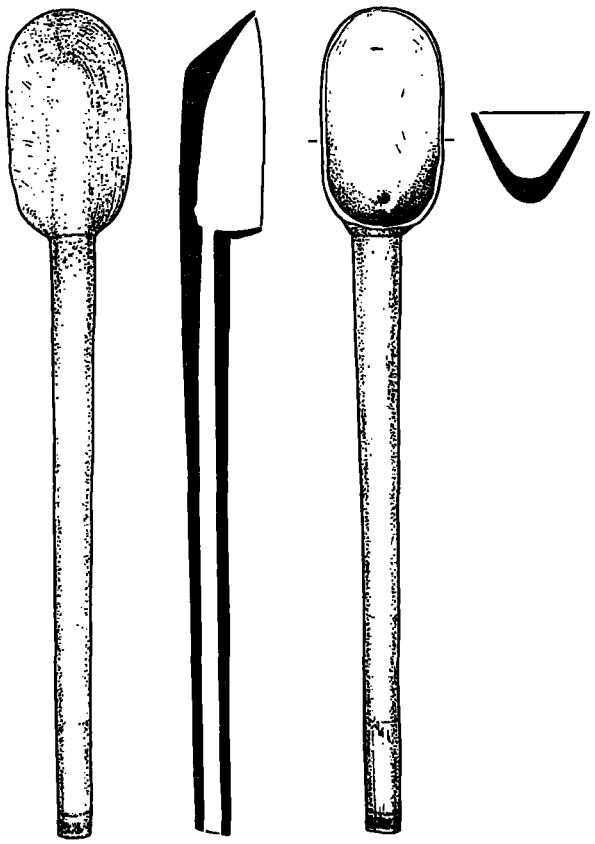


Fig. 40. Cradle drain, No. 70. Scale 1:2

the urban population of Anatolia, Syria, and Lebanon:[130] there are no holes in the bottoms of the cradles of those areas. The most elaborate examples of this subtype can be seen in the Topkapi Seray of Istanbul, gilt and richly inlaid with precious and semi-precious stones.

A. Janata

71. CARVED GOURD (Pls. XLVII, XLVIII). Globular bowl, tapering slightly towards the rim, decorated with bands of engraved ornament in relief, raised only slightly from the scraped background. The principal decorative feature is a set of eight figurative scenes, framed in irregularly shaped fields of varying size by flowering scrolls; further bands of scroll-work mark the upper and lower margins, and there is an additional band of triangles below the plain rim. Cracked and repaired.

1656 p. 52: *Dishes of gourd shells, Indian.*
1685 B no. 536: *Decem ampullae indicae ex cucurbitarum putaminibus figura orbiculari.*

Dimensions: Height 154 mm; Diameter 190 mm.

The typical 'Persian' scrolls as well as the principles of composition hint at a Persian origin. It is impossible to assign a precise date to this piece on stylistic grounds, but on the evidence of its inclusion in the early catalogues it may perhaps be derived from the late sixteenth or early seventeenth century. Late nineteenth-century Persian carved coconuts (used as bodies of water-pipes) still show the same characteristics, however, although much more formalized.

Iconography provides stronger arguments for a Persian provenance. Starting from the largest central panel (1) in Pl. XLVIII, showing a six-petalled flower with a lion to one side and a bird perched on a flower to the other, and proceeding from right to left (as the Persian script runs), the topics are as follows: a fish and a snake in water (2); a lion before a sun disc (3); a wild sheep (4); a hyena between a naturalistic tree of life (showing its roots) and a bird (5); a bird with raised wings, encircled by a snake (6); a kneeling man with arms outstretched (7); a bull (8).

The tree of life, stylized as a flower in (1) and (7), links the chthonic and Uranic spheres. The sun-bird shown on top of a tree (1) or fighting a snake (6) or dragon is a common subject. Snakes (2, 6) and fish (2) represent the chthonic, the sun-bird the Uranic. This very ancient view of life is still vivid in contemporary folk art.[131] The carrion-eating hyena (5) fits very well into this theme of transience. The lion in association with the sun (3) represents power. The wild sheep, together with the ibex and wild goat, is still considered as an 'incarnation of the pure and holy in the sphere of animals' among eastern Iranian and Indian peoples in the Hindu Kush.[132] The man (7) and the bull (8), although separated by a stem with scrolls, seem to face each other as if about to start fighting. Men fighting bulls in sporting contests with mythological overtones are well known since ancient times in the Mediterranian and Near Eastern areas.

This piece of folk art shows various elements of

[130] Cradles all over this area are of the richly carved and pierced variety as depicted in Kislyakov and Pershits 1957, p. 462.

[131] Bauer and Janata 1974; Camman 1957, pp. 5 34; Janata 1981, pp. 33 7.

[132] Jettmar 1975, pp. 217, 251.

popular belief, inspired by a view of life deeply rooted in distant history and distinct from the official creed of Islam.

A. Janata

72. SKIN CONTAINER (Pl. XLIX). Large globular vessel made by overlapping layers of delaminated animal-skin.[133] The short neck terminates in a firm, narrow, circular mouth, formed by stretching the skin over an encircling ring of clay. The base is narrow and slightly indented. A series of narrow ridges on the external surface radiates longitudinally from the base of the neck, but these cannot be felt on the inner surface. The container has suffered damage in the past resulting in two splits in the main body.

1685 B no. 454: *Vascula duo indica, Bubali pelle obducta, in quae butyrum oleumque recondere solent.*

Dimensions: Height 0.57 m; Width (max) 0.49 m.

See discussion under No. 73.

73. SKIN CONTAINER (Pl. L). Similar to No. 72 but larger, the sides appearing to have been laterally compressed. The appearance of the surface suggests that the inner fatty layers of the skin have been used to form the outer surface of the vessel. There are thirty-seven slightly raised ridges, which are broader than those of the other container. The skin has been broken, revealing the clay core construction forming the mouth rim.

1685 B no. 453: *Vascula duo indica, Bubali pelle obducta, in quae butyrum oleumque recondere solent.*

Dimensions: Height 0.65 m; Width (max) 0.55 m.

The containers appear to have been made by the method which is called *tandu* amongst the Hausa. Henry Balfour, visiting Katsina in 1930, paid considerable attention to the various stages of production and brought back to Oxford a collection of specimens illustrating the process.[134] The untanned hide was split into three layers by spreading it over a large hard stone and working with a wide terminally-edged tool across the skin, section by section. First the hair-bearing dermal layer was carefully separated from the fatty layers of connective tissue and then the underlying layer of tissue was split into two thin sheets. A clay core, which had been prepared in advance and air-dried, was covered with strips of the subcutaneous tissue after they had been shaped so that each strip would enfold the maximum area of the core. The shaping of the pieces prior to application required considerable skill. Often the edges were pared down to improve the smooth overlap; usually the joins were difficult to detect and gave a 'fused' appearance once the process had been completed. The membraneous sections adhered tightly to each other owing to the nature of the material.

The container was left to dry in the sun until completely hardened, when the clay core was pounded until reduced to pieces which were small enough to be removed with ease. The resultant containers were strong, weighed little, and were impervious to liquids, so that they were much favoured by horsemen and camel-riders.[135] Hausa containers made by the *tandu* method are usually decorated with applied strips of outer hair-bearing skin.

The Tuareg also make containers by a similar process, but the method may have been brought to them by the Songhai conquerors of Agades in the early sixteenth century.[136] These containers were flask-shaped, but in Damergu very large vessels 'shaped like Roman glass lacrymatories' were used to carry honey, some being as much as 0.75 m high.[137] Skin vessels are of considerable antiquity in Africa and an example appears to have been excavated from the Ramesseum at Thebes.[138] Two similar containers of comparable size, thought to be from Somalia, are located in Ipswich Museum.[139]

Certain distinctive features suggest, however, that these specimens may have originated from India. The method employed on that subcontinent customarily involved the use of a number of layers of skin and, although it has not proved possible to determine with any accuracy the number of layers present, these containers appear to consist of at least three layers. After the core had been covered with

[133] The presence of hair follicles confirms that the material is skin and not intestine.

[134] Balfour was Curator of Pitt Rivers Museum, Oxford, 1891–1939.

[135] Balfour 1934, pp. 6–8.

[136] Ibid., p. 10. A view expressed by R. F. Rodd.

[137] Balfour 1934, p. 10. Details given by R. F. Rodd to H. Balfour.

[138] Sir Flinders Petrie donated the skin vessel to the Pitt Rivers Museum in 1897. Objects dating from the XIX to XXII dynasties were excavated from the Thebes site.

[139] Ipswich Museum, probably Muir collection: the larger vessel is 0.66 m high, with a neck-ring of wood under the lip; it is globular in shape, with a pointed base. The smaller vessel has ridges, which resemble a wickerwork frame. Details provided by Mr David Jones. The Somalian attribution of these pieces is however thought by Professor Ioan Lewis to be unlikely.

membranic layers, the edges of the tissue layers were stretched up from the core and folded over a ring of clay laid round the neck. When the clay core of the vessel was removed the ring encircling the orifice was retained, providing the vessel with a firm lip.[140] Both these containers have such an orifice and it is possible to see the remains of an earthy core in No. 73 where the mouth-ring has been damaged.

The large form of container or *kuppa* was used for *ghia* and oil. In the Pitt Rivers Museum there are examples from Mirzapur, North-West Province, which were collected by Drake Brockman, and are known to have been made from strips of the larger stomach of a cow or buffalo, soaked in salt and water for twenty-four hours prior to application.[141] The shape of these specimens closely resembles the Ashmolean containers, but they appear to lack the vertical ridges. However, Balfour also illustrated a container which, though different in form, does have pronounced ridges and was provenanced as northern India.[142] Mehta mentions that Indian skin containers were usually made of sheep or camel-skin which, after softening, was stretched over a clay mould, which was subsequently washed out.[143] The widespread use of vessels made from skin strips from west Africa to northern India has ensured that, at the present time, the attribution of these containers must remain uncertain, but India seems a possible source. The South African provenance suggested by Evans[144] seems unlikely, since similar specimens do not appear to feature in museums there, although such containers might have been used on board ship.[145]

E. Sandford Gunn

74. RHINOCEROS-HORN CUP (Pl. LI). Carved in an oval, flaring shape to follow the natural shape of the horn, the cup is of a light brown rhinoceros-horn which is polished and translucent to show through a warm cinammon colour. The cup is in the form of a five-petalled hibiscus flower, which is carved both inside and out with gently overlapping petals meeting in a whorl, and a central incised circle within the bowl of the cup. Outside, the stem of the blossom is carved fully in-the-round and curves down some 9 mm clear of the base of the flower, where it branches to curve around in two directions to form a steady ring base on which the cup stands. This stalk branches upward, with leaves and budding twigs to enclose the base of the large flower, so that the cup is supported by flowering tendrils in deep relief and in-the-round carving. On one side a flower faces outward and on the other a flower is shown from behind, but the placement is neither symmetrical nor a mirror image. One bud, with two leaves, extends over the lip of the cup opposite the slight spout.

The edges of the horn (near the root) are not perfect and are now pitted and blackened. There is a crack down the petal at the spout, which has been carved thinner than the others.

1656 p. 52: *Cup of . . . rhinoceros hornes.*
1685 B no. 465: *Poculum ex Rhinocerotis cornu conflatum.*

Dimensions: Height 89 mm; Diameter (max) 134 mm.

Bibliography: Jenyns 1955, p. 55, pl. 24c; Garner 1975, pl. 17a,b,c.

Opinions have varied about its dating as there is no supported evidence for a classification of such cups, although they are not uncommon. Jenyns, following the Ashmolean inventory of 1685, places this cup at the second quarter of the seventeenth century,[146] while Sir Harry Garner dates it almost a century earlier through comparison with a similar cup in the 1595 inventory of the Schloss Ambras collection.[147] However, the comparison made with the Ambras inventory entry is open to doubt, as the inventory description is of a mount only, now missing. Stylistically, and from the evidence of the Tradescant catalogue, the early seventeenth-century dating is more acceptable.

The rhinoceros, which is recorded in north China excavations of the Pleistocene period, was gradually exterminated in China: it seems to have been very rare in the north by the second century and finally to have disappeared from the south by the thirteenth century AD.[148] There is no way of being sure whether this was the two-horned (Sumatra) or one-horned (Java) rhinoceros. Evidence of the rarity and value placed on the rhinoceros is seen in the presentation of the animal as tribute from the first

[140] Hocy 1880, pp. 138–9.
[141] H. E. Drake-Brockman donated the specimens to the Pitt Rivers Museum in 1893; see Balfour 1934, pl. IV, nos. 46–8.
[142] Balfour 1934, pl. IV, no. 54.
[143] Mehta 1960, p. 139.
[144] Ash. Lib. AMS 25, no. 472.
[145] Information regarding South African museum collections provided by Miss Lelong Immelman.
[146] Jenyns 1955, p. 55.
[147] Garner 1975, p. 15.
[148] Chang 1926; Jenyns 1955, pp. 31–62; Laufer 1914, pp. 73–173.

to ninth century from such places as Annam, Arabia, and Java and in the representation of rhinoceroses in the Han dynasty (third century BC to third century AD) bronze vessels and pottery figures. The hide was used for armour by the Ch'u state of the Yangtse basin (fourth–third century BC) and the use of the horn (of agglutinated hair) as a material for carving seems at first to have been subsidiary. Some of the earliest known remains of carved horn are in the form of girdle plaques, Buddhist sceptres, and small knife-fittings from the ninth-century collection of the Shōsōin Nara, Japan. There are also references in literature to curtain weights and beads of rhinoceros-horn. The Chinese used horn cups, probably of buffalo-horn, from an early period, as the word for 'horn' is in common usage in classical writing meaning a drinking-vessel. The significance of rhinoceros-horn must have grown, as it is known that in the tenth century African rhinoceros horn was being brought to China by the Arab trade. Probably first used in ceremonial settings in the form of cups, rhinoceros-horn was gradually accredited with supernatural properties, and cups became more important. These properties range from the magical to medicinal: from use as an aphrodisiac, which required powdered horn to be taken with food, to its use as a detector of poison, and, from liquid drunk from it, a cure for cholera. The cups appear to have been very simple vessels in the Sung dynasty and are usually carved out of the short horn of the rhinoceros, following closely the original form but hollowed out. The history of the shape is not well documented, but by the late Ming and early Ch'ing periods (sixteenth–seventeenth century) a tradition had been established. There are two distinctive types: one is archaistic, carved in a form reminiscent of a bronze vessel with a flat base, often with a handle and with relief dragons creeping over the surface; the other is a more informal style related to ivory and hardstone carving and is of the type represented by the Tradescant piece. This is in the form either of a flower or an elaborate cut-through style of landscape carving of Taoist significance.

The chief area of the craft was in the Nan Ch'ang region of east China with centres at Soochow, Hangchow, and Yangchow, but also with a centre at Peking as a branch of the palace workshops. Several cups are marked with reign and cyclical dates and with the names of workshops and individuals, which at present are not identifiable.

M. Tregear

75. LACQUERED BOX (Pl. LII). A round-bodied lantern-shaped box with a broad flat base and deep foot-ring. The body is of a flattened spherical shape with a stepped collar which takes a shallow domed cover. The base and foot-ring are of wood, as are the collar and cover. The body of the box is of basketry, a split cane in tabby weave. The interior of the collar is lined with basketwork. The exterior of the basket is covered with cotton or ramie textile, and the whole piece is painted, inside and out, with black lacquer. This has now faded to a dark brown outside and is considerably cracked and flaked. There is no sign of decoration on the surface of the lacquer.

1685 B no. 543: *Mulctra Japonnica ligno polito extrinsecus obducta; extrinsecus vero Viminibus implexa.*

Dimensions: Height 295 mm.

Such a box would have been made as a container for food or silk or any perishable material. Lacquer, being impervious to liquid and to termites, is much used as a coating for storage containers. The place of manufacture is not clear: in the late Ming and early Ch'ing dynasties (sixteenth–seventeenth century), lacquer was made in China, Ryukyu, and Japan. The shape and style of the box suggest China as the place of manufacture; if this is correct, it was probably made in the east coastal region.

Lacquer is the resin of the so-called lacquer tree (*Rhus vernicifera*) which is indigenous to south China, growing in the south-eastern region. The tree was taken to Japan and the Ryukyu islands and with it the technique of the use of the varnish-like material. The lacquer is tapped from the mature tree and in its raw state is a transparent liquid. On contact with the air it quickly thickens and becomes opaque. It can be coloured by the addition of mineral pigments; a pine-wood carbon is used to produce black. The surface to be covered is smoothed, and any unevenness filled with gesso-type preparation; this is rubbed down and repeated on the finer pieces many times. Cloth is used in the preparation of a rough surface, as in the present basket example. A textile is stretched over the surface and the gesso treatment used on top to fill in the texture. Lacquer is then painted on thinly; each coat is allowed to harden and is burnished to take the succeeding coats. The higher-quality pieces are treated with many coats of lacquer.

Lacquer resin hardens or polymerizes in a warm humid atmosphere (80–85 per cent at 25 °C), and it is polished to a rich sheen with burnishing

materials. It is susceptible to cracking in a dry atmosphere and to loss of surface polish in strong light. This lacquer is to be distinguished from the Indian and Middle Eastern lacquers sometimes called 'Japanning' in which the varnish-like material is derived from crushed lac beetles or from shellac.

M. Tregear

76. JAR (Pl. LIII). Wide-shouldered pottery jar with five loop handles around the shoulder, one now missing. It is of heavy, dark buff stoneware, with decoration in rough appliqué, comprising rising blades around the foot and a main zone of floral scroll incorporating five lotus-flowers with leaves and a scrolling stem. The whole jar is glazed in green, yellow, and aubergine, all somewhat opaque and unevenly applied.

1656 p. 52: *China ware, purple and green.*
1685 B no. 687: *Duae ollae chinenses, quarum una viridis est coloris, ramis aurei coloris notata: altera alba caeruleo colore perbelle picta.*

Dimensions: Height 295 mm.

Bibliography: Hobson 1921, Fig. 2; Royal Academy of Arts 1936, no. 1875.

The potting technique exhibited by this jar is regarded as of late sixteenth-century date. This particular example, known as the 'Tradescant jar' because of its inclusion in the 1656 catalogue, has been used as a type example and as a point of reference in the study of late Ming relief and coloured-glaze decorated heavy stoneware. It is a late variant of the type of jar known as 'Martaban'. This comprises a large group of ceramic storage jars used in the trade passing through Martaban on Pegu Bay, Burma, to be distributed throughout the Far East. The jars, probably all coming from China, acquired a value of their own and were sold to traders in Borneo, Sumatra, Persia, Egypt, and Turkey as cult and status objects. The chief group of Martaban wares consists of very large brown-glazed wares, originally used as water-containers for ships trading through the Burmese port. This present example, being very much smaller and decorated, was probably used as a container for some luxury trade material and then sold as an ornamental jar. It retains the loop handles used either to tie down a large jar, to steady it on deck, or, as in this case, for tying on a cover and to hold the cords securing the cradle in which the jar would be carried. This category of decorative trade jars may well come from kilns, as yet undiscovered, in the area of the great exporting ports of Canton or Chuanchow in south China. It is known from archaeological finds that in this region there was a tradition of relatively high-fired ware decorated with a lower-fired coloured glaze, to which pottery of this type would be related.

M. Tregear

77. JAR (Pl. LIV). Wide-shouldered storage jar of very heavy white porcelain. The decoration, in underglaze cobalt blue, is in four unequal zones: the chief zone consists of four lion dogs on a background of peony-flower scroll; around the foot is a band of lotus-petal motif, and there are two narrow bands of floral scroll and dog-tooth motif around the neck. The base is missing. The jar is encased in a stout woven cane framework with two loop handles.

1685 B no. 687: *Duae ollae chinenses, quarum una viridis est coloris, ramis aurei coloris notata: altera alba caeruleo colore perbelle picta.*

Dimensions: Height 325 mm.

Bibliography: Hobson 1923, p. 140.

Late Ming dynasty storage jars of this type, made of very heavy-duty porcelain, were used as packing-cases for trade material in the sixteenth to eighteenth centuries. The contents would have been perishable material such as tea, pickles, or rice, to be traded around the South-East Asian routes. This is a Ching te chen version of the so called 'Martaban jar' associated with that trade-site at Pegu Bay in Burma (see No. 76). The jars became objects of value in their own right and were highly prized by traders from the Far East to Europe. Such a relatively small piece would probably have been used for the preservation and transport of some relatively valuable commodity, but would quickly have become a collector's item itself. It dates from the late sixteenth or early seventeenth century. Further interest lies also in the cane casing of this piece, which is intact. Cradle casings were probably supplied for all such jars, made of cane or rope, making the jar more easily portable.

M. Tregear

78. ENGRAVED SHELL (Pl. LV). Fragment of engraved nautilus shell. Only the tight spiral end of the shell, stripped to the nacre, survives. The outside surface bears the remains of a very shallow engraved decoration. A flower-spray is laid along

the spine, terminating in an ogival panel with scroll ends. This panel is filled with a rampant three-clawed dragon. On either side of the shell there is a fragment of a figure scene. Each is an interior, one showing a Chinese female figure seated on a folding chair, apparently conversing with someone. The other is more fragmentary, showing only the head and hand of a figure, in a pavilion, beside a desk which is laid with a brush and ink slab. The background of each of these lateral scenes is textured with a fine scale-pattern motif, while the spine is on a polished background.

1656 p. 52: *Divers dishes of mother of pearle.*

1685 B no. 464: *Calices quinque es conchis argentarijs elaborati.*

Dimensions: Height (max) 110 mm; Width (max) 77 mm.

The engraving technique seems close to that of ivory-carvings of the late seventeenth and early eighteenth centuries, a time when such exotic craftwork was popular in China and was also made for export to Europe.

The fragmentary state of this piece makes it difficult to assess. Although shell carving is well documented in the eighteenth century, such an early piece is unusual. The floral motif on the spine can be related to the many gaming-pieces imported from the Far East which may have originated in workshops south of China.

M. Tregear

79. BUDDHA (Pls. LVI, LVII). A partially lacquered white marble image of the seated Buddha, the figure making the 'earth touching' gesture with his right hand. The left is placed palm open, a position (*dhyani mudrā*) denoting meditation. The stone is cut away, except for a small support, between the hand and the god's lap (actually, the sole of his left foot), an unusual feature probably considered a feat of technical virtuosity. He is seated in the lotus position (*padmāsana*) on a lotus throne, the latter indicated by a double (overlapped) row of downward-pointing lotus petals in low relief. The lower part of the throne is irregular in shape and was probably never finished. The Buddha's robe is worn so as to leave the right shoulder bare and with what is probably meant to be a scarf hanging down over his back and left shoulder. These features, including the ends of the robe spread out on the throne between the Buddha's knees, are indicated simply by incised lines and by colouring, the two not always in accord. The single exception is the robe indicated on the left side not only by its gold colouring but by the failure to cut through the marble between body and arm. The ear-lobes are elongated. The hair-line is likewise indicated by both colour and incised lines; the protuberance at the top of the head is of an unnatural regularity and terminates in a finial.

1656 p. 42: *Indian Pa God.*

1685 B no. 175A: *Deus aut Idolum indicum pae God vulgo (dictum).*

Dimensions: Height 0.75 m.

Bibliography: Bailey 1971, figs. 1–2.

In the most recent centuries, these white marble or alabaster figures have been the commonest types of Burmese stone images of the Buddha. The Department of Eastern Art, Ashmolean Museum, possesses a much smaller marble Buddha which is dated 1821. The importance of this 'Tradescant' image, if it is indeed the one mentioned in the 1656 and 1685 catalogues,[149] is that it shows that at least some of these marble Buddhas could be dated as early as the mid-seventeenth century.[150]

The knob on the top of the head is the ultimate successor to the 'cranial protuberance' covered with hair depicted on the earliest Buddha images (first–second centuries AD), probably a reminder that the Buddha, from the warrior caste, originally wore his uncut hair in a bun or chignon under his turban, as many Sikhs still do. The origin of this feature came to be forgotten and it was taken for a 'cranial protuberance', one of the marks of a Buddha, like his lion roar and the auspicious marks on the soles of his feet. Later topped by a flame, the present architectural finial is a very late feature. The pose, with the right hand touching the throne and the left palm upward along the lap, is known as *bhūmi sparśa* (Sanskrit 'earth touching') or 'calling the earth to witness', and it is the one favoured above all others by Burmese sculptors of every age. It is associated with the Buddha's attaining Enlightenment under the Bodhi-tree of Bodhgaya, one of the four great events in his life. Set upon by the hosts of Mara, he asks the earth to bear witness to his unshakable determination to find the path of salvation for all sentient beings. These marble Buddhas iconographically stand at the end (and stylistically near the

[149] The relevant entry in the 1685 catalogue has been inserted retrospectively, but is in the same hand as the original text.

[150] Bailey 1971, figs. 1–2.

nadir) of a long course of development harking back to Indian images of the fifth century AD and even earlier.[151]

J. C. Harle

80. BURMESE MANUSCRIPT (Pl. LVIII). *Kammavācā*, or Buddhist ordination text, on seven ivory sheets. The text is written in 'tamarind' or Burmese square script in black lacquer letters with red and gold punctuation and ornamentation. The cover leaves and margins of the opening and closing leaves are decorated with gold and red geometrical and floral patterns.

1656 p. 39: *Rolls of the Barkes of Trees wherein are graved the China, Arabian, and Eastern languages.*

Dimensions: Length 557 mm; Width 95 mm.

See discussion under No. 83.

81. BURMESE MANUSCRIPT (Pl. LVIII). *Kammavācā* text on eleven palm leaves, lacquered over and decorated in red and gold, with text in 'tamarind' or Burmese square script in black lacquer letters. The cover leaves and margins of the opening and closing leaves are decorated with *haṃsa* (mythical geese) in octagonal panels. One leaf of text (f. *ku* in the indigenous foliation) is missing.

1656 p. 39: *Rolls of the Barkes of Trees wherein are graved the China, Arabian, and Eastern languages.*

Dimensions: Length 543 mm; Width 96 mm.

See discussion under No. 83.

82. BURMESE MANUSCRIPT (Pl. LVIII). Two loose palm leaves, incised in Burmese script with a Pali language text from the Buddhist canon. The edges of the leaves are gilded and they are numbered *ri* and *rī* in the indigenous foliation.

1656 p. 39: *Rolls of the Barkes of Trees wherein are graved the China, Arabian, and Eastern languages.*

Dimensions: Length 545 mm; Width 56 mm.

See discussion under No. 83.

83. BURMESE MANUSCRIPT COVERS (Pl. LVIII). Two wooden cover boards, with gilding and red lacquering and a decoration of *cakka*, or wheels, and floral motifs. Although the decorations do not match those on No. 80, these boards seem to have been used recently, at least, as covers for it.

1656 p. 39: *Rolls of the Barkes of Trees wherein are graved the China, Arabian, and Eastern languages.*

Dimensions: Length 555 mm; Width 98 mm.

The majority of Burmese manuscripts are written on palm leaves, of which the two leaves of No. 82 are a typical example. The text was incised on the prepared palm leaf by means of a metal stylus, following which the surface was rubbed with lampblack and the surplus wiped off, leaving the incised characters to stand out clearly. The two holes pierced in the leaves were used to insert bamboo pins to hold the leaves stacked upon each other. Most manuscripts also had two wooden cover-boards, either plain or decorated, and the edges of the palm leaves were generally gilded or lacquered.[152] A more ornate form of palm-leaf manuscript, larger in dimension, is represented here by No. 81. In this instance the whole surface of the palm leaves has been lacquered and gilded and the Pali text painted on in black lacquer in a special and stylized form of the Burmese script, known as 'Tamarind' or square script. More rarely, texts were written on other materials (fashioned to the same dimensions as palm leaves) such as gold, silver, copper, and, as in No. 80, ivory. Such rich decoration and the use of a square script, as in Nos. 80 and 81, was reserved mainly for a special class of texts known as *Kammavācā*. These are texts in the Pali language excerpted from the *Vinayapiṭaka*, the section of the Buddhist canon dealing with rules for the monastic order. *Kammavācā* texts consist of a varying number of sections to be used by the Buddhist order for the valid performance of such ceremonies as the ordination of monks, the bestowal of robes, and the consecration of boundaries. The *Kammavācā* manuscripts, Nos. 80 and 81 in this collection, include the text of the first and most commonly used section, termed *upasampadā*, dealing with ordination.[153] *Kammavācā* manuscripts, unlike most other Burmese manuscripts, do not contain a colophon giving details of date and place of copying. It is sometimes possible, however, to make some estimate of their age and provenance on the basis of variations in pagination, script, and decorative style.

[151] For an example, see Harle 1974, fig. 70.

[152] For a general introduction to the use of palm leaves as a writing material and the different decorative forms, see Gaur 1979.

[153] For an English translation of this and other sections of *Kammavācā* texts, see Clough 1834, article IV.

It should be noted that the 1656 descriptions do not fit very well with these Burmese manuscripts. Also, since most *Kammavācā* manuscripts cannot be dated exactly, it is not possible to be absolutely certain whether these manuscripts were collected by Tradescant or were acquired at a later date by the Ashmolean. The 'very large Indian writing tablet with leaves of black paper and a cover beautifully lacquered in red', noted in the Ashmolean by von Uffenbach in 1710[154] would seem to correspond with No. 83, and, perhaps, with No. 81.

P. M. Herbert

[154] See p. 65.

84. STIRRUPS (Figs. 41–2). Very similar but not a pair, one larger than the other. Made of iron and tinned. The arch of each stirrup is wider than it is tall and is formed of two fan-plates, joined by a curved bar, in the centre of which is the loop for the stirrup-leather. The fan-plates are chiselled with four radiating ribs, between each of which the lower edges of the plates are pierced with key-hole cut-outs. The fan-plates of the larger stirrup are also pierced at the top with two circular holes. Above the fan-plates the curved bar which continues the arch is decorated with transverse mouldings like the joints of vertebrae. Each arm of this bar has a writhen knop half-way between the fan-plate and the loop for the stirrup-leather, which is protected by a rectangular cover-plate. On each stirrup the top of this plate is pierced with five key-hole cut-outs, between each of which the edge is filed to form a trefoil. Two trefoils have been broken off from the cover-plate of the smaller stirrup. Beneath this castellated top is a raised band of knurling and beneath this again the centre of the plates is pierced with five circular holes. Both plates have a moulded base with a chamfered lower edge. On the larger stirrup this chamfered edge is relieved by three double notches and on the smaller stirrup by a raised, central chevron. The treads are of iron, hammer-welded to the inside of the fan-plates. The front tread on both stirrups is of rectangular section and has a leading edge tinned and decorated with vertical notching. The other treads, two on the smaller, three on the larger stirrup, are made of writhen bars. In order to increase the area on which the foot can rest the front and rear are bowed, the front tread only slightly, the rear tread quite considerably. On the smaller stirrup the middle tread is straight; on the larger stirrup the tread immediately behind the front tread is straight while the next is only slightly bowed.

1656 p. 47: *Henry the 8 his Stirrups, Haukes-hoods, Gloves.*

1685 B no. 449–50: *Duo Henrici 8^{vi} staticulae.*

Dimensions: Height 156 mm; Width 158 mm.

Bibliography: ffoulkes 1912, p. 55, no. 158, pl. 16.

Broad stirrups of this general type can be dated to the first half of the sixteenth century, when broad-toed shoes and sabatons were fashionable. However, unlike these two examples, most stirrups of this period are at least as tall as they are wide, and the majority are differently constructed, the entire arch being made of sheet metal, often in the form of a ribbed fan which extends up to the suspension loop. Stirrups of this form can be seen illustrated both in the 'Westminster Tournament Roll' of 1511 (now in the collection of the College of Arms, London) and in the *Inventario Illuminado*, a picture inventory of the armour and weapons of Emperor Charles V dating from about 1544.[1] A considerable number of examples survive in the major collections of arms and armour. The arches of some of these stirrups are ribbed and pierced with circles and key-hole slots as are the fan-plates of the Ashmolean stirrups. Most of the stirrups thus decorated have for no apparent reason been called Spanish,[2] but some are believed to be German.[3]

There are a number of stirrups which may be compared with those in the Ashmolean in that they are wider than they are tall. There is, for instance, a stirrup, known only from drawings of it when it was in the Spitzer and Zschille collections, which appears to be of the same form as the group mentioned above:[4] each side of the arch is formed as a ribbed fan, pierced at the bow with three key-hole slots, and the suspension loop is covered by a plate pierced with a trefoil beneath a raised and roped upper border. There is also a group of stirrups constructed in the same way as those in the Ashmolean with fan-plates of sheet metal joined by an arched bar. This group includes: an unnumbered stirrup in the Livrustkammaren, Stockholm; a pair of stirrups belonging to the field armour made for Duke Moritz of Saxony (1521–53) by Matthaüs Frauenpreis of Augsburg probably in about 1540;[5] and a pair of stirrups which have been

[1] Real Armeria, Madrid, no. N 18.

[2] For instance, Metropolitan Museum, New York, no. 14.25.1759 A, formerly in the Zuloaga collection, Madrid (see Grancsay 1955, no. 140); and a stirrup at one time in the Zschille collection (see Zschille and Forrer 1898, p. 22, pl. 9, no. 4).

[3] For instance, a stirrup in the Bayerisches Armeemuseum, Ingolstadt, no. A 7177.

[4] Giraud and Molinier 1892, p. 93; and Zschille and Forrer 1898, pl. IX, no. 2.

[5] Historisches Museum, Dresden, no. 39 (see Ehrenthal 1899, p. 150; and Haenel 1923, p. 4, pl. 2).

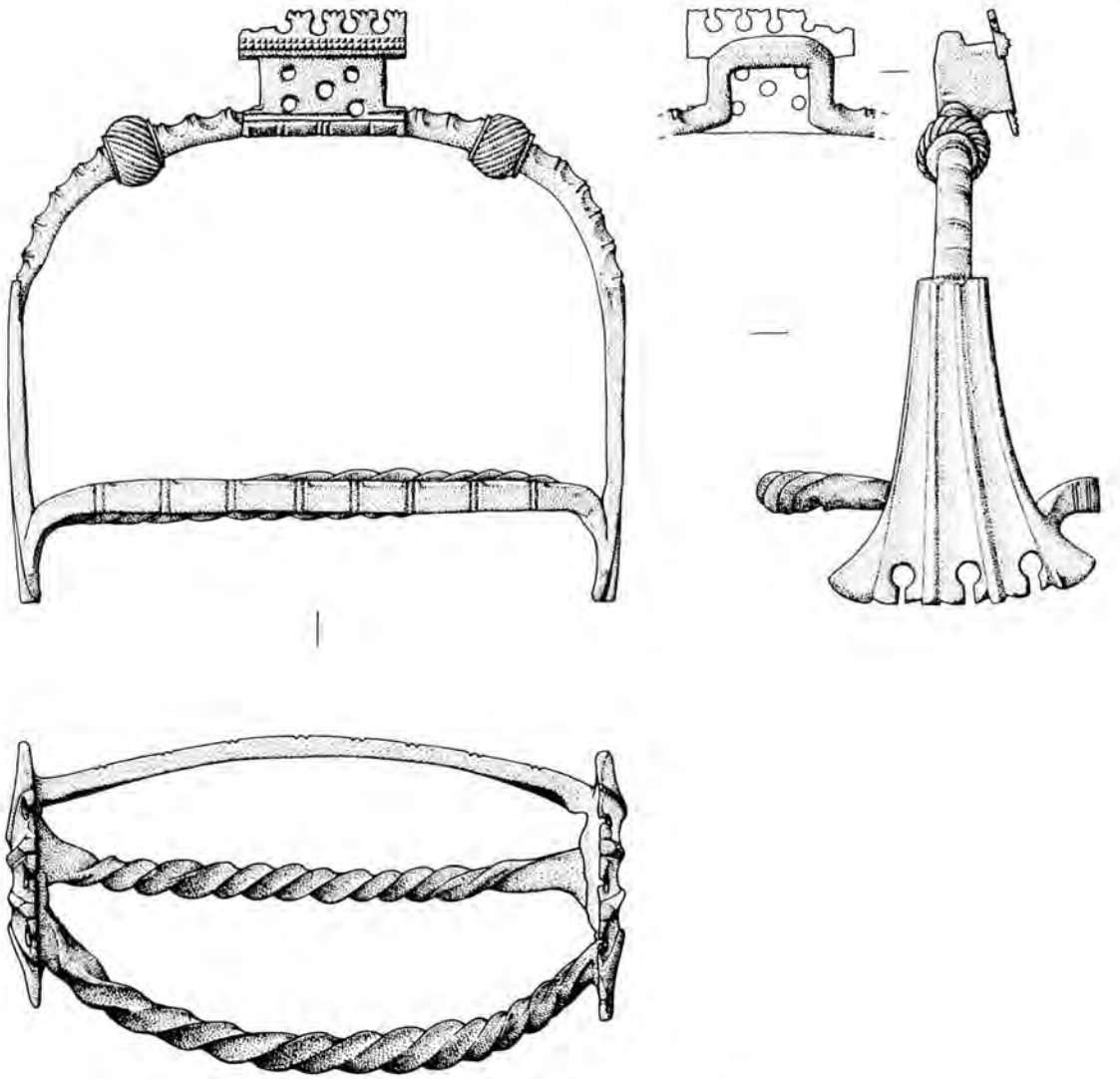


Fig. 41. Stirrups, No. 84: larger stirrup. Scale 1:2

dated to about 1520, associated with a horse armour made in Augsburg in about 1550 which was at one time in the collection of Grand Duke Wilhelm Ernst of Sachsen-Weimar-Eisenach.[6] This last pair is the closest in style to the Ashmolean stirrups, and is the only one of the group to have fan-plates of similar form and decoration. But even this is not exactly comparable, differing from the Ashmolean stirrups especially in the form of the suspension-loop cover-plate.

There is, however, a stirrup in the Victoria and Albert Museum which, although of plainer form, compares very closely with both the construction and the decoration of the Ashmolean stirrups.[7] It is of exactly the same size and shape as the smaller of these two stirrups and has almost identically ribbed and pierced fan-plates. The arched bar is plain and lacks the medial knops of the Ashmolean stirrups. The cover-plate of the loop for the stirrup-leather is a plain rectangle of iron decorated only with a roped upper border.

Although positive proof is lacking, there is no reason to doubt that the Ashmolean stirrups are

[6] Diener-Schonberg 1912, p. 44, pl. 20.

[7] Victoria and Albert Museum, London, no. M 229.1925.

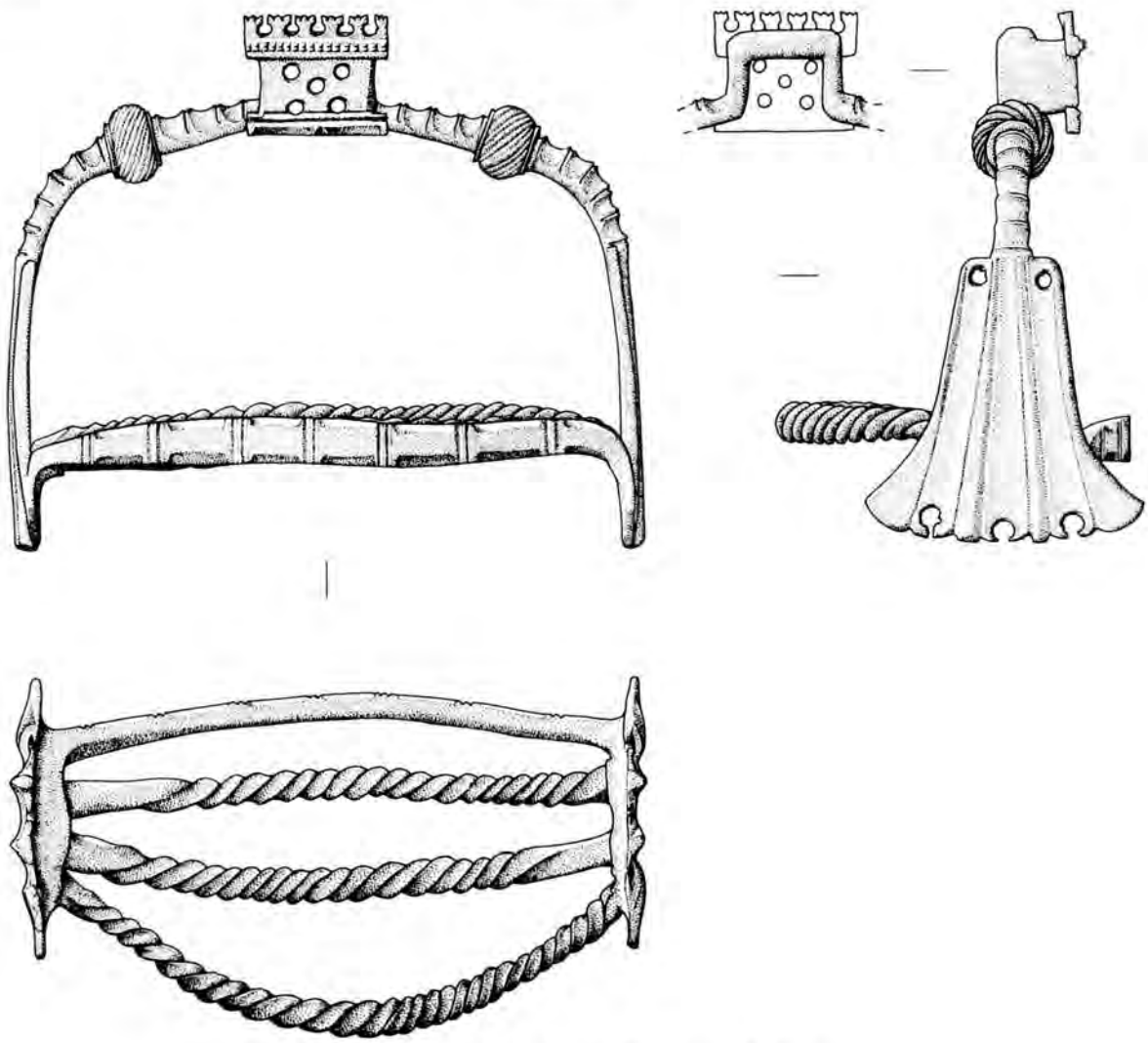


Fig. 42. Stirrups, No. 84: smaller stirrup. Scale 1:2

those referred to in both the 1656 and 1685 catalogues as the stirrups of King Henry VIII, and that these in turn were among the items delivered to Tradescant by royal warrant in 1635. Their decoration and form is similar to a number of European stirrups, some of which have been called Spanish and others of which appear to have been made in South Germany. The only very close parallel, however, is the pair of stirrups in the Victoria and Albert Museum mentioned above, the earlier provenance of which is not recorded. If the Ashmolean stirrups are indeed the stirrups of King Henry VIII there is, therefore, a possibility that both these and the Victoria and Albert stirrups were made in England by one of the King's own armourers in the Royal Armour Workshop at Greenwich. However, until more comparative work has been undertaken on early sixteenth-century stirrups this must remain only a tentative hypothesis, and at present no definite conclusions can be reached regarding either the country of origin or exact date of these stirrups.

G. M. Wilson

85. MODEL SHIP (Pls. LIX, LX). The hull of this little model is carved from solid oak. It has a round bow with a long decorated beak-head surmounted by a delicate scroll; the open stern gallery leads directly to similarly open quarter galleries.

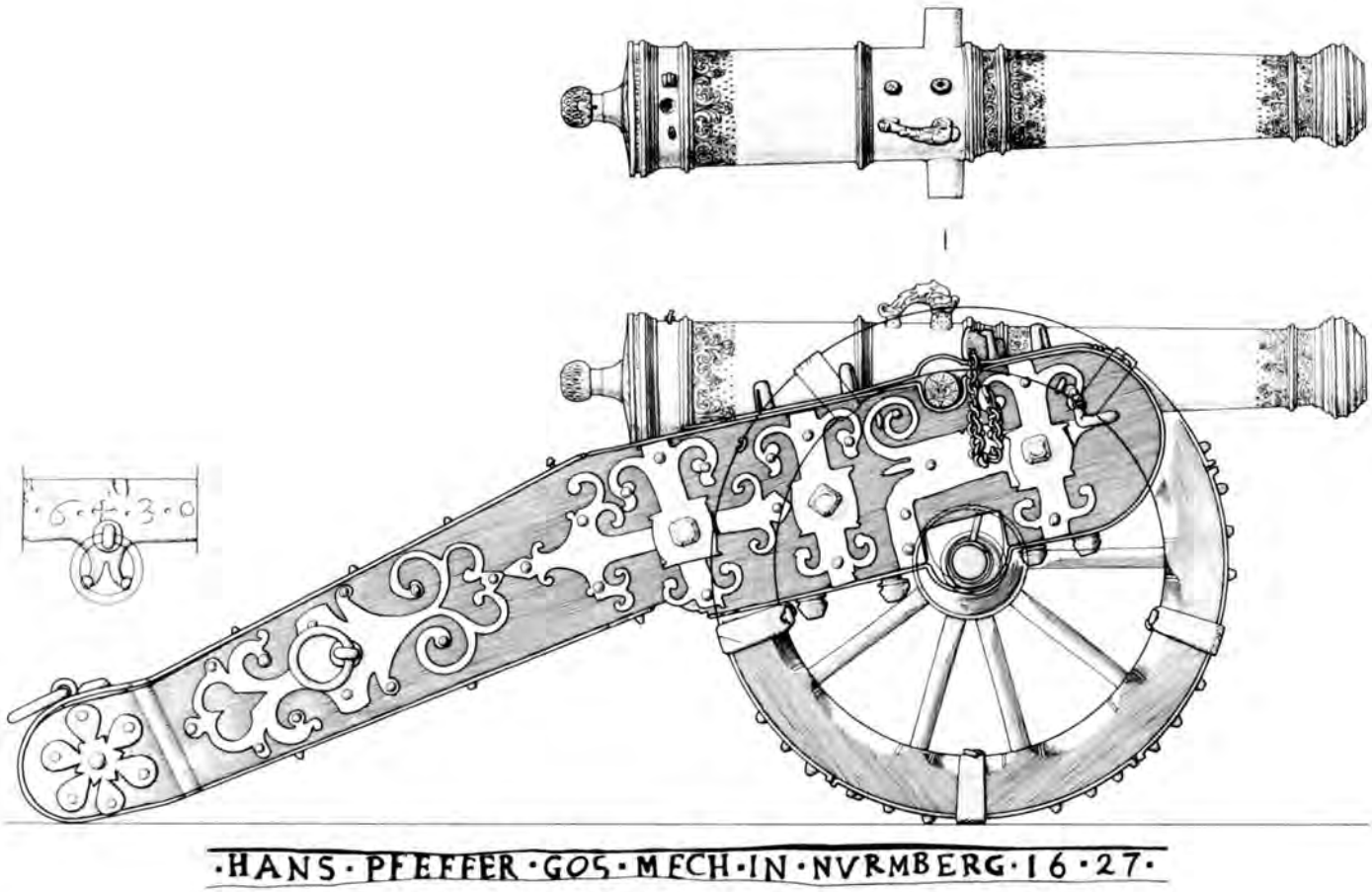


Fig. 43. Model cannon and field-carriage, No. 86. Scale 1:3. (Inscription, Scale 2:1)

86. MODEL CANNON AND FIELD-CARRIAGE (Fig. 43, Pl. LXI). Round, tapering barrel of bronze, decorated with bands of cast and engraved scroll-work. The cascabel is cast with radiating leaf scrolls; the globular cascabel button has a stepped shoulder and is engraved with a pattern of leaves or scales. The base-ring is engraved *HANS . PFEFFER . GOS . MECH . IN . NVRMBERG . 16 . 27* . The upper surface of the vent-field is drilled with a circular vent. The pivoted vent-cover is now missing, but the bases of both the hinge and the catch-plate survive, one either side of the vent. On the first reinforce just forward of the vent-field astragal is an engraved band of symmetrical scroll-work involving flowers and fruit on a dotted ground. Forward of the first reinforce ring is a plain second reinforce from which spring both trunnions and dolphins. The cylindrical trunnions spring from either side just below the axis of the barrel. The ends of the trunnions are engraved with a central quatrefoil surrounded by an eight-pointed star. The dolphins, one of which is now missing, are naturalistic and spring from short pillars decorated with a dotted pattern. Between the second reinforce ring and the chase astragal is a band of engraved serpentine scroll-work on a dotted ground. Forward of the chase astragal is a band of engraved ornament identical to that forward of the vent-field astragal. The chase is plain until just to the rear of the muzzle astragal where there is another band of engraved decoration identical to the last. Between the muzzle astragal and the muzzle is a further band of engraved ornament identical to that between the second reinforce ring and the chase astragal. The muzzle expands in a series of complex mouldings.

The gun is mounted on a wooden field-carriage. The two iron-reinforced cheeks extend to the rear to form the trail, and are separated by breast-, breech-, and trail-transoms. Each transom is reinforced by a lateral iron bar, the ends of which are of truncated pyramidal form. The barrel rests on the forward two transoms. The trunnions fit into semicircular depressions in the top of the cheeks and are secured by iron cap-squares. The cap-squares are themselves retained by slotted pins and wedges, four for

Each broadside comprises six guns with two bow chasers and two stern chasers; there are no guns mounted on the upper deck. All the guns are half-barrels only, their fixing-pins pushed into holes in the centre of each mock port. The hull is painted white below the waterline and dark brown above; there are traces of red on the forecastle mouldings and ochre on the sides at the level of the poop. The beak-head and the stern gallery decoration is grey picked out with gold.

The model is rigged with a bowsprit and three masts. The bowsprit is fitted with a spritsail yard, a top and spritsail topmast and spritsail topsail yard. The foremast and mainmast each have a lower yard, a top, topsail yard and a topgallant yard; the mizzen mast has a lateen yard, a cross-jack yard, a top and topsail yard.

The bowsprit measures 230 mm; the spritsail topmast 90 mm from top to truck. The truck of the foremast is 160 mm above the deck, those of the main mast and mizzen mast 195 mm and 140 mm respectively.

The original rigging having suffered severe damage over the years, restoration of the model was undertaken in 1980 by Mr James Lees of the Conservation Workshops in the National Maritime Museum at Greenwich. The remaining rig at that time consisted of bowsprit, foremast, top and fore topmast; main mast, top and main topmast; mizzen mast with some rigging including blocks and dead-eyes. The model was restored in keeping with the original workmanship: the restoration is obvious on reasonably close inspection, and a detailed description of the work undertaken has been published elsewhere.[8]

1685 B no. 758: *Duae naves prostratae exacte structae; variisque tormentis bellicis ex ligno elaboratis exoneratae.*

Dimensions: Length 0.61 m; Height (keel to main deck) 130 mm; Beam 135 mm.

Bibliography: Nance 1938; Naish 1950.

Two distinguished nautical antiquaries, R. Moreton Nance and the Revd F. C. P. Naish, have speculated upon the origin and identity of this model. The former believed it to be the 'little ship . . . upon a carriage with wheels resembling the sea' made for the Prince of Wales by Phineas Pett in 1634. Mr Naish did not directly dispute Nance's theory although he seemed to infer that the model may have been built as late as *c.*1662.[9] He was quite certain however that it was intended to depict Drake's *Golden Hind.*

Nance's argument contains a number of flaws of which two would seem to be crucial. First, any model set on wheels for the enjoyment of a four-year-old would need to be firmly attached. There is no evidence of any such fastenings on the hull of the model. Second, the model is crudely carved and rigged and, as Nance himself says, 'is neither built nor worked to an exact scale'. Two traits of Pett's character are evident from his autobiography[10] and from documents in the State Papers and elsewhere: he was proud of his craft, and always had an eye to the main chance. It would seem uncharacteristic of him to have presented so crude a model to the Prince of Wales or any other member of the royal household. Pett took no chances where the good opinion of his patrons was concerned.

As to Naish's views, there are features on the model which he missed and which lead to serious doubt about whether it was intended to represent the *Golden Hind.* There is clear evidence that the bowsprit carried a top, which must have supported a spritsail topmast: this rig was not introduced to English vessels until the first decade of the seventeenth century, although there is evidence that Flemish ships may have used it a few years earlier. The angle of the beak-head seems, on the other hand, to limit the period of the vessel depicted to before *c.*1630, for in the ships of the 1630s the beak-head is seen to be more nearly horizontal, notably in the *Sovereign of the Seas*, as compared with say Pett's earlier masterpiece *Prince Royal* of 1610.

The crudeness of workmanship notwithstanding, the general effect of the model is pleasing, and there is no reason to suppose that a model-maker capable of achieving this effect would have been so inaccurate as to give an Elizabethan ship a seventeenth-century rig. The model therefore is unlikely to have been intended to represent the *Golden Hind.* There is no way of determining precisely when it was built: we can be certain only that it was made between, say, 1600 and 1685, when it is first recorded, although there would be little reason to produce such a model after the 1630s. The spritsail topmast and the angled beak-head produce between them a fairly narrow chronological band when both features were found together. All one can say of the model's identity, then, is that it represents a small vessel, probably a merchant ship, *c.*1605–30.

A. P. McGowan

[8] Lees 1982.
[9] Nance 1938; Naish 1950.
[10] Perrin 1918, p. 156.

each cap-square. The wedges are attached to chains secured to the outside of the cheeks. One chain is now missing from the right cheek. The slotted pins pass vertically through the cheeks and have large button heads on the underside. The cap-squares have a rear finial shaped like an urn, and a forward finial in the form of a volute scroll. Crudely engraved on the inside of the left cheek, corresponding to the position of the four vertical cap-square pins are, from front to back, the Roman numerals *IIII*, *V*, *VI*, and *VII*. Similarly positioned on the inside of the right cheek are the numbers *II* (twice) and *I*. The outsides of the cheeks are strengthened and decorated by elaborately scrolled iron strapwork, attached by iron pins with truncated conoidal heads. Attached to each side of the trail is an iron draught-ring. The ends of the trail are rounded and the sides are here decorated with a six-leaf petal of iron attached by pins with truncated conoidal heads. The trail transom has a rounded rear edge to match the curvature of the trail itself. The top of the transom is reinforced by an iron band which is engraved with the date 1630. Attached to the centre of the transom is a loose ring. The two large wooden wheels each have ten spokes radiating to the heavy felloes. The felloes are reinforced by five iron strakes each attached at either end by four iron pins with heads of truncated pyramidal form and in the centre by an iron band. Felloes, strakes, and reinforcing bands all bear crudely notched setting-up marks. The inner surfaces of the felloes are decoratively bevelled. Each wheel has an extended, iron-reinforced nave, and each is retained by an iron linchpin.

1656 p. 46: *Moddels for a Cannon, with the appurtenances.*

1685 B no. 15: *Duo parva tormenta bellica ex aere conflata, suis vehiculis imposita.*

Dimensions: Length (overall) 568 mm, (barrel) 327 mm; Calibre 20 mm.

Bibliography: Houlkes 1912, p. 48, no. 96, pl. XVI.

Seventeenth-century models of cannon are not uncommon, although they are usually rather larger than this example. Both the gun and the carriage exhibit features characteristic of German ordnance of the mid-seventeenth-century. The form of the dolphins is very typical of German cannon of this period, and many examples survive with similar naturalistic dolphins raised above the barrel on short stalks. Particularly close to the dolphins on the Ashmolean model are those, mounted on dotted pillars, on a bronze cannon in Berlin bearing the name of the Lübeck founder Albert Bennick and dated 1679.[11] This cannon also has cast bands of formal scroll-work comparable in style to the engraved bands on the Ashmolean gun. Similar dolphins are also found on a small, bronze cannon dated 1679 in Burg Altena, Westphalia.[12] This cannon is mounted on a wooden field-carriage which has several features in common with the carriage of the Ashmolean cannon. The cheeks are reinforced and decorated with iron bands in the form of wave scrolls, attached by iron pins; the fellows of the wheels are thick and decoratively bevelled; and the trail, very unusually, has a rounded end. More commonly trails have either square ends or ends with only the lower edge rounded. Usually, too, the trail transom is of rectangular section, whereas on both the Ashmolean and the Altena carriages, the rear edge of the transom is rounded to match the ends of the trail. It seems possible that this rounding of the trail may be a particularly Germanic feature.

The Ashmolean model bears the name of a Nürnberg maker, and an interesting comparison can be made with two model bronze cannon in the Germanisches Nationalmuseum, which formed part of a large collection of military models apparently commissioned in about 1630 by the Nürnberg Master of Ordnance, Johannes Carl, to demonstrate how a modern army should be equipped. One of the models is about the same size as that in the Ashmolean, the other approximately twice as large.[13] The barrels are very similar in proportion, decoration, and arrangement of mouldings, and the larger has dolphins raised above the barrel on short stalks as are those on the Ashmolean gun. The carriages of these Nürnberg models, however, although generally similar in form to that in the Ashmolean, are plain, and have trails which have squared rather than rounded ends.

The maker of the Ashmolean cannon, Hans Pfeffer, was a Nürnberg cannon- and bell-founder, active from about 1614 until shortly before his death in Krems on 7 March 1658. It seems that he worked chiefly for the City of Nürnberg, where for a time his father, Mathes Pfeffer, held the post of Zeugmeister, but that he also accepted many other commissions. For instance, he is known to have

[11] Museum für Deutsche Geschichte, Berlin, no. W 470; see Muller 1969, pp. 88–9.

[12] See Anon. 1968, pp. 30, 32.

[13] Germanisches Nationalmuseum, Nürnberg, nos. W2073 and W2071, respectively.

made four cannon for the Count Palatine Wolfgang Wilhelm in 1625, and there is some evidence to suggest that he may have been in the employ of the princes of Neuburg before 1617. It also appears that he continued to enjoy imperial patronage until shortly before his death.[14]

The Ashmolean cannon is dated 1627, the carriage 1630, and it is possible that the two were not originally made to go together. Certainly the barrel does not fit the carriage particularly well. It seems rather too short, and when mounted the breech only just reaches the breech transom. The trunnions also appear to be rather too small for the carriage and are too short to reach the outer edge of the cheeks as trunnions normally do. It may be, therefore, that the carriage was made originally for a slightly larger gun.

It is possible that this is one of the unspecified number of 'Moddels for a Cannon' recorded in 1656, and one of the 'two small cannon made of bronze, on their carriages' listed in the 1685 catalogue. It may also be the cannon described in the Ashmolean catalogue of 1836 as 'A small cannon, presented to Charles I, when a boy, by the king of France; probably given to Ashmole by king Charles II. The remaining part of the train are now in the tower of London.' There is, however, no evidence to support this provenance and no such train of artillery is recorded in the Inventories of the Tower. ffoulkes suggested that the cataloguer may have been mistakenly referring to a train of ten English model cannon in the Tower of London, five of which were made by John Browne in 1638 and five by Thomas Pitt in 1639.[15] This is very possible for, although these were made not for Charles I but for Charles II as Prince of Wales, this fact may not have been appreciated by the cataloguer in 1836. From 1753 to 1800 successive Tower *Guides* stated that these cannon had been 'a present from the Foundry of London to King Charles I when a child to practice the art of Gunnery with'.[16] By 1817, however, the story had been corrected and thereafter the Tower *Guides* stated that they were a present to Charles II. Nevertheless, it is not difficult to imagine that the older story may still have been causing confusion in 1836, nor to imagine how it could have been altered to make the cannon a gift not from a London foundry but from the King of France. There is, however, no connection between the Tower cannon and the Ashmolean model.

G. M. Wilson

87. MATCHLOCK MUSKET (Pls. LXII, LXIII). Tricker-lock of normal form attached by two screws passing transversely through the stock. These screws have large domed heads on the side opposite to the lock. The long, narrow, rectangular lock-plate, which is elongated at each end where it is cut into the rough outline of a monstrous head, is decorated with silver counterfeit-damascening in the form of running floral scroll-work with a monster's head at either end. On the centre of the plate surrounding the exposed end of the forward retaining-screw is an area of formal leaf-work, counterfeit-damascened in gold. Just to the rear of the cock, the plate is deeply stamped with a rectangular mark containing four rectangular raised lands diminishing in width from left to right. The flat cock is counterfeit-damascened in silver *en suite* with the lock-plate. The match-holder is shaped and decorated to represent a monstrous head, and is drilled and threaded for a transverse screw to retain the match, now missing. The neck of the cock is decorated with a classical garlanded head, perhaps the head of a Roman emperor, surrounded by a wreath of gold counterfeit-damascened scroll-work.

Walnut stock attached to the barrel by three transverse pins, now missing, which passed through pierced lugs dovetailed to the underside of the barrel, and by a vertical dome-headed screw which retains the front of the trigger-guard and screws into the tang of the barrel. Combed triangular butt with a rounded heel and a deep semi-circular thumb-recess just to the rear of the barrel tang. The butt is of angular cross-section with two slightly concave flats expanding from the comb, beneath which are two vertical flats. The top and end of the butt are flat, the underside is slightly convex. There is now no butt-plate, the end being plain but drilled with two holes, one above the other, into each of which is recessed a dome-headed nail. The top of the comb was reinforced with three pieces of brass strip secured by six brass pins. The short rear strip and its fixing-pin are now missing. The short forward strip overlaps the longer central strip and is decorated with a transverse double line engraving behind its leading edge. Ahead of the lock the underside of the fore-end is drilled longitudinally for a ramrod, and is now missing from the

[14] von Reitzenstein 1981, pp. 88, 90, 100.

[15] Armouries, HM Tower of London, nos. XIX 24–33; see ffoulkes 1912, p. 48.

[16] For a full discussion of these cannon see Blackmore 1976, pp. 65–6.

second retaining pin forward. The whole surface of the stock is inlaid with brass, silver, and mother-of-pearl. Brass and silver wires emphasize the main lines of the musket and divide the surface into panels. These panels are decorated with running scroll-work in brass and silver wire, involving small roundels or pins of silver, and plaques of mother-of-pearl engraved with classical heads, buds, flowers, snail-shells, and leaves. Both sides of the butt are decorated within borders of silver wire with running scroll-work of brass wire involving roundels and diamonds of mother-of-pearl, engraved with flower and leaf motifs, and with large oval plaques (originally six in number) of mother-of-pearl, each engraved with a portrait, perhaps of a Roman emperor. The surviving head on the left bears a laurel wreath, and the plaque is signed *IB*. On the right side three plaques survive, all signed *IB*, two similar to that on the left, and the other engraved with a similar head but without a laurel wreath. Three further plaques similar to the last decorate the side of the stock above the lock-plate. There is an escutcheon missing from the top of the small of the butt. Between the lock screws on the left side of the stock two large oval plaques and one large diamond-shaped plaque are missing. Both sides of the fore-end are similarly decorated with alternate diamond-shaped and large oval plaques, now all missing. The underside of the stock from the butt to just ahead of the cock is decorated with three rows of mother-of-pearl inlays in the form of buds, surrounded by two opposed serpentine-scrolling lines of brass wire with brass quatrefoils at the intersections, each row bordered by double lines of brass wire. Ahead of the trigger on the right side the roundels take the form of snail-shells rather than buds. The more rounded underside of the fore-end is decorated with lines of running scroll-work of brass wire involving mother-of-pearl buds and silver *pointillé* ornament, and this decoration is also found on the three upper faces of the small of the butt.

Crescentic trigger set in a long rectangular plate, both of iron. Set into the stock just above the lock is the button-shaped head of the screw on which the trigger pivots. Elongated trigger-guard, semicircular around the trigger with a straight section below this which acts as a grip, and a downward recurved extension at the rear. The tangs of the trigger-guard and the bow around the trigger are decorated with scroll-work counterfeit-damascened in silver, the centre of the bow bearing a gold counterfeit-damascened cinquefoil. The straight finger-grip, which is formed of three flats, not rounded like the rest of the guard, is etched with symmetrical patterns made up of arcs and circles.

Heavy iron barrel of octagonal section tapering towards the flared muzzle and with a plain square-ended tang secured by a screw through the trigger-guard and by a right-angled wood staple at the rear. The foresight is a thin leaf of iron, rising in a concave curve from two notches at the rear to the rounded front, which is drilled with a large transverse hole. Notched-block backsight secured by a rounded and tapering forward tang with a finial in the form of a fleur-de-lis. Forged to the right side of the barrel at the breech is a rectangular pan with a horizontally pivoted pan-cover which has at its front corner a projecting, down-curved handle of droplet form. The pan-cover is decorated in silver counterfeit-damascening with a monstrous animal seated on its hind legs. Around the monster's neck is a gilt collar. At the rear of the pan the pivot of the pan-cover is enclosed within a cylinder, topped with an urn finial, which is drilled horizontally, at right angles to the main axis of the barrel, with a small hole. The pivot assembly, which bears traces of gold and silver counterfeit-damascened decoration, also helps to locate the fence, designed to protect the musketeer's face from the flash, which is placed vertically across the back of the pan. The top of the fence is ornamented with irregular wave or droplet cut-outs.

The top three flats of the barrel are decorated with etching and gold and silver counterfeit-damascening. The top flat is decorated for its entire length with silver counterfeit-damascened running scroll-work involving Roman imperial heads in oval cartouches. On the side flats, however, this form of decoration alternates with two panels of etched decoration in the form of symmetrical scroll-work and floral patterns made up of arcs, circles, short lines, and dots. From breech to muzzle the side flats are, therefore, decorated as follows: a panel of silver counterfeit-damascened scroll-work involving a Roman imperial head within an oval cartouche, bordered by gold counterfeit-damascened leaf-work; a panel of symmetrical etching; a panel of damascening identical to that at the breech; a panel of symmetrical etching; and a panel of damascening similar to that at the breech but involving in the centre, not a Roman imperial head, but what may have been a coat of arms surmounted by a four-pointed crown damascened in gold and

surrounded by a gold border, the whole not now decipherable with any certainty.

1685 B no. 17: *Scloppetum ferreum, cujus truncus variis Imperatorum capitibus ex conchis argenteis elaboratis splendide exornatur. No. 167 videtur huic sustinendo inserviisse.*

Dimensions: Length (overall) 1.55 m, (barrel) 1.22 m; Calibre 19 mm.

Bibliography: Houlkes 1912, p. 48, no. 100, pl. XIV; Spencer 1975, p. 257; Hayward 1962, p. 36.

In basic form this is typical of the heavy military musket, designed to be fired from a rest (see No. 88), which was widely used in the armies of north-west Europe from the end of the sixteenth century to the middle of the seventeenth century. Plain muskets of this general form were almost certainly adopted as the standard firearm of the Dutch infantry in 1599 as a result of attempts by the States General to regularize and standardize military equipment. It may have been this pattern which was illustrated in Jacob de Gheyn's drill-book *Wapenhandelinghe van Roers Musquetten ende Spiessen*, first published in 1607,[17] although there is a possibility that the illustrations for it were first produced as early as 1595.[18] This book proved to be both popular and influential not only in the Netherlands but throughout Europe, and thus the Dutch method of drill spread over a wide area. Decorated muskets of similar form were used by members of the Dutch *Schutterij*, the civic military guilds, and are frequently illustrated in the group portraits of guild members by Franz Hals, Rembrandt, and their contemporaries. The similarities between the Ashmolean musket and a number of the same form which are known or believed to be Dutch, suggest that it is almost certainly Dutch in origin. Running scroll-work involving small round inlays is very commonly found on these Dutch muskets, though often of bone rather than wire and mother-of-pearl. Running scroll-work and *pointillé* decoration similar to that on this example are also found on some Dutch guns, including a wheel-lock with a fish-tail butt formerly in the W. R. Hearst collection.[19] There is a well-known group of Dutch muskets in which either the scroll or the bud motif, or both, is combined with large oval inlays such as those on this musket. These oval plaques are either of mother-of-pearl or bone and are found engraved with portraits, trophies, figure scenes, animals, etc. Usually six to eight ovals are found on either side of the shoulder-stock and sometimes the ovals continue along the fore-end.[20] Another feature common to many of these muskets, to others of known Dutch provenance, and to the Ashmolean example, is the treatment of the ends of the lock-plate, which angle out towards the bottom and end with a curl beneath the lower edge. Frequently, although monstrous in outline, these are decorated with leaf scrolls rather than the monstrous heads found on this musket, but the basic form is similar. Another common feature often present on decorated Dutch matchlock guns, and also found here, is the lateral hole through the foresight. Finally, the form of the fence may be compared to those with crenellated upper edges found on various muskets including a matchlock musket now in Stockholm, bearing the Amsterdam control mark and the date 1611,[21] and a musket in the Tower of London which has a fence with a very similar irregularly waved upper edge.[22]

The evidence thus seems to be overwhelmingly in favour of the Ashmolean musket being of Dutch origin. However, it is recognized that this Dutch style was popular elsewhere in Europe, especially in England, and it has been suggested that some of these decorated muskets could be English. For instance, a possible English origin has been suggested for a matchlock musket in the Rothschild collection at Waddesdon Manor, and this gun has decoration which includes the running scroll-work and bud motif found on the Ashmolean musket and

[17] de Gheyn 1607.

[18] Hoff 1978, p. 9; Hahlweg 1973, pp. 613–14.

[19] Illustrated in Blackmore 1965, pl. 83.

[20] These include a matchlock musket and rest (Armé Museum, Stockholm, no. AM 4032); a wheel-lock musket dated 1624 and bearing on the lock-plate the town proof mark of Haarlem (Tøjhusmuseet, Copenhagen, no. B 319); a matchlock musket, later converted to wheel-lock ignition, dated 1624 (Wallace Collection, London, no. A 1112); a matchlock musket probably made in Amsterdam, and dated 1629 (Muzeum Narodowe, Wrocław, no. 4651); a matchlock musket probably made in Amsterdam, in about 1630 (Tøjhusmuseet, Copenhagen, no. B 320); an Amsterdam-made matchlock musket in the collection of L. H. L. Visser (exhibited in the exhibition *Nederlandse Vuurwapens uit de 17e en 18e Eeuw*, Stedelijk Museum de Lakenhal, Leiden, 1978, no. 2); three matchlock muskets in the Tower of London (nos. XII 1192, XII 1193, XII 46), the last altered to flintlock ignition at a later date; and a wheel-lock musket decorated on the butt with mother-of-pearl plaques engraved with classical heads (Hermitage Museum, Leningrad, no. 5827), formerly in the Imperial Russian collections and illustrated in Gille 1835–53, vol. 2, pl. CVII, no. 5. The decoration on the Hermitage gun, although similar, appears to be by a different hand from that of the Ashmolean musket.

[21] Livrustkammaren, Stockholm, no. 11673.

[22] Armouries, HM Tower of London, no. XII 1192.

on the group of Dutch guns referred to above.[23] However, the decoration on the Waddesdon musket has recently been compared to that on a matchlock musket in the Museum of London which bears the arms of the Haberdashers Company of London and appears to be of English manufacture.[24] The Haberdashers' musket certainly does have decoration which includes similar running scroll-work involving mother-of-pearl buds, but the treatment of this decoration is markedly different both to that on the Waddesdon musket and to that on the Ashmolean musket and the Dutch guns mentioned above, all of which appear to be very close in style. Thus a Dutch provenance for the Waddesdon musket seems more likely than an English one, especially since its barrel bears a mark which appears to relate it to a number of muskets of known Dutch manufacture.[25]

Some possibility remains, nevertheless, that the Ashmolean musket is not Dutch but English, for the method of decoration of the metalwork, and especially the use of counterfeit-damascening, is found on a considerable number of near-contemporary English guns. Closest in style to the damascened decoration on the Ashmolean musket is that on an English snaphance petronel dated 1584, now in Copenhagen,[26] on three late sixteenth-century English snaphance pistols in the Kremlin,[27] on an English snaphance pistol of about 1600 in the Tower of London,[28] on the wheel-case of a wheel-lock pistol from Belchamp Hall, Essex, and on a powder-flask from the same collection.[29] Similar damascened scroll-work occurs not only on English firearms but on other decorative metalwork believed to be of English origin, such as an iron comfit-box in the Victoria and Albert Museum which bears the arms of Rubert Dudley, Earl of Leicester, and is dated 1579.[30] Also of interest in this context is an English snaphance musket dated 1590, in the Tower of London, the barrel of which is divided into five alternating panels – as is the barrel of the Ashmolean musket – three decorated with gold damascened floral scroll-work, and two plain.[31] The existence of these English parallels to the decoration on the metalwork of the Ashmolean gun warns against a definite attribution of this musket to Holland. However, it has to be admitted that the style of the damascened decoration on this musket is also very similar to the etched, engraved, and chiselled scroll-work found on some decorated Dutch muskets. The running scroll-work involving an octofoil petal found on the lock-plate of this musket may, for instance, be compared to the similar but etched decoration in the form of running scrolls involving buds and octofoils, found on the breech of the Amsterdam-made musket dated 1611 mentioned above. Further, there are a number of decorated matchlock guns, either known or believed to be Dutch, the barrels of which, like that of the Ashmolean musket, are divided into five alternating panels, three decorated with running scroll-work and two plain.[32] The weight of evidence therefore suggests that the musket is of Dutch origin, although some doubt remains. The possibility that it was made by Dutch craftsmen working in England cannot be discounted, and it is also possible that, even if made in Holland, it could have been at least partially decorated in England.

It is difficult to date the musket with any degree of accuracy. According to Hoff the rounding-off of the rear of the comb is a late feature presaging the development of the rounded shoulder-stock.[33] However, some guns without this feature are dated later than others with it, so it is not possible to suggest a simple chronological development. One of the earliest guns with this rounded comb is a matchlock musket, converted to wheel-lock, in the Wallace Collection,[34] which is dated on the barrel 1624. It is therefore possible that the Ashmolean musket dates from the 1620s. However, on neither the Wallace nor the Ashmolean musket does the decoration end properly at the rounded comb. This suggests that the rounding-off was done some time after the muskets were made, presumably when the

[23] Blair 1974, pp. 243–4.

[24] Ibid. This musket was then in the Clay Bedford collection, but is now in the Museum of London (no. 76.131).

[25] Hoff (1978, p. 12) has drawn attention to the fact that the barrel of the Waddesdon musket bears the same marks as a matchlock musket of about 1595 in the Livrustkammaren, Stockholm (no. 11674), the decoration of which is related to a group of wheel-lock guns dated 1596 and bearing the mark of Amsterdam on their barrels (Livrustkammaren nos. 11682, 11684–8).

[26] Nationalmuseet, Copenhagen, no. 10428.

[27] Kremlin, Moscow, nos. 6529, 8243–4.

[28] Armouries, HM Tower of London, no. XII, 1823.

[29] Currently on loan to the Victoria and Albert Museum, London.

[30] Victoria and Albert Museum, London, no. M 665–1910.

[31] Armouries, HM Tower of London, no. XII 1785.

[32] These include a musket bearing the mark of Amsterdam and complete with its rest (Livrustkammaren, Stockholm, no. 11674; cf. Blair 1974, pp. 243–4), the decoration of which has been compared to that on the barrel of the Amsterdam-made musket dated 1611 mentioned in n. 21; see Hoff 1978, p. 14.

[33] Hoff 1978, p. 18.

[34] Wallace Collection, no. A 1112.

fashion changed, and if this is correct this feature is of little use for dating purposes.

The identity of the stock decorator who signed himself *IB* is unknown, but according to Hayward a similar musket with roundels signed by the same maker was in the Kindig collection, York, Pennsylvania.[35]

The rest, No. 88, appears to have been made *en suite* with this musket.

G. M. Wilson

88. REST FOR A MATCHLOCK MUSKET (Pl. LXII). The round wooden haft tapers at one end to accept either the forked metal rest or the ferrule, both of which are missing. At the other end the haft is not tapered, and there is no sign of any fixing for either mount. The haft is divided longitudinally into three panels by straight lines of inlaid brass wire. Each panel is decorated identically with a pair of opposed serpentine scrolling lines of inlaid brass wire, involving round inlays of mother-of-pearl engraved in the form of buds. A considerable number of these mother-of-pearl inlays are now missing. The intersections of the two scrolling lines are each decorated with four brass-headed pins, one in each of the four angles. Towards the blunt end of the haft the decoration within each panel stops and the bordering lines converge to form a serpentine tail ending about 100 mm from the end of the haft. The haft is badly warped and is split some 280 mm from the tapered end.

1685 B no. 167: *Instrumentum, quo sclopetrae dum exonerantur, sustinentur, undique concha argentea splendide ornatum, pars inferior aere armatur acuto, superior autem aere forcipato; quo aptum sit ad sclopetram sustinendam.*

Dimensions: Length (overall) 1.18 m; Diameter (max) 22 mm.

Bibliography: Houlkes 1912, p. 48, no. 100a.

Almost certainly made to match the matchlock musket, No. 87. The heavy military muskets of the late sixteenth century and early seventeenth century were designed to be fired from rests, and these plain rests can be seen, together with their muskets, in contemporary drill-books, such as that of Jacob de Gheyn.[36] Typical rests illustrated by de Gheyn have a plain haft surmounted by a U-shaped fork, the ends of the tines being vertically recurved. At the base of the haft is a large conical ferrule intended both to protect the wooden butt and to enable the rest to be stuck firmly into the ground. This ferrule is usually reinforced with a number of plain ring-mouldings. Numbers of similar military rests survive in the major collections of arms and armour, some with simple spikes hammered into the butt instead of a ferrule.

Decorated muskets of the same form as the plain military matchlocks were especially popular in Holland in the early seventeenth century, and these too required rests. These rests were usually decorated to match a particular musket and equipped with forks and ferrules of iron similar to those found on the plain military rests discussed above. Surviving decorated rests are rare, however, and occur in far fewer numbers than their corresponding muskets. Examples include three in Stockholm, one associated with a decorated musket bearing the town mark of Amsterdam, and the other two with muskets which are believed to be Dutch; a rest associated with a musket in Schloss Ambras; and a decorated rest in the Tower of London.[37] The Ashmolean example appears to have been somewhat unusual when complete, for, according to the 1685 catalogue, the fork and ferrule were of bronze and not of iron. It is now difficult to determine at which end the ferrule and fork would have been fitted. As the decoration ends some 100 mm from the blunt end, a socketed fork may well have fitted over this end, with the ferrule fitting over the taper at the other end. On other comparable examples (see above), however, the decoration continues unaltered to the socket of the fork, but becomes gradually less prominent towards the ferrule. On this example the decoration diminishes towards the blunt end of the haft, and there is thus a possibility that it may have been this end to which the ferrule was attached. This possibility appears to be strengthened by comparison with a decorated rest in the Victoria and Albert Museum,[38] believed to be of English origin: the haft in this instance is divided into four vertical panels and is inlaid with serpentine scroll-work in bone involving mother-of-pearl inlays engraved in the form of birds and acorns and green-stained bone inlays engraved as buds; the mounts are of iron, the ferrule fitting over the untapered butt end as far as the decoration, the tapering socket of the forked head fitting over the tapered top of the haft. The decoration on the haft

[35] Hayward 1962, p. 36.

[36] de Gheyn 1607.

[37] Respectively: Livrustkammaren, Stockholm, nos. 1197 a and b; Livrustkammaren, Stockholm, nos. 11674 5; Armé Museum, Stockholm, no. AM 4032; Schloss Ambras, Innsbruck; Armouries, HM Tower of London, no. XIII 183.

[38] Victoria and Albert Museum, London, No. 2190 1855.

of the Ashmolean rest is directly comparable to that on the matchlock musket, No. 87, and is almost identical to the serpentine scroll-work, involving inlays of mother-of-pearl engraved as buds, which occurs on the underside of the butt. It therefore seems probable that the rest and musket were made as a set at the same time. The rest is, therefore, almost certainly Dutch, and probably dates from between 1620 and 1630.

ffoulkes mistakenly describes the inlays as of *ivory* and mother-of-pearl.[39]

G. M. Wilson

89. BARREL OF A THREE-BARRELLED REVOLVING GUN (Pl. LXIV). No trace of the lock or the stock survives. The barrel assembly consists of three separate barrels joined at the front by a common muzzle-ring and at the rear by a common breech-plate, all of iron. Each barrel is octagonal at the breech and round at the muzzle, the change in section occurring midway along the barrel where it is covered by a band of five chevrons, one for each of the visible flats, the apex of each chevron being on the angle between two flats. Just to the rear of the chevron the top three flats are each decorated with a circular depression, and just to the rear again by a slightly raised transverse moulding flanked by pairs of engraved lines.

Set into the top flat of each barrel just forward of the breech is a backsight in the form of a block set longitudinally. In section the block has a narrow base, and sides expanding towards the top in a concave curve. It has a central V-shaped groove running along its entire length. One backsight is still equipped with a tubular cover of barrel form with roped ends and a single-line engraving running round the expanded waist. Just forward of the backsight each barrel is stamped on the top with an indecipherable mark. Set into the flat on the right-hand side of each barrel near the breech is a rectangular block which forms the pan. The top of the block is dished towards the rear. Riveted to the front of the pan is a laterally pivoting pan-cover, the leading edge of which is relieved with notching and faceting. From the outer rear corner of the pan-cover springs an arm with a rough, globular finial. The arm is curved round in the plane of the pan-cover to touch its inner rear corner.

The barrels are linked at the muzzle by a plain, flared, muzzle-ring in the form of a trefoil. From between two of the circular barrel-loops springs a much smaller circular loop to retain the ramrod. In line with this loop, at the breech, the left-hand side flat of one of the barrels bears the remains of a dovetailed lug. Although now broken off just above the surface of the flat, this would almost certainly have been of a form to retain the rear of the ramrod.

To the breech of the barrels is brazed or hammer-welded a nine-sided breech-plate constructed so that its angles line up exactly with the three top flats of each barrel. The centre of the plate is pierced with a square hole, probably intended to receive a squared rotating spindle. Attached to the rear of the breech-plate by three rivets is a circular collar or socket formed out of sheet metal, hammered round and with the ends hammer-welded together. It is secured to the breech-plate by three equidistant tongues, which pass through the large lip of the collar and are riveted over. This lip is of the same size and shape as the breech-plate and has a roped edge. Three circular holes are drilled in the collar in line with the top flat of each barrel. The holes were almost certainly intended to receive some form of locking device to retain each barrel in turn in the correct position for firing.

1685 B no. 18: *Sclopus parvus ferreus, tribus dotatus tubis.*

Dimensions: Length (overall), 369 mm, (barrel) 345 mm; Calibre 9.5–10 mm.

Bibliography: ffoulkes 1912, p. 51, no. 121, pl. XV; Spencer 1975, pp. 257–9, pl. 97.

These barrels almost certainly formed part of a European matchlock revolving pistol of early sixteenth-century date. Spencer has, however, rightly drawn attention to some similarities between these barrels and those found on a group of Japanese three-barrelled matchlock revolving guns of seventeenth- to nineteenth-century date, examples of which are to be found in most major collections of arms and armour.[40] The drum-like collar or socket at the breech, the prominent muzzle-ring, and the complete lack of screws, are all features also found on these Japanese guns. Spencer also mentions various points of dissimilarity, notably the very different form of pan and pan-cover to that commonly found on these Japanese revolvers, and the different form of the sights. Certainly the Japanese guns usually have a foresight in the form of a thick, squared leaf,

[39] ffoulkes 1912, p. 49, no. 100a.

[40] Spencer 1975, pp. 257–9.

whereas the Ashmolean barrels have no foresight. Further, the notched block backsights on the Ashmolean barrels, and the one tubular cover, are of European form and differ markedly from the leaf backsights common to most of the Japanese revolving guns. It has been suggested that the decoration on the barrel at the point where its section changes might be related to that found on some Indian matchlock guns. The use of chevrons to cover the change of section is, however, also commonly found on Turkish guns and European barrels of sixteenth- and seventeenth-century date, and the weight of evidence appears to be overwhelmingly in favour of a European provenance for the Ashmolean barrels. Almost identical decoration to that on these barrels, consisting of chevrons with circular depressions to the rear, can be found on a barrel, dated 1540 and bearing the mark of the maker Wolf Danner of Nürnberg, mounted on a flintlock sporting gun of about 1720 in the Hermitage, Leningrad.[41]

Although three-barrelled revolving guns were perhaps not as common in Europe as in the East, examples do exist from as early as the sixteenth and seventeenth centuries. The earliest of these is the matchlock pistol, perhaps made in Brescia, preserved with other remnants of the Doge's armoury in the Palazzo Ducale, Venice.[42] This can be identified with some degree of certainty as the gun described in the 1548 inventory of that armoury as *uno schioppo da serpa con tre cane no 1*.[43] The three barrels of the Venice pistol are made separately and are joined only at the breech where the hooked end of each breech-plug attaches to a rotating plate. The barrels are rotated by hand and are held in the firing position by a catch on the top of the stock. The stock is plain and straight with a hooked butt. Although not identical, the Ashmolean barrels may perhaps be compared to this revolving gun, and were probably originally equipped with a similar matchlock mechanism. Certainly the notched-block backsights with tubular covers which occur on the barrels of the Venice gun warrant direct comparison with the similar sights on the Ashmolean barrels. Such tubular backsights were relatively common in Europe in the early sixteenth century and appear on various guns including a south German matchlock musket dated 1537, two south German wheel-lock carbines made for the Emperor Charles V in 1530 and 1531 respectively, and a wheel-lock gun bearing the arms of the monastery of Monserrat in Spain, made either in Spain or south Germany in 1546.[44] Spencer refers to various other examples of tubular backsights, but those he quotes are on wheel-lock pistols of the second half of the sixteenth century and are thus perhaps not directly comparable.[45]

Another three-barrelled matchlock revolving gun which may be compared to the Ashmolean barrels is in the Civico Museo delle Armi Luigi Marzoli, Brescia.[46] It too appears to be of Italian, and probably Brescian, origin. In construction it is very similar to the Venice pistol, but it has a triangular 'fish-tail' butt, and backsights without tubular covers. The pans and pan-covers of the Brescia pistol are similar to those on the Ashmolean barrels, although the pan-cover arms are straight, not curved. It is possible that this type of pan and cover may be an Italian feature. Certainly an Italian wheel-lock pistol of about 1530 in the Tower of London[47] has a pan and pan-cover of this form, the cover with a curved arm, identical to those on the Ashmolean barrels. However, very similar pans and covers also occur on a curious combination holy-water-sprinkler and four-barrelled matchlock musket in the Los Angeles County Museum of National History, and this weapon must be of German origin.[48] Spencer also draws a comparison between the pan-covers of the Ashmolean barrels and those found on a hackbutt barrel made in Thorl, Austria, by Sebald Pogel in about 1500.[49] The cover on the latter gun, however, is not close enough in form to the covers on the Ashmolean barrels to be directly comparable.

There is, therefore, little reason to doubt the European origin of these barrels, and it is possible to suggest that they may have formed part of a pistol made in Italy in the first half of the sixteenth century.

There appears to be a mistake in the remarks made about these barrels by Ffoulkes and quoted by Spencer.[50] Ffoulkes compares the pans and covers of

[41] Hermitage Museum, Leningrad, no. 105; illustrated in Tarassuk 1972, no. 11.

[42] Palazzo Ducale, Venice, no. N 30; see Hoff 1969, 2. 247–8.

[43] de Lucia 1908, p. 105.

[44] Respectively: Bayerisches Nationalmuseum, Munich, no. 260; Real Armeria, Madrid, nos. K32 and K 30; Real Armeria, Madrid, no. K 7.

[45] Spencer 1975, pp. 257–9.

[46] Illustrated in Gaibi 1962, p. 95, pl. 11 A–B; id. 1978, pl. 24–5.

[47] Armouries, HM Tower of London, no. XII 1765.

[48] Belous 1964, p. 45, no. 224.

[49] Waffensammlung, Vienna, no. A 2331. See, respectively Spencer 1975, pp. 257–9; Schedelmann 1972, p. 1, Abb. 1.

[50] Respectively: Ffoulkes 1912, p. 51; Spencer 1975, pp. 257–9.

the Ashmolean barrels with those on a revolving arquebus in the Tower of London,[51] whereas in his own catalogue of the Tower Armouries he describes the gun with this number as a flintlock grenadier's carbine, the lock dated 1728, and this gun remains in the Tower collection to this day with the same number.[52] Nor does the error seem simply to be a numerical one, for no revolving arquebuses of relevant type appear in Ffoulkes's catalogue of the Tower, nor in the present collections.

G. M. Wilson

90. COMBINED AXE-PISTOL (Fig. 44, Pl. LXV). Head, and combined haft and barrel of iron, the handle now missing. The head (Fig. 44a) is attached to the round muzzle by a socket, externally of octagonal form. The socket sits on a wide collar and is secured by a large ring-headed screw which passes through one of its faces and engages with the barrel. Each face of the socket is etched and gilt with a squared quatrefoil. From the socket spring the axe-blade and its opposing fluke. The axe-blade has a crescentic leading edge, both ends of which are now broken off. The blade tapers towards the socket, the upper and lower edges being of concave form. At the neck the blade is drilled with three round holes. The straight fluke is of diamond section and springs from an octagonal knop which bears traces of gilt decoration. The tip of the fluke is now missing.

Plain round barrel or haft. The barrel itself ends just behind the touch-hole, but a tube of the same section and 84 mm long has been brazed on to the breech to extend the haft. From the end of the false-breech springs a central tang of rectangular section for the attachment of the missing handle. The right-hand side of the barrel is flattened forward of the false-breech and above the lock assembly, and is drilled with a touch-hole. The left-hand side of the barrel has a similar but less pronounced flat. There is a raised lateral moulding of asymmetrical wave section on the top of the false-breech. Ahead of the lock two similar but plainer transverse mouldings bound a panel of etched decoration. All three mouldings (Fig. 44b, d, e) are etched with guilloche ornament involving a central octofoil and crude leaf motifs. The panel between the two forward mouldings (Fig. 44c) is etched with four involved 'S'-scrolls enclosing a plain central roundel and surrounded by crude leaf and scroll ornament. At the muzzle the collar on which the axe-head sits forms the top of a moulded capital engraved with vertical striations and gilt.

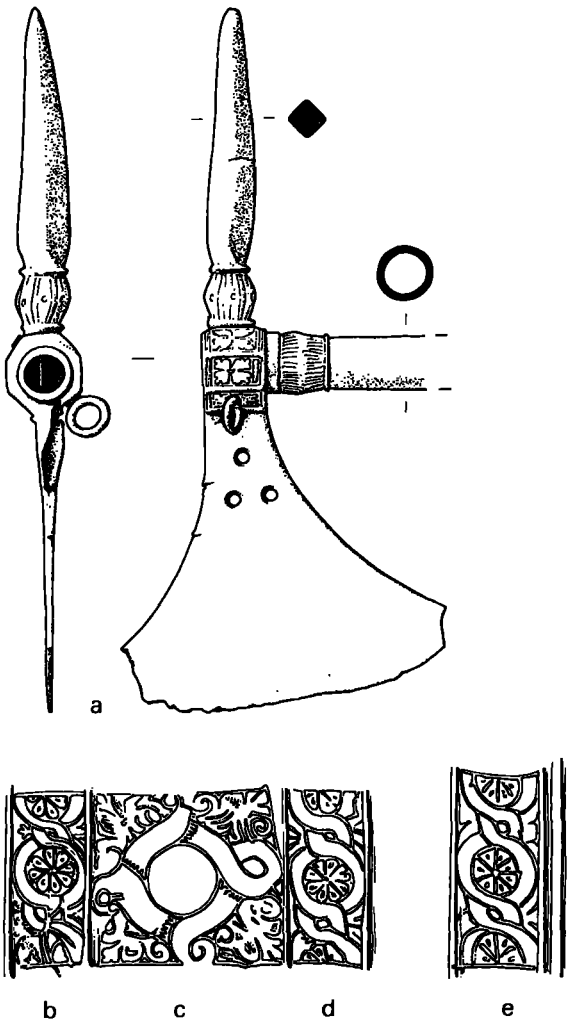


Fig. 44. Combined axe-pistol, No. 90: a, head and muzzle, Scale 1:2; b–e, expanded view of ornament, Scale 1:1

The lock assembly is of iron and consists of a flat, rectangular lock-plate mounted on the left-hand side of the barrel. Strips of iron are brazed to the leading and lower edges of this plate to form an open box on the right-hand side of the barrel. The rear of the box is open, but there is a tongue on the rear edge of the lower plate which suggests that this end may have been closed and secured by the missing handle. The cover-plate is now missing. At

[51] Armouries, HM Tower of London, no. XII 266.
[52] Ffoulkes 1916, pp. 363–4.

the front the lock assembly is attached to the barrel by a screw which passes through a pierced lug dovetailed and brazed to the underside of the barrel. The lock assembly is now attached to the barrel only at the rear by the trigger, but it was probably originally also secured by the handle and, perhaps, by a screw, for just to the left of the trigger is a threaded hole on the underside of the barrel. The leaf-shaped trigger pivots on a lateral screw within the hollow extension of the haft to the rear of the breech. No part of the internal lock mechanism survives, but the lock-plate bears fragments of an external mechanism, the purpose of which is unclear, consisting of: a V-spring mounted towards the rear of the plate, the lower arm longer than the upper arm; above this spring an arm, pivoted at the rear, to the front of which is attached a screw-headed knob; and, towards the front of the plate, a diagonally-mounted triangular bracket bearing a screw, the tip of which points upwards and forwards.

1656 p. 44: *Poleaxe with a Pistoll.*
1685 B no. 19: *Cestra bellica cum bombarda, manubrium aereum habet eleganter operatum.*

Dimensions: Length (overall) 567 mm, (internal, of barrel) 422 mm; Width (max at head) 84 mm; Calibre 9.5 mm.

Bibliography: ffoulkes 1912, p. 41, no. 68.

There was a considerable vogue for combination weapons during the last three-quarters of the sixteenth century and first half of the seventeenth century when the gun, although in general use, was still considered by some to be an unreliable novelty. In such circumstances the idea of combining a gun with a bladed weapon, or even with another projectile weapon such as a crossbow, was particularly attractive, and many gunsmiths and armourers devoted considerable energy to producing unusual and often impractical combination weapons for their patrons. Amongst the most popular, and certainly the most reliable, combinations produced at this time were maces, hammers, and axes, the hafts of which formed the barrel of a pistol. Many of these had a stopper which could be inserted into the muzzle to prevent dirt from entering the barrel when not in use as a firearm, and often this stopper was equipped with a top-spike. The majority of these weapons were wheel-locks, but the shape of the lock-plate of this example suggests that it was more likely to have been equipped with a matchlock. Matchlock combination weapons, although rare, are not unknown, and the rectangular lock assembly on this example may be compared to the lock on a combined mace and matchlock pistol in the Bargello, Florence, which is believed to have been made in Italy about 1550.[53]

ffoulkes believed that this axe-pistol was of Italian origin, and there is some evidence in favour of such a suggestion.[54] The head of this example is very similar to the heads of a group of Italian axes which it is believed were made in Lombardy in the mid-seventeenth century.[55] Most of these have hollow metal hafts which contain retractable spring-loaded top-spikes. The head of the Ashmolean axe-pistol compares particularly closely with one in the Museo Poldi Pozzoli,[56] which has a similar crescentic blade, pierced with a rosette of seven holes, and a straight fluke of triangular section springing from a rounded baluster moulding. Another similar axe in the same collection[57] may also be compared to the example in the Ashmolean: instead of a fluke it has a hammer-head in the form of a four-clawed bird's foot, but the form of the axe-blade is very similar to that on the Ashmolean axe-pistol, and it too is pierced with three holes, and also with a 'broad-arrow' shaped cut-out.

Despite these parallels it is not possible definitely to identify this axe-pistol as a combination weapon made in Italy in the early seventeenth century, for the barrel decoration seems to be entirely Scottish in style. Raised transverse mouldings such as decorate the barrel of this weapon are also commonly found on the barrels of Scottish snaphance guns and pistols dating from the late sixteenth and early seventeenth centuries.[58] Usually, as here, they are confined to the upper surface of the barrel, and are frequently situated, as on this example, both at the breech and ahead of the lock. The distinctive form of moulding found at the false-breech of this axe-pistol can also be found, usually similarly decorated, on a number of Scottish guns. The positioning of the mouldings on the barrel of this axe-pistol, one at the breech and two enclosing a panel

[53] Museo Nationale del Bargello, Florence, no. R 150; Boccia and Coelho 1975, nos. 370–3.
[54] ffoulkes 1912, p. 41, no. 68.
[55] Boccia and Coelho 1975, nos. 604–5.
[56] Museo Poldi Pozzoli, Milan, no. 1726.
[57] Museo Poldi Pozzoli, Milan, no. 1816.
[58] See Blair 1975, pp. 61–101.

of engraved decoration just ahead of the lock, is identical to that found on the barrels of a group of Scottish pistols all of which have this distinctive form of moulding. This group includes: the barrel of a pistol bearing the cypher of James VI of Scotland and I of England, which probably dates from the first decade of the seventeenth century, a pair of snaphance pistols bearing the mark ascribed to James Low of Dundee and dated 1602, a snaphance long gun dated 1614 and bearing a mark which has been associated with Robert Alison II of Dundee; a snaphance pistol by Gray of Dundee, dated 1627, and a pair of snaphance pistols with brass stocks and right- and left-hand locks, the barrels dated 1629.[59] The decoration on the barrel bearing the cypher of King James is almost identical to that found on the barrel of this axe-pistol: the mouldings are similarly engraved with guilloche ornament involving octofoils, and the panel between the two forward mouldings is engraved in the same distinctive manner as the panel on the barrel of the axe-pistol with four 'S'-scrolls enclosing a central roundel bearing the royal *IR* cypher. A panel of similarly-engraved ornament is found on a barrel dated 1583 in the Banff Museum:[60] it bears on the central roundel the arms of Sir Walter Ogilvie of Deskford and Findlater, High Chancellor of Scotland.

It seems probable, therefore, that at least the barrel of this axe-pistol was made in Scotland in the early seventeenth century. The form of the axe-head might suggest that it was made in Italy at about the same time, and there is no reason why the two elements could not have been made in different countries and then assembled in either one of them. If this was the case, the weapon was probably assembled in Scotland, for the angular leaf-like quatrefoils etched on the socket of the axe can be related to similar angular foliate decoration found on contemporary Scottish firearms.[61] It is likely, however, that the weapon was made entirely in Scotland, the head possibly being modelled on contemporary Italian examples.

This combination weapon can be identified with some confidence as the 'Poleaxe with a Pistol' mentioned in the 1656 catalogue and as No. 19 of the 1685 catalogue. In this latter entry it is described as having 'a handle of brass, elegantly decorated', which is especially interesting in view of the frequency with which richly engraved mounts, stocks, and even barrels of brass can be found on Scottish firearms of the early seventeenth century.

G. M. Wilson

91. AXE (Pl. LXVII). Axe-head of bright steel made of one piece of metal wrapped round and hammer-welded to form a socket. The leading edge is crescentic and from it the head tapers towards the angular socket; on the lower edge the taper is interrupted just before the socket by a large notched cut-out. In section the axe-head is slightly curved, with the socket off-set so that the convex side of the blade is smooth to the chamfered rear edge of the socket. On the concave side the blade is stepped at the shoulder just before the socket. The surface of the axe-head is covered with etched decoration. On both sides a sunken frieze runs around the edges of the blade, containing the following verses, written in Gothic script and now partly illegible.
On the convex side:

Wer auff einem frumen Leuget.
und einen einfaltigen betreugt
und wer zwitracht zwischen Ehleuden macht.
der drei ding der deuffell lachot.

On the concave side:

Sich an dich und nicht mich.
du ich onrecht so hudt dich
halt hoh gut jdermann:
wer weis was ein ander kann.
frisch her an m[ich so ic]h an dich:
stichst du mi[ch so] hau ich dich.
anno 1571.

The verses have been translated by Sir Arthur Evans as follows:

Who 'gainst a pious man doth lie
And a simple man beguiles,
And who maketh strife 'twixt man and wife,
At these three the Devil smiles.

Look to thyself and not to me;
Do I unright, then guard thyself
Hold highly good every man
Who knows what another can do.
Swift down on me so I on thee
Stick'st thou me, then I hew thee.[62]

[59] Respectively: Armouries, HM Tower of London, no. XII 5109 (for an illustration and a full description of the Tower barrel, formerly in the collection of G. P. Jenkinson, see Eaves 1976, pp. 314–16, pl. 114); Tøjhusmuseet, Copenhagen, no. B 345; Armouries, HM Tower of London, no. XII 63; National Museum of Antiquities, Edinburgh, no. 1 H 324; Livrustkammaren, Stockholm, nos. 5685–6.

[60] Now on loan to the National Museum of Antiquities of Scotland, Edinburgh.

[61] For instance, in the Stockholm pistols mentioned in n. 59.

[62] Houlkes 1912, p. 43.

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

On the off-set side of the socket, the verses do not continue along the rear edge, the frieze being decorated here with guilloche ornament. Within this frieze, and a double-line border, both sides of the blade are decorated with running floral scroll-work on a raised dot ground, dominated by 'C'-scrolls and trefoil finials and involving a profile head facing the blade-edge and surrounded by a circular floral wreath. On the convex side the head is that of a woman wearing a head-dress; on the concave side the head is that of a man wearing an embossed burgonet. The rear of the socket is similarly decorated with a male head. The decoration is here much rubbed but the head bears a marked similarity to that on the side of the blade and appears to be wearing either a hat or a helmet.

Attached to the head are the remains of a wooden haft of rectangular section with rounded corners. The haft retains traces of bone inlay in the form of gently curving lines, and is recessed for larger inlays, now missing. The front and back of the haft are channelled out for a wide, straight band of inlay, the channel retaining traces of glue. Either side of the haft has a large oval-topped recess just below the socket, and beneath this are traces of further shaped recesses for inlaid plaques. The shoulder of the shaft has been bound with cloth, but this has now become attached instead to the inside of the socket.

1656 p. 44: *German Poleaxes*, or
1656 p. 45: *Count Mansfield's Poleaxe, called Pussacon.*
1685 B no. 144: *Securis Saxonica characteribus notata saxonicus; manubrium ligneum ebore perbelle insertum.*

Dimensions: Width (across head) 35 mm; Depth (overall) 202 mm.

Bibliography: Houlkes 1912, pp. 42–3, no. 81, pl. IX.

This axe is decorated in the 'South German' style popular in Saxony in the second half of the sixteenth century. Similar use of the 'C'-scroll motifs, of trefoil finials, and of guilloche or related wave ornament can be found on many of the weapons from the Royal Armoury of the Electors and Kings of Saxony which are now in the Historisches Museum, Dresden, for instance a round shield made in Nürnberg in about 1560.[63] However, it has been suggested that there is also something of the north German style in the decoration of this axe, and that the etcher may have learned his trade in the north, perhaps in Cologne or Brunswick in Lower Saxony.[64] Certainly the combination of three-leaf scroll-work and a dialect inscription suggests a possible comparison with a group of daggers with etched blades which may have been produced in Lüneburg in Lower Saxony.[65] The decoration on this axe is, however, both more formal and of better quality than that on the daggers, and the inscription on the axe is in a south German, Saxon dialect rather than in the form of Middle-Low-German found on the daggers.[66] Rhyming inscriptions such as that on the axe are not uncommon on Saxon weapons. One is found, for instance, on the blade of a sword dated 1547 which has a cast silver hilt and scabbard made by the Nürnberg goldsmith Lorenz Trunck.[67] This sword has been identified as one which appears in the 1567 inventory of the Saxon Electoral Armoury, but this identification has recently been called into question.[68] Also of interest is a hunting-knife dated 1565 which is believed to have been made in Innsbruck.[69] Etched on the blade within a sunken panel, and in a script similar to that found on the Ashmolean axe, is a south German dialect inscription. Flanking this panel are two further sunken panels decorated with rather crude foliate 'C'-scrolls.

In general form the axe compares most closely to one of a group in the Historisches Museum, Dresden, which are all said to have belonged to Elector Augustus of Saxony, who reigned from 1553 to 1586.[70] The Dresden axe has a similar crescentic head with a somewhat larger notched cut-out on the lower edge just before the socket. It too has an off-set and angular socket with a large step at the shoulder of one side of the blade. The head is decorated with etched 'C'-scrolls and trefoils and a central oval cartouche bearing the impaled arms of the Electors of Saxony and the Arch-Marshalship of the Empire. Just behind the leading edge of the blade the decoration is bordered by a band of wave ornament similar to the guilloche border found on the socket of the Ashmolean example. The Dresden axe is complete with its haft, which is only some 130 mm long. In section it follows the angular form of the socket and is decorated with inlays of bone

[63] Historisches Museum, Dresden, no. N 131.
[64] I am indebted for this suggestion to Dr Ortwin Gamber, Director of the Waffensammlung, Vienna.
[65] Ullman 1961, pp. 126–7; Blair 1974, pp. 168–70, no. 59, fig. 67.
[66] I am again indebted to Dr Gamber for this information.
[67] Historisches Museum, Dresden, no. VI/375.
[68] Schobel 1975, p. 85, no. 47.
[69] Tiroler Landesmuseum, Innsbruck, no. ES 113.
[70] Illustrated in Rade n.d., pls. 13–14.

which include a plain longitudinal band on the back, running floral scroll-work on the sides, and, on the enlarged, hooked butt, a large panel engraved with a figure scene. Because of the similarities between the Dresden and Ashmolean axes, it seems possible that the Ashmolean axe may also have had a short haft, and what remains of the decoration on the surviving fragment of haft suggests that the decoration too may not have been dissimilar.

The purpose for which such axes were made is unknown. However, the date 1571 which appears on this example tempts comparison with a well-known group of decorated staff-weapons produced for the marriage of Maria of Bavaria and Archduke Karl II of Styria, in Vienna, on 26 August 1571.[71] The presence on the axe-head both of male and female heads and of a moralistic reminder that to come between man and wife is the devil's work, provides further pretexts to suggest a link with the wedding celebrations. However, this axe is very different from other weapons in the group and it is difficult to see why a Saxon dialect inscription would appear on a weapon intended to be carried at a wedding in Vienna.

The last couplet of the verse found on this axe could perhaps suggest another purpose for the weapon, for it would appear to describe a formal combat between two opponents:

> Swift down on me so I on thee
> Stick'st thou me, then I hew thee.

There is, therefore, a possibility that it was intended for use as a duelling weapon. Certainly duelling with hand axes was popular in Bohemia at this time and it is possible that it could have spread from here to neighbouring Saxony.[72] The form is not that of a fighting axe, however, and all that can be said with certainty is that this axe is a highly decorated example, probably intended for some ceremonial purpose.

This axe can be identified as that described in the 1685 catalogue with considerable confidence, but it cannot be related with certainty to any entry in the 1656 catalogue, despite ffoulkes's definite identification of it as 'Count Mansfield's [*sic*] Poleaxe, called Pussacon'.[73] Superficially this may appear reasonable, especially as the Mansfelds were an old and famous Saxon family, but there are several serious objections to this identification. The first relates to the likely identity of the 'Count Mansfield' mentioned in the Tradescant catalogue. ffoulkes conveniently identifies him as a Count of Mansfeld who was born in 1517 and died in 1604, and who therefore could have been the owner of a weapon made in 1571. There is no proof, however, that this Count, Peter Ernst I, was the 'Count Mansfield' of the 1656 catalogue. The entry could equally well refer to, for instance, Albrecht III, Count of Mansfeld (1480–1560), or Philipp Ernst, Count of Mansfeld (1560–1631), or to the considerable number of members of the various branches of the Mansfeld family who in the sixteenth and early seventeenth centuries bore the title of Count.[74] It is also possible that the reference is to Karl, Prince of Mansfeld (1543–95), or even to Ernst Mansfeld (1585–1626), the natural son of Count Peter Ernst, who won renown as a general in the Thirty Years' War (1618–48). Indeed it would appear that Ernst, perhaps the most famous of the Mansfelds, was often referred to as 'Count'.[75] Another objection to ffoulkes's identification relates to contemporary usage of the term 'poleaxe'. This spelling seems first to appear in the seventeenth century, replacing the older 'polaxe' or 'pollaxe', the term 'poll' meaning 'head', and it has given rise to the misconception that the weapon so named was simply an axe on a pole. However, although contemporary usage of the term seems to be ill-defined, there is little or no evidence that it was ever used to describe an axe such as this. In the seventeenth century the term seems generally to have been applied either to long-handled axes with blades balanced by a curved fluke or hammer-head, or to long- or short-handled hammers with heads also balanced by a fluke.[76]

Thus it would seem unwise to follow ffoulkes in a definite identification of this axe as 'Count Mansfield's Poleaxe', especially as the 1656 catalogue also contains an entry for an unspecified number of 'German Poleaxes'. Even if this type of axe could have been described as a pole-axe, which is to be doubted, it would still be impossible to decide which, if either, of these entries refers to this particular axe. Indeed both entries seem more likely to apply to the seventeenth-century war-hammer, No. 92, and it must therefore be doubted

[71] Thomas 1964, pp. 14, 16.

[72] I am again indebted to Dr Gamber for this information.

[73] ffoulkes 1912, p. 43.

[74] All the possible candidates are listed in van Loringhoven 1976, pp. 41–5.

[75] See *Allegemeine Deutsche Biographie* (Leipzig, 1884), vol. 20.

[76] See Blair 1962, pp. 29–30.

whether this axe formed part of the Tradescant collection.

Ffoulkes was also wrong in describing the decoration of the head of the axe as 'finely chased', and stating that there were no traces of inlay on the haft.[77] The decoration on the head is etched, and traces of bone inlay do survive on the remains of the haft, as described above.

G. M. Wilson

92. POLLAXE (Fig. 45, Pl. LXVI). Iron head bearing traces of gilt decoration. The socket is in the form of a large sleeve which has been shrunk on to the longer cylindrical top-cap of iron which protects the top of the haft. The sides of the socket are slightly flattened and are extended at top and bottom to form tangs with triangular, feathered ends. The tangs are drilled to accept the two square-headed bolts which attach both the socket and the top-cap to the haft. The upper bolt is now missing. The hammer-head and fluke spring from raised circular bosses half-way along the socket. Where it springs from the socket the shank of the hammer-head is of octagonal section, each face indented with a rounded depression. The shank then tapers to a rounded waist before expanding to a square collar which supports a cube with each of its corners chamfered. Beyond this is another square collar on to which is riveted the hammer-head itself. This head consists of a square plate beaten into the form of a truncated pyramid. The shank of the fluke is similar to that of the hammer-head. Where it springs from the socket it is of octagonal section, each face indented with a rounded depression. It then tapers to a rounded waist before expanding to a rounded collar from which springs the fluke itself. The down-curved fluke is of octagonal section, each face being concave or hollow-ground.

Rounded wooden haft, considerably worm-eaten and bearing traces of a red velvet cover. The haft is strengthened for its entire length by long langets which extend from top-cap to shoe and are attached by five dome-headed rivets. Plain cylindrical shoe with a flat end, attached to the haft by a brass rivet, almost certainly a later replacement.

1656 p. 44: *German Poleaxes*, or
1656 p. 45: *Count Mansfield's Poleaxe, called Pussacon.*

Dimensions: Length (overall) 0.70 m, (hammer-head and fluke) 253 mm.

Bibliography: Ffoulkes 1912, p. 41, no. 62, pl. XII; Paszkiewicz 1975, p. 228, n. 7, pl. 84A.

Pollaxes or war-hammers of this general type were popular throughout much of Europe, including England, in the late sixteenth and early seventeenth centuries. A portrait of Sir Alexander Radclyffe (1577–99) at Ordsall Hall Museum, Salford, includes a representation of a long-handled pollaxe with a head of similar proportions to that of this example and of very similar form to the head of a pollaxe in the Tower of London, which forms part of the old Tower collection and which may well be of English origin.[78] Another similar pollaxe, found locally, is in Dyrham Church, Gloucestershire. A further pollaxe with a head of the same general form, in a private collection, bears the arms of the Vernier family of Venice, and another, now in Nürnberg, datable to 1611, bears the arms of three Nürnberg patricians.[79] The Ashmolean pollaxe, however, is undoubtedly of East European origin, and is related to a group of war-hammers characterized by heads similar to that on this example, with long tanged sockets, which are often set some way down the haft. Many examples of this type can be found in the museums of Eastern Europe.[80] Hammers of this type seem to have been especially popular in Poland and Hungary, but examples from Croatia are also known.[81] It has been suggested that the unusual form of these hammers is the result of Turkish influence, and both the form of the decoration on many examples and the etymology of the names by which they were known in Poland and Hungary suggest that this is true.[82] Unfortunately the terminology used about such hammers is very confused, and they have been referred to by a variety of names, chiefly *czákany* (Hungarian) and the related *czekan* and *nadziak* (Polish). Paszkiewicz has tried to bring some order to the confusion and has suggested that all Polish hammers of this particular form should be referred to by the name *nadziak* and that the term *czekan* should only be used to describe the typical Polish war-axe.[83] However, he admits that a clear distinction between the two terms did not develop until the mid-eighteenth

[77] Ffoulkes 1912, p. 43.
[78] Armouries, HM Tower of London, no. VIII 27.
[79] Germanisches Nationalmuseum, Nürnberg, no. W 1391.
[80] Notably in the Muzeum Narodowe, Krakow; Państwowa Kolekcja Zbiorów Sztuki na Wawelu, Krakow; and the Magyar Nemzeti Muzeum, Budapest.
[81] See Landeszeughaus am Landesmuseum Joanneum, Graz, 1974, p. 34, no. 79, pl. 7.
[82] Paszkiewicz 1975, p. 225.
[83] Ibid., pp. 225–6.

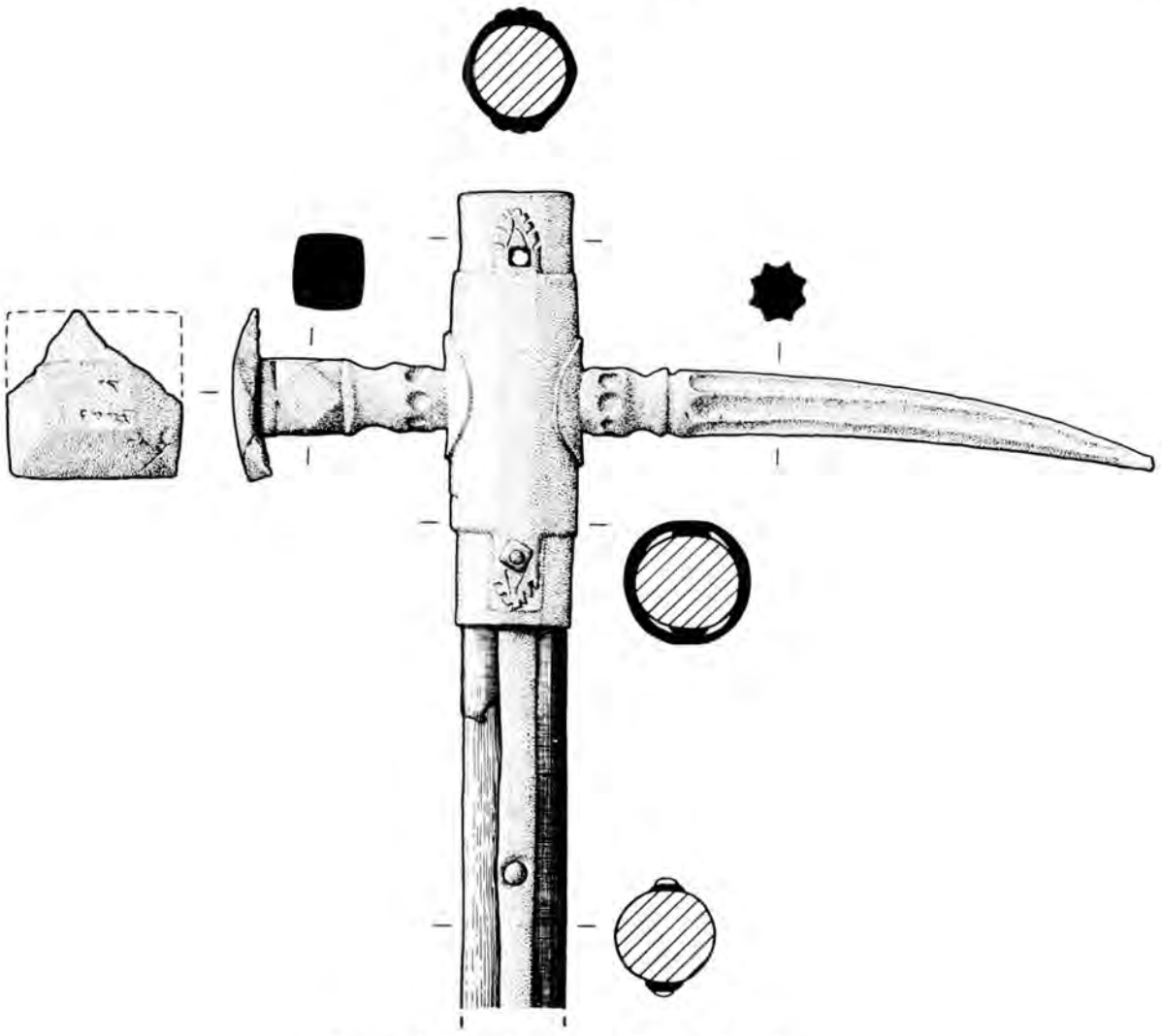


Fig. 45. Pollaxe, No. 92: detail of head. Scale 1:2

century and that sixteenth- and seventeenth-century writers used both terms indiscriminately. In Hungary it appears that the term *czákany* has always been applied to this particular form of hammer.[84]

The Ashmolean hammer is very similar to one in the Wallace Collection, which has also been likened to a detached hammer-head in the Fitzwilliam Museum.[85] Paszkiewicz describes both the Ashmolean and the Wallace Collection hammers as Polish *nadziak*, but he gives no supporting evidence for this attribution.[86] In the Historisches Museum, Dresden, is another hammer of very similar form, although both more elegantly proportioned and more richly decorated than the examples mentioned above.[87] It has a head which is almost identical to that on the example in the Wallace Collection, and a socket which fits over the top-cap of the haft in the same way as that on the

[84] János 1971, pp. 34–7.

[85] Respectively: Wallace Collection, London, no. A 977; Fitzwilliam Museum, Cambridge, Henderson bequest; see Mann 1962, 2, 457.

[86] Paszkiewicz 1975, pl. 84.

[87] Described and illustrated in Haenel 1923, p. 144, pl. 71.

Ashmolean hammer, but unlike these other examples the Dresden hammer has always been considered to be a Hungarian *czákany*.[88] There must therefore be some doubt as to whether these hammers are of Polish or Hungarian origin. János increases the confusion by describing as Hungarian *czákany* a considerable number of hammers from Hungarian museums which relate very closely in form to many of the hammers described by Paszkiewicz as Polish *nadziak*.[89]

None the less, if the exact country of origin of this weapon is uncertain, there is little doubt that it was made in Eastern Europe in the first half of the seventeenth century, probably either in Poland or Hungary. It cannot definitely be identified in either the 1656 or 1685 catalogues, although it might be one of the 'German Poleaxes' mentioned in the Tradescant catalogue, or 'Count Mansfield's Poleaxe, called Pussacon' which is also listed in the 1656 catalogue. ffoulkes related this latter entry to the Saxon axe dated 1571 (No. 91),[90] but there are a considerable number of objections to such an identification, as discussed above (under No. 91). This war-hammer, however, is the type of weapon which could have been described in seventeenth-century England as a pollaxe or poleaxe, and it is therefore very possible that it may relate to one or other of these two entries, although to which one, if either, it is now impossible to say.

G. M. Wilson

93. TWO-HANDED SWORD (Pl. LXVIII). Iron hilt now considerably pitted with rust. Spherical pommel with a moulded stand. Wide quillons of round section with finials of crude acorn form. The quillons are angled slightly towards the pommel and one is considerably bent. The quillons expand in the centre into a triangular quillon-block with concave sides and a pronounced medial ridge. From the quillon-block spring two large oval side-rings each of which expands at the centre into a crude ovoid knop. The grip is missing.

Long, straight, double-edged blade tapering to a spear point. The blade is of stout hexagonal section with a pronounced medial flat on either side which tapers to a medial ridge about 100 mm from the tip. A ricasso of squared section extends for 16 mm from the hilt. From either edge of the ricasso, half-way along its length, springs a wing-shaped lug forming a forward guard. Each lug has a flattened end, a straight leading-edge which is angled slightly towards the hilt, and a rear edge cut in a concave curve. For 31 mm from the hilt each side of the blade has a deep central fuller. Beyond the ricasso the fuller is engraved on one side *SAHA GVN* and on the other *ELVIE IO*. At the end of each fuller is a punched cross motif. The form of the fuller and ricasso is emphasized on either side by single-line engraved borders. The single line around the edge of the ricasso ends with stamped circles both at the shoulders of the blade and at the lugs, where the line is broken. One side of the ricasso is stamped twice, on either side of the fuller, with a crowned *S* mark.

1685 B 104: *Romphaea Anglicana anceps, qua Henricus 5^tus^ Anglorum Rex contra Gallos pugnavit.*

Dimensions: Length (overall) 1.73 m, (blade) 1.33 m.

Bibliography: ffoulkes 1912, pp. 29–30, no. 10, pl. 7.

Two-handed swords of this general type were popular in Europe throughout the sixteenth century, and the majority of surviving examples are usually described as German, Italian, or Spanish. Although highly decorated ceremonial swords were frequently made to this general pattern, these two-handed swords were essentially military, and ffoulkes would appear to be wrong when he calls this example a 'foining' (thrusting) sword 'used for fencing'.[91] Certainly there is no evidence to support his suggestion that 'possibly this is a wafter or practice sword similar to those scheduled in the 1455 Inventory of the Tower'. ffoulkes here follows Meyrick and others in a misreading which led Meyrick to suggest that wafting swords 'had the flat of the blade placed in the usual direction of the edge and hence wafting the wind at every blow'.[92] The relevant entry, however, mentions not 'wafters' but 'wasters': *ffirst viij swerdis and a long blade of a swerde made in wasters some gretter and some smaller for to lerne the kyng to play in his tendre age*.[93] By the seventeenth century the term 'waster' seems to have been generally applied to practice swords with wooden blades, and it would therefore seem reasonable to suppose that these practice swords made for King

[88] Respectively: Haenel 1923, p. 144, pl. 71; János 1971, p. 36, fig. 50.

[89] Respectively: János 1971, pp. 34–7; Paszkiewicz, 1975, pls. 81–2, 84.

[90] ffoulkes 1912, pp. 42–3, no. 81.

[91] Ibid., p. 30, pl. 7, no. 10.

[92] Meyrick 1824, p. 144.

[93] PRO, C66/480, John Stanley's list of goods issued from the Armoury in the Tower of London, 33 Henry VI.

Henry VI may also have had wooden blades.[94] Certainly there is no evidence to suggest that the term 'waster' could be applied to a two-handed sword such as the Ashmolean example.

The blade of this sword can be related to the blades of a number of other two-handed swords, all of which have the same distinctive form of lugs. These include: a blade in the Cleveland Museum of Art with a similar ricasso and fuller, signed *IVAN LVIS* and bearing the Toledo mark; a blade in the same collection with a similar ricasso and fuller, both emphasized by single-line engraving, signed *IVLIAN*; a blade at one time in the Brett collection, the fuller of which is inscribed *IESUS MARIA*; and a blade with a triple fuller, now in the Museo Stibbert, Florence, signed *ADRIAN DE ÇAFRA ME FECIT EN SAN CLEMENTE* and dated 1587.[95] The considerable similarities between these blades suggests that they were all made at the same period, while the Stibbert blade seems to date the whole group to the late sixteenth century. The Ashmolean, Cleveland, and Stibbert blades carry either inscriptions or marks which suggest that they may have been made in Spain. The Ashmolean blade bears the name of a member of the Sahagun family, several generations of whom worked as swordsmiths in Toledo from at least 1538 until well into the seventeenth century.[96] It is stamped with the crowned *S* mark which appears to have been used by several members of the Sahagun family but which was also used by other Spanish makers of the period and their imitators. One of the Cleveland blades is stamped with the Toledo mark and inscribed with the name of the unrecorded maker Juan Luis, whose name also appears on a rapier blade in the Armeria Reale, Turin.[97] The other Cleveland blade is simply signed *IULIAN*, perhaps intended for the maker Julian de Rey the younger, who is believed to have worked in Toledo, Valencia, and Saragossa in the late sixteenth century. The Stibbert blade bears the name of Adrian de Zafra, who is recorded as working both in San Clemente (New Castille) and in Toledo at the end of the sixteenth and the beginning of the seventeenth century. However, it is unwise to accept too readily the apparent evidence for the Spanish origin of these blades, for at this period Spanish blades were much sought after, and to meet the demand many blades made elsewhere were given false Spanish marks and inscriptions. The name Sahagun was especially favoured by these imitators, and a great number of blades stamped with either the German wolf mark or the Amsterdam town mark also bear spurious Sahagun inscriptions. All the blades discussed above may, of course, be genuine Spanish products, but it is impossible to be certain, especially since there is a further blade of this type in the Wallace Collection, the origin of which is very doubtful.[98] It has a similar ricasso decorated with single-line engraving and eight-pointed stars, a single central fuller, and lugs of the same distinctive form, although far smaller than on the other blades of this type. It is signed *IOANES DEAGIRE* and bears an otherwise unrecorded mark. The maker may have been a member of the de Aguire family of swordsmiths who are recorded as working in Toledo from the late sixteenth century to the mid-seventeenth century. However, the spelling of the Christian name appears to be more German than Spanish, and it is, therefore, possible that this is a German copy of a Spanish type of blade.

If the Ashmolean blade is a genuine Spanish one, made by a member of the Sahagun family, its apparent date and the wording of the inscription on the blade suggest that it was probably made by Alonso de Sahagun, who is known to have been working from at least 1570 until the second decade of the seventeenth century. Alonso was the father of three sons, all of whom worked as swordsmiths in Toledo, and it is therefore reasonable to suppose that, to avoid confusion with his sons, he may have signed himself, as on this blade, *El Viejo* (the elder). However, this interpretation has been disputed, and it has even been suggested that all blades signed in this way are later productions.[99] Evidence in favour of this last suggestion includes a sword in the Real Armeria, Madrid, with the blade signed *SAHAGUN EL VIEJO ANO DE 1651*.[100] It is interesting to note that there are at least two other blades stamped with identical crowned *S* marks and bearing the same curious inscription, with the word *Viejo* split in two, as occurs on the Ashmolean

[94] See *Oxford English Dictionary*, s.v. Waster.

[95] Respectively: Cleveland Museum of Art, Ohio, no. 16.1509 (see Gilchrist 1924, pp. 88–9, no. E 11); Cleveland Museum of Art, Ohio, no. 16.1507 (see Gilchrist 1924, p. 89, no E 13); Brett 1894, pl. 58, no. 2; Museo Stibbert, Florence, no. 261.

[96] These and all subsequent biographical details concerning swordsmiths are taken from Baron de Cosson's MS 'Dictionary of Arms and Armour Makers', now in the Armouries, HM Tower of London.

[97] Armeria Reale, Turin, no. G 66.

[98] Wallace Collection, London, no. A 473.

[99] Mann 1962, 2. 253–4.

[100] Real Armeria, Madrid, no. G 95.

example: these are in the Wallace Collection and the Armeria Reale, Turin.[101] It is, however, impossible to tell whether these are all genuine Sahagun productions, or blades produced in imitation of the Spanish style in another workshop.

There remains, however, a possibility that the Ashmolean blade and the other similar blades mentioned above are genuine Spanish productions. It also seems possible that the hilt of the Ashmolean sword may have been made in the same area as the blade, for the two-handed swords in the Cleveland Museum which have comparable 'Spanish' blades also have hilts similar to that of this example, each with long straight quillons ending in bulbous finials, plain side-rings, and a concave-sided triangular quillon-block. The pommels of the Cleveland examples are different, being pear-shaped, but both the general style and the proportions of all three hilts are very similar. These similarities, combined with the fact that they all appear to be mounted on similar 'Spanish' blades, suggests that they may all have a common, perhaps Spanish, origin, but this is by no means certain, especially as at this time so many hilt styles were international. There is, for example, a group of two-handed swords, generally believed to be of Italian origin, the hilts of which are very similar to those of the 'Spanish' swords discussed above, although generally more lavishly decorated.[102] However, the three swords with 'Spanish' blades do seem to have more in common with each other than with this Italian group and therefore, with no real evidence to the contrary, it seems possible that both the blade and the hilt of the Ashmolean sword were made in Spain.

ffoulkes accepted that this was the sword described in the 1685 catalogue but refuted the 'romantic tradition' that it had belonged to King Henry V.[103] However, the description of the two-handed sword in this catalogue is certainly insufficient to enable a positive identification to be made and there is a possibility that this is not the sword referred to. G. M. Wilson

94. SWORD-BLADE (Fig. 46, Pl. LXVIII). Broad, double-edged blade tapering to a spear point. The faces of the blade are slightly rounded and both edges are considerably scored with cuts. At the forte the blade is etched and gilt on both sides with a panel of decoration within a serrated line border in the form of a canopy which has a cusped lower border and is surmounted by a cross. Only traces of the gilding now survive. Within the

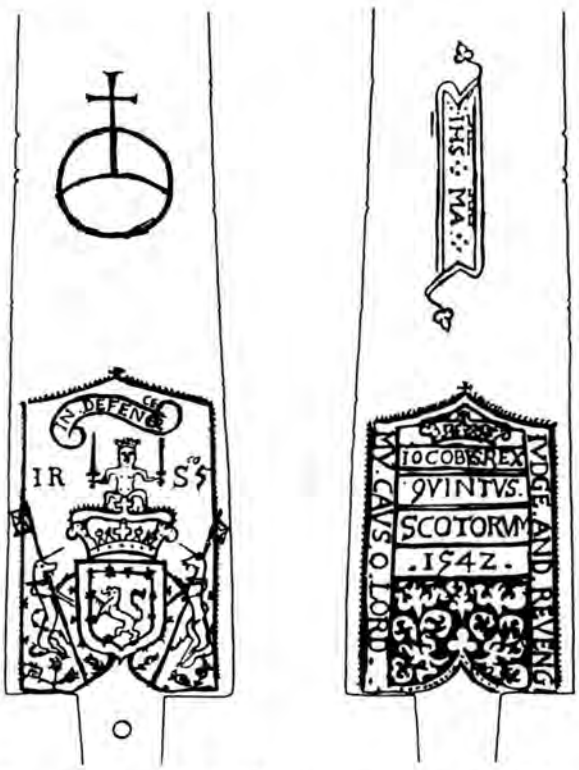


Fig. 46. Sword-blade, No. 94: markings on blade. Scale 1:2

border on one side is the inscription *IOCOBES . REX . / . QVINTVS . / SCOTORVM / . 1542 .* surmounted by a crown. Below is a panel of symmetrical foliate scroll-work and running vertically on either side the words *IVDGE . AND . REVENG / MY CAVS . O . LORD .* Further along this side of the blade, and within a scroll with double-line borders and trefoil finials, are the initials *IHS MA* (*Jesus Maria*). Within the canopy border on the other side of the blade are the arms of Scotland: a lion rampant within a double tressure fleury counter-fleury supported on either side by a rampant unicorn gorged with a royal coronet and carrying a standard. The right-hand standard is charged with the cross of St. Andrew, the left-hand standard is now indecipherable but was almost certainly once charged with a lion rampant within a double tressure fleury counter-fleury. The unicorns

[101] Wallace Collection, London, no. A 669; Armeria Reale, Turin, no. G 74.

[102] For instance, Wallace Collection, London, no. A 472; Palazzo Ducale, Venice, no. 450; Metropolitan Museum, New York, no. 04.3.290; Museo Bardini, Florence, no. 528.

[103] ffoulkes 1912, p. 30.

stand on a ground powdered with thistles. The arms are surmounted by an open crown with a crest in the form of an anthropomorphous lion sejant affronté, imperially crowned, holding in his dexter paw a sword and in his sinister paw a sceptre. The sword has a cross-hilt with a spherical or wheel pommel and long quillons, the ends of which curl round towards the blade. On either side of the crest is the monogram *I.R./S*^{CO}*5*. Above the crest, within a scroll, are the words *IN DEFENER*. Outside the scroll above the last two letters, presumably to correct the mistake, are the letters *CE* (the royal motto of Scotland is, properly, *IN DEFENS*). Further along this side of the blade is a large and crudely incised mark in the form of an orb and cross. The tapering tang is of plain, rectangular section.

1685 B no. 105: *Gladius Scoticus, anceps; in vaginam reconditur, hocque juxta manubrium habet inscriptum Jacobus Rex Quintus Scotorum, 1542.*

Dimensions: Length (overall) 0.95 m; (blade) 0.81 m.

Bibliography: ffoulkes 1911, pp. 157–9; 1912, pp. 30–1, no. 14.

The presence both of the arms of Scotland and the name and monogram of James V on this blade suggests that it was made for King James V of Scotland (ruled 1513–42). In an inventory of the Scottish Royal Wardrobe and Jewel House made in 1579 only one sword, the Sword of State, is listed, and this is almost certainly the one, now in Edinburgh Castle, which was given to James IV in 1507 by Pope Julius II.[104] However, it is known that there had been other swords in the royal collection during the reign of James V which must have disappeared before this inventory was taken. There was, for instance, the sword sent to James in 1537 by Pope Paul III, together with the hint that it be used against King Henry VIII, and the two swords of honour which are listed together with their sword-belts in the 1539 Inventory of the Royal Wardrobe and Jewel House.[105] It is therefore possible that the Ashmolean blade belonged to another sword made for James V which also disappeared from the Scottish royal collection before 1579.

It is more likely, however, that this blade belongs to a group of late sixteenth- and early seventeenth-century blades which are decorated with antiquarian inscriptions and devices.[106] Most of these blades refer to Scottish families of rank, such as Scott (Buccleuch), Home, Graham (Montrose), Douglas, Grant (Seafield), Stewart (Moray), and Campbell (Argyll or Breadalbane). Others have inscriptions relating them to either the Scottish or English crown; for instance, the blade of a Scottish basket-hilted sword in the Tower of London[107] which is inscribed *EDWARDVZ PRINZ ANGLIE*, probably referring to the Black Prince. The crude nature of the etching on the Ashmolean blade suggests strongly that it is one of this antiquarian group. When mounted, such 'Scottish' blades are associated with 'Highland' basket hilts, 'mortuary' hilts, military hilts, or two-handed cross-hilts. The size and form of this blade suggests that it was originally mounted on a basket or 'mortuary' hilt.

ffoulkes compared the orb and cross mark on this blade to a similar but not identical mark on a blade in the Musée de l'Armée, Paris.[108] The Paris blade bears the Spanish inscription *ENRIQUE COL, ESPADERO DEL REY EIN ALLEMANHA*, and ffoulkes suggested that the Ashmolean blade was probably also the work of Henry Col. Col's name also appears on the blades of swords in the Musée de la Porte de Hal, Brussels, and in the Real Armeria, Madrid.[109] It has been suggested that he was probably a Solingen swordsmith who went to Spain to study the different methods of forging employed there.[110] ffoulkes's case for the Ashmolean blade being made by Col rests solely on the evidence of the mark, which he claims is found only on the Paris and Oxford blades.[111] Similar orb and cross marks are, however, found on a considerable number of weapons, of varying dates and provenances, and it is thus not possible to identify it as the mark of a particular region or town, and certainly not as the mark of a particular maker. It thus appears unwise to follow ffoulkes in definitely attributing this sword-blade to Henry Col.

The entry in the 1685 catalogue which describes this blade shows that at that time it was complete with hilt and scabbard which have since been lost.

G. M. Wilson

[104] Twining 1960, pp. 566–8, pl. 206a.

[105] See Reid and Brook 1890, p. 49.

[106] I am indebted to Mr John Wallace for information concerning this group of swords.

[107] Armouries, HM Tower of London, no. IX 1015.

[108] Musée de l'Armée, Paris, no. J 182; see ffoulkes 1911, pp. 157–9.

[109] Musée de la Porte de Hal, Brussels, no. V 62; Real Armeria, Madrid, no. G 86.

[110] van Vinkeroy 1885, p. 155.

[111] For biographical information concerning Col see Boeheim 1895, pp. 36–7.

95. CINQUEDEA (Fig. 47, Pl. LXVIII). Flat, arched pommel and grip formed of two scales of mother-of-pearl mounted on brass plates and secured to either side of the tang by four rivets. Set into the plaques over the rivets are roundels made up of brass strips arranged in the form of Gothic tracery. From the pommel the roundels are alternately large and small. The grip expands laterally in a slight concave curve to a maximum width at the third rivet from the pommel and then tapers towards the guard. Each plaque has a deep line engraved around the border, and is edged with silver bent inwards to retain the mother-of-pearl. The edge of the grip and pommel is formed by a sunken band of gilt copper. Just below the pommel both edges of the grip expand in the form of a cusp. Around the pommel the silver bands bear traces of symmetrical leaf engraving on a hatched ground. From the cusps to the guard the silver bands are engraved with scrolls, surrounded by niello, and bearing an inscription: (Side A left) *NON VIDI* (Side A right) *IVSTVM DERELICTV* (Side B left) *SPERO LVCEM* (Side B right) *POST TENEBRAS.*[112] Around the pommel the copper band is decorated with a repeated and overlapping 'round buckle' motif. From the cusps to the guard the copper band on the sides of the hilt has a roped border and bears in raised capital lettering on a hatched ground the inscription: (Side A left, from guard to pommel) *OSNONCOMINVETISEX* + (Side A right, from pommel to guard) + *EO. THETRAGRAMATO.*

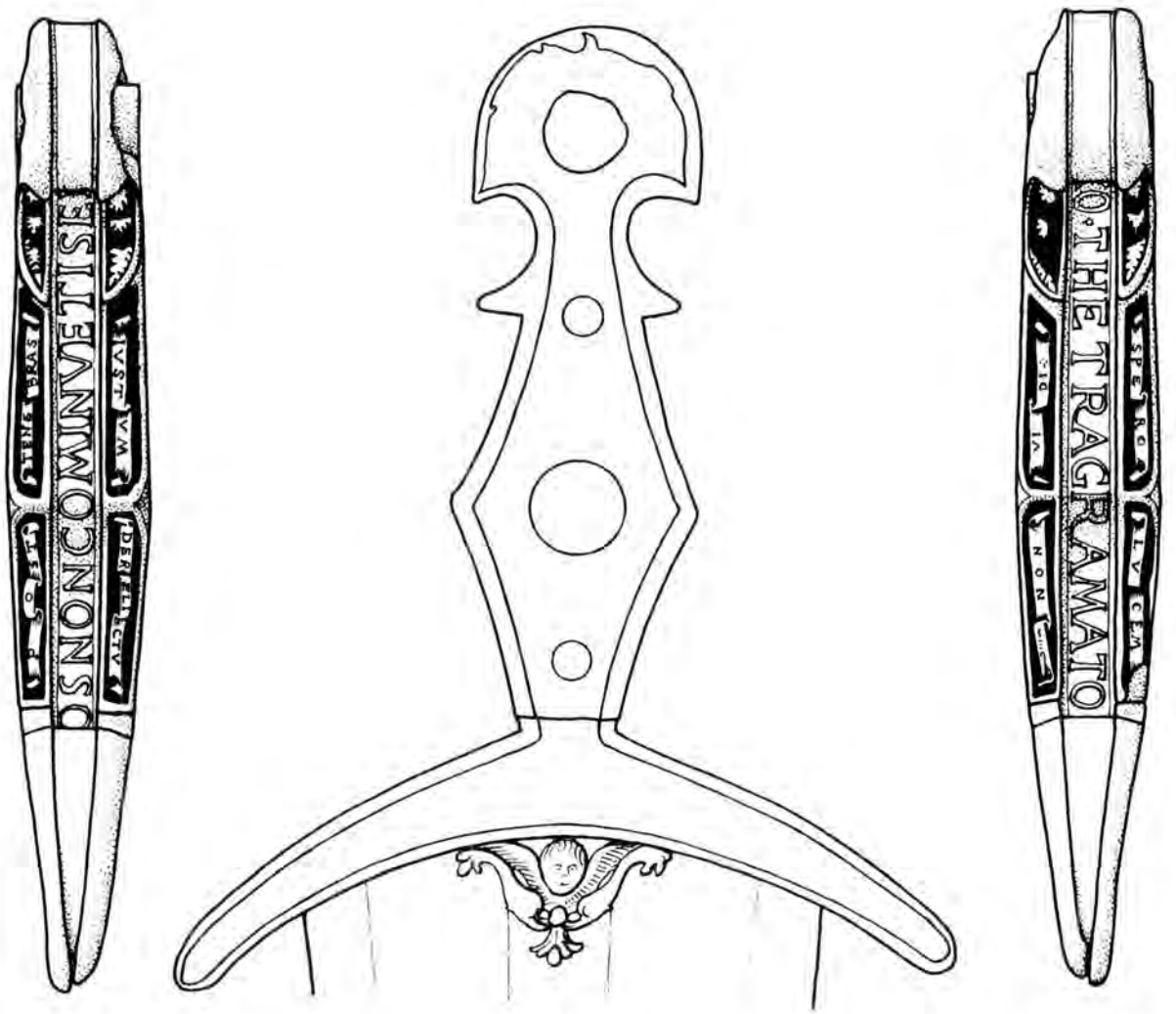
The quillons arch gently towards the blade and are constructed of copper plates edged with silver. The copper band which forms the edge of the grip also extends around the quillons and is decorated on the side nearer the grip with symmetrical acanthus foliage. The silver corner bands on this side are engraved with symmetrical foliate scroll-work identical to that around the pommel except that there they are surrounded with the inscription: (Side B) *ALEXAN [R?] COITEL* (Side A) *BONON ME F.* The inner and outer faces of the quillons are recessed and decorated with gilt copper filigree-work consisting of a roped border within which diagonal roped lines divide the surface into panels containing circles and petal motifs. Attached to the centre of the quillons on either side of the blade is a decorative langet of cast and gilt copper alloy in the form of a winged head surrounded by a symmetrical foliate border.

Flat, triangular blade, broad at the hilt and tapering gradually to a rounded spear point. At the forte both sides of the blade have three fullers, the central one narrower than the outer two. The fullers stop less than half-way along the blade where it takes on a flattened diamond section with a pronounced medial ridge and plain, flat faces. Just before the change of section both sides of the blade are stamped with a small mark in the form of a six-pointed star. The edges of the blade are considerably notched. The blade is decorated at the forte with etching, now considerably rubbed, but retaining traces of the original gilding near the hilt. On both sides the central fuller is treated as a continuous frieze while on either side of this the blade is divided vertically into three panels separated by architectural mouldings and decorative bands. Each panel contains a figure scene, often within an architectural border: the details of the decoration are as follows:

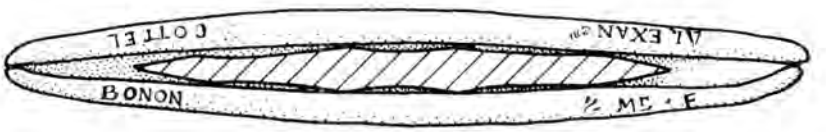
Side A The central fuller is decorated with a vertical frieze of symmetrical acanthus foliage and flowers. The side panels nearest to the hilt are both capped by triple round arches. On the left-hand panel a naked figure, now only partially visible, sits on a raised throne or altar, beneath which is a cuirass and a quiver of arrows. There may be a trophy of arms on the extreme right of the scene. The right-hand panel is decorated with a classical scene in which an almost naked horseman spears a warrior who has fallen with his horse. Above these panels is a decorative moulding, involving a band of ornament consisting of alternating quatrefoils within circles, and opposed trefoils. Above this on the left-hand panel is a scene consisting of a naked figure with upraised arms, perhaps holding a club, pursuing a running figure, of which only the legs can now be seen. The decoration of the right-hand panel is now almost completely erased, but there are some traces which suggest a seated naked figure with hands behind its back. Above these panels is a plain border and above this again the two upper panels. On the left-hand panel are two wrestling figures, one wearing an animal skin. On the right-hand panel is a standing male nude, with right arm pointing downwards.

Side B The central fuller bears an inscription, now partially obliterated, on a hatched ground: *OMNE.*

[112] Sides A and B relate to the sides so described in Ffoulkes 1911, pp. 159–65. The directions left and right should be read as if the sword were held in the hand with the hilt below the blade.



a



b

c

Fig. 47. Cinquedea, No. 95: schematic representations of a, hilt; b, underside of guard; c, inscription on blade. Scale 1 : 1

SOLVM. FORTE. PATRIA. EST. The side panels nearest to the hilt are both capped by triple arches. On the left-hand panel is a scene, probably representing the Judgement of Solomon: on the left a woman stands with right arm outstretched towards a throne, on the right a naked man stands before the throne holding an infant by its left ankle in his left hand. The right-hand panel is now much rubbed, but appears to show a naked female figure standing on an altar or pedestal before which is a flaming lamp. To the right is part of a clothed figure, the left hand of which gestures towards the lamp. Above these panels is a decorative moulding, involving a band of repeated ornament consisting of trefoil buds within semicircles. Above this on the left-hand panel is a draped, seated figure. The decoration on the right-hand panel is now almost completely lost, but it must originally have consisted of a scene involving at least two figures, for three legs are just discernible. Above these panels is a moulding with a band of ornament consisting of the same quatrefoils-within-circles pattern that is found on the lower moulding of Side A, but without the opposed trefoils. The two upper panels are considerably rubbed and only indecipherable traces survive of the decoration on the right panel. On the left-hand panel are two naked male figures: the figure on the right is full-face and holds a staff in his right hand; the figure on the left has his left hand raised and his left leg bent.

1656 p. 45: *Severall sorts of Daggers*
1685 B no. 113: *Pugio indicus ferreus: anceps sensim ita gracilescit ut in mucronem desinit tandem valde acutum. manubrium eleganter ex argento ac concha argentea elaboratum.*

Dimensions: Length (overall) 0.51 m; (blade) 0.40 m.

Bibliography: Boccia and Coelho 1975, p. 353, pls. 232–3; Chambers and Martineau 1981, p. 142; Houlkes 1911, pp. 159–65; id. 1912, pp. 31–2, no. 15, pl. VIII; Laking 1920–2, 3. 74, fig. 856; Mann 1939, pp. 244–5.

This type of short sword, known since at least the nineteenth century by the name 'cinquedea',[113] can be shown from the evidence of contemporary paintings to have been used in Italy in the late fifteenth and early sixteenth centuries. It seems to have been principally a civilian weapon, but at least one painting, *The Road to Calvary* by Boccaccino,[114] shows a sword of this type being carried by a soldier. Both the distinctive form of the cinquedea and its apparently unheralded and abrupt appearance have led to considerable speculation concerning its possible origin. A number of surviving examples have normal European cross-hilts with separate grip and pommel, but the majority have hilts similar to that on the Ashmolean example with a combined slab-sided grip and arched pommel. The combination on many cinquedeas of this unusual type of hilt and of a wide triangular blade has led to the suggestion that they could have been consciously modelled on classical prototypes, perhaps on those Greek swords with leaf-shaped blades and wide triangular scabbards, or on the distinctive triangular-bladed Etruscan and Roman daggers. It has even been suggested that the form of the cinquedea might have been influenced by both the blade shape and hilt construction of various Bronze Age swords.[115] However, the overtly classical nature of the decoration found both on the blades and on the hilts of many cinquedeas suggests that the form, too, was based on classical, rather than earlier, models.

The hilt of the Ashmolean cinquedea is unusual in several respects. Firstly there is a cusp-shaped protusion on both sides of the grip just above the pommel. This feature appears to be illustrated in an early sixteenth-century drawing in the Pinacoteca, Empoli, but it is not often found on surviving cinquedeas: other examples with this feature include two in the Metropolitan Museum, New York, one of which bears on the blade the mark often associated with the Biscotto family of armourers who were working in Villa Basilica from at least 1466; and one very large cinquedea in the Tower of London.[116] Secondly, the grips of the Ashmolean

[113] This term is believed to have been derived from the Italian *cinque dita* meaning 'five fingers', and it seems to have been applied to these swords because many examples have blades which are approximately five fingers' width at the hilt. There is no evidence that the term was used to describe this type of sword at the time it was in use, however, and there seems good reason to doubt the accuracy of this modern usage, for Florio, in his *New World of Words* of 1611, defines the term as 'a weapon but five fingers long used in Venice' (Blair 1962, p. 4; id. 1974, p. 164). However, the term 'cinquedea' is now so universally used to describe this type of sword that it is probably unwise to discourage its use until a more accurate alternative is discovered.

[114] National Gallery, London, no. 806.

[115] For a fuller discussion see Rimer 1980; Oakeshott 1960, pp. 338–40.

[116] Metropolitan Museum of Art, New York, nos. 04.3.126 and 14.25.1264 (see Boccia and Coelho 1975, pp. 348, 353, pls. 184–5); Armouries, HM Tower of London, no. IX 149. For details of the Biscotto family see Reid 1965, pp. 3–19.

cinquedea are made of mother-of-pearl rather than the more usual horn or bone. And, thirdly, the hilt is signed by a maker, who has been identified as Alessandro Coltelli of Bologna.[117] Boccia and Coelho claim that after the maker's name appears the date *MDX* (1510), but Houlkes read the end of the inscription as *ME F* (*Me Fecit*) rather than *MDX F* (1510 *fecit*), and his is the correct reading.[118]

The blade is stamped with a mark in the form of a six-pointed star, and similar marks are found on the blades of a number of early sixteenth-century Italian swords and staff-weapons, including: two cinquedeas in the Museo Civico, Bologna, bearing the emblem and motto of the Bentivoglio family; one sold by Sotheby's, London, in 1979; one in the Zeughaus, Berlin; one sold at the American Art Galleries, New York in 1926; one with a wheel pommel decorated on each face with an octofoil, and quillons arching towards the blade; another with a hilt almost identical to that of the last; a bill believed to have been made for the guard of King Henry VIII; and three langdebeves or 'ox-tongue' partisans which all appear to have been decorated in the same workshop.[119] Houlkes mentions that another sword with a similar mark is in the Tower of London,[120] but here he appears to be mistaken, for no sword with such a mark is described in his own catalogue of the Armouries, nor can one be found in the present collection.[121] There is, of course, no proof that all these similarly marked blades were made by one maker. They may equally well be the work of several, all using a similar mark. However, it is interesting to note that three of the cinquedeas with the six-pointed star mark seem to have close connections with Bologna: the Ashmolean cinquedea has a hilt made by a Bolognese maker; and the two in the Museo Civico, Bologna, appear to have been made for the Bolognese family, the Bentivoglio. It is possible therefore that this mark may have been used by a bladesmith working in or near Bologna. It is also interesting to note that the six-pointed star mark which appears on at least seven cinquedeas can also be found on three langdebeves, the heads of which are virtually identical in form and size to the blade of a cinquedea. The evidence of this and other marks suggests that it was not uncommon for sixteenth-century craftsmen to make both swords and staff-weapons, and this is confirmed by a ceiling-painting by Bernadino Poccetti (1548–1612) in the Palazzo Uffizi, Florence, which depicts a small bladesmith's workshop in which both swords and staff-weapons are displayed for sale.

Like the majority of cinquedeas, the Ashmolean example has a blade decorated with a number of classical figure scenes. Unfortunately, the decoration is now so rubbed that any definite identification of the scenes is impossible. However, the most complete scene (Side B, left-hand panel nearest to the hilt) has been identified by Houlkes, almost certainly correctly, as the Judgement of Solomon.[122] Houlkes also suggested that some of the other panels might represent scenes from the life of Hercules, or possibly Samson, but he produced no evidence to support this. He compared the decoration of the Ashmolean blade to that on a number of other cinquedea blades[123] and suggested that they were all decorated by Ercole de Fideli, a goldsmith recorded as working for the d'Este family at Ferrara between 1481 and 1518. It was the French scholar Charles Yriate who, in the late nineteenth century, first identified Ercole de Fideli as the decorator of various cinquedea blades, and since then his identification has become so widely accepted that almost all late fifteenth- or early sixteenth-century Italian blades etched with classical figure scenes have been ascribed to Fideli. However, Blair has recently shown that none of Yriate's conclusions stands up to critical examination and that there is, in fact, no real evidence that Fideli decorated even one of the many blades with which his name has been associated.[124] Blair concluded that the particular style of etching associated with Fideli was so common as to suggest that more than one workshop was involved, and that they were probably situated in one or other of

[117] Boccia and Coelho, 1975, p. 353.

[118] Ibid., p. 353; Houlkes 1911, p. 164; id. 1912, p. 31.

[119] Respectively: Museo Civico, Bologna, nos. 140 and 334; Sotheby's, London, *Antique and Modern Firearms and Edged Weapons*, 16 October 1979, lot 223 (illustrated in catalogue); American Art Galleries, New York, 19–20 November 1926, lot 218 (illustrated in catalogue); Metropolitan Museum of Art, New York, no. 26.145.60; Kunstsammlung der Veste Coburg, no. II E 2; Armouries, HM Tower of London, no. VII 1317; Zeughaus, Berlin, nos. AD 12904, and 12908, and Armouries, HM Tower of London, no. VII 185.

[120] Houlkes 1912, p. 32.

[121] Id. 1916, p. 278, no. IX 137.

[122] Id. 1911, p. 165.

[123] Musée de la Porte de Hal, Brussels, no. VI 23; Museo Stibbert, Florence, no. 259; Armouries, HM Tower of London, no. IX 130; Wallace Collection, London, nos. A 741, A 743; Armeria Reale, Turin, no. H 7.

[124] Blair 1966, pp. 125–36.

the major arms centres of Northern Italy, Milan, or Brescia. However, he noted that six of the cinquedea blades attributed to Fideli bear devices associating them with the Bentivoglio family of Bologna, and suggested that the decorator might, therefore, have been in their employ. The fact that the Ashmolean cinquedea, which has a hilt signed by a Bolognese maker, has a blade bearing the same mark as two others made for the Bentivoglio family, does tend to suggest that at least some of these swords must have been made and decorated in or near Bologna.

Ffoulkes compared the decoration on the blade of the Ashmolean cinquedea most closely to that on the blade of a cinquedea in the Armeria Reale, Turin.[125] He concluded that some details are so similar on both blades that 'they must have been drawn by the same hand'. However, many of the similarities are not quite as marked as he suggests and in any case the Turin cinquedea is now known to belong to a well-known group of forgeries produced in the 1830s.[126] Ffoulkes also compared the decorative borders on the Ashmolean blade to similar borders on the blades of other examples. Borders similar to those with alternate quatrefoils and opposed trefoils also occur on a number of cinquedeas[127] including one in the Museo Stibbert, Florence, which bears the devices of the Bentivoglio family of Bologna.[128] The border decorated with buds within semicircles also occurs on the fake Turin cinquedea mentioned above and on two cinquedeas in the Wallace Collection, London.[129] However, these similarities do no more than demonstrate the popularity of these particular decorative motifs, both with the original craftsmen and with later fakers. There is considerable disagreement concerning the correct reading of the much-rubbed inscription on Side B of the blade. Ffoulkes gave two slightly different versions and suggested that it was probably intended to be read as *OMNIA CIVITAS FORTIS PATRIA EST*.[130] This, however, is an unhappy phrase, and he felt compelled to defend his suggestion by saying that the 'Latin used in inscriptions on swords is often extremely cumbrous and ungrammatical'. However, both Mann, and Boccia and Coelho read the inscription as *OMNE SOLUM FORTE PATRIA EST*, 'every piece of earth is the home of the brave', and this appears to be the correct reading.[131] According to Mann this is the motto of the Baglioni family,[132] but the same inscription can also be found on a cinquedea in the Musée du Louvre, Paris, which bears the arms of Marquis Francesco Gonzaga.[133] According to Ffoulkes, the inscription on the edges of the grip should be read in two parts: *OS NON COMINUETIS EX EO*, a quotation from the Vulgate Gospel according to St. John, (chapter 19, verse 36.) 'Ye shall not break a bone of him'; and *THETRAGRAMATON*, a cabalistic rendering of the four letters of Jehovah, Yod, Keth, Vav, and He.[134] He also suggested that the inscription on the silver bands on the grip should be read in two parts, across the hilt: *NON VIDI JUSTUM DERELICTUM*, 'I have not seen the righteous foresaken' (Psalm 37, verse 25), and *SPERO LUCEM POST TENEBRAS*, 'I hope for light after the darkness.'[135]

Ffoulkes had no doubt that this cinquedea was the weapon described as an Indian dagger in the 1685 catalogue, and suggested that the mistake may have occurred because of the similarity in shape between the blades of cinquedeas and of Indian thrusting *katar* daggers.[136] Certainly the description given in the 1685 catalogue of the hilt as 'elegantly decorated with silver and mother-of-pearl' suggests very strongly that it is this cinquedea which is being described, but some element of doubt remains.

G. M. Wilson

96. KNIFE (Fig. 48). Ivory handle, longitudinally fluted, slightly curved, and tapering towards the blade. Along the hollow of each of the eight flutes is inset a row of eleven silver dots, some now missing. At the end nearer the blade the handle terminates in a moulded band. The iron pommel-cap is domed and is of a fluted, octagonal section to match the

[125] Armeria Reale, Turin. no. H 7; see Ffoulkes 1911, p. 162.
[126] Schedelmann 1965, pp. 124–7.
[127] Zeughaus, Berlin (see Kalmar 1944, pp. 37–44); Musée de la Porte de Hal, Brussels, no. VI 23; Magyar Nemzeti Muzeum, Budapest (see Kalmar 1944, 37–44); Armouries, HM Tower of London, no. IX 130; Wallace Collection, London, no. A 743.
[128] Museo Stibbert, Florence, no. 259.
[129] Wallace Collection, London, nos. A 741, A 748.
[130] Ffoulkes 1911, pp. 161; id. 1912, p. 32.
[131] Boccia and Coelho 1975, p. 353.
[132] J. Mann, annotations in his re-bound copy (now in the library of the Armouries, HM Tower of London) of Laking 1920–22, vol. 3, opp. p. 75.
[133] Musée du Louvre, Paris, Département des Objets d'Art, no. OA 3242; discussed by J. Mann (1939, pp. 244–5) and exhibited in 'Splendours of the Gonzaga', Victoria and Albert Museum, London (Chambers and Martineau 1981, p. 142, no. 65).
[134] Ffoulkes 1911, p. 164.
[135] Ibid., pp. 163–4.
[136] Ibid., p. 159.

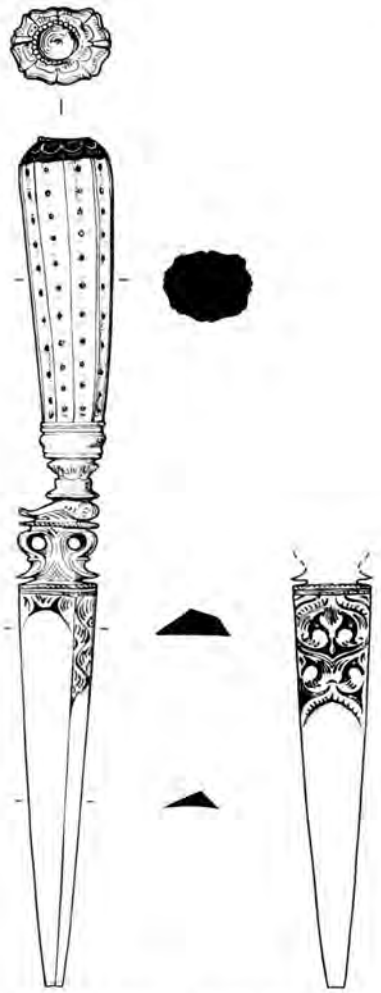


Fig. 48. Knife, No. 96. Scale 1:2

handle. In the centre of the top of the pommel is a large round depression, lined with white metal, intended as a setting for a precious or semi-precious stone. Around both the depression and the outer edge the pommel is decorated with a band of hatched lines. Between these bands each flute of the pommel is incised with an arc, forming an octofoil.

Single-edged blade of asymmetrical triangular section with a wide chamfered back. Approximately 13 mm of the point is now missing. One side of the blade is flat near the handle where it is deeply incised with a symmetrical floral pattern, and is then hollow-ground to the point, the change in section being covered by an etched ogee arch. The other side of the blade consists of the chamfered back and a wider flat. Near the handle the back is ridged, and decorated on either side with a band of incised serpentine scroll-work, and the flat has a small panel decorated with incised lines. The ricasso is pierced and chiselled with opposed 'S' scrolls. Between the ricasso and the off-set, moulded bolster, the blade is chiselled to look like a monstrous fish decorated with incised lines.

1656 p. 45: *Severall sorts of Daggers.*
1685 B no. 115: *Pugio anceps, sensim gracilescit, et in mucronem desinit, manubrio ex ebore seu osse facto dotatus.*

Dimensions: Length (overall) 226 mm, (blade) 108 mm.

Knives of this type are generally believed to have been carried by peasants in Spain, Portugal, and Italy in the eighteenth and nineteenth centuries and, perhaps earlier. It has been suggested, however, almost certainly correctly, that the quality and decoration of many examples implies that they were made not for the peasantry but at the very least for the landed gentry.[137] This suggestion would appear to be confirmed by a mid-eighteenth-century painting by Gaspar Traversi (d. 1769) entitled *La Rissa* (A Quarrel at Cards), in which a knife of this general type is held by a figure who appears far too elegantly dressed to be a peasant.[138] Unfortunately, few examples of this type of knife are actually dated, and most have therefore been given purely arbitrary dates. A very similar knife to the Ashmolean example, with a fluted grip of bone inlaid with silver dots, a wedge-sectioned blade, and a pierced and chiselled ricasso, is in the Tower Armouries.[139] It has been suggested that the Tower dagger is Spanish and of late eighteenth-century date, but there is little real evidence to support this. Another knife, at one time in the collection of A. Miller, has a similar blade, a pierced and chiselled ricasso, and a writhen bone handle bound with silver wire and inlaid with silver dots; this too has been described as possibly Spanish and certainly of eighteenth-century date.[140] A further knife, with the same type of blade and a writhen handle of wood, was in the collection of E. J. Brett.[141] There

[137] Peterson 1968, pp. 64–5.

[138] The painting is in the Museo di San Martino, Naples. I am indebted to Mr A. V. B. Norman for drawing my attention to it.

[139] Armouries, HM Tower of London, no. X 203.

[140] Wilkinson 1967, pl. 57.

[141] Illustrated in 'Ancient Arms and Armour Richard II to Charles I Collected and Arranged by Edwin J. Brett Esquire, Oaklands, St Peters, Thanet', 2 (undated, unpaginated collection of photographs in the library of the Armouries, HM Tower of London).

seems to be no way to date this group accurately, nor to suggest with any confidence the country of origin. Conventionally they have been described as probably of Spanish manufacture and of eighteenth-century date, and this may be correct. However, wooden grips of writhen form, such as that found on the Brett dagger, can be found on weapons of undoubted Italian origin and late seventeenth-century date such as a hunting hanger in the Museo Capodimonte, probably made in Brescia in about 1670.[142]

Thus considerable doubt must remain as to the place and date of manufacture of this knife. There seems to be at least a possibility that it could be of seventeenth-century date and that it could have formed part of the original collection. Unfortunately, the early catalogue descriptions are not precise enough to allow anything more than a very tentative identification. The entry in the 1685 catalogue given above could refer to this knife, although it is not a good description of the blade. The catalogue contains no individual entry with which this knife can be identified, and there remains only the faint and unprovable possibility that it may have been included under the heading 'Severall sorts of Daggers'. In the circumstances, therefore, and with no real proof to the contrary, it seems probable that this knife is of eighteenth-century date and that it may not have formed part of the Tradescant collection nor of the foundation collection of the Ashmolean.

G. M. Wilson

97. STONE CROSSBOW (Figs. 49–50). Wooden tiller of rectangular section, tapering from the lock to the butt. Ahead of the lock the underside of the tiller is cut away for a hand-grip and then expands to the bow-steel. The underside of the tiller is rounded at the butt, flat with chamfered edges at the lock, and ahead of the lock is spoke-shaved into four flats. Between lock and bow-steel both sides of the tiller are ridged. Towards the butt a large, round, transverse hole is drilled through the tiller and is intersected by a small round hole drilled vertically from the underside. Both forward and to the rear of this the underside of the tiller is pierced by a square hole. Hammered into the underside of the tiller to the rear of the lock is a wood staple to which is attached a broken length of brass wire. Ahead of the lock the flat top of the tiller is recessed for an escutcheon, now missing. Ahead of this is an inlaid plaque of bone (Fig. 50), cut out and engraved in the form of a crouching, cross-armed satyr above the date 1563. From lock to fore-end the top of the tiller is recessed on both sides for a straight, thin strip of inlay. Ahead of the inlaid satyr the top of the tiller is deeply recessed to the fore-end for a wide strip of inlay. The tiller is broken at the fore-end and split longitudinally just to the rear of the bow-steel.

Lock and mounts are of iron. The combined box-lock and bending lever are recessed into the top of the tiller. The bowstring is retained by a vertical hook released by a button trigger on the top of the lock. At the rear of the lock is a vertically pivoting stub, the remains of the leaf backsight. The bending lever is of plain, rectangular section, tapering to the rear. It no longer fits completely into the recess made for it. A pierced lug on the underside of the lever aligns with the transverse hole drilled through the rear of the tiller. Attached at the rear to the top of the lever is a handle with a baluster-moulded shank, the knob now missing. When it fitted properly the bending lever was retained by a catch at the butt. The catch consists of a sprung and pivoted plate set into the top of the butt. Attached to the rear of the plate is a dome-headed knob which, when depressed, would have released the lever. At the bottom of the tiller recess, beneath the rear of the bending lever, is a spring, held by a transverse pin, which acts upon the lever and pushes it up slightly when released by the spring catch. At the fore-end of the tiller is a vertically-pivoted, twin-armed foresight. The arms of the sight are notched in at least five places for the retention of the transverse wire, now missing, to which the sighting bead was fixed. The arms are now slightly bent.

Set laterally through the fore-end is the recurved bow-steel of rectangular section. The top of the steel is flat, the underside considerably bellied at its centre where it passes through the tiller. Both ends of the steel are formed into nocks. The steel is not now secured to the tiller. Where the steel passes through it, both sides of the tiller are reinforced by an iron plate attached by four nails. To the rear of the steel the tiller is pierced by another transverse slot, filled with wedges of iron and antler. These wedges would have secured the rear of the stirrup which, with the wedges in the slot through which the steel passes, would have secured the steel firmly to the tiller. The double bowstring and pouch are missing.

[142] Museo di Capodimonte, Naples, no. CA 3750; illustrated in Boccia and Coelho 1975, pls. 733–4.

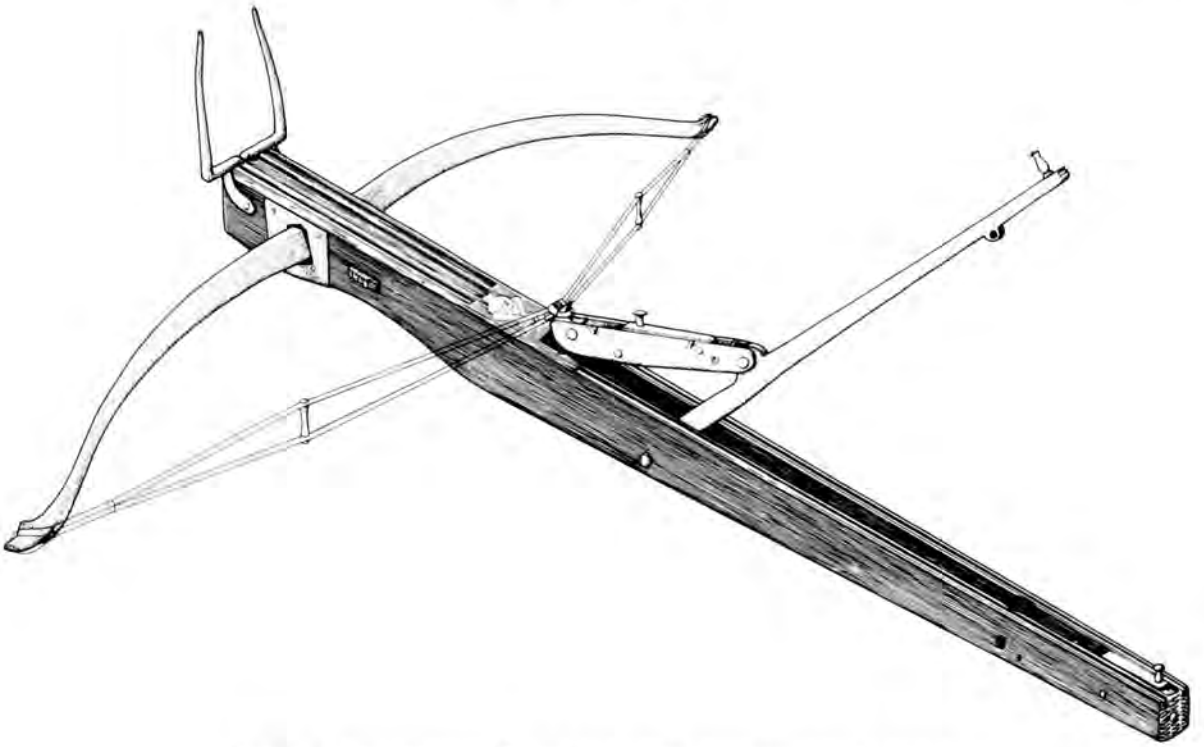


Fig. 49. Stone crossbow, No. 97, with string reconstructed. L. 0.83 m

1685 B no. 42A: *Balista chalybea ex qua tam globulos quam tela jaculari possunt.*

Dimensions: Length (tiller) 0.84 m; Width across arc (bow-steel) 0.56 m.

Bibliography: ffoulkes 1912, p. 45, no. 86, pl. XIII.

The stone crossbow differs from the ordinary crossbow in that it shoots not bolts but stones. To do this it has a double bowstring, made of two cords separated by occasional bone or wooden spreaders, with a central pouch, usually of leather. Pellets of stone or baked clay, and later of lead, were the most common missiles. Stone crossbows were popular throughout Europe from the later Middle Ages onwards. They have been used in England from at least the early fourteenth century, for in 1327 it is recorded that the citizens of London were plagued by hooligans armed with *balistas et arcus pro lapidibus* (stone-throwing crossbows and bows).[143] But stone crossbows were not just the toys of unruly adolescents, and certainly by the sixteenth century they were considered weapons fit for a king. In 1500, for example, Philip the Good, King of Castille, ordered Jean de Hoghvorst, a crossbow-maker of Malines, to make him a number of stone crossbows, some for his own use, some for his father, and some to be distributed as gifts to foreign ambassadors.[144] King Henry VIII had at least one stone crossbow in his possession at the time of his death, for listed in the

Fig. 50. Stone crossbow, No. 97: engraved bone plaque. Scale 1:1

[143] Rymer's *Foedera* (Record Commission 26); quoted in Blackmore 1971, p. 164.

[144] Gaier 1973, p. 138.

1547 inventory of his possessions is a 'Crossbowe to shoote stone'.[145] The stone crossbow was especially popular for shooting very small game, vermin, and birds.

This stone crossbow is of most unusual form, and despite the date which appears on it, there is considerable doubt as to whether it can have been made in the late sixteenth century. Stone crossbows of the sixteenth and early seventeenth centuries generally fall into one of two distinct types, usually referred to by their supposed country of origin as either German or Italian. The 'Italian' stone crossbow is spanned by hand and has a very distinctive wooden tiller with a pronounced downward curve between lock and bow. The 'German' type is quite different, generally having a straight tiller, made of iron, [146] to which is attached a combined box-lock and bending lever. Often a wooden butt meant for the cheek is attached to the end of the tiller. The Ashmolean stone crossbow is not of either of these types and seems much closer in form and style to the bullet crossbows which were popular in England in the second half of the eighteenth and the first half of the nineteenth centuries.[147] These have combined box-locks and bending levers and straight wooden tillers of rectangular section similar to that on the Ashmolean example. Usually on the later, fully developed, bows of this type, the tiller ends in a normal gun butt designed to be used from the shoulder, but on the earliest bows the tiller gradually tapers to the butt, which is often of club form.[148]

If it were not for the dated plaque, the Ashmolean crossbow would almost certainly be assigned to the late seventeenth or early eighteenth century and regarded as a precursor of this distinctively English type of crossbow. However, both the plaque and the date appear to be perfectly genuine and therefore, although the bow is neither of known sixteenth-century type nor apparently or sixteenth-century style, the possibility that it does date from the late sixteenth century cannot be totally discounted. Certainly bolt-shooting crossbows with long, straight, tapering tillers were produced in considerable numbers in Western Europe in the sixteenth and early seventeenth centuries, and this particular type seems to have been especially favoured by makers in England, France, and Spain. Crossbows of this type with English connections include: two crossbows presented in 1614 to Philip III of Spain by James VI of Scotland and I of England; an associated tiller and bow-steel in the Glasgow Museum and Art Gallery; a bow of about 1620 in the collection of Mark Dineley; and three bows, one bearing the arms of Sir Edward Pytts of Kyre Wyard, first published in 1891 when they were in the possession of Prebendary Baldwyn-Childe of Kyre Park, in Worcestershire.[149] A French crossbow of this type is in the Museo Bargello, Florence, and many Spanish crossbows of this form can also be found.[150] However, there is no evidence that stone crossbows of this form, with straight, tapering tillers, were either made or used in England, France, or Spain at this time. On the contrary, the available evidence suggests that it was the 'Italian' type of stone crossbow, with its down-curved tiller, which was then favoured in Western Europe. A stone crossbow of this 'Italian' type, made for Catherine de Medici, Queen of France (1533–59), is in the Musée de l'Armée, Paris, and a bow of distinctive 'Italian' form is illustrated in the sixteenth-century English needlework panel at Hardwick Hall known as *The Fowler*.[151] It may be that this type of stone crossbow remained popular in England throughout the seventeenth century, for in the von Kienbusch Collection, New York, was a rather strange hybrid stone crossbow, made by the London gunmaker Andrew Dolep about 1695, which had the down-curved tiller of the 'Italian' type and the built-in bending lever of the 'German' type.[152]

It would therefore be unwise to identify the Ashmolean stone crossbow definitively as a late sixteenth-century weapon despite the evidence of

[145] Society of Antiquaries, London, MS Brander 129, f. 256a.

[146] The 'Italian' stone crossbow also seems to have been used in Germany, and there exist a number of German-made stone crossbows of 'Italian' form, for instance: Bayerisches Nationalmuseum, Munich, no. WR 4792, from the Zeughaus, Kempten; Schloss Churburg, Schluderns, nos. 330, 331.

[147] Credland 1972, pp. 22–36.

[148] For example a bullet bow by Johnson of Wigan in Wigan Museum, and two by the same maker in the Royal Scottish Museum, Edinburgh, nos. 1905 627, 1905 628; an unsigned bow in Grundy House Museum, Blackpool; two bullet bows in the University Museum, Manchester, and two in the Armouries, HM Tower of London, nos. XI 15, XI 110.

[149] Respectively: Real Armeria, Madrid, nos. J 109, J 111 (see Reid 1960, pp. 21–6); Glasgow Museum and Art Gallery, Scott collection, no. 39–651z (see Reid 1959, pp. 10–13, 29–30); Blackmore 1971, pl. 72; Humphreys-Davenport 1891, pp. 149–52.

[150] Museo Bargello, Florence, no. R 156; Spanish examples: Real Armeria, Madrid, nos. J 18, J 19, J 26, J 28, J 30, J 37; Wallace Collection, London, no. A 1035.

[151] Respectively: Musée de l'Armée, Paris, no. L 115; Blackmore 1971, p. 208.

[152] Ibid.

the dated plaque. However, it must be emphasized that there is no physical evidence to suggest that either the plaque or its decoration is not contemporary with the rest of the crossbow. Only one other stone crossbow of this distinctive form is at present known: it is in the Museu Bibliotheca da Casa de Bragança, Vila Viçosa, and has been dated, although for no apparent reason, to the sixteenth century.[153] It may be that both this and the Ashmolean bow are of late sixteenth-century date and that they belong to a hitherto unrecognized Western European type of stone crossbow, but at present the case remains unproven.

It is possible that this is the crossbow described in the 1685 catalogue as 'a steel crossbow to shoot stones and bolts', but this seems unlikely, for this particular crossbow could never have shot anything but stones. Of course the cataloguer may simply have been mistaken or confused, but this too seems unlikely, especially since crossbows capable of shooting both bolts and stones were quite common in Europe in the sixteenth and seventeenth centuries. These dual-purpose weapons generally took one of two forms: either they were constructed as a bolt bow with a single string to which a metal cup to retain a stone could be attached when required,[154] or they were made as a stone-bow with a double string but with a detachable, grooved bolt-guide which could be fixed to the fore-end as necessary.[155] There is no evidence that such a bolt-guide has ever been attached to the Ashmolean bow, which is constructed not as a combination weapon but as a simple stone crossbow. There must, therefore, be some doubt as to whether it did form part of the foundation collection.

G. M. Wilson

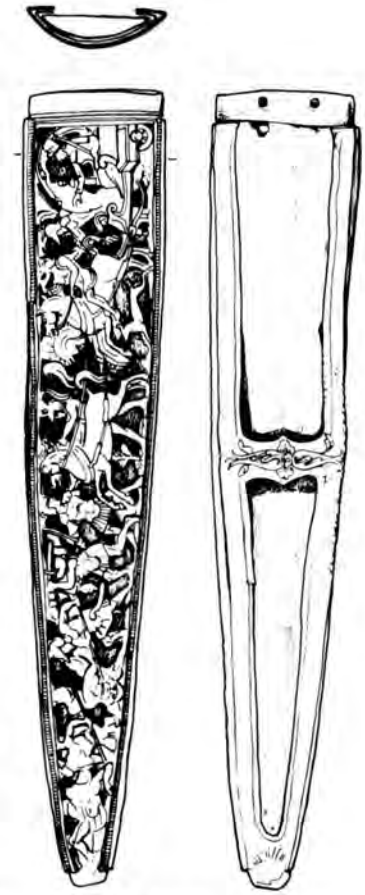


Fig. 51. Dagger sheath, No. 98. Scale 1:2

98. DAGGER SHEATH (Fig. 51). The sheath consists of a black leather liner covered with red velvet and surrounded by a brass cover-plate. This cover-plate is made in three parts brazed together: a front-plate in one with the front of the plain locket; the rear of the locket, which is pierced with two suspension holes; and a back-plate which fits over the returned edge of the front-plate. The front of the cover-plate is cast and pierced with a Roman triumph scene within a moulded and billeted border. The scene reads from right to left and from the locket to the chape. It consists of a chariot drawn by three horses, one in front and a pair behind, and accompanied by four soldiers in classical armour, one of whom rides the near-side horse of the rear pair. Seated in the chariot is a figure in civilian dress, perhaps a woman, with right hand outstretched and left hand holding a baton. Alongside the rear pair of horses runs a dog, while ahead of the chariot three soldiers, two armed with spears and one with a sword, attack two fallen enemies. The back-plate has two large panels cut out, leaving only narrow sides, decorated with single line engraving, and a lateral strengthening bar half-way along the length of the sheath. This bar has cusped edges and is engraved with symmetrical leaf-buds. The velvet is cut away crudely to follow the lines of the back-plate. The terminal knob is missing.

[153] Palacio de D. Manuel Évora 1966, no. 41.

[154] For example, Schloss Ambras, Innsbruck, no. 858; also a combined crossbow and wheel-lock gun of about 1575 in the Waffensammlung, Vienna, no. D 200.

[155] For example, Armouries, HM Tower of London, nos. XI 96, XI 97.

1685 B no. 118: *Pugio parvus anceps, in mucronem exit acutum; manubrium et vagina ex aere eleganter conflata.*

Dimensions: Length (overall) 209 mm.

Bibliography: ffoulkes 1912, p. 39, no. 55, pl. IX.

Sheaths of this general type were made to accompany the so-called 'Swiss' daggers which were popular in south Germany and especially in Switzerland throughout the sixteenth century. These daggers had short, double-edged, leaf-shaped blades, and hilts of 'I' form, perhaps deriving from the earlier, medieval baselard daggers. In the nineteenth century many reproductions and fakes of this type were produced, and in this century the Swiss dagger became the model for many of the daggers produced in Nazi Germany. Many of the hilts and, more particularly, the sheaths of these Swiss daggers are sumptuously decorated to designs produced by artists such as Hans Holbein the Younger and Heinrich Aldegrever.[156]

The majority of such scabbards are of wood or leather, covered with velvet, and encased in mounts of brass or gilt brass, which are usually pierced and either cast or chased with a variety of designs. Often, near the top of the sheath are two compartments, either for two small by-knives or for a by-knife and a pricker, but these do not occur on all sheaths and are not present here. Missing from this sheath is the chape which, on the majority of surviving examples, is a large onion-shaped or trilobate knob, usually decoratively cast or chased with rams' horns or volute scrolls surrounding an animal or human head. Schneider has analysed the decoration which occurs on these sheaths and has found that at least forty-three different figure scenes have been used on the examples which he has examined,. among them the 'Roman triumphal procession' found on this sheath.[157] He discusses and illustrates only one example decorated with this particular scene, a sheath which, with its dagger and accompanying by-knife and pricker, was once in the collection of Carl von Schwerzenbach and is now in a private collection in Denmark.[158] The von Schwerzenbach sheath is considerably larger than this one (315 mm compared to 209 mm in length), but the decorative panel appears to be the same size on both, and the two panels appear to be identical, suggesting that they may even have come from the same mould. Schneider suggests that the von Schwerzenbach dagger and sheath may have been made not in the sixteenth but in the nineteenth century, and, if he is correct, this would indicate that the Ashmolean sheath may also be of nineteenth-century date. Certainly the execution of the decoration on both sheaths is cruder than that on many sheaths which are either known or believed to be of sixteenth-century date, and this may, therefore, argue in favour of a nineteenth-century date for this one. However, against this must be weighed the possibility that this sheath and its accompanying dagger, since lost, are those described in the 1685 catalogue, and that the sheath is therefore a perfectly genuine sixteenth-century piece. Certainly the 1685 entry could apply to this sheath and its dagger, for many daggers of this type have hilt mounts of bronze or brass either plain or gilt. However, the catalogue description is not specific enough to enable a definite identification to be made, and so the possibility remains that this sheath did not form part of the Tradescant or early Ashmolean collections, but rather that it came to the museum unrecorded at some time during the nineteenth century. If genuine, however, the sheath must date from the second half of the sixteenth century.[159]

G. M. Wilson

99. BUCKLER (Fig. 52, Pl. XXIV). Small circular shield of concave section. It is made of leather, reinforced on the front with 151 radiating bands of iron overlaid by twenty-one concentric bands of thin brass strip. Both iron and brass bands are attached by numbers of iron pins with domed heads of brass, the ends of which are clinched on the leather back of the shield. At the edge the leather of the shield is sandwiched between two wider iron bands, one on the front, one on the back. These bands are attached from the front by a row of iron rivets with large domed heads of brass. The band on the rear of the shield has two raised loops, one on either side, to secure the wooden handle. The handle is now missing but some traces of it remain within these loops. In the centre of the shield is an iron boss also attached by a row of brass-headed iron pins. The boss is of flattened conical form

[156] Dean 1929, p. 31.

[157] Schneider 1977, pp. 30–44.

[158] Ibid., p. 147, no. 76. This dagger was in the collection of Carl von Schwerzenbach in 1905 (Forrer 1905, p. 22, Abb. 79). It was sold by public auction in Luzern in 1935 (Galerie Fischer, Luzern, *Auktionscatalog*, 7 May 1935, lot 162).

[159] Schneider (1977, pp. 115–83) catalogues and dates 157 Swiss daggers.

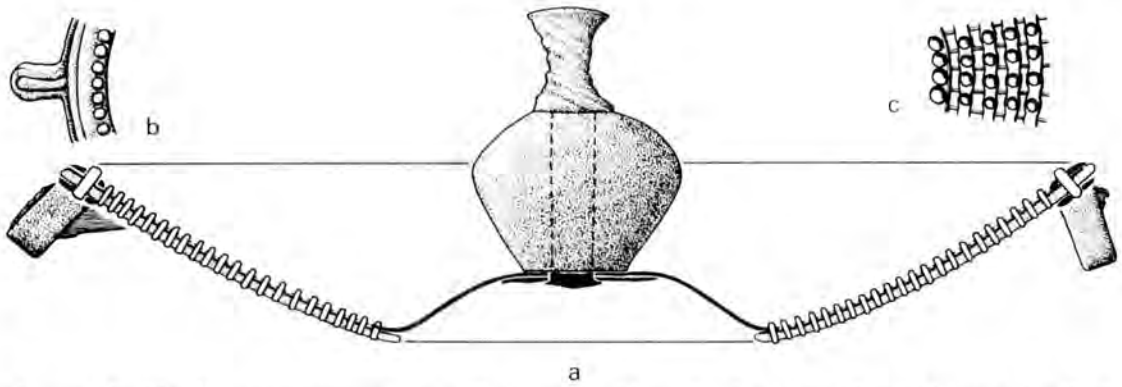


Fig. 52. Buckler No. 99: a, cross-section, with elevation of boss; b, plan-view of handle-loop; c, detail of construction. Scale (a–b) 1:2, (c) 1:1

bearing in the centre an onion-shaped process surmounted by a writhen finial which expands to a broad, flat end.

1656 p. 45: *Targets several sorts, viz; Knights Templers, Britaine, Isidore the Monk, Roman, Japan, Graecian, Roguza.*

1685 B no. 14: *Clypeus alter parvus, rotundus, in convexa parte magna est ansa lignea, totam circumferentiam ambit lamina ferrea; pars concava aeris clavis munita.*

Dimensions: Diameter 276 mm; Depth 102 mm.

Bibliography: Dean 1914, no. 42; Ffoulkes 1912, p. 58, no. 162, pl. XVII; Niox 1917, p. 118; Williams 1958, p. 17.

This particular form of round shield, which was equipped with a transverse grip so that it could be held in the hand, was known as a buckler, and was used both as a civilian and a military defence. Bucklers similar to that in the Ashmolean seem to have been popular in England and Wales from the mid fifteenth century until the late sixteenth century, but unfortunately it is almost impossible to date surviving examples accurately within this period. The earliest representation of a buckler of the same general form as the Ashmolean example appears in a misericorde, which may be dated to 1447, in Ludlow Parish Church.[160] Bucklers of this same general type may also be seen, carried by members of Henry VIII's guard, in two paintings in the Royal Collection at Hampton Court, which illustrate, respectively, the embarkation of King Henry VIII at Dover in 1520, and the Field of the Cloth of Gold to which he was then travelling. Both these paintings are believed to be roughly contemporary with the events which they depict.[161] Finally, a late example of this type of buckler may perhaps be illustrated in Joris Hofnagel's painting, *The Wedding Feast at Bermondsey*, which dates from about 1570, although the shield depicted might also be a target with straps to attach it to the forearm.[162] Many of the surviving examples of this type of buckler have traditionally been called Welsh, and a considerable number have Welsh or border associations and provenances, but Williams in a study of these bucklers stated that he could find little real evidence that they were of Welsh origin, and suggested instead they were probably all made by one of Henry VIII's foreign armourers working in London.[163] However, Claude Blair and Ifor Edwards have now established beyond reasonable doubt that these bucklers were produced chiefly in and around the Denbighshire (now Clwyd) town of Wrexham, from which they derive their name, and especially in the village of Ruabon.[164] Nevertheless, it appears that at least some were made by Welsh craftsmen working in London, including one Geoffrey Bromefield, a native of Ruabon who is recorded as a maker or supplier of bucklers to the King from at least 1529 to about 1544.[165] Although all Wrexham bucklers are very similar in general

[160] See Edwards and Blair 1982, pp. 84, 113 (n. 41).

[161] For a discussion on the dating of these pictures see Millar 1963, nos. 23–5.

[162] Collection of the Marquess of Salisbury, Hatfield House.

[163] Williams 1958, p. 13.

[164] Edwards and Blair 1982, pp. 74–115. The use of the term 'Wrexham buckler', presumably to describe a particular type of buckler, occurs first in the 1547 Inventory of the possessions of Henry VIII (BL MS Harley 1419 B) which includes 'two wreckesham Bucklers'.

[165] Edwards and Blair 1982, pp. 85–7.

form, there are considerable differences of constructional detail within the group, and bucklers differ one from the other in size, in concavity, in the shape of the boss, and in the arrangement of the metal reinforcing bands. Williams listed and described sixteen of these bucklers and suggested that they could be divided into three distinct types, but the considerable constructional variations which can be found on bucklers within each of these three types suggest that his typology is rather too simple, a fact of which he himself seems to have been aware, describing his differentiations as 'a little forced'.[166] He placed the Ashmolean buckler, together with ten others, into Type 3. According to Williams, shields of this type are constructed of concentric and overlapping iron bands attached by rivets 'inserted with meticulous regularity', are generally 'wider' than bucklers of Types 1 and 2, and have lost the radiating reinforcing strips which are found on bucklers of Type 2. Unfortunately the eleven examples which he groups into Type 3 differ from each other in details both of construction and form and frequently seem to relate more closely to bucklers of one of the other two types. The Ashmolean buckler differs from all but one of the Type 3 shields in being constructed not of concentric and overlapping rings but of radiating bands of iron, overlaid by concentric and abutting bands of brass through which pass the fixing rivets. Another buckler constructed in this way, the smaller of the two from Moreton Corbet Church which are now in Shrewsbury Museum, was placed in Type 2 by Williams. It is very similar to the Ashmolean shield, the main differences being that both the radiating and the concentric bands are of brass, and that the finial of the boss is made of applied bronze and is shaped as a writhen, dome-headed rod.[167]

The other buckler which the Ashmolean example closely resembles is in the Musée de l'Armée, Paris.[168] It is of almost exactly the same size as the Ashmolean buckler (280 mm in diameter), and is constructed in the same way, except that the strengthening rings are of iron rather than brass. The bosses of both shields are of identical form, but that of the Paris buckler is etched and gilt with foliage involving the Tudor royal arms with dragon and greyhound supporters, a portcullis, a crowned Tudor rose, and a pomegranate. Traditionally this buckler has been known as the buckler of Henry Tudor, Duke of Richmond, who became King Henry VII of England in 1485,[169] but it must, in fact, have been made for his son, King Henry VIII: the supporters are those used by Henry VIII, and the pomegranate was adopted by him as a decorative motif after his marriage to Catherine of Aragon in 1509.[170] It has even been suggested that the Paris buckler might be identified with one described in a list of the royal jewels of Henry VIII dated 1519, but this was said to be of silver and is clearly different.[171] It seems reasonable to suggest, however, that both this and the Ashmolean buckler probably date from the early years of the reign of King Henry VIII. Certainly the Paris buckler must date from before Henry's divorce from Catherine in 1531 and probably from before 1529 when she fell completely out of favour. It has recently been suggested with much justification that it may have been presented by Henry to Anne de Montmorency (1493–1567) in 1532 or earlier.[172]

A buckler (Williams Type 2) which was given to Brecon Cathedral in 1931,[173] may also be compared to the Ashmolean buckler. It too is of small size, of pronounced concave section, and has a boss with the very distinctive flat-ended finial found on the Ashmolean and Paris bucklers, although in this case, of plain octagonal, rather than writhen form. The Brecon buckler is reinforced by both concentric and radiating bands of iron, but whereas the radiating bands on the Ashmolean buckler abut, forming a continuous iron surface, and the concentric bands are closely set, the bands on the Brecon buckler are widely spaced, giving the buckler the webbed appearance described by Williams as a characteristic of Type 2 bucklers. As a consequence the rivets are more widely spaced than on either the Ashmolean or Paris examples, and the brass heads are considerably larger.[174]

Four bosses excavated in London and now in the Museum of London may be compared to the boss of

[166] Williams 1958, pp. 13–14.
[167] Shrewsbury Museum: see Williams, 1958, p. 15, fig. 5.
[168] Musée de l'Armée, Paris, no. 1.6. (Williams Type 3).
[169] Robert 1890, p. 244.
[170] Niox 1917, p. 118.
[171] Beard 1925, p. 110.
[172] Edwards and Blair 1982, pp. 88–9.
[173] Now on loan to the Armouries, HM Tower of London.
[174] Williams suggested that it may have been the Brecon buckler which was in the collection of Mr Green of Lichfield, Staffordshire, in 1786, and which formed part of the equipment of the figure known as the 'Norman Crusader' which was exhibited in turn at Liverpool Museum, the Oplotheca Exhibition, and the Tower of London in the early nineteenth century. See Williams 1958, p. 16; Grose 1786, p. xii, pl. 34, fig. 1; Borg 1974, pp. 168–9.

the Ashmolean buckler.[175] One of these, which was excavated in London Wall, was described by Williams as being of Type 3, although it has a plain, octagonal-section finial, similar to that on the Type 2 buckler from Brecon Cathedral, set on a domed process with a tapering, concave neck. Another from the Thames has a similar octagonal-section finial expanding to a flat end, also set on a domed process with a tapering, concave neck. A third, excavated in Camomile Street, also has an octagonal-section finial expanding to a flat end, but this is of squatter form and is set on a true onion-shaped process. The fourth, excavated in Moorfields, has a much longer and more rounded finial expanding to a flat end, again set on an onion-shaped process.

The Ashmolean buckler is almost certainly the one referred to in the 1685 catalogue, although this entry mistakenly describes the shield as being made of wood rather than of leather. It may also be one of the targets of 'severall sorts' listed in the 1656 catalogue, but this cannot be proved.

G. M. Wilson

100. POWDER-FLASK (Pl. LXIX). The flask is made of antler, with mounts of iron, now much rusted. The body is cut from a single piece of antler widening to two truncated branches at the bottom. The front of the body is polished, and decorated with carving; the rear retains the natural surface, and is drilled with a hole just beneath the top-cap, probably for a belt-hook. A pair of plain iron suspension-rings is fixed one on either side of the body. A plain cap is attached to the top of the flask by a large bolt which passes from front to back and is secured by a washer and a dome-headed nut. Although part of the top of this cap is rusted away it still retains a large round hole, probably for the missing nozzle, and a V-spring, probably for a missing lever-operated cut-off. The lower caps are plain, and bear traces of brazing. The right-hand cap is attached to the body by a large screw in the centre of its base. There is no fixing apparent for the left-hand cap. The front of the body is carved in low relief within an architectural frame with the figure of a man bestriding and wrestling with a lion. The figure wears contemporary costume consisting of a full-skirted jacket with long sleeves which are full from shoulder to elbow. The architectural border consists of a baluster column on either side, each with a writhen capital, supporting a double Romanesque arch. The ground bears some traces of green dye and is textured to the base of the columns with vertical striations and below with vertical zigzag lines.

1685 B no. 168: *Pixis pro pulvore pyrio ex cornu confecta.*

Dimensions: Height 173 mm; Width 118 mm.

Bibliography: Houlkes 1912, p. 51, no. 130, pl. XV.

Many flasks of this general form exist, and most are thought to be of German origin. Little attempt has yet been made to classify them, and, as a result, attributions to specific artists or workshops are not yet possible. Nevertheless the decoration on some of these flasks can be related to the designs of German craftsmen such as the Nürnberg goldsmith Peter Flötner, and many others are found bearing German coats of arms and provenances.[176] Dated examples are relatively uncommon, but most of those which are dated appear to have been made in the second half of the sixteenth century. One of the earliest flasks of this type, however, an elaborately decorated example said to have belonged to King Henry VIII of England, is dated 1531.[177] Other examples which may be cited range in date from 1555 to 1586.[178] Architectural borders similar to those on the Ashmolean flask occur on a number of flasks including one in the Waddesdon collection, one in Geneva, three now in Bern decorated with religious scenes, a flask in the Wallace Collection engraved with the figure of a musketeer, and one from Bouillon engraved with a scene portraying the resurrected Christ.[179] The scene which decorates the front of the Ashmolean flask within the archi-

[175] Respectively: Museum of London, no. A 15261 (Williams 1958, pp. 15, 17–18, pl. v, figs. 6–7); Museum of London, no. A 5880; Museum of London, no. 217; Museum of London, no. 19254 (Holmes 1957, p. 15, fig. 1).

[176] Blair 1974, p. 351, no. 143, figs. 146–7.

[177] Muzeum Narodowe, Krakow, no. XIV 413; see Zygulski 1965, pp. 395–7, figs. 10–11.

[178] These include a flask dated 1555 and bearing the arms of the Volkrahen family of Austria (Wallace Collection, London, no. A 1249); a flask dated 1556 which is decorated with a figure of Mars based on a plaquette by the Nürnberg goldsmith Peter Flötner (Rothschild collection, Waddesdon Manor, no. 143; see Blair 1974, p. 351); a flask dated 1557 and carved with a representation of the Crucifixion (Wallace Collection, no. A 1250); a flask dated 1559 from the collection of Emperor Napoleon III (Musée de l'Armée, Paris, no. M 2022; see l'Haridon 1864, p. 188, no. 496); a flask dated 1586 and decorated with a representation of Leda and the Swan (Musée d'Art et d'Histoire, Geneva; Bosson *et al.* 1969, p. 70, no. 122).

[179] Respectively: Rothschild collection, Waddesdon Manor, no. 143 (see Blair 1974, p. 351); Musée d'Art et d'Histoire, Geneva, dated 1588 (see Bosson *et al.* 1969, p. 70, no. 122); Bernisches Historisches Museum, Bern, nos. 2497–9; Wallace Collection, London, no. A 1251; Musée Ducal de Bouillon (*Musée Ducal de Bouillon*, 1971, p. 44, no. 205).

tectural border is intended to represent either Hercules wrestling with the Nemean lion or Samson killing the lion at Timnath. A number of similar flasks are decorated with one or other of the Labours of Hercules, and these include one from the collection of the Emperor Napoleon III, one in the Wallace Collection carved with a representation of Hercules wrestling with Antaeus, and one with almost identical decoration to the last, in the Musée Départmental des Antiquités, Rouen.[180] A considerable number of sixteenth-century illustrations of Hercules wrestling with the Nemean lion show a scene similar to that on the Ashmolean flask, with a man straddling a lion and wrenching open its mouth. In most of these illustrations the lion faces to the right rather than the left as here, but one exception is an engraving by Marcantonio Raimondi (working 1506–27) which shows an almost identical scene to that on the powder-flask, the main differences being firstly that the lion's head is turned back towards its body and secondly that the figure of Hercules is dressed only in a cloak.[181] This is quite typical of sixteenth-century illustrations of Hercules, which usually show him either nude or dressed in classical costume, rather than in the contemporary costume of the figure on the Ashmolean flask. Sixteenth-century illustrations of Samson, on the other hand, frequently show him in contemporary dress, and a number of representations of him killing the lion at Timnath are almost identical to the scene on this powder-flask. These include: a German woodcut from the *Biblia Pauperum* dated 1471; an engraving by Cornelius Matsys, part of a Samson cycle; and an etching dated 1608 after a drawing by David Vinckeboom.[182] The weight of evidence therefore seems to suggest that the scene on this flask is intended to represent Samson killing the lion at Timnath.

It seems reasonable to suggest that this flask was probably made in Germany towards the end of the sixteenth century, and the style of the clothing on the figure of Samson, which relates closely to that on the Vinckeboom etching of 1608, tends to confirm this date. It cannot, however, be positively identified from the brief description in the 1685 catalogue. G. M. Wilson

101. MANACLE (Pl. LXX). Consists of two semi-cylindrical plates of iron, hinged together, each with a flattened tongue at the end opposite to the hinge. The hinge-pin is a plain iron rivet, and to accept this, one end of each plate has been crudely forged into a loop. Half-way between hinge and tongue, the outside of one of the plates is incised at one edge with two straight lines converging towards the centre of the plate, where there is a large incised *X*. When the two plates are closed to form a circlet, the two tongues opposite the hinge meet and can be held together by a separate iron sleeve. The sides of this sleeve are formed of one sheet of metal, to the top and bottom of which triangular plates are attached by tabs which pass through the plates and are then hammered over. Both tongues and sleeve are pierced by a large cross-shaped opening through which a locking device could be attached to secure the manacle.

1656 p. 46: *Iron Manacle taken in the Spanish Fleet–88.*
1685 B no. 170: *Manica ferrea anno 88 ab hispanica classe abrepta erat.*

Dimensions: Width (overall) 143 mm; Height 61 mm.

This manacle is of the same type as one in the collection of torture instruments from Nürnberg Castle which was acquired in 1890 by the Earl of Shrewsbury.[183] This collection, which has now been dispersed, consisted of a mixture of genuine, doubtful, and fake pieces, and the presence in it of a similar manacle might, therefore, throw some doubts upon this piece. However, as a manacle appears in both the 1656 and 1685 catalogues, it seems more than likely that this example is genuinely of sixteenth- or seventeenth-century date. Despite the testimony of the early catalogues, however, there must be considerable doubt as to whether it was captured from the Spanish Armada of 1588. Certainly the campaign of 1588 was not notable for the number of prizes taken, since most ships lost were either sunk in action or wrecked; nor is there any evidence that the Armada ships were carrying large supplies of torture instruments as was widely believed at the time. On the other hand, they may well have carried manacles for normal

[180] Respectively: Musée de l'Armée, Paris, no. M 2023 (see l'Haridon 1864, p. 188, no. 495); Wallace Collection, no. A 1251; Musée Départmental des Antiquités, Rouen, no. 2621 (illustrated in Duchartre 1955, p. 141, fig. III, 1).

[181] Bartsch 1866, p. 221, no. 291.

[182] Respectively: for the *Biblia Pauperum* see Ehrwald 1906, p. 6; Vatican Library, Rome; Kunsthalle, Hamburg, no. 22647.

[183] *Catalogue of the Torture Instruments from the Royal Castle of Nuremberg Lent for Exhibition by the Earl of Shrewsbury and Talbot* (New York, 1893), p. 33, no. 554. The manacle is not illustrated or described here, but was on view in London in 1967 when the collection was in the possession of Peter Dale Ltd., and is illustrated in that company's typescript catalogue, 'Historical Collection of Torture Instruments from the Castle of Nuremberg' (1967), no. 202.

disciplinary purposes, so that the Armada provenance of this piece cannot wholly be discounted. Borg has shown that the myth which soon grew up around the Armada, which he describes as a patriotic retelling of the David and Goliath story, provided a climate in which many objects, especially instruments of torture and punishment, were given quite false 'Armada' provenances.[184] From the late seventeenth until the mid-nineteenth century a large number of weapons and instruments of torture, said to have been captured from the Spanish fleet in 1588, were on public display in the Armouries of the Tower of London, in what soon became known as the Spanish Armoury. Borg showed conclusively that most of these were not Armada relics but were earlier English pieces, many from the arsenal of Henry VIII, and he produced evidence which suggested that all the instruments of torture and punishment in this display were of English rather than Spanish origin. Given this background, the Armada provenance of this manacle must remain open to considerable doubt, especially as there is insufficient comparative material available to enable precise dating of the piece.

G. M. Wilson

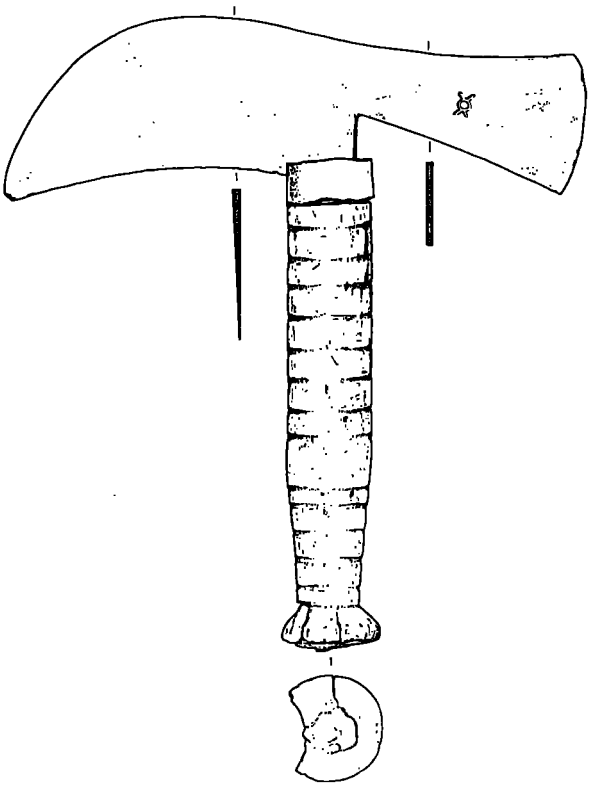


Fig. 53. Vineyard tool, No. 102. Scale 1:3

102. VINEYARD TOOL (Fig. 53). Agricultural implement with a turned wooden handle, circumferentially grooved. The double-edged iron blade is fixed at right angles to the handle, one side being hatchet-shaped and the other curved and sharpened along the inner curve. A maker's mark is stamped on one face of the blade.

1685 B no. 109: *Falx foeniseca turcica. ligneo manubrio praedita.*

Dimensions: Length (overall) 255 mm, (blade) 222 mm.

This implement is described in the 1685 catalogue as a Turkish sickle, and later came to be regarded as emanating from South-East Asia. An agricultural use seems likely in view of the blade construction and angle of mounting. The short handle and neat blades would be suitable for work in vineyards, the larger hook being used for removing superfluous shoots and the smaller blade for cutting fruit-bearing branches.[185]

An implement called a *serpe* was traditionally used in certain regions of France for training vines and harvesting the grapes; such tools were still in use in the early part of the twentieth century.[186] The Musée National des Arts et Traditions Populaires in Paris has examples which are similar, but they are perhaps closer in form to the back-edged billhooks from parts of England which have less pronounced axe-like projections.[187] A manufacturer's catalogue of 1935 illustrates a tool which is very similar to the implement in this catalogue.[188] The use of these tools had ceased in Lorraine by the 1930s, but they were seen at that time in Fénétrange (Moselle), where they were called, in Germanic patois, *Kulturschal*.[189] The latter tools, however, had a much broader and shorter rear projection.

Various strains of vines have developed in France over the centuries and there is a corresponding diversity of techniques of viticulture, reflected in great variations in tool types.[190] Implements of this

[184] Borg 1976, *passim*.

[185] Musée National des Arts et Traditions Populaires, 1971, p. 61, fig. 5: *Serpe (No. 5) 'poudadouiro'. Lame montée à scie virole, dos tranchant, un croc 230 × 240. Bouches-du-Rhône, Eygalières.*

[186] Information concerning French viticulture generously provided by Madame Martine Jaoul.

[187] Arnold 1968, p. 247.

[188] *Catalogue de vente de taillandier P. Experton-Revollier et C^ie Renage (Isère). Manufacture de faux, faucilles, taillanderie, outillage, bêches, louchets* (1935), no. 2. This catalogue is in the archives of Musée National des Arts et Traditions Populaires, Paris. The particular example appears under *Les Serpes de l'île de France, du Languedoc et de la Lorraine, no. 1585: 'Serpe Modèle Saverdun'*.

[189] Linkenheld 1932, p. 120.

[190] Lentigny 1980, pp. 112–15.

particular style have been in use for centuries, and both Roman and Greek origins have been suggested.[191] Roman funeral monuments depicting those involved with viticulture sometimes show the deceased holding the tools of their trade: a particularly fine example, now in the Musée Archéologique, Bordeaux, shows a man holding a *serpe* in his right hand; another monument, from Nîmes (Gard), shows a similar tool with a longer axe-blade and a more acute angled hook.[192]

The entry in the 1685 catalogue does not adequately describe this specimen, and it is possible that it has been substituted at a later date. E. T. Leeds considered that this specimen was unlikely to be the one described in the early catalogue when he compiled his list of specimens dating from the founding collection which were still in the museum in 1911.[193] It is reasonable to assume that this tool has been in the collection for a considerable time, however, and it can be attributed to a European source, probably French.

E. Sandford Gunn

103. HAWK'S HOOD (Pl. LXXII). Made of leather, to which is sewn a cover of a red fabric, probably originally velvet. The cover is decorated with gold thread embroidery involving loops of gold, and is edged with gold chain-work. At the front of the hood is an opening for the beak. At the rear the hood is split to allow it to be easily fitted. Draw-strings attached either side of this opening secure the hood to the hawk's head. There is no plume, but at the rear of the crown a length of gold foil is doubled through the cover and bound with gold chain-work.

1656 p. 47: *Henry the 8 his Stirrups, Haukes-Hoods, Gloves*, or,
1656 p. 49: *Henry 8, hawking-glove, hawks-hood, dogs-coller.*

Dimensions: Height 38 mm; Width 64 mm.

When the sport of hawking was first practised in Europe is uncertain but it was popular from the early Middle Ages onwards. Hoods were used both as an aid to training and to keep the trained hawks quiet and still while sitting on the hawker's glove. According to Gay, the first reference to the use of hoods in Europe dates from the reign of Emperor Frederick II at the beginning of the thirteenth century, but most surviving examples date from no earlier than the late fifteenth century.[194] Hoods were generally made of leather and had to be properly shaped so as not to damage the bird. George Turbervile, writing in 1575, stressed that a hawk 'muste have a hood of good leather, well made and fashioned, well raysed and bossed agaynst hir eyes, deep and yet streyght ynough beneath, that it may the better abyde on hir heade and yet never hurte hir'.[195] It would seem that hoods were sometimes padded to further protect the hawk. For instance, one John Rowlande is recorded as supplying Henry VIII with '2 calf skins to make stockes for halkes hoddes . . . and 2lb of wool to stuff the same'.[196] Most hoods have a plume on top of the crown which, as well as being decorative, can be used as a handle to help in the fixing and removal of the hood. This particular example, however, appears never to have had such a plume and may, therefore, be of the type referred to by Harting as a rufter-hood, a plumeless hood which was used only during training when the absence of a plume prevented the hawk from pulling off the hood at will.[197]

It is difficult to date hawks' hoods with any degree of accuracy, but this hood, although far more lavishly decorated, does appear to relate in general form to a number of hoods which have been dated either to the late fifteenth century or to the sixteenth century.[198] It is also similar in form to the gilded and painted hoods of tooled leather which form part of a set of hawking equipment, made in northern Italy for Maximilian I and his wife Bianca Maria Sforza, and bearing their arms.[199] This set can be confidently assigned to the years between 1494, the date of Maximilian's marriage, and 1508, the date of his assumption of the imperial title. Further evidence for the dating of the Ashmolean hood comes from Holbein's portrait of Robert Cheseman (1485–1547), falconer to Henry VIII. The portrait is now in the Koninglijk Kabinet van Schilderijen, Mauritshuis, The Hague, and is dated 1533. It shows the sitter with a hooded hawk on his gloved left hand. The hood is very similar in form to

[191] Linkenheld 1932, pp. 192–3.
[192] Lentigny 1980, p. 115; Espérandieu 1907, no. 472.
[193] Department of Antiquities, Ashmolean Museum, MS catalogue dated 1911.
[194] Gay 1887, p. 334.
[195] Turbervile 1575, p. 100.
[196] Gairdner and Brodie 1910, p. 404, no. 769, iv, 14.
[197] Harting 1891, p. 229.
[198] For example, Germanisches Nationalmuseum, Nürnberg, nos. W 2584–5, W 2636 (see Neuhaus 1935, p. 18, pl. 27); Museo Nazionale, Florence, Ressmann collection no. 252, Carrand collection nos. 193–4 (see Palazzo Strozzi 1960, no. V8 a–c).

the Ashmolean example: it is covered with red fabric and instead of a plume it has a tassel on the crown. It is with some confidence, therefore, that the Ashmolean hood can be dated to the first half of the sixteenth century.

There seems no reason to doubt that this hood is one of those referred to in the 1656 catalogue as belonging to King Henry VIII, for, although it is impossible to prove, both the quality and the date of the hood support this provenance. Henry's love of hunting is well known, and it appears that his interest in hawking increased as he grew older and became less able to indulge in the more strenuous forms of the chase.[200] Certainly the accounts for the last few years of his reign show that by then Henry was purchasing hawking equipment in very considerable quantities. For instance, on 8 June 1547 Marke Myllener delivered to the King '11 doz. hawk's hoods at 8*d*' and '1 doz. of large hawk's hoods, 6*s*.'[201] There is, therefore, at least a possibility that this hawk's hood is one of those made for King Henry in his later years, but unfortunately it is unlikely that any positive proof will be forthcoming.

G. M. Wilson

104. GLOVE (Pl. LXXIII). Right-hand glove of red-brown doeskin with an overlaid panel of grey-white kid or dogskin on the upper palm of the hand, curving up to the lower joint of the thumb and index finger and extending the full length of the other three fingers. Lining of white doeskin.

The glove is made in two main pieces, a front and a back of the hand, and is lined throughout. The area of the glove usually called the gauntlet curves obliquely outwards and is open from the wrist to the edge of the glove, an opening of some 77 mm. The edge of the glove, but not the gauntlet opening, has a narrow border, 5 mm deep, of pink linen which extends as a lining 70 mm inside the glove.

The glove is embroidered with rows of silver-gilt thread held by red silk couching stitches. Six rows of this embroidery form a band which encircles the wrist, and the gauntlet is embroidered with three circular motifs, one at the centre front, one at the centre back, and one on the inside fold. Each motif is 60 mm in diameter, with an edging row of couched blue silk and two inner circles of similar silk between the silver-gilt. Joining motifs together there is a horizontal row of couched metal thread. On the outside edge of the gauntlet, just above the opening, is a small yellow silk tassle with a metal thread waist.

On the palm of the hand the overlaid panel of grey-white kid is cut in a curving and looping pattern; the edge of this is embroidered with pink silk couching stitches over linen thread. Just below the little finger there is a small circular motif, similar in design and execution to those on the gauntlet. The linen stitching is sewn to an average of six stitches to the centimetre. The glove is faded and worn, and partly unstitched. The narrow linen band around the edge of the gauntlet is an indication that there was originally some decoration here, possibly fringing or additional rows of metal thread.

1656 p. 47: *Henry the 8, his Stirrups, Haukes-hoods, Gloves*, or,

1656 p. 49: *Henry 8, hawking-glove, hawks-hood, dogs-coller.*

1685 B no. 228: *Chirothecae Henrici 8^{vi} Accipitariae, ex corio confectae, cum quatuor cucullis accipitarijs.*

Dimensions: Length 285 mm; Width 130 mm.

This glove may have belonged to either of the two sets mentioned in the 1656 catalogue (see also the hawk's hood No. 103). The association with Henry VIII seems likely enough: the style and decoration of the glove are consistent with the type of embroidered glove worn in the early sixteenth century, and, in the words of an earlier writer on this subject, 'in their heavy, bluff outline [they] present an appearance strangely in keeping with the popular conception of the character of that monarch'.[202] In all probability it is one of the items given by royal warrant to the elder Tradescant in 1635.

The tradition that this is a hawking glove also seems acceptable. Henry VIII's passion for the sport is well documented, and the glove is suitably constructed for this purpose. The type of glove which is needed has not changed greatly over the centuries, and a modern falconer's comments that 'the glove should fit well, should be thick enough to resist the talons, but not so thick or hard that you have no feel of the bird, nor the bird of you; and that it be in the shape of a gauntlet to protect the full length of your wrist',[203] concern features which

[199] Waffensammlung, Vienna, nos. D 6, D 24 ff.

[200] The letters and papers of Henry VIII (Gairdner and Brodie 1910) have very few references to hawks or hawking before the mid 1530s, but thereafter references became more and more frequent.

[201] Gairdner and Brodie 1910, p. 403, no. 769, iii. 4; see also ibid., p. 400, no. 769, ii, 2.

[202] Ellis 1921, p. 15.

[203] Drummond 1960, p. 55.

were as apt in the sixteenth century as they are today.

This glove suits the above description admirably. It is lined throughout, but both glove and lining are made of supple doeskin, while the backs of the fingers and upper palm are strengthened to resist sharp claws. This combination is rare amongst surviving examples of gloves, although certain similarities can be found if it is compared to surviving hawking gloves. A hawking glove in the Burrell Collection which is associated with James I is lined throughout with a silk pile material;[204] another seventeenth-century glove in the same collection is made with the fingers and upper hand of a much heavier leather, possibly buckskin or dogskin, extending as a lining into the main body of the glove, which is made of doeskin.[205] The distinction between hawking gloves and other varieties of glove is clearly stated in contemporary accounts, for example, in the mid-seventeenth century, 'William Carmichael made for him dogskin gloves for hawking, white kid gloves and purple gloves'.[206]

A small point of interest, in connection with hawking, is that the right-hand glove has survived. Traditionally, European falconers always carry their hawks on the left hand, although the right hand might be used in certain climatic conditions.[207] There is a portrait by Quellin and Fijt in the Musée Royal des Beaux Arts in Antwerp which shows a small boy with his hunting-dogs and with his hawk perched on a sturdy buckskin-gloved left fist; his right hand is partly obscured, but appears to be ungloved. Although hawking gloves were usually made in pairs, this portrait confirms that the right glove would have received little wear. Certainly this example under discussion shows no signs of the surface marks associated with claws, thus indicating that its owner followed the traditional methods of European hawking.

All the evidence indicates that this is a hawking glove, probably English in origin, and made to the particular specifications of its wearer in its construction and decoration, and of a size and style which could have been worn by Henry VIII, *c.*1520–45.

V. Cumming

105. GLOVES (Pl. LXXIV). Pair of gloves of yellow-brown buckskin and white leather, unlined. Each glove is made from eight sections: a front and a back of the hand, three fourchettes (the narrow side panels between each finger), a thumb, all of buckskin, and a wristband of double-thickness white leather with a matching cuff of overlapping ovals. The fingers and fourchettes are cut much deeper on the upper hand, extending 35 mm below the natural division between the fingers, a sixteenth- and seventeenth-century conceit which created the illusion of unusually elongated hands. The shallow cuff-decoration, only 35 mm deep, consists of a narrow double band with a serrated punched design on the outer side, each 9 mm long and at regular 5 mm intervals around the band. The overlapping ovals which form the main part of the cuff are 25 mm long by 20 mm wide, with pinked edges and a punched central design of three 'S's. These ovals are double-thickness leather and encircle the wrist, leaving only a narrow gap at the back. The linen stitching varies between ten stitches to the centimetre around the thumb, to an average of five stitches to the centimetre on other parts of the glove.

The gloves are stained and worn, exhibiting a number of holes and tears. On the right glove there are two tears on the upper hand and five on the palm; on the left glove there is one tear on the upper and three on the palm, and some unstitching between the fingers. The tops of the middle finger of the right hand, and the index and middle fingers of the left hand are missing.

1685 B no. 230: *Duo paria chirothecarum corio confecta, corio etiam perbelle fimbriata.*

Dimensions: Length 225 mm; Width 90 mm.

The most distinctive features of this pair of gloves are the pinked edges and punched decoration of the cuff. Punched and slashed decoration was a fairly common feature of sixteenth- and seventeenth-century clothing: it may have originated as a decoration on leather, where it also served as a practical method of easing a stiff material.[208] The use of pinking is usually thought to have appeared in English dress in the second quarter of the seventeenth century,[209] but as a feature of European dress it can be traced back at least as far as the second quarter of the fifteenth century, when it is found on clothes worn by certain of the figures on German-Swiss playing-cards of the mid 1440s.

German portraits of the early sixteenth century

[204] Burrell Collection, Glasgow, no. 29/151.
[205] Burrell Collection, Glasgow, no. 29/152.
[206] Marshall 1973, p. 86.
[207] Drummond 1960, p. 55.
[208] Arnold 1975, pp. 22–6.
[209] Cunnington, Cunnington, and Beard 1976, p. 165.

are full of sitters wearing dress which emphasizes the fashionable interest in punched and slashed decoration. The unknown lady in a portrait by Lucas Cranach of *c.*1525–30[210] is wearing gloves which have a similar wristband to this pair. Later in the century gloves with pinked edges and overlapping ovals around the cuff can be seen on one or two of the male figures in the German *Trachtenbücher* of the late 1570s and early 1580s.

This disparity in both the date of the component parts of this particular style and in the sex of the wearer is not unusual for the gloves of this period. Fashions in the more practical type of dress accessory changed comparatively slowly in the sixteenth century, and similar styles of glove were worn by both men and women. The only method of determining the likely sex of an unknown original wearer of a pair of gloves is by measuring the length and width, and the size of this pair would indicate that the wearer was a man.

The country of origin and the possible date of these gloves is also uncertain. Although they are included in the 1685 catalogue they cannot be associated with any of the brief descriptions of gloves listed in 1656. Many of the gloves in the earlier catalogue were acquired because they were traditionally associated with someone of historical note, so it seems reasonable to assume that this pair may have been acquired for the same reason. The gloves give no clue to the status of their original owner. Such gloves were worn by various classes in society, and were inexpensive when compared to the richly decorated gloves given as gifts. In 1581 Lord North spent 5*os.* on the embroidered 'frogs and flies, for the Queen's gloves', but at the same time a pair of plain scented gloves could be bought for 1*s.* 2*d.*, and by the reign of James I the taste for decorated gloves had spread to apprentices, for they were prohibited from wearing gloves decorated with fringe, lace, or ribbons, and any that cost more than 1*s.* a pair.[211] However, these comparisons with English gloves cannot be pursued much further, as this pair is not indisputably English in style. In many portraits of the sixteenth century the sitters are wearing or holding gloves, but these invariably have plain cuffs or square tabs, with little or no sign of punched and slashed decoration. Foreign gloves were not easily obtained unless they were acquired during a period of foreign travel, or sent to England as a present. The importation of foreign gloves into England had been prohibited in 1463, but the renewal of the prohibition in 1564 may point to considerable abuse of this restriction in the intervening years.

The strongest evidence indicates that these were German gloves of the period *c.*1540–90.

V. Cumming

106. GLOVE (Pl. LXXV). Left-hand glove of light grey doeskin and pink-brown suede, unlined. The glove is made from eight sections: a front and a back of the hand, three fourchettes, a thumb, a wristband of double thickness, all of doeskin, and a cuff of overlapping ovals of suede. The fingers and fourchettes are cut deeper on the upper hand, extending some 40 mm below the natural division between the fingers. The cuff decoration is 30 mm deep. The wristband is slashed with 10 mm long cuts at regular 4 mm intervals on the outer side. Similarly to the gloves numbered 105, this band masks the join between the main body of the glove and the ovals of double-thickness suede which form the cuff and completely encircle the wrist; each oval is 20 mm deep. The linen stitching varies between seven stitches to the centimetre around the thumb to five stitches to the centimetre on the other parts of the glove. The glove is worn and faded, with stains, and a number of small holes and tears, five on the upper hand and five on the palm.

1685 B no. 230: *Duo paria chirothecarum corio confecta, corio etiam perbelle fimbriata.*

Dimensions: Length 205 mm; Width 70 mm.

Many of the distinctive features of this glove are found on the previous pair (No. 105), and a full discussion of their joint characteristics is to be found there. The less complicated cuff decoration and the smaller stitch ratio around the thumb is a sign of lesser workmanship on the part of the glover, and, consequently, fractionally less expense for the original purchaser. The shorter length and narrower width may point to the wearer being a woman, although the difference in size is usually more pronounced than this, often up to 500 mm in length rather than 200 mm.

The provenance of this glove is unknown, but the small amount of pictorial evidence which is available would indicate that this glove, as No. 105, is probably German in origin, dating from *c.*1540–90.

V. Cumming

[210] Sotheby's, London, *Important Old Master Paintings*, 19 April 1972, lot 62.

[211] Hughes 1961, pp. 203, 205–6.

107. BOOT (Pl. XXVI). Man's leg-boot of dark red leather. Sole made straights and probably unworn, ring stamps over the holes: one single stamp and a group of four. Pointed toe, iron-rim heel 10 mm high with no infill. Rope twist at heel seat. The leg is cut 127 mm higher in front, to reach above the knee, and there is string in the top edge binding. Lined with Prussian blue linen, now faded.

1656 p. 48: *Boots from . . . Muscovy.*
1685 B no. 285: *Ocreae turcicae seu persicae quarum calces ferrea Lamina armantur.*

Dimensions: Length 268 mm; Height 0.55 m.

In making boots and shoes of this type, the sole is temporarily nailed to the last and the holes have later to be closed, usually with some form of stamp, hence the ring stamps. The high-cut vamp-leg seam suggests southern Russian Cossack and Uzbeck styles, while the rope at the heel seat occurs on Turkish and Mesopotamian boots from the seventeenth to the twentieth centuries. Similar Russian boots with nineteenth-century features are also known.[212] The boot is reputedly Russian, but closely comparable examples have not, at the present time, been located in Russian museums.[213] There is some suggestion that it has Polish affinities.[214]

J. M. Swann

108. SHOES (Pl. XXXIV). Pair of girl's shoes of white suede, alum-tanned. Brown leather sole is continued as the heel top piece, made straights and unworn. The toe is bluntly pointed at the sole, with round, overhanging upper. There is a 45 mm covered heel. Rand of the same material. The upper has large open sides and narrow latchets, but the quarters are not fully lasted-in for about 25 mm each side of the centre back. The latchets tie over and through the top pair of two pairs of lace-holes in the tongue, but the laces are now missing. Parts of the quarters are damaged and missing; the top edges have two rows of tunnel stitching made to prevent such damage. The sock is suede. Decoration of the upper consists of chevron bands of zigzag perforations between slits cut only in the surface of the leather, with a braid effect up the centre front. The lower of the two pairs of lace-holes on the tongue was probably to take a decorative silk rose.

1685 B no. 310: *Calceorum 2 paria ex albo corio foraminato confecta. An sint ex China.*

Dimensions: Length 202 mm.

The large open sides and narrow latchets exhibited by this shoe were most popular from about 1610 to the 1630s. The feature of the quarters not being fully lasted-in is seen also on Queen Elizabeth's buskins,[215] and is also found on shoes made soon after the introduction of heels in the 1590s. This example can therefore be dated *c.*1600 and is of English or western European manufacture. A shoe of similar cut, but different decoration, is in the Rijksmuseum, Amsterdam.[216]

J. M. Swann

109. SHOE (Pl. XXXV). Girl's shoe of red suede, alum-tanned. Sueded sole with kick-up under narrow arch, made straights, unworn. Very narrow oval toe. No heel. The upper has large open sides with 10 mm-wide latchets to lace over the pointed vamp. The tongue is cut down the middle with six pairs of lace-holes fastening with a faded (?) cream silk lace, which is a purely decorative feature. Cream silk lining and sock. The decoration consists of rows of narrow silver 'lace' appliquéd at right angles to two rows of the same material up the centre front.

1685 B nos. 328–35: *Calceorum 8 paria.*

Dimensions: Length 203 mm.

The use of a suede sole on this shoe suggests that it was intended for indoor use. The shoe is reminiscent of some in the Rijksmuseum and is English or Dutch, dating from *c.*1615–35,[217] according to the toe shape and large open sides. Most surviving shoes with lace appliqué are, however, nearer the middle of the eighteenth century in date.[218]

J. M. Swann

[212] Tbilisi Historical Museum, Georgia.

[213] For discussion of this boot in relation to Russian examples we are grateful to M. R. Zavitukhine, who further enlisted the advice of Dr B. Sapunov. The opinion of Dr Sapunov is that the boot is of mixed form and is not Russian. The following features are said to preclude a Russian origin: 1. the sloping cut of the upper edge; 2. the side seam; 3. the low heel; 4. the low instep; 5. the cord on the quarters. The only Russian feature is considered to be the front of the boot, which could date from the seventeenth century. The suggestion is that the boot could have been made for one of the Polish colonies which existed in seventeenth-century Russia and could have been the work of a Russian cobbler.

[214] Professor Dr Z. Zygulski considers that a Polish origin is unlikely, but Professor Dr I. Turnau supports the theory that the boot could be Polish, but of mixed parentage (see n. 213).

[215] Ashmolean Museum, Bodleian Loan, no. 1887.1.

[216] Rijksmuseum, Amsterdam, no. NM 5580.

[217] Rijksmuseum, Amsterdam, unpublished.

[218] For example, Northampton Museum, no. P 19/1923.

110. SHOE (Pl. XXXVI). Man's black leather shoe with sole continuing up the heel breast, made straights and worn. The square domed toe is 70 mm wide. The 50 mm covered heel has a kick-up in the centre and is wooden pegged. Rand of black leather. High tongue. The latchets have been cut, but probably originally continued with a pair of lace-holes to tie over the tongue. The back seam is coarsely stitched, with five stitches to each 25 mm. The shoe is unlined.

1685 B no. 323: *Calcei nigro corio confecti, omnes nostrorum calceorum habent partes sed sunt breves admodum. An sint a Scotia?*

Dimensions: Length 265 mm.

The coarse stitching and absence of any lining suggests that this is a lower-class shoe. The wide domed toe was fashionable in the reign of George I and there is no record of such a construction in the seventeenth century. Although stylistically it appears to date from about 1710 to the 1720s, this is the only surviving shoe in the collection which can be correlated with the 1685 catalogue entry.

J. M. Swann

111. CHOPINES (Pl. XLIV). Pair of girl's chopines of pink silk and silver brocade. Oval-ended flat sole of brown leather with sueded mudguard, leather sole upcurved and skived. May have been worn. Sock or insole of brown leather with stamped design, square at toe and heel. Covered platform, presumably of cork, rises from 38 mm at the toe to 65 mm at the heel. Open toe; upper of two latchets with four pairs of lace-holes either side, but the lace is now missing. Silver edge binding, which presumably was also used on the stilt above the sole where stitches indicate missing braid. Pink silk rose at junction of latchets.

1656 p. 48: *Chappenes 20 sorts.*
1685 B no. 293: *Calcei veneti muliebres cum baxeis, holoserico deteguntur, argento neto egregie acupicto.*

Dimensions: Length 138 mm.

Bibliography: Redfern 1904, pl. VIII, 1.

See discussion under No. 113.

112. CHOPINE (Pl. XLV). Girl's chopine of faded satin, which was probably once pink, overlaying a brown leather lining. The toe of satin sock, insole, and sole is square. The covered platform, presumably of cork, rises 76 mm at the toe and 93 mm at the heel. The leather sole is made straights and is oval in shape, cut square at the toe with a kick-up and nail in the centre. Probably unworn. The toe is open. The upper of two latchets with possibly four pairs of lace-holes, lacking the laces, open at the centre of the sole seam at the ball of the foot. There is stylized floral embroidery on the upper and the stilt cover in silver thread. The edging is of silver lace and this is also used as a decoration at the front and back of the stilt.

1656 p. 48: *Chappenes 20 sorts.*
1685 B no. 294: *Calapedia ex Malta, panno viridi obducta, cristisque vittae rubrae ornantur.*

Dimensions: Length 186 mm.

See discussion under No. 113.

113. CHOPINES (Pl. XLVI). Pair of women's chopines of dark brown leather with red, green, and white painted flowers. Sock or insole square at toe and heel, stamped with rows of chevrons within a border. Flat circular sole made straights, unworn, with 13 mm mudguard attached by dome-headed brass nails. Covered platform 123 mm high of blocks of cork 32–38 mm thick with hollow centre, revealed by sole missing from one chopine. Platform widens towards base. Open toe; upper of two latchets with six pairs of lace-holes each side on one chopine, four pairs each side on the other. Brown leather lining.

1656 p. 50: *Choppenes for Ladyes from Malta, Venice.*

Dimensions: Length 183 mm.

Bibliography: Redfern 1904, pl. VIII, 2.

All three chopines (Nos. 111–13) are in Venetian style of the late sixteenth century. Nos. 111 and 112 could have been worn in this country and may even have been made in England. If the association with the 1656 catalogue entry is correct, however, No. 113 would seem to have come from Malta, where the fashion for chopines was also current at this time. The complex method of lacing chopines is described by Anderson.[219] In the case of No. 113, it may be noted that only the inner pairs of lace-holes have been used, as indicated by indentations left by the laces.

It may further be noted that only two entries for chopines occur in the 1685 catalogue, corresponding most closely with Nos. 111 and 112.

J. M. Swann

[219] Anderson 1969, pp. 17–41, pl. X.

114. CORAL ORNAMENT (Pl. LXXVI). Composed of numerous intricately carved elements consisting of pear-shaped, husk-like beads hanging from a large openwork central element, and connected by steel wire links. Terminates in a crowned phoenix rising with its wings displayed, carved of a pinker coral than the rest and with a flat, unfinished back.

1656 p. 36: *Severall things rarely cut in Corall.*
1685 A no. 467: *Aquila coronata alis expansis Corallio rubro caelata . opere elato, cum Stalagmijs ex eadem materia appendentibus.*

Dimensions: Length (overall) 150 mm, (phoenix) 30 mm.

The phoenix almost certainly does not belong with the rest of the elements, being carved of different coral and in a very different manner. Whereas the phoenix, which is more coarsely executed, is conventionally European, the other elements show no traces of the European decorative idiom. In the Grünes Gewölbe, Dresden, is a coral necklace made up of very similar beads also strung on fine wire.[220] It is possible that the rest of the elements are Chinese and may have formed part of a piece of jewellery.

A. Somers Cocks

115. JASPER BEAD (Pl. LXXVII). Multi-faceted dark red jasper bead with orange-brown coloured areas. The bead could have been perforated from both sides, in view of the damage to both ends of the string-hole.

1685 A no. 155: *Globus e jaspide purpurea.*

Dimensions: Diameter 22 mm.

See discussion under No. 116.

116. JASPER BEAD (Pl. LXXVII). Large multi-faceted dark red jasper bead with orange-brown patches. The bead could have been perforated from both sides, in view of the damage to the edges of both ends of the string-hole.

1685 A no. 279: *Globulus e marmore citrino rufescente.*

Dimensions: Diameter 38 mm.

Jasper has long been considered as a valuable protective. The Greeks attributed many virtues to this particular stone, notably in calming various forms of mental and physical turmoil, while early Christian sources refer to its ability to bring rain and 'drive away evil fantasies'.[221] Many of these ancient beliefs were inherited by later generations: Marbode, for example, mentions the value of jasper as an amulet against fever and dropsy.[222] Lapidary studies were still of importance when Ashmole published his *Theatrum Chemicum Britannicum* in 1652, addressed to 'All Ingeniously Elaborate Students in the most Divine Mysteries of Hermetique Learning' and containing accounts of 'the Vegitable, Magicall, and Angelical Stones . . . marvellously Subtile, and each of them differing in Operation and Nature, because Fitted and Fermented for severall Effects and Purposes'.[223] The prophylactic and therapeutic qualities attributed to mineral amulets were conditioned not only by the material but also by considerations of shape, form, and colour. Wallis Budge listed red stones as being associated with stemming haemorrhages and wounds, as well as protection against fire and lightning.[224] Red and green jasper were both used against fascination and the evil eye, and had the attribution of driving away night devils; they were also thought capable of increasing milk-flow and were helpful to pregnant women.[225] The medieval lapidaries regarded jasper as particularly helpful in staunching bleeding. The *Sloane Lapidary*, written before 1243, gives additional attributes: 'whoso goeth to bataille and hath this stone will overcome all his enemies, he behoveth to know when ye sonne ariseth, and then it shall helpe him much against his enemies. It maketh a man hardy in fight; and as many coulors as he hath so many vertues hath he.'[226] Red jasper was also thought to be capable of helping with eye disease,[227] and its use in curing cattle-disease was recorded in the last century.[228] At that time red jasper was still regarded as useful in the alleviation of the pain of childbirth, the stone being hung up in the room until the child had been born. The charm also had protective powers for travellers.[229]

Individual beads may have been included in rosaries, which were made of various materials, including amber and semi-precious stones.[230] The

[220] Described and illustrated in Tescione 1965, p. 241.
[221] Evans 1922, pp. 23, 30.
[222] Ibid., p. 35.
[223] Ashmole 1652, prolegomena.
[224] Budge 1930, p. 326.
[225] Ibid., p. 316.
[226] Evans and Serjeantson 1933, p. 128.
[227] King 1970, p. 146.
[228] Black 1894, p. 230.
[229] Ibid., p. 230.
[230] Hastings 1921, p. 854.

larger beads would have been difficult to wear as a necklace, but would have been ideal as paternosters. In the thirteenth century the making of paternosters had become a specialized craft in both Paris and London. The Parisian workers were divided into four guilds or companies according to the material with which they worked. In London the craft was centred in Paternoster Row and Ave Maria Lane, close to St. Pauls. The dates and place of manufacture of these particular beads, however, are unknown.[231]

E. Sandford Gunn

117. GLASS BEADS (Pl. LXXVIII). String of oblong turquoise-coloured glass beads of square cross-section, slightly rounded at the angles. The beads are made up of three layers: on the outside, transparent turquoise glass of varying tone; in the middle, a layer of opaque-white; and on the interior, a mass of translucent, bubbly, greyish-green glass which forms the main body of the bead. The outer two layers are about 0.4 mm thick, the inner layer about 1 mm thick. The string-hole is large (*c.*3 mm diameter). The beads have been ground or worn at the ends so that the angles are slightly rounded and bevelled, revealing the white layer below. They are almost certainly drawn from a tube, since their thickness varies slightly from one example to another, a fact consonant with the gradual tapering inevitable in the drawing process.

The string is composed of some twenty complete beads, ten further beads being made up of broken sections stuck together, and a number of fragments. Recently restrung.

1685 A no. 431: *Torques e quadrangularibus oblongis vitreis colore lazurio encausto pictis.*

Dimensions: Length (string) 3.54 m, (beads) *c.*60 mm; Width (beads) *c.*6–12 mm.

The drawn bead was made by several gathers of glass (normally, as here, of different colours), pierced with a large hole, and drawn out rapidly by two workmen walking away from each other. With these quadrangular beads the original mass of glass must have been squared off on the marver, a flat plate nowadays of metal but originally of marble, prior to being pierced and attached to a second iron for drawing-out. This technique was a speciality of the Venetian bead-workers,[232] but was no doubt copied in other European glasshouses working in the Venetian manner – for example, in Amsterdam.[233] The description of 'fired painting' given in the 1685 catalogue misinterprets the technique used.

This type of bead falls in Class III c 3 of the classification proposed by Kenneth and Martha Kidd.[234]

R. J. Charleston

118. GLASS BEADS (Pl. LXXX). String of blue biconical beads. The beads are made up of three layers: on the outside, a layer of royal blue with cloudy white markings and gold enclosures; in the middle, a layer of opaque-white; and on the interior, a mass of translucent, bubbly, greyish-green glass which forms the main body of the bead. There are traces of oxidized bronze or copper in the string-holes of some of the beads.

1685 A no. 430: *Torquis ex ovalibus vitreis, auro varijsque coloribus encausto pictis.*

Dimensions: Length (string) 150 mm, (beads) 25 mm; Diameter (max) *c.*12 mm.

These beads give every impression of being made by the drawn technique (see discussion under No. 117), but the presence of traces apparently of copper tubing inside the string-hole suggests that they were finished subsequently on a rod, probably 'at the lamp',[235] when the ends were no doubt tapered off, and the sprinkling of gold probably added. This gold appears to be derived from powdered gold-leaf and not to be the reduced copper spangles of the 'aventurine' glass which was a speciality of the Venetian glasshouses from the late seventeenth century onwards.

These beads were no doubt intended to imitate lapis lazuli. They perhaps come within the general class W1c 8–11 of the classification proposed by Kidd and Kidd.[236]

Possibly to be identified with the beads described in the 1685 catalogue, but see further discussion under No. 119.

R. J. Charleston

119. GLASS BEADS (Pl. LXXX). String of seventeen ovoid beads of dark glass with red, blue, and gold decoration. The beads appear to be built up on a frit-like spongy whitish core covered with a thin

[231] Ibid., p. 853.
[232] Gasparetto 1958, pp. 176 203.
[233] van der Sleen 1963, pp. 260 3.
[234] Kidd and Kidd 1970, pp. 45 89.
[235] Gasparetto 1958, pp. 202 3.
[236] Kidd and Kidd 1970, pp. 45 89.

(*c.*1 mm) layer of dark (? black) glass. Round this have been laid alternate bands of opaque red and opaque blue enamel, apparently painted. The opaque red at each end of the bead is laid on thick and stands proud, forming a ring round the perforation. Between the bands of enamel are painted gilt 'S'-scrolls punctuated by white enamel dots. The remains of a copper tube can be seen lining the string-hole on some of the beads.

1685 A no. 430: *Torquis ex ovalibus vitreis, auro varijsque coloribus encausto pictis.*

Dimensions: Length (string) 372 mm, (beads) *c.*23 mm; Diameter (max) 15 mm.

The presence of copper tubing lining the string-holes of these beads suggests that they were basically worked 'at the lamp' (cf. No. 118) and were subsequently enamelled and gilt.

Although they may be identified with the 'Necklace made of oval glass beads with fired painting in gold and various colours' described in the 1685 catalogue, the description could equally apply to the beads here numbered 118. In the absence of further evidence, no decision can be made as to which of these strings of beads is more likely to have formed part of the foundation collection.

R. J. Charleston

120. AMBER NECKLACE (Pl. LXXX). Necklace of eight almost spherical amber beads flanked by five amber discs on one side and six on the other. Some of the spherical beads have a rather weathered appearance, whereas the discoidal beads, which are irregular in form, have a high sheen. Most of the amber is opaque. Restrung at some time in the recent past.

1685 A no. 392: *Sex globuli electrini perforati majores, e quibus (ut opinor) quondam armilla electrina*, and,
1685 A no. 393: *Sex globuli electrini perforati minores, e quibus forte olim etiam armilla electrina*, and,
1685 A no. 394: *Undecim globuli electrini forma quodammado depressiori, etiam perforati; e quibus solis, aut cum superioribus mixtis, forsan armilla electrina.*

Dimensions: Spherical beads, Diameter (max) 32 mm. Discoid beads, Diameter (max) 22 mm; Thickness (max) 11 mm.

This necklace consists of the remaining beads from three separate necklaces. Four beads of each are all that survive of entries 1685 A 392–3, while eleven beads remain from 1685 A 394.

The sources of amber around the shores of the Baltic were exploited throughout the prehistoric period from at least the Bronze Age.[237] Among the Greeks and Romans amber was valued not only for ornament but also for its prophylactic powers.[238] The women of the Po valley were said by Pliny to wear amber necklaces as a cure for goitre, while Callistratus recommended it for all ages 'against lymphatic humours, fevers and disease'.[239] Amber was later attributed with 'magical effects on the mind and the fortunes of the wearer'.[240] Joan Evans noted that amber necklaces might still have been sold in the early part of this century as a cure for croup, asthma, and whooping cough.[241] Amber beads were highly valued by the fishing populations of the east coast of Scotland, according to Black, who recorded that they had 'talismanic virtues of substance':[242] small children wore amber beads against evil and such beads were also thought to have the power to drive away witches, while along Tweedside they were given the attributes of curing sore eyes and aiding sprained limbs.

There are no details as to the history of these amber beads and their origin must remain uncertain.

E. Sandford Gunn

121. ROSARY (Pl. LXXXI). Consists of forty-eight olive-shaped wooden beads, ending in a cross composed of six turned elements, the uprights of the cross waisted and the arms flaring.

1685 A no. 434: *Rosarium ligneum cujus tesserae coloris aethiopici.*

Dimensions: Length 420 mm.

The beads have been restrung in the past so that they are no longer divided into decades punctuated by paternosters. Probably seventeenth-century workmanship.

See further discussion under No. 123.

122. ROSARY (Pl. LXXXI). A fifteen-decade rosary made up of circular dark wooden beads punctuated by similar larger paternoster beads. The

[237] Strong 1966, pp. 7–9.
[238] Evans 1922, p. 46; Strong 1966, pp. 11–12.
[239] Evans 1922, p. 17.
[240] Ibid., p. 143.
[241] Ibid., p. 193.
[242] Black 1893, p. 476.

flaring turned cross at the end is in three separate parts.

1685 A no. 432: *Rosarium ligneum.*

Dimensions: Length 400 mm.

See discussion under No. 123.

123. ROSARY (Pl. LXXXI). There are fifty-three amber Ave and three paternoster beads. Ave beads are ovoid with longitudinal and circumferential grooves, while the paternosters are cruciform, the lateral arms being in each case wider than the vertical; in the centre of both sides is a circular declivity; in three of these declivities églomisé panels survive beneath the translucent amber. On the obverse and reverse of one are painted crossed scimitars and a lantern, both with 'C'-scrolls; on the third, the scourging posts, a birch, and scourge are depicted.

1685 A no. 428: *Torquis e succino fulvo, vel forte potius tessera pescatoriae plerumque ovales nonnullae cruciformes, in quibus crucifixionis instrumenta sparsim depicta.*

Dimensions: Length (overall) 90 mm, (Ave beads) *c.*15 mm, (paternoster beads) *c.*32 mm.

The turned work on rosaries Nos. 121–2 must be contemporary with the forming of the collection at the very earliest, and is scarcely of sufficient interest to attract the collector's attention. One must suppose, therefore, that, like the rosaries in the Uppsala cabinet of art and curiosities,[243] they were included as being of ritual interest.

Amber as used in rosary No. 123 is commonly found on the Baltic coasts and was much used in the Middle Ages for rosary beads. For example, the 1467 inventory of the Duke of Burgundy's possessions lists fifteen of them.[244] With the Reformation this aspect of the industry went into decline: indeed, Rohde attributes the large increase in the variety of objects made of amber in the sixteenth and seventeenth centuries to attempts by the guilds to compensate for this decline.[245] The craft was fostered with particular success at Königsberg by Georg Friedrich von Ansbach, who became Regent of Prussia in 1586.

Églomisé plaques were much used in conjunction with amber to decorate a variety of objects, ranging from knives and forks[246] to gaming boards, in the last decades of the sixteenth century and the early seventeenth century. The technique involves painting part of the design on a glass plaque and filling the other parts with gold or silver, on which the rest of the design is engraved with a needle and filled with black lacquer. The whole is then backed with pewter or silver foil to enhance its brilliance.

Because of the style of the decoration on the églomisé roundels, this rosary probably dates from about 1600 to 1620 and is Baltic German, possibly from Königsberg. The *Kunstschrank* of Gustavus Adolphus in Uppsala also includes a group of ritual objects, among which are a pair of pontifical gloves and six rosaries, one of amber.[247]

Stirn recorded seeing 'the Pater Noster of Pope Gregory XV' (pontiff 1621–3) at Lambeth (see p. 21), but no such attribution attaches to any of the surviving specimens.

A. Somers Cocks

124. RINGSTONE (Pl. LXXXII). Cornelian intaglio. Draped bust of Faustina II, wife of Marcus Aurelius, facing in profile to the left. Flat face and convex back.

1685 A no. 483: *Cama, in qua Heroinae caput Corneolo ovali incisum.*

Dimensions: Height 14 mm; Width 11 mm.

Datable to the second century AD. See Zwierlein-Diehl and Vollenweider[248] for the type.

See further discussion under No. 176.

125. RINGSTONE (Pl. LXXXII). Cornelian intaglio. Eros standing towards the left, leaning on a hoe. Flat face and back, sides sloping inwards, chipped.

1685 A no. 490: *Cama, in qua figura se inclinans carneolo ovali caelata.*

Dimensions: Height 11 mm; Width 9 mm.

Datable to the first century BC/first century AD. See Henig and Maaskant-Kleibrink[249] for the type and style.

See further discussion under No. 176.

[243] Böttger 1910, 3. 13–17.

[244] Delaborde 1853, vol. 2.

[245] Rohde 1937.

[246] See, for example, a fork and server from a carving set of *c.*1600–20, with similar roundels in the ends, in the Victoria and Albert Museum, London (no. M 920+a – 1926), and a fork and three knives dated 1634 in the same collection (no. M 1391+b +h+k – 1878).

[247] Böttger 1910, 3. 13–17.

[248] Zwierlein-Diehl 1969, no. 549; Vollenweider 1979, no. 236.

[249] Henig 1974, no. 134; Maaskant-Kleibrink 1978, no. 390.

126. RINGSTONE (Pl. LXXXII). Cornelian intaglio. A vase containing leaves. Flat face and convex back.

1685 A no. 461: *Carneolus ovalis planta quadam insculptus. Italis, Intagli.*

Dimensions: Height 10 mm; Width 6 mm.

This sixteenth-century intaglio may be compared with one example formerly in the collection of Sir Hans Sloane, now in the British Museum, and another illustrated by Gorlaeus described as *vas cum flore vel quale cunque vel ut denotet ludos.*[250] The type was also known in antiquity.[251]

See further discussion under No. 176.

127. RINGSTONE (Pl. LXXXII). Cornelian intaglio. Eros, standing facing towards the left, blowing a pipe; groundline below. Flat face, convex back.

1685 A no. 491: *Cama, in qua Angelus galeatus (S^tus Michael) manibus tenens tubam, carneolo item ovali incisus.*

Dimensions: Height 12 mm; Width 9 mm.

This gem is probably of sixteenth- or seventeenth-century date, but is based on Roman prototypes.[252]

See further discussion under No. 176.

128. HOOP (Pl. LXXXII). Rock crystal hoop with six imitation gemmed settings, three cabochon alternating with three pyramidal set bezels.

1685 A no. 202: *Annulus e Chrystallo polita.*

Dimensions: Diameter (internal) 19 mm.

Jewels are a common feature of sixteenth-century ornament, the most notable being the façade of the Palazzo dei Diamanti at Ferrara.

129. RING (Pl. LXXXII). Jet signet. Convex hoop expanding to flat oval bezel engraved with the Crucifixion between the Virgin and St. John, with surrounding inscription in Roman capitals + *IN HOC SIGNO VINCES.*

1685 A no. 391: *Annulus ex Ebeno sigillaris, imagine Christi in cruce pendentis insculpti, cum hac Inscriptione circum posita. In hoc signo vinces.*

Dimensions: Diameter (internal) 18 mm.

A ring of this type in jet was found under an oak tree in Petton Park, Shropshire, *c.*1900.[253] An ivory ring of the same style and with the same inscription was found in Suffolk and is now in the British Museum; it may be compared with a gold ring with the same device found at Warkton, near Kettering.[254] A bone signet ring with a cross surrounded by a similar inscription, from Colchester in Essex, has been dated to the twelfth or thirteenth century.[255] Joan Evans mentions a jet ring found in a cairn in Scotland in 1753 and thereafter preserved as 'more valuable than many tons weight in medicine'.[256] The Ashmolean ring is of sixteenth-century date, and is perhaps from Santiago da Compostella.

130. MEDALLION (Pl. LXXXII). *Verre églomisé* plaque showing the Lamentation of the Angels, with Christ laid out on an altar attended by three angels and with a mountainous landscape in the distance. Border with formal ornament. Turned ebony frame.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 510: *Christi resurrectio e sepulchro, cum Angelis ipsi famulantibus, in miniatura eximie adumbrata.*

Dimensions: Height 70 mm; Width 55 mm.

Similar examples are published by Pettenati, dating from *c.*1580 and deriving, perhaps from Lombardia, which was the principal production centre for this technique.[257] This dating is confirmed by the iconography, with both Mâle and Réau stating that the iconographical policy of the Council of Trent was responsible for the replacement of human mourners – the Virgin, the Holy Women, St. John – by *les esprits du ciel.*[258]

131. MEDALLION (Pl. LXXXII). Heliotrope intaglio. Two men lifting water; trees are shown around them, together with a grassy groundline. Flat face and back, edges bevelled.

1685 A no. 154: *Jaspides orientales duae forma octagona in quibus imago cuisdam aquam haurientis & c. Ex donis Rever. Viri D. Caroli King Æd. Christi Alumni.*

Dimensions: Height 18 mm; Width 28 mm.

[250] Dalton 1915, no. 1010; Gorlaeus 1695, no. 618.
[251] Brandt *et al.* 1972, no. 2868.
[252] Zwierlein-Diehl 1979, no. 1354; Richter 1971, no. 158.
[253] Sotheby's, London, *Medieval and Renaissance Works of Art*, 17 April 1980, lot 154.
[254] Dalton 1915, no. 776; id. 1912, p. 120.
[255] Croker 1853, no. 205.
[256] Evans 1922, p. 181.
[257] Pettenati 1980, nos. 48–88.
[258] Mâle 1951, 288; Réau 1955–9, vol. 2, pt. ii, p. 525.

This sixteenth-century medallion was given to the Ashmolean by the Revd Charles King of Christ Church.[259] Another intaglio of this shape with bevelled edges is illustrated by Dalton.[260]

See further discussion under No. 176.

132. MEDALLION (Pl. LXXXII). Lapis intaglio. A hermaphrodite resting on a rocky bench, legs covered with drapery, breasts bare, hair wound in a coil round the crown of the head. Two winged Erotes in attendance, one waving a tambourine and the other playing a lyre at the foot of the bench under the shade of a tree. Gold inclusions in the branches of the tree. Flat face, convex back drilled with fourteen holes.

1685 A no. 222: *Lapis Lazuli ovalis, ex uno latere, tribus figuris insculptus; ex alio, 14 foraminibus aliquo usque terebratus.*

Several Renaissance reproductions of this motif occur, usually with three Erotes in attendance, one of them sometimes reading instead of playing the lyre or holding a fan instead of a tambourine. Examples of these other versions include a bronze plaquette in the Kress collection, a cameo formerly in the possession of Madame du Barry, who wore it as a necklace clasp, and two intaglios in the Bibliothèque Nationale.[261] Two more were in the collection of Fulvio Orsini (*d.* 1600), one an amethyst intaglio in a gold setting bought from the dealer and engraver Cesare de' Camei, and the other a cameo in a gold ring bought from Hieronimo Milanese.[262] A sixteenth-century date can be proposed for the Ashmolean intaglio. Antonio Giuliano suggests that these derive from an ancient gem depicting Cleopatra, as described by Plutarch, sailing up the River Cydnus to meet Antony, reclining like Aphrodite, attended by boys dressed as Erotes.[263]

See further discussion under No. 176.

133. MEDALLION (Pl. LXXXIII). Plasma cameo. The head of a maenad, the hair in a roll encircling the head and with twin tresses falling in ringlets on the shoulders. Facing in profile towards the left. Irregular outline, with concave back. Damage may be deliberate, to give impression of antiquity.

1685 A no. 527: *Cama, seu Caput humanum Prasio caelatum, Italis Prasina di Smiraldo.*

Dimensions: Height 20 mm; Width 17 mm.

Probably sixteenth-century. Another plasma cameo of this date, formerly in the collection of Sir Hans Sloane, is catalogued by Dalton.[264] Although intaglios with this motif in plasma occur quite frequently among ancient gems,[265] cameos are less common. However, a plasma mask in the Thorvaldsen Museum[266] also has the back hollowed out for translucency, and the undercutting of the profile could indicate that this is an ancient gem reworked.

See further discussion under No. 176.

134. MEDALLION (Pl. LXXXIII). Opaque white on grey onyx cameo. Wreathed and draped bust of an emperor, beardless, facing in profile towards the left. Chipped.

1685 A no. 528: *Cama, seu Caput humanum in Leuc-Achate sculptum.*

Dimensions: Height 22 mm; Width 15 mm.

A cameo similar to this sixteenth-century example was formerly in the collection of Sir Hans Sloane.[267]

See further discussion under No. 176.

135. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. Wreathed and draped bust of an emperor, perhaps Domitian, facing in profile towards the right.

1685 A no. 529: *Cama, seu Caput humanum item in Leuc-Achate incisum.*

Dimensions: Height 14 mm; Width 10 mm.

Datable to the sixteenth century. See further discussion under No. 176.

136. MEDALLION (Pl. LXXXIII). Chalcedony cameo. Draped bust of Cleopatra, a snake coiled round her arm and about to strike her breast. Head facing three-quarters to left.

1685 A no. 549: *Cama, seu Caput fœminæ illustris in Leuc-Achate incisum.*

Dimensions: Height 25 mm; Width 17 mm.

[259] See Microfiche 1.
[260] Dalton 1915, no. 635.
[261] Respectively: Pope-Hennessy 1965, no. 251; Babelon 1897, no. 493; Chabouillet 1858, nos. 2326–7.
[262] de Nolhac 1884, nos. 163, 170.
[263] Giuliano 1972, p. 47.
[264] Dalton 1915, no. 479.
[265] See, for example, Walters 1926, no. 1556 (Ariadne), and Henkel 1913, no. 231.
[266] Fossing 1929, no. 1979.
[267] Dalton 1915, no. 352.

This sixteenth-century cameo illustrates the passage in Plutarch's *Life of Mark Antony*[268] describing how the Queen of Egypt took her own life rather than accept defeat. Her conduct was much admired in the Renaissance: gems showing this subject are in the collections at Windsor Castle, the Cabinet des Médailles in Paris, and the British Museum,[269] the position of the asp varying.

See further discussion under No. 176.

137. MEDALLION (Pl. LXXXIII). Chalcedony cameo. Half-draped bust of a nymph, hair coiled into a chignon with one plait falling to the shoulder. Facing in profile to the right. Damaged.

1685 A no. 551: *Idem iterum* [*Cama, seu Caput fœminæ illustris item in Leucachate sculptum*].

Dimensions: Height 16 mm; Width 12 mm.

A similar sixteenth-century gem was in the collection of Sir Hans Sloane, and others are at Windsor Castle and in the Kunsthistorisches Museum, Vienna.[270] The subject was also reproduced in bronze plaquettes.[271]

See further discussion under No. 176.

138. MEDALLION (Pl. LXXXIII). Opaque white on pinkish-grey onyx cameo. A bust of a woman with elaborate coiffure and costume. Facing in profile to the left, hand beckoning. Damaged.

1685 A no. 550: *Cama, seu Caput fœminæ illustris item in Leucachate sculptum.*

Dimensions: Height 18 mm; Width 13 mm.

Other sixteenth-century cameos which seem to derive from the same model include one in the British Museum collection and another in the Museo degli Argenti, Florence.[272] In other representations of distinguished ladies the hand may hold a panache of feathers, an apple, or a musical instrument, or may clasp the hair.[273]

See further discussion under No. 176.

139. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. Aphrodite, partly draped and seated facing towards the left. She holds up what may be a quiver, beyond the reach of Eros who lifts his arm towards it. Groundline indicated. Pitch backed.

1685 A no. 548: *Cama ex Achate, in quo figura sedens cum puerulo astante insculpta.*

Dimensions: Height 10 mm; Width 11 mm.

An account of these small anecdotal cameos is given by Kris.[274] They are in general roughly cut, for setting in quantities in caskets, mirror frames, sconces, scabbards, cutlery handles, and display vessels: their value is purely decorative. Many examples of similar (sixteenth- or early seventeenth-century) date were in the collection of Sir Hans Sloane,[275] and a group in the collection at Windsor Castle survive with their seventeenth-century enamelled settings intact.[276]

See further discussion under No. 176.

140. MEDALLION (Pl. LXXXIII). Opaque light-brown on transparent onyx cameo. A nymph sleeps facing downwards while another figure stands behind her holding up an indeterminate object, perhaps drapery, to the sound of a satyr blowing a conch shell. Groundline indicated. Damaged.

1685 A no. 546: *Cama ex Achate in quo figurae tres, duae stantes, una procumbens caelata.*

Dimensions: Height 13 mm; Width 15 mm.

Datable to the sixteenth century. See further discussion under No. 176.

141. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. Marcus Curtius, mounted on his horse, charges into the flames issuing from the abyss. Damaged.

1685 A no. 544: *Cama ex Leuc-Achate figura Equitis insculpta.*

Dimensions: Height 9 mm; Width 11 mm.

Eichler and Kris reproduce another cameo with this motif,[277] illustrating the episode from Roman history described in Livy (Book VII, vi), which was also reproduced in the sixteenth century in bronze plaquettes.

See further discussion under No. 176.

[268] See the translation called Dryden's, edited by Clough (1902, pp. 236–8).

[269] Respectively: Windsor Castle, Handlist nos. 95, 269, etc.; Babelon 1897, nos. 670–3; Dalton 1915, no. 319.

[270] Respectively: Dalton 1915, no. 452; Windsor Castle, Handlist nos. 148, 91; Eichler and Kris 1927, no. 275.

[271] See Planiscig 1919, vol. 1, no. 422.

[272] Dalton 1915, no. 441; Museo degli Argenti, Florence, no. 29.

[273] Eichler and Kris 1927, no. 281.

[274] Kris 1929, p. 90, nos. 418–19.

[275] Dalton 1915, nos. 242–67.

[276] Windsor Castle, Handlist nos. 276–94.

[277] Eichler and Kris 1927, no. 183.

142. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. A centaur, perhaps Sagittarius, aims his bow and arrow at a man seated on the ground wearing armour and with what may be a club resting on his shoulder. Pitch backed.

1685 A no. 545: *Cama item ex Achate figura hominis procumbentis ac Centauri ex arcu sagittam mittentis, incisa.*

Dimensions: Height 11 mm; Width 14 mm.

The subject represented may also be Hercules and Nessus. Datable to the sixteenth century.

See further discussion under No. 176.

143. MEDALLION (Pl. LXXXIII). Opaque white on transparent grey onyx cameo. Mark Antony, wearing classical armour, lies asleep on a bench before a building, while Cleopatra stands before him with one hand on her breast and the other extended, an asp rearing from a basket at her feet. Convex back.

1685 A no. 492: *Cama, in quo homo vestitus dormiens, cum faemina nuda astante, achate ovali insculptus.*

Dimensions: Height 14 mm; Width 14 mm.

Marble reliefs showing this composition, which is attributed to Mosca, are illustrated by Planiscig.[278]

See further discussion under No. 176.

144. MEDALLION (Pl. LXXXIII). Opaque white on greyish onyx cameo. Europa crowns Zeus, disguised as a bull, as they ride across the waves attended by a boy triton making music.

1685 A no. 557: *Cama, ex Achate magno ovali, in quo figura Europae in tergo Tauri aequora trajicientis, incisa.*

Dimensions: Height 20 mm; Width 23 mm.

Similar sixteenth-century gems, illustrating the episode described by Ovid (*Metamorphoses* III) and interpreted by Valeriano,[279] are in the British Museum, in Berlin, and in Florence.[280]

See further discussion under No. 176.

145. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. Eros sleeping, his arms clasped round a reversed torch, before a landscape with houses clustered round a tower.

1685 A no. 534: *Cama ex Achate figura hominis humi procumbentis insculpta* [entry apparently deleted].

Dimensions: Height 10 mm; Width 11 mm.

Another gem with landscape background is described by Dalton,[281] while Stuveras[282] illustrates a Roman marble of this subject.

See further discussion under No. 176.

146. MEDALLION (Pl. LXXXIII). Opaque white on transparent onyx cameo. Fortune, a mantle billowing round her like a canopy, rides across the waves astride a dolphin.

1685 A no. 556: *Cama, seu Imago Veneris delphina ineqitantis in Leucachate sculpta.*

Dimensions: Height 14 mm; Width 11 mm.

The motif on this sixteenth-century cameo is also to be found on the reverse of the medal of Gian Francesco Trivulzio (1504–73) by Pietro Paolo Galeotti,[283] where Fortune is shown on a dolphin.

See further discussion under No. 176.

147. MEDALLION (Pl. LXXXIII). Sard on transparent onyx cameo; a wyvern facing towards the left. Groundline indicated. Damaged.

1685 A no. 564: *Cama ex achate persici coloris, in quo figura Gryphis sculpta.*

Dimensions: Height 14 mm; Width 16 mm.

A large number of similar sixteenth-century cameos showing animals, hybrids, and heraldic monsters were formerly in the collection of Sir Hans Sloane.[284]

See further discussion following No. 176.

148. MEDALLION (Pl. LXXXIV). Shell cameo. Christ crucified, between St. John and the Virgin, within a reserved border. Pitched back. Damaged.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 543: *Cama ex Achate in quo figura Christi in cruce pendentis, una cum Stis. faemis asseclis, caelata.*

Dimensions: Height 11 mm; Width 9 mm.

Datable to the late fourteenth or early fifteenth century. A fourteenth-century sardonyx cameo of this subject (from John 19: 26–7) in the Weil collection is illustrated by Kris.[285]

See further discussion under No. 176.

[278] Planiscig 1921, figs. 280–1.
[279] Valeriano 1575, bk. I, ch. xli.
[280] Respectively: Dalton 1915, no. 55; Furtwängler 1896, no. 11646; Museo degli Argenti, Florence, no. 278.
[281] Dalton 1915, no. 78.
[282] Stuveras 1969, fig. 45.
[283] Hill and Pollard 1967, no. 360A.
[284] Dalton 1915, no. 291.
[285] Kris 1932, fig. 5.

149. MEDALLION (Pl. LXXXIV). Shell cameo. A female figure with billowing draperies, her hair streaming behind her, holding aloft a thunderbolt. Advancing towards the left. Groundline indicated. Gold rim setting.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 542: *Cama, in qua figura Jovis vel forte Junonis laeva fulmen gestantis, Rubicello incisa, auro item inclusa.*

Dimensions: Height 11 mm; Width 9 mm.

The style of cutting and material of this sixteenth-century French cameo are paralleled in the British Museum collection.[286] Valeriano writes of Celeritas, 'fulmen ante omnia velocissimae omnino celeritatis indicium',[287] while in Ripa's *Iconologia*[288] the personification of Speed holds aloft the thunderbolt and lightning of Zeus and has a hawk by her head and a dolphin below.

See further discussion under No. 176.

150. MEDALLION (Pl. LXXXIV). Shell cameo. Mercury, naked, walking towards the right and holding out his purse. His mantle and caduceus are over one arm and he wears his winged sandals and petasos. A cock is at his feet and the groundline is indicated. Gold rimmed setting.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 540: *Cama, in qua figura Mercurij dextra crumenam, sinistra caduceum gestantis, Rubicello caelata, auro inclusa.*

Dimensions: Height 10 mm; Width 9 mm.

The style and material of this sixteenth-century French medallion can be compared with an example from the British Museum collection.[289]

See further discussion under No. 176.

151. MEDALLION (Pl. LXXXIV). Shell cameo. Hercules standing, facing front, resting on his club with his lion-skin falling behind from his shoulder. Groundline indicated. Rubbed on the face. Gold rimmed setting.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 538: *Cama, ex Rubicello vel Amethysto albo, figura Herculis clavae innixi sculpta, auro item munita.*

Dimensions: Height 10 mm; Width 9 mm.

Similar in style and material to No. 150.

See further discussion under No. 176.

152. MEDALLION (Pl. LXXXIV). Shell cameo. Neptune in his shell chariot in the midst of stormy seas. He stands facing to the right with his mantle blowing in the wind, armed with his trident. Rimmed gold setting.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 537: *Cama ex Rubicello vel Amethysto albo, in quo Neptunus in concha navigans & tridentem dextra gerens. Cama auro munita.*

Dimensions: Height 12 mm; Width 95 mm.

An engraving illustrating the passage from Virgil (*Aeneid* I. 125–43), when the angry Neptune calms the waves and threatens the winds with the words 'Quos ego . . .', is reproduced by Delaborde,[290] while a further version by Virgil Solis, but facing left, is published by O'Dell-Franke.[291] For the style of this sixteenth-century French cameo see an example in the British Museum collection published by Dalton.[292]

See further discussion under No. 176.

153. MEDALLION (Pl. LXXXIV). Shell cameo. A cockerel, the feathers of the tail raised fan-like, advancing towards the left.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 561: *Gallus gallinaceus simili concha sculptus.*

Dimensions: Height 10 mm; Width 12 mm.

An account of the attributes of the cock is given by Valeriano.[293] Another example of this type and material in the Museo degli Argenti is set in an early seventeenth-century gold filigree cross, together with other bird and Erotic shell cameos.[294]

See further discussion under No. 176.

154. MEDALLION (Pl. LXXXIV). Shell cameo. A camel standing in profile to the right. Groundline indicated.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 572: *Camælus item testa caelatus.*

[286] Dalton 1915, no. 188.
[287] Valeriano 1575, bk. XLIII, ch. xxvii.
[288] Ripa 1593, p. xxvi.
[289] Dalton 1915, no. 188.
[290] Delaborde 1888, no. 192.
[291] O'Dell-Franke 1977, no. D50.
[292] Dalton 1915, no. 103.
[293] Valeriano 1575, bk. XXIV, chs. xvii–xxvii.
[294] Museo degli Argenti, Florence, no. 1300.

Dimensions: Height 9 mm; Width 12 mm.

Datable to the sixteenth century. Valeriano describes the many qualities such as strength and tractability associated with the camel.[295]

See further discussion under No. 176.

155. MEDALLION (Pl. LXXXIV). Shell cameo. A shaggy goat with long horns advancing towards the right. Groundline indicated.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 574: *Capra in testa incisa.*

Dimensions: Height 8 mm; Width 12 mm.

See Valeriano for description of the properties associated with the goat.[296]

See further discussion under No. 176.

156. MEDALLION (Pl. LXXXIV). Shell cameo. A siren with her hair flowing behind her, swimming in the sea while playing a trumpet. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 565: *Syren tubam sonans in testa caelata.*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

157. MEDALLION (Pl. LXXXIV). Shell cameo; a dragon facing to the right. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 559: *Scarabæus in concha insculptus.*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

158. MEDALLION (Pl. LXXXIV). Shell cameo; a monster advancing towards the right. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 577: *Animal nescio quoddam item in concha insculptum.*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

159. MEDALLION (Pl. LXXXIV). Shell cameo; a winged dragon advancing towards the left. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 576: *Animal nescio quoddam monstrosum in concha caelatum [deest]*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

160. MEDALLION (Pl. LXXXIV). Shell cameo; a horned goat facing to the right, one foot raised. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 574: *Capra in testa incisa.*

Dimensions: Height 12 mm; Width 15 mm.

Datable to the sixteenth century. See further discussion under No. 176.

161. MEDALLION (Pl. LXXXIV). Shell cameo; a bear advancing towards the right. Reserved border. Damaged.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 571: *Elephantus in testa sculptus.*

Dimensions: Height 12 mm; Width 15 mm.

Datable to the sixteenth century. See further discussion under No. 176.

162. MEDALLION (Pl. LXXXIV). Shell cameo. A toad seated, looking towards the right. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 567: *Bufo in concha incisus.*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

163. MEDALLION (Pl. LXXXIV). Shell cameo. A dragon emerging from a shell, head facing to the right. Reserved border. Damaged.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 568: *Serpens in Helicem contortus item in concha caelatus.*

Dimensions: Height 12 mm; Width 14 mm.

Datable to the sixteenth century. See further discussion under No. 176.

[295] Valeriano 1575, bk. XII, chs. xxi–xxxxix.
[296] Ibid., bk. X, chs. i–xiii.

164. MEDALLION (Pl. LXXXIV). Shell cameo. An eagle rising, facing to the left, with wings displayed. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 560: *Aquila volans item in concha caelata.*

Dimensions: Height 13 mm; Width 16 mm.

Datable to the sixteenth century. See further discussion under No. 176.

165. MEDALLION (Pl. LXXXIV). Shell cameo; an animal of uncertain species advancing towards the left. Reserved border.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 578: *Simile animal ignotum in concha incisum* [*deest*].

Dimensions: Height 13.5 mm; Width 15 mm.

Datable to the sixteenth century. See further discussion under No. 176.

166. MEDALLION (Pl. LXXXIV). *Tridacna* shell cameo. Three ships, large, medium, and small, sailing away from a rocky shore beneath a sky studded with stars and marked with a crescent. Moulded edge with traces of gilding. Breakage at back filled with pitch. Chipped.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 591: *Tria navigia vento secundo vecta, Iride in caelis supereminente, simili testa convexa faberrime insculpta.*

Dimensions: Diameter 45 mm.

Similar ships with round hulls, castles at the stern, and triangular sails, alongside rocky cliffs with tufts of grass, are illustrated in an engraving published in 1574 by Bocchi.[297] Dr Helen Wallis, Map Librarian at the British Library, suggests that the ships are the *Santa Maria*, the *Pinta*, and the *Niña*, shown at the moment of Columbus's first landfall in America on the night of 11–12 October 1492.[298] The rainbow-like crescent may be intended to represent the moon's passage through the sky. Information about the stars and sky on that night is given by Morison.[299]

See further discussion under No. 176.

167. MEDALLION (Pl. LXXXV). *Tridacna* shell cameo. Two women fighting; one of them, a robust figure, brandishes her club over the other who has fallen to the ground and whom she holds by the hair. Moulded border with traces of gilding.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A No. 590: *Duo pugiles fœminæ, in testae convexo incisae, quarum una clavam in sinistra gerens, alia videtur prostrasse.*

Dimensions: Diameter 45 mm.

Ripa illustrates Fortitude 'donna ... con una mazza simile a quella d'Hercule'.[300] Datable to the sixteenth century.

See further discussion under No. 176.

168. MEDALLION (Pl. LXXXV). Mother-of-pearl relief. A nude woman with long hair, her scarf held up like a sail, riding across waves on the back of a dolphin. Rope twisted border; one drilled hole. Damaged.

1656 p. 36: *Divers Figures cut on Shells.*
1685 A no. 521: *Venus nuda navigans in dorso Delphini, in matre Perlarum caelata.*

Dimensions: Height 40 mm; Width 25 mm.

This motif, Fortuna sailing over uncertain seas, illustrating the passage from Horace (*Odes* I. 35. 6, 'Te dominum aequoris'), occurs frequently in sixteenth-century art as well as in plaquettes and medals.[301] Datable to the sixteenth century.

See further discussion under No. 176.

169. MEDALLION (Pl. LXXXV). Shell relief in the form of a bust of a woman with breasts exposed. Her hair is held in place by bandeaux and caul threaded with pearls, a plait falling across right shoulder. Head turned towards the left. Nose damaged.

1656 p. 36: *Divers rare and antient pieces carved in Ivory.*
1685 A no. 593: *Caput Imperiale faeminem item Ebore incisum, forte Cleapatra*

Dimensions: Height 27 mm; Width 22 mm.

A similar model carved in shell is illustrated by Kris,[302] along with its pendant, a man in classical armour. Busts of this type are sometimes placed back to back.[303] They were set in ciboria and other

[297] Bocchi 1574, bk. I, symbol xiii, *De mercatore et Lacone.*
[298] Personal communication.
[299] Morison 1942, I. 296–300.
[300] Ripa 1593, p. 354.
[301] For plaquettes, see e.g. Weber 1975, no. 161; for medals, see e.g. Hill and Pollard 1967, no. 290, where the motif is found on the reverse of a medal struck for Alessandro di Gino Vecchietti (1472–1532).
[302] Kris 1929, no. 413.
[303] Dalton 1915, no. 340.

vessels, such as that designed by Holbein and illustrated by Hayward.[304] Datable to the sixteenth century.

See further discussion under No. 176.

170. MEDALLION (Pl. LXXXV). Glass imitating chalcedony cameo. St. Catherine of Alexandria is shown wearing a royal crown and long robe; she holds a martyr's palm and rests her hand on the wheel at her feet. Edge broken, surface cracked.

1685 A no. 555: *Cama, seu Imago S^ta^ Catherinæ lapide quoda mortuo caelata.*

Dimensions: Height 17 mm; Width 13 mm.

Babelon refers to makers of glass cameos for setting in jewellery caskets and in book-bindings in the second half of the fourteenth century.[305] The motifs used were, as here, not exclusively classical, and were interpreted in the Gothic, not Byzantine, manner. A glass cameo *Pietà*, of French origin like this example, is in the Bargello, Florence.[306]

See further discussion under No. 176.

171. MEDALLION (Pl. LXXXV). Glass imitating chalcedony relief. Pan, with goat's legs and horns, chlamys falling from his shoulders, is shown advancing towards the right, head bent down as he blows hard on the double flutes. Blackened by smoke.

1685 A no. 539: *Cama, in qua figura Satyri vel forte Dei Panis tubas sonantis item ex Rubicello sculpta, auro inclusa.*

Dimensions: Height 18 mm; Width 18 mm.

The very low relief suggests that this has been cast from an intaglio of this popular subject, which is also found in plaquettes. An example illustrated by Molinier shows a similar sense of movement and is derived from an ancient gem.[307]

See further discussion under No. 176.

172. MEDALLION (Pl. LXXXV). Glass intaglio; a turbaned Turk's head facing in profile to the right.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 478: *Vitrum chrystallinum ovale, in quo Turci caput Tiara indutum in solo miniato, opere posterganeo exhibetur.*

Dimensions: Height 14 mm; Width 12 mm.

Datable to the sixteenth century. See further discussion under No. 176.

173. MEDALLION (Pl. LXXXV). Glass intaglio; a helmeted warrior facing in profile to the right.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 480: *Vitrum chrystallinum ovale, in quo Herois caput galiatum in solo coccineo, simile opere posterganeo ostenditur.*

Dimensions: Height 14 mm; Width 12 mm.

Datable to the sixteenth century. See further discussion under No. 176.

174. MEDALLION (Pl. LXXXV), Glass intaglio; a naked man aiming an arrow held above his head, facing left.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 489: *Vitrum chrystallinum ovale, figura insculptum sagittam jaculante.*

Dimensions: Height 14 mm; Width 10 mm.

Datable to the sixteenth century. See further discussion under No. 176.

175. MEDALLION (Pl. LXXXV). Glass intaglio: a skull and cross-bones crowned by an hourglass.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 477: *Vitrum chrystallinum ovale in quo Cranium humanum, inter clepsommidium, et duo ossa femoralia decussatum posita caelatum.*

Dimensions: Height 13 mm; Width 12 mm.

Datable to the sixteenth century. See further discussion under No. 176.

176. MEDALLION (Pl. LXXXV). Glass intaglio, a griffin segreant facing left.

1656 p. 36: *Variety of Figures cut in crystalls.*
1685 A no. 466: *Vitrum item chrystallinum ovale Gryphe erecto caelatum.*

Dimensions: Height 15 mm; Width 13 mm.

Datable to the sixteenth century.

The collection includes some ancient intaglios of the kind found daily in the ruins of Rome in the sixteenth century (Nos. 124–5) and which were sold by dealers among the fruit and flowers in the market in Campo dei Fiori. These were sometimes set in rings as signets, but more often were kept in cabinets as collectors' pieces. The post-classical

[304] Hayward 1977, pl. 41.
[305] Babelon 1902, p. 78.
[306] See Wenzel 1956, fig. 28, no. 1245.
[307] Molinier 1886, no. 26; cf. Walters 1926, no. 1561.

gems reflect the taste for larger stones, whether engraved with genre scenes such as the heliotrope intaglio of labourers lifting water (No. 131) or with classicizing subjects such as the lapis Hermaphrodite (No. 132). The use of cameos in jewellery, plate, and furniture accounts for the preference for the more decorative two-layered onyxes and sardonyxes over the monochrome intaglios, and these illustrate the most popular themes – Roman emperors and well-born ladies (Nos. 134–6, 138), episodes from classical history such as the heroism of Marcus Curtius (No. 141), or mythological tales such as Europa and the Bull (No. 144). Such gems, although mostly imported from Italy, could be bought in London, for the stock of the goldsmith John Mabbe contained seventeen engraved gems listed in an inventory of 1576,[308] and there were many more in the Cheapside Hoard.[309] There is also the possibility that the gems in the Tradescant museum came from the collection of Thomas Howard, second Earl of Arundel, for both his wife, the Countess of Arundel, and their daughter-in-law, Lady Maltravers, are mentioned among the benefactors (see Microfiche 5). This interest in gems and the connection with the Howards was maintained by Ashmole, who received in 1674 the gold George worn by Lord Arundel on his embassy to Germany in 1636, as a gift from his grandson, Henry Howard, sixth Duke of Norfolk.[310] It was the widow of the sixth Duke who sold the Arundel gem cabinet to the Earl of Peterborough in 1684, and on 28 October 1685 Ashmole recorded in his diary a visit to Lord Peterborough who showed him a rare collection of gems and ancient rings.[311]

As in antiquity, the demand for gems stimulated the production of imitations, particularly shell cameos which were easy to carve, and, with a white or coloured upper layer contrasting with the ground, presented an acceptable alternative to onyx. They were particularly in demand as matching sets, represented here by the groups of divinities (Nos. 149–52) and animals (Nos. 153–65). Raphael's painting of Noah's Ark in the Vatican Loggia was the model for many representations of animals in sixteenth-century art, and other sources were Christof Froschover and Virgil Solis.[312] They were also reproduced in plaquettes.[313] Some represent domestic pets, others beasts of the chase; some are hybrids, and all were associated with particular properties by Valeriano in his *Hieroglyphica*.[314] A pair of bracelets in the Cabinet des Médailles, set with shell cameos of hounds, boars, horses, and stags, illustrates their use in jewellery.[315] In most cases shell cameos are of poor quality, since the fragile material rubs easily, and the best craftsmen avoided it, so the small set of French workmanship illustrating divinities is a rare survival. Even rarer are the examples of glass substitutes for gems (Nos. 170–1) dating from Gothic as well as Renaissance times. The group of plain glass moulded intaglios (Nos. 172–6) could also have been intended for setting in rings and caskets. They are enclosed in roundels like medals, and the subjects represent contemporary interests including a Turk (No. 172), the rival of a soldier (No. 173), a *memento mori* (No. 175), and a heraldic beast (No. 176).

D. Scarisbrick

177. AMBER CARVING (Pl. LXXXVI). Dark red and opaque amber *en ronde bosse*, in the shape of a human skull.

1656 p. 43: *A Gamaha of a Deaths head.*
1685 A no. 397: *Cranium humanum e tali succino sculptum.*

Dimensions: Height 23 mm; Width 19 mm.

Amber skulls were collected as *Kunstkammer* objects and appear on the shelves of cabinets illustrated by Georg Haintz.[316] Williamson mentions a crucifix of amber and ivory in the collection of the Duke of Norfolk, with an amber skull at the base.[317] This example is of sixteenth- or seventeenth-century date and of German origin.

See further discussion under No. 180.

178. AMBER CARVING (Pl. LXXXVI). Orange-red translucent and opaque creamy amber *en ronde bosse*. Head of St. John the Baptist, eyes

[308] Evans 1921, p. 96.
[309] London Museum 1928, pp. 27–30.
[310] The gift is recorded in Ashmole's diary (Josten 1966, 4. 1373): on 2 April 1674 he records that the 'Earle Marshall came to see my Chamber at the Temple', and on 13 April 1674, 'He gave me a George in Gold, which his Granfather wore when he went Ambassador into Germany.'
[311] Under 28 October 1685: 'The E. of Peterborow shewed me his rare Collection of Gemms and ancient Rings' (Josten 1966, 4. 1804).
[312] Froschover 1560; O'Dell-Franke 1977, nos. G75–103.
[313] Weber 1975, nos. 486, 1–12; 659, 1–9.
[314] Valeriano 1575, *passim*.
[315] Babelon 1897, nos. 624–5.
[316] Lammers, in Bernsmeier *et al.* 1979, p. 487, pl. 250.
[317] Williamson 1932, p. 15.

closed, forehead furrowed in pain, a gash between the eyes. Head facing three-quarters to the right. Back flat.

1685. A no. 532: *Cama, seu Caput humanum lapide quodam mortuo.*

Dimensions: Height 14 mm; Width 10 mm.

Réau refers to the head of St. John as the emblem of the Confraternities of Mercy who attended condemned prisoners, and also as a charm to cure headaches and sore throats.[318] Mary Queen of Scots possessed such a head, which was listed in an inventory of December 1562.[319] The gash on the forehead was attributed to Salome, who stuck her hat-pin into the head when it was brought to her on a platter.[320]

See further discussion under No. 180.

179. AMBER CARVING (Pl. LXXXVI). Translucent golden amber diamond-shaped plaque, drilled with eleven irregularly-shaped holes, the edges bevelled. Perforated vertically for suspension. Broken at tips.

1685 A no. 414: *Succini fulvi frustulum* [ ] *eleganter detornatum.*

Dimensions: Height 27 mm; Width 30 mm.

See discussion under No. 180.

180. AMBER CARVING (Pl. LXXXVI). Tawny transparent amber oval plaque. The convex upper surface has a shield-shaped projection at one end, while the back has a centre panel with five sunken holes arranged crosswise, flanked on either side by twin raised bosses. Cracked.

1685 A no. 402: *Succinum fulvum ovale in quo 9 orbes electrini splendide repraesentantur.*

Dimensions: Height 45 mm; Width 13 mm.

German in origin, datable to the sixteenth or seventeenth century.

From the lapidary published in 1566 by François Ruet, Joan Evans quotes a recapitulation of the medicinal virtues and magical effects of various stones, including amber, as listed in the lapidaries of the Middle Ages.[321] Pliny (XXVII. ii) records that women of the Po valley wore amber necklaces as a cure for goitre, while children also wore it as an amulet, hanging from the neck like a branch of coral.

During the sixteenth and seventeenth centuries the use of amber in jewellery and decoration revived in Germany, and centres were established at Danzig and Königsberg, close to the sources of supply on the Baltic coast. Rosaries, crucifixes, and other devotional objects were carved in a style similar to contemporary work in ivory, and there was a demand for inlay work. Amber was mounted on caskets, cabinets, chess-boards, mirror frames, cutlery handles, chandeliers, and candlesticks, and sometimes set into wall surfaces. The decorative effect of the contrasting translucent and opaque sections, of tawny red and golden shades, was emphasized by the high polish given to the glowing surface, sometimes combined with other substances such as ivory. As in antiquity it continued in demand for medicinal and amuletic purposes, worn as beads and hung around the neck as pendants.[322]

D. Scarisbrick

181. FRUIT-STONE CARVING (Pl. LXXXVI). Almond stone (?); the front is carved with a scene of a bearded man wearing a biretta over long hair, a long tunic of classical character, and thick-soled shoes; he is seated with a viol held between his knees while he tunes one of the strings, framed by the branches of a tree. The back is filled with representations of animals, including a lion, a bear, an elephant ridden by a monkey, a boar, a dog, a donkey, a stag, a camel, a horse, a bull, a bird, a goat, a lynx, and a group of rabbits; the latter under a branch on which sit an owl, another bird, and a squirrel.

1656 p. 38: *Figures and stories neatly carved upon Plum-stones, Apricock-stones, Cherry-stones, Peach-stones, &c.*
1685 A no. 502: *Orpheus citharizans in una facie ossiculi unius pruni sculptus, et omne genus bestiarum comitatium in alia, opere multiforo.*

Dimensions: Height 25 mm; Width 22 mm.

See discussion under No. 186.

182. FRUIT-STONE CARVING (Pl. LXXXVI). Plum-stone (?) relief. On the front is shown the Crucifixion, with a soldier on horseback, Longinus piercing Christ's side with a lance, and other mounted horsemen behind; to either side of the cross, surmounted by a titulus inscribed *INRI*,

[318] Réau 1955–9, vol. 2, pt. i, p. 458.
[319] Robertson 1863, p. 550, no. 54.
[320] According to Smith 1908, p. 227.
[321] Evans 1922, pp. 142–3.
[322] See Rohde 1937 for an account of this period in the history of amber.

stand the Virgin and St. John, and a skull lies below. Imbricated ground.

1656 p. 38: *Figures and stories neatly carved upon Plum-stones, Apricock-stones, Cherry-stones, Peach-stones, &c.* 1685 A. nos. 496: *Christi crucifixio, cum S^ae^ faeminis asseclis, Milite latus transfigente, totaq. comitante caterva, in pruni item ossiculo graphice sculpta.*

Dimensions: Height 23 mm; Width 19 mm.

This carving illustrates the passage in the Gospel of St. Mark (15:39), 'Truly this man was the son of God', and may be that described by Stirn on his visit to Lambeth in 1638. Datable to the sixteenth or early seventeenth century.

See further discussion under No. 186.

183. FRUIT-STONE CARVING (Pl. LXXXVI). Plumstone (?) hollowed out. On the front is the facing figure of St. James the Less, bearded and nimbed, wearing a long tunic; he has one hand raised to preach and in the other is a fuller's staff. He stands in an open niche enclosed in a frame with chevron ornament above, an inscription in Roman capitals reading *S IAMES* to one side and a long-stemmed flower-head opposite. The natural markings of the nut survive on the back.

1656 p. 38: *Figures and stories neatly carved upon Plum-stones, Apricock-stones, Cherry-stones, Peach-stones, &c.* 1685 A no. 503: *Sanctus Jacobus in Pruni ossiculo insculptus.*

Dimensions: Height 24 mm; Width 20 mm.

English workmanship of the late sixteenth or early seventeenth century. See further discussion under No. 186.

184. FRUIT-STONE CARVING (Pl. LXXXVI). Plum-stone (?) hollowed out at the back to form a handle with a hole in the centre between panels filled with formal foliate ornament. The front is carved with a shield with the following quarterings in reverse: quarterly of six (1) on a saltire a rose (Nevill of Abergavenny), (2) fretty on a canton a ship (Nevill ancient), (3) checky (Warenne), (4) on a fess between six crosses crosslet a crescent (Beauchamp, Earl of Worcester), (5) quarterly two and three fretty a bendlet overall (Despencer), (6) three chevrons (Clare).

1656 p. 36: *Figures and stories neatly carved upon Plum-stones, Apricock-stones, Cherry-stones, Peach-stones &c.* 1685 A no. 507: *Insignia sex familiarum uno clypeo contenta, in unica facie ossiculi Pruni caelata. fract.*

Dimensions: Height 18 mm; Width 14 mm.

The drawing of the arms is not every accurate: the canton in (2) should be party and in (5) the bend (for it is not a bendlet) has not been drawn over-all as it should be. The first persons entitled to use these arms would be the children of Edward Nevill, son of Ralph, Earl of Westmorland, and Baron Abergavenny (*iure uxoris*). His elder son married an heiress and could have added another quartering. This George Nevill of Abergavenny died in 1492. English workmanship of sixteenth or early seventeenth century.

See further discussion under No. 186.

185. CARVING (Pl. LXXXVI). Wood plaque, formerly painted and gilt. Bust of Christ facing in profile to the right with surrounding inscription in Roman capitals: *+EC[CE SA]LVA[TOR MUN]DI.* Damaged.

1685 A no. 498: *Imago D[omi]ni n[ost]ri Jesu Christi intra ovale incisa, in quo haec Inscriptio, Ecce Salvator mundi.*

Dimensions: Height 20 mm; Width 5 mm.

A similar bust of Christ facing to the right, though with a different inscription, is illustrated by Rouille.[323] Datable to the sixteenth century.

See further discussion under No. 186.

186. CARVING (Pl. LXXXVI). Wood plaque, formerly painted and gilt. Bust of the Virgin, veiled, facing in profile towards the right, with surrounding inscription in Roman capitals: *+E[CCE M]ATER CH[RIS]TI.* Damaged.

1685 A no. 499: *Imago B. Mariae Virginis item intra ovale incisa, in quo haec Inscriptio, Ecce mater Christi. utraq. opere multiforo.*

Dimensions: Height 19 mm; Width 6 mm.

These carvings (Nos. 181–3, 185–6) are inexpensive versions of portraits of Christ and the Virgin in medallic or hard-stone of the type illustrated by Eicher and Kris.[324] Other cheap versions were produced as bronze plaquettes.[325] Datable to the sixteenth century.

[323] Rouille 1553, p. 9.

[324] Eichler and Kris 1927, nos. 417 (the Virgin) and 420 (Christ).

[325] See Norris and Weber 1976, nos. 70, 81, though these have different inscriptions.

The small group of carvings on fruit-stones represent the *Wunderkammer* taste for feats of technical skill, exemplified by 'A Cherry-stone, upon one side S. Geo: and the Dragon, perfectly cut: and on the other side 88 Emperours faces', catalogued in the Tradescant collection at Lambeth (1656 p. 38); the stone is now lost but a drawing survives (Pl. CLXXIII). An even greater *tour de force* is the cherry-stone carved with 180 heads in the Grünes Gewölbe, Dresden, ascribed to Melchior Baier.[326] Although this was mounted to wear as a pendant, such stones composed of two halves were too fragile to be used as jewellery. Sometimes they were linked together in rosaries, such as the example shown by Mr West at the Society of Antiquaries on 25 October 1733: 'chaplet of beads consisting of fifty five cherry and plumstones. Each of the cherry stones hath a Roman Emperor and each plumstone a history most exquisitely carved.'[327] Nicholas Briot (1579–1646), who worked at the Royal Mint, is mentioned by Vertue as the carver of a portrait of Charles I,[328] the back with St. George surrounded by the Garter motto, on a peach-stone,[329] as well as of two others including a nut with a Crucifixion at the Museum at Oxford University (see No. 182). Captain Nicholas Burgh (No. 290) was also a virtuoso carver and a contributor to the Tradescant museum (No. 439). Besides devotional subjects, the Tradescant group includes a delightful portrait of a musician as Orpheus charming the beasts (No. 181). The classical character of the subject is matched by his pseudo-Roman tunic, and the instrument, a viol, was the most advanced musical instrument of the time. The festooned outline suggests a German origin. Vertue also recorded a portrait of the musician Bassano playing such an instrument in the library of Sir Andrew Fountaine at Narford Hall, 'several portraits over his books, amongst them a man playing on a viol'.[330] There is also an elaborate shield of arms (No. 184), copied from a signet ring and designed for use as a seal, with the back cut away to form a strip handle.

D. Scarisbrick

187. WAX PLAQUE (Pl. LXXXVII). Relief in wax[331] showing the Virgin of the Annunciation. The Virgin, seated before a conical baldachin on the left facing the spectator, looks up from a book lying open on a table, and folds her arms in a gesture of submission. The angel, holding the lily in his right hand, approaches from the right, his left hand raised in salutation. The dove descends, top centre, in an aureole of rays. Damaged.

1656 p. 40: *Several sorts of imbost Wax-works curious.* 1685 A no. 579: *Salutatio B.M. Virginis arte cereoplastica. fract Anno 1694*].

Dimensions: Height 70 mm; Width 45 mm.

The scene illustrating the passage from St. Luke (1: 26–38) represents a rare survival from the sixteenth-century craft of wax-modelling, which is more frequently represented by portrait medallions, sometimes with elaborate details of costume jewellery richly coloured. Late sixteenth century.

D. Scarisbrick

188. BOX OF COUNTERS (Pl. LXXXVIII). Small circular silver box, containing silver counters. The box has a slip-in lid; its sides are enamelled with two superimposed bands of translucent green on scored keying above flat silver wires rolled to simulate cord between wires. The base is plain. The cast top of the lid is enamelled in cloisons, with a symmetrical pattern of scrolled foliage with stylized flowers and a pineapple in pale greens, turquoise, and cobalt blue on a blue-black ground (damaged). The box contains eleven of the original dozen thin oval silver discs, each stamped with the haloed head in profile of an Apostle, below each of which is embossed a pierced mullet between two pellets. Each is identified by name and is represented as follows:

S. ANDREAS, to dexter (mullet and pellets repeated above)
S. BERTHOLOMEUS, to sinister
S. IACOBVS. MAIOR, to dexter

[326] On this and other cherry-stones at Dresden see Heres 1980, pp. 2–8.

[327] Minute-Books of the Society of Antiquaries, 2. This corresponds with the description of the rosary of Queen Henrietta Maria, lent by the Duke of Portland to the exhibition of the Royal House of Stuart, London, 1889, no. 408.

[328] Vertue, *Note Books*, 1. 38.

[329] Christie's sale, 20 Feb. 1973, lot 168. Jones (1880, p. 322) states that after the execution of Charles I the Knights of the Garter wore a crystal case mounted in gold containing a likeness of the King and the insignia of the donor carved in a peach-stone. The whole ornament was in the shape of a pearl to imitate that which the King wore in his ear.

[330] Vertue, *Note Books*, 2. 161. Another nut carving of Orpheus is illustrated by Gonzales-Palacios (1981, no. 106). The same author illustrates other nuts carved with devices taken from Roman coins (no. 104) and with heads amidst foliage (no. 105).

[331] Analysis by Dr E. A. Baker confirmed that the material is almost certainly beeswax. Some traces of shellac were also detected, no doubt from surface treatment.

S. JACOBVS. MINOR, to sinister
S. IOANNES, to dexter (mullet and pellets repeated above)
S. IUDAS, to dexter (mullet and pellets repeated above)
S. MATHEVS, to sinister (mullet and pellets repeated above)
S. PAVLVS, to sinister (mullet and pellets repeated above)
S. PHILIPPVS, to sinister (mullet and pellets repeated above)
S. SIMON, to sinister (mullet and pellets repeated above)
S. THOMAS, to sinister (mullet and pellets repeated above)
St. Peter is missing.

1656 p. 37: *A little Box with the 12 Apostles in it.*
1685 A no. 486: *Capita 12 Apostolorum in argento toreumate seu opere anaglyptico exhibita contenta in pyxide item argentea varijs coloribus encausto picta.*

Dimensions: (Box) Diameter 22 mm, Height 16 mm; (Counters) Height 15.5 mm, Width 13 mm.

The exact iconographical origin has not been traced, but presumably these are works of a professional die-sinker in London (by analogy with the mullet between pellets found on many London goldsmiths' marks), using images from cast medallions of similar series of Apostles. Similar boxes are known: a pierced and engraved box containing thirty-one counters, representing sovereigns of England and others, was recently sold in London.[332] A date in the late sixteenth or early seventeenth century may be suggested.

G. L. Taylor

189. GAMAHE (Fig. 54). Grey mudstone pebble with smooth surface inscribed with the words *Jesus, Josephe, Maria.*

1656 p. 42: *A Gamaha with Jesus, Joseph & Mary, in Italian capitall letters.*
1685 A no. 312: *Lapis (ut videtur) scissilis oblongus, coloris subnigri, nominibus sacris Jesu, Mariae, Josephi inscriptus; quod artificio (vereor) non naturaliter factus: cujusmodi apud Germanos Gamahuja dicuntur.*

Dimensions: Length 60 mm; Diameter (max) 19 mm.

'Gamahes' were regarded as amulets and as such were worn or carried against evil influences. The *Oxford English Dictionary* records the first use of the term in 1638 and reproduces an explanation of its

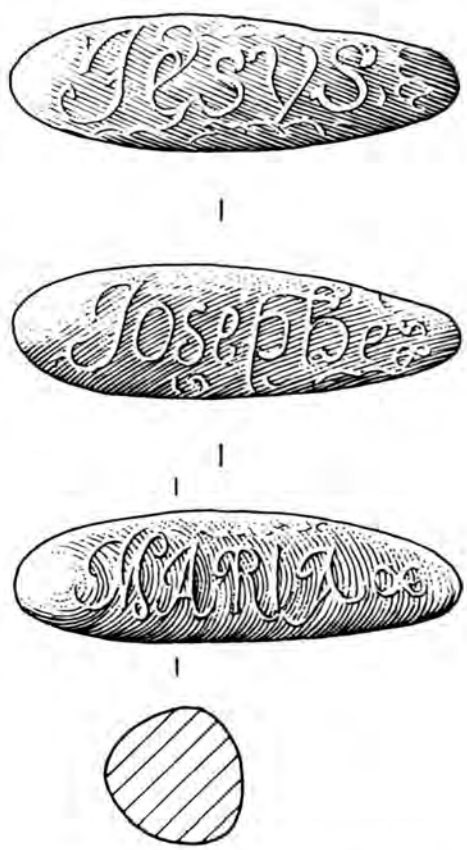


Fig. 54. Gamahe, No. 189. Scale 1:1

meaning dating from 1656: 'Talismans are Images or Figures made by art, under certain constellations; so gamahez are such figures found so wrought by nature held to be of great vertue, being therefore worn by some persons.'[333] A later seventeenth-century view was that talismans operated partly on the basis of resemblances and partly on the power of the 'Celestial Raies, for Rendering them Apt to effect that which we desire', and that, 'according to the opinion of the Eastern Men, Figures, and Images may be so prepared, under certaine constellations, as that they shall have the power, Naturally, and without Aide of any Demon, or Devell to drive away Noysome kinds of Diseases'.[334] Beliefs of this kind survived throughout the seventeenth century, influencing European minds at all levels of society.

[332] Phillips, London, *Silver and Gold Boxes and Miscellaneous Collectors' Items*, 15 May 1981, lot 6.
[333] *Oxford English Dictionary* (1933), s.v. gamahe.
[334] Evans 1922, pp. 163–4.

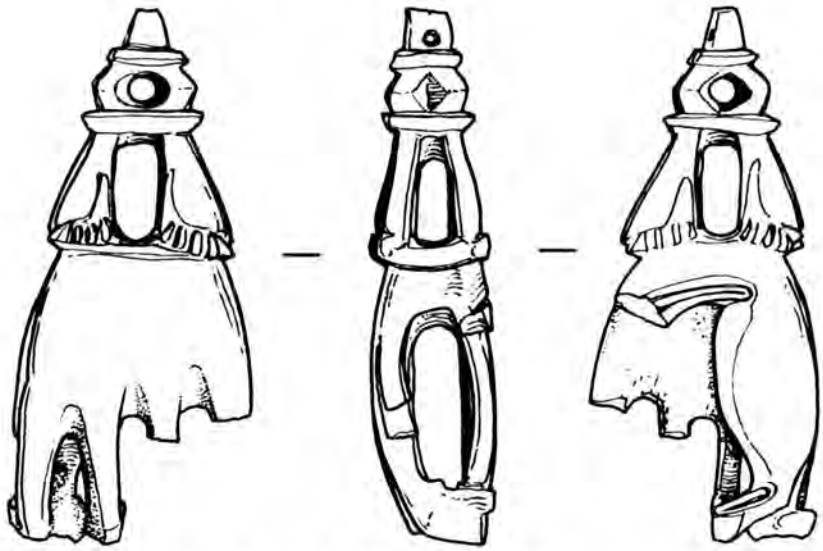


Fig. 55. Amulet, No. 190. Scale 1:1

Until the middle of the seventeenth century, 'figured stones' were classified simply by external appearances, no distinction being made between natural and artificial sigils.[335] Paracelsus, however, in his *Opera* of 1658, distinguished two types of gamahes: one type was found in sand and streams and bore the appearance of having been made by man, but had instead been 'created by God and endowed with miraculous powers', whereas the artificial stones had 'images of men and animals which have been impressed by a peculiar constellation'.[336] Jacques Giffard (1601–81), one of the last cabbalists and an authority on talismans, paid particular attention to natural gamahes. The work of the cabbalists attracted the disapproval of the Church and the provincial councils of Milan in 1565 and Tours in 1583 ordered ecclesiastics to discourage the use of amulets and talismans.[337] Various treatises were produced condemning these magical exercises: Jean Baptiste Thiers, who published in 1679 one of the strongest denunciations of the use of amulets, approved only of objects which bore the name of Christ, the sign of the Cross, or other sigils acceptable to the Church.[338]

The considerable interest taken in amulets and gamahes during the seventeenth century was one of the factors which led to the collecting of fossils and stone implements.[339] Amongst Ashmole's geological collection, much of which is believed to have been destroyed by fire in the Temple, was a flint axe which had been found at Oldbury, an engraving of which by Hollar was included in Dugdale's *Antiquities of Warwickshire*.[340]

The mudstone gamahe is the only one remaining of three listed in the 1656 catalogue: a 'Gamaha with a Fish in it' and a 'Gamaha of a Deaths head' are mentioned (1656 pp. 42–3).[341] Stirn records in his diary that he saw at Tradescant's museum, 'a stone found in the West Indies in the water, whereon were graven Jesus, Mary and Joseph' (see p. 248). It is possible that this gamahe, which is so meticulously worked, had been purposely placed in water, so that the finder might attribute greater protective powers to the stone, supposing it had occurred naturally.

E. Sandford Gunn

190. AMULET (Fig. 55). Jet pendant cut in the form of a left hand. The index and middle fingers, which are intact except for their tips, are clenched with the end of the thumb inserted between them; the other two fingers are broken off at the base. The ends of an incised arc-shaped feature survive at the

[335] Evans (1922, p. 83) points out that most of the later lapidaries were based on the work of Albertus Magnus (1206–*c.*1280).
[336] Gunther 1925, p. 237.
[337] Evans 1922, p. 187.
[338] Thiers 1679, p. 313.
[339] Gunther 1925, p. 236.
[340] Dugdale 1656, p. 778.
[341] See No. 177.

tip of the thumb and at the base of the palm. The 'wrist' portion of the amulet is formed by an openwork setting of two pairs of roughly indicated hands, each making the same gesture as described above, which are in turn united at their wrists by a terminal. The terminal consists of a faceted expansion, flanked above and below by square mouldings and perforated from front to back, surmounted by a truncated pyramidal finial with a small transverse perforation.

1656 p. 44: *A Hand of Jet usually given to Children, in Turky, to preserve them from Witchcraft.*
1685 A no. 440: *Manus e gagate cujusmodi solent Turci suis puerulis dono dare, utpote quorum virtute (ut stulte existimant) a fascinationibus tuentur.*

Dimensions: Length 70 mm; Width 30 mm; Thickness 14 mm.

Amulets of this type are well known up to the present day, particularly in the Mediterranean regions of Europe. Currently they are regarded as little more than good-luck charms, but their original function is universally acknowledged as being to protect the wearer against the malevolent influence of the 'evil eye'.

Possession of the power of the evil eye may be considered more of a curse than a gift: the antagonism it engendered in others can rarely have brought the least benefit to its possessors, formerly known to the Italians as *jettatori*.[342] Even the envious glance of an otherwise benign person, cast in the direction of a prized possession or a loved one, might be enough to unleash the powers of the evil eye.[343] Women, children, and domestic animals, all being targets for the envy of the less fortunate, were considered particularly vulnerable. It Italy the *jettatori di bambini* were among the most feared of fascinators[344] and in Turkey mothers avoided undue displays of pride in their children and even hid them away from strangers to avoid attracting the attention of the evil eye.[345]

In order to thwart this evil influence, a variety of counter-measures could be adopted. One method of warding off danger was by a gesture of the hand with the fingers arranged in a prescribed position. Two such positions were particularly favoured: in one of these the hand was clenched with the index and little finger extended in the form of horns, known in Italy as *mano cornuta*;[346] in the other (deemed by most writers to be particularly efficacious against the evil eye)[347] the hand was clenched with the tip of the thumb protruding between the index and middle fingers, known as *mano fica* or 'fig hand'.[348] Alternatively, protection could be gained by wearing amulets of various kinds, the most effective being in the form of hands making either of these gestures. The advantage of such an amulet was that it gave permanent protection to the wearer and was not dependent on his being conscious of any impending danger.

Although damaged, the pendant considered here is clearly an amulet of the *mano fica* type. Such amulets have a long history, examples being known from Etruscan contexts[349] and from widely scattered Roman period sources.[350] To this day they remain popular christening-gifts in some parts of Italy, usually executed in coral or silver.[351] The Turkish origin suggested in the early catalogues might not be considered impossible: an early example of an amulet in this form is known from as far east as the Crimea,[352] and belief in the evil eye survives in Turkey to the present day,[353] although a recent survey found no current usage there of the *mano fica* gesture.[354]

There are, however, overwhelming reasons for claiming a Spanish origin for the Ashmolean

[342] The term seems, however, to have little or no currency today. Those who have gained particular notoriety as *jettatori* include Pope Pius IX and King Alphonso XIII of Spain: see Elworthy 1958, pp. 24–6; Gifford 1958, pp. 97–8.

[343] Fear of envy is indeed at the root of superstitions surrounding the evil eye: see Spooner 1976, p. 77.

[344] Elworthy 1958, p. 18.

[345] Ozturk 1974, p. 351; Spooner 1976, p. 80.

[346] The terms adopted here are those in current usage among ethnologists. The earliest accessible source for the vocabulary of gestures is de Jorio 1832 (see especially pp. 89–113, 155–9).

[347] See, for example, Critchley 1939, pp. 81–2; Elworthy 1958, p. 257; Hildburgh 1951, pp. 231–51 (especially p. 243); Pavitt and Pavitt 1929, pp. 93–4.

[348] The use of this gesture is still widespread in Europe for purposes other than warding off the evil eye. It is interpreted in different ways, most of them obscene, by different communities (see Morris *et al.* 1979, pp. 148–59, for a review), but these alternative meanings have no direct significance in this context.

[349] Cuming 1866, p. 293; Pavitt and Pavitt 1929, pp. 93–4; Elworthy 1958, fig. 102.

[350] Two examples from Egypt, now in the Ashmolean Museum (nos. 1931.606 a–b) may be of this date; for others see Petrie 1914, p. 11, pl. I, nos. 13 a–b, and Hansmann and Kriss-Rettenbeck 1966, p. 200. Gesturing hands are occasionally combined with phalli in amulets found in Roman military contexts (see Webster in Hobley 1967, pp. 126–9, for some discussion of these). Amulets of this type were also commonly worn by children, until papal disapproval of the phallic emblem resulted in its disappearance (Elworthy 1958, p. 152).

[351] Elworthy 1958, p. 152.

[352] Ibid., p. 136, fig. 21.

[353] Ozturk 1974, p. 351.

[354] Morris *et al.* 1979, p. 159.

amulet. Only in Spain, it seems, did the practice develop of adding smaller supporting hands at the wrist, to enhance the power of the amulet: the unique character of these Spanish 'compound hands' was recognized by Hildburgh, who published several examples.[355] Most of these are suspended by silver mounts, but one incorporates a moulded and perforated terminal similar to that on the Ashmolean pendant.[356] An additional feature found on many of these Spanish amulets is an incised or openwork device on the palm, often in the form of a heart or a crescent, alluding to the Virgin Mary and invoking her intercession.[357] Although broken and incomplete, traces of such a device can be seen on our example.

The majority of these Spanish amulets are made of jet, which was readily available from the famous *azabacheria* (jet works) at Compostella.[358] More significant than easy availability, however, were the attributes with which jet was popularly invested: the belief that it was a specific against a wide range of evils, including witchcraft,[359] would have enhanced the apotropaic powers of amulets made in this material.

As to the date of these Spanish compound amulets, the majority are assigned to the sixteenth and seventeenth centuries.[360] At this time they were so widespread as to provoke a ban on their use by Charles V in 1525.[361] Hildburgh has suggested that the practice of adding symbols alluding to the Virgin to these otherwise profane objects may have originated at about this time by way of response to the proscription.[362]

On this evidence, a Spanish origin and a date in the later sixteenth or early seventeenth century may be suggested with some confidence for the amulet from the Tradescant collection.

A. MacGregor

191. JASPER HEART (Pl. CII). Worked jasper heart. Both faces are slightly convex and there is a nick between the two ventricles.

1685 A no. 120: *Sardachates cordiformis.*

Dimensions: Length 28 mm; Width 24 mm.

The heart form was used as a decorative motif on many items of personal use, naturally-formed heart shapes being the most highly regarded.[363] It was considered as a symbol of earthly and heavenly love and, when given as a present, was intended to express love and to encourage reciprocal feelings. Healing powers were also attributed to heart-shaped amulets:[364] a heart-shaped water-worn pebble obtained from Whalsay, Shetland, is recorded as having been used as a charm-stone capable of curing human diseases and, at a later date, of curing animals.[365] The heart was regarded by alchemists as the image of the sun in man, just as gold was regarded as the image of the sun on earth.[366]

The various properties of jasper have been discussed with reference to jasper beads (Nos. 115–16) but many types of stone were used to make heart pendants. Hansmann and Kriss-Rettenbeck illustrate a wide variety of materials used to produce such pendants, which were frequently encircled with silver or gold bands.[367] The Cheapside Hoard,

[355] Hildburgh 1906, pp. 458–60, pl. V, 23; id. 1913, pp. 65–6, pl. I, 4; id. 1914, pp. 206–10, pl. XV, 1–4. For further amulets of this type from Spain, where they are known as *higas*, see Cuming 1866, pp. 294–5; Douce 1807, p. 497; Ferrandis 1928, pp. 257–61; Fortnum 1881, pp. 256–7; Seligman 1910, pp. 184–8; Hansmann and Kriss-Rettenbeck 1966, p. 201. A silver-mounted jet amulet somewhat similar to our example is in the Horniman Museum, London, no. 33.198 (information kindly provided by Mrs Marion Wood).

[356] Hildburgh 1914, p. 208, pl. XV, 4.

[357] Hildburgh 1906, p. 459; id. 1913, pp. 64–5; id. 1914, pp. 208–9. Two such hands incorporating crescents illustrated by Douce (1807, pp. 493, 497) are thought by him to allude to Isis or Venus, while Cuming (1866, pp. 294–5) sees in them the influence of Diana. In this context, however, the crescent should, perhaps, be seen as a reference to the Virgin.

[358] Hildburgh (1914, pp. 209–10) speculates on the possibility that jet may have acquired an association with the protective powers of the Virgin from the fact that her image was frequently reproduced in this material, perhaps mostly for sale to pilgrims to the shrine of St. James at Compostella. A *mano fica* or *higa* amulet incorporating a figure of St. James is illustrated by Ferrandis (1928, p. 258, pl. LXXXVII).

[359] Evans 1922, pp. 40, 55; Hildburgh 1913, p. 66; Pavitt and Pavitt 1929, p. 256. One of the more recently claimed attributes of jet in Spain was the preservation of the hair (Hildburgh 1913, p. 66).

[360] Cuming 1866, pp. 294–5; Hildburgh 1906, p. 459; id. 1914, p. 207. The amulet in the Horniman Museum (see n. 355) is tentatively dated to the seventeenth century: I am grateful to Mrs Marion Wood for this information; Ferrandis (1928, pp. 259–60) claims that the majority of sixteenth-century amulets show right hands, while left hands predominate in the seventeenth century.

[361] Fortnum 1881, p. 256.

[362] Hildburgh 1914, p. 209.

[363] Hansmann and Kriss-Rettenbeck 1966, p. 181.

[364] Ibid.

[365] *Proceedings of the Society of Antiquaries of Scotland*, 71 (1937), 369.

[366] Cirot 1971, p. 142.

[367] Hansmann and Kriss-Rettenbeck 1966, pp. 38–9.

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

dating from the early seventeenth century, contained an amethyst worked in the form of a heart,[368] as well as others of malachite and azurite,[369] which were unmounted.

E. Sandford Gunn

192. CRYSTAL BALL (Pl. CII). Spherical ball of quartz. The gemstone is colourless and has a low refractivity,[370] with a magnification of about 2.5 times.

1685 A no. 206: *Calculus globosus transparens naturaliter sic formans.*

Dimensions: Diameter 38.5 mm.

Rock crystal has long been used for a variety of decorative and more mundane purposes. It was used in Roman times for vessels and personal ornaments: according to Propertius, crystal balls were carried by Roman ladies to keep their hands cool in summer.[371] Anglo-Saxon graves have yielded several crystal balls, usually unperforated and slung in metal bands, always in women's graves and usually from between the knees.[372] The tomb of the Frankish king, Childeric (d. 481–2), at Tournai, contained a crystal ball: the tomb was found in 1653 and the excavated items were taken to Vienna where they were eventually incorporated in the cabinet of the Emperor Leopold; after its return to France in 1665, the treasure formed part of the Cabinet des Médailles of Louis XIV.[373]

Arab lapidaries of the thirteen century suggested that crystal would preserve the wearer from 'the terrors of the night',[374] whereas the Anglo-Norman *Sloan Lapidary*, written before 1243, gave rather different magical powers, stating that crystal:

> is cleare and white and it keepeth a man of his thirst. Make powder of Christale and give a woman to drinck and it shall greatly multiply her milke. Touch ye Christall with ye stone that hath lost his virtue through ye sine of him that beareth uppon him, so yt he amend him of his sinne he shall returne his strength, as in his kind through ye virtue of ye Christall stone.[375]

In medieval times crystal was regarded as the symbol of virginity, innocence, and chastity.[376]

Rock crystal balls have been used in various ways in Scotland, appearing in the sceptre of the Scottish Regalia and in the mace of the Lord Treasurer. The uses and values of rock crystal balls have been best remembered and recorded there. Lhwyd mentions their use amongst the Highlanders who valued their supposed influence in curing cattle and who 'on May day put them into a tub of Water, and besprinkle all their cattle with the water to prevent being Elf-struck, bewitch'd, etc.'[377] The famous Clach-Dearg, or Stone of Ardvorlich, is traditionally held to be of Saracen origin:[378] the power of this crystal ball was highly regarded, especially in curing cattle diseases, until it was placed in the custody of a bank in 1882 in order to stamp out the practice.[379] An equally famous crystall ball is the Clach-na-Bratach, the Stone of the Standard, which is unmounted and is said to have belonged to Clan Donnachaidh since 1314.[380] Tradition holds that the clan was marching to join Bruce prior to Bannockburn; one morning when the standard was drawn, a crystal ball was seen embedded in the clinging earth. This was thought to be a good omen and henceforth the ball accompanied the clan whenever they were 'out'.[381]

The use of crystal as an amulet and for medicinal purposes has been little recorded elsewhere in Britain, but the practice of crystal-gazing, which became well established by the fifteenth century, with a variety of methods for 'conjuring with the stone', is still widely known.[382] Edward Kelly, who was an associate of John Dee (1527–1608), was one of the chief exponents of the art in Britain.[383] Three wax discs and a crystal 'shew-stone' belonging to Dee are now in the British Museum.[384]

Crystal balls were recorded by Plot at the Ashmolean and in the Repository of the Royal Society at Gresham College: he considered that these stones were 'not found in digging, either amongst Gravel, or in Quarries, as most other form'd stones, but upon the surface of the earth, as

[368] London Museum 1928, pl. X, fig. 2, no. 14022.
[369] Ibid., pl. X, fig. 2, no. 14275.
[370] Smith 1940, p. 116.
[371] Quoted in Black 1893, p. 435. The same property is attributed in the accession register to a crystal ball in the Ashmolean Museum (no. 1886.963).
[372] Meaney 1981, pp. 82–7. Anglo-Saxon crystal balls in the Ashmolean Museum include one from Chatham (no. 1836, p. 128, no. 206), one from Picquigny, Somme (no. 1909.661a), and another from Naples (no. 1886.963).
[373] Dumas 1975, pp. 3–4.
[374] Evans 1922, p. 40.
[375] Evans and Serjeantson 1933, p. 128.
[376] Gregorietti 1970, p. 159.
[377] Black 1893, p. 437.
[378] J. H. Stewart, personal communication.
[379] Black 1893, p. 438.
[380] Evans 1922, p. 180.
[381] Black 1893, pp. 438–40.
[382] Thompson 1927, p. 151.
[383] Tait 1967, pp. 195–212.
[384] Ibid., p. 203.

the ingenious Mr Beaumont also says they are in Somersetshire and Glocestershire, in the roads, where the earth is bare; and produced, as he thinks, in clear Evenings by a coagulation of dew falling on nitrous streams, as the hexangular Chrystalls are observed to be . . . only in certain dry places, naked and bare of all greens.'[385]

E. Sandford Gunn

193. BEAD CALCULATOR (Pl. LXXXIX). Consists of two shallow boxes, apparently of pine. Originally the boxes were joined at their longer sides by simple metal hinges, now broken, and were fastened when closed by a hook-and-pin catch. Each of the boxes has six stiff wires running horizontally across it at regular intervals, with the ends set through the wooden frames on either side. The wires of the left-hand box are strung with metal beads, ten to each wire, except the lowest, which has four. The right-hand box is similar, except that the top four rows contain ten beads each, with a row of four and another of two beneath. A label bearing the number *72* is pasted on the outer vertical frames of each box, and another, with the inscription *Numerical table of the Chinese*, is pasted across the back of each box. In the lower right-hand corner of the right-hand box there is a hole through the transverse frame, possibly for carrying or suspension; the hole is worn smooth and funnel-shaped, which suggests long use. When the instrument is closed there appears to be a *W* or *M* scratched across the middle of the two outer frames.

1656 p. 54: *Beads strung upon stiffe wyres, and set in four-square frames wherewith the Indians cast account.*
1685 A no. 453: *Abacus Japonicus, in quo rationes colliguntur per globulos stanneos perforatos filo ferreo consertos, stylo item ferreo hinc inde mobiles.*

Dimensions: (closed) Height 97 mm; Width 65 mm; Thickness 20 mm.

Bibliography: Gunther 1923, p. 126; Ryan 1972, pp. 83–8.

This instrument is undoubtedly a Russian *schety* or counting-frame, which, it can be suggested, may have been brought to England by Tradescant the elder after his trip to Archangel with Sir Dudley Digges in 1618. The Chinese ascription on the old museum label appears to date from Duncan's catalogue,[386] and it is possible that *72* does too. The 1656 description of the instrument as 'Indian' may have arisen because Tradescant the younger and his collaborators were unaware of its true provenance and simply gave it a suitably vague and exotic origin. 'Indian' describes artefacts of widely differing origin in the catalogue. Later cataloguers were clearly not satisfied with the Indian ascription and chose rather Japanese (1685) or Chinese (1836), presumably because they were aware of analogous instruments from those cultures.[387] Even the comparatively expert Gunther[388] maintained a Chinese origin.

The *schety* probably first came into use in the mid-sixteenth century.[389] Its origin is obscure but it may have been indigenous to Muscovy. If a date of 1618 is accepted for the Tradescant *schety* then it is the oldest extant specimen, the next oldest having been ascribed, on the evidence of its ornamentation, to the end of the seventeenth century.[390] The Tradescant *schety* is also older than descriptions in Russian sources or foreign travel accounts and is therefore of considerable historical interest. Particularly noteworthy is the fact that it has ten-bead rows. Many of the Russian manuscript descriptions of *schety* indicate nine-bead rows and the historian of the *schety*, Spassky, suggests that the change to ten-bead rows reflects the transition from the old Greek-style alphabetical numerals to modern numerals.[391] As this transition only became official at the beginning of the eighteenth century, the Russian merchants trading with the English in Archangel, to one of whom the Tradescant *schety* may have belonged, would have been considerably in advance of the rest of the country in the matter of arithmetic, and of their English trading-partners in the matter of technology, for there was no calculating device comparable to the *schety* in western Europe at this time. The *schety* is still in use in the USSR today.

W. F. Ryan

194. RUNIC ALMANAC (Figs. 56–60, Pl. XC). This perpetual almanac consists of ten (originally eleven) leaves of boxwood (*Buxus* sp.), fastened through paired perforations along one edge by a cord, so as to form a 'book'. The leaves are carved

[385] Plot 1686, p. 179.
[386] Duncan 1836, p. 180.
[387] Von Uffenbach (1753–4, 3. 124), however, accepts an Indian origin.
[388] Gunther 1923, p. 126.
[389] Spassky 1965, pp. 269–420.
[390] Ibid., p. 318.
[391] Ibid.

on both sides with runic and other symbols. When complete, twenty of the sides (or 'pages') comprised the calendar itself, the other two forming the covers. The front cover, with the first page of the calendar on the back of it, is missing.

Each of the calendar pages bears a central line of runic characters which, reading from left to right, consists of a continuous repetition of the first seven letters of the runic alphabet:[392]

ᚻ ᚢ ᚦ ᚨ ᚱ ᚺ ᚾ

These runes represent the days of the year, the seven individual letters serving to differentiate the days of the week. Thus, if in a particular year the letter ᚦ marked all the Sundays throughout that year, the letter ᚨ would mark all the Mondays, and so on; in the following year, the letter ᚢ would distinguish the Sundays, and the letter ᚦ the Mondays. In leap years, a change of letter would occur in February.

The day-runes run continuously from the beginning of Page 1 (July 2–20) to the end of Page 20 (June 16–July 1), with no separation into months. There are usually eighteen (sometimes nineteen) days to a page. Each leaf bears a number of notches on one edge, to indicate its position in the almanac. The leaves being fastened along their lower edges, it is necessary to rotate the almanac when reading it in order to proceed from one page to the next.

Certain of the day-runes are extended upwards to form either crosses or half-crosses. These represent major or minor feast days, the identity of each being indicated by an appropriate carved symbol. For instance, April 23 (on Page 17) bears a cross and a sword, for St. George's Day; November 25 (on Page 7) bears a cross and a wheel, for St. Catherine's Day. A sloping 'branch' mark (sometimes a 'double branch') is used to mark the eve (or vigil) of some of the major feast days. A few of the day-runes are also distinguished by the insertion of small metal plugs of a lead-tin alloy.

Below the line of day-runes on each page there is an interrupted series of runes which consists of a repetition of the nineteen letters of the runic alphabet, but appearing in an order which is not alphabetical. These runes in fact represent numbers (according to their positions in the alphabet), the whole series: 19 8 16 5 13 2 10 18 7 15 4 12 1 9 17 6 14 3 11 comprising the Golden Numbers of the lunar cycle. Each of these numbers in turn marks the dates of occurrence of the new moons throughout one year. Thus, in a year for which the Golden Number is 3, wherever the rune ᚦ occurs in the lower line of the almanac, it will mark a day of new moon; in the following year, when the Golden Number will be 4, the rune ᚨ will mark the days of new moon.[393] This cycle repeats itself every nineteen years.

The end cover of this almanac (Fig. 56) bears, along its lower edge, the complete runic alphabet, in alphabetical order:

ᚻ ᚢ ᚦ ᚨ ᚱ ᚺ ᚾ ᛁ ᛃ ᛈ ᛇ ᛉ ᛊ ᛏ ᛒ ᛖ ᛗ ᛚ ᛜ ᛟ

This facilitates the identification of the respective Golden Numbers. Along its upper edge, the cover carries a repetition of the first seven letters of the alphabet, in reverse order, with every fourth rune carved below its predecessor to form a double character:

ᚾᚢᚦᚨᚱᚾᚨᚱᚢᚦᚢᚻᚾᚨᚦᚨᚱᚾᚱᚢ

This is the 'solar cycle' (of twenty-eight years)[394] which gives the dominical letter for each successive year (two for leap years). The dominical letter is the particular letter, in the central line of day-runes, which will mark Sundays throughout any one year. If the first day of the year is a Sunday, then the first letter of the alphabet (ᚻ) will be the dominical letter for that year; if the second day of the year is a Sunday, then the second letter of the alphabet (ᚢ) will be the dominical letter.

Although individual letters recur as dominical letters at more frequent, but irregular intervals, the incidence of leap years causes the whole solar cycle to repeat itself only every twenty-eight years. In leap years, one letter will denote Sundays until leap-year day, but for the rest of the year this letter will be superseded by the next letter in the cycle (as shown by the double characters). For example, the solar cycle carved here shows that the first year of the cycle is in fact a leap year in which the letter ᚻ will mark Sundays until leap year day, and will then be superseded by the letter ᚾ.

Between the solar cycle, along the top edge of the cover, and the alphabet along the lower edge, there

[392] As will be seen from the complete alphabet carved on the cover (Fig. 56), the majority of the characters used throughout the almanac are either inversions or reversals of the normal forms of runic letters.

[393] Since the eighteenth century the Golden Numbers have been used to mark the days of full moons, not new moons.

[394] Only twenty-two of the characters are carved on this side of the cover, the remainder being on the inside, at the end of Page 20. There are several mis-carvings and inverted letters.

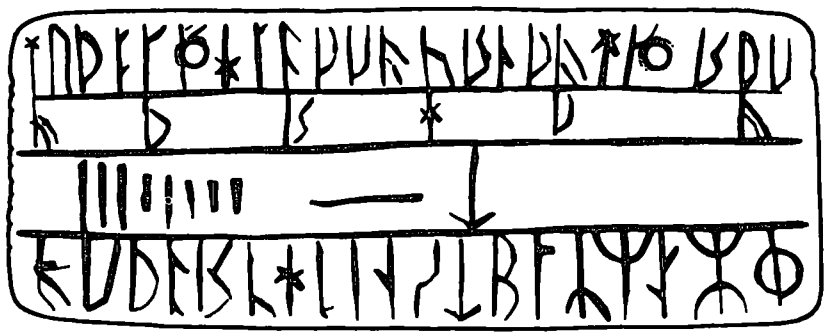


Fig. 56. Runic almanac, No. 194: back cover. Scale 1:1

is carved a series of three long strokes and five short strokes, followed by ᛉ, the runic equivalent of the letter T. The meaning of these marks is not clear, though it is possible that the strokes are intended to represent the figure 35,[395] and the letter T the owner's initial.

1685 A no. 452: *Calendarium Suecicum ex asseribus oblongis fabricatum literis Runicis inscriptum, suecis a Rimstock.*

Dimensions: (each leaf) Length 105 mm; Width 40 mm; Thickness 5 mm.

The carving of solar cycles on wooden almanacs is not known before the sixteenth century.[396] Since the year 1500 was itself a leap year in which the dominical letter was at first ᚬ, superseded after leap-year day by ᚼ, there is a high probability that the cycle carved here was intended for use in that century. It is also possible that the figure 35 referred to above may have been meant to indicate the year 1535, the century being sufficiently clear (to the user of such an almanac) from the solar cycle.

The use of runes, and the particular saints' days[397] marked on this almanac, support the 1685 catalogue in indicating a Scandinavian origin; the inclusion of St. Hallvard (May 15), a specifically Norwegian saint who is not generally recognized in Sweden or Denmark, strongly suggests that it was made in Norway. In all probability this is one of the almanacs recorded in the Book of Benefactors as the gift of John Heysig in 1683.[398]

The strangest feature of this almanac is its apparent commencement of the year with July 2, for which no significance (or precedent) is known. Since the first page (July 2–20) was presumably carved on the back of the missing front cover, there is no possibility that the almanac, once carved, was faultily assembled. Mis-carvings, however, are frequent occurrences on wooden almanacs, especially when the carver himself did not fully understand the meaning of the marks and symbols which he was copying. There remains, therefore, some possibility that, since the July 2–20 period commenced with the same sequence of day-runes, ᚱᚢᚦᚱ, as the January 1–18 period, the carver commenced his task at the wrong place. Being a perpetual almanac, its usefulness would be little affected by such an error. The allocation of eighteen (or nineteen) days to a page would appear to be quite arbitrary; it has no calendrical significance.

Since the small metal plugs (twenty-one in all) which are set into the surface of many of the leaves, above certain day-runes, mark more non-feast days than feast days, they presumably indicate local or personal dates of importance rather than ecclesiastical festivals; the intervals between them range from three to thirty-two days, and they carry no symbols of identification.

A transcription of the feast-day symbols is given in Figs. 57–60, corresponding to the following:

Page 1. July 2–20, missing.

Page 2. July 21 (branch), Eve of St. Mary Magdalen's Day; 22 (cross and book), *St. Mary Magdalen's Day*: Mary of Magdala, ministered to Christ in Galilee; 23 (half-cross), *St. John Cassian's Day*: John Cassian, monk of Bethlehem, founded two monasteries in Marseilles *c.*415, died in 435; 24 (double branch), Eve of St. James's Day; 25 (cross and hat), *St. James's Day*: James the Greater, the

[395] There being no runic numerals.

[396] On runic almanacs see the following: Davis 1864–5, pp. 205–10; Harland 1864–5, pp. 121–30; Horne 1948–9, pp. 13–28; Miles 1899; Simpson 1891, pp. 256–332; Stephens 1866–7, pp. 866–73.

[397] See Attwater 1964.

[398] See Microfiche 1.

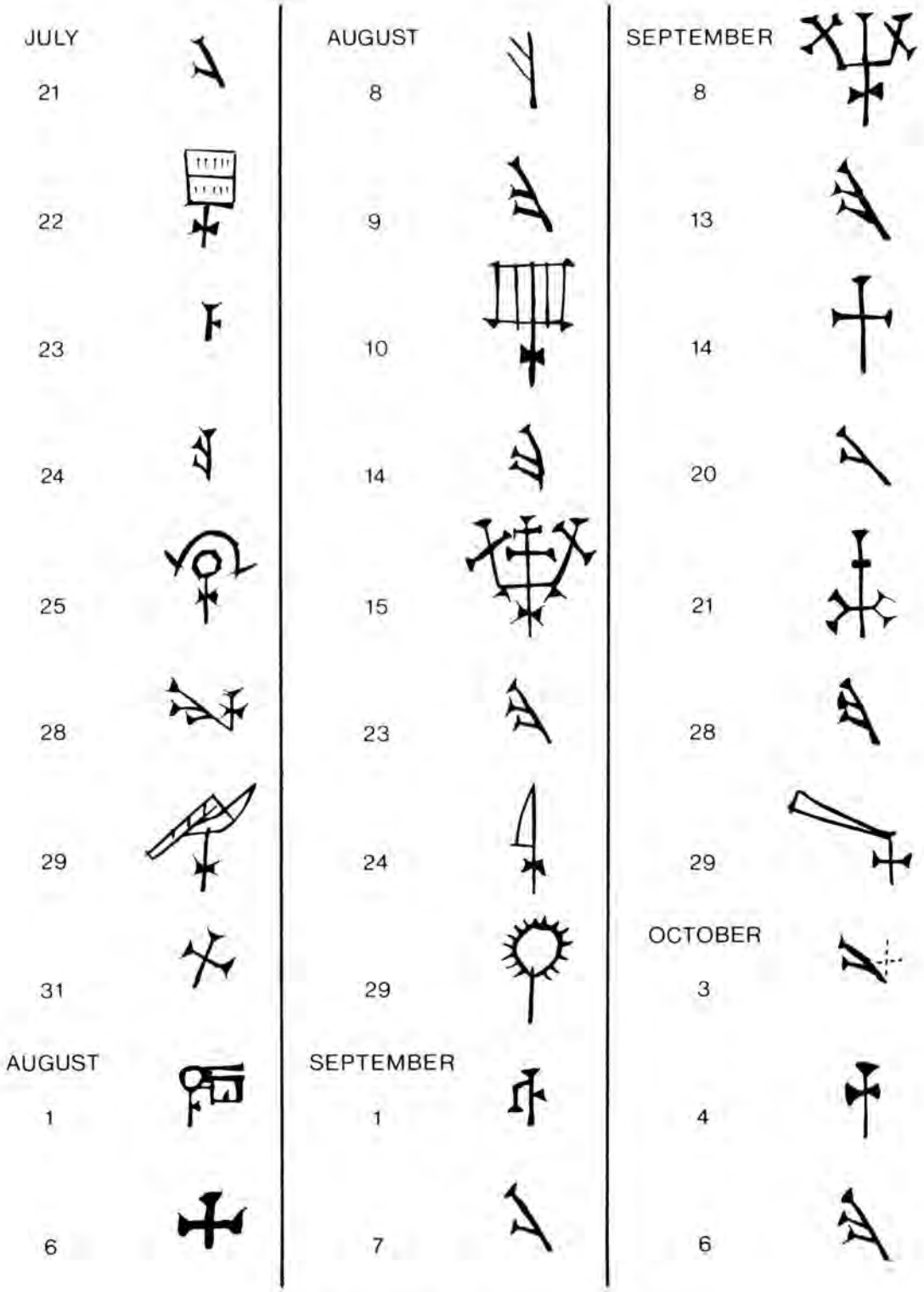


Fig. 57. Runic almanac, No. 194: 21 July–6 October

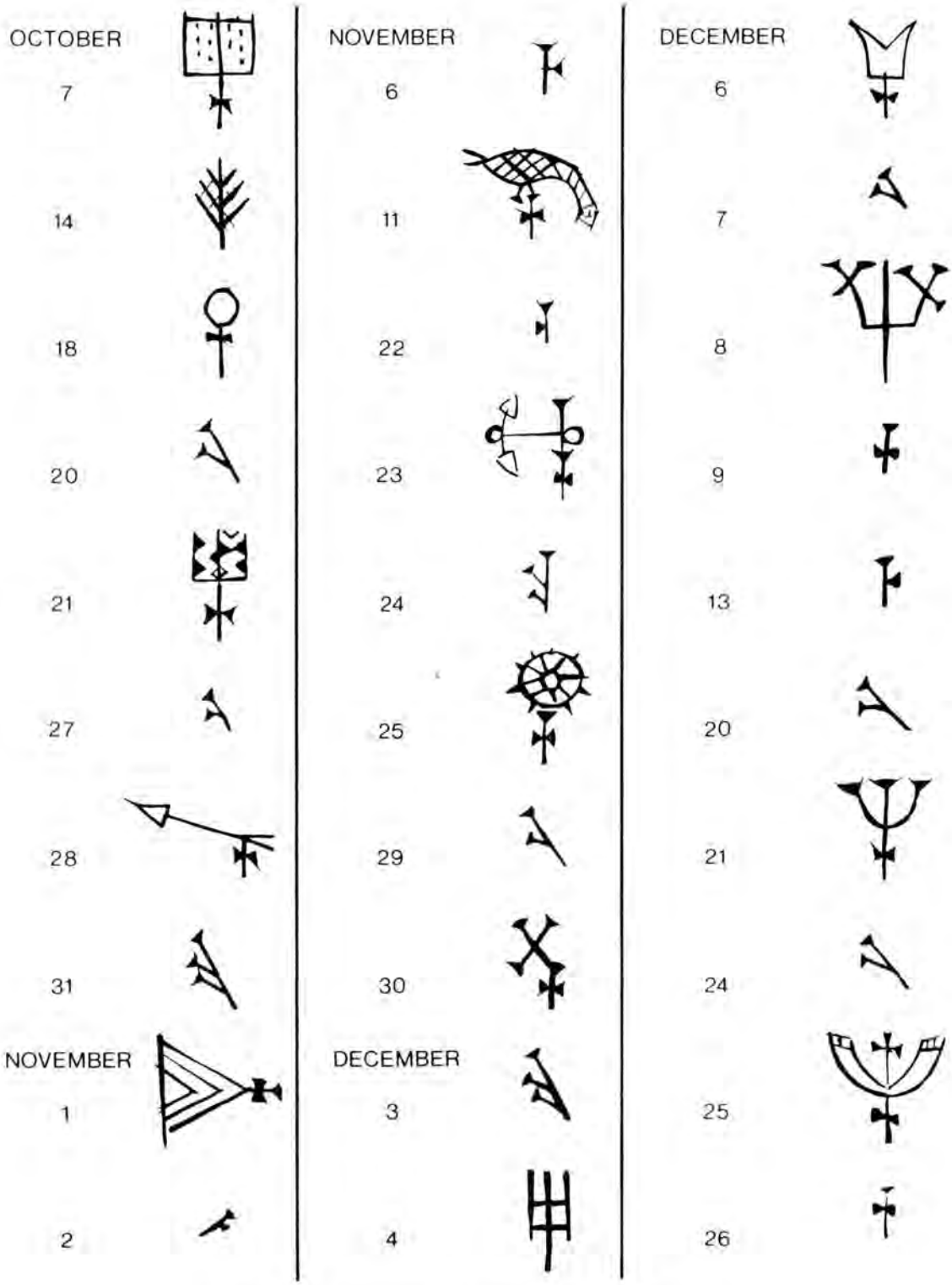


Fig. 58. Runic almanac, No. 194: 7 October–26 December

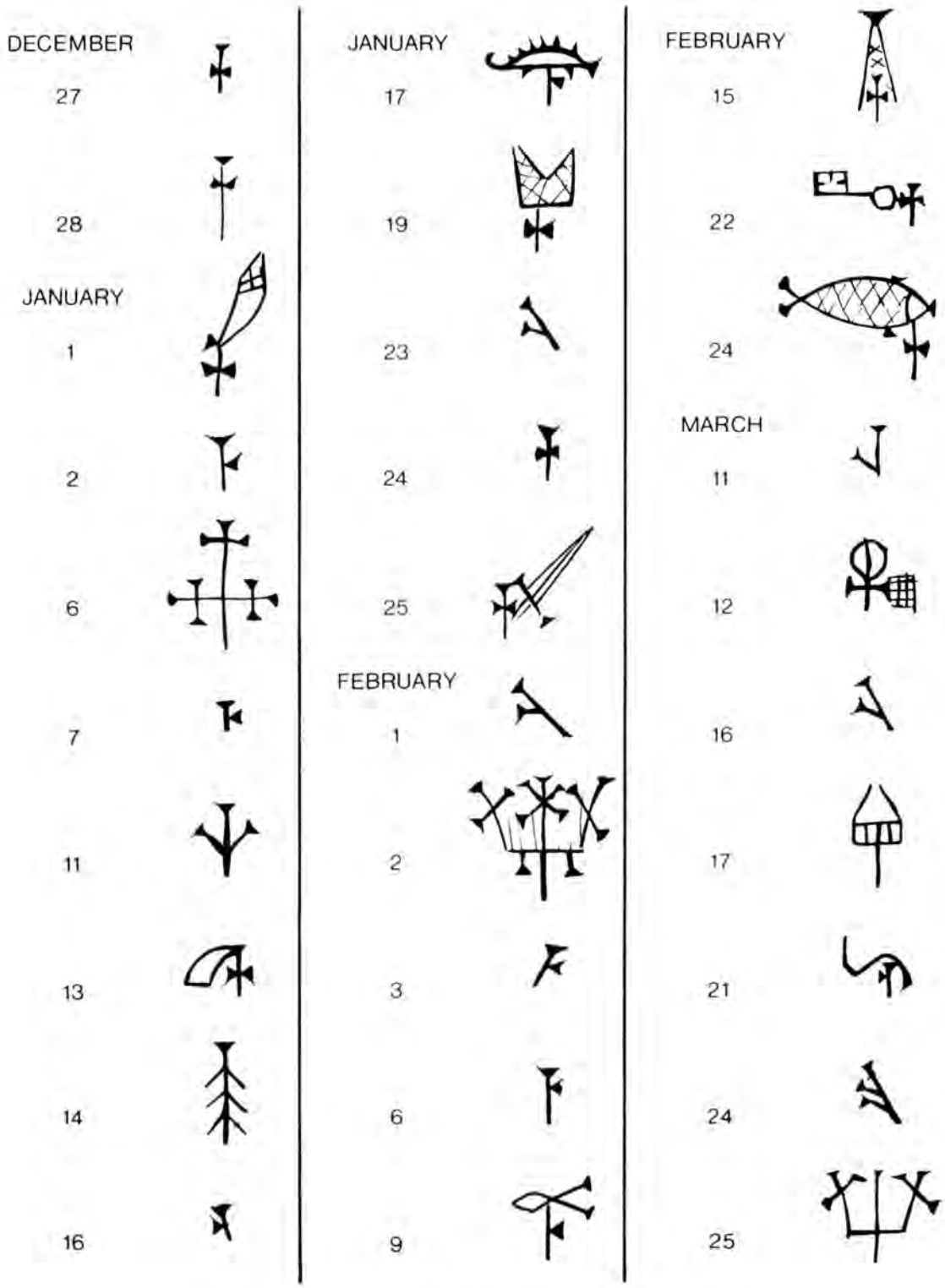


Fig. 59. Runic almanac, No. 194: 27 December–25 March

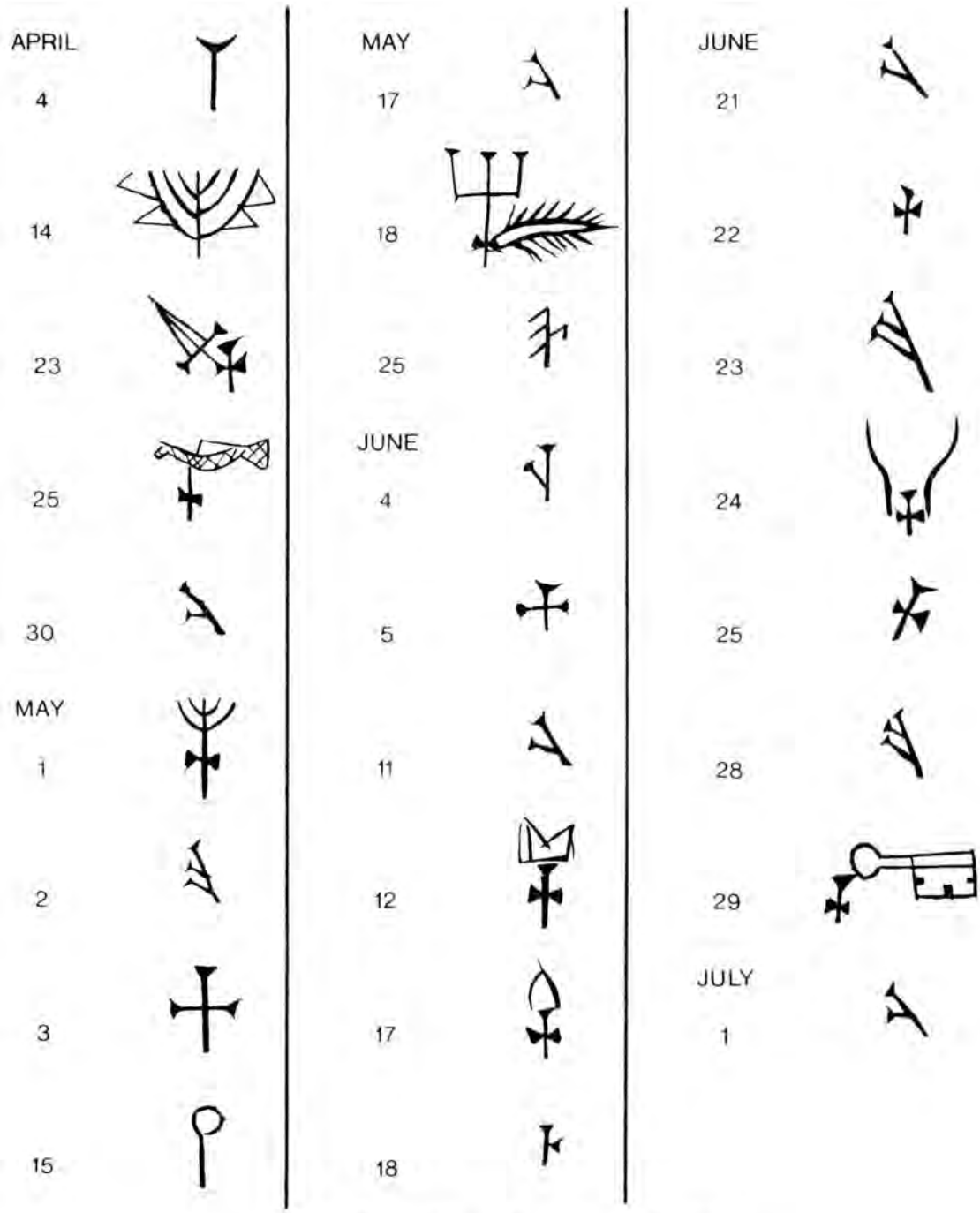


Fig. 60. Runic almanac, No. 194. 4 April – 1 July

Apostle, killed by Herod in 44 (in Norway the day is known as 'Jacob Wet-hat', a traditionally rainy day); 28 (cross and double branch), *St. Nazarius and St. Celsus's Day*: Nazarius and Celsus, martyrs, whose bodies were found by St. Ambrose in Milan, in 395, and enshrined there. Also the Eve of St. Olaf's Day; 29 (cross and battle-axe), *St. Olaf's Day*: Olaf, King of Norway, killed in battle at Stiklestead, in 1030; 31 (large cross), meaning unknown.

August 1 (half-cross and key), *St. Peter's Imprisonment*: Peter, the Apostle, imprisoned by Herod, but escaped; 6 (large cross), *St. Sixtus's Day*: Pope Sixtus II, martyred in 258; 8 (?), meaning unknown.

Page 3. August 9 (double branch), Eve of St. Lawrence's Day; 10 (cross and grid), *St. Lawrence's Day*: Lawrence, Roman martyr, roasted on the gridiron in 258; 14 (double branch), Eve of Lady Day; 15 (cross and crown), *Lady Day*: Assumption of the Virgin Mary; 23 (double branch), Eve of St. Bartholomew's Day; 24 (cross and knife), *St. Bartholomew's Day*: Bartholomew, the Apostle, supposed to have been flayed alive in Armenia.

Page 4. August 29 (halo), *St. John's Beheading*: John, the Apostle, beheaded by Herod in 29.

September 1 (half cross), *St. Giles's Day*: Giles, hermit of Arles, shot accidently by an arrow, eighth century; 7 (branch), Eve of Lady Day; 8 (cross and crown), *Lady Day*: Nativity of the Virgin Mary; 13 (double branch), Eve of Cross Mass; 14 (large cross), *Cross Mass*: Elevation of the Holy Rood.

Page 5. September 20 (branch), Eve of St. Matthew's Day; 21 (cross?), *St. Matthew's Day*: Matthew, the Apostle reputedly martyred in Ethiopia, first century; 28 (double branch), Eve of St. Michael's Day; 29 (cross and trumpet), *St. Michael's Day* (Michaelmas): Michael, the Archangel.

Page 6. October 3 (branch), Eve of St. Francis's Day; 4 (cross), *St. Francis's Day*: Francis of Assissi, founder of the Friars Minor, died in 1226; 6 (double branch), Eve of St. Bridget's Day; 7 (cross and carding comb), *St. Bridget's Day*: Bridget, lady-in-waiting to Queen Blanche of Sweden, founded the Order of Bridgettines at Vadstena, died in Rome in 1373 (in Scandinavia, the traditional day for carding wool); 14 (leaf-less tree), *St. Calixtus's Day*: Pope Calixtus I, martyred in 222 (in Scandinavia, the first day of the winter half-year); 18 (cross and ?), *St. Luke's Day*: Luke, the Evangelist, died in Greece *c.*80.

Page 7. October 20 (branch), Eve of St. Ursula's Day; 21 (cross and ?), *St. Ursula's Day*: Ursula, virgin martyr, allegedly killed with her 11,000 maiden companions, by the Huns at Cologne, third century; 27 (branch), Eve of St. Simon and St. Jude's Day; 28 (cross and spear), *St. Simon and St. Jude's Day*: Simon and Jude, the Apostles, martyred in Persia, first century; 31 (double branch), Eve of All Saints' Day.

November 1 (church spire?), *All Saints' Day*; 2 (half-cross), *All Souls' Day*.

Page 8. November 6 (half-cross), *St. Leonard's Day*: Leonard, a hermit, founded a monastery near Limoges, sixth century; 11 (cross and bird), *St. Martin's Day*: Martin, Bishop of Tours, founder of first monastery in France, 360, died in 397, reputedly of the over-eating of goose; 22 (half-cross), *St. Cecilia's Day*: Cecilia, Roman martyr, third century; 23 (cross and anchor), *St. Clement's Day*: Pope Clement I, alleged to have been tied to an anchor and drowned in 100; 24 (double branch), Eve of St. Catherine's Day; 25 (cross and wheel), *St. Catherine's Day*: Catherine of Alexandria, allegedly tortured on a spiked wheel and then, when the wheel miraculously collapsed, beheaded, third century.

Page 9. November 29 (branch), Eve of St. Andrew's Day; 30 (cross and saltire cross), *St. Andrew's Day*: Andrew, the Apostle, crucified in the first century, patron of Scotland.

December 3 (double branch), Eve of St. Barbara's Day; 4 (tower), *St. Barbara's Day*: Barbara, legendary martyr, supposedly beheaded by her father after being imprisoned in a tower; 6 (cross and mitre), *St. Nicholas's Day*: Nicholas, Bishop of Myra, allegedly restored three murdered children to life, died in 342, patron of children; 7 (branch), Eve of Lady Day; 8 (crown), *Lady Day*: Visitation of the Virgin Mary; 9 (cross), *St. Ann's Day*: Ann, mother of the Virgin Mary; 13 (half-cross), *St. Lucy's Day*: Lucy, a Roman martyr, killed at Syracuse in 304.

Page 10. December 20 (branch), Eve of St. Thomas's Day; 21 (cross and candelabrum), *St. Thomas's Day*: Thomas, the Apostle, martyred in India, first century; 24 (branch), Eve of Christmas Day; 25 (cross and ale-horns), *Christmas Day*: Birth of Christ (also the commencement of Yuletide, Dec. 25 to Jan. 13); 26 (cross), *St. Stephen's Day*: Stephen,

first Christian martyr, stoned to death at Jerusalem in 35; 27 (cross), *St. John's Day*: John, the Apostle, died at Ephesus in 100; 28 (cross), *Holy Innocents' Day*: the children of Bethlehem, slain by Herod. (Note: Two sections of cross-hatching, extending from December 24 to December 31, denote the eight-day festival, the *Octave of Christmas*.)

Page 11. January 1 (cross and knife), *Feast of Circumcision*; 2 (half-cross), meaning unknown, possibly a local saint's day; 6 (triple cross), *Feast of Epiphany*: in Norway, known as 'Holy Three Kings Day'; 7 (half-cross), *St. Knut's Day*: Knut Lavard, Duke of Schleswig, murdered in 1133; 11 (?) *St. Paulinus's Day*: Paulinus, Bishop of Aquileia, died in 802; 13 (cross and inverted ale-horn), *St. Knut's Day*: Knut, King of Denmark, murdered in Odense church, 1086 (end of Yuletide); 14 (tree), *St. Hilary's Day*: Hilary, Bishop of Poitiers, died in 367; 16 (half-cross), Eve of St. Anthony's Day; 17 (half-cross and cave?), *St. Anthony's Day*: Anthony, a hermit, lived in various caves in Egypt and Arabia, died in 356.

Page 12. January 19 (cross and mitre), *St. Henry's Day*: Henry, Bishop of Uppsala, born in England, murdered in Uppsala cathedral in 1160; 23 (branch), Eve of St. Erik's Translation; 24 (cross), *St. Erik's Translation*: Erik IX, King of Sweden, murdered with bishop Henry in Uppsala cathedral in 1160, patron of Uppsala; 25 (cross and sword), *St. Paul's Conversion*: Paul, the Apostle, died *c.*67.

February 1 (branch), Eve of Candlemas; 2 (crown), *Candlemas*: Purification of the Virgin Mary; 3 (half-crown), *St. Blasius's Day*: Blaise, Bishop of Sebaste, murdered in 304.

Page 13. February 6 (half-cross), *St. Dorothy's Day*: Dorothy, virgin martyr, beheaded by Diocletian in 303; 9 (half-cross and pincers), *St. Apollonia's Day*: Apollonia, virgin martyr, killed at Alexandria in 249, after having all her teeth knocked out; 15 (cross and spire), *St. Sigfrid's Day*: Sigfrid, monk of Glastonbury, went to Sweden as missionary, built a church at Vexio, and became Bishop there, died in 1045; 22 (cross and key), *St. Peter's Appointment*: Peter the Apostle, appointed Bishop of Antioch, died *c.*64; 24 (cross and fish), *St. Matthias's Day*: Matthias, the Apostle, first-century martyr (in Norway, traditionally the first day of the coarse-fishing season).

Page 14. March 11 (branch), Eve of St. Gregory's Day; 12 (cross and ?), *St. Gregory's Day*: Pope Gregory the Great, died 604.

Page 15. March 16 (branch), Eve of St. Gertrude's Day; 17 (church), *St. Gertrude's Day*: Gertrude, child-abbess of the monastery built by her mother at Nivelles, died 659; 21 (half-cross and plough), *St. Benedict's Day*: Benedict, Bishop of Norcia, died in 547 (in Scandinavia, the traditional day to start ploughing); 24 (double branch), Eve of Lady Day; 25 (crown), *Lady Day*: Annunciation of the Virgin Mary.

Page 16. April 4 (?) *St. Ambrose's Day*: Ambrose, Bishop of Trier, died 397; 14 (half-sun?), *St. Tibertius's Day*: Tibertius, a Roman martyr (in Scandinavia, traditionally the first day of the summer half-year).

Page 17. April 23 (cross and sword), *St. George's Day*: George, fourth-century soldier and martyr, patron of England and Sweden; 25 (cross and bird), *St. Mark's Day*: Mark, the Evangelist, companion of Peter and Paul (in Scandinavia, the traditional day for the return of the cuckoo, 'Cuckoo Day'); 30 (branch), Eve of St. Philip and St. James's Day.

May 1 (cross and ?), *St. Philip and St. James's Day*: Philip and James, the Apostles; 2 (double branch), Eve of Cross Mass; 3 (cross), *Cross Mass*: Finding of the Holy Rood.

Page 18. May 15 (quern stone), *St. Hallvard's Day*: Hallvard, Norwegian martyr, died in 1043, patron of Oslo (in Norway, the traditional day for sowing corn); 17 (branch), Eve of St. Erik's Day; 18 (cross, crown, and ear of barley), *St. Erik's Day*: Erik IX, King of Sweden, murdered with Bishop Henry in Uppsala cathedral in 1160, patron of Uppsala (in Sweden, the traditional day for sowing corn); 25 (?), *St. Urban's Day*: Pope Urban I.

Page 19. June 4 (branch), Eve of St. Boniface's Day; 5 (cross), *St. Boniface's Day*: Boniface, monk of Exeter, went as missionary to Germany and became Bishop, later Archbishop, of Mainz, martyred in Holland in 755; 11 (branch), Eve of St. Eskil's Day; 12 (cross and mitre), *St. Eskil's Day*: Eskil, English monk, went with Sigfrid as missionary to Sweden, martyred in 1080.

Page 20. June 16 (branch), Eve of St. Botolph's Day; 17 (cross and mitre), *St. Botolph's Day*: Botolph, English monk, went as missionary to Scandinavia, returned to become Abbot of Ikenhoe, died in 680; 18 (half-cross), *St. Elizabeth's Day*: Elizabeth, visionary, of Schonau, died in 1164; 21 (branch), Eve of St. Achatius's Day; 22 (cross), *St. Achatius's Day*: Achatius, knight, legendarily crucified with his 10,000 legionaries on Mount Ararat; 23 (double branch), Eve of St.

John's Day; 24 (cross and ?), *St. John's Day*: John the Baptist, killed by Herod, *c.*29, also Midsummer Day; 25 (cross), meaning unknown; 28 (double branch), Eve of St. Peter and St. Paul's Day; 29 (cross and key), *St. Peter and St. Paul's Day*: Peter and Paul, the Apostles, both died in Rome, Peter *c.*64 and Paul *c.*67.

July 1 (branch), Eve of Lady Day.

H. R. Singleton

195. COMB (Pl. XCI). Double-sided one-piece comb of box-wood (*Buxus* sp.). Coarse teeth (10 per 20 mm) on one side and fine (18 per 20 mm) on the other; the teeth are very wide and flat owing to the lentoid cross-section of the comb. There is a central reserve 11 mm wide between the two sets of teeth and there are thickened end-members 8 mm wide. A crowned letter *B* is impressed at the right-hand end on either side; a freehand letter *P* is incised on one side; the number *40*[399] is written in ink on one side. Three teeth and one end-member are broken.

1685 B no. 731: *Pectinarium an Japponicum sit. Colore nigro, politum est, humanis figuris auro pictis exornatur. Continet in se duos pectines amplissimos ex buxo elaboratos, radiis densis ac rarioribus dotatos.*

Dimensions: Length 212 mm; Thickness (max) 15.5 mm.

See discussion under No. 196.

196. COMB (Pl. XCII). Double-sided one-piece comb of boxwood (*Buxus* sp.), similar in form to No. 195. Coarse teeth (7.5 per 20 mm) on one side and fine (17 per 20 mm) on the other. A crowned letter *M* is impressed on the right-hand end on either side; numbered *40*[400] in ink on one side. Two teeth and one end-member broken.

1685 B no. 731: *Pectinarium an Japonnicum sit. Colore nigro, politum est, humanis figuris auro pictis exornatur. Continet in se duos pectines amplissimos ex buxo elaboratos, radiis densis ac rarioribus dotatos.*

Dimensions: Length 267 mm; Thickness (max) 15.5 mm.

In the course of the late fourteenth and fifteenth centuries a taste developed for large double-sided combs, often with elaborately-wrought decoration on the solid area between the two rows of teeth. The majority of these combs were purely secular and their ownership was largely restricted to the fashionable upper echelons of society. The most valued were of elephant ivory, represented by a number of surviving examples, mostly of northern Italian, French, and English origin.[401] Boxwood was also used in their manufacture, continuing a long-established tradition: inherent toughness and a fine structure giving excellent working properties had made it a favourite material of comb-makers since at least the Roman period.[402] The use of other woods for this purpose is indeed rare, although thornwood has been cited as an alternative.[403] The fact that wooden combs are referred to in some inventories and in bills of sale to the nobility[404] suggests that, even if they were not counted the equals of their ivory counterparts, they were none the less considered of some value.

A number of examples of large boxwood combs from the late fifteenth and the early sixteenth centuries show generally the same form as those in ivory, having an elongated H-profile and a lentoid section. The decoration, which is usually in the form of low-relief naturalistic carving or of pierced geometric ornament, often fills the central reserved area,[405] which in some instances is expanded to provide a larger ornamental field, resulting in correspondingly shorter teeth.[406] Panels of ivory are inlaid on some of these combs, occasionally on a silk ground.[407] The surviving examples are mostly of French origin and were clearly exchanged as love tokens; they bear appropriate allusions (such as hearts pierced by arrows) in their ornamental schemes, sometimes accompanied by suitably tender inscriptions such as 'Menez moi doucement'.[408] Evelyn refers to their important role in matters of the heart:

[399] Referring to Duncan 1836, p. 179, no. 40: 'Three combs of box-wood, one of which is richly carved'.

[400] Ibid.

[401] Ashmolean Museum, Mallett collection no. 224; Koechlin 1924, 2. nos. 1147 60; Longhurst 1929, pp. 50, 54, 68; Maskell 1905, pl. L, nos. 1 2, 6; Molinier 1896, p. 217; Winter 1906, nos. 106 16.

[402] For Roman boxwood combs see, for example, Boon 1974, p. 131; Curle 1911, p. 311. For a medieval comb of box see Platt and Coleman-Smith 1975, p. 231, no. 1641, pl. 115.

[403] Pinto 1952, p. 172.

[404] Koechlin 1924, 1. 424.

[405] Pinto 1952, nos. VII, X; id. 1969, pl. 382.

[406] Ashmolean Museum, no. 1836.40; Dalton 1909, no. 450; Pinto 1952, nos. XI, XIII XIV; id. 1969, pl. 382; Winter 1906, p. 125.

[407] Dalton 1909, no. 450; Pinto 1952, no. VII.

[408] As shown in a portrait of Elizabeth Vernon, Countess of Southampton, reproduced in Pinto 1952, no. VIII.

Box-Combs bear no small part
In the Militia of the Female Art;
They tye the Links which hold our Gallants fast,
And spread the Nets to which fond Lovers hast.[409]

Pinto notes a decline in the manufacture of European 'fine art combs' during the sixteenth century,[410] and it is perhaps to this phase that the Ashmolean combs belong. Although the overall proportions remain unchanged, the width of the central reserve has been reduced to a practical minimum and carries no ornament. The crowned letters impressed on both combs, a feature not noted on any others mentioned above, may refer either to the owner[411] or to the manufacturer.[412] The style of the letter *B* on No. 195 would seem to support a date in the sixteenth or seventeenth century, with the 1685 catalogue entry providing a *terminus ad quem*.

Many of the decorative ivory combs referred to above are said to have been carved *en suite* with mirrors and other components of toilet cases (*trousses de toilette*).[413] The 1685 catalogue records that the wooden combs considered here were contained in a polished black case, perhaps Japanese, ornamented with human figures painted in gold, but this no longer survives.[414] It seems unlikely that the combs described here, with their differing sizes and identification marks, were made as a set, and it is improbable that they had any original connection with the case described. Perhaps it was this presumably false association with led Duncan to ascribe these combs, together with another of patently European manufacture, to the category of 'Eastern Curiosities'.[415] On the basis of the observations made above, a French or English origin seems more likely.

A. MacGregor

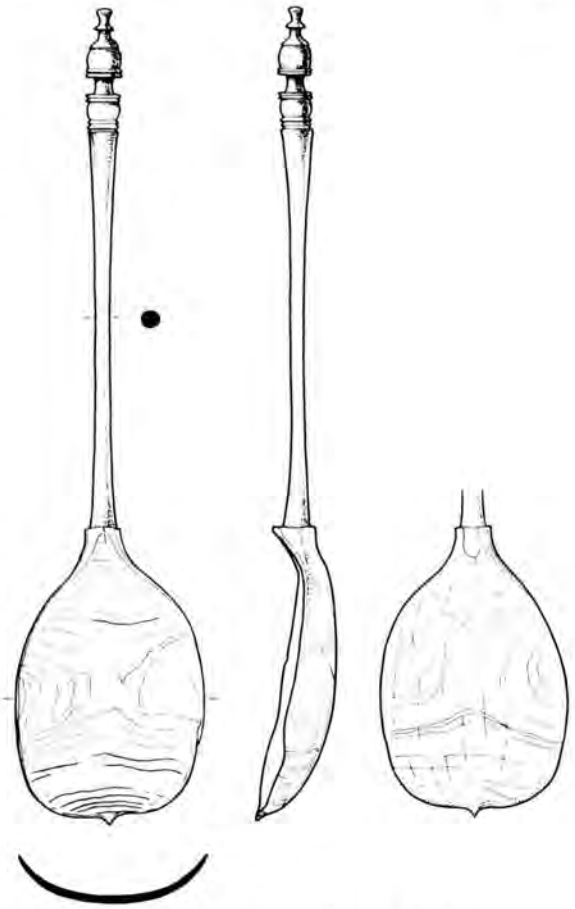


Fig. 61. Wooden spoon, No. 197. Scale 1:2

197. SPOON (Fig. 61). Wooden spoon, possibly pear (*Pyrus* sp.), with a ficulate bowl terminating in an ogival point. There is a moulding at the junction between the bowl and the stem. The finial is turned with a waisted baluster knop.

1685 B no. 555–68: *Cochlearia 14 ex ligno facto.*

Dimensions: Length 212 mm.

See discussion under No. 199.

198. SPOON (Fig. 62). Wooden spoon, possibly of oak (*Quercus* sp.) with a large ficulate bowl terminating in an ogival point. The junction with the long stem, which is notched at the end, is smooth.

[409] Evelyn 1679, p. 132.

[410] Pinto 1952, pp. 176, 221. Some of the most elaborate openwork combs are, however, dated to this century by Winter (1906, nos. 117–18, in ivory, and 125, in wood).

[411] Crowned letters are not uncommon on medieval harness mounts where, by analogy with amorous allusions and mottos occurring on other such pendants, they may refer to a loved one. Another possibility, suggested by the appearance of crowned letters on certain medieval ampullae, is that the reference is to a particular saint, to a place of pilgrimage, or, in the case of the letter M, to the Virgin Mary (see Spencer 1971, pp. 60–6). I am grateful to Mr N. A. Griffiths for discussion of this material.

[412] Similar crowned letters appear, for example, as control marks on British and continental coin weights of the sixteenth and seventeenth centuries: see Dieudonné 1925, pp. 68–9, 78; Sheppard and Musham 1923, pp. 169, 176–8.

[413] Koechlin 1924, i. 423.

[414] In a manuscript catalogue of 1911, Leeds noted that both combs were related to the comb-case by old labels, now missing.

[415] Duncan 1836, p. 179, no. 40.

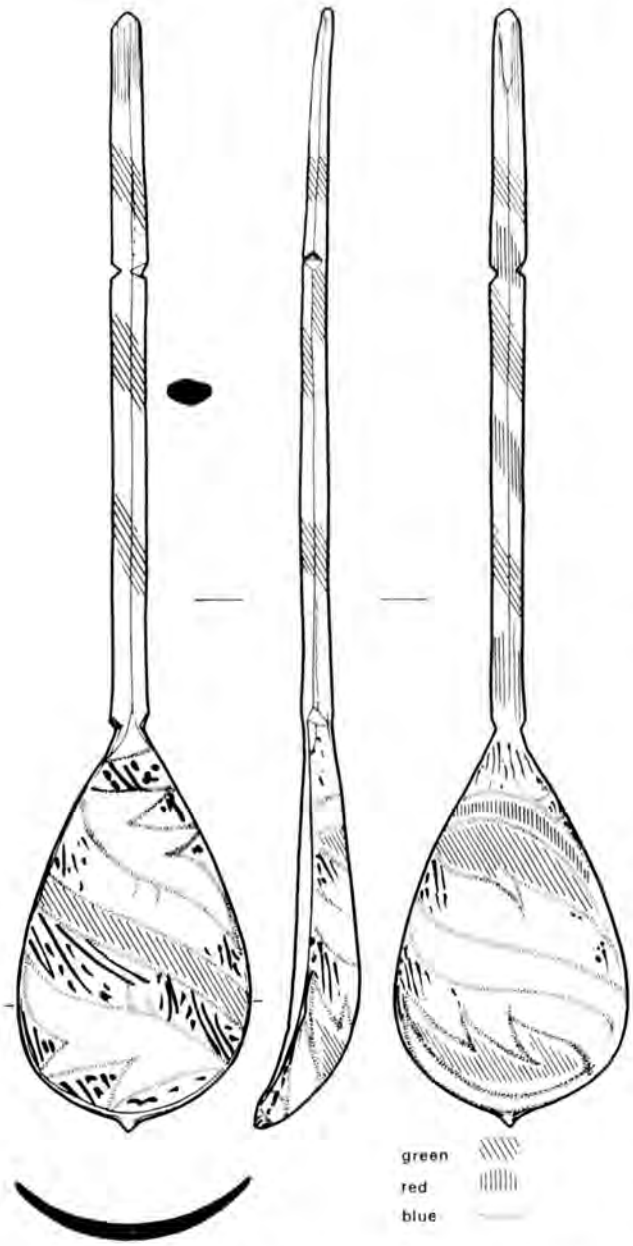


Fig. 62. Wooden spoon, No. 198. Scale 1:2

The bowl is painted with green and red stripes and stylized foliage, with dark blue detailing between. The stem is ornamented with a spiral band of green.

1685 B no. 555–68: *Cochlearia 14 ex ligno facto.*

Dimensions: Length 295 mm.

See discussion under No. 199.

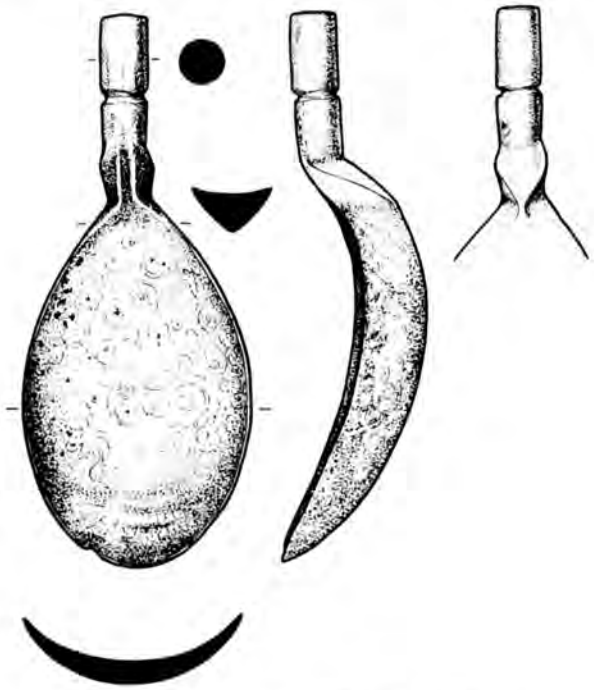


Fig. 63. Wooden spoon, No. 199. Scale 1:2

199. SPOON (Fig. 63). Wooden spoon, possibly of burr maple (*Acer* sp.). The large elongated oval bowl has a steep curve at the back up to a circular truncated neck.

1685 B no. 555–68: *Cochlearia 14 ex ligno facto.*

Dimensions: Length 139 mm.

Wooden spoons were still in general use among the poorer classes in the seventeenth century, so one can assume that all three considered here must have been regarded as being of unusual form or as coming from foreign parts in order to have merited inclusion in the collection.

Although no parallels have been found for the curious points on the ends of the bowls of Nos. 197–8, the forms of both, with their ficulate bowls and long slender stems, suggest a north-east European or Russian origin.[416] The polychroming on the bowl of No. 198 tends to strengthen the suggestion that it comes from Russia, such decoration being common on wooden *kovshs*. The *Kunstschrank* of Gustavus Adolphus in Uppsala contained, among a group of exotic eating and drinking implements

[416] Cf. examples in silver illustrated by Emery (1976, figs. 83–5).

such as Chinese lacquer plates and a painted Russian *kovsh*, ten spoons of various sorts from Europe, Turkey, and West Africa.[417]

Spoon No. 199 would almost certainly once have had a silver stem which slipped over the wooden end like a sleeve. These sleeves ended in a variety of finials, including pomegranates, apostles, and term figures, as on a number of sixteenth-century examples in the Victoria and Albert Museum.[418]

Such spoons were made in most parts of Germany and to some extent also in Holland. To judge from the shape of the bowl, which tends to be oval rather than ficulate, and the rounded shape of the stem, the present spoon probably dates from the forming of the collection.

A. Somers Cocks

200. KNIFE OR SWORD HANDLE (Pl. XCIII). Agate handle, oval in section, flaring towards the top, which has a deep declivity in its centre.

1685 A no. 109: *Gladii manubrium ex Haemachate lineis ac venis albescentibus insignitum.*

Dimensions: Length 87 mm.

This is the handle of a short hunting-sword or dagger, probably made in northern Europe in the late fifteenth century. The form may be compared with that of a Flemish, late fifteenth-century dagger in the Victoria and Albert Museum.[419]

See further discussion under No. 202.

201. KNIFE HANDLE (Pl. XCIII). The handle, which is of mottled green chalcedony, is oval in section, tapering towards the base; the top is gently convex.

1685 A no. 148: *Cultri manubrium e Jaspide viridi.*

Dimensions: Length 65 mm.

This jasper-like chalcedony handle is of seventeenth-century date. Anselm Boethius de Boodt says of jasper that it comes in many colours, but most often green, and that, like agate, it also occurs in combination with other hardstones; it is found in many parts of Germany and also Bohemia. Its medical properties vary according to its colour, but green jasper is said to be efficacious against epilepsy, 'which is confirmed by many people nowadays'.[420]

See further discussion under No. 202.

202. KNIFE HANDLE (Pl. XCIII). Cornelian handle, whose lower third is wanting. It is oval in section, tapering towards the base, with a beak to one side of the top, and with a knob finial.

1685 A no. 118: *Cultri manubrium ex Sardachate.*

Dimensions: Length 45 mm.

On the basis of its beaked form, this handle must date from the first half of the seventeenth century.[421] Being only a fragment it must, like No. 201, have been included in the collection as a mineralogical specimen. The term used to describe it in the 1685 inventory, *sardachate*, is explained thus by de Boodt in his treatise on stones written in 1609; 'Because the agate exists in an infinity of colours, the ancients called it by numerous names. It is called phassagate, sardagate, Laemagate, ceragate, lencogate, and, by the Italians, Brocatella. These names are given to it partly because of their colour, and partly because of the other precious stones with which the agate is combined: it is called sardagate because of the sardonyx which is close to it.'[422] He goes on to list the prophylactic powers of agate, saying that many writers assure one that it resists the poisonous bite of snakes and scorpions, restores the heart, and protects against infection.

Hardstone was quite a common material for the handles of luxury knives in the late sixteenth and seventeenth centuries. It is highly likely that at least one of the many lapidaries in circulation, if not de Boodt's itself, would have been known by the compilers of the collection. It was a transitional period, with empirical methods of classification improving, and some scepticism over the more far-fetched magical and prophylactic properties of stones being expressed, but still with an underlying belief that precious stones reflected divine power.[423]

A. Somers Cocks

[417] Böttger 1910, vol. 3, ch. 6.

[418] Victoria and Albert Museum, London, nos. M. 107–1939, M 2252–1855, M 1342–1855.

[419] Victoria and Albert Museum, London, no. M 33–1952.

[420] de Boodt 1644, pp. 321–5.

[421] Cf. Victoria and Albert Museum, London, no. M 1237–1855, which is perhaps of German, mid-seventeenth-century origin.

[422] Quoted from a later edition (de Boodt 1644, pp. 515–16).

[423] See, for example, the prolegomena to Ashmole's *Theatrum Chemicum Britannicum* (1652), which mentions 'the Vegitable, Magicall, and Angelicall Stones . . . marvellously Subtile, and each of them differing in Operation and Nature, because Fitted and Fermented for severall Effects and Purposes. Doubtlesse Adam . . . Abraham, Moses, and Solomon, wrought many Wonders by them, yet the utmost of their Vertues they never fully understood; nor indeed any but God the Maker of All things in Heaven and Earth, blessed for evermore.'

203. KNIFE HANDLE (Pl. XCIV). Ivory handle, turned as though roughing out a term figure, with the details left wanting. The lower third, which is circular in section, is carved with a repeating chevron pattern, and the base is drilled for the tang of the knife. The 'shoulders' of the handle are carved with concentric diminishing oval ridges, and the 'head' is turbaned.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 599: *Cultri manubrium forma humana ex ebore imperfecte caelatum.*

Dimensions: Length 73 mm.

See discussion under No. 207.

204. KNIFE HANDLE (Pl. XCV). Ivory handle, carved as a woman wearing her over-skirt kirtled up in front and falling down behind, with a pointed bodice and deep collar descending almost to her elbows. The sleeves are gathered up above the wrist and she holds a down-turned fan. The hair is drawn back from the forehead, with curls falling from above her ears, and she wears a lacy cap over the back of her head. The base of the handle is drilled to take the tang of the knife.

1685 A no. 596: *Cultri manubrium forma puellâ ex ebore caelatum.*

Dimensions: Length 91 mm.

Ivory knife handles carved with fashionable contemporary figures in this somewhat stylized manner are generally thought to be English, and the present one must date from about 1670 because of the style of the over-skirt.[424] This means that it cannot have been among the 'Divers rare and antient pieces carved in Ivory', mentioned in the 1656 inventory.

See further discussion under No. 207.

205. KNIFE HANDLE (Pl. XCVI). Ivory handle of the same figure type as No. 204 but by a different, less competent hand.

1685 A no. 597: *Idem iterum* [*Cultri manubrium forma puella ex ebore caelata*].

Dimensions: Length 81 mm.

See discussion under No. 207.

206. KNIFE HANDLE (Pl. XCVII). Ivory handle, the finial carved as a Moor's head, with a feathered falling ruff and an elaborate turban. The handle is in the form of a 'barley-sugar' column, ending in an octagonal section over which the ferrule would have fitted. The base is drilled to take the tang of the knife-blade.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 595: *Cultri manubrium instar torquis ex ebore detornatum, in cujus fastigio Turci caput Tiara indutum.*

Dimensions: Length 90 mm.

This handle can be dated approximately on the basis of the Moor's falling ruff: such ruffs came into fashion around 1600 and survived in the Netherlands, where many such ivory knife handles were carved, until the middle of the seventeenth century.

See further discussion under No. 207.

207. KNIFE HANDLE (Pl. XCVIII). Ivory, carved as a scaly sea-monster with open jaws in which kneels a bearded Jonah, his right hand raised. One side of the fish-head is abraded at the tapering end, which is drilled to take the tang of the knife, and is fractured and splintered.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 594: *Cultri manubrium forma balaenae ex ebore sculptum in cujus fastigio figura Jonae e faucibus ejus prodeuntis.*

Dimensions: Length 78 mm.

This is a provincial piece whose principal interest lies in its secure dating before 1685, when it was described in some detail in the museum catalogue.

Ivory knife handles are generally regarded as having all been carved by Flemish or German craftsmen, but very few indeed can be attributed to an individual. Objects of ivory were an essential part of the seventeenth-century *Kunstkammer*, and turned ivory-work, represented by Nos. 203–4, was regarded as a fittingly princely hobby.[425]

A. Somers Cocks

208. CHRISMATORY (Pl. LXXI). Copper gilt, shaped as a rectangular aedicule, the tile roof rising from a crenellated moulding and culminating in a crested roof-ridge with pointed finials at either end. The sides are engraved with a scrolling pattern of Gothic foliage. The corners have stepped buttresses and feet. The interior is gilt.

1656 p. 40: *An ancient annointing Box of guilt brasse.*

Dimensions: Length 128 mm; Height 140 mm; Width 40 mm.

[424] Waugh 1968, p. 31.
[425] Menzhausen 1968, pl. 76.

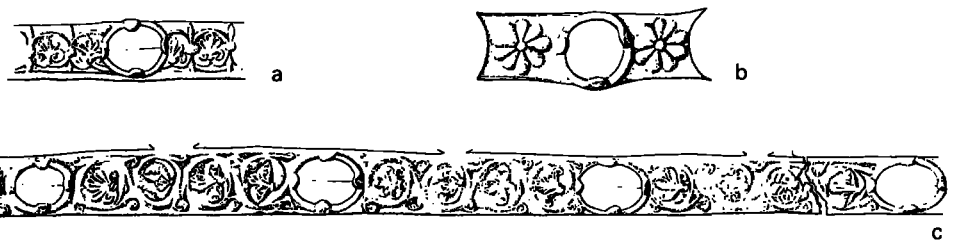


Fig. 64. Lantern, No. 209: details of relief decoration. a, upper band; b, central band; c, lower band. Scale 1:3

Chrismatories shaped as aedicules were quite common in the late Gothic period. A fifteenth-century English chrismatory of this type, engraved with a phrase from Psalm 67 used in the rite of Confirmation, is in the Victoria and Albert Museum.[426] Most have lost their internal fittings, which divided them up into three compartments to hold the three oils.

To judge by the style of the luxuriant engraved foliage on its sides this example is probably of German origin. It may be compared, for example, with a covered beaker made by Hans Greiff of Ingolstadt, *c.*1470, in the Metropolitan Museum, New York.[427]

A. Somers Cocks

209. LANTERN (Fig. 64, Pl. XCIX). Heavy copper-alloy lantern with inset crystals. The cast cylindrical body is pierced by a round-headed shutter with, on the left, two three-element hinges with bent wire pivots and, on the right, a central catch of the same design as the hinges, of which the central element (on the door) is broken. The lower edge of the body is rebated on the inside for a base-plate which, together with the internal fittings, is missing. A segmented octofoil dome forms the top of the lantern, terminating in a flanged collar. An iron pin, passed through this collar from the inside, is threaded successively with a loose bronze ferrule with broken expansions to either side, a large lathe-turned crystal, and, through a transverse hole at the end, a bent square-shanked iron nail with a rough quatrefoil head.

Each segment of the top is perforated with a single circular hole near the apex and with multiple holes towards the bottom: on four segments there are five circular holes in a cruciform setting; on one segment a vertical setting of three holes is flanked on either side by a pair of further holes; three segments each have four pear-shaped holes arranged in a cross, with a circular hole between each of the arms.

On the body of the lantern are three raised bands with relief decoration (Fig. 64): the uppermost takes the form of a continuous frieze of palmettes; the central band displays individual embossed floreate motifs; and on the bottom is a running foliate scroll with trefoil and cinquefoil leaves, each differing slightly from its nieghbours. The upper and lower bands are each interrupted by four hog-backed oval crystals set in pierced mounts, while in the central band the embossed flower motifs alternate with (eight) hemispheral crystals, similarly set; there are settings for four conical crystals below the upper band, matched by four more above the lower band, each of these groups now lacking one crystal. The shutter is surrounded by a raised moulding, grooved at the margins.

1685 B no. 416: *Laternae Duae, quarum una ex ferro* [erased and replaced by *aere*] *christallis hic illic oculato conflata; altera ex cornu.*

Dimensions: Height (overall) 286 mm; Diameter (body) 145 mm.

Bibliography: d'Allemagne 1891, p. 6; Conway 1915, p. 133; Henriot 1933, pl. 61, 4; Oman 1968, pp. 136–7; Shaw and Meyrick 1836, p. 44, pl. XLIX.

The description of 1685 gives no hint that this lantern[428] is the most important European object in the entire collection: no doubt its origins were by then quite unknown. By the early nineteenth century, at least, it had acquired a spurious association with King Alfred.[429] Sir Samuel Meyrick was correctly dismissive of this claim, but in error in

[426] Victoria and Albert Museum, London, no. M 108-1923.
[427] Rorimer 1951, pp. 254-9.
[428] The other lantern (of horn) mentioned under the same entry does not survive.
[429] Shaw and Meyrick 1836, p. 44, pl. XLIX.

comparing it with Flemish metalwork of the late fifteenth century, for, although the lantern itself is unique, its closest affinities are clearly to be found with cast bronzework of the twelfth century. Oman recognized this fact but was unwilling to speculate on the question of its source.[430] There is good reason to believe, however, that a German origin can now be claimed for it.

The period from *c.*1000 to 1250 was one of innovation and development in German metalworking, and saw the emergence of a number of important production centres in the Rhine-Maas province and in Lower Saxony. Their output of bronzework was geared largely to satisfying an expanding market for church furnishings in the form of censers, candlesticks, candelabra, and lamps of various sorts. The metallographic composition of the Ashmolean lantern has been examined in order to compare it with these various items, a survey of which has been conducted by Werner.[431] Of some 350 brasses and bronzes analysed by Werner, fifteen had similar compositions to the lantern: of these, ten were dated to the twelfth century, two to the thirteenth century, and one to the fourteenth century; in three cases their origins were given as uncertain, three were 'German', two were specifically north German, two were from Lower Saxony, one was Swabian, and four were Rhenish. The alloy composition of the lantern is, therefore, consistent with an origin in north Germany, probably in the Rheinland, and with a date of manufacture in the twelfth century.

The most impressive products of the north German workshops were great wheel-like hanging lanterns.[432] Although far removed in scale, these enormous *Radleuchter* provide useful parallels for the architectonic form of the Ashmolean piece. Three important lanterns may be noted: the so-called Hezilo-Radleuchter in Hildesheim Cathedral, dated *c.*1055–65; the lantern in the former Stiftskirche, Grosskomburg, dating between 1102 and 1139; and the Barbarossaleuchter of *c.* 1165–70, in the Palatine Chapel of Charlemagne in Aachen Cathedral.[433] Each consists of a circular or segmented rim some five to six metres in diameter, around which are spaced a number of lamps, representing symbolically the walls of the Heavenly Jerusalem with their defensive gates.[434] Each tower takes the form of a single lantern of circular, square, or lobate plan, surmounted by a domed cupola or a pyramidal roof, in some instances with bulbous finials. In the absence of surviving portable lanterns, the 'towers' on these eleventh and twelfth-century wheel lanterns form the closest comparisons for the Ashmolean piece. It is true, however, that the 'towers' on these lanterns have no open settings of crystals as there are here and that their open doors contrast with our solid shutter.

The segmental form of the roof of the Ashmolean piece is not paralleled on the wheel lanterns but does appear on other German metalwork, notably on two domed church-shaped shrines of the late twelfth century, one in London and one in Berlin; on a cross base of *c.*1150 possibly attributable to Trier; and on the roofs of architectonic censers and other liturgical bronzes.[435] In a scene on the shrine of St. Heribert (dated soon after 1165) showing the building of Deutz Abbey, the same form of roof is shown, and it appears again on the dome of Speyer Cathedral, shown on the second seal of that city (dated 1212–31).[436] It is indeed to be found in many two-dimensional representations of Romanesque buildings and may perhaps be a formalized representation of radiating roof-tiles.

The drilled perforations on the roof of the Ashmolean lantern may be compared to cut-outs on

[430] Oman 1968, pp. 136–7.

[431] Werner 1977, *passim*. X-ray fluorescence analysis of the base and the door of the Ashmolean lantern was carried out by Dr Roger Brownsword, producing the following results:

	Per cent				
	Copper	Zinc	Tin	Lead	Nickel
BASE	94.0	1.76	1.29	2.25	<0.03
DOOR	94.0	1.97	1.41	2.01	0.07
	Iron	Antimony		Arsenic	Silver
BASE	0.18	0.32		0.07	0.08
DOOR	0.11	0.25		0.13	0.07

Dr Brownsword also kindly provided the comparisons with Werner's studies as quoted in the text.

[432] Jarmuth 1967, pp. 51–2.

[433] Respectively: Arenhövel 1975, *passim*; Haussherr 1977, pp. 464–6, no. 592; ibid., pp. 396–8, no. 537.

[434] Schramm and Mütherich 1962, pp. 181–2, no. 177; Lasko 1972, p. 216. The image, which is derived from Revelations 21, is alluded to specifically in the inscription on the Aachen lantern (Kraus 1890, p. 225).

[435] For church shaped shrines see, respectively, Victoria and Albert Museum, London, nos. 7650–61 (Goldschmidt 1923, pp. 18–19, no. 18, Taf. XIII), and Kunstgewerbemuseum, Berlin-Charlottenburg (Kötzsche 1973, no. 15; formerly in the Duke of Cumberland's collection: see Goldschmidt 1923, p. 17, no. 47, Taf. XI-XII). For the Trier cross base see Haussherr 1977, pp. 680–1, no. 681, and for two standing censers in the form of miniature buildings in Berlin and Cleveland, see Reuther 1977.

[436] Respectively: Swarzenski 1967, p. 72, nos. 182–4, fig. 410; Haussher 1977, pp. 93–4, no. 142, Abb. 69.

some of the Hildesheim towers,[437] where similar settings of circular holes are found, along with nine-petalled flower shapes comparable to the embossed flowers on this example (Fig. 64). Drilled perforations such as those on the lantern are common also on contemporary bronze censers, mostly of north German origin, where they may accompany petal motifs as on the central band of the lantern.[438] A number of contemporary manuscript illustrations incorporating similar eight- or ten-petalled flowers are reproduced by Arenhövel.[439]

Friezes of palmettes and vine scrolls are common denominators in many contemporary manuscript illuminations. Formalized palmettes akin to those in the upper band of the lantern appear, for example, in the late tenth-century Rule Book of Niedermünster,[440] while the more varied trefoil and cinquefoil forms of the lower band find numerous parallels in the twelfth-century products of English as well as German scriptoria.[441]

Of the many leaf forms on eleventh-century metalwork illustrated by Arenhövel, one example, on the imperial chair from Gosslar,[442] is close to some of the cinquefoils on the lantern. A general correspondence may also be noted with those on a gold reliquary from Minden, dated to the third quarter of the eleventh century.[443] A number of contemporary ivories also feature palmette friezes of similar character, notably a series of walrus-ivory plaques of the second half of the twelfth century attributed to Cologne, and now divided between London and New York, and a book cover of twelfth-century German work in the Hermitage Museum.[444]

The large finial formed by a crystal on the Ashmolean lantern is a normal feature of the architectural representations mentioned above. Actual crystal finials are to be found on numerous bronze house-shaped shrines, mostly of twelfth-century date and mostly attributed to Cologne, as illustrated by von Falke and Frauberger,[445] some being spherical and others carinated as here. Large spherical crystals also appear in the form of knops on pricket candlesticks[446] and other metalwork[447] of the eleventh and twelfth centuries. Inset oval crystals with a medial carination, as occur in the upper and lower decorative friezes of this piece, are also to be found in German Romanesque metalwork: a late tenth-century portable altar of Trier illustrated by von Falke and Frauberger[448] is an early example of this technique, which is otherwise most popular in the eleventh and twelfth centuries.[449] Open settings for the crystals, which are a necessary feature of the Ashmolean lantern, occur less commonly on other forms of metalwork; they are, however, to be found on a gilt bronze cross from Hesselbach, dated to the second quarter of the twelfth century and attributed to Roger of Helmarshausen,[450] from which the crystals (or other gems) are now missing, and similar settings (with substitute wooden 'gems') appear on an altar cross from Altastenberg.[451]

Evidence for similar use of crystals in lanterns is limited to two instances. The first of these is in an illustration by d'Allemagne, showing a cylindrical lantern studded with oval crystals, ornamented with inhabited vine scroll decoration and provided with a horizontal strap handle on top.[452] The second lantern was formerly amongst the treasures of Saint Denis, where it was recorded by numerous visitors in the sixteenth and seventeenth centuries and entered in an inventory of 1634.[453] These descriptions combine to give a picture of a gilt and enamelled bronze lantern ornamented with thirty-six oval rock crystals, through which the light shone

[437] Arenhövel 1975, Abb. 191.

[438] Dr Hiltrud Westermann-Angerhausen, personal communication. I am grateful to Dr Westermann-Angerhausen for this information and for general discussion of the Ashmolean lantern.

[439] Arenhövel 1975, Abb. 404, 407, 409–10.

[440] Swarzenski 1901, Taf. II, no. 4.

[441] English: see, for example, a number of Canterbury manuscripts illustrated by Kauffmann (1975, pp. 63–4, nos. 21, 23) and by Millar (1926. pp. 74, 83–4, pls. 41, 276). German: for example, in the Worms Bible of *c.*1148 (see Backhouse 1979, pl. 18).

[442] Arenhövel 1975, p. 102, Abb. 025, no. 442.

[443] Korzus 1966, pp. 565–6, no. 244, Abb. 208.

[444] Victoria and Albert Museum, nos. 144,66, 145,66; Blumenthal collection, New York (see Goldschmidt 1923, 2. nos. 1–5, Taf. 1–3); Hermitage Museum, Leningrad, no. 72 (see Goldschmidt 1923, p. 16, no. 36, Taf. IX).

[445] Von Falke and Frauberger 1904, Abb. 16, Taf. 53–60. Shrines of later date tend not to incorporate this feature, but the same authors illustrate two examples dated 1264 (Taf. 65–6) and 1446 (Abb. 15) respectively.

[446] See for example, Wechssler-Kümmel 1962, p. 41, Abb. 47–8; von Falke and Meyer 1935, p. 100, Abb. 87.

[447] See, for example, von Falke and Frauberger 1904, Taf. 104.

[448] Ibid., Taf. 5.

[449] Ibid., Taf. 11, 72, 83, 106.

[450] Korzus 1966, p. 579, no. 260, Abb. 221.

[451] Dr Hiltrud Westermann-Angerhausen, personal communication.

[452] D'Allemagne 1891, p. 115. D'Allemagne assigns this lantern to the 'Collection Onghena, de Gand', but I have no knowledge of its present whereabouts.

[453] The descriptions and comments made by these visitors are reproduced by Fezensac (1977, p. 376). The inventory is also reproduced by Fezensac (1977, p. 236, no. 209).

'assez sombre et obscure'. This was supposed to have been the very lamp which featured in the betrayal of Christ and was popularly known as the Judas or Malchus lantern; on it was to be seen the mark left by St. Peter's sword when, deflected by the lantern, it cut off the ear of Malchus. Both d'Allemagne and Conway found the written descriptions reminiscent of the Ashmolean lantern,[454] but were unaware of a drawing of the Saint Denis lantern which had appeared in van Buchel's *Description de Paris* in 1585,[455] which shows it to have been of quite different construction, made up of vertical strips of metal, those carrying the crystals alternating with others featuring vine scroll ornament; the top was of stepped construction and was fitted with a carrying-handle. Interesting as the comparisons between these lanterns and that in the Ashmolean may be, neither adds any precision to the identification of its origins.

As to the function of these lanterns, d'Allemagne was of the opinion that they probably accompanied the priest when he administered the last sacraments (*le saint viatique*).[456] Such a ritual function would be quite appropriate for these lamps, from which very little light could have escaped and which must otherwise have played a purely ornamental role, perhaps being set by a reliquary or on an altar.[457] A liturgical rather than a secular function seems, in any case, most probable.

One final aspect to be considered is the means by which the lantern would have been carried. Two methods suggest themselves. One is that the lantern could have been suspended by a ring or other attachment passed through the hole presently occupied by a bent nail; the broken expansions on the ferrule below the topmost crystal may have been related to this system of suspension. The second, favoured by Oman, is that it is in fact a pole-lantern, in which case the missing base-plate would presumably have incorporated a handle, or, at least, a socket into which a handle might have fitted.[458] In the absence of conclusive evidence, either alternative seems possible.

A. MacGregor

210. CRADLE (Fig. 65, Pl. C). Cradle of wrought-iron construction. Framework of horizontal bars, each *c.*34 × 7 mm in section, morticed into vertical corner-members *c.*15 mm square, the ends of the tenons burred over to secure the joints. The corner-posts narrow at the top to rounded points *c.*60 mm long, probably designed to carry a wooden canopy or wooden finials; at the bottom they form semi-circular scrolls before mating with the rockers. The rockers consist of curving bars *c.*50 × 10 mm in section, with involuted terminals. Separately wrought scrolls form stops on the ends of rockers to prevent the cradle tipping over; the stops are held in place by the bottoms of the corner posts, which pass through the rockers and the stops before being burred over. Octagonal-section bars *c.*18 mm thick link the two rockers, their narrowed ends fitting into the spiral terminals. Seven cross-bars, each fitting loosely by means of pointed ends into either side of the framework, provided support for the bedding; three of these survive.

All four sides of the cradle are fitted with curving scroll-work (Fig. 65) bent 'edge on', that is to say in the plane of its narrowest dimension. The scrolls are not clamped with collars but are joined together by iron straps riveted on the outer surface. The principal elements are pairs of affronted recumbent 'S'-scrolls with a leaf-shaped element interposed between them. A single 'S'-scroll is applied to the uppermost member of either side at the head of the cradle; the remains of additional straps on top of the narrower ends at the head and foot show that they originally carried pairs of similar 'S'-scrolls. Along the lower edges of all four sides are pendant double scrolls, each pair having a lobe at their common junction.

Traces of pigment, seemingly gold paint, survive on one of the long sides.

1685 B no. 749: *Cunabula Henrici Sexti Anglorum Regis, tota ex ferro conflata.*

Dimensions: Length 1.05 m; Width 0.55 m; Height (overall) 0.84 m.

The tradition associating this cradle with Henry VI, as recorded in the 1685 catalogue and communicated to early visitors to the Ashmolean such

[454] D'Allemagne 1891, p. 6, n. 1; Conway 1915, p. 133.

[455] Reproduced in Fezensac and Gaborit-Chopin 1977, pl. 93c.

[456] D'Allemagne 1891, p. 6, n. 1.

[457] Contemporary manuscript illustrations invariably show sanctuary and other lamps as of the open hanging-bowl type.

[458] Oman 1968, pp. 136–7. Of the two illustrations from possibly twelfth-century manuscripts which Oman reproduces, one (Pierpoint Morgan Library, MS 521) clearly is a pole-lantern but the other (BL 'Psalter of Henry of Blois') appears to be hand-held.

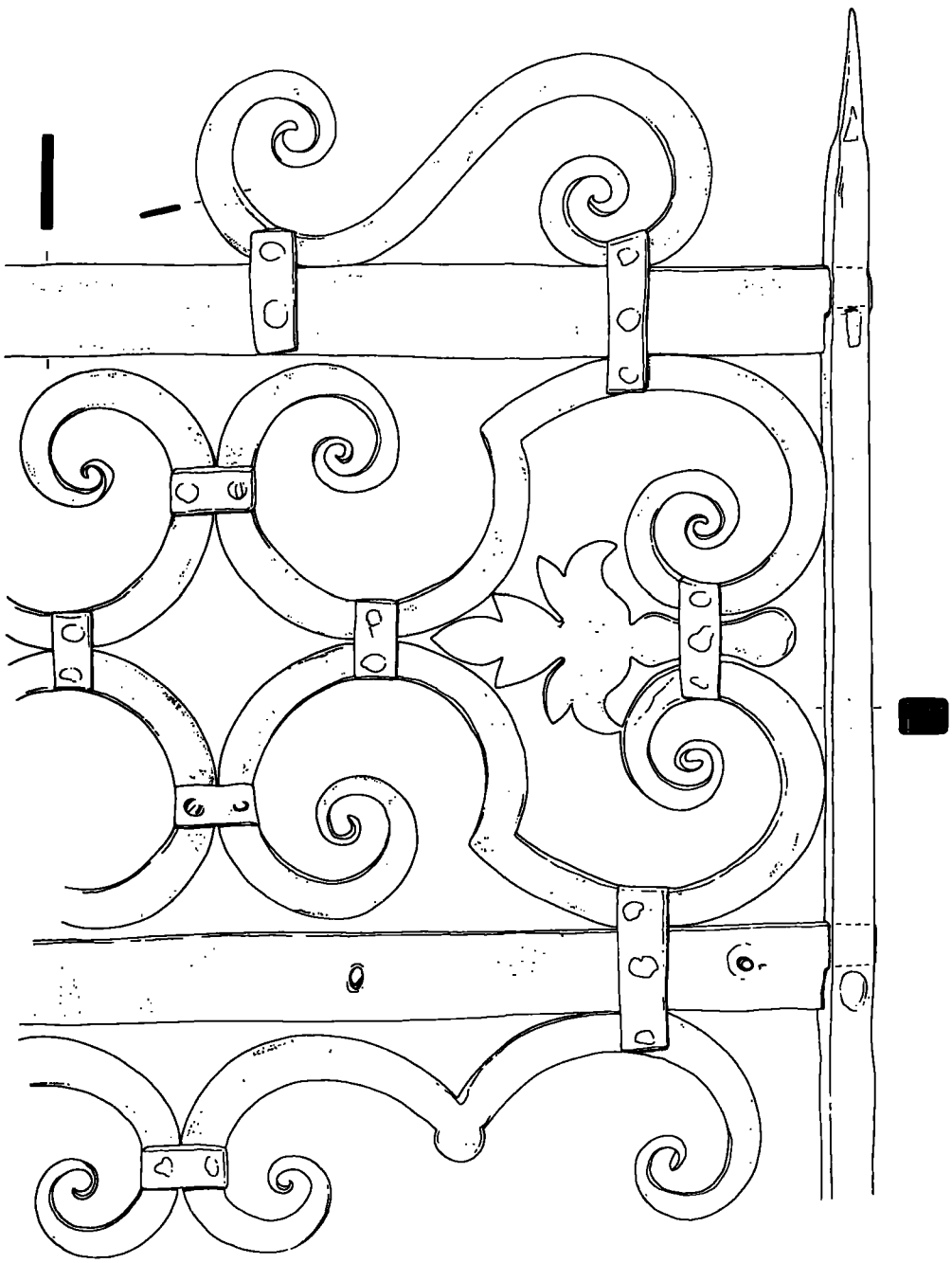


Fig. 65. Cradle, No. 210: detail of scroll-work. Scale 1:3

as Benthem and von Uffenbach,[459] seems incapable of support at the present day. Current opinion[460] favours an origin no earlier than the sixteenth-century date proposed for the cradle by ffoulkes,[461] and admits of the possibility that it could even derive from the seventeenth century.

Precise dating on the basis of the decorative scrollwork is not possible, comparable furnishings being extremely scarce, particularly in northern Europe. One example is a late sixteenth or seventeenth-century lectern at Alnwick, a unique English representative of a genre much favoured in French and Belgian churches.[462] Other recorded uses for such wrought-iron work include candelabra, basin-stands, chairs, tables, and beds; indeed there was quite a vogue for such furnishings in the seventeenth century, particularly in Italy.[463] In England decorative grilles, hinges, and other architectural fittings provided the main outlet for craftsmen in this medium.[464]

No other iron cradle has been noted, and this is not surprising since, despite its impressive appearance, the cradle is indeed, as ffoulkes drily recorded, 'entirely unsuited for an infantile occupant by reason of the unsympathetic nature of the material employed'.[465] Oak was by far the most common medium used in the construction of early cradles in Britain. The cradle alleged to be that of Henry V, but probably of late fifteenth- or sixteenth-century date, is the earliest surviving specimen;[466] it takes the form of a rectangular box with fluted sides, suspended at either end from the upright posts of a wooden framework. Other early cradles known in Britain are in the shape of low boxes mounted directly or by means of short legs on to rockers; frequently they are fitted with elaborately carved superstructures, as may be postulated for the Ashmolean cradle on the basis of the spiked terminals of the four corner-posts.[467] Such early cradles include those reputedly associated with James VI of Scotland and I of England and with James's consort, Anne of Denmark, as well as other examples with and without regal pretensions.[468] German cradles of the later medieval period, as illustrated in contemporary painting and sculpture, exhibit the same low profile and are usually provided with a hand-hold at either end.[469] This emphasis on portability is not a feature of the Ashmolean cradle, which is extremely cumbersome even in its present incomplete condition. The mortice and tenon joints with which the main framework is constructed suggest wooden antecedents,[470] but no high wooden cradle of this form has been found.

In the absence of closely comparable material, the country of origin of this piece cannot be determined. ffoulkes favoured a German origin,[471] but provided no supporting evidence for his claim. Gardner found parallels among Flemish work of the seventeenth century, including some executed at Canterbury by immigrant craftsmen.[472] The technique of scrolling 'on edge' is characterized as Flemish by Gardner,[473] but according to Hoever it was also favoured by Italian smiths.[474] Italy might be considered as a possible source on other grounds: in addition to a general predilection for wrought-iron furnishings, as mentioned above, the Italians above all others are said to have favoured loose 'S'-scrolls.[475] Grilles and doors in Italy supply close parallels for the 'S'-scrolls with interposed leaves which feature on the cradle: several examples of this technique are illustrated by Hoever and Pedrini,[476] all of them dating from the sixteenth and seventeenth centuries.

A. MacGregor

211. ROMAN JAR (Fig. 66). Brownish-orange sandy fabric, coated with a thin white slip. The rim is turned outwards, and flattened and grooved to

[459] Benthem 1694, p. 330; von Uffenbach 1753–4, 3. 121; Quarrell and Quarrell 1928, p. 26. Von Uffenbach notes 'the great iron cradle of which Benthem makes mention' without himself repeating the traditional ascription.

[460] Mr Claude Blair, Keeper of Metalwork at the Victoria and Albert Museum, has kindly given his advice on this item.

[461] ffoulkes 1913, p. 101.

[462] Ibid., pp. 98–100.

[463] Ibid., p. 98.

[464] Gardner 1914, pp. 112–19.

[465] ffoulkes 1913, p. 101.

[466] Barrett 1912, pp. 91–4, London Museum 1954, p. 291, pl. LXXXVI. See also *Archaeologia* 8 (1787), 451, pl. XXXI, 1.

[467] The use of curtains is also recorded on the continent (Dervieu 1912, p. 409). The same author also mentions frequent use of gold paint on medieval cradles.

[468] Barrett 1912, pp. 94–6.

[469] Von Falke 1924, pp. xliv, li, lvi. See also Dervieu 1912, figs. 12–13.

[470] Gardner (1914, pp. 113–14) finds other correspondences with joinery techniques in grilles of the fourteenth and fifteenth centuries.

[471] ffoulkes 1913, p. 101.

[472] Gardner 1922, p. 57.

[473] Ibid., p. 57.

[474] Hoever 1962, p. xxiv.

[475] Ibid., p. xxiv.

[476] Ibid., pl. 94 (the same author illustrates (pl. 106) a door at Schloss Ambras, Innsbruck, employing a similar technique); Pedrini 1929, figs. 7, 23, 136, 204–5.

Fig. 66. Roman jar, No. 211, with expanded view of graffito. Scale 1:4

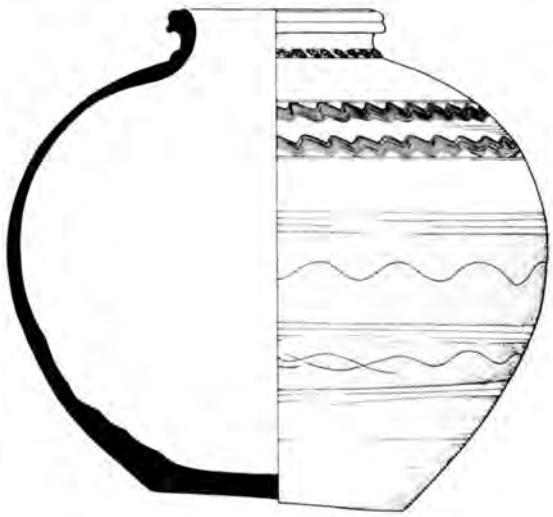


Fig. 67. Roman jar, No. 212. Scale 1:4

provide a lid seating. There are two pairs of grooves on the body; the base is turned. The outside of the jar is worn and little of the white coating survives. Scratched on the side of the jar, between the pairs of grooves, is the word *SATTONIS*.

The jar contains some fragments of cremated bone.

1684 B nos. 681–3: *Tres alliae urnae Romanae, magnae, ventres habent protuberantes, quarum una in collum terminatur, viminibus circundatur; alterae duae collis carent.*[477]

Dimensions: Height 156 mm; Diameter 158 mm.

The shape of this jar is typical of pots made at Verulamium and Radlett in Hertfordshire and at Brockley Hill in Middlesex, in the first half of the second century AD.[478] The fabric, with its white slip, best matches that of the Brockley Hill workshops, and it seems likely that the jar was made there.

The type was not popular everywhere. It is common at Verulamium[479] and on surrounding sites, but does not occur at Colchester or Leicester; it has been found in London, but south of the Thames has been recorded only as an uncommon type, as at Southwark.[480] It therefore seems likely that this pot was found in the Verulamium or London area.

Several examples containing cremations are recorded from Roman London.[481] The cemeteries on the east side of the Roman city were extensively disturbed during rebuilding following the great fire of 1666, and it seems not unreasonable to suggest that this pot was found there at that time.

The inscription was scratched on the pot after firing, but it has all the appearances of being ancient[482] (despite doubts expressed at various times in the museum registers). It is a rare name and not only likely to have been added in the seventeenth century.

P. D. C. Brown

212. ROMAN JAR (Fig. 67). Narrow-mouthed jar of hard and fine grey fabric. Thick rim overhanging a cordon with pseudo-rope impressions. The upper part of the pot is burnished and coated with a thin white slip, save for a band with combed

[477] Identified as no. 681 by E. T. Leeds in 1911, on the basis of a fragmentary label with the figure *1* on it. This label is no longer extant.

[478] Miss Valerie Rigby, British Museum, has kindly identified this pot. For accounts of the wares from Verulamium and Brockley Hill see, respectively, Corder 1941, pp. 271–98, and Castle 1973, pp. 78–9.

[479] Wheeler and Wheeler 1936, p. 138, pl. 115.

[480] Marsh and Tyers 1978, pp. 562–4.

[481] Royal Commission on Historical Monuments, England 1928, pp. 156–63.

[482] Dr Roger Tomlin (personal communication) comments: 'It seems reasonable to take *SATTONIS* as the name of the deceased in the genitive. The writing is acceptably Roman: the open *A* would have been a sophisticated touch by a seventeenth-century improver. The name *Satto* is not likely to have occurred to such a person: it has occurred in Roman Britain only as a Samian stamp (in Lincoln and one or two other places), and as such is quite common in Gaul; as a Gallic personal name, often a cognomen in *tria nomina*, it occurs principally at Trier (2, and a Trever buried at Lyons) and Upper Germany (5).'

wavy lines. The lower part has two bands burnished with a single wavy line, and turning or knife-trimming gives a further effect of burnishing towards the base.

1685 B nos. 682–3: *Tres aliae urnae Romanae, magnae, ventres habent protuberantes, quarum una in collum terminatur, viminibus circundatur; alterae duae collis carent.*[483]

Dimensions: Height 260 mm; Diameter 280 mm.

This jar is a typical product of the Alice Holt potteries near Farnham, corresponding to Type 1A, 16, of the recently published survey of this industry.[484] The dated contexts listed for this type cover the period AD 275–400 and later; the wavy combed decoration is described as of the fourth century.

The likely find-spot of the pot is indicated by the distribution of the type, and of other fourth-century products of the Alice Holt potteries. This distribution extends over southern England from east Kent to Gloucester, and northwards to the Thames valley, but not further north.

Nothing can be said, or usefully speculated, about the actual finding of this pot. In view of its date it is unlikely to have been a cremation vessel.

P. D. C. Brown

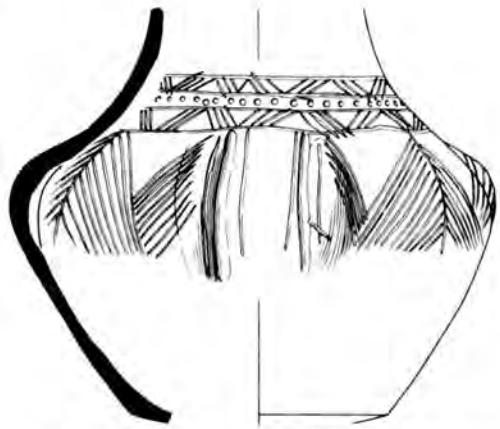


Fig. 68. Anglo-Saxon pot, No. 213. Scale 1:4

213. ANGLO-SAXON POT (Fig. 68). Hard and dark burnished surface. Gritty, sandy fabric without signs of deliberate organic tempering; reddish brown in the break. Rim and base missing.

Decoration of bosses and burnished lines: six small vertical bosses pushed out around the belly of the pot, arranged in pairs; in the narrower gaps are vertical lines and in the wider gaps diagonal lines forming feather patterns. On the shoulder and neck, three bands marked by lines; dots in the centre band, opposed diagonal lines in twos and threes in the upper and lower bands.

1685 B nos. 681–3: *Tres aliae urnae Romanae, magnae, ventres habent protuberantes, quarum una in collum terminatur, viminibus circundatur; alterae duae collis carent.*[485]

Bibliography: Leeds 1913, pp. 38–40, fig. 5; Myres 1977, pp. 100, 303, fig. 282.

The description of this pot as Roman in the 1685 inventory is not surprising. Early Anglo-Saxon graves were not recognized as such until the end of the eighteenth century, and their pottery was generally disregarded until the nineteenth century. There is not much doubt that it is from an Anglo-Saxon cremation cemetery. Leeds suggested that this may be one of the pots from the cemetery at Old Walsingham in Norfolk whose discovery was recorded by Sir Thomas Browne in his *Hydriotaphia*;[486] perhaps it was a gift from one famous collector (see p. 89) to another. The suggestion is an attractive one, and it has been accepted by Myres, who attributes the pot to (Great) Walsingham.[487] It can, however, never be more than a suggestion: the pot is certainly not one of the four illustrated in the *Hydriotaphia*, and, while it would not be surprising for such a find to be made in Norfolk, it might equally well have been found in many other parts of Anglo-Saxon England. It dates from the fifth or sixth century AD.

Three Roman pots are mentioned in the 1656 catalogue (p. 44), two simply as 'Roman Urnes', the third as a 'Roman sacrificing-earthen-cup with the word CAMPANION printed in the bottome'. Of these only the last stands any chance of being identifiable: it sounds like a piece of Arretine or Samian pottery with the maker's stamp on the base, in which case the word CAMPANION is best read as a version of one of the stamps of the potter Campanus who worked at Lezoux in Central Gaul in the second century AD.[488] Lezoux products were

[483] Identified as no. 683 by E. T. Leeds on the basis of a fragmentary label with part of a figure, seemingly a 3, on it. The label is still on the pot.

[484] Miss Valerie Rigby, British Museum, has kindly identified this pot. For Alice Holt wares see Lyne and Jefferies 1979, pp. 38–9.

[485] Retains the original label, numbered *68*.

[486] Leeds 1913, pp. 38–40; Browne 1658.

[487] Myres 1977, pp. 100, 303.

[488] Oswald 1931, p. 56.

widely distributed in Gaul and throughout Britain, though none by Campanus is now in the museum.

The 1685 catalogue describes six Roman pots, three of which correspond to those catalogued above (Nos. 211–13). The other three are:

1685 B no. 680: *Urna Romana magna et capacissima, in quam totius domus cineres reconditi fuerunt, colore rubro; venter amplissimo; collo brevi & angusto praedita, quod utrinque ansa magna dotatum.*

1685 B no. 684: *Frustra quaedam urnae Romanae.*

1685 B no. 685: *Vas quoddam Romanum pro floribus humanam ex scapulis figuram exhibens.*

There are in the Roman collection two large vessels of red fabric with narrow necks and handles, corresponding with the description under 1685 B 680: one has inside, adhering to the walls, the remains of cremated bone fragments, and must once have been used as a cremation vessel; the other lacks this detail. There is nothing to match either of the other entries.

P. D. C. Brown

214. DISH (Pl. CI). Deep blue oval dish of 'Palissy ware' with a naturalistically moulded nude female figure with a garland of fruit and flowers on her head, holding cornucopias of fruit and flowers in both arms; her ankles are crossed and resting on green grass. Eight cream-coloured moulded scallop shells form an everted rim to half the dish; the remainder is plain. Mottled blue and red brown on the back.

1656 p. 53: *Variety of China dishes.*

1685 B no. 584–7: *Disci 4 Chinitici oblongi; in una parte faeminas nudas prostratas habent sua pudenda manibus tegentes.*

Dimensions: Length (overall) 193 mm; Width (overall) 120 mm.

See discussion under No. 216.

215. DISH (Fig. 69, Pl. CI). Deep blue oval dish of 'Palissy ware', with naturalistically moulded figures of a man clad in a brown loincloth, and a woman in a blue loincloth. Their bodies are turned slightly towards each other, with her left hand resting on his left hip. There are blue and green garlands on their heads, with green and yellow foliage behind, and green herbage behind their crossed legs. Seven green and yellow medallions form an everted rim to half the dish; the remainder is plain. Mottled polychrome back, with two depressions at the backs of the heads.

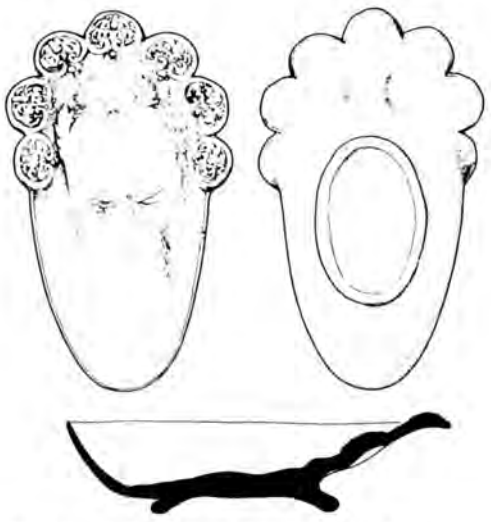


Fig. 69. Palissy-ware dish, No. 215. Scale 1:4

1656 p. 53: *Variety of China dishes.*

1685 B no. 584–7: *Disci 4 Chinitici oblongi; in una parte faeminas nudas prostratas habent sua pudenda manibus tegentes.*

Dimensions: Length (overall) 198 mm; Width (overall) 112 mm.

See discussion under No. 216.

216. DISH (Pl. CI). The pair to No. 215.

1656 p. 53: *Variety of China dishes.*

1685 B no. 584–7: *Disci 4 Chinitici oblongi; in una parte faeminas nudas prostratas habent sua pudenda manibus tegentes.*

Dimensions: Length (overall) 198 mm; Width (overall) 112 mm.

Bernard Palissy,[489] who was born near Agen *c.*1510, having worked as an artist in stained glass, turned to pottery about 1540. By 1542 he was established at Saintes. In 1555 the High Constable of France, de Montmorency, commissioned a rustic grotto which was set up by Palissy, at the instance of Catherine de Medici, in the garden of the Tuileries in 1566. Technically his pottery is not dissimilar from that of Saintonge and Poitou, though the technique of casting lizards and other creatures from the life may have been a contribution of his own. To polychrome glazes he also added marble grounds similar

[489] J. Giacomotti, in Charleston 1968, pp. 119–20. For Palissy as a collector see above, p. 82.

to those used on the back of Nos. 214–16. Having suffered as a Protestant, and been imprisoned for heresy, Palissy died *c.*1590. His moulds were used after his death and his work was continuously imitated. His influence can be found at Avon, near Fontainebleau, in the wares made at the pottery of Barthélemy de Blénod, and it is probable that the pieces in the foundation collection date from the first half of the seventeenth rather than from the sixteenth century. I. H. Lowe

217. AGATE BOWL (Pl. CIII). Shallow oval bowl. The brown agate has beige and white concentric bands, which form an 'eye' in the central part of the basal area. Chipped at the rim.

1656 p. 36: *Many cups of Agates.*
1685 A no. 49: *Cyathus ovalis ex Achate magno ejusdem coloris, paucis venulis subcaeruleis distincto.*

Dimensions: Length 52.5 mm; Width 38 mm; Height 16 mm.

The selection of stone for this bowl has made good use of the colours and the positioning of the eye, which may have been intended to be prophylactic.[490] The place of manufacture is unknown, but agate was worked at Cambay (see pp. 175–6). Birdwood, writing towards the end of the nineteenth century, recorded that the working of stone was a widely practised art in India; he noted that the best cornelians and agates were thought to be found at Ratanpur near Baroach and were taken to Cambay to be worked into cups, saucers, knife handles, paperweights, and ornaments.[491] The agate vases of Baroach and Cambay were famous under the name of 'Murrhine' vases from the time of Pliny. Small cornelian bowls and spoons were still being made at Cambay in this century, and Arkell purchased such a spoon from Bombay in the 1930s.[492]

In Europe, by the end of the thirteenth century, according to Babelon, organizations of 'lapidaires ou cristalliers' existed in France, whose skill lay in cutting ornaments, cups, and flasks from rock crystal and other stones and in decorating them with engraved ornament.[493] Stone-working was practised along the Seine valley, and 'vases, coupes, aiguieres, hanaps en agate ou cristal de roche' were frequently mentioned in medieval inventories.[494] Another well-known centre from Roman times was Idar Oberstein on the Nahe, a tributary of the Rhine, upstream from Bingen. Roman craftsmen are said to have worked various stones there,[495] including agate and jasper; the craft revived in the fifteenth century or perhaps earlier, and the area eventually became well known for working onyx among other materials.

Stone bowls appear to have featured in various cabinets of curiosities, and finely-worked examples can be seen displayed on a shelf in Johann Georg Haintz's painting of such a cabinet:[496] at the front of the shelf is a circular white stone bowl and behind it is a small oval brown bowl with a basal shape similar to the Ashmolean specimen. The Cheapside Hoard, considered by Wheeler to consist of 'objects of moderate intrinsic worth, such as may be supposed to have fitted the purse of the successful merchant class',[497] included a 'small eye-bowl made of carbuncle', and a larger bowl made of agate, 'possibly of classical workmanship'.[498] However, each of these bowls has a definite foot ring.

It seems reasonable to suppose that this specimen was part of the early collection, but it is questionable whether the 1685 A 49 entry applies, as the description there states that the agate was marked with a few bluish veins and was used as a ladle. However, the entry was associated with this specimen by Leeds.[499] E. Sandford Gunn

218. ALABASTER PANEL (Pl. CIV). Carved panel representing the Adoration of the Child, in which the Virgin kneels before the Child in the centre beneath a stable-roof, attended by two angels on the left, with an ox behind. Joseph stands behind the Virgin pointing out of the composition with his right arm, perhaps indicating the star over Bethlehem, or else approaching figures. Two other male figures enter the composition from the right, the one in the foreground also gesturing with his right arm. The carving is heightened with gilt highlights and is signed at the lower edge on the bevel with the artists's initials (see Fig. 70).

[490] Evans 1922, p. 35.
[491] Birdwood, 1971, p. 219.
[492] A. J. Arkell collection, Pitt Rivers Museum, no. 1971.15.524. The specimen, 63 mm is length, has a shallow bowl and a simple rudimentary handle.
[493] Babelon 1902, p. 234.
[494] Ibid. p. 239.
[495] Mason and Packer 1973, p. 191.
[496] Reproduced in Hansmann and Kris-Rettenbeck 1966, p. 112, no. 299, and dated 1666.
[497] London Museum 1928, p. 3.
[498] Ibid., p. 32, nos. A14084 and A14206, pl. XIV, no. 1
[499] Department of Antiquities, Ashmolean Museum, manuscript catalogue of 1911.

Fig. 70. Alabaster panels, Nos. 218–21: artist's initials on lower edge. Scale 2:1

1685 A no. 619: *Angeli Christo ministrantes in praesepi, item Alabastro sculpti et margine deaurata inclusi.*

Dimensions: Width 118 mm; Height 93 mm.

See discussion until No. 221.

219. ALABASTER PANEL (Pl. CV). Carved panel representing the Agony in the Garden, with Christ kneeling in the background facing left, where an angel holding a chalice and a cross (?) appears in the upper corner. Two of the apostles (James and John) are sleeping close to Christ in the left half of the composition, whilst the third (Peter) sleeps beneath the olive trees on the right. The panel has gilt highlights and is cracked in several places, particularly in the upper half. Signed at the lower edge on the bevel with the artist's initials (see Fig. 70).

1685 A no. 625: *Imago Christi in loco Gethsemane dicto precantis, discipulis interim dormientibus, alabastro caelata, margine deaurata, munita.*

Dimensions: Width 120 mm; Height 93 mm.

See discussion under No. 221.

220. ALABASTER PANEL (Pl. CVI). Carved panel representing the Flagellation, with Christ standing centrally positioned in front of a column in a loggia, his left arm tied above the head and his right arm behind his back. Two flagellators with their branches raised are placed on either side of Christ. A third crouches in the left foreground picking up a branch. The carving has gilt highlights and is signed at the lower edge on the bevel with the artist's initials (see Fig. 70).

1685 A no. 626: *Imago Christi ad Columnam virgis caesi, alabastro sculpta opere elato; margine deaurata item inclusa.*

Dimensions: Width 97 mm; Height 122 mm.

See discussion under No. 221.

221. ALABASTER PANEL (Pl. CVII). Carved panel representing the Entombment. The figures, including Joseph of Arimathaea and Nicodemus to left and right with three holy women in the centre, are placed at the entrance to the tomb. Christ's body is supported by the figures above a sarcophagus. The panel has gilt highlights and is signed at the lower edge on the bevel with the artist's initials (see Fig. 70).

1685 A no. 627: *Imago Josephi Arimathaensis et Nicodemi, Christum in sepulchro novo sepelientium, alabastro caelata, opere levato, et simili margine munita. fract 1700.*

Dimensions: Width 92 mm; Height 119 mm.

These four alabaster reliefs (Nos. 218–21) were carved in Malines towards the close of the sixteenth century. Each is signed with the artist's initials only, which was the usual form of signature. Whereas many of the sculptors active at Malines have been identified in documents, the full name of this particular sculptor has so far eluded identification. The alabasters were originally set into wooden frames, profusely decorated with gilt ornamentation, but the present examples have all been remounted. Alabasters so framed were often inserted into a more elaborate framework and used as private altar-pieces in a domestic context. In this instance, however, the intention does not seem to have been to mount them in series forming part of one large polyptych: even though, assuming that other panels from the series are missing, this would have been iconographically feasible, it is unlikely that the sculptor would have signed each alabaster individually.

A large number of Malines alabasters have survived.[500] It was a popular art-form lasting into the seventeenth century. Many of the compositions were derived from engravings after works by more famous artists.

C. H. Lloyd

222. ALABASTER PANEL (Pl. CVIII). Carved panel representing the suffering of St. Erasmus. The principal figure, nude save for a mitre, is tied down on a board; his stomach has been cut open and above him is a windlass being turned by two men. Behind these men stand four more figures, two of whom (in the centre and at right) are prominent by their size and by their each holding an object: the central figure holds up a scroll (or possibly a human limb), while the man on the right, who is crowned, has a raised sword in his right hand. The figure in the top left corner appears to hold a kind of

[500] Musées Royaux d'Art et d'Histoire, Brussels, 1967. No. M/69 shows a comparable monogram.

mace. In the lower part of the panel, in the foreground of the scene, are two more figures, one sitting on the ground and the other, on the left, standing. The ground is painted dark green and is decorated with groupings of white dots round a red dot; there are traces of black, red, and gold colouring, particularly on the faces and edges of the clothes of the figures. The panel, which is broken into two, has been mounted on a slate; the reverse can however be seen to have been gouged out at the base.

1656 p. 38: *The martyrdome of the Bishop of Amphipolis carved in alabaster.*

1685 B no. 711: *Martyrium Episcopi Amphipolis ex alabastro caelatum.*

Dimensions: Height 410 mm; Width 257 mm.

Bibliography: Society of Antiquaries 1913, pp. 55–6, no. 18, pl. XIII.

The scene represented is evidently one of the tortures undergone by St. Erasmus, alleged Bishop of Formia.[501] This particular torture, which is not in fact said to have caused his death and is not mentioned in the earliest accounts of his sufferings, involved the winding out of his guts upon a windlass. This was ordered by the Emperor – implicitly Diocletian - who is the crowned figure in the top right corner. The figures in the foreground were probably intended as tormentors of the saint, as in a panel in the possession of the Society of Antiquaries.[502]

Erasmus's cult became quite widespread in England in the fifteenth century: it is evidenced in books of hours from about the middle of the century, in vernacular devotional writings, and in a considerable number of parish church altars and lights. Edward IV's wife, Elizabeth Woodville, gave to Westminster Abbey in about 1478 a chapel dedicated to the saint, whilst Caxton in 1489 thought it worth adding a *Life of Erasmus* to the translated *Golden Legend*. Several alabaster carvings showing the torture or martyrdom of Erasmus survive in Britain: for example, one was found under the floor of Buckenham Ferry Church, Norfolk,[503] and another is in the Burrell collection, Glasgow, showing him with St. Faith.[504] This particular example may perhaps be dated to the third quarter of the fifteenth century.

See further discussion under No. 224.

223. ALABASTER PANEL (Pl. CIX). Carved panel representing the Crucifixion. In the upper part Christ is represented upon a tall tau cross, while below him on either side are represented two winged angels and the two thieves, that on his right looking up at him, and that on his left looking away. Below Christ on the left is a man who carries a spear and from whose right hand a long scroll issues (Longinus); directly below Christ is a figure (an angel) holding up a chalice. To the angel's right stands a figure, armed and wearing a hat (the centurion), accompanied by two further armed soldiers. On the left is a kneeling figure of the Virgin Mary, grieving; she is accompanied by two other figures of women who are comforting her, and behind these two is a figure with a palm branch (St. John the Evangelist).

There are considerable traces of the pre-Reformation colour scheme – black (on the unrepentant thief and on the faces of the two soldiers), gold, and green (decorated with groupings of white and red dots). The panel, which is broken in three places, has been mounted on a slate; the edges of the panel's reverse are chamfered and it has been gouged out at the base.

1685 B no. 709: *Effigies nostri salvatoris crucifixi, ex alabastro confecta, cujus ad utramque manum duo fures cruci alligantur.*

Dimensions: Height 535 mm; Width 265 mm.

Bibliography: Society of Antiquaries 1913, p. 57, no. 24, pl. XV.

Numerous more-or-less similarly designed alabasters of the Crucifixion survive: many of these were doubtless once central panels of groups of five, seven, or nine depicting the Passion of Christ. Several such groups, or retables, which are still intact have just such a tall Crucifixion. Of similar date (*c.*1500) and style, is, for example, a Crucifixion in the Castle Museum, Nottingham.[505]

See further discussion under No. 224.

[501] I do not know why Erasmus's see was latinized as Amphipolis, although dioceses of this name once existed both in Macedonia and in Armenia. Eighteenth-century antiquaries confused Erasmus with Amphibalus, a saint of St. Albans. Amphibalus suffered in a not very different way (his guts were wound round a tree), but he was not a bishop. Amphibalus and Amphipolis could also have been confused with each other on phonetic grounds. Dr Eileen Roberts (personal communication) suggests that the elder Tradescant may have heard of Amphibalus while working at Hatfield.

[502] Society of Antiquaries 1913, p. 65, no. 52, pl. XX.

[503] Castle Museum, Norwich, no. 19.47; see *Norfolk Archaeology* 1 (1847), 243 51.

[504] Burrell Collection, Glasgow, Alabaster Inventory no. 2.

[505] Castle Museum, Nottingham, no. 1932.28, illustrated and discussed in Cheetham 1973, pp. 32-3.

224. ALABASTER PANEL (Pl. CX). Carved panel representing the head of St. John the Baptist. The head of the saint is shown on a charger; below is Our Lord's Pity (Christ issuing from the sepulchre, wearing a crown of thorns) with a plant or tree on either side. Much of the pre-Reformation scheme of colouring survives: red-brown hair on John and black hair on Christ, red on the edge of the charger, and green for the lower background. The green is decorated with characteristic groups of gold and red dots. The eyes of both John and Christ are painted as open; a slight cut is painted over John's left eye.

The panel is in what appears to be its original wooden housing, with traces of paint on the edge above the alabaster. Pieces of metal wires are attached to each side of the housing for hinges, but the doors which they would have held in place are missing.

1685 B no. 710: *Caput Sti. Johannis & Jesu Christi in pixidem reconditum ex alabastro elaboratum.*

Dimensions: (Panel) Height 251 mm; Width 122 mm.

Bibliography: Hope 1890, pp. 669–708, pl. XXI; Society of Antiquaries 1913, p. 64, no. 50.

Representations of the head of St. John the Baptist, on fabric or in alabaster, were above all made for private devotional purposes – for chapel or oratory, bedroom or parlour. A St. John's Head in a completely intact case, whose doors are fully painted, is in the Leicestershire Museum and Art Gallery, and others in their original housings are in the Burrell collection, Glasgow, and in Carmarthen Museum.[506] Where such images could not be covered by wooden doors, they were probably generally kept covered with a cloth. Hundreds of late medieval carved heads of St. John still survive throughout Europe, those made in Germany commonly being without the background and extra figures that accompany most English alabaster representations. This particular example dates from the second half of the fifteenth or the early sixteenth century.

Panels of alabaster carved in high relief with religious scenes or with figures of particular saints virtually monopolized the market for carved religious images in late medieval England. Tens of thousands of such panels were carved, mostly in a limited range of designs. The success of the alabaster vendors lay partly in their product's cheapness, partly in the popular belief that alabaster had healing qualities as well as virtues of a quasi-magical kind.[507] However, strength in the market – and English alabasters appear to have been sold on the continent of Europe as much as in this country – was accompanied by a decline in the quality of carving. The alabasters described here, which come from this later period, are certainly not of a high quality, however well they may once have fulfilled their devotional function. The skill which the alabaster carvers could still display in the later fifteenth or early sixteenth centuries is evidenced in larger sculptures which were presumably specially made to order and which are not of the types exemplified in this collection.

After the Reformation the English either sold their alabasters or hid them: in Queen Elizabeth I's reign it would have been dangerous to be known to possess such an image. The Tradescants are the first English collectors who may be thought to have owned any for antiquarian reasons, but alabasters subsequently became standard items for almost any English collection of antiquities: William Richardson of North Bierley, Yorkshire, was proud of one that had been found in some ruins in 1689, and Ralph Thoresby owned one supposed to have come from Kirkstall Abbey.[508] Church repairs and restorations in the late eighteenth and nineteenth centuries led to the discovery of a few dozen that had been buried in walls or under floors, but alabasters escaped serious archaeological investigation until near the end of the nineteenth century. Their presence on the Continent, and particularly in France, in hundreds of churches and museums was fostering the belief that they were of continental origin: they were rescued from this misapprehension by Sir William St. John Hope, who adduced documentary evidence for their Englishness.[509] His observation of frequent references to 'alabastermen' in the records of the city of Nottingham, which had then recently been published, led him to point to

[506] Leicestershire Museum Art and Gallery, no. 2277, 1849 (see Hope 1890, pp. 692–3, pl. XXIV; Society of Antiquaries 1913, no. 49); Burrell Collection, Glasgow, Alabaster Inventory nos. 18, 23, 32; Carmarthen Museum, no. 75.2862.

[507] See, for example, Evans and Serjeantson 1933, p. 68: 'Alabastre is a stone þat is cendre & whiȝt when it is grounde. Whoso drinkeþ him with eysel, he is good for all maner sores in þe fote or in þe knee.'

[508] Richardson's alabaster, with an inscription that he 'Procur'd and Beautify'd' it, is in the Victoria and Albert Museum, London (no. A112–1946); it represents the Ascension. Thoresby 1715, p. 487.

[509] Hope 1890, pp. 669–708.

Nottingham as the centre of alabaster production. Since then all English alabasters have generally been described as 'of the Nottingham school'.

N. Ramsay

225. WOODEN PANEL (Pl. CXI). Carved panel representing Jacob at the well. In an elaborate composition Jacob is first shown on horseback right of centre, at the edge of a forest. He appears again in the lower right corner drinking from a ewer, with dogs at his feet and confronted by Rachel. Jacob is depicted for the third time on a smaller scale in the lower left corner kneeling in prayer. The Well of Hara, with a fountain or basin supported by three male figures, is left of centre in the middle distance. To the left of the well are two camels led by a figure, and in the upper left corner a view of a city. There is a horizontal crack through the middle of the composition and a few other minor losses, including Rachel's right arm.

1685 A no. 644: *Fons (ut puto) Jacobi ligno caelatus, opere elato.*

Dimensions: (Panel) Height 300 mm; Width 317 mm; (Frame) Height 355 mm; Width 370 mm.

The Mannerist style of the panel, most notable in the treatment of the figures and the licence with which the biblical scene (Genesis 29) is represented, suggests a date in the mid-sixteenth century. The carving, which appears still to be in its original frame, varies from three-quarter relief to lines incised in the surface. The work is of a reasonably high quality and might have formed part of a series of scenes from the life of Jacob, although the composition could just as easily have existed independently. The frame is damaged, particularly on the left. The relief has been traditionally regarded as being Anglo-Flemish in style but it may in fact be German.

C. H. Lloyd

226. WOODEN FIGURE (Pl. CXII). Carved figure representing the Virgin. The figure, seen from the front, kneels on a cushion with hands folded in prayer. Signs of pigmentation on the face and the drapery are evident: the mantle is gilt, but may also once have been painted red, and is lined in blue; there are flesh tones on the face.

1685 B no. 706: *Figura cujusdam munimenti antiqui ex ligno facta.*

Dimensions: Height 410 mm.

The figure was possibly carved in the Netherlands during the second half of the fifteenth century. It is almost certainly not of German origin, as was formerly thought. The long hair might suggest an identification of the figure of Mary Magdalen, but it is more likely to be the Virgin. Presumably, the figure formed part of a compositional group, although in the present case the back is flat, suggesting that a viewpoint from the front was intended. If the identification with the Virgin is correct, then the group would have been an Adoration of the Child.

C. H. Lloyd

227. WOODEN FIGURE (Pl. CXIII). Carved figure representing a young nude male. The arms are outstretched in front with the left knee raised and the right leg partially bent. Old repairs have been made to both arms (the left arm from the elbow and the right arm once at the shoulder and again at the forearm). The toes of both feet have also suffered damage.

1685 B no. 763: *Imago hominis ex ligno elaborata, vultum habet furtim spectantem, unam manum porrigit, altera se sublevat, ut sine molestia columnae insideat.*

Dimensions: Height 0.51 m.

The carving, which is not without quality, probably dates from the first half of the seventeenth century. The style could be either English or Netherlandish. The original purpose of this figure is a matter for conjecture. The 1685 catalogue implies that it was attached to a column, but there are no obvious signs of a means of attachment. It is possible that the figure formed part of a large group representing the Last Judgement.

C. H. Lloyd

228. CARVED CROSS (Fig. 71, Pl. CXIV). Pectoral cross of olive-wood (*Olea* sp.) slightly irregular in shape. At the bottom the cross terminates in a medallion with a projecting foot, pierced from front to back by a small hole. On the reverse a panel covering part of the medallion and the edge of the foot slides away to reveal a rectangular cavity for a relic; a pin would originally have held the panel in place, passing through the perforation in the foot. At the top of the cross is a projecting lug, transversely perforated.

Within a chevron border are carved the following scenes, enumerated as in Fig. 71. Obverse: 1, an angel, half-length; 2, the Virgin and Child, flanked

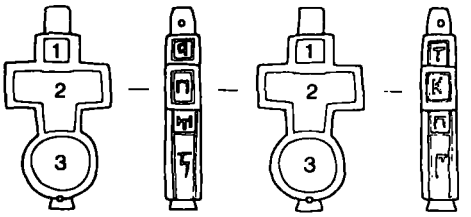


Fig. 71. Carved cross, No. 228: disposition of scenes as numbered in the text. Scale 1:2

by four angel heads, inscribed, above, MPΘEOY (Mother of God); 3, Man of Sorrows, flanked by four heads, with scratched inscription ICXC (Jesus Christ). Reverse: 1, an angel, half-length; 2, the Crucifixion, flanked by busts of the Virgin and St. John, inscribed, above, ICXCN (Jesus Christ); 3, Virgin and Child flanked by four heads inscribed, above, MHPΘEOY (Mother of God).

On either side of the cross are four letters, each within an incised border, as shown in Fig. 71, namely A–Π–M–CT and T–K–Π–Γ.[510]

1685 A no. 508: *Crux lignea in qua multa Christi gesta incisa.*

Dimensions: Height 53.5 mm; Thickness 9 mm.

See discussion under No. 229.

229. CARVED CROSS (Fig. 72, Pl. CXV). Regularly shaped cross of boxwood (*Buxus* sp.). Both members are pierced axially by rectangular slots, closed at the top and on either side by wooden inserts. These slots facilitate the cutting of open-work decoration on either face of the cross; in addition, the vertical member (whose lower insert is now missing) may have held a relic.

Within a chevron border with rosettes at the corners of the central scenes, the following are represented, the figures in the upper panels being displayed against pierced ciboria (see Fig. 72). Obverse: 1, the Presentation of Christ in the Temple; 2, two evangelists at their desks; 3, the Crucifixion, with St. John, the Virgin, and another holy woman, soldiers with spear and sponge, inscribed, above, H CTAYP CICI, i.e. H ΣTAYPΩΣIΣ (the Crucifixion); 4, the Transfiguration. Reverse: 1, the Annunciation; 2, two evangelists; 3, Baptism of Christ, inscribed, above, H BAΠICIC, i.e. H BAΠTHΣIΣ (the Baptism); 4, the Anastasis (Harrowing of Hell). The iconography of these feast scenes is standard, following long-established norms within the Orthodox tradition, but the inclusion of a lily within the Annunciation scene suggests Western influence.

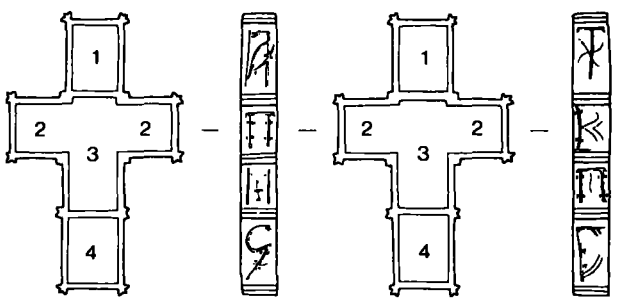


Fig. 72. Carved cross, No. 229: disposition of scenes as numbered in the text. Scale 1:2

On either side of the cross are four spindly incised letters as shown in Fig. 72, corresponding to A–Π–M–CT and T–K–Π–Γ.[511]

1685 A no. 508b: *Crux altera lignea praecedente major, in qua etiam multa Christi gesta incisa.*

Dimensions: Height 74 mm; Thickness 10 mm.

Though not uncommon in the late Middle Ages, the art of carving crosses and icons in wood attained its greatest popularity during the post-Byzantine period, when the Balkans and Asia Minor were occupied by the Ottoman Turks. Monastic ateliers producing these cheap devotional objects were to be found all over the Orthodox world, and hundreds of carved crosses have come down to us from Russia, Greece, and other East European areas. The pan-Orthodox monastic republic of Mount Athos was a particularly important centre of production (one sometimes hears these objects loosely referred to as Mount Athos crosses), and indeed *skete*s or monastic settlements specializing in the carving of devotional objects in wood still exist on the Holy Mountain.

Such crosses were invariably made of a hard-wood, such as olive or box, to allow for the highly

[510] The latter group of letters sometimes appears on the scapulars of Orthodox monks of the Great Habit (or *Mega Schema*), in association with a diagrammatic cross and (often) a skull: they stand for τόπος κρανίου παράδεισος γένετο (The Place of the Skull has become a Paradise). For illustrations of such vestments, see Galey 1980, pl. 190; Norridge and Sitwell 1966, pl. VIII.

[511] For the significance of these letters see n. 510. I have been unable so far to ascertain the meaning of AΠMCT, but no doubt the double letter CT stands for σταῦρος (cross).

wrought, high relief figure-work, the figures being painstakingly executed by the monks with tiny knives like sharpened pins. The minute scale of decoration often prevails even on larger objects, and represents an extraordinary expenditure of technical virtuosity, since the scenes are very hard to read, even at close quarters.

Numerous comparable examples may be seen in all the major museums of the Balkans (e.g. the Byzantine and Benaki Museums, Athens; the Ecclesiastical Museums of Sofia and Belgrade), as well as in the treasuries of the larger monasteries such as Studenica (Yugoslavia), Putna (Romania), and Rila (Bulgaria). In Russia, similarly, one may find examples in museums specializing in the national art tradition (notably the Tretiakov Museum, Moscow, and the Russian Museum, Leningrad), and monastic archives such as the Trinity/St. Sergius Lavra.

To date, little scholarly attention has been paid to this genre of religious art, and no monograph as yet has attempted to trace their stylistic evolution or to document workshops. Literature is limited for the most part to the catalogues of the above and similar collections.[512] For this reason, it is impossible at present to assign a date or provenance to particular pieces with any confidence, except when the date has been carved on the object. For similar pieces in Oxford, the reader is referred to the Bywater Gift of 1914–15 to the Ashmolean, which also includes painted, carved, and cast post-Byzantine icons in (respectively) wood, shell, and metal.[513]

A start has been made with the study of the earlier Russian material by T. V. Nikolayeva, a research worker at the Zagorsk museum.[514] She has assembled documentation to show that the monastery at Zagorsk had a number of artisans organized in ateliers, producing objects for church use in their own and other monasteries, for households, as gifts for distinguished visitors, and as pious souvenirs for pilgrims. For instance, a fifteenth-century chronicle refers to the monk Vassilii the Cross-maker, who carved in wood, bone, and other materials, and examples (one dated to 1456) survive of the work of Amvrosii, another monk of Zagorsk,[515] who carved minute but easily recognizable figures, in the more difficult medium of walnut, and made clever use of chiaroscuro. In this, he may have been somewhat precocious: cursory study of the catalogues would suggest that most fourteenth and fifteenth-century pieces are worked in low relief, and the high-relief, pierced effect (attained by cutting away the ground) only became common in the sixteenth century and later.

Our own examples from the foundation collection were presumably acquired as curios and cannot be described as of high artistic value. The shapes are clumsy and the figures highly schematized, but certain scenes (notably the Transfiguration on No. 229) are not without dramatic force. The Greek inscriptions (whose misspellings indicate a workman of little or no literacy) are not conclusive evidence of a Greek origin (Greek was common as an ecclesiastical language elsewhere in the Balkans). The Western iconographical influence noted in No. 229 might, perhaps, suggest an origin in a Venetian colony in Greece (Crete or the Ionian Isles); but a source in one of the mainland Greek monasteries is also possible, at some time in the late sixteenth century. N. Gendle

230. IVORY STATUETTE (Pl. CXVI). Ivory statuette of the Virgin sitting on a chair or throne of which one upright is visible, turned three-quarters to the right, supporting the Infant Christ seated on her left arm. His right hand rests over her shoulder and he holds an apple in his left hand.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 583: *B. Maria Virgo filium in sinu gestans in ebore sculpta.*

Dimensions: Height 72 mm.

Bibliography: Koechlin 1911, p. 289, fig. 6; id. 1924, 1. 244; id. 1924, 2. 249, no. 685.

[512] For general works in which material of this type is mentioned see Verdiev 1960, no. 21 (a hand-cross, *c.*1700, with filigree carving); Nikolayeva 1968, nos. 57, 65–6 (two pectorals with feast-scenes, mid-fifteenth century); Vocykova and Mitrofanov 1971, fig. 39 (a sixteenth-century carved pectoral: Crucifixion with feast-scenes); Alpatov 1973, no. 57 (a commemorative cross dated 1532 in the Novgorod Museum); Yamshchikov 1970, figs. 30–1 (a sixteenth-century pectoral carved in filigree, with silver borders); Rindina 1978, no. 63 (a seventeenth-century cross carved with the Baptism with saints and angels), no. 79 (a reliquary triptych by Amvrosii, dated 1456 by an inscription), no. 84 (a fifteenth-century crucifixion).

[513] Gendle 1980, pp. 70–1, no. 62.

[514] Nikolayeva 1960, pp. 206–31 (pectorals and crosses for personal use), especially nos. 133a–b (fifteenth-sixteenth century) and 135 (sixteenth century); also 311–12 (liturgical crosses), and especially nos. 155 (sixteenth century) and 156 (seventeenth century). See also Nikolayeva 1968, especially no. 131 (a reliquary-cross dated by inscription, 1639, with carved scenes of the Crucifixion with saints); for a seventeenth-century carved wooden icon with festal scenes comparable to our examples, see no. 134.

[515] For the monk-artists Vassilii and Amvrosii, see Ilyin 1967, pp. 77–8, figs. 58 (the 1456 triptych by Amvrosii) and 59 (a mid-fifteenth-century altar cross by him).

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 581: *Magi adorantes Christum et ei offerentes aurum, thus, et myrrham ebore insculpti.*

Dimensions: Height 120 mm; Width 76 mm; Thickness 6 mm.

Bibliography: Koechlin 1911, p. 290, fig. 11; id. 1924, 1. 212; id. 1924, 2. 191, no. 488.

The Gothic ivory diptych was for personal and domestic use. With the leaves closed to protect the carving, it was easily portable and could be opened when required for prayer. Most date from the late thirteenth to the late fourteenth century. The majority were made in France. Many of the surviving pieces, like the Ashmolean panel showing the Adoration, bears signs of mass production. The workmanship of the Adoration is French, dating from the second half of the fourteenth century, and is generally coarse, especially on the figures of the Child and Balthasar. The leaf with the Risen Christ, however, is exceptional. Koechlin, the authority on Gothic ivories, noted that the gesture of the angel supporting Christ is rare in Gothic art and unique in ivory carving. Wingless angels are also uncommon, and, despite Christ's disproportionately large foot, Koechlin found the conception of the ivory expressive and original, and he dated the Ashmolean leaf to the first half of the fourteenth century.[519] As it is out of the common run, it was once labelled in the museum as English, but the type is French. Similar frames are found on two French diptychs in the Victoria and Albert Museum, where the quatrefoils hold grotesque heads, and on a French diptych, which includes the subject of the Risen Christ, now in the British Museum.[520]

J. J. L. Whiteley

234. WRITING-TABLET (Pl. CXVIII). Ivory writing-tablet in two panels with scenes of the Annunciation (above) and the Visitation (below) each surmounted by a rounded, trefoil arch between two similar half arches divided vertically. The ivory is pierced by a hole, top centre, and by a group of three holes in the centre right-hand edge where the ivory has been hollowed out to hold a clasp. The obverse is hollowed out for wax and has a circular moulding in the centre.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 580: *Salutationes B. M. Virginis et Stae Elizabethae in ebore caelatae.*

Dimensions: Height 97 mm; Width 40 mm; Thickness 3 mm.

Bibliography: Koechlin 1911, p. 290, fig. 9; id. 1924, 1. 177; id. 1924, 2. 144, no. 341.

See discussion under No. 235.

235. WRITING-TABLET (Pl. CXVIII). Leaf of an ivory writing-tablet carved in relief with Christ on the cross between St. John and two Jews on the right and the Virgin and two Marys on the left. Above the main image are three cusped and gabled arches decorated with crockets and finials with seven trefoils spaced within and between the gables. The obverse is shaped for taking wax. The ivory is stained with a purple spot near the top centre.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 586: *Christus in cruce pendens cum Stis faeminis asseclis multisque alijs astantibus.*

Dimensions: Height 92 mm; Width 55 mm; Thickness 8 mm.

Bibliography: Koechlin 1911, p. 290, fig. 8; id. 1924, 2. 228, no. 604.

A set of writing-tablets consisted of a number of leaves of wood or ivory hollowed on both sides to hold a writing surface of wax, and two end-covers of ivory carved on the outside face and also hollowed on the verso to hold wax. Koechlin links No. 234 with a group of similar tablets dating from the second half of the fourteenth century.[521] No. 235 is also late fourteenth century. The iconography is common in ivories of the period.[522] The cross is notched, producing the effect of a cross raguly. Neither tablet is of memorable quality. Indeed, as Koechlin remarks, writing-tablets with religious subjects, in general, are later than and inferior to those with profane subjects.[523]

J. J. L. Whiteley

236. CHESS-MAN (Fig. 73). Walrus-ivory carving representing two mounted knights in combat. Each is clad in a hauberk with the sleeves extended to form mufflers (mittens), and with a surcoat over, belted at the waist. Each wears a flat-topped barrel helm with a horizontal eye-slot and cruciform face-guard. The upper leg of one knight is marked with

[519] Koechlin 1924, 1. 206.

[520] Respectively: Longhurst 1929, pl. XXIII; Dalton 1909, no. 278, pl. LX.

[521] Koechlin 1924, 1. 177.

[522] Cf. Dalton 1909, nos. 301, 303.

[523] Koechlin 1924, 1. 177.

Ivory statuettes of the Virgin of the late thirteenth and fourteenth centuries are very common. They have survived more frequently than those of gold or silver which have perhaps been largely melted down for the value of the metal. The majority of the ivories were carved in France. Koechlin includes this example in a group of 'les statuettes de la Vierge à la stature courte: Vierges assisses', which he dates to the second half of the fourteenth century. He remarks that they are carved 'd'une lourdeur souvent très désobligeante' and dismisses our statutette as having no interest apart from its assumed provenance from the Tradescant collection.[516] If indeed this piece is to be identified with the 'Divers rare and antient pieces carved in Ivory' mentioned in the 1656 catalogue, then Tradescant would be the earliest-known collector of Gothic ivories, ante-dating his nearest rivals by a century. The disruption of the Commonwealth no doubt made it easy to acquire a few of the many ivories that must have been discarded as worthless by the Puritans.

J. J. L. Whiteley

231. MIRROR-CASE (Pl. CXVI). Circular mirror-case carved with lovers meeting in a garden between two trees, squared at the corners with four crouching monsters. The back is moulded with two concentric rings, to hold the mirror plate.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 585: *Christi congressus cum Johanne in Eremo, item Ebore caelatus.*

Dimensions: Height 90 mm; Width 90 mm.

Bibliography: Koechlin 1911, p. 292, Fig. 12; id. 1924, 1. 382, 412, 483; id. 1924, 2. 366, no. 990; id. 1924, vol. 3, pl. CLXXV; Longhurst 1926, pp. 53, 109, p. 47, no. LXVII.

French mirror-cases of the thirteenth and fourteenth centuries were fairly stereotyped. The case consisted of a container, decorated on one side and grooved on the other to hold the circular mirror of polished metal. The container itself had a sliding lid, also decorated, to enclose the mirror. The forms of the crouching animals do not vary greatly. The subject of the lovers, too, in not uncommon, although the gestures vary. Koechlin notes that the flowering bush on the right is unique and that, compared with the pieces which are indisputably French in origin, the carving on this case is stiff and the lovers have an air of uncommon gravity.[517] This led both Koechlin and Longhurst[518] to suggest that our mirror-case might be an early fourteenth-century English variant of a French type. However, the lack of mirror-cases from this period which can be securely attributed to an English source makes it difficult to resolve the question of its origin.

J. J. L. Whiteley

232. IVORY DIPTYCH (Pl. CXVII). Leaf from an ivory diptych carved in high relief with the risen Christ seated on the tomb between two wingless angels. His right hand is raised in benediction and his left is clenched to hold a cross (broken off). His head is inclined towards his right shoulder and his left arm is supported by the angel on his left. The scene is framed below a trefoil arch resting on colonettes and surmounted by a gable decorated with crockets and a finial. In the angles at the top there are two quatrefoils in circular medallions with central knobs. The ivory has been pierced by two holes, one on each side of the finial, and there are hinge marks along the right-hand edge. The moulded frame is badly chipped on the top left-hand corner, with other losses on the gable, on Christ's face, on the hands of the angel, and elsewhere.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 584: *Dnus noster Jesus Christus quibusdam benedictionem imperitiens, in ebore incisus.*

Dimensions: Height 110 mm; Width 58 mm; Thickness 8 mm.

Bibliography: Koechlin 1911, pp. 291–2, fig. 7; id. 1924, 1. 206; id. 1924, 2. 198, no. 506; id. 1924, vol. 3, pl. XCI.

See discussion under No. 233.

233. IVORY DIPTYCH (Pl. CXVII). Leaf of an ivory diptych carved with the Adoration of the Magi below three trefoil arches, gabled, decorated with crockets and finials, and separated by four countersunk trefoils. There are traces of green stain on the ground and of gold on the figures. The ivory is pierced through the top centre and bears two hinge marks on the right-hand edge. The left-hand side of the moulded frame is pierced laterally to hold a catch.

[516] Koechlin 1924, 2. 249.
[517] Ibid., 1. 382.
[518] Longhurst 1926, p. 109.

incised parallel lines, probably indicating quilted defences known as gamboised cuisses, while stab-marks on the lower leg imply mail chausses.

Fastenings for spurs are indicated on the feet, but the goads are lacking in each case. Each knight carries a curving heater-shaped shield with incised margins, one marked by single lines and the other by double lines. One is armed with a broad sword with a D-shaped pommel, straight guard, and fullered blade, which he brandishes at head height; the other has a lance, held overarm and point upwards. The latter figure is curiously twisted, his right foot reversed in the stirrup and his head facing backwards.

The saddles have high pommels and cantles and rest on plain saddle-cloths; there are no indications of girths. The stirrups hang from the pommel and are worn long; the stirrup-irons are not detailed, each being shown merely as a split at the end of the leather. Both horses wear breast-bands and bridles with annular cheek-pieces. The horses themselves have long manes and tails, the tail of one being braided.

Traces of gilt survive on the belts and harness of both figures and on the shield of one of them: traces of dark pigment can be seen on the mail armour of both and may also originally have covered their helms.

The two figues are separated at front and rear by head-high foliate scrolls which spring from the base of the piece and fill the spaces otherwise left in the composition.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 587: *Duo pugiles equestres ex Ebore sculpti.*

Dimensions: Height 75 mm; Width (max.) 58 mm.

Bibliography: Burlington Fine Arts Club 1923, 66; *Country Life* 21 (1907), 152; Goldschmidt 1926, p. 54; Graeven 1898, p. 291; Koechlin 1911, p. 291; id. 1924, 1. 469–70; id. 1924, 2. 439; Longhurst 1926, pp. 39, 99–100; Maskell 1872, p. 164; Murray 1913, p. 762; Porter 1974, pp. 64–72, no. 16, Way 1846, pp. 242–3; Westwood 1876, p. 292.

Although Murray, author of the standard work on the history of chess, declared himself unconvinced that this carving representing two knights was necessarily a chess-man,[524] subsequent publication of a series of closely related but more conventional pieces, each featuring a single knight, has put its identification beyond doubt. On one of these pieces, now in the Metropolitan Museum, New York,[525] a knight, armed and mounted in identical fashion to the Ashmolean example, does battle with a dragon; the dragon's tail ends in a flourish of foliage, again of the same character as that on the piece considered here. A further chess-man, in the Musée Vivenel at Compiègne,[526] represents a mail-clad knight in helm and surcoat struggling on foot with a foliate-tailed dragon: being rather smaller in size than the two previously mentioned, it may perhaps be identified as a pawn. So close to each other in execution are these three pieces that Longhurst suggested they could have come from the same workshop, the same hand, and even, perhaps, the same set.[527] Another mounted knight, shown in the act of unsheathing his sword, is related in type but differs in detail and is less consummate in style; this example was formerly in the Figdor collection, Vienna.[528]

Differing opinions have been expressed concerning the origins of this group. Koechlin favoured a French derivation, although he was unable to find related material from France.[529] Goldschmidt was of the opinion that our piece was English but that the others were French[530] – hardly a satisfactory conclusion in view of the close correspondences mentioned above. Longhurst's claim that all are of English origin[531] has found support from Porter, who assigns them particularly to the south-east of the country and finds relationships with the manuscript illuminations of Matthew Paris and his contemporaries.[532]

A. MacGregor

237. TABLEMAN (Pl. CXIX). Carved disc of walrus ivory representing St. Martin dividing his cloak with the beggar. The scene, which is deeply cut into the obverse surface, shows the saint facing to his left, standing on an arcaded plinth and wearing a belted tunic reaching below the knee. In

[524] Murray 1913, p. 762.

[525] Goldschmidt 1926, no. 267; Koechlin 1924, 2. 439, no. 1257; Longhurst 1926, p. 39, no. XLVIII; Porter 1974, no. 18. This piece was formerly in the Hoentschel collection, where it was catalogued by Pératé (1911, no. 18, pl. XV).

[526] Goldschmidt 1926, no. 266; Koechlin 1924, 2. 439, no. 1528; Longhurst 1926, p. 39, no. XLIX; Porter 1974, no. 19.

[527] Longhurst 1926, p. 39.

[528] Goldschmidt 1926, no. 265; Koechlin 1924, 2. 439, no. 1259; Longhurst 1926, p. 39, no. L; Porter 1974, no. 17. According to Porter (loc. cit.) this piece was sold in Berlin in 1931 and its present whereabouts are unknown.

[529] Koechlin 1924, 1. 470.

[530] Goldschmidt 1926, p. 54.

[531] Longhurst 1926, pp. 99–101.

[532] Porter 1974, pp. 64–8.

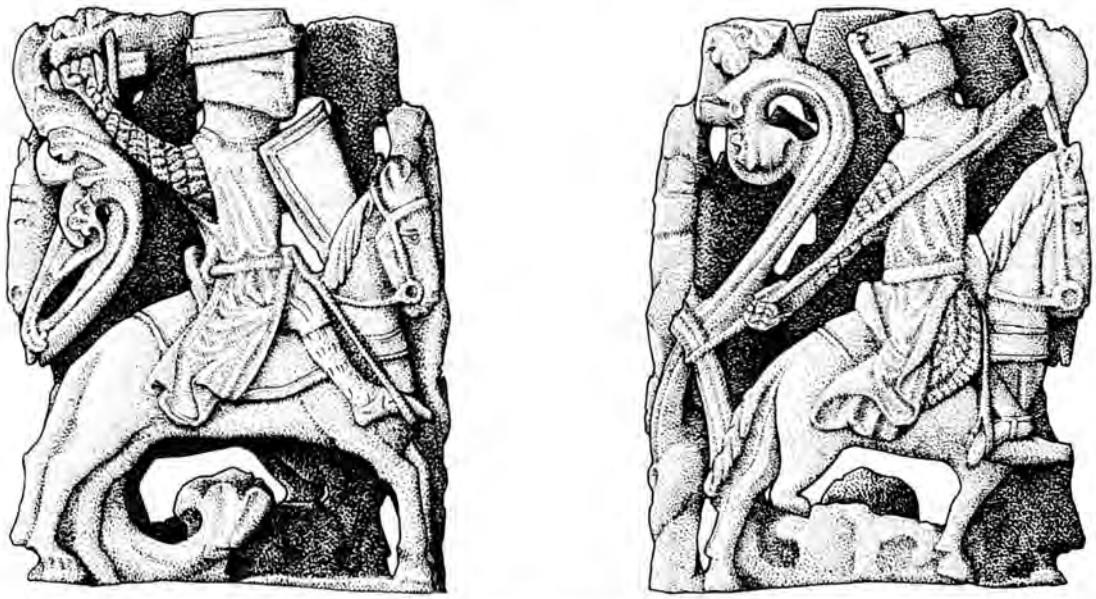


Fig. 73. Chessman, No. 236. Scale 1:1

his right hand is a sword with which he is about to cut his cloak, held between him and the naked beggar who faces St. Martin with his right hand raised in blessing. St. Martin's horse is shown with one foreleg resting on the plinth behind the saint, its reins over his arm. Overhead hover two angels, one touching St. Martin on the shoulder. The scene is contained within an undercut margin of ring-and-dot ornament set in an incised channel.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 588: *Duo pugiles pedestres, cum Harpyiis comitantibus, item ex ebore caelati, in concavo rotundo.*

Dimensions: Diameter 64 mm; Thickness 14 mm.

Bibliography: Beckwith 1972, pp. 152–3; Burlington Fine Arts Club 1923, p. 64; Goldschmidt 1923, p. 46; Graeven 1898, p. 24; Mann 1977, pp. 222–3; Maskell 1872, p. 143; Westwood 1876, p. 298.

See discussion under No. 238.

238. TABLEMAN (Pl. CXIX). Carved disc of walrus ivory representating St. Martin dividing his cloak with the beggar. The deeply undercut carving, which is more spirited than in No. 237, shows the saint facing to his left in a long tunic and fashionably elongated shoes; his cloak is triangular in outline and marked with sinuous folds, contrasting with the static rectangular cloak with vertical folds shown on No. 237. The naked beggar holds one side of the cloak in his left hand while his right hand is raised in blessing, the index finger pointing out what appears to be the head of an angel hovering overhead. Behind the saint are the head and one fore leg of his horse. The border consists of continuous ring-and-dot ornament within incised lines, and is undercut. There are traces of original colouring on the piece: the background behind the figures has been gilt and the centre points on the ring-and-dot ornament are filled with pigment, now black in appearance. Random green stains on the surface are probably secondary and accidental.

1656 p. 38: *Divers rare and antient pieces carved in Ivory.* 1685 A no. 589: *Idem iterum (ut opinor) in simili concavo rotundo.*

Dimensions: Diameter 61 mm; Thickness 14 mm.

Bibliography: Beckwith 1972, p. 153; Goldschmidt 1923, p. 46; Graeven 1898, p. 25; Mann 1977, p. 234–5; Maskell 1872, pp. 162–3; Westwood 1876, p. 298.

During the eleventh and twelfth centuries large numbers of tablemen were produced in response to a seemingly insatiable public appetite for the

game.[533] Playing pieces for everyday use were made of bone or antler, often decorated with no more than incised ring-and-dot or geometrical motifs,[534] while more expensive tastes were catered for by elaborately carved ivory pieces,[535] frequently, as here, of walrus ivory.

The two Ashmolean pieces, together with a further example from Leningrad representing the same event,[536] gave their name to a distinct series of tablemen first isolated by Goldschmidt and termed by him the 'St. Martin Group'.[537] The pieces within this group have in common undercut borders, often incorporating ring-and-dot decoration (the latter usually within a channel, and, in some instances, filled with pigment), and undercut figural scenes of which the majority show men in combat with animals or mythical beasts. The three counters showing St. Martin and the beggar were taken by Goldschmidt to suggest that they and the related pieces were probably all produced in one of the monastic centres associated with St. Martin, the most likely candidate being that at Tournai. Contemporary architectural ornament at Tournai incorporated motifs similar to those on the margins of these pieces,[538] and the area was an important centre for the production of walrus-ivory carvings in the early medieval period. A date in the second half of the twelfth century was suggested by Goldschmidt for the Ashmolean pieces. Not all authorities have agreed with his conclusions. Beckwith has upheld the English origin of the Ashmolean pieces earlier suggested by Westwood, finding parallels for the figure styles in English carvings and manuscript illuminations associated with Bury St. Edmunds and St. Albans, and citing abundant use in England of the technique of inlaying pigment on ivory.[539] A mid-twelfth century date was favoured by Beckwith for the Ashmolean tablemen.

Beckwith's attribution has in turn been challenged by Mann, who enlarged the number of pieces within the St. Martin group and proposed a northern French origin with a date in the second quarter of the twelfth century.[540] In Mann's opinion, the few counters illustrating the St. Martin legend may have been 'signature pieces' for sets otherwise featuring other themes, serving to indicate that they had been made in a centre associated with the saint. Amiens is suggested as the most likely location: not only is there evidence for the production of counters in Amiens during the eleventh and twelfth centuries, but the nearby abbey of St. Martin-aux-Jumeaux claimed to be erected on the site of St. Martin's encounter with the beggar, so that a particularly strong local affinity for the saint could be expected. The region was, furthermore, open to artistic influences from England and from the Mosan region during this period; hence its products might be expected to exhibit stylistic elements from each of these quarters.[541]

Although the entry in the 1656 catalogue is too general to permit more than a suggestion that these

[533] Murray (1941, pp. 58–9; id. 1952, p. 117) finds evidence that tables, a series of dice games of which backgammon is a modern representative, was current in France by the eleventh century. He distinguishes the counters (*tabulae*) for this game from draughtsmen by their greater size, the appropriate board being twice the size of a conventional chess-board. Draughts did not become popular until the sixteenth century (Murray 1941, p. 58). The complexities of tables are explained in Murray 1941, pp. 57–69, 117–20.

[534] See, for example, Dalton 1909, nos. 205–24.

[535] Beckwith 1972, nos. 111–62; Dalton 1909, nos. 162–203; Goldschmidt 1923, nos. 169–300. The genre has recently been reviewed by Mann (1977).

[536] Goldschmidt 1923, no. 216; see also Beckwith 1972, no. 153.

[537] Goldschmidt 1923, nos. 209–10.

[538] Ibid., p. 9.

[539] Beckwith 1972, nos. 151–2; Westwood 1876, p. 298.

[540] Mann 1977, pp. 29–53, nos. 44, 59.

[541] Ibid., pp. 51–3.

pieces may have been included in the Tradescants' collection, their appeal as collectors' pieces is self-evident. The elder Tradescant's travels through the Low Countries and northern France could have provided the opportunity for their acquisition.

A. MacGregor

239. MULTIPLE BALL (Pl. CXX). Three openwork ivory spheres turned within each other, the innermost enclosing a solid irregular ball. The outermost sphere is perforated by fourteen circular holes; each hole is surrounded by either three or four openwork patterns, each consisting of a small circle flanked by two arrow-shapes, and each group of four holes has an openwork rosette in the middle. Unsmoothed turning marks and pin-point indentations covering the exterior of this sphere clearly shows that it was itself cut within a fourth sphere, now missing. The two inner spheres are each perforated with circular holes.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 338: *Tres globuli eburnei multifori, alius intra alium eximie tornati, cum alea versatili in ventro intimi.*

Dimensions: Diameter 35 mm.

See discussion under No. 248.

240. MULTIPLE BALL (Pl. CXX). Two openwork ivory spheres turned within each other, the innermost containing a solid ball with drilled holes. The outermost sphere has alternating pentagonal and hexagonal facets, each perforated by a large circular hole. On the inner openwork sphere, circular holes alternate with groups of six smaller drilled holes. Unsmoothed turning marks on the outer surface indicate the former presence of further elements, now missing.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 340: *Tres globuli eburnei perforati; singuli in triginta partim hexangula partim quinquangula alternatim posita, alius intra alium mire detornati; in quorum centro globulus solidus mobilis, aculeis hirsutus per foramina trajectis.*

Dimensions: Diameter (max.) 33.5 mm.

See discussion under No. 248.

241. MULTIPLE BALL (Pl. CXX). Three openwork ivory spheres turned within each other. The outermost is perforated with large holes at the poles and around the equator, where they alternate with smaller holes which also mark the tropics; four bands of bosses separate these different zones. The second sphere is also perforated by two sizes of holes, one of the larger ones being plugged by an elaborate stopper. The third sphere has a large hole at each pole and four more around the equator; four integral spikes radiate from each tropic. In the centre is a cube with a hole through each side, from which the spikes of a free star-shaped body radiate on four (originally six) sides.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*

Dimensions: Diameter 41 mm.

See discussion under No. 248.

242. MULTIPLE BALL (Pl. CXX). Two openwork ivory spheres turned within each other. The poles and equator of the outer sphere are perforated with large holes; these are separated by pairs of intermediate-sized holes which are in turn separated by smaller holes, all with incised double marginal lines. The inner sphere is perforated with six holes of equal size, all with incised marginal lines. To judge from the free space between the two spheres, at least one element of intermediate size has been lost.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*

Dimensions: Diameter (max.) 41 mm.

See discussion under No. 248.

243. MULTIPLE BALL (Pl. CXX). Fragment only of an outer sphere of ivory, perforated with large circular holes. Apart from the solid borders surrounding the holes the entire surface is taken up by complex openwork tracery.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*

Dimensions: Original diameter *c.*50 mm.

See discussion under No. 248.

244. MULTIPLE DODECAHEDRON (Pl. CXXI). Two openwork ivory dodecahedra turned within each other, the innermost containing a solid irregular ball with drilled holes; the expanded base of a radial spike survives in one of the holes. Unsmoothed turning marks on outer surface indicate further elements, now lost.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 339: *Quinque Dodecaedra quinquangula eburnea quaquaversum perforata, unum intra aliud, mirum in modum, torno elaborata.*

Dimensions: Diameter (max.) 26 mm.

See discussion under No. 248.

245. MULTIPLE DODECAHEDRON (Pl. CXXI). Two openwork ivory dodecahedra turned within each other, the innermost containing a solid irregular ball with drilled holes; a single radial spike with an expanded base survives in one of the holes. Some unsmoothed turning marks on outer surface may indicate former presence of further elements, now lost.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 339: *Quinque Dodecaedra quinquangula eburnea quaquaversum perforata, unum intra aliud, mirum in modum, torno elaborata.*

Dimensions: Diameter (max.) 21 mm.

See discussion under No. 248.

246. MULTIPLE DODECAHEDRON (Pl. CXXI). Openwork ivory dodecahedron containing a solid irregular ball with drilled holes. Unsmoothed turning marks on outer surface indicate former presence of further elements, now lost.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 339: *Quinque Dodecaedra quinquangula eburnea quaquaversum perforata, unum intra aliud, mirum in modum, torno elaborata.*

Dimensions: Diameter (max.) 19 mm.

See discussion under No. 248.

247. MULTIPLE DODECAHEDRON (Pl. CXXI). Openwork ivory dodecahedron containing a solid irregular ball with drilled holes; remains of four radial spikes with expanded bases survive in the holes. Unsmoothed turning marks on outer surface indicate former presence of further bodies, now missing; to judge from the internal free space an internal element has also been lost.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 339: *Quinque Dodecaedra quinquangula eburnea quaquaversum perforata, unum intra aliud, mirum in modum, torno elaborata.*

Dimensions: Diameter (max.) 19 mm.

See discussion under No. 248.

248. MULTIPLE DODECAHEDRON (Pl. CXXI). Openwork ivory dodecahedron containing a solid irregular ball with drilled holes; remains of seven radial spikes with expanded bases survive in the holes. Unsmoothed turning marks on outer surface indicate former presence of further bodies, now missing.

1656 p. 39: *Divers sorts of Ivory-balls turned one within another, some 6, some 12 folds; very excellent work.*
1685 A no. 339: *Quinque Dodecaedra quinquangula eburnea quaquaversum perforata, unum intra aliud, mirum in modum torno elaborata.*

Dimensions: Diameter (max.) 16 mm.

All the above pieces (Nos. 239–48) are produced by the same basic method.[542] The overall form of the sphere or polyhedron is first shaped on a lathe from a solid block of ivory. The surface area is then divided up geometrically according to the number of perforations required and the centres of the perforations are carefully marked. The piece is then remounted on the lathe in a special sleeve or chuck so that one of the marked centre-points is aligned with the mandrel and in this position a hole of appropriate size is turned out to the desired depth. Each centre-point is presented in turn and the process repeated. The perforations are normally cut so that they taper towards the centre of the body, and, if radiating spikes are required, these may be left in reserve in the middle of the perforation; alternatively, sockets for separate spikes as in Nos. 244–8 may be drilled in the solid central body. Finally, each perforation is realigned in turn on the lathe and, with the aid of a hooked or right-angled gouge, the turner cuts sideways at predetermined depths to form the internal elements, each being detached in sequence starting with the innermost.

The origin of this technique can be traced to the second half of the sixteenth century, when a tremendous vogue for intricate and artistic lathe-turning developed in southern and central Germany. The passion for turning which took root

[542] An illustrated outline of this method is given by Plumier (1701, pp. 169–73).

in several of the ducal and imperial courts of this period has been commented upon elsewhere (p. 75). Patronage by the courts was eagerly extended to the most talented craftsmen, while the appetites of bourgeois collectors were catered for by commercial suppliers. Simple elegance played no part in this movement, which constantly strove to extend the limits of technical virtuosity rather than aesthetic refinement. In this context, many exponents seized upon the opportunities offered by multiple spheres and polygons literally to add another dimension to their craft. Hence the technique was used to produce not only independent forms of the type represented here but also ornamental knops and finials on more complex *Kunstkammerstücke*[543] and on such items as covered goblets.

Augustus I, Elector of Saxony, was one of the first patrons of this art, and his collection (p. 75) contained numerous examples of turned work, including goblets and other drinking vessels, plates, and boxes. Many of these were by known German craftsmen such as Egidius Lobenigk and Georg Weckhardt (who jointly produced over 100 items for the Dresden collection between 1581 and 1591)[544] and the Zeller family; among their products there were certainly multiple bodies of the type here discussed.[545] The genre was also represented at Schloss Ambras, in another of the principal early collections (pp. 73–4), in the form of an early seventeenth-century rhinoceros-horn goblet covered with a lid incorporating a multiple polyhedron with radiating spikes.[546] The appeal of such pieces to seventeenth-century collectors is further attested by their appearance in contemporary paintings of cabinets of rarities: one example, probably by the German painter Domenico Remps, shows a cabinet containing all the varied paraphernalia of a curiosity collection including two pierced ivory spheres on stands, one of them incorporating smaller spheres and radiating spikes;[547] another, by Jean Valette-Penot, shows a similar but unmounted sphere.[548] By the early seventeenth century Nürnberg had emerged as the principal production centre for these items and the Zick family as its most famous exponents. Most surviving examples are attributed to southern Germany and many are associated (with varying degrees of uncertainty) with the Zicks. Although claims that the Zick family invented the technique of producing multiple spheres and polygons[549] can be discounted, evidence that they adopted it into their repertoire can be found in an illustration of 1730 by Doppelmayr[550] showing a typical *Kunstkammerstück* by Lorenz Zick[551] incorporating a multiple dodecahedron with radiating spikes. The covered goblet in the Schloss Ambras collection, mentioned above, has been attributed to Lorenz Zick's workshop,[552] but the possibility of its having originated in some other south German centre cannot be ruled out.[553] Other examples of south German origin and seventeenth-century date are in the Braunschweig collection: these include two *Kunstkammerstücke*, each with two multiple bodies in the style of Zick, one of them incorporating a capsule containing representations of the Virgin and St. Veronica with the head of Christ, the other incorporating a tiny lidded box.[554] Two separate multiple spheres are in the same collection, one of them with ten separate elements,[555] for which a mid-seventeenth-century date is suggested.[556] An unattributed openwork goblet of seventeenth-century date, with two multiple spheres on its elaborate lid, is in the British Museum.[557] From the beginning of the following century comes a goblet with a multiple dodecahedron as a finial on the lid, dated 1705 and attributed to the Düsseldorf court turner, Georg Steiner.[558]

No claim for a particular geographical origin is made concerning our pieces in the 1656 or 1685 catalogues. More recently they have come to be regarded as Chinese, but such an exotic derivation would certainly have been stressed in the earlier

[543] See p. 94.

[544] Pelka 1923, pp. 344–5.

[545] Scherer 1931, p. 151.

[546] Scheicher *et al.* 1977, p. 38, no. 44, Abb. 16.

[547] Museo dell'Opificio delle Pietre Dure, no. 790; see Lammers, in Bernsmeier *et al.* 1979, p. 490, no. 251.

[548] Musée des Beaux Arts, Rennes; see Lammers, in Bernsmeier *et al.* 1979, p. 490, no. 252.

[549] See, for example, Doppelmayr 1730, p. 299.

[550] Ibid., Tab. V, 4.

[551] As well as working in his native city of Nürnberg, Lorenz Zick (1594–1666) held appointments as court turner successively to the Duke of Weimar, to the Duchy of Magdeburg, and to Ferdinand III (Doppelmayr 1730, pp. 299–300).

[552] Von Philippovich 1966, p. 462.

[553] Scheicher *et al.* 1977, p. 38.

[554] Scherer 1931, pp. 150–1, nos. 592–3, Taf. 65. Scherer mentions three further examples in the former von Lanna collection.

[555] Scherer 1931, p. 151, nos. 594–5. Up to sixteen bodies were said to have been carved from a single piece by Lorenz Zick (Doppelmayr 1730, p. 299), while twenty is claimed as a top number for similar Chinese pieces (Tardy 1972, p. 159).

[556] Kunsthistorisches Museum, Vienna, no. 3617; Gamber and Beaufort-Spontin 1978, p. 56.

[557] Dalton 1909, p. 160, no. 499, pl. CXIV.

[558] Pelka 1923, p. 350, Abb. 274.

traditional identification is likely to be correct. The date would have been about 1645.[41] Some minor paint losses have been tinted in with water-colours.

259. PORTRAIT OF A YOUNG MAN, CALLED OLIVER DE CRITZ (Pl. CXXIX), attributed to Thomas de Critz (1607–53). Almost half-length, turned to our left, his head in contrapposto, against a mid-grey background. Dark brown hair curling down to shoulders, clean-shaven; his lively light brown eyes looking at the spectator. White limp collar with tassel; pale grey cloak lined with rich yellowish-green velvet elaborately folded over his left arm. These folds are partly hidden by a crumpled paper held in his right hand, of which the four fingers are slightly spread. Inscribed in yellowish paint (during the keepership of John Whiteside) to the left of the head *85*, and just below, *S'. Oliver de Crats*; to the right of the head, *a famous Painter*. Oil on canvas (relined)[42] in a modern black moulded frame, with a gilt plaster slip.

1685 A no. 658: *Pictura Dnī Oliverij de Cretz Pictoris item celeberrimi.*

Dimensions: (Canvas) Height 67 cm, Width 52 cm; (Frame) Height 84 cm, Width 69 cm.

Oliver de Critz was probably born in 1626.[43] He was said to be too old in 1640 to be awarded a place at the free grammar school of Sutton's Foundation,[44] was bequeathed 'my greene Cloake' by Richard Rey, his step-grandfather[45] in 1646, and was buried in 1651.[46] If the inventory is correct as to the identity of the sitter, the green-lined cloak provides corroborative evidence; it is the only known evidence for his occupation, describing him as a painter, and in this respect is almost certainly wrong. The green lining is given prominence, and if it were a recent rich legacy to a poorish young man starting out in life, perhaps in a job in which a sheet of paper was a suitable attribute, the picture may date from 1646 and be by his elder half-brother, Thomas. As to the attribution, the handling of the paint, the composition, and the expression have been judged to be painterly and reminiscent of Soest. The cheerful liveliness of the picture takes us away from the Serjeant-Painters and into the baroque. If the painter was a de Critz, then, by elimination, John II being dead and the handling seeming to be incompatible with the work of Emanuel, Thomas was the painter.[47] However, if the sitter is not Oliver and if the picture is a self-portrait, which it has every appearance of being at first sight, then it may be a self-portrait of Thomas, as suggested by Mary Edmond.

260. PORTRAIT OF JOHN TRADESCANT THE ELDER (Pl. CXXX), attributed to Cornelis de Neve (b. before 1609, d. 1678). Head and shoulders, half to our left against a dark greenish ground. Greyish hair brushed back to show his left ear; moustache and full beard. His brown eyes look at the spectator. He wears a black skull-cap and has a gold ring in his ear; a broad limp white collar falls over the shoulder of his black buttoned tunic. Inscribed in yellow to left of the head *S'. John*; to the right, *Tradescant Sen:*. A *trompe-l'œil* surround of thick scrolled lead, through the upper volute of which is a ribbon hung on the left side with fruit (grapes, a pear, peaches, plums) and on the right side with vegetables (parsnips, turnips, onions). On the lower volute, four exotic shells, into the outer of which have been inserted tulips. Oil on canvas, relined in a black frame (Fig. 75c) with gilt bevel and with applied gilt winged cherubs at the corners and leaf motifs at the centres.

1685 A no. 659: *Pictura Dñi Johis Tradescanti senioris Cimeliarchæ egregii, in margine bullis aureis ornatâ.*

Dimensions: (Canvas) Height 79 cm, Width 62 cm; (Frame) Height 97 cm, Width 80 cm.

The portrait is evidently posthumous, a copy based on No. 253 rather than on its Hollar derivative, for Hollar would possibly have made use, even if pressed for time, of the decorative surround if it had been available in 1656. This surround seems to have been based on cartouche designs of the type en-

[41] Millar (1972, no. 163) describes his portraits as 'dry and rather provincial in texture'. Earlier references include Lane Poole 1912, no. 432; id. 1913, p. 53, n. 4; Collins Baker 1912, i. 65; Waterhouse 1962, p. 49.

[42] Ash. Lib. AMS 22, n. 23. Relined, cleaned, and varnished by Buttery in 1897.

[43] Edmond 1980, p. 151, no. 389.

[44] PRO, *State Papers Domestic*, Charles I, CCCCLVII, 23 June 1640; Edmond 1980, p. 162.

[45] Edmond 1980, p. 159, pl. 24a, 162 n. 391.

[46] Ibid., p. 162.

[47] Other references include Oxford Historical Portraits 1905, no. 82, as a self-portrait of Oliver de Critz; Lane Poole 1912, no. 443 as by Emanuel de Critz; id. 1913, p. 62; Collins Baker 1912, vol. i, pl. 22; noticed by Horace Walpole in 1737 (Vertue, *Note Books*, i. 73; ibid., 4. 138); Allan 1964, p. 315.

armchair, directed a little to our right. With greying dark hair in curls hanging thick on each side, she looks resignedly at the spectator from a puffy face. With her right wrist resting on the arm of the chair, she holds a small book between three fingers and thumb; her left hand relaxes downwards over a handkerchief on her lap. She wears a black transparent veil on her head; a single large pearl ear-ring hanging from her right ear; two strings of pearls tied with a ribbon-bow looped into her black dress with deep white collar and turned-back cuffs; a disc brooch set with five stones on her right shoulder. The armchair is upholstered in red with large gilt-headed nails. A skull can be seen beyond an hourglass standing on the red cloth of the table by her right arm; in front is the shield of arms of Molyneux of Teversall, Nottinghamshire (azure, a cross moline or) beneath a helm. On the wall behind is another shield of arms, of Harrington of Ridlington, Rutland (sable, a fret argent), beneath the crest, a dog's head erased, collared sable, all within a wreath. Behind her chair hangs a red curtain. On the right, an indeterminate landscape is seen through an opening with a pilaster. Oil on canvas (relined),[28] in a carved wood and plaster gilt frame of the early nineteenth century.

1685 A no. 656: *Pictura excellentissimæ Heroinæ Dnæ Molineaux, cathedrâ sedentis, sine margine.*

Dimensions: (Canvas) Height 127 cm, Width 99 cm; (Frame) Height 155 cm, Width 129 cm.

By her second marriage, Ann (*c.*1590–1644), daughter of Sir James Harrington, Knight, of Ridlington, Rutlandshire,[29] became the second wife of the extravagant Sir John Molyneux, first Baronet, of Teversal, Nottinghamshire, who died in 1618.[30] Her mourning attire, the skull, hourglass, and arms below, all indicate that this portrait was painted in or shortly after 1618. Though there are portraits at Knole of her two sisters, attributed to Gheeraerts,[31] no attribution has so far been proposed for No. 257, which is in fair condition with a little crazing and bubbling on the relined canvas.

258. SELF-PORTRAIT OF CORNELIS DE NEVE (Pl. CXXVIII) (*b.* before 1609, *d.* 1678). Head and shoulders, half to our right, against a warm grey background, shadow on right in a feigned oval opening.[32] Brown hair curling to shoulders, moustache, and tuft below lip. His brown eyes look at the spectator; his right hand, partly shown, is laid against drapery, thumb apart from fingers. Black hat with upturned peak. White cravat knotted at neck, with tassels; black tunic with a black drapery around his shoulders. Inscribed in yellow to the left of the head *Mr. le Neve*; to the right *A famous Painter*; *73* in lower left spandrel. Oil on canvas, relined,[33] in a carved black frame with gilt inner moulding (Fig. 75d).

1685 A no. 657: *Pictura M^ri le Neve, Pictoris celeberrimi.*

Dimensions: (Canvas) Height 67 cm, Width 57 cm; (Frame) Height 87 cm, Width 76 cm.

The painting has been regarded as a self-portrait since it was catalogued in 1685, a short time after Cornelis de Neve's death. The documentary evidence published by Mary Edmond[34] has shown that Cornelis de Neve II, the painter, was not only a kinsman of Hester Tradescant,[35] but, as a son of Cornelis de Neve I (who had married in 1593 and died before 1609), became stepbrother of the three painters-to-be, John II, Thomas, and Emanuel de Critz, through the second marriage of his mother in 1609 with John de Critz I, the Serjeant-Painter. Cornelis de Neve II painted and signed a portrait of a man in 1627,[36] the portrait of the Sackville boys in 1637,[37] a portrait of Lady Dering in 1648–9,[38] and the portrait of Fiske (No. 288) in 1651. He was a witness to the will of Thomas de Critz in 1653,[39] painted Ashmole's portrait in 1664,[40] and died in 1678, aged about seventy. On the basis of authenticated portraits the attribution seems sound, and the

[28] Ash. Lib. AMS 22, no. 35. Relined, cleaned, and varnished by Buttery in 1897.

[29] Burke 1844, p. 361.

[30] His monument in the church of SS Mary and Andrew, Ridlington, indicates that he died in 1613 (Pevsner 1960, p. 321). Several later Molyneux monuments are in the church of St. Catherine, Teversal (Pevsner 1951, pp. 182–3).

[31] Lane Poole 1912, no. 417.

[32] A device noted elsewhere, e.g. National Portrait Gallery, London, no. 513, an earlier work by an unknown painter.

[33] Ash. Lib. AMS 22, no. 24. Relined, cleaned, and varnished by Buttery in 1897. Restored again in 1970, when old retouchings were removed.

[34] Edmond 1980, pp. 149, 157, 159.

[35] Whose portraits are seen in Nos. 261, 269, 280 (of 1645), 262 (of 1656).

[36] Piper 1963, p. 41. In 1627 de Neve was on the Worshipful Company of Painter-Stainers' list of ordinance infringers (Whinney and Millar 1957, p. 81).

[37] *Dictionary of National Biography*, s.v. Neve; but not listed by Sackville-West (1969).

[38] Edmond 1980, p. 157.

[39] Ibid., p. 159.

[40] Josten 1966, i. 151, n. 6, pl. XIII; ibid., 3. 982. Property of Sir William Dugdale of Blyth Hall, Warwickshire.

254. LANDSCAPE (Pl. CXXIV) by Sir Nathaniel Bacon (1585–1627). Wooded and broken landscape freely painted in browns and greens, with a rocky tree-topped eminence in centre foreground, ascended by a traveller and a horseman; on right, buildings on a bluff; two houses on the left and in the distance a steeple. Signed near upper centre with the monogram *NB*. On unprimed copper in narrow black moulding backed with an oak panel.

1656 p. 40: *A small Landskip drawn by Sir Nath. Bacon.* 1685 A no. 635: *Pictura Prospectûs elegantissimi margine ex Ebeno insignita.*

Dimensions: (Sight) Height 7 cm, Width 11 cm; (Frame) Height 10 cm, Width 14 cm.

If this is indeed to be identified with the entry in the 1656 catalogue, then it is the earliest known pure landscape by an English-born painter.[15] It is not unlikely that Bacon, a gifted amateur, knew larger Netherlandish landscape paintings in which the subject was frequently of secondary importance to its landscape ambience, as well as Elsheimer's tiny oil-paintings on copper which belonged to Charles I, Lord Arundel, and the Duke of Buckingham,[16] and had read Henry Peacham's *Art of Drawing*,[17] with its chapter on landscape. This painting has long been notorious but never seriously discussed.[18]

255. PORTRAIT OF ERASMUS (Pl. CXXV), a copy after Hans Holbein the Younger (*c.*1497–1543). Head and shoulders, half to our left against a dark brown ground with a narrow border. Clean-shaven, he looks straight ahead. Black hat and gown with lining of brown fur. On oak panel[19] in a circular black moulding.

1685 A no. 637: *Pictura Desid. Erasmi Roterodami.*

Dimensions: (Sight) Diameter 14 cm; (Frame) Diameter 20 cm.

This hitherto unpublished copy of a portrait of Desiderius Erasmus (1466–1536), the celebrated scholar, who was painted on more than one occasion by Holbein in Basel, may have been derived from the original half-length of 1523, now at Longford Castle, Wiltshire.[20] It is in good condition, but rather coarse and impersonal, and may be as late as the early seventeenth century.[21] An unspecified portrait of Erasmus was listed in AMS 8, f. 39, as among the group of pictures kept in the Ashmolean Library and thought to be in Ashmole's bequest, but it has not been traced after 1898, the entry in AMS 22, no. 42.[22] The addition of *A* after the former entry suggests a gold medal rather than a painting, but no such medal is now in the collection.

256. PORTRAIT OF JOHN SELDEN (Pl. CXXVI), associated with the studio of Sir Peter Lely (1618–80). Almost half-length, a quarter to our left, against a dark brown ground. Clean-shaven with brown hair curling to his shoulders. His blue-grey eyes look straight at the spectator. Broad limp white collar, black dress. Oil on canvas (relined)[23] in a carved gilt frame with acanthus at corners and centres, leaves diverging from the centre of each side entwined with graduated beads.

1685 A no. 655: *Pictura doctissimi viri Johannis Seldeni, margine deurata munita.*

Dimensions: (Sight) Height 74 cm, Width 62 cm; (Frame) Height 85 cm, Width 73 cm.

Several versions of this type of portrait of John Selden (1584–1654), the jurist, antiquary, and writer, are known.[24] This example, with its lively face, was noted by George Vertue in 1740.[25] No attribution was given[26] before Beckett related it to the crisper but less convincing version in the Yale Law Library[27] under Lely's authorship.

257. PORTRAIT OF LADY MOLYNEUX (Pl. CXXVII), by an unknown British painter, *c.*1625–40. Three-quarter-length, seated indoors in an

[15] Iveagh Bequest 1967, no. 1.

[16] Andrews 1977, nos. 1, 5a, 17.

[17] Peacham 1606.

[18] See Grant [1926], 1. 2, repr.; Waterhouse 1962, p. 39; Hayes 1965, p. 40 and n. 8; *Gazette des Beaux-Arts*, Suppl. 1187 (1967), fig. 11.

[19] Cleaned and varnished ('all it then required') by Buttery in 1897 (Ash. Lib. AMS 22, no. 4).

[20] See Ganz 1950, nos. 34, 55 60, figs. 13 17, pl. 63. Brunin (1968, p. 151) reproduces a slightly larger roundel in the Öffentliche Kunstsammlung, Basel.

[21] As suggested by David Piper.

[22] Josten (1966, 4. 1829–30) transcribes the will, but only eight paintings are specified, as against fourteen in Ash. Lib. AMS 8: four of the latter were certainly not in the bequest (Cromwell, Mrs Dobson, Selden, and Aubrey). Our No. 255 was definitely not included in the will.

[23] Ash. Lib. AMS 22, no. 28. Relined on a new stretcher, cleaned, and varnished by Buttery in 1897.

[24] The iconography is set out in Piper 1963, p. 310, no. 76, pl. 7a, and p. 311, no. 3052.

[25] Vertue, *Note Books*, 4. 181.

[26] *Oxford Historical Portraits* 1905, no. 54, unattributed, and incorrectly assumed from the heading in Ash. Lib. AMS 8, under which it had been wrongly included, to have been part of Ashmole's bequest; Lane Poole 1912, no. 434, following the preceding; Josten 1966, 4. 1830, n. 7.

[27] Beckett 1951, p. 60, no. 474, pl. 8: about the same dimensions as this example.

suggest the early 1650s rather than before the date of Dobson's death, 1646. A possible Tradescant connection with Dobson is suggested by an entry for a picture, now lost, in early Ashmolean lists: *Uxor Gulielmi Dobson supra memorata.* Gerald Taylor however suspects that John II as gardener too may be from the hand of Thomas de Critz.

Other unresolved problems amongst non-family survivors from the Tradescant collection include the so-called Sir John Suckling (No. 271). A *Pictura Dni. Joh. Suckling Militis* was catalogued in the Ashmolean *c.*1685, but as a recent study of Suckling's portraiture has pointed out, the features of the young man portrayed are incompatible with those shown in the fully authenticated Van Dyck of the poet in the Frick collection, New York.[9] It is also curious that the spectacular battle-piece of Pavia (No. 263) does not feature in the 1656 printed catalogue, but it may have been acquired after the publication was compiled. The two portraits given in the 1920s, said to have come from the panelling in the Tradescant house in Lambeth, remain enigmatic. That of a woman (No. 295) may be a member of the family, but with no certainty. The double portrait of an elderly man and his wife (No. 294) shows features that are very difficult to reconcile with the authenticated likeness of John I.

CATALOGUE OF PAINTINGS FROM THE FOUNDATION COLLECTION OF THE ASHMOLEAN MUSEUM

Gerald Taylor

253. PORTRAIT OF JOHN TRADESCANT THE ELDER (Pl. CXXIII), possibly by Emanuel de Critz (1608–65). Head and shoulders, half to our left, emerging beyond a bank of mid-grey cloud, against a lighter cloudy sky, with four birds. His greyish eyes look over the spectator's head; full greyish-brown beard, moustache and hair. Two gold rings in his left ear. Black skull-cap, broad white collar, black doublet. On oak,[10] in a black frame with inner gilt moulding.[11] Condition good.

1685 A no. 634: *Pictura Johis Tradescanti senioris margine ex Ebeno ornata.*

Dimensions: (Sight) Height 16 cm, Width 14 cm; (Frame) Height 27 cm, Width 24 cm.

The sombre tones, the ethereal setting, and the four birds, if they represent ravens, suggest a posthumous portrait. Apparently this small portrait was faithfully copied in 1656 by Wenzel Hollar in his etching,[12] in reverse and within crossed palm leaves, for *Musaeum Tradescantianum.* As to the attribution, neither Mrs Lane Poole[13] nor any other writer has named the painter. In scale and in the haphazard brush-work it has affinities with the series of twenty-two panels at Wilton House attributed by John Aubrey[14] to Emanuel de Critz.

[9] Ash. Lib. AMS 8, no. 676; Clayton 1960, pp. 124–5.

[10] Ash. Lib. AMS 22, no. 7: Cleaned and varnished by Horace Buttery in 1897. On the back *27* in ink (referring to AMS 12) and a paper label with *9* in ink (referring to the 1886 list). For these and all other numbers referred to in descriptions of paintings, see Appendix IV.

[11] Label on back *Sr John Tradescant/Senior* in ink; below, traces of the same inscription, painted.

[12] Parthey 1853, p. 1512; an etched copy of which, with roulette work, by T. Priscott, was published without date by W. Smith; it was also used for two composite prints, one published by N. Smith in 1793, the other anonymous (National Portrait Gallery archives; Hope collection, Ashmolean Museum; O'Donoghue 1914, p. 301).

[13] Lane Poole 1912, p. 171, no. 413; id. 1913, p. 64.

[14] John Aubrey, quoted by Croft Murray (1962, p. 198), who reproduces (pl. 83) one of the long panels from the wainscot, completed by 1652, in the Single Cube Room at Wilton House, Wiltshire, illustrating Philip Sidney's *Arcadia*, and who also gives sources for Emanuel de Critz which have to be supplemented by the recently discovered portrait at Helmingham Hall (Witt Library, Courtauld Institute, University of London, photograph) and by the researches of Mary Edmond (1980, pp. 60–242).

rather awkward shapes of elements of the draperies in the Maynard portrait to some in the Tradescant portraits. Mrs Lane Poole was responsible for disentangling much of the prolific genealogy of the de Critz family of artists (much, but not quite enough), and recently the devoted searches of Mary Edmond[5] have directed attention to another member – Thomas de Critz (1607–53), elder brother of Emanuel – whose recorded activities suggest he was an established painter of calibre, but to whom no paintings can yet be attributed with certainty. Finally in this group, considerably later, being dated 1656, is a vivid double head and shoulders, said to be of John II and Hester (No. 262). Gerald Taylor discusses the possible attributions of Tradescant portraits to individual members of the de Critz family in his individual entries below.

Other paintings that can be associated with this group include that of John Tradescant II in the National Portrait Gallery[6] (on loan to the Tate Gallery in 1983), and the portrait in the Ashmolean inscribed as representing *Sr Oliver de Crats a famous Painter* (No. 259). The former, showing the sitter melancholy, accompanied with skull encrusted with moss said to be for 'the powder of sympathy',[7] is a sharp, brilliant image, well preserved. Its provenance is obscure, though it seems at one stage to have been with Horace Walpole at Strawberry Hill. It is associated with the date 1652 on no very firm grounds, but that seems reasonable. Following Gerald Taylor's suggestions for John II and Zythepsa, and Hester with her stepson, an attribution of them to Thomas de Critz would be reasonable (rather than Emanuel). Both identity and attribution of the so-called 'Sr Oliver de Crats' are equally uncertain. The painting is of good quality, very positive and assured, the draperies especially very reminiscent of the work of Gerard Soest, but it is not incompatible with the style of the paintings so far included in this group, while, in my view, it has strong characteristics to be found in many self-portraits, though Gerald Taylor produces cogent arguments for the possibility of it being by Thomas de Critz. Collins Baker was the first to bring the name of Thomas de Critz into play in relation to the Tradescant paintings and now Mary Edmond claims that documentary evidence points very strongly to Thomas, as the most important contributor to the group, and likewise attributes the apparent self-portrait (No. 259) to him.[8] The authorship of the late double portrait, dated 1656, that is after Thomas's death, seems most satisfactorily to belong to Emanuel, who died in 1665.

Perhaps artistically the most striking and successful of the Tradescant portraits is thus left unaccounted for: the very fine three-quarter-length of John II (No. 274) in his role as gardener (*Botanici habitu*), large hand on a large spade, open-shirted (albeit warmed by a sort of fur-lined pelisse). This was associated, perhaps first by C. F. Bell and then by Mrs Lane Poole, with the very remarkable and individual painter of the Royalists, William Dobson (1610–46). The quality (despite rather extensive damage, especially in the shadowed side of the face) is still good enough; the landscape background, the tree; is strongly reminiscent of similar treatment in authentic Dobsons (though Van Dyckian in origin), and the originality of the characterization would be typical of Dobson, but the handling is not sufficiently akin to justify a firm definition, while most guesses at the date

[5] Edmond 1980, pp. 155–9.
[6] Piper 1963, pp. 350–1, no. 1089, pl. 4f.
[7] Ibid. p. 351, n. 2.
[8] Collins Baker 1912, pp. 118–23; Edmond 1980, pp. 156–9.

working in England between 1627 and 1647. The family connections, recently traced in detail by Mary Edmond,[2] between the Tradescants and the de Neve and de Critz families, both artistic dynasties, would suggest however that the artists of most if not all the Tradescant family portraits might eventually be discovered to be one or another of the de Neves or the de Critzes.

John III and Frances feature again in the next in the sequence (No. 269), together with their stepmother, John II's second wife, Hester. The boy seems not much older, but the girl has matured in the swift transition from child to young woman; the date should be between 1641 and 1644, as in the next in the series (No. 280), showing John III yet again with his stepmother but without Frances, he appears only a little older. He is handing, apparently offering, to his stepmother an elegant jewel that looks like a facsimile of a lily of the valley, and the painting is inscribed with the date 1645. The most striking image in the whole series, the painting of John II and 'Zythepsa' Friend (No. 265), with the brilliant still life of sea-shells, likewise bears the date 1645 (observed only in 1980), and these two paintings seem surely to be from the same hand. In both, figure painting of high competence is offset by backgrounds scarcely more than schematically blocked in, while in the portrait of John II and Zythepsa the table is drawn with such indifference to the needs of perspective that the shells piled on it seem most insecure. The portrait of John I, framed in its remarkable painted oval composed of fruit and vegetables (No. 260), may or may not be of the same date and by the same hand: the handling of the still-life element is reasonably consistent, but on the other hand the drawing of the portrait (though posthumous admittedly) is not markedly similar to that in the other two; Gerald Taylor suggests that two hands are involved. The source of this image of John I seems likely to be the strange, miniature-scale painting of him emerging from clouds into an upper air where a few birds hover (No. 253). The date of that is at present entirely speculative, and it is not, despite the suggestiveness of the imagery, necessarily posthumous – the engraving of the poet George Gower, similarly set in clouds, was published in his own lifetime in 1616. That little painting (No. 253) does seem to be the source of Hollar's etching of John I used for the 1656 catalogue, which follows it fairly literally and which confirms the identification.

Mrs Lane Poole somewhat hesitantly suggested Emanuel de Critz as the possible painter of John I in the clouds (No. 253) – an attribution endorsed here.[3] Emanuel has also generally been suggested in the past for the paintings of Hester and her stepson, of John II and Zythepsa, and of John I in the vegetable surround. Close comparison of the painting of Hester and the two children with the other three suggests however a distinct hand – the handling is quite different – but it is hard to be positive as this painting seems to have been fairly heavily overpainted. Attributions to Emanuel were based largely on the inference of probabilities from archival gleanings, but were somewhat clouded by the discovery, at Helmingham, of a portrait of Sir John Maynard, signed and dated by Emanuel, 1657, which seemed to Sir Ellis Waterhouse to have little in common with the Tradescant portraits.[4] This reaction was perhaps too severe – there are similarities in the

[2] Edmond 1980, pp. 155–9.
[3] Lane Poole 1912, pp. 62–6; id. 1913.
[4] Waterhouse 1958, p. 11, no. 1.

unquantified holding of portraits (not necessarily paintings), their subjects obviously of interest but not their artists. The only artists mentioned, apart from Bacon, are Holbein (p. 38: *Two figures carved in stone*), Edward Gibbons (p. 37), evidently a virtuoso cherry-stone carver, and Alexander Marshall (p. 41: *A Booke of Mr TRADESCANT'S choicest Flowers and Plants, exquisitely limned in vellum*). A few items described in the early lists may be survivors from this group: the little late copy of Erasmus (No. 255) after Holbein (but there seem to have been two portraits of Erasmus in the Ashmolean at one stage, of which one is now missing); the portraits of Elizabeth Woodville (No. 273), and others. Most portraits that came only with the bequest of 1692 have strong Ashmole connections rather than Tradescant ones – the portraits of John Dee, William Lilly, and Richard Napier are obvious examples.

Other Tradescant survivors – though not included in the 1656 catalogue, and so probably and quite properly private rather than public, and not in the 'Musaeum' – are obviously the Tradescant family portraits. These are remarkable. So much so that the leading authority on seventeenth-century painting in England has described them as 'the most celebrated puzzle of all' in painting of the period.[1] Such a description is justified by the informality (even bizarre presentation) of some of them, most striking compared with the general stereotypes of conventional society portraiture of the period; by the quality which in some of them, though not consistently even in any one piece, is high; and by the indeed baffling problem of identifying the artists who painted them. Clearly, there are several hands involved, though no one has yet been able to demonstrate conclusively how many. The problem is further complicated by the fact that two (Nos. 294, 295) apparently stayed at Lambeth, and were not removed by Ashmole. These finally joined the others only in 1924, by the gift of the Misses E. D. and A. C. Thorne. The identities of the sitters not only in these, but in some of the others, present problems.

Inscriptions of identification on the portraits were mostly added only during the curatorship of John Whiteside, between 1714 and 1729; they often depend on entries in AMS 8, but direct contact with Tradescant sources seems to have been lost well before that was compiled. No Tradescant documents whatsoever came with the collection to Oxford. There must have been a considerable accumulation at one time, but whether destroyed by Mrs Tradescant, by Ashmole, or conceivably destroyed in the fire in his Middle Temple chambers in 1689, is entirely obscure. On the other hand the dates that are inscribed on some of the portraits seem contemporary and genuine.

The earliest is probably the representation of John Tradescant I on his deathbed (No. 276), which must be of the year he died, 1638. Such likenesses, taken after death, were not uncommon throughout Europe by this time, and this one is a conventional exercise of journeyman competence.

The next two (Nos. 277, 278) are of his grandson and granddaughter, John III (1633–52) and Frances (?1628–after 1661). Their costumes and apparent ages suggest a date of *c.*1638–40, and they are a pair, painted in a lucid linear style, with little shadow and clear colour. They do not seem necessarily to be by the same hand as any of the others, and one candidate suggested as responsible for them is Johannes Priwitzer, a Hungarian artist

[1] O. Millar, in Piper 1975, p. 143.

PAINTINGS FROM THE FOUNDATION COLLECTION OF THE ASHMOLEAN MUSEUM

INTRODUCTION: PAINTINGS FROM THE TRADESCANT COLLECTION

David Piper

The paintings that came with Ashmole's gift, in 1678, to Oxford, or by his bequest in 1692, included both those that originated in the collection of the Tradescant family, which became Ashmole's by deed of gift from the Tradescants in 1659, and those that were collected by Ashmole himself. The earliest known list of them is in the manuscript 'Liber Dñi Decani Ædes Christi' (Ashmolean Library AMS 8). The first part of this can be dated from internal evidence to between 1684 and 1690, but is supplemented (pp. 39–40) by a list of fourteen paintings said to have been left by Ashmole, that is, in 1692 or later; in fact, only eight paintings were in the bequest. The second part (pp. 42 ff.) is later, the additions at the end of it considerably so; it contains cross-references to the inventory of Part I which enables one to complete an important gap in Part I where a page is missing.

In the 1656 printed Tradescant catalogue, paintings are gathered up in category VII (pp. 36–41), entitled 'Mechanick artificiall Works in Carvings, Turnings, Sowings and Paintings'. Only two entries can be related to individual survivors. *Old Parre's picture* (p. 41) must be the portrait of 'Old Parr' still to be seen (see below, No. 275), warranting singling out in the catalogue as record of a truly astonishing rarity. It is not, as a work of art, distinguished, subduing rather the lineaments of extraordinary old age into a pictorial convention already well established. It may however well be the original of the several surviving versions of this portrait, perhaps at least the liveliest in handling of them. The second identifiable survivor is *A small Landskip drawn by Sir Nath: Bacon* (1656, p. 40). This also falls into the category of rare curiosity: it is, must be, the earliest known 'landscape' by an English-born painter, but it adds little if anything to the history, let alone the distinction of the English landscape school, nor indeed to the quality of the achievement of its author, Sir Nathaniel Bacon (see No. 254). Were it not for the 1656 catalogue entry and the fact that the little painting is inscribed incontrovertibly with the monogram *NB*, no art historian would dream of attributing this somewhat sombre, spiky little piece to Bacon, whose authenticated work otherwise is brilliantly lit and broadly handled, in the manner of the Caravaggesque school of Utrecht. Further to these two, an entry in 1656 (p. 40), *Effigies of divers Personages of honor, note and quality*, indicates an

against a blue-black ground, grey eyes looking over the spectator's left shoulder. Greyish hair brushed up in front, curling to below his ears at the sides; moustache and possibly a chin-tuft. He wears a flying lace collar and an embroidered green tunic, with a close-set row of buttons. Water-colours on vellum cut to an oval, some areas of paint lost, and some damaged, especially in the faded flesh areas, in which additional imbalance of tones has been caused by superficial dirt. Inscribed *Ano Dni 1609* in gold up the right margin. In a turned circular ivory frame, into which a convex glass has been inserted; its slip-cover has been lost.

1656 p. 37: *Several curious paintings in little forms, very antient.*

1685 A no. 525: *Pictura cujusdam Herois ignoti formosissima, coloribus dilutis et simili sublitione.*

Dimensions: (Portrait) Height 40 mm, Width 33 mm; (Frame) Diameter 47 mm.

The earliest suggestion that Nicholas Hilliard was the artist occurs in a manuscript catalogue compiled by E. T. Leeds in 1911.[565] The sitter is there identified, on the authority of Sir George Scharf, as 'possibly a member of the Sidney family', a claim which cannot be substantiated.

G. L. Taylor

251. MINIATURE PORTRAIT (Pl. CXXII). Anonymous portrait of an unidentified man, Italian school, fifteenth century. He is shown head and shoulders, bearded face to front, with a grey-green cape-hood over a cloak of the same, his hands showing below the lined edge of the former. On the indigo ground, two white lines follow the curve of the edge. Executed in tempera on (?) vellum set in a turned black wood frame.

1685 A no. 523: *Pictura Carmelitae cujusdam, in sublitione lazuria.*

Dimensions: (Frame) Diameter 45 mm; (Painting) Length 27.5 mm, Width 22.5 mm.

To the back is affixed a piece of blue writing-paper with the following inscription in ink: *Most probably a miniature cut out of an Italian service book of the 15th-century I.O.W.*

G. L. Taylor

252. ENGRAVING (Pl. CXXII). An impression of the portrait by William Marshall of George Abbot, Archbishop of Canterbury, cut to a circle and tinted in reds, brown, and black. The engraving is set in a turned bone frame. The print is stuck to a card on the outer diameter of the frame, to the back of which is affixed one label (amongst others) inscribed in ink: *coloured engraving of an Archbishop of the time of Apb Laud.*

1685 A no. 522: *Pictura Reverendissimi Patris ac Dni D. Georgij Abbot Archiep. Cantuar coloribus dilutus.*

Dimensions: (Frame) Diameter 51 mm; (Engraving) Diameter 39 mm.

The portrait has been cut from the upper part of the title to Abbot's *Briefe Description of the Whole Worlde*.[566] It appears to be a reduced copy in reverse from the first state of Simon de Passe's portrait of the Archbishop, dated 1616.[567]

G. L. Taylor

[565] Department of Antiquities, Ashmolean Museum, dated 1911.

[566] Abbot 1634, reproduced in Corbett and Norton 1964, p. 140, no. 127, pl. 77.

[567] Hind 1955, p. 247, no. 1, pl. 144a–b.

catalogues.[559] The practice of making these balls in the Far East seems, in any case, to have no great antiquity:[560] there is every reason to suppose, on the basis of the evidence outlined above, that the technique was a product of German technological innovation in the later sixteenth and seventeenth centuries and that this derivation should be applied to the Ashmolean pieces. While the 1656 catalogue entry is too general to permit positive identification, seven of the multiple balls listed here show correspondences with the descriptions of 1685. Of the remainder, any of them may have been in the Tradescants' collection but escaped notice in 1685. Duncan mentions a 'Chinese ball, containing ten smaller ones, cut from a solid piece of ivory', donated to the Ashmolean by the Revd. F. Spring,[561] which may also refer to one of this latter group: No. 243 is distinct in character and workmanship from the others and seems the most likely candidate.

As to the original number of elements in any of these pieces, only Nos. 240–2 have well-polished surfaces as would be expected on an original external sphere: all the others have formerly had at least one more outer sphere, while some have also lost internal elements.

A. MacGregor

249. MINIATURE PORTRAIT (Pl. CXXII). Portrait of a young man by Nicholas Hilliard. He is shown head and shoulders to our right, with his right eye on the central vertical axis; he has dark hair, wears a large, pleated wheel-ruff and black doublet, and is shown against a blue background (much damaged). Executed in water-colours on vellum and set as an oval in a circular turned ivory frame with later convex glass; its slip-cover is missing.

1656 p. 37: *Several curious paintings in little forms, very antient.*

1685 A no. 524: *Pictura Illustrissimi Ducis Chastillion Galliae Thalassiarchae coloribus dilutis, item in sublitione lazuriâ.*

Dimensions: (Portrait) Height 32 mm, Width 27 mm; (Frame) Diameter 46 mm.

Although extensively damaged through the loss of a considerable area of the vellum support from the nose down almost to the edge (the work of insects),[562] and by numerous losses of ground paint and almost all painted details (probably owing to rough treatment before the glass was provided), the remaining lines and the expression point to Hilliard's authorship towards the end of the sixteenth century. This portrait was not included in Erna Auerbach's corpus of Hilliard's works.[563]

As to the old identification of the sitter as the 'Duke of Châtillon, Admiral of France', it is remotely possible that the first duke, Gaspard III de Coligny (1584–1646; hereditary Admiral of Guyenne 1601–13, created Marshal of France in 1620, and Duke in 1643),[564] is the subject, provided that we accept the understandable error in the description of his office and that we assume either that he visited London (an opportunity might have occurred on his way to train with Prince Johan Maurits of Nassau in 1603) or that Hilliard paid a second, unrecorded visit to the Continent, for neither of which assumptions there is any present evidence. But if the old identification is wrong also in respect of rank, then the sitter may have been Gaspard's eldest brother, Henri, who was Admiral of Guyenne from the death of his father in 1591 until his own death in 1601. On balance it must be concluded that the sitter's true identity has been lost, although he is likely to have been English.

G. L. Taylor

250. MINIATURE PORTRAIT (Pl. CXXII). Portrait of a man, painted by Nicholas Hilliard in 1609. Head and shoulders, a little to our left,

[559] Duncan 1836, p. 179, no. 44. Prudence Leith-Ross has suggested (personal communication) that the 'Mr Reeve' listed among the benefactors to the Tradescants' museum may have been John Reeve, the 'royal oval turner' mentioned in a warrant of 1655 ordering 'for ye great wardrobe 4 dozen of Round Ivory bales'. Conceivably he could have been the manufacturer of these pieces.

[560] Jourdain and Jenyns 1950, p. 58. A late eighteenth-century description of these balls is given by John Barrow (1804, pp. 308–9), private secretary to Lord Macartney on his embassy to China in 1792. A large (120 mm diameter) Chinese multiple ivory ball with pierced naturalistic ornament, now in the Nationalmuseum, Copenhagen (no. EB2601), was acquired by purchase in 1790 (Hornby, in Dam-Mikkelsen and Lundbæk 1980, p. 184). Miss Mary Tregear has drawn my attention to the fact that such spheres were referred to by the Chinese as 'Devil's work', a term frequently applied to European innovations.

[561] Duncan 1836, p. 179, no. 43 (the Revd. F. Spring (1790–1843) of St. Edmund Hall, Oxford).

[562] Miss J. M. H. Chantry, Conservator in the Department of Western Art, Ashmolean Museum, considers that the perforation in the vellum has been later backed with paper to which a small island of the original vellum has been stuck; indeed, most of the paper surface seems to have been coated with glue.

[563] Auerbach 1961.

[564] For modern biographical data on the members of the Coligny family mentioned here, see *Dictionnaire de Biographie Française* 7 (s.v. Chatillon) and 9 (s.v. Coligny).

graved about 1653–5.[48] The still-life element, allusive to the sitter's horticultural and conchological interests, but not in any specific way, was possibly painted by another. No native still-life painter was up to the standard of this skilful piece, but Sir Ellis Waterhouse has suggested (personal communication) that Alexander Marshal should be considered. The type is simplified from Flemish compositions of the mid-century (cf. J. P. van Thielens's large painting of 1648,[49] or the *Miracle of St. Bernard* signed by Erasmus Quellinus and by Daniel Seghers, who died in 1661[50]). The handling of the shells in No. 260 does not seem necessarily from the same hand as that in the 1645 portrait (No. 265). As can be seen in a photograph of about 1860–70, the painting hung over the west fireplace on the first floor of the Old Ashmolean.

261. PORTRAIT OF HESTER TRADESCANT (Pl. CXXXI), by an unknown British painter, about 1638. Head and shoulders, half to our right, against a greenish-grey background. Dark brown hair showing in little curls under a large broad-brimmed black hat, turned down behind. Her brown eyes look at the spectator. Large white lawn collar edged with double strips over a black dress with six horizontal double strips of white ribbon in front. A gold hoop ring suspended between the wings of her collar by a double black thread. Oil on canvas (relined)[51] in a black frame, with inner and outer gilt mouldings. Condition sound.

(?) 1685 A no. 662: *Pictura excellentissimæ Heroinæ.*

Dimensions: (Canvas) Height 60 cm, Width 44 cm; (Frame) Height 75 cm, Width 59 cm.

The sitter was convincingly identified by Mea Allan as Hester Tradescant.[52] It will be seen from Appendix IV that there were two unidentified portraits of women in Ashmole's foundation gift,[53] but there is no sure means of tracing which is which after 1756.[54]

262. PORTRAIT OF JOHN TRADESCANT THE YOUNGER AND OF HESTER, HIS SECOND WIFE (Pl. CXXXII), painted in 1656 and here attributed to Emanuel de Critz (1608–65). Both half-length, he on the left, facing a little to his left, she half to her right with her right hand on his left arm, against a lightly shaded greyish-green background, beyond a feigned wide round-ended opening. His bushy hair and beard are dark brown. His brown eyes look over the spectator's right shoulder; broad white collar with band strings and turned-back cuffs, black tunic fastened with closely-set metal buttons. His left hand, held up in front, holds an open silver watch, with a gilt key on its chain. She looks with brown eyes at the spectator, her hair in a black snood. Over her yellowish dress, with turned-back sleeves revealing a white cuff pleated with a draw-ribbon, a broad white collar, with knotted string above, a larger knotted string below fastened with a squarish brooch, with a cascade of pearly embroidery. In her right hand she holds a sprig of myrtle. Inscribed in lower left spandrel in yellow *51* and below, *Sir John Tradesant Junior / and his Wife*, and in the upper spandrels, in black, on the left *50/1656* and on the right *46/1656*. Oil on canvas (relined)[55] in a gilt frame, carved in low relief with stylized leaves and berries; a transverse leaf in the centre of each side, from which the others diverge as though parts of a wreath; pointed flute at each corner; narrow cavetto inside. Condition good.

[48] This type of 'auricular' cartouche, derived from Stefano della Bella, was taken up in Amsterdam. Jan Lutma was responsible for two suites, one of six pieces, dated 1653, the other of eleven (see Guilmard 1880, pp. 508–9, who described them as 'affreux de formes: c'est la vraie décadence de l'art'). Gerbrand van den Eeckhout produced a suite of twelve 'Verscheyde Aerdige Compartementen', published by Visscher in 1655 (Hollstein n.d., vol. 6, nos. 81–92), and another undated (Guilmard 1880, p. 509). For an example of each designer see Berliner 1925, pl. 274; both examples have swags of fruit and narrow-edged deformed volutes at the top. Thus an earliest possible date of 1653 for the painting of No. 260 can be postulated with some confidence.

[49] Kunsthistoriches Museum, Vienna, no. 1128.

[50] Reproduced in colour, Leger Galleries 1981, no. 12.

[51] Ash. Lib. AMS 22, no. 15. Relined, cleaned, and varnished by Buttery in 1897.

[52] Allan 1964, p. 315: 'indisputably Hester Tradescant'. Comparison with the other three portraits of Hester, in No. 269 (*c.*1643), No. 280 (1645), and No. 262 (1656), suggests that No. 261 is the earliest and dates from the time of her marriage in 1638. The significance of the ring is now lost. Perhaps it was a mourning ring, possibly for her father-in-law. This hypothesis implies that there were four individual portraits, of the husband, of his second wife, and of each of the two children, all dating from about 1638, and by three different hands.

[53] Ash. Lib. AMS 8, f. 47, no. 52, *excellentissimae Heroinae—662*, and f. 52, no. 120, *Ornatissimae foeminae—691*. The present sitter fits the former better than the latter description. The portrait of Judith Dobson (f. 49, no. 83) was a later acquisition.

[54] Ash. Lib. AMS 22, nos. 65 and ?126, respectively.

[55] Ash. Lib. AMS 22, no. 12: relined and varnished, requiring relatively little attention, by Buttery in 1897.

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

1685 A no. 663: *Pictura Dñi Johis Tradescanti junioris et uxoris suæ, limbo aureo munita.*

Dimensions: (Canvas) Height 72 cm, Width 118 cm; (Frame) Height 84 cm, Width 131 cm.

There is no doubt as to the identities, though Mrs Tradescant had aged markedly since 1645, more so than her husband. His portrait, etched *ad vivum* by Hollar[56] in 1656 for *Musæum Tradescantianum*, has misleading affinities with that in this painting, which, echoing such a double portrait as Van Dyck's *Charles I and Henrietta Maria* of 1632,[57] was perhaps commissioned to commemorate the publication of the catalogue in 1656. The authorship of No. 262 was hazarded neither by C. F. Bell nor by Mrs Lane Poole,[58] nor in the 1980 *Summary Catalogue*.[59] Clarification of the lives of the de Critzes[60] suggests that it may be by Emanuel, the latest survivor of the three brothers, if it is to be attributed to any member of that family. In his face, in his wife's dress, and in the feigned aperture there is something of the awkwardness and colouration of the Wilton ceilings and our No. 269.

From No. 262 was taken an anonymous stipple engraving of Tradescant the Younger, and, with acknowledgment of its origin, an inaccurate line print of his wife, a later state of which was published by Caulfield in 1798. No. 262 can be recognized in a drawing of the staircase of the Old Ashmolean made before dismantling in 1863, to the right of No. 269.

263. THE SIEGE AND BATTLE OF PAVIA (Pl. CXXXIV), by an unknown painter, shortly after 1525. The view of the city of Pavia and its neighbourhood is from the north, at a low oblique angle from beyond the ducal park. The Ticino flows across behind the city. Mirabello is indicated by a single building near the left lower corner. There are numerous foot-soldiers and horsemen, representing phases of the Imperial assaults on the French besiegers, with temporary fortifications, tents, cannons, etc. Groups, individuals, or places, are identified with numbered labels. Oil on panel, of three horizontal boards, in a simple black frame with gilt moulding, with the legend in gold letters, which was copied in the following entry:

1685 A no. 664: *Le vray portrait du Siege de Pavie mist sur la fin d'Octobre en l'an 1525 par le Roy de France. Commen les Gens de L'Empereur deffirent les Francoys en pregnant le Roy le jour S. Matthias en l'an 1525.*

Dimensions: (Panel) Height 114 cm, Width 219 cm; (Frame) Height 137 cm, Width 237 cm.

A full discussion of this painting is to be found in Appendix I (pp. 318–26).

264. PORTRAIT OF AN OLD MAN (Pl. CXXXIII), here identified as Robert Montgomery and here attributed to Cornelis de Neve II; painted about 1651. Head and shoulders, slightly to our right, against a plain grey-brown background; feigned oval opening indicated on left and right above. Brownish hair; grey moustache and chin beard; grey eyes looking at the spectator. Plain broad white collar, grey-green coat close-buttoned in front; cloak slung behind. The head of a wooden staff leans against his breast as though he were seated, holding its lower part with both hands. Inscribed in pale ochre at right edge: *Ætats. / 107.* Oil on canvas (relined),[61] in a black and gold moulding. The oak front-members of the frame seem to be old and the whole to have been remade, repainted, and regilt. Condition sound, with craquelure in paint and varnish: slight surface damage.

1685 A f. 47, no. 75: *Pictura (ut dicitur) Inegonis Jones Architech celeberrimi. 665.*[62]

Dimensions: (Canvas) Height 56 cm, Width 52 cm; (Frame) Height 67 cm, Width 62 cm.

The traditional identification of the subject as Inigo Jones, already scouted in 1685, but still asserted in 1836, was finally dismissed by Bell.[63] For the iconography of Inigo Jones (1573–1652), the architect, see *The King's Arcadia*.[64] All previous published readings of the inscription have been inaccurate in

[56] Parthey 1853, p. 1513: 'W. Hollar ad vivum delin. et sculp.' Below it is a feigned paper label inscribed *Iohannes Tradescantus Filius, genii ingeniique / paterni verus heres, relictum sibi rerum undique / congestarum thesaurum, ipse plurimum adauxit / et in Museo Lambethiano amicis visendum exhibet.*

[57] Property of the Duke of Grafton: see Glück 1931, pl. 374.

[58] Ash. Lib. AMS 22, no. 12; Lane Poole 1912, no. 428.

[59] Ashmolean Museum 1980, p. 3, no. F 663.

[60] Edmond 1980, *passim*.

[61] Ash. Lib. AMS 22, no. 30. Relined, cleaned, and varnished by Buttery in 1897. The latter noted in his estimate that it was 'quite independent and distinct from the Van Dyck portrait at St Petersburg'.

[62] For an explanation of the complexities of early numbering series, see bibliography, note on manuscript sources, AMS 8. See also Appendix IV to this section.

[63] Duncan 1836, 176, no. 45; Ash. Lib. AMS 22, no. 30; *Oxford Historical Portraits* 1905, p. 137; Lane Poole 1912, no. 421.

[64] Catalogue of the quatercentenary exhibition held in the Banqueting House, Whitehall (Harris *et al.* 1973, pp. 210–13).

detail. Close examination shows that the numerals formerly thought to have been a date (of which the fourth digit had been cut off) are not *167* but *107*: in some lights there appears to be a tail above the *o*, suggesting *6*, but it is in reality an accidental trail of cracks and small varnish-filled paint losses. The normal inscription with a date would have been of the form *Aetatis suae 76*.[65] The inscription on No. 264 is rather an indication of the age of the sitter, that is, 107, and the portrait is therefore another illustration of longevity, like the more celebrated 'Old Parr' (No. 275). Such a portrait would gain point from an inscribed age, but not necessarily from a date; the 'Old Parr' provides a parallel and precedent. By removal of the hypothesis of a date in the 1670s, the old conflict between the supposed date of the picture and that of the costume of the sitter is removed. The only recorded centenarian who would have been 107 at an appropriate time was Robert Montgomery of Skipton, Yorkshire, who died in 1671 aged 127.[66] The date of the painting could then be 1651.[67] No attribution has hitherto been published. Affinities (e.g. the feigned opening, and the brushwork) with the work of Cornelis de Neve II (see No. 258) and the fact that de Neve was a member of the Tradescant/de Critz circle are mutually reinforcing supports to the attribution here suggested to a minor painter whose *œuvre* over half a century has yet to be reconstructed.

265. PORTRAIT OF JOHN TRADESCANT THE YOUNGER WITH ROGER FRIEND (Pl. CXXXV), and a collection of exotic shells; painted in 1645 and here attributed to Thomas de Critz (1607–53). In the left foreground a table heaped with large sea shells, to the right of which stands the half-length figure of Tradescant, three-quarters to our right, and close behind him the apparently taller figure of his friend, half turned towards him, against a dark background in which there is, to left of centre, a masonry block protruding into a small rectilinear window, with inward sloping sill; beyond, a blue sky with pinkish clouds. The shells are identified in Appendix II (see also Pl. CXXXV, b). The table-top, shown by convenient misuse of perspective as though tilted forward, is completely covered with reddish cloth. Tradescant's hair is brown and bushy, his beard full. He looks sidelong and upwards, as though into his friend's face, yet his head is turned a little away. He wears a broad soft white collar; his black coat, buttoned in front, is largely concealed by a mid-grey cloak lined with buff velvet, from which his hands emerge, his left holding a close-ribbed bamboo cane, behind the silver knob of which his right hand grasps his companion's left hand. Friend has shorter curling grey-white hair, balding on top, and a full beard; his purplish nose is unusually large. He looks across at the shells. He wears a similar collar over a russet tunic buttoned at the front. The back of his left hand is shown. Inscribed in yellow above the shells *S^r. John Tradescant Jun^r. & his / frind Zythepsa of Lambeth*,[68] and in black above Tradescant: . . . *1645*.[69] Oil on canvas (relined),[70] in a flat black and gold frame with a cherub at each corner and a leaf at the centres.

1685 A f. 50, no. 91: *Pictura Joh: Tradescanti junioris cum amico suo . . . Friend Zythepsa Lambethano. 667*.[71]

Dimensions: (Canvas) Height 107 cm, Width 132 cm; (Frame) Height 129 cm, Width 155 cm.

The identity of the brewer was established by Mea Allan.[72] Under a strong light his right hand can be seen clasping Tradescant's cloak just above the far edge of the table, but whether this awkwardness was covered by the painter or a later restorer is unknown. The painting has long been held as remarkable for the quaintness of the 'name' Zythepsa, and for the uniqueness in Carolean painting of such a still life, as much as for its eccentric composition and the portrait of

[65] Taken from No. 288, the portrait of Fiske, signed by de Neve, from Ashmole's bequest of 1692 (seven of the eight pictures in which are described as Nos. 287–93 in the present catalogue). Ashmolean Museum 1961, p. 106, no. 298.

[66] Easton 1799, p. 12.

[67] i.e. the very year of the portrait of Fiske (No. 288) referred to in n. 65 (Ashmolean Museum 1961, p. 106). See also No. 290 (of Nicholas Burgh) (Ashmolean Museum 1961, p. 5, no. 19).

[68] During the keepership of John Whiteside (1714–29): Whiteside's misinterpretation of the incomplete entry in Ash. Lib. AMS 8 (f. 50, no. 91) has been given unfortunate permanence (see n. 71).

[69] The date *1645* was first noticed in 1981, when examined under strong light by Dr J. Whiteley; the flanking inscription has not been deciphered.

[70] See Ash. Lib. AMS 22, no. 11: Buttery's estimate in 1896 for repairs (14 guineas) and Bell's account of the work done by him in 1897: 'Relined, cleaned, repaired in places, especially in the upper right hand corner, and varnished.'

[71] That 'Zythepsa' is the Latin transliteration of the Greek word for brewer was pointed out in 1960 by Mr James Holladay, Fellow of Trinity College. This led to the correct interpretation of the entry as 'with his friend, [Roger] Friend, brewer of Lambeth'.

[72] Allan 1964, p. 182. Roger Friend is recorded locally between 1618 and 1651, but there is no evidence that he was a collector of shells.

Tradescant.[73] The extraordinary division of the painting into a double portrait on the right and a display of shells on the left cannot have merely been a costly whimsy. Tradescant turns from the shells, while his consciousness of them is indicated by his gesture with his cane in their direction, to look earnestly at, and grasp the hand of, his friend, Roger Friend, perhaps in thanks for such a splendid contribution to his closet of rarities; the willingness of Friend's generosity was evidenced by the embrace with his right hand. The elimination of this hand has weakened the picture's explicitness: the feeble painting of his left hand is due to Buttery's repairs, especially in the upper right-hand corner, to remedy the 'very bad state of canvas'; traces of considerable areas of earlier paint loss are still evident. The former attribution to Dobson[74] was later tentatively altered by Bell to de Critz,[75] an attribution hitherto retained *faute de mieux*.[76] For identification of the shells see Appendix II to this section.

266. PORTRAIT OF THOMAS HOWARD, SECOND EARL OF ARUNDEL (Pl. CXXXVI), a copy after Sir Anthonie Van Dyck. Half-length, a quarter to our right, plain background with a cloth-of-gold damask curtain on right; a moderately skilful copy of the upper central part of the original picture of the Earl and his grandson at Arundel, Castle,[77] omitting his baton. Inscribed on the left, in yellow, *Thomas Earle of Arundell, | Surrey, & Norfolk*. Oil on canvas (relined),[78] in a flat black frame with inner gilt moulding. Condition sound, though the varnish has darkened.

1685 A f. 50, no. 93: *Pictura honoratissimi Dni. D. Thomæ Arundelliæ Comitis, Marmorum Arundellianorum procuratoris Solertissimi. 668.*

Dimensions: (Canvas) Height 78 cm, Width 68 cm; (Frame) Height 91 cm, Width 68 cm.

Thomas Howard (1586–1646), art collector and royalist, whose marble inscriptions were given to the University of Oxford in 1667 by his grandson, Henry (Howard), afterwards sixth Duke of Norfolk. Hitherto unattributed,[79] No. 266 is possibly a copy by Emanuel de Critz, who was known as a copyist.[80] There are many similarities in handling with No. 267, which represents the elder grandson, Thomas, fifth Duke of Norfolk, the other figure in the original by Van Dyck.

267. PORTRAIT OF THOMAS HOWARD, LATER FIFTH DUKE OF NORFOLK, WHEN A BOY (Pl. CXXXVII), a copy after Sir Anthonie Van Dyck.[81] Almost three-quarter-length, half to our left, with apparently a little more space beyond his left elbow and below his left hand than appears in the original[82] at Arundel Castle, where he stands beside his grandfather, whose protecting hand and armour are omitted here. Inscribed on the left, in yellow: *Thomas Duke of Norfolk, | Restord to be Duke, by King Char | les 2^{d}, the 13th of his Reign*.[83] Oil on canvas (relined),[84] in an old black frame with gilt moulding within, which is inscribed in white: *16. Thomas, Duke of Norfolk. | When a Boy*.[85] Condition sound.

1685 A f. 50, no. 94: *Pictura illustrissimi principis Thomae Ducis Norfolciensis filii sui natu maximi. 669.*

Dimensions: (Canvas) Height 79 cm, Width 69 cm; (Frame) Height 92 cm, Width 83 cm.

[73] Mention must be made of the painting formerly in the National Portrait Gallery (Piper 1963, p. 350, no. 1089) and since 1980 in the Tate Gallery, showing Tradescant with a skull on a book. This is said to bear the date 1652 and has been related to the death of his son. Could it be earlier and related to the death of his father? The motif of a skull on a book is frequent in Dutch *Vanitas* painting: an example of 1629(?) is by Jacques de Gheyn III, who was in England 1618–22 (Stedelijk Museum de Lakenhal 1970, p. 13). The edged collar seems more appropriate to the years about 1635–45. A suggested chronology of Thomas de Critz's work is thus: 1, *c.*1639, the National Portrait Gallery/Tate Gallery, John Tradescant II with skull; 2, 1645, our No. 280; 3, 1645, No. 265; 4, *c.*1646, No. 259.

[74] Duncan 1836, p. 175, no. 14.

[75] Ash. Lib. AMS 22, no. 11.

[76] See, for example, Lane Poole 1912, no. 427; id. 1913, pp. 64 ff., pl. XXXIII; Collins Baker 1912, 1. 120 ff; Gwynne-Jones 1954, p. 43, pl. 31; Waterhouse 1962, p. 51, pl. 43. The same traditions were maintained in the catalogues of three exhibitions: *Oxford Historical Portraits* 1905, p. 83; Royal Academy of Arts 1938, no. 33; Thomson 1971, p. 135.

[77] See Weijtens 1971, p. 30, no. 8, n. 181, and pl. V, dated *c.*1635.

[78] Ash. Lib. AMS 22, no. 32: Buttery's report ('in very bad state') and estimate for 10 guineas, 1896. Cleaned and varnished by him, 1897.

[79] Lane Poole 1912, no. 418.

[80] Collins Baker 1912, 1. 123, based on Pepys's *Diary* (24 October and 24 November 1660, and 9 May 1661); though Pepys does not mention a Christian name, Emanuel was the only brother still alive in those years.

[81] Lane Poole 1912, no. 438.

[82] As n. 77.

[83] i.e. in 1660.

[84] Ash. Lib. AMS 22, no. 33. Relined, cleaned, and varnished by Dyer about 1890.

[85] Thomas Howard suffered from a brain fever for the last thirty years of his life; his importance lies in his personification of the restoration of the dukedom after the attainder of Thomas, fourth Duke, in 1572.

Thomas Howard (1627–77), eldest grandson (not son, as he was incorrectly described in the 1685 inventory) of the second Earl of Arundel, spent the last decades of his life in Italy. The copyist was evidently the same as for No. 266, i.e. possibly Emanuel de Critz.

268. PORTRAIT OF KING CHARLES I (Pl. CXXXVIII), in profile, a copy with variations[86] after Van Dyck, perhaps by Emanuel de Critz. Bust in profile to our right against a grey background. Oil on canvas (relined),[87] in a carved gilt frame, with acanthus leaves at corners and acorns and flowers in high relief.[88]

1685 A f. 50, no. 95: *Pictura Caroli primi Mag. Brit: Fran: et Hib: Regis. 670.*

Dimensions: (Canvas) Height 75 cm, Width 63 cm; (Frame) Height 96 cm, Width 85 cm.

Charles I (1600–49) succeeded to the throne in 1625. The original is the head on the left of Van Dyck's triple portrait, finished in 1636, which was painted to enable Bernini to carve a bust in Rome without a sitting from the monarch; the picture is at Windsor,[89] and the bust was destroyed.[90] No attempt at an attribution has hitherto been published;[91] the present suggestion is based on similarities with Nos. 266 and 267. The summary entries in AMS 8 have given rise to ambiguous confusion with the other portrait of Charles I (after Lely), No. 287, part of Ashmole's bequest of 1692.[92]

269. PORTRAIT OF HESTER TRADESCANT AND HER STEPCHILDREN, FRANCES AND JOHN (Pl. CXXXIX), here attributed to Emanuel de Critz (1608–65). Hester stands three-quarter-length on our right, turned three-quarters to our left, with her right hand on her stepson's shoulder; her stepdaughter stands between them. A shadowed greyish background, with the base of a fluted pillar on left. Her brown eyes look glumly at the spectator, her head half turned. Her left hand hangs relaxed, with a gold ring set with a stone on the third finger.[93] She wears a tall broad-brimmed black hat, turned down behind, with cinquefoil on a white band; beneath it a lace-fringed cap covers most of her brown hair, and laps over a hooded collar, the lace scalloped edging of which falls over her shoulders and is fastened with a reddish bow in front; matching lace is turned back at the cuffs. Her brown dress of watered material is trimmed with gold and silver lace. Round her waist a reddish ribbon; below it a fat round silver watch suspended on a silver chain. John has shoulder-length fair hair with a fringe; he looks sulkily at the spectator from brown eyes. His left arm akimbo, his right hand rests on a thick stick. He wears a broad soft collar, edged like Hester's, white cuffs turned back; his coat (with close-set metal buttons down the front and others on each side) and his matching breeches are dark green. Frances, a head taller, seems to lean forward towards her brother: her head is tilted and turned half to our right in an awkward contrapposto. Her fair shoulder-length curly hair is brushed back. Her brown eyes look up at her stepmother's chin. She wears a low-cut black dress, with red cross-lacing in front; its square neck trimmed with lace, and a gold-trimmed buff glove. Inscribed on the plinth, in yellow: *S^r. John Tradescant sen^r. / his Wife Son and Daughter.* Oil on canvas (relined),[94] in an old black frame with gilt roll moulding.[95] Reported to be 'in very bad state of canvas' in 1896,[96] but now, though considerably repainted, in solid condition. There is a long horizontal strip of filling about 5 cm below the upper edge, probably marking the lower edge of the original stretcher, and two diagonal strips in Hester's collar. Some scattered touches of thin repaint or filling of craquelure almost imperceptible to the naked eye.

1685 A f. 50, no. 92: *Pictura Uxoris Joh: Tredescanti cum filio filiaque astantibus. 671.*

Dimensions: (Canvas) Height 109 cm, Width 117 cm; (Frame) Height 126 cm, Width 131 cm.

The painting shows Hester, née Pookes (*c.*1608–78), who married, as his second wife, John Tradescant the Younger shortly after the death of his father, in 1638.[97] By this time John III was five and Frances

[86] Notably on the left hand.

[87] Ash. Lib. AMS 22, no. 38: Relined, cleaned, and varnished by Buttery in 1897.

[88] See Appendix III and n. 283.

[89] See Millar 1972, no. 86.

[90] Wittkower 1955, no. 39, figs. 48, 49; Lightbown 1968.

[91] *Oxford Historical Portraits* 1905, p. 71; Lane Poole 1912, no. 419.

[92] Josten 1966, 4. 1829–30; Ashmolean Museum 1980, p. 55, no. F 739.

[93] Owing to craquelure, it is not clear whether the stone was square or octagonal; nor is it of a recognizable colour.

[94] Ash. Lib. AMS 22, no. 13. Relined, cleaned, and varnished by Buttery in 1897. His estimate, 15 guineas, was the most expensive in the series. Bell noted that 'At some previous time this picture had been considerably rubbed.'

[95] See Appendix III.

[96] Ash. Lib. AMS 22, no. 13, Buttery's report no. 10.

[97] Edmond 1980, pp. 146, 148–9, 157, 159, 161.

somewhat older; the latter married Alexander Norman in 1644, so the present picture must have been painted shortly before that occasion. It does not reflect a united and contented group. Earlier attributions to Dobson[98] were dropped and no other has been published beyond general hints towards the de Critz family. The brownish overall tonality points to the painter of the Wilton ceiling. The handling of the watch and chain in No. 269 differs from that of the same watch in No. 280; indeed the general differences in tonality and feeling between the two pictures, so close in time and subject, are striking.

270. PORTRAIT OF A MAN (Pl. CXL), called variously Edward, Lord Wotton of Marley, Charles Howard of Effingham, and Henry Howard, Earl of Northampton, by an unknown British painter of the later sixteenth century. Half-length, slightly to our right, against a dark brown ground. An elderly man with grizzled fair hair, pointed beard, and moustache; his grey eyes look impassively at the spectator. He wears a black skull-cap, an embroidered and slashed white doublet with buttons, a deep pleated lace ruff, a fur-lined black gown, and a collar of the Order of the Garter round his neck. Oil on two oak panels (chamfered on two sides only), in a black and gold moulded frame. Noted in 1896 as in 'extremely bad state' and parquetted in the following year.[99] Its present condition is again bad. The larger panel has warped and split, with resultant paint loss; other lesser damage elsewhere.

1685 A f. 47, no. 69: *Pictura Honoratiss: Dni Edwardi Baronis Wotton de Marley. 672.*

Dimensions: (Sight) Height 56 cm, Width 42 cm; (Frame) Height 65 cm, Width 51 cm.

The identification of the sitter has yet to be confirmed.[100] He was probably identified as Lord Wotton because this nobleman was notorious for wearing white[101] (although he never had the Garter), and because he had been Tradescant the Elder's employer. Mrs Lane Poole suggested he was Charles Howard of Effingham, Lord High Admiral against the Armada, who was installed KG in 1574 and created Earl of Nottingham in 1597.[102] The painting would have certainly appealed to Ashmole as author of the standard work on the Garter.

271. PORTRAIT OF A YOUTH, CALLED SIR JOHN SUCKLING (Pl. CXLI), by an unknown English painter, *c.*1630–40. Head and shoulders, directed three-quarters to our left against a grey background in a feigned oval. Pale brown curling hair; clean-shaven. His pale brown eyes look demurely at the spectator. His plain plate armour, with gilt rivets, is partly covered by a broad white lace-edged collar and a gold-fringed broad red sash. Inscribed on left, in yellow, *Sir John Suckling*. Oil on canvas (relined),[103] in its contemporary frame carved with flat scrolls, and gilt.

1685 A f. 49, no. 86: *Pictura Dñi Joh: Suckling Militis. 676.*

Dimensions: (Canvas) Height 84 cm, Width 69 cm; (Frame) Height 94 cm, Width 81 cm.

Both the traditional identification of the subject and the subsequent attribution have been disputed. John Suckling (1609–42), the rich and notoriously profligate poet, compaigned overseas under Buckingham in 1627 and was knighted in 1630; there is nothing at first sight inconceivable in his portrait in armour having been painted as early as that first campaign, nor in the traditional identification: it was still accepted as correct when it was engraved by R. Newton in 1820,[104] and remained so until it was challenged by Thomas Clayton in 1960.[105] The likeness must be compared with that given by Van Dyck's convincing characterization,[106] which is the only secure portrait; though undated it is from the decade 1632–42, and shows a more mature person than our No. 271. A verbal description by Aubrey[107] must also be considered.

[98] Duncan 1836, p. 157, no. 10; Ashmolean Museum 1909, p. 112: 'certainly most accomplished work of the English School of Van Dyck and . . . may be of Dobson'. Lane Poole 1912, p. 181, no. 440; id. 1913, pp. 65–8; Collins Baker 1912, I. 120; Whinney and Millar 1957, pp. 83–4; Allan 1964, p. 315. The painting was shown at South Kensington Museum 1866 (no. 988); in *Oxford Historical Portraits* 1905, p. 141; in Australia, *National Gallery of Victoria* 1977, p. 10, reproduced in colour.

[99] Ash. Lib. AMS 22, no. 6: '. . . the picture cleaned, retouched, in part of the dress and background, and varnished by Buttery.'

[100] Lane Poole 1912, p. 169, no. 408 (? following Bell in Ash. Lib. AMS 22, no. 6); Allan 1964, p. 29 and *passim*.

[101] 'for the most part white *cap à pied*' (Gibbs's *Complete Peerage*, s.v. Wotton).

[102] On whose iconography see Strong 1969, p. 236.

[103] Ash. Lib. AMS 22, it required only relining, cleaning, and varnishing by Buttery in 1897.

[104] Hope collection, Ashmolean Museum: see Clayton 1960, p. 124, nn. 99–101, for full information.

[105] Clayton 1960, pp. 105–26.

[106] Frick collection, New York, no. 18.1.44: see *Frick Collection* 1968, pp. 194–7.

[107] Aubrey, *Lives*, 1898, 2. 242, where he is described as 'of middle stature, and slight strength brisque round cie, reddish fac't and red nose (ill liver), his head not very big, his hayre a kind of sand colour; his beard turned up naturally, so that he had a brisk and graceful look.'

There is a discrepancy (not in itself conclusive) in the colour of the eyes – pale brown here, 'dark blue' in the Van Dyck: unfortunately Aubrey is no arbiter with his 'brisque round eie'. It remains doubtful whether the youth in No. 271 developed into the young man of Van Dyck. As to the painter, Dobson was postulated in 1836;[108] the attribution was changed to Cornelis de Neve on the basis of the authentic early picture in the National Portrait Gallery,[109] but neither seems acceptable today. Sir Ellis Waterhouse has suggested (personal communication) that it is near to the work of Gilbert Jackson.

272. PORTRAIT OF EDWARD MONTAGU, SECOND EARL OF MANCHESTER (Pl. CXLII), by an unknown painter. Bust; body directed to front, head turned half to our right, against a dark brown background. Middle-aged with long curling brown hair, moustache, and small pointed beard; his brown eyes look observantly ahead. A narrow white lace collar falls over his gorget, which partly covers his steel breast-plate decorated with three fields of gold damascening. White undergarment showing beneath the shoulders of a brown gown trimmed with double strips of gold braid. Oil on canvas (relined),[110] in a flat black frame with inner gilt bevel.

1685 A f. 50, no. 96: *Pictura cl[arissimi] Viri Mancunij Comitis Cantab Cancellerij. 677.*

Dimensions: (Canvas) Height 64 cm, Height 56 cm; (Frame) Height 79 cm, Width 70 cm.

The identification of the subject is confirmed by the Lely portrait bought from his descendants at Kimbolton Castle for the National Portrait Gallery. Edward Montagu (1602–71), created Baron Montagu of Kimbolton in 1626, was a Puritan leader; having been Major-General of the Eastern Association, he resigned his commission in 1645, which date presumably indicates the latest year for the painting. His iconography has been set out by David Piper.[111] In 1836 the sitter was 'supposed to be General Fairfax'.[112] The painter has not been identified.

273. PORTRAIT OF ELIZABETH WOODVILLE (Pl. CXLIII), by an unknown painter, after 1483. Half-length, directed a little to our left, against a dark brown ground, one hand resting on the other, behind a feigned stone ledge. Very high forehead, reddish-gold hair; light brown eyes looking over the spectator's left shoulder. Her golden head-dress embroidered with black reticular diaper pattern; diaphanous veil over her forehead. Necklace of plaited gold wire, with a quatrefoil jewel, and a black cord round her neck carrying a square gold jewel with three pendant pearls. Black dress, *décolletée*, with a level front embroidered with a horizontal line of pearls; collar and sleeves of cloth of gold embroidered with black quatrefoil and leaf motifs. On the middle joint of the little finger of her right hand a gold ring; others on the first and third fingers of her left hand. Inscribed in gold in top left-hand corner: *ELIZABETH . REGINA . REGIS / EDWARDI . ANGLIE.* Oil (?) on oak panel, in a black moulded frame, gilt inside, which is inscribed below in gold, *17. Eliz^h. Woodvile.* There is now a vertical split on the right.[113]

1685 A f. 50, no. 90: *Pictura Dnae Elizabethæ Woodvile, Reginae Angl. Conjugis Edwardi 4^ti Regis Angl. &c. 680.*

Dimensions: (Panel) Height 41 cm, Width 32 cm; (Frame) Height 48 cm, Width 38 cm.

Elizabeth Woodville (1437(?)–92), daughter of Sir Richard Woodville (later Lord Rivers), was married privately in 1464 to Edward IV, who predeceased her in 1483. The portrait seems to derive from one in the royal collection at Windsor Castle[114] and resembles other derivatives.[115] Our No. 273 was noticed by Vertue in 1740.[116] It has twice been exhibited outside the museum. It is probable (but there is no evidence to confirm) that it was originally in the Tradescant collection, as asserted by Mrs Lane Poole and Mea Allan.[117] As

[108] Duncan 1836, p. 176, no. 21. See also Wheatley 1897, p. 227; *Oxford Historical Portraits* 1905, p. 27.

[109] Piper 1963, p. 41, no. 1346, which is signed and dated 1627.

[110] Ash. Lib. AMS 22, no. 34. Relined, cleaned, and varnished by Dyer about 1890.

[111] Piper 1963, p. 214, no. 3678, pl. 8d. The existence of the picture which Mrs Lane Poole (1912, no. 437) called a similar portrait at the Royal Society has not been confirmed.

[112] Duncan 1836, p. 176, n. 22.

[113] Ash. Lib. AMS 22, no. 1, records repairs by Dyer about 1890.

[114] Millar (1963, pp. 9, 51) suggests that both the Ashmolean picture and the larger (no. 245) of the two at Windsor are derived from the smaller one there (no. 2011), which was inventoried in 1542.

[115] For example, at Queens' College, Cambridge, and at Dunham Massey Hall, Cheshire. Trace of another in a private collection in Somerset has been lost (Ashmolean Museum 1961, p. 1, n. 1).

[116] Vertue, *Note Books*, 4. 181; ibid., 5. 24.

[117] Allan 1964, p. 315; *Oxford Historical Portraits* 1904, p. 8; Tudor-Craig 1973, p. 90.

well as the two Arundel portraits (Nos. 266, 267), there is an Arundel association in the portrait of 'Old Parr' (No. 275), and a connection does exist with No. 273 because the sitter's sister was the second Earl of Arundel's great-great-grandmother.[118] These Arundel relationships, in the absence of provenance for most of the Tradescant–Ashmole pictures, make it tempting to speculate whether some came from Arundel or related sources. There are no records of dispersal at the deaths of successive earls in 1646 or 1652 or at the time of the demolition of Arundel House in 1678. If there had been any previous grouping of these four, it must have been before 1656, when 'Old Parr' is specified in *Musæum Tradescantianum*. The authorship is likely to remain unknown, but the portrait was probably executed during the last years of her life.

274. PORTRAIT OF JOHN TRADESCANT THE YOUNGER, dressed as a gardener (Pl. CXLIV), possibly by Thomas de Critz. Three-quarter-length, he stands a quarter to our right, against a landscape background. Dark brown bushy hair and full beard; his tired and baggy brown eyes look to the left of the spectator from a creased and melancholy face. He wears a black cap, and a white shirt, open at the front beneath a loose-fitting black coat lined down the front and at the forearms with grey fleece, the ends of the white shirt-sleeves showing. His right hand holds the front of his coat; his left hand grasps the wooden handle of what is probably a garden spade. On the middle joint of his little finger is a gold ring.[119] A rocky eminence behind him; beyond on right, a landscape with receding elms, beneath a partly clouded sky. Inscribed on left in yellow, *S^r John Tradescant Jun^r: / in his Garden*. Oil on canvas (relined),[120] in a broad black and gold frame (Fig. 75b), with gilt cherubs at corners and leaf motifs applied at centres.[121] Condition now sound.

1685 A f. 47, no. 71: *Pictura Joh: Tredescanti junioris Cimeliarchæ celeberrimi, Botanici habitu 685* [the last digit later corrected to 4].

Dimensions: (Canvas) Height 107 cm, Width 86 cm; (Frame) Height 128 cm, Width 109 cm.

An unequivocal likeness of the saddened owner of the closet of rarities and gardener of Oatlands Palace. If an occasion is to be found for representing him in this working attire in open country it should be sought in the period after the destruction of the garden at Oatlands in 1648[122] when his royal appointment and career ceased. He has had himself shown as a disappointed man, still holding on to the essentials of his profession, clearly older, but not by much, than in the 1645 portrait (No. 265), and much younger than in the 1656 portrait (No. 262). The painting was attributed to Dobson in 1836,[123] an opinion questioned by Bell and guardedly repeated by Mrs Lane Poole.[124] Collins Baker acknowledged that it is 'Dobsonesque in general feeling',[125] but Dobson died in 1646. It is now difficult even to consider a connection with Dobson, in that so little time, between 1645 (No. 265) and 1646 (Dobson's death), should have caused such ageing and change in Tradescant's appearance, but until 1981 the crucial date 1645 on No. 265 had remained unobserved. Collins Baker groups No. 274 and No. 259 ('Oliver de Crats') and No. 265, and dates it 'circa 1653, on the assumption that Tradescant is hardly to be reckoned "a man under forty-five" '.[126] In a very sympathetic and important reappraisal, Sir Ellis Waterhouse suggested that Emanuel de Critz might have painted it.[127] The most recent reference to the problem is also non-committal.[128] To look at the whole evidence, the dependence of the landscape on the tradition of Van Dyck, some similarities in the handling of the paint with the Thomas de Critz group, and Miss Edmond's recent findings together provide a positive encouragement to suggest that the painter was not Emanuel, but Thomas, de Critz, with no

[118] Lane Poole 1912, no. 402; Allan 1964, p. 315. It is worth adding that Elizabeth's sister, Margaret, was a direct ancestor of Thomas, Earl of Arundel (see No. 266).

[119] Can this be the ring shown in his father's ear (No. 260)?

[120] Ash. Lib. AMS 22, no. 10. Relined, cleaned, and varnished by Buttery in 1897, who made no comment on its condition in his estimate (10 guineas). Old varnish removed and, after some retouching in water-colour, revarnished by M. Deliss in 1969.

[121] See Appendix III.

[122] See Allan 1964, p. 184 (without precise dates or evidence), adding that 'Cromwell tried to make a hero of the purely utilitarian type of gardener'.

[123] Duncan 1836, p. 175, no. 11, with the incorrect remark that he (Tradescant the Younger) was the first keeper of the Botanic Garden (at Oxford): the appointment was offered in fact to his father, who never took up the post.

[124] Ash. Lib. AMS 22, no. 10; Lane Poole 1912, no. 426, as in *Oxford Historical Portraits* 1905. Later, however, Mrs Lane Poole (1913, p. 65) opted for Emanuel de Critz.

[125] Collins Baker 1912, I. 120–1.

[126] Ibid., I. 121.

[127] Waterhouse 1962, pp. 48–9, pl. 44b. See also Allan 1964, p. 313.

[128] Millar 1972, p. 168.

decisive evidence to the contrary. Its frame is now a match in decoration, but not in dimensions, with that round No. 280.

275. PORTRAIT OF 'OLD PARR' (Pl. CXLV), by an unknown painter, about 1635. Three-quarter-length, directed a little to our left, against a dark brown rocky background, with narrow stone chimney and roof behind him and, on left, a craggy landscape with a tree-stump, one branch in leaf, beneath a cloudy sky. Bald pate, with white side-hair continuing to full ragged beard. An oldish face, with shrewdly amused black eyes looking ahead. Limp white collar over russet-brown tunic buttoned in front, with a twisted and knotted girdle, and matching breeches. His weight is on his right leg, the other thigh forward. With his right hand he grasps a rough staff; his left holds a loop of his belt. Inscribed at upper right in ochre, *Ætis sue 152*. Oil on canvas (relined),[129] in a flat black frame with gilt moulding within (Fig. 75e). Condition sound; many small retouchings now showing, and a superficial scratch on the right.

1656 p. 41: *Old Parre's picture.*
1685 A f. 48, no. 72: *Pictura celeberrimi Senis Tho: Parr Salopiensis, qui annos centum quinquaginta unum complevit. 685.*

Dimensions: (Canvas) Height 104 cm, Width 80 cm; (Frame) Height 117 cm, Width 92 cm.

The story of how this notorious old man died at the age of 152 has been often told.[130] He was 'discovered' in the spring of 1635 on or near the Shropshire estates of Thomas Howard, second Earl of Arundel, to whom 'the report of this aged man was certified'. Arundel had him conveyed in a special litter to London and in September presented him to Charles I. He died at Arundel House on 14 November 1635, and was buried in Westminster Abbey. The picture was in the Tradescants' Museum at Lambeth[131] and has since been recorded and engraved.[132] A picture which seems to be an old copy is in the National Portrait Gallery.[133] Various guesses at the painter were made,[134] but no name has recently been urged.[135]

276. JOHN TRADESCANT THE ELDER ON HIS DEATHBED (Pl. CXLVI), by an unknown painter, probably in 1638. Half-length lying with his head on a pillow to our left; sheet and red coverlet, with red curtain draped behind. Tufts of grey hair protrude from his night-cap; his beard is full. A white tasselled neckcloth and white night-gown, or shroud, with a black ribbon-bow below his beard. Inscribed below, in yellow, *S': John Tradescant Sen': lately deceas'd.* Oil on canvas (relined),[136] in a black moulded frame, the inner and outer moulding gilt.

1685 A f. 51, no. 111: *Pictura Joh: Tradescanti Senioris nuper admodum mortui, 692.*

Dimensions: (Canvas) Height 61 cm, Width 74 cm; (Frame) Height 75 cm, Width 88 cm.

The identification has never been disputed. No attempt to name the painter has been published;[137] he must surely have begun work shortly before 17 April 1638, the date of the funeral. The drapery style resembles that in No. 279.

277. PORTRAIT OF JOHN TRADESCANT III (Pl. CXLVII), by an unknown painter, about 1638. Half-length, half to our right, head turned almost full, against a grey shadowed background behind a feigned oval stone opening. Straightish shoulder-length fair hair with fringe. His brown eyes look at the spectator. He wears a lace-edged broad collar with tasselled bandstrings. Tawny coat, with silver buttons at front, trimmed with silver lace. Oil on canvas (relined),[138] in a black and gold frame. Condition sound.

1685 A f. 52, no. 127: *Pictura ornatissimi Juvenis. 703.*

Dimensions: (Canvas) Height 66 cm, Width 61 cm; (Frame) Height 81 cm, Width 76 cm.

[129] Ash. Lib. AMS 22, no. 26. Relined, cleaned, and varnished in 1897 by Buttery (who noted the much worse condition of the National Portrait Gallery copy).

[130] *Dictionary of National Biography*, s.v. Parr; Springell 1963, pp. 118–19.

[131] Tradescant 1656, p. 41.

[132] Engravings published by J. Caulfield in 1797 and by T. and H. Rodd in 1821 (Hope collection, Ashmolean Museum).

[133] Piper 1963, pp. 264–5, where the iconography is fully set out, to which should be added a small copper panel sold at Sotheby's, 30 October 1963 (lot 73).

[134] School of Honthorst (*Dictionary of National Biography*); School of Paul van Somer (Sir George Scharf, personal communication).

[135] cf. South Kensington Museum 1866, no. 772; *Oxford Historical Portraits* 1905, p. 14; Lane Poole 1912, no. 412; Allan 1964, p. 214.

[136] Ash. Lib. AMS 22, no. 9. Relined, a bad cut across the background repaired, cleaned, and varnished by Buttery in 1897.

[137] Lane Poole 1912, no. 415; Allan 1964, p. 313.

[138] Ash. Lib. AMS 22, no. 16. Relined, cleaned, and varnished by Buttery in 1897.

There has been no dispute over the identification of John Tradescant the Younger's only son[139] by his first wife, Jane Hurte, whom he married in February 1627 and who died in May 1634. John III was born in November 1633, appears again in Nos. 269 (about 1643, aged about ten) and 280 (1645, aged twelve) and died in September 1652.[140] An erroneous attribution to Johannes Priwitzer was published in 1980.[141] The date must be about 1638.[142] The portrait is a pendant to that of his elder sister (No. 278).

278. PORTRAIT OF FRANCES TRADESCANT (Pl. CXLVIII), by the same unknown painter as the preceding, about 1638. Like its pendant, half-length, but Frances's body is directed a little to our left and her head turned almost to full face against a grey background, behind a feigned oval stone opening. Her flaxen hair is cut to neck-length, and in it she sports a pale blue ribbon; her brown eyes look steadily at the spectator. Her deep white collar has a double lace border of repeating octofoils, with a bow of broad pale blue ribbon. The sleeves of her tawny-yellow patterned dress are slashed and pulled with white, bordered with red and blue embroidery; another bow of pale blue ribbon at her waist. Oil on canvas (relined),[143] in a black and gold frame. Condition sound.

1685 A f. 52, no. 128: *Pictura puellæ formosissimæ. 704.*

Dimensions: (Canvas) Height 66 cm, Width 61 cm; (Frame) Height 81 cm, Width 76 cm.

That the subject is Frances, elder sister of John III (No. 277), has not recently been doubted. She was born about 1628, appears again in No. 269 with her brother and stepmother, shortly before her marriage to Alexander Norman in January 1644 aged about nineteen, was widowed in 1657, and died after 1661.[144] Her age here appears to be about ten or eleven, which corresponds with the data concerning the pendant and allows both to have been painted by the same hand in the summer of 1638 or shortly afterwards.[145]

279. PORTRAIT OF PRINCE WILLIAM OF ORANGE (Pl. CXLIX), copy after Cornelius Johnson. Knee-length, directed half to our left, his right arm resting on a table covered with a red cloth, on which is set a plumed hat, against a red curtain. Dark hair brushed from a central parting to touch his shoulders; his head turned almost to front; his dark eyes look at the spectator. Both hands hang limply. His broad falling collar is edged with lace; large tassels to his bandstrings, which fall over his Garter ribbon, the jewelled George hanging by his side. Yellowish dress with a row of buttons down the front, doubling below his waist, where there is a gusset. A white strip to his left sleeve; both are puffed at the cuffed wrists. Oil on canvas (relined),[146] in a flat black oak frame, with inner gilt moulding. Sound condition, with yellowing varnish.

1685 A f. 52, no. 125: *Pictura illustrissimi Henrici Ducis Glocestrensis Car . I^mi filii natu minimi. 706.*

Dimensions: (Canvas) Height 90 cm, Width 73 cm; (Frame) Height 104 cm, Width 87 cm.

The old identification as Henry, Duke of Gloucester, maintained in 1836,[147] was abandoned at the end of the century when Horace Buttery referred to the Knole portrait of the child who was to become King William III,[148] and this association has since been sustained.[149] The handling of the drapery resembles that in No. 276. The copyist is not identified.

280. PORTRAIT OF HESTER TRADESCANT AND HER STEPSON, JOHN (Pl. CL), painted in 1645 and here attributed to Thomas de Critz. She stands on right, three-quarter-length, directed three-quarters to our left, her right hand holding a

[139] The identification, first hazarded by Bell, was later published by Mrs Lane Poole (1912, no. 422).

[140] Allan 1964, *passim*; Josten 1966, 2. 621–2.

[141] Ashmolean Museum 1980, p. 76, F 703, based on likenesses with the six documented portraits (dated 1627) of the family of the fourth Earl of Bedford; see Millar 1972, 31, nos. 28–30. Priwitzer was in London in 1627 and 1635.

[142] If we assume the boy to be about five years old. It was in 1638 that his father inherited the Tradescant collection and the Oatlands keepership.

[143] Ash. Lib. AMS 22, no. 17. Relined, cleaned, and varnished by Buttery in 1897.

[144] Allan 1964, *passim*.

[145] Lane Poole 1912, no. 441; Allan 1964, p. 314; Ashmolean Museum 1980, p. 76.

[146] Ash. Lib. AMS 22, no. 41. Relined, cleaned, and varnished by Buttery in 1897.

[147] Duncan 1836, p. 176, no. 35.

[148] Ash. Lib. AMS 22, note at end of Buttery's estimate dated 1896.

[149] Lane Poole 1912, no. 452. For the iconography of William III, see Staring (1951, p. 163), who lists six versions of the Johnson type, of which the prime example (signed and dated 1657) is the full-length at Knole.

paper[150] also held underneath by John in his right hand as he stands turned towards her with left arm akimbo,[151] against a plain dark brown background; a darker strip behind the boy, and, beyond, a diagonal lobed silhouette with a leafy tree masking blue sky with pink clouds.[152] Hester's head is turned slightly to the front, the little of her hair that shows is brown, and her brown eyes are turned to the spectator. A white lace-edged cap under a tall black hat, its wide brim turned down behind, with white band. Deep white collar with double edge of lace. Her dark grey dress parts below the bodice to reveal a white under-dress embroidered with red sprigs. Her left hand holds back her skirt. A silver watch[153] hangs by its chain from a ribbon edging her bodice. John's neck-length fair hair has a fringe. His brown eyes look up into her face. Broad white collar with tasselled bandstrings over a grey coat with black buttons down the front and at the side vents; breeches of the same material. White cuff. Inscriptions in black above the figures: respectively on left *Ætis 12 / A.D. 1645* and on right *Ætis 37 / Sept bris Anno Domini / 1645*,[154] and in yellow near centre *124 / S^r. John Tradescant his / Second Wife, and son.* Oil on canvas (relined),[155] in a black frame with gilt inner bevel and a narrow gilt quarter-round cavetto. Condition sound.

1685 A f. 52, no. 124: *Pictura Conjugis Joh: Tradescanti cum filiolo suo. 707.*

Dimensions: (Canvas) Height 136 cm, Width 111 cm; (Frame) Height 161 cm, Width 136 cm.

The identities of the subjects and their ages are clear, as is the date. The attribution was to Dobson in 1836;[156] Mrs Lane Poole thought the artist was Emanuel de Critz.[157] Bell postulated the same unnamed painter for Nos. 259, 265, and 280.[158] Collins Baker, however, saw No. 280 as by the same hand as No. 269, and went so far as to see this hand also responsible for Nos. 259, 265, and 274.[159] The riddle remains unsolved: there is not enough comparable material and what there is has only been juxtaposed in part or by photograph. It is interesting to observe that the left background of No. 280 contains the same elements, though even more flatly painted, as does the (earlier in date) No. 275 ('Old Parr'). As we now know that No. 280 was painted in the same year (1645) and is generally thought to be by the same hand as No. 265 (John II with 'Zythepsa'), it is tempting to consider that in the Lambeth house, for reasons now lost, these two double portraits were unequal pendants, the husband with his friend, and his second wife with his only son; and that in the original Ashmolean Museum, faced with arranging the four largest family canvases, the first Keeper paired our Nos. 265 and 269 (which have consecutive numbers in the 1720 and 1756 lists) and also Nos. 280 and 274, whose frames are matching but unequal and which flanked the 1656 double portrait of John II and his wife (No. 262) in the 1836 catalogue. Before the staircase there was taken down in 1863, No. 280 hung below No. 269 on a landing wall, according to a drawing preserved there (i.e. the present Museum of the History of Science). No. 280 was engraved and published in 1798 by J. Caulfield, and republished in 1821 by T. and H. Rodd.[160]

281. PORTRAIT OF ELIAS ASHMOLE (Pl. CLI) by John Riley. Three-quarter-length, standing, directed a little to our left, head turned a little to our right, holding upright with his right hand a book on a table, against a plain dark brown ground.

[150] Interpreted by Bell (Ash. Lib. AMS 22, no. 14) as 'a jewel in a paper', followed verbatim by Mrs Lane Poole (1912, no. 439). It seems to be a jewel held in front of a piece of white paper to make its design and colours clearer, rather than a water-colour or coloured print of a jewellery design. Such designs were invented and engraved by several artists: this particular style apparently started in Paris with Pierre Marchand's suite of seven sheets dated 1623, one of which is reproduced in Staatliche Museen zu Berlin 1939, p. 127. Three years later designs by Balthasar Le Mercier were published by Moncornet (Guilmard 1880, p. 48, pl. 20). Undated designs were published, presumably in Paris, after Gédéon L'Égaré (Guilmard 1880, p. 51) and Rudolph Schulte (Jessen 1920, p. 200, fig. 134). Jacobus van der Tuerff also produced similar designs (Guilmard 1880, p. 506).

[151] His left arm is also akimbo in No. 269.

[152] This element is puzzling. In general it corresponds with the background of 'Old Parr' (No. 275), but its incompetence belies the cool charm and elegant brushwork of the figures. The condition of No. 280 was not specially remarked on by Buttery in his estimate for repairs in 1896. Should it be treated as an area of overpainting, perhaps in the early years of the museum by a local handyman, based (*faute de mieux*) on No. 275 to create a pendant to No. 274? The frames of Nos. 280 and 274 match each other, though the measurements prevent them being true pendants.

[153] Evidently the same watch as she wears in No. 269, but rendered by a different hand.

[154] Reproduced in reduced facsimile, Lane Poole 1913, pl. XXXVII.

[155] Ash. Lib. AMS 22, no. 14. Relined, cleaned, and varnished by Buttery in 1897. Decomposed varnish removed, retouching in water-colour as necessary, revarnished by M. Deliss in 1969.

[156] Duncan 1836, p. 175, no. 13.

[157] Lane Poole 1912, no. 439.

[158] Ash. Lib. AMS 22, no. 14.

[159] Collins Baker 1912, I. 120–3.

[160] Hope collection, Ashmolean Museum.

The ends of his long fair wig curl down over his breast; clean-shaven; grey eyes look at the spectator. Knotted lace cravat; red-brown velvet coat, his left arm akimbo with sleeve turned back, revealing a rumpled shirt-cuff. A yellowish cloth elaborately draped across his right forearm and held by his left hand resting on his hip. He wears two rings on his little finger.[161] Below his cravat a gold portrait medal over which is looped a filigree chain.[162] On the table the book with the spine lettered *ASHMOLE OF THE GARTER* on a red label: at its base a gold George of that order,[163] and a gold portrait medal;[164] a round box of gold coins, painted with the reversed cypher *C R*[165] beside it, and, suspended on a gold chain, a large gold portrait medal.[166] Inscribed in gold, below the table edge, *PRÆMIA HONORARIA*. Oil on canvas (relined),[167] in an elaborate carved and gilt frame, topped by Ashmole's arms[168] and his motto *EX VNO OMNIA*, by Grinling Gibbons.[169]

1685 A no. 730: *Pictura venustissima ornatissimi viri Dñi Eliae Ashmole hujus Musaei instructoris munificentissimi, Limbo e Tiliâ arte prorsus Thaumaturgicâ cælato, adornata.*

Dimensions: (Canvas) Height 124 cm, Width 101 cm; (Frame) Height 188 cm, Width 148 cm.

Ashmole's portrait was painted again by Riley;[170] it had already been painted by de Neve in 1664.[171] The volume is his *Institution, Laws and Ceremonies of the most noble order of the Garter* (1672). The George had belonged to Thomas Howard, Earl of Arundel, and was given to Ashmole in 1674 by Henry Howard, Baron Howard of Castle Rising, Earl Marshal, who succeeded as sixth Duke of Norfolk in 1677.[172] The filigree chain and portrait medallion were given by Frederick William, Elector of Brandenburg, in 1675 and received in 1680.[173] The portrait medal of Karl Ludwig of Bavaria was given by him in 1680,[174] the other chain and medal by the King of Denmark in 1674.[175] The portrait must have been painted between 16 November 1680 and Ashmole's reference to it on 2 February 1683.[176] He names no artist, nor is one assigned until the name of Riley occurs, first as a tentative attribution by C. F. Bell in 1898,[177] since generally accepted.[178] It was engraved in aquatint for Ackermann's *History of Oxford*.[179] About 1860–70 the painting was skied above No. 260 on the west wall of the first floor of the Old Ashmolean.

282. PORTRAIT OF KING CHARLES II (Pl. CLII), by John Riley. Half-length, directed half to our left, head turned a little to front, against a dark brown ground. The ends of his long dark wig curl down on to his breast. Clean-shaven, middle-aged face; dark eyes looking at the spectator. He wears a white lace cravat over his plate armour, with the blue sash of the Order of the Garter. Oil on oval

[161] A faceted gold hoop, retaining a gold ring with a hexagonal sapphire in claw setting.

[162] Josten 1966, 4. 1426, 1670–1. The gift was adumbrated in April 1675 and received on 16 November 1680: 'a Gold Chaine with a Medall from the Elector of Brandenburgh, it is composed of 90: links of Philagreen Links in great knobbs, most curious worke . . .it weighs 22 ounces' (Bod. Lib. MS Ashmole 1136, f. 61^{v}). Elsewhere (MS Ashmole 1131, f. 369^{v}) it is described as 'very neere two yards long'. There are now thirty-one links (see Thompson 1931, p. 101, 116–17). The chain and medal are now displayed in a case below the portrait.

[163] Josten 1966, 4. 1373 (13 April 1674). Henry Howard of Castle Rising 'gave me a George in Gold, which his Grandfather wore when he went Ambassador into Germany' (in 1636). It is now displayed below the portrait.

[164] Ibid., 4. 1661, 1666–8. The gift was received on 27 September 1680, from the Elector of the Palatinate. It is now displayed below the portrait.

[165] Ibid., 4. 1712, n.4^{a}, suggests that this refers to the gift of £400 out of the Paper Customs approved by Charles II in 1673.

[166] Ibid., 4. 1367, 1389–90. The King of Denmark's gift of a 'lusty chain of gold of 4 linkes . . . and a stately medall of Gold' was adumbrated in a letter of 28 February 1674 and received on 20 July 1674. The latter was stolen in or after 1776 (Thompson 1931, p. 117).

[167] AMS 22, no. 36. Relined, cleaned, and varnished by Buttery in 1897, who attributed it to le Neve (i.e. Cornelis de Neve the Younger—who was known to have painted Ashmole in 1664).

[168] Quarterly sable and or, in the first quarter a fleur-de-lis or, for Ashmole, impaling, or, a cross moline gules, and in the first quarter a torteau for Dugdale. (The field of the Dugdale arms should be argent but has been gilded, perhaps during the regilding of the frame.) Above, Mercury appears from behind to embrace the scrollwork supported by the celestial twins, a suitable astrological reference.

[169] Green 1964, p. 85, pl. 120.

[170] Also displayed in the Founder's Room (Ashmolean Museum 1961, p. 134); painted in 1689, a copy of which is in the National Portrait Gallery (see Piper (1963, p. 17), who lists the iconography).

[171] Collection of Sir William Dugdale: see Royal Academy of Arts 1960, no. 227.

[172] See n. 163.

[173] See n. 162.

[174] See n. 164.

[175] See n. 166.

[176] Josten 1966, 4. 1712, 1727. 'My picture (after sent to Oxford) came home', possibly after being framed by Gibbons.

[177] Ash. Lib. AMS 22, note B; Lane Poole 1912, no. 447.

[178] Waterhouse 1962, p. 91; Ashmolean Museum 1961, p. 134, no. 370; Ashmolean Museum 1980, p. 80, no. A316b.

[179] Ackermann 1814, facing p. 235.

canvas (relined),[180] in a limewood frame elaborately carved with fruit and flowers by Grinling Gibbons, and gilt.[181]

1685 A no. 731: *Effigies Serenissimi Principis Caroli 2di Regis Angl. etc. Limbo e Tilia elegantissime cælato ac deaurato, adornata.*

Dimensions: (Canvas) Height 76 cm, Width 61 cm; (Frame) Height 100 cm, Width 88 cm.

The identification of the sitter is well authenticated. As with Nos. 281 and 283, the picture remained unattributed until 1912.[182] Pendant to No. 283.

283. PORTRAIT OF JAMES, DUKE OF YORK (Pl. CLIII), by John Riley. Half-length, directed a quarter to our right, head turned a quarter to our left, against a dark brown ground. The ends of his long fair wig curl down to his breast. Clean-shaven face, dark eyes looking at the spectator. He wears a white lace cravat over his plate armour, and the blue sash of the Order of the Garter. Oil on oval canvas (relined),[183] in a limewood frame elaborately carved as a palm and myrtle wreath with three clusters of flowers by Grinling Gibbons, and gilt.[184]

1685 A no. 732: *Effigies Serenissimi Principis Jacobi 2di Regis Ang. etc. simili Limbo adornata.*

Dimensions: (Canvas) 76 cm, Width 61 cm; (Frame) Height 101 cm, Width 93 cm.

Pendant to No. 282, with which it has always been associated.[185] If not by Riley himself, these last two were certainly from his studio.

284. PORTRAIT OF AN UNKNOWN YOUNG MAN (Pl. CLIV), by an unidentified Italian or Flemish painter, probably late sixteenth century. Half-length, standing, directed a little to our left, against a dark olive-green ground. Clean-shaven with brown hair, grey eyes looking at the spectator. He wears a black doublet and trunk hose, and a white pleated ruff. In his left hand he holds a jewel, and on his little finger he wears a ring set with a red stone. Oil on panel[186] in a flat black wooden frame with gilt inner bevel.

AMS 22 no. 2: *A man unknown, Italian, late 16th Century ?*

Dimensions: (Panel) Height 88 cm, Width 73 cm; (Frame) Height 103 cm, Width 88 cm.

The nationalities of sitter and painter remain indeterminate. Though historically part of the founder's collection, No. 284 cannot be definitely identified with any of the four unnamed male portraits (1685 A 660, 661, 686, 690).[187] At the time of writing, the paint is flaking badly.

Four portrait paintings, which had been brought over from the Old Ashmolean in 1894, were also listed by C. F. Bell in 1898 in Ash. Lib. AMS 22. Three of these, here numbered 284–6, cannot be related with certainty to any one in the earliest catalogue. His no. 42, 'Erasmus, 17th Century, copy from the picture by Holbein in the Louvre', (equated by him with 1685 A, p. 39, no. 1, *Erasmus Rot A*) is no longer to be found.

285. PORTRAIT OF AN UNKNOWN YOUNG LADY (Pl. CLV), by an unidentified painter, probably late sixteenth century. She stands half-length, to front against a dark grey background. Her head turned a little to our left, pale brown hair showing beneath her lace cap; darker eyebrows, and dark eyes looking demurely at the spectator. She wears a black dress with dark grey stripes, puffed sleeves, and farthingale, with lace stomacher and cuffs; her pleated ruff is lined with lace. She holds before her in both hands a small book bound in red, with metal fittings. An elaborate gold ring on her left little finger. Oil on panel[188] in a reconstructed flat black frame with gilt inner bevel, the upper rail old, mitred and halved. Condition fair, but old splits have reopened.

[180] Ash Lib. AMS 22, no. 39. Relined, cleaned, and varnished by Buttery in 1897.

[181] Josten 1966, 4. 1711, 1717; Macquoid and Edwards 1954, 2. 241, 3. 23, fig. 16.

[182] Lane Poole 1912, no. 445: attributed to John Riley. For other versions see Lane Poole 1913, p. 161; *Country Life* 2 February 1961, p. 222; Piper 1963, p. 68, pl. 10c.

[183] Ash. Lib. AMS 22, no. 40. Relined, cleaned, and varnished by Buttery in 1897.

[184] Macquoid and Edwards 1954, fig. 17; Grimm 1978, pl. 230.

[185] Another version is in the Bodleian Library (Lane Poole 1912, no. 180). They are described in the Book of Benefactors (see Microfiche 1) as 'Effigies ... Limbis elegantes caelatis ac deauratis adornatas'. A payment of 2*s*. appears in the Museum accounts for 1686–7 for hanging them.

[186] Ash. Lib. AMS 22 no. 2. Four oak planks; parqueted with buttons down each seam and with cross battens top and bottom, cleaned, varnished, and, especially in upper part of background, restored by Buttery in 1897.

[187] *Oxford Historical Portraits* 1904, p. 98; Lane Poole 1912, no. 410; not included in Lloyd 1977; Ashmolean Museum 1980, p. 6, no. F 661?

[188] AMS 22, no. 3; parqueted, cleaned, retouched – where cracked – and varnished by Buttery in 1897.

AMS 22 no. 3: *A lady unknown, Flemish, late 16th century?*

Dimensions: (Panel) Height 78 cm, Width 61 cm; (Frame) Height 92 cm, Width 77 cm.

Both subject and painter remain nameless.[189] May be equated with 1685 A f. 52 no. 120: *Pictura Ornatissimae faeminae 691*.

286. PORTRAIT OF A MAN, CALLED SIR FRANCIS DRAKE[190] (Pl. CLVI), by an unidentified painter, dated 1587 and 1588. Bust, turned to our right, against a greenish-grey ground. Short reddish hair, fairer moustache and beard, all closely trimmed; his grey eyes look at the spectator. He wears an embroidered black doublet with deep, pleated white ruff. Inscribed on right in black *ÆTATIS XLVII | A°1587* and, in white along upper edge, *ANNO, 1588 ÆTATIS SVAE. 48*. Oil on one-piece oak panel,[191] in a black and gilt oak moulding, mitred and halved. The surface is damaged in parts, noticeably so across the face.

AMS 22 no. 5: *A man unknown.*

Dimensions: (Panel) Height 47 cm, Width 37 cm; (Frame) Height 55 cm, Width 45 cm.

The iconography of the celebrated Sir Francis Drake (*c.*1540–96) has been set out by Sir Roy Strong,[192] who noted in the Ashmolean Museum a copy of the three-quarter-length portrait of 1594 by Marcus Gheeraerts the Younger, an association already indicated by Mrs Lane Poole;[193] our No. 286 is posed in the other direction. It can be identified as no. 46 in Duncan's catalogue of 1836, but not in earlier lists.

287. PORTRAIT OF KING CHARLES I (Pl. CLVII), a copy with variations, after Lely. Half-length, turned half to our right, seen through a feigned oval opening against a warm grey ground with shadow on right. Long brown hair curling to his shoulders, moustache and chin-tuft: his grey eyes look ahead. He wears a black satin doublet, with a white lace-edged collar, over the grey-blue sash of the Garter, the star of which is on his left sleeve. His right arm reaches diagonally across his body; part of his lace-edged cuff is shown. Oil on canvas (relined),[194] in a carved and gilt frame.[195]

1685 A f. 39, no. 226: *Carolus I.*[196]

Dimensions: (Canvas) Height 76 cm, Width 63 cm; (Frame) Height 97 cm, Width 84 cm.

Copied (with variations, notably the lacework on the collar) from Sir Peter Lely's double portrait of July to October 1647, of the King with his second son, James, Duke of York, belonging to the Duke of Northumberland.[197] No attempt has been made to attribute this smoothly competent interpretation.[198]

288. PORTRAIT OF A MAN, CALLED DR NICHOLAS FISKE (Pl. CLVIII), signed in 1651 by Cornelis de Neve II (before 1609–after 1667). Half-length, turned half to our right against a dark greyish-green ground. Neck-length white-grey hair curls from under his black cap; white moustache and pointed beard. His grey eyes look at the spectator. He wears a black doublet and cloak, limp white collar, and tasselled bandstrings. His right arm is bent across his body and in his gloved hand he holds a closed book. Above, on left, a shield of arms (checky argent and gules, on a pale sable three mullets pierced or)[199] hangs by a cord at an angle, from the branch of a lopped tree. Between these and the sitter's right shoulder, the inscription in yellow, *Ætatis suæ 76 | Anno 1651*. Signed in black *CDN | fecit* on right below the book. Oil on canvas (relined),[200] in a flat black frame with inner gilt bevel. Condition sound, except for a recent scrape in the background on the right.

[189] *Oxford Historical Portraits* 1904, p. 81; Lane Poole 1912, no. 406; Ashmolean Museum 1980, p. 1, no. F 691?

[190] An identification first put forward by Bell, verbally to Mrs Lane Poole (see n. 193 below) on the basis of the Buckland Abbey portrait of 1594 (copy 1616, Plymouth Guildhall).

[191] Ash Lib. AMS 22 no. 5. Restored by Buttery in 1897.

[192] Strong 1969, pp. 70–1, pl. 129 (in reverse to our No. 286).

[193] Lane Poole (1912, no. 405) drew attention to the mention in Bodleian catalogues of 1759, 1762, and 1766 of a portrait of Drake, which, as it does not occur earlier or later, may be the same as our No. 286.

[194] Ash. Lib. AMS 22, no. 37. Relined, cleaned, and varnished by Buttery in 1897.

[195] Between two bands of leaves the main decoration is of leaf and flower motifs in high relief; acanthus corners, roses in the centres of the rails, acorns and quatrefoils; rolled ribbon within. Width of members: 110 mm.

[196] There is no evidence to distinguish the two portraits of Charles I (Nos. 268, 287) in AMS 8 or AMS 12. It is assumed here that Ashmole bequeathed this copy after Lely with its Garter insignia.

[197] Beckett 1951, p. 39, pl. 13; Millar 1978, p. 6.

[198] Lane Poole 1912, no. 420.

[199] Apparently recorded in Metcalfe's 'Visitation of Suffolk', p. 191 (quoted in Ash. Lib. AMS 22, no. 21): the confirmation of these arms is dated 16 November 1633.

[200] Ash. Lib. AMS 22, no. 21. Relined, cleaned, and varnished by Buttery in 1897.

1685 A f. 39, no. 4: *Reverendij Vir D . . . SS. Th. D.*

Dimensions: (Canvas) 74 cm, Width 62 cm; (Frame) Height 91 cm, Width 79 cm.

The sitter was identified in 1756[201] by the arms and inscription as Nicholas Fiske (1575–1659), a successful London medico, and an astrologer who, with Ashmole's help, published Sir Christopher Heydon's *Astrological Discourse* in 1650.[202] The signature was interpreted correctly by Bell and his contemporaries,[203] and our No. 288 has never since lost its documentary importance.[204]

289. PORTRAIT OF JOHN LOWIN (Pl. CLIX), by an unknown British painter in 1640. An elderly man, half-length, his right forearm across his body, directed a quarter to our right against a dark brown background. Head almost to front, with greying flaxen hair, neck-length, in natural curls at the sides; moustache and chin-beard. His brown eyes look at the spectator. He wears a black coat, with broad limp falling collar of lawn with white hems, and ornamental bandstrings. Double cuff on his right wrist. Inscribed above on left in yellow-brown *ÆTAT. 64 / A°1640*. Oil on canvas (relined),[205] in a flat black and gilt frame with inner bevel.

1685 A. f. 39, no. 5: *Joannes Lewen celebris comædus tempore Caroli I^mi*

Dimensions: (Canvas) Height 76 cm, Width 65 cm; (Frame) Height 86 cm, Width 76 cm.

Lowin (1576–1659), the celebrated actor and contemporary of Shakespeare, Beaumont, and Fletcher, managed the King's Players 1623–42. No suggestion as to the artist has yet been published.[206]

290. PORTRAIT OF CAPTAIN NICHOLAS BURGH (Pl. CLX), here attributed to Cornelis de Neve II (before 1609–after 1667). Almost half-length facing a little to our right against a flat dark brownish ground. White wig curling to shoulders, the fringe brushed back in an arc over the front of his black skull-cap. Brown eyes look at the spectator from an elderly face; whiteish moustache and chin-tuft. He wears a black cloak fastened with a chased silver clasp just below the bandstring tassels of his white falling collar: the arms of St. George[207] over his left upper arm. A red coat fastened by four large buttons, three of them in a group. Oil on canvas (relined),[208] in a black and gold moulded frame.

1685 A f. 39, no. 7: *Michael Burck Eques Eleemosynarius Vindlesonensis.*

Dimensions: (Canvas) Height 69 cm, Width 59 cm; (Frame) Height 89 cm, Width 77 cm.

The name Michael Burck (*sic*) was not found in the records of the Military Knights of Windsor, but the sitter has been identified as Captain Nicholas Burgh (or Birch) whose cherry-stone carvings of St. George 'and divers heads' were given to John (?II) Tradescant and drawn by Ashmole.[209] He was appointed a 'Poor Knight of Windsor' on 19 February 1661, being 'now aged and unmarried', and died in 1670.[210] Although no attribution has been published from the Ashmolean Museum itself, Collins Baker suggested Robert Mallory, active mainly as a picture-dealer in the second half of the seventeenth century,[211] on the basis of his portrait of Walter Pell (1672) in Merchant Taylors' Hall in London.

291. PORTRAIT OF JOHN DEE (Pl. CLXI), by an unknown British painter, between 1574 and 1586. Bust, a little to our left, behind a ledge against a brown background, with red drapery behind and above, in a feigned oval carved with swags. On his head a black skull-cap tied with ribbons behind; his brown eyes look at the spectator; greyish white

[201] Ash. Lib. AMS 12, f. 59: the names seem to have been inserted by the compiler. See also Duncan 1836, p. 176, no. 41.

[202] Note pasted in Ash. Lib. AMS 22, no. 21: see Fiske 1902, p. 67.

[203] AMS 22, no. 21; *Oxford Historical Portraits* 1905, p. 64; Lane Poole 1912, no. 435. Collins Baker (1912, 1. 65) accepted it readily as a valuable foundation in his short article on de Neve.

[204] On de Neve, see above, p. 299.

[205] Ash. Lib. AMS 22, no. 22. Relined, cleaned, restored ('the face had at some previous time been very severely rubbed'), and varnished by Buttery in 1897.

[206] *Oxford Historical Portraits*, 1905, p. 70; Lane Poole 1912, no. 425; Bodleian Library 1964, p. 173.

[207] The arms were used by the Military Knights of Windsor. Our No. 290 is apparently the only picture of their uniform before the dress regulations were altered in the reign of William IV.

[208] Ash. Lib. AMS 22, no. 25. Relined, cleaned, and varnished by Buttery in 1897, who described it as 'a poor portrait and scarcely worth doing'.

[209] Tradescant 1656, p. 38; Josten 1966, 3. 813, and *passim*. Burgh also cut St. George in ivory. According to the Court Books and Apprentice Books at Goldsmiths' Hall, London, Nicholas, son of Matthew Burgh, gentleman, of Bristol, was apprenticed to Lewis Sawyer on 6 December 1605 for a term of eight years, and was made free on 15 July 1613. Although Sawyer's speciality is unknown, it is possible that the dexterity of our Nicholas was acquired from such a training and that the Poor Knight may have begun his career as a goldsmith.

[210] Fellowes 1944, pp. xlii, 35.

[211] Collins Baker 1912, 2. 209.

moustache and long pointed beard. He wears a pleated white ruff and black gown and costume. Inscribed above on left in pale yellowish-grey *Johannes Dee. / Anglus. / Londinensis / Æt'.suæ / 67.* Oil on canvas (relined),[212] in a black and gold moulded frame (Fig. 75f).

1685 A f. 39, no. 10: *Joannes Dee SS.Th.P.*[213]

Dimensions: (Canvas) Height 74 cm, Width 62 cm; (Frame) Height 89 cm, Width 77 cm.

The old inscription identifying the elderly sitter as John Dee (1527–1608), the astrologer, has been maintained in several engravings,[214] exhibitions,[215] and in all the literature.[216] Apart from the engravings, there are two portraits called Dee in the Wellcome Institute, London:[217] both are small panels showing elaborate interiors. As to the painter, there is a discrepancy between the supposed date of the sitting (1527 plus 67 equals 1594) and the style of the painting and the ornamental cartouche. Josten published Ashmole's letter to Sir Thomas Browne in November 1674: 'One thing I very much want, that is, his [Dee's] Picture to Coppy, if it be any where Extant.'[218] Aubrey recorded that Ashmole had 'a very good painted copie of him [Dee] from his sonne Arthur'[219] (who, however, died in 1651). It is likely that the original (now apparently lost) belonged to Rowland, the son of Dr Arthur Dee. No. 291 is mentioned in Ashmole's will (1686).

292. PORTRAIT OF RICHARD NAPIER (Pl. CLXII), by an unknown British painter, first quarter of the seventeenth century. Half-length, directed a little to our right, against a dark background. His short grey hair shows under his white conical cap, richly embroidered in gold; brushed grey beard and moustache; his grey eyes are turned a little to the left of the spectator. He wears a black gown, with sleeves padded high at the shoulders, partly covering a black tunic, damask-fronted, with small closely spaced buttons; pleated wheel ruff; plain black wrinkled sleeves with white pleated cuffs. Both hands held in front, the backs veined; in the right a small book, bound in red with a gilt device, a place in it kept with his index finger. Oil on canvas (relined),[220] in a flat black frame with inner gilt ogee moulding.

1685 A f. 39, no. 11: *Richardus Napeyr Medicus et Astrologus percelebris.*

Dimensions: (Canvas) Height 76 cm, Width 64 cm; (Frame) Height 92 cm, Width 80 cm.

The traditional identification as Richard Napier (1559–1634), the astrologer, has never been questioned.[221] No attribution has been attempted.

293. PORTRAIT OF WILLIAM LILLY (Pl. CLXIII), by an unknown British painter, in 1646. Half-length, standing three-quarters to our left in front of a fluted column, with a green curtain on our right; a cloudy sunset sky above leafy vine-branches on his right. His head is turned a little to his left. His brown hair falls from a central parting to his shoulders; moustache and slight chin-tuft; his blue-grey eyes look into ours. His white falling collar is cut to two points; in the angle between them the bow and 'pearl cluster' pendant of the bandstrings. Black gown over a black tunic with a closely set line of buttons. His left arm is bent across his stomach, showing a white cuff; his hand holds a paper, with a cross of folds, on which is inscribed *Ætatis 45* at the top, and, in red, a diagram for a horoscope (a

[212] Ash. Lib. AMS 22, no. 18. Relined, cleaned, and varnished by Buttery in 1897 (who thought that the work of our No. 291 resembled that of George Jamesone).

[213] The usual abbreviation of the Latin form of 'professor of theology'. John Dee was a Doctor of Laws at Louvain; he refused the Professorship of Mathematics at the University of Paris.

[214] A careful engraved record of the whole, in line and stipple, was published (n.d.) by E. Evans, the original drawing (in pencil on vellum) for which is, with a proof before letters, and an impression with letters, in the Hope collection, Ashmolean Museum, as are the following simplifications: (a) in a rectangle, with the curtain by Scheneker, in line and stipple after (G. P.) Harding published by T. Cadell in Lyson's *Environs of London* (1792); (b) in a rectangle (without curtain) by R. Cooper in line and roulette, published by Charles and Henry Baldwyn (n.d.); (c) in an oval, by W. P. Sherlock, in pure stipple, published by W. Smith (n.d.); (d) unsigned vignette in stipple, line, and roulette, published by Messrs Hunt and Clarke in 1827; (e) vignette, by W. Greatbatch, in steel, published by Richard Bentley in 1842. Another image, showing Dee with globe and dividers ('Dr Dee avoucheth his Stone is brought by Angelicall Ministry') is represented in four anonymous and undated engravings, one of which refers to the Frederick Roth-Scholtzius collection.

[215] South Kensington Museum 1866, p. 340; *Oxford Historical Portraits* 1904, p. 96; City of Manchester Art Gallery 1953, p. 60.

[216] e.g. Lane Poole 1912, no. 407.

[217] Wellcome Institute, London, nos. R 7809 and R 7817.

[218] Josten 1966, 1. 195, and 4. 1402–3 (where the letter is set out in full).

[219] Bod. Lib. MS Aubrey 6, f. 37, cited by Josten 1966, 1. 195; ibid., 4. 1403.

[220] Ash. Lib. AMS 22, no. 19. Relined, cleaned, and varnished by Buttery in 1897, who found it 'in a very bad state'.

[221] *Oxford Historical Portraits* 1905, p. 13; Lane Poole 1912, no. 411.

square within a square, the space between being divided into twelve equal triangles); at the top of the inner square, the inscription *non cogunt*, to which he points with the little finger of his right hand, which holds a quill pen. Near his left hand the date *1646* in black. Oil on canvas (relined),[222] in a black frame, with inner gilt bevel, enriched with a gilt cherub at each corner and a four-pear motif at each centre.

1685 A f. 39, no. 12: *Gulielmus Lilly insignis astrologus.*

Dimensions: (Canvas) Height 74 cm, Width 61 m; (Frame) Height 87 cm, Width 73 cm.

William Lilly (1602–81), astrologer and author, is commemorated by a monumental inscription placed by Elias Ashmole in the Church of St. Mary, Walton-on-Thomas.[223] The age of the sitter given on the paper (in his forty-fifth year, i.e. aged forty-four) corresponds with the date (1646). Ashmole recorded in his diary for 29 January 1652: 'Mr Lilly gave me his picture in oyl colours, of which there never had been coppy taken',[224] presumably our No. 293. The horoscope is blank except for the Latin inscription *non cogunt* (literally, 'they do not compel') which is found in arguments directed against fatalism (and Calvinism).[225] No firm attribution has been published.[226] As Collins Baker pointed out, the pinkish sky and the fluted column feature in paintings in the de Critz group (Nos. 269, 293).[227] Could No. 293 be the work of Emanuel? Its relationship with the variant images used for William Marshall's twice-copied engraving with the same inscriptions on the paper, and the title-page of Lilly's *Merlini Anglici Ephemeris* (1652), with the age altered to *48*, has not previously been recorded.[228]

ADDENDA

294. DOUBLE PORTRAIT OF AN ELDERLY COUPLE (Pl. CLXIV), traditionally said to be John Tradescant the Elder and his wife, Elizabeth, by an unknown British painter, in the first half of the seventeenth century. On a greenish-brown ground, two feigned oval wreaths of pointed leaves, with indeterminate knots at the four compass-points. The inner grounds are dull red. In the left-hand wreath, the head and shoulders of a woman facing a little inwards. She looks a little to our left; her hair is covered by a white cap beneath a tall black hat; white scarf and lawn collar over a black gown. He also faces inwards, with full grizzled beard and moustache; he wears a similar black hat, white falling collar with ornamental tassels to the bandstrings, black coat, horizontally-striped black and dark grey in front; a button in the centre of each black stripe. Oil on canvas (relined), in a gilt carved frame.[229]

Dimensions: (Canvas) Height 73 cm, Width 117 cm; (Frame) Height 82 cm, Width 130 cm.

In 1924 the Misses E. D. and A. C. Thorne presented two portrait paintings (Nos. 294–5) which had been framed in the panelling of one of the houses, probably Ashmole's, in Lambeth. They were removed before it was demolished in 1881, and deposited by Mr E. G. Thorne in the Ashmolean Museum in 1915.

The identification of the couple in No. 294 was based on the provenance and on tradition. Physiognomically and in expression it is hard to reconcile the man in No. 294 with the other portraits of John Tradescant the Elder (Nos. 253, 260, and 276). No other portrait of his wife, Elizabeth Day (born in the year 1586), whom he married in 1607[230] is available for comparison. No specific attribution has been suggested.[231] Condition sound.

295. PORTRAIT OF A YOUNG WOMAN (Pl. CLXV), traditionally said to be Jane Tradescant, by an unknown British painter, in the early seventeenth century. Half-length, a little to our left,

[222] Ash. Lib. AMS 22, no. 20. Relined, cleaned, in places retouched, and varnished by Buttery in 1897. It was noted that the face needed slight retouching; 'has been badly repaired in places'.

[223] Walton and Weybridge Local History Society, Paper no. 13 (1974).

[224] Josten 1966, 2. 602.

[225] An engraving of Lilly's own horoscope is in the Hope collection, Ashmolean Museum.

[226] South Kensington Museum 1866, no. 710; *Oxford Historical Portraits* 1905, p. 138; Lane Poole 1912, no. 444; Josten 1966, vol. 1, repr. facing p. 94; 2. 602.

[227] Collins Baker, 1912, 1. 122.

[228] Hope collection, Ashmolean Museum, where there is also an impression of R. Cooper's line and stipple copy of the head and shoulders only, taken from No. 293, published by Charles and Henry Baldwyn (n.d.), which, in turn, reduced in detail and scale and reversed, was 'Transferred from Copper & Printed from Stone by C. Hullmandel' (n.d.).

[229] The modern frame is a bolection with a transverse acanthus at centres and corners; pointed leaves imbricated from centres, similar in conception to that round No. 262, on which it was probably based.

[230] Allan 1964, p. 313, pl. 6.

[231] *Ashmolean Museum Annual Reports*, 1915, p. 12, and 1924, pp. 4–5; Ashmolean Museum, 1951, no. 9, followed almost verbatim in 1961 and 1980 Ashmolean catalogues; Goldsmiths' Hall 1953, no. 378.

against a plain dark brown background in a feigned oval, cut at each side. She looks with blue-grey eyes at the spectator, her light brown hair almost completely covered with a cap beneath a black-bordered green hood, lined with white, matching her cape. A white cape with lace edge envelops her shoulders and is fastened by two brownish crossed bows. Her greyish dress is patterned with dull red, dark green, and ochre sprigs; its cuffs match the collar. Her right arm is forward as though her hand were on an unseen table; her left forearm is across her stomacher. She holds a leafy posy with a single carnation; small round cabochon set in gold ring on her little finger: triple row of black beads round her wrist. Oil on canvas (relined), in a mid-eighteenth-century open-scrolled gilt frame, carved in high relief with flowers, and with shells at centres.

Dimensions: (Canvas) Height 74 cm, Width 61 cm; (Frame) Height 99 cm, Width 86 cm.

See discussion of provenance under No. 294. The identification of the sitter as Jane, née Hurte (who was married in 1627, as his first wife, to John Tradescant II; was the mother of Frances and John III; and died in 1634) must be treated with reserve.[232] Condition sound.

296. HATCHMENT (Pl. CLXVI). On a diagonal axis, the shield, bordered wtih linear scrolls and foliage, carries the charges used by the Tradescants (or, on a bend wavy sable, three fleurs-de-lis or with a crescent for difference) beneath a gold-visored helmet facing right with the crest (a fleur-de-lis or, winged sable, on a cap of maintenance) surrounded by conventional mantling gules and argent on a reddish-brown ground. Oil on oak panel, in a flat black frame with gilt inner bevel and applied carved wood and gilt ornament, cherubs at corners and leaf motifs at centres.

1685 A no. 723: *Insignia Johannis Tradescanti, cum margine bullis aureis insignita.*

Dimensions: (Panel) 32 cm square; (Frame) 44 cm square.

The arms correspond with the dexter shield of the impaled arms carved on the east side of the Tradescant tomb in Lambeth churchyard, a drawing of which is preserved in the Pepysian Library, Magdalene College, Cambridge.[233] Miss Allan (who did not describe the arms in correct heraldic phraseology) was unable to trace their grant or their record in a visitation.[234] The condition of the painting is good, as also of the frame (save for some cracks in the applied ornament and two small losses of wood).

APPENDIX I: The Siege and Battle of Pavia (No. 263, Fig. 74, Pl. CXXXIV)

The circumstances of the formerly celebrated Siege and Battle of Pavia have been set out by eyewitnesses and participants;[235] it has been imaginatively reconstructed by artists, known and forgotten alike, in paintings[236] and woodcuts,[237] in the series of seven tapestries completed in 1531 after drawings by Bernard van Orley,[238] and in a drawing by Wolf Huber.[239] So contradictory is the written evidence and so various must have been the motives of those who commissioned, or speculated in, the publication of these battle-pieces, that it is not easy to reconcile the pictures and prints.

A recent account of the siege and battle of Pavia hardly refers to the pictorial renderings of it and tacitly implies that this evidence is, therefore, valueless.[240] It is clear that not one of the artists had visited the site, the former royal park that extended northwards from the castle[241] on the city walls to

[232] Allan 1964, p. 314. For other references see n. 231.

[233] Pepysian Library, Magdalene College, Cambridge, no. 2972, 226a and b. See Pl. CLXXV.

[234] Allan 1964, pp. 23, 175–6, 227.

[235] Two lists of sources are given by Giono (1965, pp. 135–8, 222–3).

[236] This catalogue, No. 263; White Tower, HM Tower of London (acquired from Mrs Richard Williams); Kunsthistorisches Museum, Vienna (no. 5660); Nationalmuseum, Stockholm (no. NM272); Hampton Court (This may be the 'Table of the Siege of Pavie' in the royal inventory of 1542, covering Westminster Palace (Shaw 1937, p. 47, no. 141), which is perhaps 'The battaile of Pavee' sold from among the Hampton Court pictures to Richard Marriott (Millar 1972, p. 193, no. 115). Of the four royal paintings recording events in which Henry VIII took part only one is on panel, a little smaller than, but of the format of, our No. 263 (Millar 1963, nos. 22–5); and a painting attributed to Michel Coxie (reproduced in *L'Oeil*, 129 (1965), 44, when with Messrs Margua, Florence) and elsewhere.

[237] By Hans Schäufelein (Geisberg and Strauss 1974, pp. 1089–94 with text); by J. Breu the older (Geisberg and Strauss 1974, p. 356); and by H. Vogtherr the Elder (Geisberg and Strauss 1974, p. 1460).

[238] Museo di Capodimonte, Naples, nos. 390–6; Musée du Louvre, Paris, nos. 20. 163–9.

[239] Staatliche Graphische Sammlung, Munich, no. 34793; Winzinger 1979, pp. 34–8, pl. 85.

[240] Gianani 1971.

[241] A bird's-eye view of the city of a hundred towers, from the south, is given in a fresco of 1522 in the church of San Teodoro: reproduced by Peroni (1978, p. 15), the square castle with corner turrets being seen.

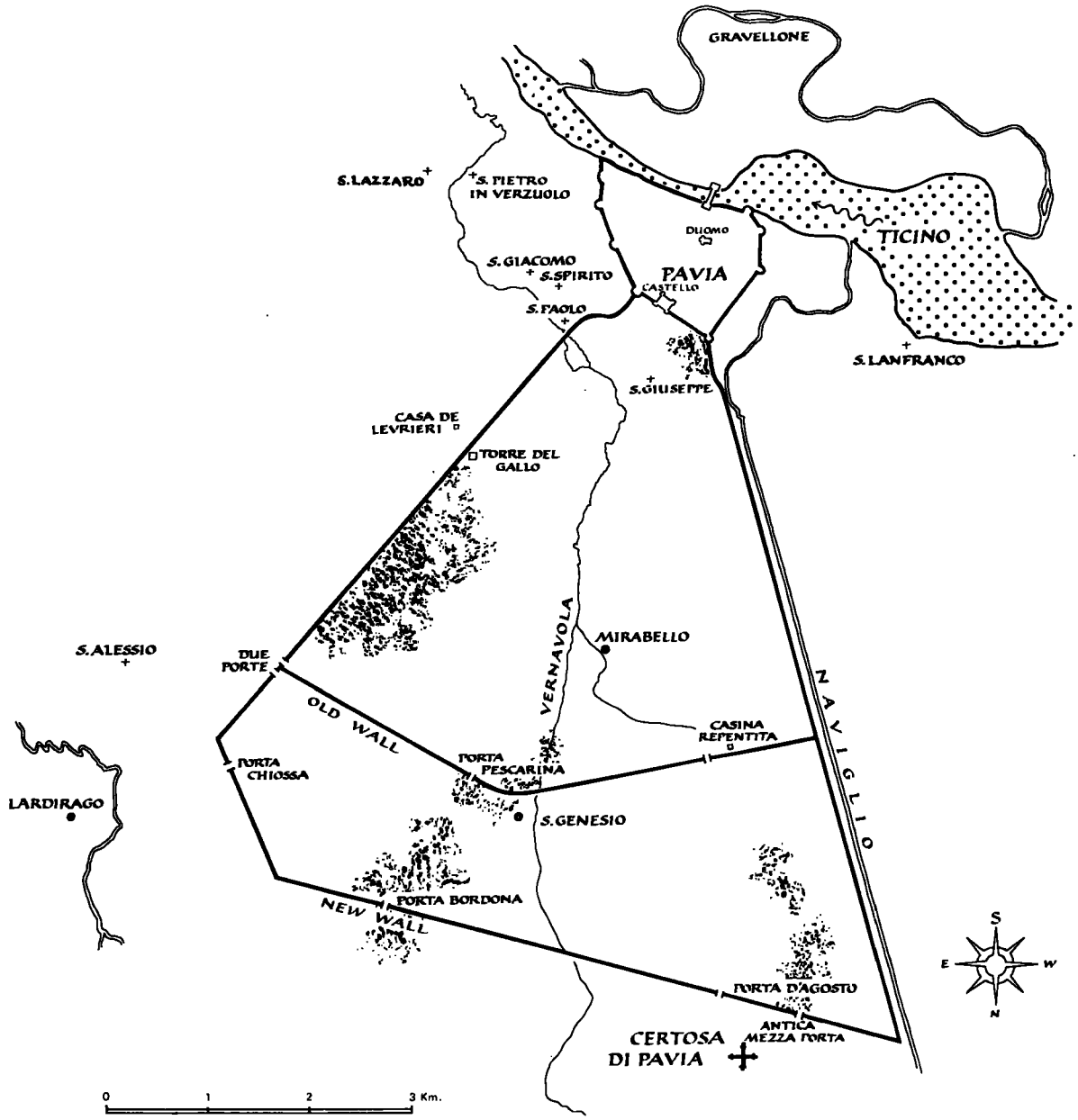


Fig. 74. The siege and battle of Pavia: explanatory map

the Certosa, a walled park of irregular shape[242] containing farms, woodlands, waterways, and tracks or roads as well as the Mirabello buildings. The ground is flattish, except for embankments and slopes along the streams and channels, and rises gently to a low hill north of Casina Repentita.[243]

The siege had been maintained since October 1524. A double attack on the city walls had been repulsed and by the end of the year the French were awaiting capitulation of the invested Imperialists through starvation, while they were encamped in, and to the east of, the park, and also on the island covering the bridge across the Ticino to the south. Imperial troops were based behind the river Olona to the east at Lardirago. The Imperialist generals, Lannoy, Pescara, and Bourbon, recognized the urgent need to relieve pressure on the city and decided to take Mirabello in the park as a way of embarrassing the besiegers by threatening their supply route to Milan and the security of their cavalry in the park itself, and to divide their forces. Pioneers were to begin dismantling lengths of the brick wall of the park at midnight on 24/25 February, and detachments of the Imperial troops were to enter before first light[244] to storm the Mirabello complex. The ground was waterlogged, the night wet, dark, and foggy; the breaches were delayed, and therefore the infiltration under cover of the woodlands did not begin until after first light. In spite of the attacking forces being issued with white jerkins to assist in identification,[245] such was the division of command and consequent confusion on both sides that a limited surprise assault developed into a series of haphazard engagements during one of which the King of France, after fighting long and successfully, was unhorsed and captured. This unexpected prize, together with a vigorous sortie under the garrison commander (Antonio de Leiva, Duke of Terranova) from the city, on top of the defection of the Swiss on the French side, gave the Imperialists complete victory, establishing Charles V in Lombardy and providing an opportunity to inhibit further French interference in the Empire, especially at its vulnerable points.

The demand for pictures could hardly come from the defeated, but not individually disgraced, French; it seems to have been satisfied by painters and engravers in the Imperial sphere of influence.

Battles do not provide good visual material: the large area of ground and the large number of individuals taking part in an animated, smoky, and protracted muddle defy any creative reconstructor of events (no less than today's photographer) to produce a comprehensible and embracing panorama. Between battle diagram and truthful landscape panorama with thousands of minute figures, the painter and illustrator is almost compelled to choose a low oblique view to give a condensed survey of the basic topographical features with small, stylized groups of combatants, and to give them banners, often over-large, to identify the parties represented. Darkness and fog are inadmissible; smoke has to be reduced; unnecessary minor features, streams, copses, tracks, must be ignored in order to show recognizable essentials. Ten square miles of parkland become an acre; one *Landsknecht* represents a hundred or so, and their formations are artificially placed and compressed. If Bernard van Orley divided the continuum of events into seven episodes and allotted a separate composition to each, the painter of the Ashmolean panel, and of a variant acquired from Mrs Williams for the Tower of London, has shown synoptically several successive events: e.g. the incursion of the Imperial infantry through the breach (lower right), the sortie (along the ditch to the left of the city), and the flight of the French, using in each picture a very similar format and topographical layout.[246] The river Ticino flows across the near distance, with the city, seen from the north, on our right; its battered walls, defensive ditch, and towers are generally similar in both. The east and west walls of the park, breached, run parallel, diagonally from the city downwards to the left; trees and streams are absent, as also is, notably, the navigable canal along and outside the western wall. The figure groups are arranged in horizontal bands as in so many contemporary representations of the military: a cavalry engagement in the left foreground, infantry and

[242] Plan preserved in the Library of the Certosa, partly reproduced in Beltrami 1906, p. 26. See also Peroni 1978, pp. 13, 16–17.

[243] See sketch-map in Fig. 74, based, by their kind permission, on relevant sheets of the Istituto Geographico Militare, 1:25,000, 1943 printing. The ground height varies only by 16 m within the park, the lowest height (74 m) being near the Vernavola by San Paolo, the highest (90 m) at Casina Repentita and one point 1 km to the north. The drainage system is largely modern.

[244] Sunrise at Pavia on 24 February is about 7 a.m. local time.

[245] They are shown only in the Stockholm painting (see n. 236 above).

[246] Armouries, HM Tower of London, no. I 142. A form of perspective resembling Chinese landscape perspective avoids the usual awkwardness of curving the distant landscape to a horizon. It also gives the largest useful pictorial area.

cavalry across the centre, with siege guns and tents beyond. More tents stand beyond the left-hand wall and in the encampment on the island. There is one puzzling element common to both: east and west have been transposed, a tranposition not yet satisfactorily explained.

But there are several significant differences of content. In the centre of the Ashmolean painting is the Count of Geneva, brother of the Duke of Savoy, close to the capture of the French King.[247] In the centre of the Tower painting rides the Duke of Bourbon:[248] the capture of the King is not shown. Were these protagonists, or their close-related supporters, the individuals who commissioned the two pictures? That the inscriptions are in French on the former does not contradict such an assumption, but the Italian on the latter hardly supports it.

The cavalry encounter in the left foreground of both shows French on the left (numbered 58–60 on Pl. CXXXIV b) and Imperialists on the right (61–3) with their standards. In the Tower picture the two sides are about to join combat; in the Ashmolean picture only the front rank of three French men-at-arms join battle; the others have turned in flight. But the labels point to different persons in each painting and it must be concluded that misinformation and wishful thinking are common to both renderings and allowed the artist to accommodate himself to each client. The following table lists, from left to right, different identifications given for the same groups in the two pictures:

TOWER OF LONDON PICTURE

French	*Imperial*
King of Navarre[249]	Marquis of Pescara
Admiral of France	
La Palice	
Duke of Albany	

ASHMOLEAN PICTURE

Duke of Albany (58)	Burgundians (61)
Bastard of Savoy (59)	St. Sorlin (62)
Bonnivet, Admiral of France, lies dead between the contenders (60)	Marquis de Guast[250] (63)

Both agree in including the Admiral and the Scottish Duke of Albany in the French group.

So far as the city is concerned, labels in both pictures are given for the tower of the church of St. Lazzaro, and for the signal tower. The Ashmolean picture also specifies the quarters of Lodron (30) the 'Marquise of Viresol' (32), and the garrison commander 'De Leve' (34), as well as the cathedral (33).[251] Both pictures agree in general in showing French tents, flags, and infantry on the island of Gravellone; in the Ashmolean picture they are defined as troops of Montmorency, St. Pol, and the French volunteers. Both show the broken bridge across the Ticino, and the tactically useful tower which the French wrested from the defenders.

To the left, beyond the Ticino and Gravellone, both pictures agree in the Buffalore wooden bridge, and more French tents. The Ashmolean picture shows only two tents (as against eight in the Tower version), but their place is taken by a rout of French horsemen, including Alençon, the Cardinal of Lorraine, (3), and Nantouillet (5). There is also an inscription (8) recording that the French failed in their attempt, by diverting the Ticino here, to dry the river and the moat round the city walls.

In the triangular area on the left, between the river and the 'east' wall of the park, both agree on three points: the French tents (nine in the Tower and three in the Ashmolean painting); a cavalry combat on the river bank;[252] and the sortie with pikes and Spanish banners, coming under cover of earthworks from the left-hand 'eastern' side of the city. The Tower picture shows in addition a French contingent of cavalry fleeing to the wooden bridge (where several men and horses are swimming or drowning), presumably the body from among which, in the Ashmolean picture, survivors have got across to the far bank.

In the Tower picture the Grand Master, St. Pol, and the Duke of Lorraine are riding past the tents to a breach where they are checked by Imperial pikemen. It is in the central band of fighting figures that most discrepancies occur.

The discrepancies are great, as the following table shows:

[247] Pescara had managed to detach the Duke of Savoy from the French, but the Bastard of Savoy remained loyal to François I: Pescara also arranged an attack on the Grisons which caused a similar defection from the French forces.

[248] In the Ashmolean picture he is further to our right.

[249] In the Ashmolean picture he is over by the river-bank (14).

[250] In the Tower picture he is with the rearguard.

[251] The identifications of the 'Marquise' (32), 'de Nevere' (26), and 'Sainct Ladre' (29) are due to Dr Donata Vicini, Director of the Musei Civici at Pavia. The real dominance of the cathedral would be lost in a low oblique view, but the many tall thin square-topped towers which characterize the skyline are missing in both paintings.

[252] Also shown in the Vienna picture (see n. 236).

TOWER OF LONDON PICTURE

French	*Imperial*
Grand Tresorier	Viceroy

ASHMOLEAN PICTURE

Montmorency (20)	Scaleng of Piedmont (18)
'De Gruffy' (13)	Pontvoyre of Savoy (19)
King of Navarre (14)[253]	Sucre of Flanders (25)
'Lorol' (21)	Count de Tende, son of
'Floranges' (23)	the Bastard of Savoy
'Babo' (17)	(12)
'de Rian' (24)	
French prisoners (15)	

Another obvious contrast is in the architecture of Mirabello: in the Tower picture it is a square stone building of two storeys with two small chimneys and five windows facing both north and west; in the Ashmolean (40) it is like an apse with small round arched windows above a wide cornice; a chapel-like edifice is shown in the Vienna painting.[254]

The turning-point of the battle was the capture of the French King, a prominent episode in the left of No. 11, where the monarch, still seated on his horse, with visor raised, faces *MONSEVR DE LA REYTE BVRGONION, QUI PRVS LE ROY DE FRANCE* (41). Among the long pile of corpses that lies across the centre are recorded *LE DUC DE LONQVEVILLE* (48), *FRANCOVS MONSEVR DE SALVCES* (49), *LE DUC DE SVSFOC DIT BLANCEROSE* (47), *LE VISCONTE GALEAS* (50), *MONSE^R DE LESCV* (51), *SAINEE SEVERIN GRAND ESCVIER* (52), *LE CONTE DE TONNOIRE* (53), and *MONSE^R DE LA PALISSE* (54). The Imperial cavalry crosses behind them, *LE PORTEVR DENSEIGNE QVE LE ROY DE FRANCE OCCEIST EN PENSANT METTRE EN FVITE* (42), with the Imperial standard, Pescara (43), with a quartered standard, *LE CONTE DE GENEFVE FRERE DV DVC DE SAVOYE* (44) leading some infantry, and *LE DVC DE BVRBON CHIEF DE LA BATLLIE DES ESPAGNIOLZ* (45), his horse caparisoned with the Bourbon lilies and red bend. A lone (?French) gunner fires one of two cannon pointing along the wall. To the left of the French King *LE VISROY DE NAPLES* (36) and other horsemen are still fighting while *LES SVISES* (46), defecting, march off in good order to left.

In the corresponding stratum of the Tower picture the battle is similarly engaged, but there is no sign of the French King. Beneath the banner of France modern (azure, three fleurs-de-lis or) and another showing a bull, the *SVIZARI* are (with a single brave, or foolish, exception) marching away before the Imperial horsemen charging under a leader with an undecipherable label and the *DUCA DE BORBON*, his horse like his Ashmolean counterpart's caparisoned with the Bourbon arms, preceding a banner of the same. *SGALEAZO VISCONTE* and *SFEDERICO DA BOZOL* lie among the slain. The knifemen are at work among the fallen, one of them very like his counterpart in the Ashmolean picture.

Three of the other four paintings are unrelated to each other and to the two preceding which show the Imperial attack from the spectator's right. In the Stockholm and Vienna pictures[255] it comes from the other side. The Stockholm work shows the river Vernavola winding from the lower left corner through the park past Mirabello, beneath the wall and out into the Ticino, which, however, sweeps round on the right where the Naviglio ought to be. A few bushy trees, in leaf, stand up against the eastern wall and around Mirabello. Otherwise the battle is difficult to read in detail. In the foreground a body of white-coated Imperial infantry, supported by cavalry with a banner of the Madonna[256] to the fore, engages disordered cavalry with various standards. In the further foreground an undefined mass of Imperial infantry storms across from a breach in the east wall beside which lie discarded picks. French troops break and flee through the west wall, to plunge into the broad river. Down the centre of the park streams from the city a dense mass of pikemen, their flanks harried by a few desperadoes trying to cross their ranks towards the river. Beyond the left wall is the French camp, mainly of bivouacs, between a line of guns still firing on the city and another line of guns, pointing north-east, facing the Imperial gun line which shields the nearby Imperial bivouacs and tents. Skirmishers are active all around.

The Vienna picture shows a rectangular park with the French camp, partly within and partly outside to east and west. The straight Naviglio canal runs along outside the east wall of the park (instead of the west wall). Beyond it, earth banks surround the two opposing camps in much the same

[253] In the Tower picture he is on the left of the foreground encounter.

[254] See n. 236. Photographs of the remaining restored part of the Castello of Mirabello are reproduced by Peroni (1978, figs. 8, 9).

[255] See n. 236.

[256] A similar banner occurs in the lower right area of Breu's woodcut (see n. 237).

areas as in the Stockholm painting. Another such protects a corner of the Imperial camp indicated by four tents, one with the Imperial arms, another with those of the Duke of Bourbon. By the river downstream and far from the park a substantial force of Imperial cavalry followed by two squares of infantry is about to clash with the first two bodies of French cavalry, which are followed by a square of infantry. In the centre, beyond a transverse canal, Imperial cavalry and infantry clash with mixed and disorganized French troops who are beginning to escape over and beyond the walls on the right to the river, which some have already crossed. In front of this transverse canal, just beyond a fictitious Certosa complex, the French King, still erect on a falling horse, submits to two men-at-arms.

A larger picture, attributed by Messrs Margua[257] to Michel Coxie (about 1499–1592) who worked for Charles V and Philip II, shows much the same general layout as that in Vienna – e.g. the junction of Ticino and Po is on left (in the Vienna picture like a T-junction, in the Margua more like a tributary flowing in from left), the arc of the diversion beyond the city, the layout of the park walls, the moated building in the centre, and the monastery group in the centre foreground, near the north wall. But all the details of the staffage and buildings differ. Generally the larger picture has the most complicated and numerous details: more individual figures, more endeavour to make imagination convincing and credible in an attempt at realistic reconstruction.

The Hampton Court painting[258] is much smaller, almost square, and is meticulously lifelike and detailed. On the left, a huge tree flanks the French infantry, and, on the right, a shapeless cliff the Imperial infantry; the foreground is full of small figures imaginatively disposed in lively attitudes. A great forest of pikes occupies the central band, beyond which French cavalry engages those of the Empire and the Pope. The hilly distance is dotted with burning or tall roofed buildings.[259]

The set of seven tapestries which had been commissioned by the merchants of Brussels, which were presented by them to Charles V in 1531, and which are now in the Museo di Capodimonte, Naples,[260] and the seven related drawings by van Orley, now in the Louvre, have been well described by Lugt.[261] The episodes are usually arranged as follows (Lugt's numbering): (191) the breach and the first assault: (192) abandonment of the French camp; (193–4) d'Alençon's defection and flight; (195) the sortie of the Pavia garrison; (196) François I leads the French cavalry and personally kills Civita di Santangelo; (197) the surrender of François I. Van Orley's insistence on the flatness of the extensive landscapes, even though the trees are in leaf, indicates that he was well instructed, and took full advantage of having seven viewpoints to help him to mask many problems of accurate topographical representation. His city is quite imaginary. The tapestries were completed for presentation to the Emperor, the absent beneficiary of this unexpected victory, six years after it had been won.

Of the three German woodcuts, that by Breu[262] shares a few common features with one of Van Orley's drawings, such as the castle of Pavia and the circular earthworks of the besiegers.[263] He shows the Imperial troops crowding through a breach on the east side, in the vicinity of Lardirago. He agrees with the Vienna painter in the rectilinear walls (but gives them double-pointed merlons), and in the position of the Certosa straddling it to the north, but not of its architecture. His viewpoint is from well to the north-east. He specifically labels one episode only, *CAPTIO REGIS F* (on a banner) above a cavalry fight in the centre of the park, where a prominent horse is caparisoned with the three fleurs-de-lis. The French forces are clearly indicated by banners with a cross or fleurs-de-lis, the Imperialists with other devices, including the Madonna.[264]

The slightly smaller six-part Schäufelein woodcut bears no relation to battle or topography: were it not for the accompanying text the scene would not be identifiable as the battle of Pavia, and it has been suggested that it may have originally been commissioned to represent the widespread and devastating Peasants' War (also of 1525), which was interrupted by a Turkish invasion from the East;[265] indeed, in the distant centre turbanned Turkish horsemen stream over the hills from burning buildings, and crescents can be seen on two of their banners. There was no such episode at Pavia. Apparently the blocks were thought to give an

[257] *L'Oeil* 129 (1965), 44.
[258] See n. 236.
[259] Cf. the Schäufelein woodcut mentioned in n. 237.
[260] Beltrami 1896.
[261] Lugt 1968, p. 57, nos. 191–7.
[262] Geisberg and Strauss 1974, p. 356.
[263] Lugt 1968, no. 195.
[264] Cf. the Stockholm picture mentioned in n. 236.
[265] The suggestion was made by Dr David Landau (Worcester College, Oxford).

indefinite enough account of an important battle[266] for them to be used with a three-column text on the events leading up to, and the progress of, the Battle of Pavia, shortly after news of this extraordinary fillip for the Empire had created a demand.

The third small woodcut[267] is incorporated into the design of a German song about the battle of Pavia, in which several German protagonists, including 'Jorg von Fronspurg', ignored by the Ashmolean/Tower painter, are named. Save for the Imperial banner, the compressed groups of combatants might have been engaged in any small battle.

Of the two Italian woodcuts, the worse in every sense is a childish print which needs no further comment.[268] The better woodcut is an awkwardly animated diagram[269] taken from an imaginary northern point of view, as were those of the first four paintings, with Mirabello shown closer to the right-hand wall (not a hundred yards from *Milano*, a minute cluster compared with the more distant *PAVIA C.*) The panorama has nine distinct fields, like an irregular blank for noughts and crosses, with background, middle distance, and foreground. In the background are (i) left, the junction of the Po with the Ticino (to the east in reality), otherwise void; (ii) centre, the French camp on *Isula de Gravalon*; (iii) right, French men-at-arms moving off in good order but leaving some compatriots in the river. In the middle ground are (iv) centre left, a French encampment with labels for *mastre de la pelica* and *L'avanguardia*, a French infantry formation advancing against Imperial infantry which has almost cleared a breach in the park wall; (v) centre, the city with undamaged walls, with cannon muzzles projecting from *bastioni* with tall towers, but with indication of the castle to the left (*chastello*); (vi) right, the *borgho* with the church of *S lafrcho* (San Lanfranco) and the legend *qui fu preso el re. / e morti. e. presi li. / baroni.* In the foreground are (vii) left, the tented camp of *Esercito Imperiale*, with a body of troops beneath a quartered standard entering the park through a breach; beyond them *marchse di peschara* leads a group of men-at-arms under an Imperial banner; (viii) centre, in three bands (a) nearest, *M barbo* and *Vice re* prance side by side towards the breach into (vii), (b) beyond *Mirabelo* a group of mounted *fracesi* fight a band of foot-soldiers, (ix), right, beyond the wall *eluarcha* (=Barcho =Parco), a stretch of stream-divided land from Milan to *biagrasa* (Abbiategrasso) by the Ticino.

Another unsophisticated woodcut,[270] with little attempt at perspective, shows, beyond the Certosa in the foreground, a simple rectangle for the park wall traversed by a waterway with a plank bridge. There are buildings on the left in the park and Mirabello is shown in the centre, near the French circumvallation which continues each side to the Ticino; a small group of soldiers and guns are seen behind a building. A solitary group of three kings, two sceptres on the ground, with their appropriate shields of arms, France, Navarre, and the large white rose of the English pretender, the Duke of Suffolk. By the breach in the wall on left infantry clash; cavalry reinforcements are behind. On the extreme left tents, trees, and a wagon. Beyond, a French shield of arms covers some of the earthworks: there are two rows of cannon aimed at the city. Two large shields of arms, crowned; the Empire and an untinctured shield charged with a fesse.

Finally, reference must be made to the entirely fanciful representation in Huber's drawing[271] where the Imperial forces break through the south-east wall of the park, close to the moat, while most of the French seem to be already crossing the river on the right by bridge and by boat,[272] and beyond it. Assault ladders are still leaning on the east and west walls from the failed French assaults. The landscape and the city are from a northerner's imagination.

It is right to conclude, even from this brief outline of various pictorial records composed soon after the event, that the Ashmolean panel gives the most positively detailed and substantial visual account, in a compressed synopsis of the main recorded events, of credit to the Imperial forces, one that could have been conceived from verbal reports, by

[266] The banners in the foreground are so hidden among the pikes as to be unidentifiable.

[267] By Hans Vogtherr the Elder; Geisberg and Strauss 1974, p. 1460.

[268] An apparently unique impression, with the title *PAPIA*, in the Museo Civico at Pavia (Inv. 50), was exhibited at Ghent (Musée des Beaux-Arts, Ghent, 1955, no. 278).

[269] Another apparently unique impression in the Museo Civico at Pavia with the title *Lasedio dipavia dal christianisimo Re. difraca ins*; also shown at Ghent, no. 277, ascribed tentatively to a Lombard engraver working under Venetian influence.

[270] Bibliothèque Nationale, Paris; reproduced in *Storia di Milano*, 8 (1957), facing p. 261.

[271] See n. 239.

[272] The boats seems to be heading for the Pavia side, as does the horseman at the bridgehead.

a painter or draughtsman who had neither been to Lombardy nor taken any part in the dark and foggy late winter assault that developed, disorderly and uncontrolled, into a bloody massacre and decisive rout. It is ironical that the most realistic rendering with spacious topography, if with more romantically attired personnel, is not given by one of the contemporary artists but in the baroque painting of the battle attributed to Ilario Spolverini (1657–1734), in the Museo Civico at Pavia.[273]

LIST OF INSCRIPTIONS PAINTED ON NO. 263

1 LE PONT DE BVFFELORE / QVI FIST ROMPRE LE DVC / DE ALLANSON

2 LE DVC DE ALANSON (Charles, duc d'Alençon, 1489–1584)

3 LE CARDINAL DE LORAINNE (Jean, son of René I de Lorraine, d. 1550)

4 LES FRANCOYS QVI SENFVIENT

5 MONSER DE NANTOLLIET FILZ / DV CANCELLIER ET LEGAT / DE FRANCE (unidentified)

6 LES BENDES DE MONSEVR / DE MONTMORANCI / DV CONTE DE SAINCT / PAOVL ET LES AVANTV / RIERS FRANCOVS (A brother of Anne de Montmorenci and a cousin, Gui, were both captured; François de Bourbon-Vendôme, Comte de Saint Pol, 1491–1545)

7 LA TOVR DV PONT / QVE LES FRANCOUS / PRIRENT

8 PAR ICY LE VOVLOIT DIVERTY / LE COVRS DE LA RIVIERE / MAYS APRES GRANIZ COVTAIGES / IL NE PEVT

9 LISLE DE GRAVALLON

10 LE PONT DE PAVIE

11 LES CHEVAVLX LEGIERS DES / ESPAGNIOL QVI COPIRENT / CHEMIN AVIX FRANCOVS / QVI SEN FVIOENT

12 LE CONTE DE TENDE FILZ / DV BASTARD DE SAVOYE (Claude de Savoie, son of René, Bastard of Savoy (no. 59 below), 1507–66)

13 MONSE[R] DE GRVFFY GRAND MIGNION DY ROY DE FRAN (unidentified)

14 LE ROY DE NAVARRE (Henri d'Albret, b. 1503, succeeded 1516, d. 1555, brother of François I)

15 LES PRISONNIERS FRANCOYS

16 (Illegible)

17 LE GENERAL BABO (?Jean Babou, Seigneur de la Bourdaisiere, master general of artillery, d. 1559)

18 LE CAPITAINNE SCALENGVE / PIEMONTOVS (unidentified)

19 LE CAPITAINNE PONTVOYRE / DE SAYOYE (possibly a member of the De Pontverre family of Pontverre and Épagny, Savoy)

20 LE MARESCAL MONTMORENCI (Anne de Montmorenci, 1493–1567, Constable of France)

21 LOROL CAPITAINNE (possibly a member of the Loriol family of Bresse)

22 LE CO . . . SAIN (? le Comte de Saint Pol)

23 NONSERI DE FLORANGES (Robert III de la Marck, 1491–1537, Sieur de Seda, captured and made Marshal of France, known as Fleuranges or L'Aventureux)

24 MONSEVR DE RIANI SAVOSIEN (possibly a member of the Della Ria family of Savoy)

25 LE CAPITAINNE SVCRE / FLAMEN (Jacques de Sucre, Lord of Bellaing)

26 LOYS MONSEVRI DE NEVERE (Louis, seigneur de Nevers, taken prisoner)

27 LES ESPAGNIOLZ QVI SORTIRE[N]T / DE PAVIE AVEC ANTOINNE DE / LEVA LEVR CAPITAINNE (Antonio de Leiva, 1480–1536, later Prince of Ascoli)

28 LA RIVIERE DV TISIN (i.e. Ticino)

29 SAINCT LADRE (San Lazzaro, a church to the east of the city outside the walls)

30 LE CARTIER DV CONTE DE LODRON (see no. 38 below)

31 LA TOVR OV FVT FAIT / FEV POUR SIGNE DE SECOVR

32 LE LOGIS DE LA MARQUISE DE / VIRESOL QVI FIST RAGES / A DEFENDRE LA VILLE (Ippolita Malaspina, Marchesa di Scaldasole)

33 LEGLISE CATHEDRALE

34 LES LOGISC DE ANTOINNE DE LEVE (see no. 27 above)

35 LA CITE DE PAVIE

36 LE VISROY DE NAPLES (Charles de Lannoy, 1470–1527, Lord of Sanzelles, Commander of the Imperial army in Italy)

37 LERRI MONSE[R] DE LOARRAINE (possibly a Ferri de Lorraine, (?) Ferri II Comte de Vaudemont. François de Lorraine, Comte de Lambesc, was killed at Pavia, aged eighteen)

38 LE CONTE DE LORON CAPITAINNE / DES LANSQVENEST DE PAVIE (Nikolaus Lodron, son-in-law of Georg von Frundsberg, d. 1537)

39 MODISE[R] DE LATRIMOQLIE (Louis II de la Trimouille, b. 1460, Viscomte de Thouars, etc., killed at Pavia by a bullet in the heart)

40 MIRAPELO

[273] Reproduced by Sórigo (n.d., p. 91).

41 MONSEVR DE LAREYTE BVRGONION QVI PRVS LE ROY DE FRANCE (possibly a member of the Burgundian Larrey family, who held a fief of Alençon (see no. 2 above). Pomperan is usually cited as the captor of the King)

42 LE PORTEVR DENSEIGNE / QVE LE ROY DE FRANCE / OCCEIST EN PENSANT / METTRE EN FVITE

43 LE MARQUIS DE PISGAGRE (presumably Fernando Francisco d'Avalos, Marques de Pescara, 1489–1525, Grand Chamberlain of the Kingdom of Naples)

44 LE CONTE DE GENEFVE / FRERE DV DVC DE SAVOYE (Philippe, brother of Philibert II and of Charles II, 1490–1533, Comte du Genévois)

45 LE DVC DE BVRBON / CHIEF DE LA BATLLIE / DES ESPAGNIOLZ (Charles de Bourbon, 1490–1527, killed in the siege of Rome, ninth Duc de Bourbon, once Constable of France, here an Imperial commander)

46 LES SVISES

47 LE DVC DE SVSFOC DIT / BLANCE ROSE (Richard de la Pole, exiled pretender, known as White Rose, self-styled Duke of Suffolk, killed at Pavia)

48 LE DVC DE LONQVEVILLE (Claude d'Orléans, Duc de Longueville, killed at Pavia)

49 FRANCOVS MONSEVR DE SALVCES (presumably related to Michele Antoine, Marquis de Saluces, 1484–1529)

50 LE VISCONTE GALEAS (Galeazzo Visconti, Duke of Bari, Chamberlain of François I)

51 MONS^{R} DE LESCV (Thomas de Foix, Seigneur de Lescun, Maréchal de Foix, brother of Lautrec, cousin of Saluces, died of wound at Milan in 1525)

52 SAINEE SEVERIN / GRAND ESCVIER (Galeazzo San Severino, Comte de Tonnerre)

53 LE CONTE DE TONNOIRE

54 MONSE^{R} / DE LA PALISSE (Jacques II de Chabannes, Seigneur de la Palice, brother of the Little Lion, captured by Castaldo and treacherously killed by a Spaniard)

55 LE LANSCEQVENEST

55A ESPAGNIOLZ

56 ITALLIENS

57 LARRIEGARDE

58 MONSE^{R} DAVEBIGNY / ESCOSSOYS (John Stewart, 1481–1536, Duke of Albany)

59 LE BASTARD DE SAVOYE GRAND / MAISTRE DE FRANCE (René, natural son of Philippe II, duc de Savoie, died of wound in Pavia soon after the battle)

60 BONIVET ADMIRAL DE FRANCE (Guillaume, Seigneur de Gouffier-Bonnivet, b. 1488, advised François I not to retire and was killed in action)

61 BOVRGONNIONS

62 MONSE^{R} DE / SAINCT SORTIN (?Hughes de la Palu, Comte de Saint-Sorlin)

63 LE MARQVIS DE GVAST (Alfonso d'Avalos, marques de Vasto, nephew of Pescara, b. 1502; so distinguished himself at Pavia that he succeeded his uncle in 1525 as commander of the armies of Charles V)

APPENDIX II: The Shells in the Portrait of John Tradescant the Younger with Roger Friend (No. 265, Pl. CXXXV)

The late Mr T. F. Higham (Trinity College, Oxford) identified the shells as follows, using the numbering on Pl. CXXXV a.

1. Not identifiable
2. *Strombus chiragra* (Wood 1825, p. 116, pl. 24 no. 5)
3. *Turbo marmoratus*, polished (Webb 1948, p. 87)
4. *Trochus niloticus*, polished (Wood 1825, p. 133, pl. 28, no. 1)
5. (?) *Strombus fasciatus* (or *Buccinum tuberasum*, or another) (Wood 1825, p. 117, pl. 25, no. 14)
6. *Pterocera rugosa* (Lamarck) (Webb 1948, p. 91)
7. *Lambis rugosa* (Cameron 1961, p. 127, pl. XXXII)
8. (?) *Strombus latissimus* (Wood 1825, p. 117, pl. 25, no. 23)
9. *Cassio rufa* (Webb 1948, p. 83; Knorr 1773, pl. 1)
10. *Trochus niloticus*, natural (see 4 above)
11. (?) *Turbo sarmaticus* (Gmelin) (Wood 1825, p. 145, pl. 30, no. 35)
12. *Cypraea mauritiana* (Wood 1825, p. 80, pl. 17, no. 20)
13. Not identifiable
14. (?) *Turbo sarmaticus* (see 11 above)
15. (?) *Murex femorale* (Wood 1825, p. 122, pl. 26, no. 32)
16. *Conus marmoreus* (Wood 1825, p. 67, pl. 14, no. 1)
17. *Turbo marmoratus*, natural (Platt 1949, p. 68, no. 5)
18. Not identifiable
19. *Turbo marmoratus*, polished (see 3 above)
20. (?) *Murex colus* (Wood 1825, pl. 26, no. 71)
21. *Cypraea mauritiana* (see 12 above)
22. *Cymatium tritonis* (Webb 1948, p. 93; Cameron 1961, pl. XIX)
23. (?) *Buccinum chinense* (Wood 1825, pl. 22, no. 7)

APPENDIX III: Frames on the Tradescant/Ashmole Paintings

It might be expected that the institutionalization of the Tradescant/Ashmole paintings before 1693 would have resulted in the conservation until the present time of some eighty-five genuine frames of the seventeenth century or even earlier. Unfortunately this has not happened. The style of frame was recorded in twelve instances in Plot's 1685 catalogue,[274] but in the later inventory list based on it in Whiteside's time (1714–29)[275] mention of the frames seems to have been omitted. The subject was not referred to in surviving documents until Bell's AMS 22 of 1898, where letters referring to proposed restoration of frames by Buttery in the preceding year are preserved.[276] Bell himself mentioned only four frames out of forty-two as noteworthy, namely our Nos. 260, 281–3.[277]

The present frames are mainly black and gold, the gilding being applied to bevels or to some mouldings in one or two strips. Constructions vary. As some frames have been repainted with a glossy surface, it is possible that by unspecified repairs original frames have been much changed in construction rather than frontal appearance. The simplest and most common frames (Fig. 75c) present a flat front to the spectator, and are painted black, except for the inner gilt bevel; to this category eight of the forty-three Tradescant/Ashmole frames belong.[278] The simple originals seem to have been built up of eight members; the front four are mitred at the corners and to them are fixed the back four which are butted to provide a strong overlapping joint at each corner (Fig. 75a) and which, being narrower, produce the rebate (rabbet) behind the bevel to house and conceal the untidy edge of panel or canvas.

In seven examples a more lively appearance is given by a simple moulding instead of a bevel[279] (Fig. 75e). In a third group of three frames[280] (Fig. 75b) the outer edge is built up with a moulding, usually gilt. Slightly more complex is the fourth group of six frames[281] in which the central plain band is sunk between inner and outer mouldings (Fig. 75d); usually this central element is flat, but one is sloped and another convex. Another type, still black and gold, has a prominent convex moulding (torus) near the inner edge, whence several minor mouldings recede to the outer edge (Fig. 75f).[282]

The carved and gilt frames are richer in appearance and show more individuality. Perhaps the earliest (Pl. CXLI) is that round the so-called 'Sir John Suckling' (No. 271), a flattish biaxial series of scrolls, with mask above and skull below, of a fairly common Carolean type of 'Lutma' frame.[283] A less stilted design, perhaps not any later (Pl. CXXVI) is round the 'John Selden' (No. 256). A stiffer example of the bound laurel-wreath motif (Pl. CXXXII) is presumably the original frame for the double portrait of John Tradescant II with his wife in 1656 (No. 262), and this was apparently the

[274] (a) black (*margine ex ebeno*), 1685 A 630 (now lost), 634 (our No. 253), and 635 (No. 254); (b) with gilt applied reliefs (*bullis aureis*) 659 (No. 260), and 723 (the escutcheon of arms, No. 296); (c) in gilt frames: (i) (*limbo aureo*) 663 (No. 262), and 720 (now lost). (ii) (*margine deaurata*) 655 (No. 256); (d) in carved and gilt limewood (the foundation protraits by Riley, the frames by G. Gibbons (Nos. 281–3)); (e) without a frame (*sine margine*) 656 (No. 257).

[275] Ash. Lib. AMS 8, ff. 42–53, nos. 665–712.

[276] Ash. Lib. AMS 22. Letter from H. Buttery to A. Evans, 8 October 1896: 'As to the frames, I think I should leave the black and gold ones as they are. Certain of the gilt frames would require repair and regilding, and if required I could furnish an estimate of the cost, having taken notes of them. This part of the work is also undertaken by me and is done in my own establishment . . .'. H. Buttery to C. F. Bell, 25 February 1897: 'I find I have an estimate for the frames, which you could have at once. I have my own frame people for this work and it would be better that frames and pictures should be removed together and fixed up after the work together as sometimes "lined" pictures after that operation don't always fit very well. I merely suggest this . . .'. H. Buttery to C. F. Bell, 5 March 1897: 'The question of the frames he [Mr Gamlen, the University's Solicitor] writes must be left until Mr Evans's return from the continent. But I wish to point out that it would be necessary for us to have the frames to fix the pictures in when ready as there are often slight discrepancies as to "sight" and which have to be arranged for when pictures have been re-lined and on new "stretching frames". This therefore would be the best and safest course especially in the case of the panel pictures during transit, which might not escape damage if out of their frames. Of course the question of my people repairing and regilding and reblacking them, if I am allowed to present an estimate for the same might be left to future decision. At any time I can send the estimate to you if desired. It was a somewhat rough and ready one, and perhaps on a further look at the frames in London I might be able to give a closer one.' C. F. Bell to H. Buttery, 6 March 1897: 'With regard to the frames the committee quite agree that it will be best to remove the pictures as they now are, since the frames will afford some protection to the canvases but they do not at present see their way to considering any expenditure on the frames themselves.' The pictures were removed to London on 16 March 1897. H. Buttery to A. J. Evans, 26 May 1897: 'In brief the substance of my letter was that to do the absolutely needful to the frames would cost £65 [42 frames in all].'

[277] Ash. Lib. AMS 22, *passim*.

[278] Nos. 260, 265, 272, 277, 278, 288, 289, 293.

[279] Nos. 254, 266, 267, 275, 279, 290, 292.

[280] Nos. 261, 274, 280.

[281] Nos. 253, 255, 258, 263, 264, 276.

[282] Nos. 269, 270, 273, 291.

[283] Cf. Grimm 1978, p. 235; Macquoid and Edwards 1954, 3. 22, fig. 95.

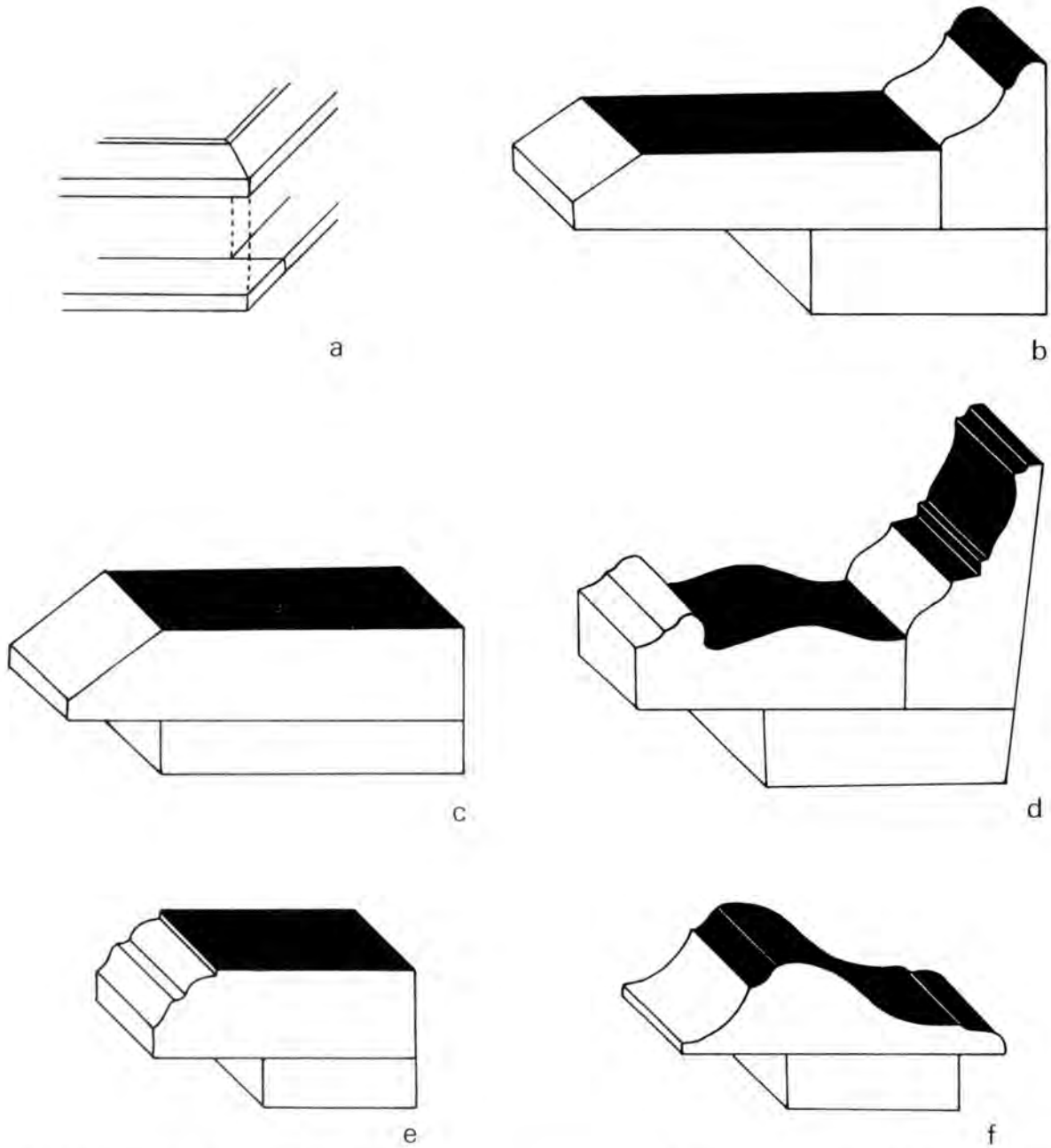


Fig. 75. Frames on the Tradescant/Ashmole paintings: a, common method of frame construction; b, No. 274; c, No. 260; d, No. 258; e, No. 275; f, No. 29

model for the frame for the earlier double portrait, which came, it is said, from the panelling of the Tradescant house (No. 294), to provide a suitable pendant. The three Grinling Gibbons examples (Nos. 281–3) are, in spite of regilding, by any standard pre-eminent for their brilliant magnificence, and have been evaluated elsewhere.[284]

There are two later seventeenth-century examples with acorns and flowerheads in high relief[285] (Nos. 268 and 287, both showing Charles I), while an early nineteenth-century frame with some plasterwork was provided for the 'Lady Molyneux' (No. 257) which was recorded in 1685 A as *sine margine*, frameless. It is regrettable that the painterly 'Oliver de Crats' (No. 259) is in a shiny black moulding of obviously modern construction.

It remains to explain that the only two frames described in 1685 as being enriched *bullis aureis*,[286] the formal portrait of John Tradescant I in an ornamental cartouche, and the hatchment, are still thus ornamented with symmetrical motifs. The former has a cherub of 220 mm wing-spread at each corner, with a four-leaf motif on each upright and a horizontal two-leaf motif in the centre of each rail. This arrangement is copied on Nos. 266 and 274, while the cherubs alone occur on No. 280. Some of these seem to be original: some were copied by the late foreman, Mr Stanley Gardner, in about 1950. The smaller cherubs (125 mm in span) and four pear motifs on the hatchment recur on No. 296, while the pear motif also is repeated on the flat black and gold frame round the portrait of Dr Robert Plot, the first Keeper.[287]

[284] Macquoid and Edwards 1954, 3. 28; Green 1964, p. 85.

[285] Cf. Grimm 1978, pls. 241 and 238; Macquoid and Edwards 1954, 3. 22, fig. 11.

[286] See n. 274b. Our No. 260 is described by Grimm (1978, no. 227).

[287] Ash. Lib. AMS 8, f. 46^{v}, no. 476.

APPENDIX IV

A Concordance of the Original Numbering of the Paintings in Ash. Lib. AMS 8 (1685 Catalogue A) with other lists and publications
For information on the sources, see bibliography.

Tradescant Catalogue (1656)	AMS 8 (1685 A)	Short title	Whiteside's Appendix to AMS 8 (*c.*1720)	AMS 12 (1756)	Ashmolean and Bodleian Catalogue (1775)[1]	Duncan Catalogue (1836)	Ashmolean MS Catalogue (1884)[2]	Bell's list AMS 22 (1898)	Lane Poole (1912)	Ashmolean Catalogue (1951)	Ashmolean Catalogue (1980)	Present Catalogue (1983)
	630	Charles I	14	—	—	—	—	—	—	—	—	—
	631	Henrietta Maria	15	—	—	—	—	—	—	—	—	—
	634	J. Tradescant I (clouds)	18	27	—	?9	9	7	413	120	p. 29	253
p. 40	635	Bacon Landskip	19	28	—	—	—	—	—	45	p. 13	254
	636	St. Jerome	20	35	*	—	—	—	—	—	—	—
	637	Erasmus	21	29	—	53	56	4	—	—	p. 46	255
	655	Selden	98	140	*	18	18	28	434	238	p. 54	256
	656	Lady Molyneux	50	62	*	59	62	35	417	—	p. 1	257
	657	'Le Neve'	73	104	*	39	40	24	432	297	p. 67	258
	658	'Oliver de Crats'	85	107	*	47	50	23	443	125	p. 29	259
	659	J. Tradescant I (cartouche)	74	106	*	6	6	8	414	121	p. 29	260
	660	*Cl viri*	54	74	—	—	—	—	—	—	—	—
	661	*Ornatissimi viri*	53	73	—	—	—	?2	—	—	p. 6	284
	662	*excellentissimae Heroinae*	52	65	—	—	—	—	—	—	p. 2	261
	663	Tradescant II with Hester	51	102	*	12	12	12	428	15	p. 3	262
	664	Siege of Pavia	—	96	*	62	65	—	—	2	p. 6	263
	[665][3]	'Inigo Jones'	75	89	*	45	48	30	421	19	p. 3	264
	[666]	Madonna	—	7	—	27	28	—	—	—	—	—
	[667]	Tradescant II & 'Zythepsa'	91	53	*	14	14	11	427	123	p. 29	265
	[668]	Arundel	93	101	*	15	15	32	418	—	p. 33	266
	[669]	Norfolk	94	100	*	16	16	33	438	—	p. 33	267
	[670]	Charles I	95	?143	*	2	2	38	419	—	p. 33	268
	[671]	Hester, Frances, & Tradescant III	92	52	*	10	10	13	440	14	p. 2	269

Tradescant Catalogue (1656)	AMS 8 (1685 A)	Short title	Whiteside's Appendix to AMS 8 (*c.*1720)	AMS 12 (1756)	Ashmolean and Bodleian Catalogue (1775)[1]	Duncan Catalogue (1836)	Ashmolean MS Catalogue (1884)[2]	Bell's list AMS 22 (1898)	Lane Poole (1912)	Ashmolean Catalogue (1951)	Ashmolean Catalogue (1980)	Present Catalogue (1983)
	[672]	'Wotton of Marley'	69	82	*	43	44	6	408	—	p. 1	270
	[673]	Lady Wotton	70	84	—	—	—	—	—	—	—	—
	[674]	T. Cromwell	78	93	*	52	55	—	—	—	—	—
	[675]	O. Cromwell	97	87	*	29a	30	—	—	—	—	—
	[676]	J. Suckling	86	103	*	21	22	27	416	5	p. 2	271
	[677]	Manchester	96	108	*	22	23	34	437	—	p. 2	272
	[678]	Destruction of all arts	77	92	*	—	—	—	—	—	—	—
	[679]	Hercules & Atlas	60	79	—	—	—	—	—	—	—	—
	[680]	'Elizabeth Woodville'	90	94	*	17	17	1	402	1	p. 1	273
	[681]	Edward V	87	138	—	—	—	—	—	—	—	—
	[682]	Foreign nobleman	88	95	—	23	24	—	—	—	—	—
	[683]	Jacob's Ladder	80	—	—	—	—	—	—	—	—	—
	[684]	Tradescant II (gardener)	71	105	*	11	11	10	426	122	p. 29	274
p. 41	[685]	Old Parr	72	86	*	55	58	26	412	7	p. 2	275
	[686]	*cl. v.*	99	83	—	—	—	—	—	—	—	—
	[687]	The Magdalen	79	—	—	28	29	—	—	—	—	—
	[688]	Still-life	59	78	—	—	—	—	—	—	—	—
	[689]	Conventicle by Brugel	105	110	—	—	—	—	—	—	—	—
	[690]	*v.*	119	?	—	—	—	—	—	—	—	—
	[691]	*Ornatissimae, faeminae*[4]	120	126	—	—	—	?3	406	—	p. 1	285
	[692]	Tradescant I (death bed)	111	117	*	7	7	9	415	8	p. 2	276
	[693]	Perseus & Andromeda	109	113	—	—	—	—	—	—	—	—
	[694]	Descent into Hell by Brugel	107	115	*	61	64	—	—	—	—	—
	[695]	*Tradescanti epitaphium*	110	—	—	—	—	—	—	—	—	—

Tradescant Catalogue (1656)	AMS 8 (1685 A)	Short title	Whiteside's Appendix to AMS 8 (*c.*1720)	AMS 12 (1756)	Ashmolean and Bodleian Catalogue (1775)[1]	Duncan Catalogue (1836)	Ashmolean MS Catalogue (1884)[2]	Bell's list AMS 22 (1898)	Lane Poole (1912)	Ashmolean Catalogue (1951)	Ashmolean Catalogue (1980)	Present Catalogue (1983)
	[696]	Venus & Cupid	49	61	—	—	—	—	—	—	—	—
	[697]	Skull on book	57	76	—	48	51	—	—	—	—	—
	[698]	*pouer diabel*	117	118	—	44	45	—	—	—	—	—
	[699]	*Hispaniuli agrarii*	116	119	—	—	—	—	—	—	—	—
	[700]	Fruit-piece	89	—	—	69	72	—	—	—	—	—
	[701]	Head	114	—	—	—	—	—	—	—	—	—
	[703]	Tradescant III	127	144	—	31	—	16	422	13	p. 76	277
	[704]	Frances	128	145	—	30	—	17	441	16	p. 76	278
	[705]	Richelieu	76	90	—	57	60	—	—	—	—	—
	[706]	Henry, Duke of Gloucester	125	139	*	35	36	41	452	—	p. 50	279
	[707]	Hester & Tradescant III	124	99	*	13	13	14	439	124	p. 29	280
	[708]	Spanish Fleet	137	154	—	—	—	—	—	—	—	—
	[709]	Still life	133	—	—	68	71	—	—	—	—	—
	[710]	Two young seals	64	67	—	67	70	—	—	—	—	—
	[711]	St. Jerome	112	123	—	49	52	—	—	—	—	—
	[712]	American Indian	113	122	—	—	—	—	—	—	—	—
	713	Fleet of ships	134	151	—	?66	?69	—	—	—	—	—
	714	London exchange before the Fire	123	133	—	—	—	—	—	—	—	—
	715	Still life	100	116	—	—	—	—	—	—	—	—
	716	Vase of Flowers	115	120	—	?70	?73	—	—	—	—	—
	717	Vase of Flowers	121	127	—	—	—	—	—	—	—	—
	718	Woman in a rage	103	124	*	?36	?37	—	—	—	—	—
	719	*Insignia familiae* (struck out) (see 723 below)										
	720	Dice-player	130	146	*	38	39	—	—	—	—	—
	721	A Jew	129	147	—	—	—	—	—	—	—	—
	722	Idiot with Cat	131	148	—	37	38	—	—	—	—	—
	723	*Insignia Johannis*	136	153	—	8	—	—	—	—	—	296

Tradescant Catalogue (1656)	AMS 8 (1685 A)	Short title	Whiteside's Appendix to AMS 8 (*c.*1720)	AMS 12 (1756)	Ashmolean and Bodleian Catalogue (1775)[1]	Duncan Catalogue (1836)	Ashmolean MS Catalogue (1884)[2]	Bell's list AMS 22 (1898)	Lane Poole (1912)	Ashmolean Catalogue (1951)	Ashmolean Catalogue (1980)	Present Catalogue (1983)
	730	Elias Ashmole	46	57	*	1	1	36	447	369	p. 80	281
	731	Charles II	44	54	*	4	4	39	445	367	p. 80	282
	732	James, Duke of York	45	55	*	5	5	40	451	368	p. 80	283
Josten 1966, pp. 1829–30	1685 A ff. 39–40 list											
	1	Erasmus	138	135	—	—	—	42	—	—	—	—
(1)	2	James VI	48	60	—	—	—	—	—	—	—	—
(2)	3	Charles I	126	?88	*	3	3	37	420	—	p. 55	287
(5)	4	*Rev. vir.* (Fiske)	47	59	—	41	42	21	435	298	p. 67	288
(7)	5	John Lewen	82	142	*	34	35	22	425	11	p. 2	289
	6	Oliver Cromwell *superius dictus* [=675 above]										
(8)	7	M. Burch	81	109	*	58	61	25	433	18	p. 3	290
	8	Dobson's wife	83									
	9	Selden [=655 above]										
(3)	10	John Dee	67	80	*	19	19	18	407	4	p. 1 (Anon.)	291
(4)	11	Richard Napier	55	75	*	42	43	19	411	6	p. 2 (Anon.)	292
(6)	12	William Lilly	68	81	*	40	41	20	444	12	p. 3 (Anon.)	293
	13	Venus & Cupid [=696 above]										
	14	John Aubrey[5]	66									

[1] The presence in this unnumbered list of any item is indicated by an asterisk.

[2] Ashmolean Museum, Department of Western Art MS Catalogue Coll. General 2: 'List of Paintings in the Ashmolean Museum. 1884'.

[3] Numbers in square brackets in this column have been derived from Whiteside's 1720 list, where 1685 A numbers are given at the end of each entry. They do not appear in the surviving copy of 1685 A.

[4] Internal relationships have been established between the groups of entries dated 1685–1756 on the one hand and those of 1898–1983 on the other: the equation of one group with the other is, however, more speculative.

[5] See Brown 1982, No. 123.

COINS AND MEDALS IN THE HEBERDEN COIN ROOM, ASHMOLEAN MUSEUM, ATTRIBUTED TO THE TRADESCANT COLLECTION

Nicholas Mayhew and Daphne Nash

The problems encountered in attempting to identify surviving antiquities from the Tradescant collection are particularly acute in the realm of coins. Not only are many of the original catalogue entries much too imprecise to permit positive identification of the issue concerned, but many hundreds of additional specimens of some types entered the museum in the years before comprehensive records were kept, while many others simply disappeared. Yet others listed in the 1656 catalogue may never have reached the museum. Hence the task of identifying Tradescant coins in the Roman Imperial series, for example, is almost hopeless, while entries such as 'Divers old Saxon Coynes' and 'severall old English, or Esterling pieces of Money' provide no basis for identification.

Better possibilities are offered by the medals, but here too there are anomalies. Some pieces may correspond closely with the 1656 description except in the matter of date or metal, but these need not necessarily be excluded: the Durer medals listed below (Nos. 324–5), for example, are probably from the original collection, even though the silver medal (324) is undated, and the base metal piece (325) is dated 1514. Indeed, the 1656 catalogue itself is not without error: for example, the entry (p. 68) 'Gustavus Adolphus, and Maria and Elianora' surely refers to the medal of Gustavus Adolfus and his wife Maria Eleanora.

The earliest surviving Ashmolean Museum record is a manuscript of 1683,[1] in which the coins of Ashmole's donation are listed. On the basis of certain correspondences (notably in the Republican series) with entries in the 1656 catalogue, it may be suggested that some at least of the Tradescants' coins were included in this gift. A later manuscript catalogue of 1833[2] represents a fixed point in the collection, all the coins currently in the collection which are listed in the catalogue being identified in their trays by distinctive tickets. These naturally include the coins from the foundation collection, but no distinction has been made between these and other coins acquired prior to 1833.

By comparing the coins so distinguished with entries in the various early catalogues it has been possible to compile a list of the items most likely to have derived from the Tradescant collection as follows:

[1] Ash. Lib. AMS 11, ff. 1–137.

[2] Heberden Coin Room, Ashmolean Museum, Archives, Arch. Ash. 1.

COINS

297. *LEPIDVS PONT. MAX. IIIVR.R.P.C.* / *CAESAR. IMP. IIIVIR.R.P.C. RRC*[3] 495/2a.
1656 p. 58: *M. Æmilius LEPIDVS.*

298. *L. PISO FRVGI. RRC* 340/1.
1656 p. 59: *L. Calpurnius PISO FRVGI.*

299. ROMA / *CN.DOMI. RRC* 285/1.
1656 p. 59: *CN. DOMITius Ahenobarbus.*

300. *C.FUNDAN Q. RRC* 326/1.
1656 p. 59: *C. FUNDANius Fundulus.*

301. CAESAR. *RRC* 458/1.
1656 p. 59: *Julius CAESAR. Anchises.*

302. *L.MANLI PROQ* / *L.SVLLA IMP. RRC* 367/3.
1656 p. 60: *L.MANLIVS PROQ* / *L. Cornelius SVLLA.*

303. ROMA / *L.MEMMI GAL. RRC* 313/1c.
1656 p. 60: *L. MEMMius GAL.*

304. *M. PLAETORI. CEST. EX.S.C. RRC* 405/1b.
1656 p. 60: *M. PLAETORIus CESTianus.*

305. ROMA / *C.SERVEILI M.F. RRC* 239/1.
1656 p. 60: *C.SERVILIus M.F.*

306. *I.S.M.R.* / *L. THORIVS BALBVS. RRC* 316/1.
1656 p. 60: *L. THORIVS BALBVS.*

307. *SABIN A* / *L. TITVRI. RRC* 344/1a.
1656 p. 60: *L. TITVRIus SABINus.*

308. *C.VAL. FLA IMPERAT EX.S.C. RRC* 365/1b.
1656 p. 60: *C. VALerius FLACcus.*

309. *L. VALERI FLACCI. RRC* 306/1.
1656 p. 60: *L. VALERIus FLACCus.*

310. Siege coin of Breda, 40 sols, silver 9.76 g, square flan, 1625.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . Breda, 1625.*

311. Siege coin of Breda, 20 sols, silver 5.19 g, square flan, 1625.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . Breda, 1625.*

312. Siege coin of Newark, half crown, silver 15.03 g, 1646.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . Newarke, 1646.*

313. Siege coin of Newark, sixpence, silver 2.84 g, 1646.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . Newarke, 1646.*

314. Siege coins (3) of Newark, shilling, silver 5.31 g, 5.84 g, 5.45 g, 1645.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . Newarke, 1645.*

315. Siege coins (2) of Pontefract, shilling, silver 4.48 g, 4.79 g, 1648.
1656 p. 72: *Moneyes from beleagured Cities &c, viz . . . divers other places.*

MEDALS

316. Charles I, Scottish Coronation 1633. Gold 28 mm. Signed *B* on reverse for Briot. *MIBH*[4] 1. 266, no. 60.
1656 p. 66: *Medalls, Gold: Upon the Coronation of King CHARLES in Scotland.*

317. Charles I and Queen Henrietta Maria, Marriage 1625. Silver. 24 mm. *MIBH* 1. 238, no. 1.
1656 p. 68: *Medalls, Silver: King CHARLES* and Queen *MARY.*

[3] *RRC* numbers refer to Crawford 1974.
[4] *MIBH* references are to Hawkins 1885.

318. Charles I, Birth of Prince Charles 1630. Silver. 30 mm. *MIBH* 1. 254, no. 35.

There are three examples of the Birth of Prince Charles medal in the old Ashmolean collection, of which only one has a definite provenance, leaving two others, one of which may have been a Tradescant piece.

1656 p. 68: *Medalls, Silver: Upon Prince CHARLES his Birth.*

319. Charles I and Prince Charles ?1638. Silver. 32 mm. *MIBH* 1. 282, no. 89.

There is no example of the Charles I Scottish Coronation medal in silver of old Ashmolean provenance now in the collection. There is an interesting silver medal celebrating Charles II's coronation at Scone in 1651 (*A29*), but the position of the reference in the Tradescant Catalogue strongly suggests that it is Charles I's Scottish coronation which is referred to.

1656 p. 68: *Medalls, Silver: Upon His Coronation in Scotland.*

320. Clement VIII. Silver with loop. 34 mm.

1656 p. 67: *Medalls, Silver: Pope Clement VIII.*

321. Urban VIII. Bronze. 40 mm. Signed and dated by truncation *MDCXXX GAS·MOL·F.* (Gaspare Mola). Metal does not correspond with 1656 catalogue.

1656 p. 67: *Medalls, Silver: Pope Urban VIII.*

322. Frederick Henry, Prince of Orange, ?1625. Silver. 58 mm.

1656 p. 69: *Medalls, Silver: Frederick Henry Prince of Orange, 1625.*

323. Synod of Dort, 1619. Badly perished. Bronze. 58 mm.

1656 p. 71: *Medalls, Copper and Lead: Upon the Synod of Dort.*

324. Albrecht Durer 1527. Silver(?). Oval, engraved. 33 mm × 38 mm. By Matthes Gebel. Habich 1929, vol. 1, part 2, p. 141, no. 959.

1656 p. 69: *Medalls, Silver: Albertus Durer, 1514.*

325. Albrecht Durer ('Durer's Father'). Signed and dated AD 1514. In the 1656 catalogue it is the silver medal (No. 324) which is said to be dated.

1656 p. 71: *Medalls, Copper and Lead: Albertus Durer.*

326. Frederick Count Palatine. Silver, Oval. 39 mm × 32 mm. By, or after, J. de Bommaert. Habich 1929, vol. 2, pt. 1, p. 455, no. 3157. Metal does not correspond with 1656 description.

1656 p. 70: *Medalls, Copper and Lead: Frederick Count Palatine.*

327. John Frederick, Duke of Saxony. Silver 64 mm. By Hans Reinhart the Elder. Habich 1929, vol. 2, pt. 1, pl. CCIV.

1656 p. 69: *Medalls, Silver: John Frederick Duke of Saxony.*

328. Ernest, Count of Mansfield. Silver. Oval. 40 mm × 47 mm.

1656 p. 69: *Medalls, Silver: Ernestus, Count Mansfield.*

329. John of Leiden, 'Anabaptist King of Munster'. Bronze. 27 mm. Metal does not correspond with 1656 description.

1656 p. 69: *Medalls, Silver: John of Leyden.*

330. Lothar, Archbishop of Trier, 1602. Bronze. Oval with wreath. 50 mm × 45 mm.

1656 p. 71: *Medalls, Copper and Lead: Lotharing: Archiep. Treveriensis.*

331. Charles V, Holy Roman Emperor, 1521. Bronze. 42 mm.

1656 p. 70: *Medalls, Copper and Lead: Charles the V, 1521.*

332. Maria of Austria, daughter of Charles V. Bronze. 63 mm. Armand 1883, 2. 237, no. 6. This piece is of uncertain provenance but could fit the Tradescant description.

1656 p. 70: *Medalls, Copper and Lead: Mar. Magdalena Archdutchesse of Austria.*

333. Rudolf II, Holy Roman Emperor. Silver. Oval. 56 mm × 45 mm.

1656 p. 67: *Medalls, Silver: Rudolphus II. Emperour of Germ.*

334. Matthias and Maximilian, Archdukes of Austria. Bronze. 45 m. By A. Abondio. Armand 1883, 1. 270, no. 15. Metal does not correspond with 1656 catalogue.

1656 p. 67: *Medalls, Silver: Matthias and Maximilian Archdukes of Austria.*

335. Ferdinand II upon his coronation. Silver(?), square flan. 22 mm.

1656 p. 67: *Medalls, Silver: Ferdinand II upon his Coronation.*

336. Effigies (10) of the Austrian family, 1594, viz. Rudolf I, Albert I, Frederick III, Albert II, Frederick IV, Maximilian I, Charles V, Ferdinand, Maximilian II, Rudolf II. Silver, shell, obverse and reverse separated. 36 mm.

1656 p. 67: *Medalls, Silver: The Effigies of eleven of the Austrian family.*

337. Gustavus Adolfus, King of Sweden. Silver, shell, obverse only. 33 mm.

1656 p. 68: *Medalls, Silver: Gustavus Adolphus King of Sw.*

338. Gustavus Adolfus and Maria Eleonora. Silver. 35 mm.

1656 p. 68: *Medalls, Silver: Gustavus Adolphus and Maria and Elianora.*

339. Gustavus Adolfus and Maria Eleonora. Silver(?), badge, oval. 24 mm × 30 mm. Either of these medals (Nos. 338 or 339) may be that mentioned in the 1656 catalogue.

1656 p. 68: *Medalls, Silver: Gustavus Adolphus and Maria and Elianora.*

340. Gustavus Adolfus upon his death, 1632. Silver. 42 mm.

1656 p. 68: *Medalls, Silver: Upon Gustavus his death.*

341. Philip II of Spain, Lead, shell. 70 mm. Armand 1883, 1. 241, no. 2. Signed by Jacopo Trezzo. Possibly the item in the 1656 catalogue, although No. 341 is not dated 1588.

1656 p. 70: *Medalls, Copper and Lead: Philip II. King of Spaine, 1588.*

342. Philip II of Spain, 1557. Silver, 42 mm. Armand 1883, 1. 238. Signed by *I·PAUL·POG* (Gianpaolo Poggini).

1656 p. 68: *Medalls, Silver: Philip the II, K. of Spaine, 1557.*

343. Philip II of Spain and his wife Anna of Austria. Silver. 40 mm. Armand 1883, 1. 240. By G. Poggini.

1656 p. 68: *Philip the II and Anne his Wife.*

344. Andreas Doria by Leone Leoni.

1656 p. 71: *Medalls, Copper and Lead: Andreas Doria.*

345. Charlemagne, Founder of the Church of the Virgin Mary at Aachen. Bronze. 48 mm.

1656 p. 70: *Medalls, Copper and Lead: Charles the great.*

346. Antonius, Bâtard de Bourgogne. Bronze. 43 mm. Armand 1883, 2. 40, no. 2. Attributed to Lysippus, but see Hill 1920, p. 73.

1656 p. 71: *Medalls, Copper and Lead: Antonius B. de Burgundia.*

347. Pomponius de Bellievraeus, aged 68, 1598. Silver. 44 mm. Signed by *CON BLOC* (Conrad Van Bloc).

1656 p. 69: *Medalls, Silver: Pomponius Bellieuraeus.*

348. Henry IV of France. 1602. Bronze. 44 mm. By G. Dupré.

1656 p. 70: *Medalls, Copper and Lead: Henry IV. King of France.*

349. Henry IV and Maria Augusta. Lead. 68 mm. By G. Dupré.

1656 p. 70: *Medalls, Copper and Lead: Henry IV and Maria Augusta.*

350. Louis XIII of France. 1624. Silver. 33 mm. By P. Regnier.

1656 p. 68: *Medalls, Silver: Lewis XIII. King of France.*

351. Louis XIII of France. 1610. Silver. 25 mm. By N. Briot (?). Metal does not correspond with 1656 catalogue.

1656 p. 70: *Medalls, Copper and Lead: Lewis XIII.*

352. N. Brulart à Sillery, Chancellor of France. Bronze. 69 mm.. By G. Dupré.

1656 p. 71: *Medalls, Copper and Lead: Ni. Brulartus a Sillery Franc. & Navar. Canc.*

353. Cardinal Richelieu. Bronze. 30 mm. By J. Warin (?). Metal does not correspond with 1656 catalogue.

1656 p. 69: *Medalls, Silver: Cardinal Richelieu.*

ETHNOLOGICAL SPECIMENS IN THE PITT RIVERS MUSEUM ATTRIBUTED TO THE TRADESCANT COLLECTION

Lynne Williamson

In 1886 most of the Ashmolean Museum's ethnological specimens were transferred to the recently founded Pitt Rivers Museum. Much of the Tradescant material, or those pieces identified as such, remained with the Ashmolean collections, but the documentation of the transfer indicates that some of the specimens sent to the Pitt Rivers Museum may have originated in the Tradescant collection.

This documentation consists of a two-volume manuscript catalogue compiled in 1886 by the Assistant Keeper in the Ashmolean, Edward C. Evans, entitled 'List of Anthropological Objects Transferred from the Ashmolean to the Pitt Rivers Museum, 1886'.[1] Evans listed some 1,680 objects in great detail, numbering each in sequence, giving full descriptions and measurements. He also discussed the history of each object, citing its donors when known and giving references to previous Ashmolean catalogues where applicable. For each entry he either listed the date of transfer to the Pitt Rivers Museum or noted that the object was retained in the Ashmolean collection.[2]

Evan's documentation was exhaustive, and provides not only the primary list of those specimens transferred to the Pitt Rivers Museum, but also important information linking those specimens to their original donors. In many cases he is making only an educated guess, but his reasoning is chronologically closer to the source than ours and he may have had access to more information. He often cites an object as 'perhaps Tradescant collection', occasionally citing page numbers in the 1656 catalogue. None of the specimens transferred in 1886 can definitively be linked to the Tradescant collection through 1656 catalogue entries, but extracts from Evans's descriptions of items, which seemed to him to have some connection with the Tradescants and for which no conclusive evidence to the contrary has been found, are given below arranged in major geographical regions. Each item is identified by its 1886 (AMS 25) number. All measurements have been converted from imperial to metric. Some of the specimens listed merit special mention.

No. 354, wampum beads: X-ray photographs show that many of the shell beads in this specimen have parallel-sided perforations. This indicates that the drills used were metal-

[1] Ash. Lib. AMS 25.

[2] The title of his catalogue is therefore misleading.

pointed, influenced by European contact. The methods of drilling these beads are not strictly uniform, however, and although this is a well-made piece it seems not to have been 'mass-produced'. Its date could be early seventeenth century, although it does not exhibit pre-contact manufacturing techniques.[3] Its small size suggests that this piece was used as ornamentation rather than as an illustration of tribal history displayed in ceremonies. (See also No. 10).

No. 355, model birch bark canoe: the provenance is most likely the Nova Scotia area of Canada, the Mic Mac tribe. Although there is no appropriate reference in the 1656 catalogue, this may be the 'very ingenious little boat of bark' noted at Lambeth by Stirn in 1638 (see p. 21).

Nos. 357–8, South American hammocks: the types and provenances of these two are quite different. No. 357 originates from a more tropical region, and is similar to the hammocks made by the Warrau and Waiwai people of Guiana. The strings are twisted from the fibres of the *ite* palm, *Mauritia flexuosa*; the dyes are natural. No. 358 is made from loom-woven cotton, indicating a more western provenance and contact with people using weaving techniques, perhaps in the eastern foothills of the Andes. Again, the dyes are natural. It has proved difficult to date either specimen closely, but both cotton and grass hammocks were described by seventeenth-century explorers in the Amazon region.[4]

No. 359, finely woven bag or cushion cover: this has been identified as a chief's cloth from the Old Kingdom of the Congo. The technique of manufacture is cut-pile embroidery on plain-weave raffia cloth with an embroidery design taking the form of interlocking lozenges. The distribution of this special type of cloth near the mouth of the Congo River in the early eighteenth century increases the possibility that contact and trade with Europeans did occur as early as Tradescant's time.[5]

Nos. 361–3, possibly East African spears, lances, javelins: these have in fact been identified as West African, from Gabon.

Nos. 391–2, possibly Oceanic bowls: if these are indeed from the Pacific Islands, they would, like Nos. 36–41, be extraordinarily early collectors' items. Although a few earlier contacts were made, most Pacific exploration took place in the second half of the eighteenth century. It is possible that Evans's provenance is wrong, however, and that these are African or even South American bows.

THE AMERICAS

354. WAMPUM BEADS (1886 no. 833). 'A band of blue and white Wampum beads, woven closely together in five rows, the white forming three lozenge-shaped ornaments along the centre, and a square patch at each end, the strings there forming a rude fringe. The beads are cylindrical in shape, in length from 5 mm to 7.5 mm and about 4 mm in diameter. The strings on which they are worked are made of hemp. Length of beadwork only 305 mm. Extreme length of band 433 mm, width 38 mm.'

1656 p. 51: *Black Indian girdles made of Wampam peek, the best sort.*

[3] Orchard 1975, pp. 71–87.
[4] Roth 1924, pp. 381–99.
[5] Picton and Mack 1979, pp. 198–203.

355. MODEL CANOE (1886, no. 869). 'A native made model of a Canadian Indian's Birch-bark canoe, ornamented along the edges, and the tops of stretcher with yellow quill work. A very old specimen a good deal damaged many of the ribs being loose and one end broken. Length is 1.73 m. Width 275 mm. Length of two paddles 0.59 m and 0.56 m.'

Not listed in the 1656 catalogue, but see pp. 21, 339, above.

356. CLUB (1886, no. 978). 'South American Indian Club of dark brown heavy wood, length is 1.09 m, Diameter of handle 38 mm × 25 mm, gradually spreading out from the middle of the club into a long, two-edged pointed leaf-shaped blade 84 mm in diameter, and 25 mm thick. The handle is incased in a closely wrought ornamental binding of cotton work, with long fringes attached. Whole length with fringe 1.27 m.'

1656 p. 46: *Tamahacks, 6 sorts.*

357. HAMMOCK (1886 no. 1001). 'A hammock, from British Guiana made of cords of twisted grass of a pale brown colour stained with three longitudinal broad stripes of green edged with brown; the numerous suspending cords at each end being of the unstained pale brown and worked into a strong loop at each end for suspension. Whole length is 3.84 m, length of the net part only about 1.88 m.'

1656 p. 53: *Hamaccoes, five severall sorts.*

358. HAMMOCK (1886 no. 1004). 'A hammock, probably from South America; made of closely woven strong white cotton thread, ornamented with nine longitudinal rows of dark and light brown stripes, each of the seven middle rows having six or seven narrow stripes, and the two outside or edge ones only three each. These longitudinal bands are crossed at intervals by sixteen fainter transverse bands of the same colour. The threads are left unwoven at each of the ends and plaited into sixteen pairs of cords about 305 mm in length, thirty two cords at each end intended either for a reeving string, or for a pole to suspend it by. Whole length is 3.05 m: length of the woven portion only; Width 0.86 m.'

1656 p. 53: *Hamaccoes, five severall sorts.*

AFRICA

359. BAG (1886, no. 254a). 'A bag or cushion cover? of exceedingly fine woven grass, in a kind of raised pattern much resembling plush, the colours being different shades of brown, the pattern being in lozenges and formed by the ends of the material projecting upright and cut very close. There is a border of little knobs all around the edge and four larger ones at the corners made in the same manner. Both the outer sides have the same pattern, but the inside is plain light brown. Locality uncertain, probably Eastern. Length 470 mm, Width 242 mm.'

1656 p. 51: *Purses of the barks and rinds of tree*, or,
1656 p. 53: *A Table-cloath of grass very curiously waved.*

360. STOOL (1886 no. 526). 'A cylindrical shaped box with cover, perhaps also used as a seat; each cut out of a solid piece of rather soft brown wood, the foot of the lower part, and the top of the lid projecting considerably beyond the body of the box; and each part having square projecting perforated ears which overlap each other, apparently for a pin or a cord to pass through to fasten the lid and the lower part together. The sides are thickly but rudely ornamented with numerous perpendicular and diagonal, coarsely incised lines, the top of the lid being left plain. Probably from the central part of Africa, but locality and history unknown. Height with lid on 280 mm; diameter of sides 200 mm; and of top 262 mm.'

1656 p. 52: *An Indian hollow low stoole.*

361. SPEAR (1886 no. 529). 'An Eastern African ? lance or javelin: the socketed iron head is 180 mm long and 20 mm greatest diameter, having two deeply cut narrow barbes, and on the stem immediately below them four rows of close set smaller barbes, three in each row, and all directed backwards. Dark brown wooden shaft 12 mm diameter, not very smoothly rounded, and rather crooked, terminating in a very long, slender, quadrangular socketed iron spike 355 mm long. Whole length 1.61 m. Locality uncertain.'

1656 p. 45: *Javelin – Japan, Turkish*, or *Indian Lance.*

362. SPEAR (1886 no. 530). 'An Eastern African ? spear or lance with a rather well-wrought pointed leaf-shaped iron head having a small rim or

shoulder round the lower edge of the socket and a slit up the side. Whole length 293 mm. Greatest diameter 33 mm. Shaft of dark brown wood rather roughly rounded, 23 mm greatest diameter, and ornamented just below the socket of the head, and at about 0.50 m from the other end with a little carved work, which looks almost as if it had been turned on a lathe. On the bottom a socketed spike 315 mm long, the portion below the socket being quadrangular, then twisted, below which it is round and diminishing to a point. Whole length of spear 1.68 m.'

1656 p. 45: *Javelin – Japan, Turkish,* or *Indian Lance.*

363. SPEAR (1886 no. 531). 'A javelin, or lance probably East African, with unequally barbed, and socketted iron head 193 mm long, and 40 mm wide. Shaft of dark brown wood 8 mm in diameter, gradually increasing in size to the other end which is 15 mm diameter. The shaft is better rounded than the two preceding. Whole length is 1.60 m.'

1656 p. 45: *Javelin – Japan, Turkish,* or *Indian Lance.*

364. SPEAR (1886 no. 532). 'A very long iron head of an African javelin ?, or perhaps harpoon. The blade is barbed 87 mm broad; the neck below being jagged, 56 mm long, and 6 mm wide, below which, on one side is a large pointed hook turned downwards from which to the end it is quadrangular, with the angles slightly flattened down; the fore somewhat approaching octagonal. Length 420 mm, diameter 10 mm, the end being pointed apparently for driving into a shaft. Whole length is 0.56 m. It may have been the head of an Assegai. Locality unknown.'

1656 p. 45: *Javelin – Japan, Turkish,* or *Indian Lance.*

365. QUIVER AND ARROWS (1886 no. 552). 'A quiver and ten poisoned arrows, and the iron head of another; from the coast of Guinea. The quiver which is 0.69 m long, and 58 mm diameter, except the bottom which is a flat disk 87 mm wide, is made interiorly of wood covered with raw hide sewn up the side and covered except in the middle portion for the distance of 8 inches, with thin, shiny, dark brown leather, that on the lower part being perforated in an ornamental pattern showing the lighter coloured hide beneath, and to which is attached, one below the other, two tufts of narrow strips of dull reddish brown leather which are attached to various sized buttons made of plaited narrow strips of the shining dark brown leather of which also two loops are made at the side of the quiver for carrying it. The arrows are of pale brown knotted reed with very sharp barbed heads of iron having long thin either quadrangular, or roughly rounded stems which were encrusted with poison but most of this has fallen off. Lengths of the arrows 0.61 m to 0.70 m . . . The blades of the heads are recurved opposite ways so as to make the arrows revolve in their flight. There is no cover or lid with this specimen. There are two very old paper labels on this, one of which seems to read – "Bow from Guinea, the arrows (which?) number ten, are all poisoned". The other I cannot read, but the latter part refers to some book.'

1656 p. 45: *Quivers 12, from India, China, Canada, Virgina, Ginny, Turkey, Persia.*

366. QUIVER AND ARROWS (1886 no. 553). 'A quiver and two iron heads of arrows; of nearly the same pattern as the preceding, except that there is no so much of the goat's hide seen below the perforated brown leather . . . Length is 0.57 m, diameter 50 mm. Length of iron heads 160 mm and 137 mm.'

1656 p. 45. *Quivers 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

367. QUIVER AND ARROWS (1886 no. 553a). 'Quiver of brown leather different to any other now in the collection, by gradually increasing in diameter from the top to the bottom, which is rounded. The hole is at the side at the top, and it is ornamented with two wide bands of thin green leather, each perforated or cut out in the same pattern and very neatly sewn on, one near the bottom and one near the middle: besides which are two sets of pendants or tassels of twisted narrow thongs, in straight rows crossways, one just below the mouth and the other near the middle and just below the ornamental band of thin leather; but many of these are broken off. The leather strap 20 mm in width, is passed through the plain and the plaited upper portion of thongs which form the tassels. A piece of thin brown leather having scalloped edges, and neatly stitched on covers the joining along the back. Length 0.67 m; Diameter at top 50 mm, gradually increasing to 100 mm at the bottom. It contains one barbed iron headed arrow having a shaft of thin reed, length 0.61 m, the head being bent and the very point broken off. Locality

not known, but no doubt Western Africa, perhaps Mandingo.'

1656 p. 45: *Quivers 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

368. BAG (1886 no. 561). 'A somewhat similar bag [to no. 560, from Liberia, of red and yellow grass] but of coarser make, and although it may formerly have been woven with a kind of pattern it is now of nearly a uniform dirty yellow colour, the unwoven material at the top being twisted into numerous (33) cords, and left unwoven at the bottom and tied in a kind of rude tassel. Length 0.51 m, or to top of strings about 0.94 m. Locality unknown, but probably African.'

1656 p. 51: *Purses of the barks and rindes of trees.*

369. POUCH (1886 no. 624). 'An oblong shaped pouch of similar leather and ornamented in a similar manner [to 623, West Central Africa], but with a different pattern, the stamping being on both sides, but the design not being the same on each side. The lid which only reaches half way down the side is rounded; and it has been lined throughout with coarse white cotton. It has five buttons attached, the two larger ones being made of, or covered with interwoven narrow strips of thin leather and the other three of leather and yellow grass, and it has long cords or strings of twisted leather for carrying it. Depth 180 mm; Width 122 mm.'

1656 p. 54: *A Turks travelling bucket of leather*, or, 1656 p. 53: *Turks budget.*

ASIA

(including the Pacific islands)

370. LEATHER POUCH (1886 no. 59a). 'A double bag, or pouch, of dark brown leather; the mouth of one being just above that of the other, and both covered with an overlapping flap or lid, and each having three rows of white stitches all round the lower part. The edges of the lids are scalloped and stitched with circles along a straight line. Depth 295 mm. Width 280 mm. The bottom has a pendant cord of dark green silk with a tassel on the lower end, length 180 mm. Perhaps Turkish.'

1656 p. 54: *A Turks travelling bucket of leather*, or, 1656 p. 53: *Turks budget.*

371. ARROWS (1886 no. 126). 'Fifteen arrows, probably from Eastern India; of stout reed with leaf-shaped iron heads, each with a prominent ridge along the middle on each side. The upper portion of the arrows appear to have been smeared with some substance, perhaps poison. All the feathers if indeed they ever had any have been lost. Locality unknown. Whole length 0.79 m to 0.66 m, the shorter ones appear to have been broken.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

372. ARROWS (1886 no. 127). 'Four arrows, the shafts being of smaller size than the preceding, and the iron heads though somewhat leaf-shaped, of a different pattern, and the tops of the shafts strengthened by two white metal bands. The bottoms have been painted and apparently feathered. Probably Indian. Lengths 0.74 m; 0.73 m; and 0.61 m.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

373. ARROW (1886 no. 128). 'One ditto, with head rather different in shape, and top and bottom of the arrow shaft painted. The feathers have been lost. Length 0.72 m. Probably Indian.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

374. ARROW (1886 no. 129). 'One ditto, with quadrangular pointed head, the shaft painted at top and bottom. Feathers gone. Probably Indian. Length 0.72 m.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

375. ARROWS (1886, no. 130). 'Two ditto, with short round points, the shafts painted at top and bottom, and feathers lost. Probably Indian. Length 0.72 m and 0.71 m.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

376. ARROW (1886 no. 131). 'One ditto, of light coloured wood with round obtuse iron head, the top

of the shaft bound spirally with a piece of bark. It has had three feathers. Perhaps Japanese. Length 0.62 m.'

1656 p. 45: *Arrowes 20, Darts 60, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

377. BASKET (1886 no. 152). 'A cylindrical shaped Indian or Chinese ? basket or stand of split cane, in an interlacing openwork pattern, strengthened externally with prominent longitudinal and transverse bands. It has a lid of the same pattern. Height 368 mm, Width 190 mm, of stand 127 mm.'

1656 p. 54: *Indian baskets 20 sorts.*

378. HOOKAH (1886 no. 167). 'Long tube of an Indian Hookah, and upright double stem of bamboo for insertion into stand by the lower end the two upper ends being used one for fixing on the clay bowl, and the other for the insertion of the long tube. The whole richly ornamented with beetles' wing cases of a golden green colour, thickly bound in a diagonal pattern with gold thread, and thickly studded all over with little rings of opaque white glass beads each ring including two transparent green ones of the same size. The upright stem is more sparingly ornamented with the beadwork than the tube. Stand, etc., wanting. Length of tube 4.22 m; Length of double stem 368 mm.'

1656 p. 53: *Tobacco-pipes, 30 sorts from Brasil, Virginia, China, India, Amazonia.*

379. HOOKAH (1886 no. 168). 'An old Persian hookah, of ornamented silver work, richly inlaid in patterns with flat pieces of green and blue turquoises which have been cut to shape and put in. The greater number of these however have dropped out, or been purposely extracted. This metal portion of the pipe appears to be complete, and takes into several different parts. (The lid and the curved tube which were formerly detached from the other portion). The bowl is of thick brown shiny clay with indented ornament round the upper edge and has been broken and mended again a fragment being wanted. There is no certainty of its belonging to this pipe, though it was in the drawer stowed away with it. Height 310 mm. Greatest diameter 76 mm.'

1656 p. 53: *Tobacco-pipes, 30 sorts from Brasil, Virginia, China, India, Amazonia.*

380. QUILTED ARMOUR (1886 no. 223a–d). 'Two thick, heavy breastplates, of quilted work, of coarse cotton cloth stitched through and through with string. The fronts lined with thin faded silk which at one time was pink, and the backs with coarse brown cotton cloth. Length 0.53 m; Width 0.51 m. One [no. 223a] has the two ornamental white metal buckles for fastening it attached to bits of leather at the top. A backplate [no. 223c] of the same make but much flatter. Four straps of softish leather covered with silk remain on the lower part; two of these have buckles attached to them. Size 0.52 m × 140 mm. And a smaller piece [no. 223d] of the same kind of work, something of a long crescent shape with strings of plaited pink silk for tying onto the lower part of the breast plate, for protecting the thighs. Width is 483 mm, Depth 160 mm.'

1656 p. 46: *China armour.*

381. HIDE-COVERED SHIELD (1886 no. 224). 'A circular shaped convex Target or Shield from Chinese Tartary?; made of thin wood, covered with hide and painted plain red on the outside; and red with a design in black, yellow and what appears to have been originally silver, and figures of parrots in black on the inside. It has an oblong pad behind for the hand, which had originally a loop at each end, one of which has been lost. Diameter is 0.62 m.'

1656 p. 45: *Targets several sorts, viz.: Knights Templers, Britaine, Isidore the Monk, Roman, Japan, Græcian, Roguza,* or *Targets from the East India of – Reeds, Leather, Skins, and Crocodill-skin.*

382. HIDE-COVERED SHIELD (1886 no. 226). 'Ditto approaching a flattened cone shape, and painted on both sides with a similar design, consisting of star-shaped ornaments in yellow, black and silver, the latter being much faded. The handle behind is perfect, and the shield incloses shot or some such article which rattles when the shield is shaken. Diameter is 0.56 m.'

1656 p. 45: *Targets several sorts, viz.: Knights Templers, Britaine, Isidore the Monk, Roman, Japan, Græcian, Roguza,* or *Targets from the East India of – Reeds, Leather, Skins, and Crocodill-skin.*

383. SPEAR (1886 no. 229). 'East Indian (?Ceylonese) Spear with large iron head, the blade of which is 368 mm long, and 38 mm wide, tapering

to the point with a very prominent ridge running along the middle of each side; the socket being 190 mm long, and ornamented with concentric circles with cross lines between them, all rather faintly incised. The blade has a deep notch cut in each edge near to the socket, something after the manner of the Kookree knives. The shaft which is 1.40 m long and 20 mm in diameter is round and made of four pieces of cane joined together longitudinally, and painted or japanned with patterns in red, black and yellow. It has been very much injured.'

1656 p. 45: *Javelin – Japan, Turkish*, or, *Indian Lance.*

384. SPEAR (1886 no. 230). 'East Indian (?Ceylonese) lance with moulded, round and socketted spike on one end 137 mm long and 20 mm diameter. Shaft of wood 0.54 m long, and 20 mm diameter at the spiked end, decreasing in diameter to 13 mm at other end, which appears to have lost six long feathers, with were bound as in an arrow. The shaft has been painted red, with circles, spirals and other ornaments in black and yellow, in nearly the same style as the shaft of the preceding object. Whole length 2.80 m.'

1656 p. 45: *Javelin – Japan, Turkish*, or, *Indian Lance.*

385. SPEAR (1886 no. 234). 'A Malay? javelin with a well made but unequally barbed and socketted iron head, and nicely and smoothly rounded shaft of hard, dark almost black wood. Length of head 193 mm; present length of shaft 1.40 m; diameter near head 13 mm, gradually tapering to the end, about 130 or 150 mm of which has been broken off. There is slight traces of the joint down the socket.'

1656 p. 45: *Javelin – Japan, Turkish*, or, *Indian Lance.*

386. SPEAR (1886 no. 235). 'Ditto, ditto, with similar but rather smaller head, length 180 mm, the shaft being complete. Whole length 1.37 m.'

1656 p. 45: *Javelin – Japan, Turkish*, or, *Indian Lance.*

387. SPEAR (1886 no. 236). 'Javelin, probably from the same locality as the two preceding as the shaft appears to be of the same kind of wood. It has a well made and nearly leaf-shaped iron head 300 mm long, the socket of which is 135 mm of it; and 38 mm diameter. The shaft is nicely rounded the end being apparently broken off. Whole length 1.39 m. There is no trace of the joining down the socket.'

1656 p. 45: *Javelin – Japan, Turkish*, or, *Indian Lance.*

388. FAN (1886 no. 243). 'A Chinese, somewhat heart-shaped fan, made of pleated palm leaf, bound round the edge with thin pieces of split-cane tied together so as to form a stiff rim, with a turned handle of wood coloured dark brown. Length 415 mm, width 315 mm.'

1656 p. 54: *Ventilo's of Palmeto leafe, Turkish feathers Straw, Leather, Sedge*, or, *Fannes of skins and rushes.*

389. FANS (1886 nos. 247, 248). 'Two old Chinese? fans of nearly circular shape, made of small, interwoven roots, which are left unwoven as a wide fringe round the edge, except in one place, where a large semi circular wooden handle is fixed, which is covered with very thin paper daubed with patches of red, green, and black painted probably in imitation of flowers. The fans are strengthened here and there and round the edge with narrow strips of split cane bent into shape. Diameter to outside of fringe about 0.60 m, diameter to outer circle of cane of 445 mm and 400 mm.'

1656 p. 54: *Ventilo's of Palmeto leafe, Turkish feathers Straw, Leather, Sedge*, or, *Fannes of skins and rushes.*

390. FAN (1886 nos. 418, 419). 'Two large Indian? fans or sun-shades, of like make [to 410–412, three stiched and woven palm-leaf fans or sunsahdes, perhaps Indian or Ceylonese]. The sides or rather edges being ornamented with a border of oval-shaped pieces of Mica having a raised edging of plaited palm-leaf of light and dark brown, with small cross pieces of black and brown woven in at intervals. Length 1.75 m and 1.69 m.'

1656 p. 54: *Ventilo's of Palmeto leafe, Turkish feathers Straw, Leather, Sedge*, or, *Fannes of skins and rushes.*

391. BOW (1886 no. 1493). 'A small bow of dark brown wood, perhaps from the South Pacific Islands, half circular on the front, and less convex on the back, and nicely smoothed all over. Length 1.28 m. Diameter in the middle part 25 mm, gradually diminishing to the ends. It has been broken, and mended by us near one end on the front. Line lost.'

1656 p. 45: *Bowes 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

392. BOW (1886, no. 1494). 'A larger bow of the same shape as no. 1493 of hard dark brown wood but wearing a polish. The ends, also like that number are cut away to form short peg-like projections for the bow string. Perhaps from the South Pacific Islands. Length 1.87 m. Diameter in the middle 33 mm, gradually diminishing to 18 mm at the ends.'

1656 p. 45: *Bowes 12, from India, China, Canada, Virginia, Ginny, Turkey, Persia.*

ZOOLOGICAL SPECIMENS IN THE UNIVERSITY MUSEUM ATTRIBUTED TO THE TRADESCANT COLLECTION

Keith Davies

Following a number of earlier suggestions, the University Commission recommended in 1852 that a great new museum for the sciences should be built. Despite entrenched opposition to this move, designs were subsequently prepared and by 1860 the new building was virtually completed. Over the following six years the remaining parts of the Ashmolean Museum's natural history collections were transferred to the new institution, which became known as the University Museum.[1]

Amongst the exhibits transferred to the University Museum at this time were a number of zoological specimens which had originated in the Tradescant collection, the most famous of them being the head and foot of the Dodo, *Raphus cucullatus* (L.)[2] In this specimen is found an example of the original purpose of the Tradescant collection: the Dodo, a remarkable flightless bird which inhabited the island of Mauritius, provided visitors to The Ark with a creature of wonder from a foreign land and gave them a specimen on which to speculate. It also embodies something of the history of the zoological collections, for in the year 1755 the original stuffed specimen from The Ark at Lambeth was consigned to the fire on the orders of the Vice-Chancellor and Proctors, such was its advanced state of decay. Fortunately the head and foot were saved for posterity and can now be seen on display in the University Museum.

The passage of years, mould, insect damage, and general wear and tear took their toll on a considerable part of what has been truly described as the oldest natural history collection in the British Isles. Apart from the physical deterioration of the specimens, indifferent curatorship resulted in a concomitant loss of information and data related to the individual exhibits. Labels, tallies, and other means of identification were erroneously removed or interchanged as the material passed through various hands; writing faded and, in some instances, catalogue numbers were incorrectly applied to the specimens. Once a zoological specimen has become separated from its original number or label it may be impossible in the absence of detailed records to correlate the two again.

Since publication of the original catalogue in 1656, three careful attempts have been made to gather together all the zoological material attributed to the Tradescants. In 1836 Duncan published his *Catalogue of the Ashmolean Museum* which listed the contents of

[1] For a more comprehensive account of the history of the University Museum and of its zoological collections in particular, see Davies and Hull 1976.

[2] See pp. 22, 68.

the institution including material of a zoological nature appertaining to the Tradescants.[3] Another investigation of the zoological material from the Tradescant collection took place in 1917, when Gunther was able to locate a number of specimens still extant in the University Museum: an illustrated inventory of this material was later published in 1925.[4] The third and most recent attempt, carried out in 1980,[5] has enabled the current position relating to these relics to be recorded, though it is by no means certain that every item nominated as being of Tradescant origin is of proven provenance. At the present time the Tradescants' zoological rarities comprise only the more durable specimens of animal bones, skins, hooves, and horns, together with a few beaks of birds. Although many shells from the Ashmolean collection exist in the University Museum none of them has been positively determined as belonging to the large accumulation of sea-shells listed in the 1656 catalogue.[6] In earlier times many Tradescant specimens would have been used for teaching and demonstration purposes, undoubtedly contributing to their dilapidation and ultimate loss. After a period of 300 years of use at Oxford a number of the original Tradescant specimens still persist and have recently been placed in conditions of greater security for their preservation, as recommended by Gunther in 1925.

The accompanying list of surviving specimens is based on the published works of Duncan (1836) and Gunther (1925)[7] and indicates that further losses have occurred since these authors attempted to identify the remains of Tradescant's cabinet of rarities.

SURVIVING SPECIMENS EXPLICITLY ATTRIBUTED BY DUNCAN TO THE TRADESCANT COLLECTION

Original nomenclature has been used, together with vernacular names.

MAMMALS

393. 1836 p. 9, no. 99: *Cachicames novemcinctus. Das. 9-cinctus, Linn. The nine-banded armadillo. S. America.*

1656 p. 6: *Armadilla, or Encubartado, two sorts: Tatu Apara, Tatupeba.*

394. 1836 p. 10, no. 101: *Apara tricinctus. Das. tricinctus, Linn. Back plates of the three-banded Armadillo.*

1656 p. 6: *Armidilla, or encubartado, two sorts: Tatu Apara, Tatu Tatupeba.*

395. 1836 p. 12, nos. 127–30: *Horns of the Elk. Cervus Alces, Linn.* [128 missing]

396. 1836 p. 12, nos. 131–5: *Horns of the Rein-Deer. Cervus Tarandus, Linn.*

1656 p. 7: *A Deeres horn, from Greenland.*

397. 1836 p. 12, nos. 140–4: *Horns of the Stag, varieties. Cervus Elaphus, Linn.* [143 missing]

1656 p. 7: *Half a stags horn weighing 50 lb.*

398. 1836 p. 13, nos. 146–8: *Horns of the Roe-buck. Cervus Capreolus, Linn.*

1656, p. 7: *A Roe bucks horn from Cape de Verde.*

[3] Duncan 1836, pp. 1–120.

[4] Gunther 1925, pp. 343–66.

[5] This most recent survey has been carried out by members of the University Museum staff, together with a volunteer worker, Miss Vivien Nye.

[6] One specimen, however, survives in the Hunterian Museum, Glasgow. This shell, the holotype of *Strombus Listeri*, came into the possession of William Hunter from John Fothergill in the eighteenth century. See Whitehead 1971, pp. 54–5; Davies and Hull 1976, p. 9.

[7] The corresponding 1656 catalogue entries are reproduced where appropriate. In a number of instances, however, no entry can be found for some specimens attributed by Duncan and Gunther to the Tradescant collection: their descriptions are none the less included here, on the assumption that evidence (now lost) linking these specimens to the Tradescants may have been available to them.

399. 1836 p. 13, no. 158: *Horn of the common Antelope. A. Cervicapra, Auctor.*
1656 p. 7: *Antilops horn.*

400. 1836 p. 13, no. 164: *Horns of the Persian Goat. Capra Ægagrus, Desm.*

401. 1836 p. 13, no. 165: *Head and horns of the Muscovy Ram. Hircus Cotelardicus, Jonst.*

402. 1836 p. 13, no. 166: *Horns of the Ram. Ovis Aries.*

403. 1836 p. 13, no. 169: *Single Horn of the Impoofo. Damalis Oreas.*

PARTS OF MAMMALS

404. 1836 p. 69, no. 67: *Upper jaw of the Walrus.*
1656 p. 9: *Caput rosmari cum dentibus cubitum longis.*

405. 1836 p. 70, no. 103: *Molar tooth of the Indian Elephant.*

406. 1836 p. 70, no. 105: *Skull of the African Elephant. Elephas Africanus, Cuv.*
1656 p. 7: *Elephants head and tayle.*

407. 1836 p. 70, no. 195: *Section of the same, shewing the cerebral cavity.*
1656 p. 7: *Elephants head and tayle.*

408. 1836 p. 70, no. 109: *The femur or thigh bone of an Elephant.*

409. 1836 p. 70, no. 110: *The Humerus or shoulder bone of the same.*

410. 1836 p. 70, no. 111: *The tail of an African Elephant.*
1656 p. 7: *Elephants head and tayle.*

411. 1836 p. 70, no. 113: *Section of the same* [Hippopotamus], *exhibiting the cerebral cavity.*
1656 p. 5: *Hippopotamus.*

412. 1836 p. 70, no. 123: *Skull of the Babyroussa or horned Hog. Sus Babyrussa, Linn.*

413. 1836 p. 70, no. 124: *Skull of the Æthiopian Boar. Sus Æthiopicus, Gmel.*

414. 1836 p. 70, nos. 127–9: *Horns of the Rhinoceros of various magnitudes, the largest measuring in length on the outer curve 3 feet 2½ inches, and in circumference at the base 1 foot 8 inches.*
1656 p. 7: *The Rhinoceros: Horn, jaw-bone, back-bone.*

415. 1836 p. 70, no. 130: *Probably the smaller horn of the double horned Rhinoceros.*
1656 p. 7: *The Rhinoceros: Horn, jaw-bone, back-bone.*

416. 1836 p. 71, nos. 141–2: *Legs of the Elk.*
1656 p. 7: *Elkes hoofes* [one leg and two feet].

417. 1836 p. 71, nos. 163–4: *Skulls of the Dolphin.* [163 lost].
1656 p. 8: *Dolphins head.*

418. 1836 p. 71, no. 176: *Rib of the same* [whale].
1656 p. 9: *A Whales ribs.*

HEADS AND BEAKS OF BIRDS

419. 1836 p. 74, no. 81: *Head and leg of the Dodo.*
1656 p. 4: *Dodar from the Island Mauritius: it is not able to flie being so big.*

REPTILES

420. 1836 p. 80, no. 11: *Croc. vulgaris. Lacerta Crocodilus. Linn. The common Crocodile.*
1656 p. 6: *Alegator or crocodile from Ægypt.*

421. 1836 p. 89, no. 19: *Croc. vulgaris. The same.*
1656 p. 6: *Alegator or crocodile from Ægypt.*

422. 1836 p. 81, no. 26: *Portion of the back of a large species of Crocodile.*
1656 p. 6: *Alegator or crocodile from Ægypt.*

FISHES

423. 1836 p. 88, no. 72: *Esox osseus, Linn. Lepisosteus, Lacep. Greater Garfish* [head of].

424. 1836 p. 90, nos. 89–94: *Diodon attinga, Linn. Porcupine Diodon.*

425. 1836 p. 90, nos. 104–5: *Ostracion triqueter, Bloch. Triangular Trunk-fish.*

426. 1836 p. 90, nos. 107. *Ostracion trigonus, Bloch. Trigonal Trunk-fish.*

427. 1836 p. 90, nos. 108–9. *Ostracion quadricornis, Bloch. Four-horned Trunk-fish.*

428. 1836 p. 91, nos. 132–6: *Beaks of the Saw-fish of various magnitudes.*

SOME ADDITIONAL SURVIVING SPECIMENS CITED BY GUNTHER[8] AS APPEARING IN THE 1656 CATALOGUE

429. *'Pissle' bone of Walrus. os penis.*

1656 p. 8: *Sea Horses pissle.*

430. *Head of Pied Hornbill. Biceros malabaricus. India.*

1656 p. 1: *Beaks, or Heads .... thirty other severall forrain sorts, not found in any Author.*

431. *Head of the Helmet Hornbill. Biceros galeatus. Sumatra.*

1656 p. 1: *Beaks, or Heads . . . thirty other severall forrain sorts, not found in any Author.*

432. *Head of the Toco Toucan. Rhamphastos toco.*

1656 p. 2: *Aracari of Brasil, his beak four inches long, almost two thick, like a Turkes sword.*

[8] Gunther 1925, p. 345.

MINERAL SPECIMENS IN THE UNIVERSITY MUSEUM AND THE TRADESCANT COLLECTION

Brian Atkins

Attempts in 1980 to identify extant specimens in the mineral collections of the University Museum as having originated in the Tradescant collection have been entirely unsuccessful.

Cataloguing of the mineral collections, now comprising some 24,000 specimens, was initiated in the 1890s, some thirty years after the museum was opened. Apparently no records of the University Museum collections were made between 1860 and 1895, or have survived from that time. The Tradescant catalogue of 1656, section VI, 'Fossilia' (pp. 17–26) lists *inter alia* a few score of mineral specimens, but these are identified by name only – e.g. 'talcum', 'stanni minera', 'sulphur nativum' – and carry no descriptions whereby it might have been possible to match them to surviving specimens. In the manuscript catalogue of 1685 many of the mineral specimens listed are again so inadequately described – e.g. 'chalcedony, rather large', 'red agate stone', 'crystal, hexagonal, thick' – that it would be quite impossible to relate the catalogue entries to extant material in the University Museum. In some cases, usually where a mineral has been fashioned into an artefact, descriptions are more helpful, e.g. 'Ring of white agate which the Turks use in archery', 'oval of lapis lazuli, on one side carved with three figures, on the other, 14 holes, and elsewhere dark'. Of these some have been located in the Ashmolean Museum (see Nos. 60–2, 115–16, 124–47); none has been traced in the mineral collections of the University Museum.

It appears therefore that *either* no mineral specimens listed in the seventeenth-century catalogues were transferred to the University Museum, *or*, if they were, they either failed to survive to the time of the compilation of the first registers in 1895, or were too inadequately described to be traceable at the present time.

MANUSCRIPTS AND PRINTED BOOKS ASSOCIATED WITH THE TRADESCANTS IN THE BODLEIAN LIBRARY

A. C. de la Mare

Several manuscripts and printed books in the Bodleian Library have been identified with some certainty as coming from the Tradescants, and two others (Nos. 438–9) bear early references to their museum or to the objects in it. All but one of these (No. 438) belonged at one time to Elias Ashmole. Ashmole bequeathed his library to the University of Oxford in 1692, but it was originally housed in the Ashmolean Museum, and was not transferred to the Bodleian until 1860. The Tradescants' books were evidently acquired by Ashmole along with their other collections, and were swallowed up in Ashmole's large library, leaving almost no trace of their origin. One book in the Bodleian, an Ashmole printed tract (No. 437), bears the precious ex-libris of John Tradescant the Elder. Over the past hundred years or so a few further books and manuscripts which must once have belonged to him have been unearthed in the Ashmole collection. They include the famous Ashmole Bestiary (No. 435), which was seen in The Ark in 1638 by the German visitor G. C. Stirn (No. 438), and Tradescant's original journal of his journey to Russia in 1618 (No. 433). It seems very likely that the manuscript traditionally known as 'Tradescant's Orchard' (No. 434) was indeed made for him. His copy of Parkinson's *Paradisus* (printed 1629) with lists of plants subsequently 'reseved' by him added on blank leaves at the end (No. 436) was bought by the Bodleian in 1917. This book, though it did not remain in the main Ashmole collection, must once have belonged to Ashmole, too, since it also bears a list in Ashmole's hand of trees found in the Tradescants' garden. The contents of a few other Ashmole manuscripts (Nos. 440–6) strongly suggest that they came from John Tradescant the Elder. In one of these (No. 440) a pencil note in his distinctive hand gratifyingly came to light during the preparation of the present catalogue. No doubt a detailed examination of the other Ashmole printed books and manuscripts would reveal further examples of his hand. It is a pity that the hand of the younger Tradescant does not seem to be so readily identifiable.

433. MS ASHMOLE 824, item XVI (ff. 175–86^{v}) (Pl. CLXVII) [John Tradescant the Elder] 'A Viag of Ambasad Undertaken By the Right Honnorabl Sir Dudlie Diggs in the year 1618'. Journal of a journey by sea from London to Archangel and back, leaving on 3 June 1618 and returning to Gravesend on 22 August. The journal proper, kept at the time, to judge from the unevenness of the hand and changes in the ink, is followed in the same hand (f. 182) by 'Things by me observed'. These observations end on f. 186^{v}. The entire text is printed by Konovalov,[1] and most of it

[1] Konavalov 1951, pp. 130–41.

DEPARTMENT OF ANTIQUITIES,
ASHMOLEAN MUSEUM, OXFORD.

is also printed by Allan.[2] In a blank space on f. 186[v] in an apparently different, more formal hand, perhaps a later version of Tradescant's hand, are notes mainly on the calendar, beginning 'Simpathetical and antipathetical working of herbes plantes stones minerales'.

On paper, watermark a pot with letters *IB* and crescent, similar to Heawood no. 3581 (England, 1618).[3] Written by Tradescant the Elder, presumably in 1618.

Dimensions: Height *c.*393 mm; Width *c.*205 mm; 12 leaves.

Bibliography: Black 1845, col. 469; Hamel 1847; id. 1854, pp. 243–98; Singer 1851, pp. 391–3; Boulger 1895; Gunther 1922, p. 330; Konovalov 1950, pp. 75, 77, 88–9; id. 1951, pp. 128, 130–41; Allan 1964, pp. 67–83, pl. 8a.

Hamel deduced from internal evidence that the journal must have been written by Tradescant. Mrs Lane Poole showed that it was indeed in his hand by comparing the ex-libris of 1626 in the printed text, Ashmole 735/10 (No. 437 below). A note by her to this effect dated 1911 is bound in with the manuscript.

434. MS ASHMOLE 1461 (Pl. CLXVIII). Known as 'Tradescant's Orchard'. Water-colour drawings of garden fruits, sometimes with birds, insects, etc., mostly arranged by their date of ripening.

Pages 1–4 (later pagination) 'Table'. Types of fruit arranged alphabetically, with folio numbers, in Ashmole's hand. In the upper margin a different hand has written: 'Heare by the figures you may finde eache frute.'

The main text begins on f. 11 (original foliation), suggesting that ten leaves are lost, but they may not have contained any drawings, since Ashmole's table lists no folio number lower than '11'. The contents (with original titles) are: (f. 11) 'The great french strabere Ripe the 20 of May'; (f. 13) 'The red Gousbery Ripe June 15'; (f. 15) 'The May Cherry Ripe 2'; (f. 17) 'The flanders Cherry Rip[e] May the 29'; (f. 19) 'The Luke ward Chery ripe June the 10'; (f. 21) 'The cluster Cerry [*sic*] Ripe June the 15'; (f. 23) 'The Corone Cherry ripe June the 19'; (f. 25) 'The Tradescant Cherry June the 21'; (f. 27) 'The whight Cherry ripe June the 24'; (f. 29) 'The harte Cherry Ripe June the 24'; (f. 31) 'The Naples Cherry ripe July the first'; (f. 33) 'The Dworfe Cherry. Ripe July the firste'; (f. 35) 'The Red plumordin plume Ripe July the 12'; (f. 37) 'the vilot plum ripe July the 24'; (f. 39) 'The moroco plume ripe July the 15'; (f. 41) 'The early whight pere plum July 30'; (f. 43) 'The Denny plum ripe August the 6'; (f. 45) 'The Grene Oysterly plum ripe August the 9'; (f. 47) 'The quene mother plum August 14 [*added later*] or muskedin or cherry'; (f. 49) 'The Nutmeg plum ripe August the 18'; (f. 51) 'The frier plum Ripe August 16'; (f. 53) 'The Red Mussell plumbe ripe 20 of August'; (f. 55) 'The Sheffell Bullis Ripe August 22'; (f. 57) 'The Impryall plum. August 22'; (f. 59) 'The gante plum ripe August the 23'; (f. 61) 'The Mussule plum Ripe August 24'; (f. 63) 'The grene pescod plum. Ripe August 24'; (f. 65) 'The Damsonn ripe August the 26'; (f. 67) 'The pruon Damson Ripe August the 27'; (f. 69) 'The Red pescod plum Ripe August 28'; there are no ff. 71–9; (f. 80, numbered 81) 'The whight Date August 29'; (f. 82) 'The whight mussell plumbe Ripe September 2'; (f. 84) 'The Blacke pear plum Ripe Septem. 3'; (f. 86) 'The Amber plum which J.T. as I take it brought out of France and groueth at Hatfeld: ripe Septem. the 8'; (f. 88) 'The Turke plum September 16'; (f. 90) 'The Apricooke that is booth long and greet. ripe August the 23'; (f. 92) 'The Round Apricook ripe August the 15'; (f. 94) 'The Cluster Red nectrion Ripe August 22'; (f. 96) 'The Roman Reed Nectrion. Ripe Septem. 2'; (f. 98) 'The Basturd Red Nectrion Ripe September the 4'; (f. 100) 'The grene Nectrion Rip [*sic*] September the 5'; (f. 103) 'The yollow [*sic*] Nectrion Ripe September the 13'; (f. 105) 'The Nuingtonn peeche. Ripe August 4'; (f. 109) 'The bell Cornation peech, which pealleth like a codling ripe September the 3'; (f. 111) 'The Graunde Cornation peach Ripe September 4'; (f. 113) 'The grete Early yollowe peech Ripe Septemb. the 6'; (f. 115) 'The blake pech red all with in ripe the 20 September'; (f. 117) 'The whighte peech Septem: 21'; (f. 119) 'The Round Cornation pech ripe September the 24'; (f. 120) 'The peach [*sic*] Dutroye'; (f. 121) 'The Russet Blud peech ripe September the 25 [*added*:] or Durosnus'; (f. 122) *a peach with no title*; (f. 123) 'The Mallycotonne peche Ripe Septembe 26'; (f. 125) 'A late ripe yollow [*sic*] peech ripe October the 10, but wery good firme peech'; (f. 127) 'An Early ripe Apple and good in taste August 22'; (f. 129) 'A french peare called

[2] Allan 1964, pp. 67–83.

[3] Heawood references are to Heawood 1950.

R [...*cropped by binder*] Collavit Rip August 29'; (f. 131) 'The Jerusalem peere'; (f. 133) 'The grete winter peere'; (f. 135) 'The greet 16 [*corrected from* 18] ounce peere'; (f. 137) 'The Peare Quince Ripe October 5'; (f. 139) 'The portingegale Quince'; (f. 141) 'The grete Roman Hasell Nut'; (f. 143) 'The smalle Reson grape ripe September the 12'; (f. 145) 'The Blue grape Ripe September 27'; (f. 147) 'The Gret Reson grape ripe October the 10'; (f. 149) 'The burtet Grape wich wery scildum rip[ens].' Folios 150–2 are blank.

The drawings are normally executed on the rectos of alternate leaves, with the intervening leaves left blank. A number of the original intervening leaves are either now missing or never existed, but some were replaced at a slightly later date with paper which has the same watermark as the flyleaves (ff. 34, 40, 70, 119a, 120a, 122a). On f. iv^{v}, pasted onto a flyleaf, is a watercolour drawing of a lily, *c.*178 × 82 mm, with title: 'Martagon vel Leli nova anglia' (not written by the main hand). There are pin-holes (?) marked with rust in the upper and lower edges.

On paper, watermarks: a coat of arms with crown (including pp. 1–4), nearest to Heawood 481; an eagle, nearest to Heawood 1248; a shield with *H.B.* (?) nearest to Heawood 603. The flyleaves and added leaves have watermarks, a pot with crescents, fleur-dy-lis, and *RDP* (two versions). The watermarks are not in Heawood, but cf. Heawood 3594–7, etc. The manuscript is made up of iv leaves + 4 pp. + 133 leaves (numbered 11–153). Folios i–iv, 153, are added seventeenth-century flyleaves. There are no ff. 71–9, 101, 107–8, and ff. 119, 120, 122 are double. Written in the early seventeenth century. Seventeenth-century binding for Ashmole with his arms on the clasps and on the spine.

Dimensions: Height 301 mm; Width 184 mm; 139 leaves in all, including later flyleaves.

Bibliography: Black 1845, cols. 1265–6; Rimbault 1851, pp. 353–4; Gunther 1922, pp. 329, 342–3; Webber 1968, p. 54.

On f. 52 are the names 'James' and 'John Hayes' (seventeenth century). The subscriptions in the manuscript are not in the elder Tradescant's hand, but it could have been made for him, perhaps while he was gardener at Hatfield, *c.*1609–14. Gunther[4] suggested that the drawings represented the fruits in the orchard at Hatfield and that the drawings were by Alexander Marshall, by analogy with 'A Booke of Mr. Tradescant's choicest Flowers and Plants, exquisitely limned in vellum by Mr Alex. Marshall' which was in the Lambeth museum.[5]

435. MS ASHMOLE 1511 (Pl. CLXIX) Moralized bestiary. In Latin, on parchment, written in England, perhaps in the north Midlands or Lincoln, *c.*1210, by one main scribe. Folio 9^{v} was written by a different, contemporary hand. The manuscript is made up of ix + 104 + viii leaves (there is no f. 34; ff. 1–3, 105, are original parchment flyleaves; the leaves at the beginning and end are later paper flyleaves); text in one column of thirty lines, ruled in pencil or crayon; writing above the top ruled line. Collation 1^{8} (1 cancelled? + 1 leaf (f. 8) inserted after 8), 2^{8}–3^{8}, 4^{8} (+ 1 leaf (f. 26) stuck to 2), 5^{8}, 6^{8} (+ 1 leaf (f. 48) inserted after 5), 7^{8}–12^{8}, 13^{4}, 14^{2}, no visible catchwords or quire numbering. Initials on f. 4, 9^{v}, 11, 85, 92, 95 in gold on decorated grounds of pink and/or blue and orange. Lesser initials alternately blue flourished in red and red flourished in blue. For the miniatures see below. Seventeenth-century calf binding with arms of Ashmole gilt on the spine.

secundo folio *Dixit vero deus*

Contents

1 (f. 4) The Creation. Genesis 1:1–2:2. Ends f. 7, followed by a two-line verse, beginning: Non quod erat lassus quasi longa gravamina passus.

2 (f. 9^{v}) Adam's naming of the animals, beginning: Omnibus animantibus Adam primus vocabula indicit. Isidore, *Etymologiae*, Lib. XII, chapter 1, sections 1–8.

3 (f. 11) 'Incipit liber de naturis bestiarum', beginning: Leo fortissimus bestiarum ... Bestiarum vocabulum proprie convenit leonibus pardis et tigribus.

4 (f. 37) 'Hic incipit de avibus', beginning: Unum autem nomen avium sed genus diversum.

5 (f. 78) 'De serpentis', beginning: Anguis omnium serpentium est genus.

6 (f. 86) 'Incipit de piscibus', beginning: Pisces dicti unde et pecus.

7 (f. 92) 'De arboribus', beginning: Arborum nomen sive herbarum.

8 (f. 95) 'Ysodorus de natura hominis', beginning: Natura dicta eo quod nasci aliquid faciat. Note

[4] Gunther 1922, p. 329.

[5] Tradescant 1656, p. 41.

that this section is an integral part of the Bestiary, and not something 'bound up with' it, as stated by Mrs Lane Poole.[6]

9 (f. 103v) 'De lapidibus igniferis', beginning: Sunt lapides igniferi in quodam monte.

There are many corrections to the text, including some long passages written over erasure, by a contemporary hand or hands. The text belongs to M. R. James's 'Second Family' of bestiaries.[7] James provides a useful analysis of the sources of the text.[8]

Miniatures

The manuscript is illustrated by a fine series of framed miniatures on burnished gold grounds; a few are full page or nearly full page, but most fill only a small part of the page, usually at the beginning of the chapter which they illustrate. The subjects are: (f. 4) creation of heaven and earth; (f. 4v) creation of the waters and firmament; (f. 5) creation of plants and trees; (f. 5v) creation of the sun and moon; (f. 6) creation of the birds and fishes; (f. 6v) creation of the animals; (f. 7) creation of Eve; (f. 8v, full page) Christ in majesty; (f. 9, full page) Adam naming the animals; (f. 10, full page) lion – three scenes; (f. 10v, full page) lion – three scenes; (f. 12) tiger; (f. 12v) leopard; (f. 13) panther; (f. 14) antelope; (f. 14v) unicorn; (f. 15) lynx; (f. 15v) griffin, elephant; (f. 17) beaver, ibex; (f. 17v) hyena; (f. 18) bonnacon; (f. 18v) monkeys; (f. 19) satyr, stag; (f. 20) goat; (f. 20v) wild goats; (f. 21) monoceros, bear; (f. 22) leucrota, crocodile; (f. 22v) manticora; (f. 24) parandrus, fox; (f. 23v) yale, wolf; (f. 25) dogs; (f. 25v) dogs – two scenes, story of King Garamantes; (f. 26, full page) dogs – three scenes, story of Jason; (f. 27v, full page) dogs – three scenes, identification of master's murderer; (f. 28) dogs – three scenes; (f. 29v) sheep; (f. 30) ram, lamb, he-goat; (f. 30v) wild boar, steer; (f. 31) ox, camel; (f. 31v) dromedary; (f. 32) donkey, wild ass; (f. 32v) horse; (f. 35v) cats, mouse, weasel; (f. 36) mole, hedgehogs; (f. 36v) ants; (f. 38) dove and hawk; (f. 39v) three types of dove; (f. 41v) eagle or hawk(?); (f. 42) hawk; (f. 43v) turtle dove (two miniatures); (f. 44) turtle dove at centre of cross; (f. 45v) the Virgin with seven doves symbolizing gifts of the Holy Spirit; (f. 46v) pelican – three scenes; (f. 47) niticorax; (f. 48) hoopoes; (f. 48v) man shooting magpies; (f. 49) raven; (f. 50v) cockerel; (f. 52v) ostriches; (f. 56) vultures; (f. 57) cranes; (f. 58) kite; (f. 58v) parrot; (f. 59) ibis; (f. 59v) swallow; (f. 60v) stork; (f. 61) blackbird; (f. 62) owl; (f. 62v) hoopoe; (f. 63) noctua, bat; (f. 63v) jackdaw; (f. 64v) nightingale, goose; (f. 65) heron; (f. 65v) siren; (f. 66) cinomolgus, ercinea; (f. 66v) partridges – two scenes; (f. 67) halcyon; (f. 67v) coot, phoenix; (f. 68) phoenix rising from the flames; (f. 69) caladrius on sick king's bed; (f. 69v) quail; (f. 70v) crow; (f. 71) swan; (f. 71v) ducks; (f. 72) peacock; (f. 74) eagle – two scenes; (f. 75v) hives with bees; (f. 77v) perindens tree; (f. 78v) dragon killing elephant; (f. 79) basilisk; (f. 79v) viper; (f. 80v) asp; (f. 81) scitalis; (f. 81v) amphisbaena, hydrus; (f. 82) boas; (f. 82v) jaculus, siren, seps, lizard; (f. 83) salamander; (f. 83v) saura, stellio; (f. 84) snake shedding skin; (f. 86) various fishes, including a sea-horse; (f. 86v) ship grounded on a whale; (f. 95v) Isidore (or a scribe) writing his book *De natura hominis*; (f. 103v) fire stones – two scenes.

Dimensions: (Leaves) Height *c.*276 mm, Width *c.*183 mm; (Text space) Height 188–90 mm; Width 110–12 mm; 121 leaves, including later flyleaves.

Bibliography: Black 1845, cols. 1413–14; James 1928, pp. 14–15; Lane Poole 1931, pp. 221–2; Pächt and Alexander 1973, no. 334, pl. XXIX and frontispiece; Hassall and Hassall 1976, pp. 65–8, pl. 14; Morgan 1982, no. 19 and Ill. 62–5. For further bibliography see Pächt and Alexander 1973, and Morgan 1982.

There are many annotations probably by Sir Peter Manwood (compare f. 1); f. 8, erased: 'Liber Willelmi Wryght vicarii de chepynge wycombe et theologiae professoris Anno salutis 1550°'; f. 1: 'This booke was gyven mee by my good ffreinde William Man Esquire this thirde day of August 1609. Pe. Manwood', i.e. Sir Peter Manwood (d. 1625), listed in *Musæum Tradescantianum* as one of the chief benefactors. As Mrs Lane Poole first pointed out,[9] our MS is almost certainly to be identified with 'Isiodori MSS de natura hominis' (cf. f. 95) seen by G. C. Stirn in the Tradescant museum in July 1638 (see No. 438, fol. 247). There does not seem to be any foundation for the statement that the MS was given to John Tradescant in 1623.[10]

436. ANTIQ. c. E.1629/1 (Pl. CLXXI) J. Parkinson, *Paradisi in Sole Paradisus Terrestris or A Garden of all sorts of pleasant flowers which our English*

[6] Lane Poole 1931, pp. 221–2.
[7] James 1928, pp. 14–15.
[8] Ibid., pp. 28–34.
[9] Lane Poole 1931, pp. 221–2.
[10] Hassall and Hassall 1976, p. 67.

ayre will permitt to be noursed up: with A Kitchen garden of all manner of herbes, rootes and fruites for meate or sause used with us, and An Orchard of all sorte of fruit bearing Trees and shrubbes fit for our Land together With the right orderinge planting and preserving of them and their uses and vertues Collected by John Parkinson Apothecary of London (London 1629). Printed by 'Humfrey Lownes and Robert Young at the signe of the Starre on Bread-street hill'. 1629.

On blank leaves at the end are: *i* (pp. 630–4) lists of plants in the hand of Tradescant the Elder: (p. 630) 'Reseved since the Impression of this Booke. . . . Reseved In the yeare 1630 from forrin partes . . . (p. 631) Reseved in the Yeare 1631. . . . Reseved in the yeare 1631 from Mr. Rene Morine . . . from Broxsills . . . In the yeare 1632 . . . (p. 632) from the frenche man . . . In the yeare 1632 . . . (p. 633) In the Yeare 1633';[11] *ii* (pp. 636–7) in the hand of Elias Ashmole: 'Trees found in Mr. Tredescant's Ground when it came into my possession' (printed by Gunther (1922, p. 346); and Allan (1964, pp. 215–16)). There is also a note dated 1680 and signed 'E.A.' on p. 394.

Bought from Davis and Orioli of London, 4 May 1917.

Dimensions: Height 318 mm; Width 208 mm; 334 leaves, including flyleaves and unnumbered preliminaries, preface, indexes.

Bibliography: *Bodleian Quarterly Record* 2.31–2; Boulger 1918; Gunther 1922, pp. 330–3, 346; Pollard and Redgrave 1926, no. 19300; Allan 1964, pp. 135–40.

The seventeenth-century binding, in calf (re-backed), is in a style found on some Ashmole books.

437. ASHMOLE 735/10. (Pl. CLXX) S.B. 'An Excellent and materiall discovrse prooving by many and forceable reasons what great danger will hang ouer our heads of *England* and *France*, and alfo diuers other Kingdomes and Prouinces of *Europe*, if it fhall happen that thofe of *Germanie* which are our friends be fubdued, and the King of *Denmarke* vanquifhed. . . .' With a preface by 'S.B.' N.p. 1626. 4°.

Lower margin of title-page: 'This is Iohn Tradescants/Booke Bought In January 1626'.

Dimensions: Height 178 mm; Width 133 mm; 15 leaves.

Bibliography: Black 1845, col. 1266 (on MS Ashmole 1461); Pollard and Redgrave 1926, no. 1067; Lane Poole 1931, p. 221; Allan 1964, p. 68.

Item 11 in this Bodleian volume is a Latin version of the same pamphlet.[12]

438. MS ADD. B. 67 (Pl. CLXXII). Illustrated account, in German, of the travels of a student of Altdorf, near Nürnberg, 1632–40. He was identified by Neubauer as Georg Christoph Stirn. He passed through Switzerland, France, England, and Holland. On ff. 244–7 is his account of his visit to Tradescant's museum in London, which he visited in July 1638.[13]

Bought from A. Cohn, Berlin, 1882.

Dimensions: Height 92 mm; Width 147 mm; 310 leaves (imperfect).

Bibliography: Neubauer 1884; Hager 1887, Madan 1905, no. 29226.

439. MS ASHMOLE 1131 (Pls. CLXXIII, CLXXIV). Miscellany compiled by Elias Ashmole including many original letters and documents as well as drawings and transcriptions, some by Ashmole himself.

i, f. 183 (previously numbered '95', in red crayon, and '166' in ink). Sheet measuring 95 × 147 mm with three small pen drawings and explanatory inscription written by Ashmole: *The draugh* [sic] *of a Cheryston whereon St. George on y^e^ one side and divers heads were cut on the other, by Capt. Burgh, and given by him to Mr. John Tredescant, who preserved it amongst his Rarities*. The two larger drawings show the two sides of the stone (with eighty-eight 'heads' on one side and St. George and the dragon on the other), and the smaller drawing is perhaps a scale drawing of the stone (12 mm high: rather a large stone!) 'A Cherry-stone, upon one side S.*Geo*. and the Dragon, perfectly cut: and on the other side 88 Emperours faces' is listed in Tradescant's *Musæum Tradescantianum*, 1656, under Section VIII, 'Mechanick artificiall works in Carvings, Turnings, Sowings and Paintings'.

ii, f. 184^v^ (previously numbered '96' in red crayon, and '165' in ink). Sheet measuring 156 × 104 mm with pen and wash drawing (104 × 71 mm) of St. George and the dragon, and inscription in

[11] The lists are printed in Gunther 1922, pp. 331–3, and Allan 1964, pp. 135–9.

[12] Pollard and Redgrave 1926, no. 1066.

[13] See p. 21.

Ashmole's hand: *The draught of St George, Coppied out of a Booke in Mr. Jo. Tredescants Closet, wherein are rarely lymned the windows (as is s[ai]d) of St. Sophias Church at Constantinople.*

The book, as Vickers has pointed out,[14] must have been the 'pictures from the church of S. Sophia in Constantinople copied by a Jew into a book' seen by G. C. Stirn in 1638 (see No. 438), and the 'Book of all the Stories in the glasse-windowes of *Sancta Sophia*, lim'd in vellum by a Jew' described in the *Musæum Tradescantianum* (1656, p. 41).

440. MS ASHMOLE 824 (cf. No. 433), item XV (ff. 149–74): The Algiers expedition.

a (f. 149), 'A brief Jornall of a fleete of shipps set out by the Kings most excellent majestie of greate Brittane as well against the Piratt' of Arger as others, consisting of 28 sayle . . .'. Ends f. 163^{v}. ff. 164–5 were originally blank.

b (f. 166), 'The number and names of the shipps, Brigandines, boates, and such vollentarie men, with their condition which were at the service in the mould of Argire'. Ends f. 168. Folio 168^{v} is blank.

c (f. 169), an account of the ordinance in the fleet. Ends f. 169^{v}. Folios 170–4 are blank.

A contemporary fair copy. Paper, watermark a Latin cross on a shield with crown above and letter *L*(?) in frame below. Not in Heawood 1950, but of same type as his nos. 946–83.

Dimensions: Height *c.*310 mm; Width *c.*210 mm; 26 leaves.

Tradescant the Elder joined the expedition against the Algerian pirates in 1620–1. He is mentioned on f. 167^{v} of the manuscript. A faint pencil note on f. 164, otherwise blank, appears to be in Tradescant's hand: 'Apyus was the Iudg that would have Vyrginnyus Daughter whom Virginnyus Cut of Hir Head and Gave It the Iudg. This Apyus subborned on Claudius to Challing Hir for a Bondwoman' (Livy, Bk III, 44–51).

441. MS ASHMOLE 824, item XVII (ff. 187–94). 'A Journall of all the occurrences happening at and after our landing in the Isle of Ree'. Ends f. 192^{v}. Folios 193–4 are blank.

A contemporary fair copy. Paper, watermark a crozier on a shield, not in Heawood 1950, but nearest to his no. 1216.

Dimensions: Height *c.*287 mm; Width *c.*185 mm; 8 leaves.

An account of the Duke of Buckingham's expedition of 1627, to Rhé, on which John Tradescant the Elder served.

442. MS ASHMOLE 824, item XXIV (f. 249). A list of names of eighteen apples and ten pears. Folio 249^{v} is blank.

Paper, no watermark, but apparently forms a quire with item XXV.

Dimensions: Height *c.*303 mm; Width *c.*200 mm; 1 leaf.

443. MS ASHMOLE 824, item XXV (ff. 250–8). Notes on growing melons: *a* (f. 250), 'The Melonniere or the order to dresse and plant the Melon seedes', beginning: Melons and pompons are not so easye to make growe in this countrye. Ends f. 253. The heading on f. 250 and some corrections and marginal notes may be in the hand of John Tradescant the Elder.

b (f. 253), 'Certayne particularityes concerning Cucumbers, Melons, Pompons, and suche like fruite', beginning: If the beds of the Melons be not so fatt. Ends f. 253^{v}. Some marginal notes by the same hand as in *a*.

c (f. 254), 'a breefe note for the settinge and plantinge of the Melon seede from my lorde of Essex gardner' beginning: First make a bed with hott hors dunge. Folios 254^{v}–258^{v} are blank.

Written in a secretary hand. Paper, watermark a pot with letters *AH* or *HA*, not in Heawood 1950.

Dimensions: as No. 442; 9 leaves.

Allan first suggested that the first heading and annotations were in John Tradescant's hand.[15]

444. MS ASHMOLE 1465. *Hortus siccus*, traditionally associated with the Tradescants. The subscriptions to the plants are not in the hand of John Tradescant the Elder. The recipe 'To make Ciment or Past to Fasten Hearbes on the Paper' (f. v) is in Ashmole's hand. v + 162 leaves. Seventeenth century.

Dimensions: Height *c.*310 mm; Width *c.*210 mm; 167 leaves including later flyleaves.

Bibliography: Appleby 1979, p. 49.

[14] Vickers 1982 (forthcoming).
[15] Allan 1964, p. 220.

445. MS ASHMOLE 1752. Designs, mainly for knot gardens. Up to f. 14 the pen drawings have been coloured in wash. Folios 15, 25–48 are blank.

Seventeenth century. Paper, watermark a fleur-de-lis, not in Briquet 1907 or Heawood 1950, but similar to Briquet no 7273, and compare Heawood no. 1422.

Dimensions: Height *c.*350 mm; Width *c.*235 mm; 51 original leaves.

Inscriptions on the backs of the drawings are too sparse for it to be possible to identify the hand.

446. MS ASHMOLE 1758. William Strachey, 'The Historie of Travaile into Virginia-Britania', with dedication from the author to Sir Allen Apsley (f. 2). The work was finished *c.*1612. To the original MS were added, apparently by Strachey himself:

a, coloured woodcuts, and most of the printed text, from Richard Hakluyt's *Book of Virginia*, 1588 (ff. 1 (used as title-page), 3–4, 13–14, 74–94);

b, an engraving of Adam and Eve by Theodore de Bry, also coloured (pasted on f. 73);

c (f. 94^{v}–102), in the same hand as the main text: 'A short Dictionary, added unto the former Discourses, of the Indian Language used within the Chesiopioch Bay . . .', a collection of useful words and phrases arranged alphabetically.

Apparently the original dedication copy.

Dimensions: Height *c.*340 mm; Width *c.*220 mm; 104 leaves, including later flyleaves.

It is conceivable that this manuscript may have been among the books inherited by the elder Tradescant from Captain John Smith in 1631.

BIBLIOGRAPHY TO THE CATALOGUES

A separate bibliography for the introductory essays is on pp. 98–103

NOTE ON MANUSCRIPT SOURCES

The following contractions have been used to indicate the sources of manuscripts quoted:

Ash. Lib.	Ashmolean Library, Oxford
B.L.	British Library, Great Russell Street, London
Bod. Lib.	Bodleian Library, Oxford
Guildhall Library	Guildhall Library, Aldermanbury, London.
Hatfield House	Hatfield House, Hatfield, Hertfordshire.
PRO	Public Record Office, Chancery Lane, London.

The manuscripts from the Ashmolean Library cited in the text are as follows:

AMS 1. Folio scrap-book entitled 'Regulations of the Museum', containing miscellaneous papers relating to the history of the museum, including Ashmole's letters to the Vice-Chancellor (Dr Lloyd) about his proposal to give his rarities to the Ashmolean and his 'Statutes, Orders and Rules for the Ashmolean Museum' (originals and copies), 1683–6; notice publishing resolutions of the Visitors about the use of books in the museum, 1751; William Huddesford's deed of appointment as keeper, 1755; etc.

AMS 2. 'Ashmolean Museum, Book of Benefactors, 1683–1766'. Folio volume of vellum leaves ruled in red, coloured coats of arms and ornamental initial letters. Reproduced here as Microfiche 1.

AMS 5, vols. 1–29. Quarto 'Account books of the Museum', mainly recording monies received from visitors shown over the museum, and usually with expenditure accounts at the end; some vouchers included. 1684–94, 1714–86, 1798–1804. The last volume is 'A Catalogue of Ores, & c', the blank pages of which have been used for accounts.

AMS 6. Quarto account book, entitled 'Receipts etc. 1735–1794', containing details of expenditure and accounts of monies received by the keeper. Audited by the Visitors.

AMS 7. Quarto inventory entitled 'Liber Procuratoris Senioris 1684', apparently in Edward Lhuyd's hand. Contains a catalogue of shells, terrestrial, riverine, and marine.

AMS 8. Quarto inventory entitled 'Liber Dñi Decani Ædis Christi', in several hands, dated *c.*1684–90. Contains a catalogue of antiquities and paintings. The bulk of the catalogue entries are numbered consecutively on ff. 7–38. References in the present catalogue to these entries are simply by number. On ff. 39–40 is a list of fourteen portraits hanging in the Ashmolean Library *c.*1700, entitled 'Picturae a Domino Ashmole huic Museo legatae quae in Bibliotheca Ashm. . . . asservantur', loosely but incorrectly said to have come from Ashmole's bequest. At f. 42 an appendix, designated 'Pars Secunda', begins, listing again many items from the initial section in a different order; this list is apparently the work of John Whiteside, keeper of the Ashmolean, and is dated *c.*1720. References to this second part of the catalogue include the appropriate folio number. The entire inventory is also referred to as '1685 catalogue A', and it is reproduced here as Microfiches 2 and 3.

AMS 9. Quarto inventory entitled 'Liber Dñi Vice-Cancellarii', thought to be by Robert Plot and Edward Lhuyd, dated *c.*1678–92. Contains a catalogue of coins.

AMS 10. Quarto inventory entitled 'Liber Dñi Principalis Coll Ænei Nasi', thought to date from before 1690. Contains a catalogue of *materia medica*.

AMS 11. Folio inventory entitled 'Lib. Dom. Vice-Cancellarii', dated *c.*1697. Contains inventories by several Visitors of the Museum, including catalogues of coins presented by Ashmole and others; of precious stones, cameos, etc. and portraits pre-

sented by Ashmole; of animals; of *materia medica*; of shells; of fossils and natural history specimens.

AMS 12. Large quarto inventory entitled 'Liber Dñi Ædis Christi Decani', dated ?1756. Contains catalogues of minerals and of 'The Things in the Windows and on the Staircase removed by desire of the Dean of Ch. Ch. – 1799' (chiefly paintings).

AMS 18. Quarto inventory entitled 'Ashmolean Museum, Catalogue of "Artificial Works", *c.*1685'. Contains a catalogue of antiquities. Also referred to in the present catalogue as '1685 catalogue B', and reproduced as Microfiche 4.

AMS 22. Folio 'Description of Portraits in the Ashmolean Museum', dated *c.*1890. In addition to the descriptions, by C. F. Bell, the assistant keeper, it contains a 'Report and Estimate for repair of Pictures in the Ashmolean Museum' by Horace Buttery, 'Restorer of Pictures in Ordinary to H.M. the Queen', together with related notes and letters.

AMS 25. Folio inventory in two volumes entitled 'List of Anthropological objects transferred from the Ashmolean to the Pitt Rivers Museum, 1886'; vol. 1 is subtitled 'Asiatic, African, Esquimaux and American', while vol. 2 deals with 'New Zealand, Australian, S. Pacific Islands, etc.'. For further mention of this catalogue see p. 338.

BIBLIOGRAPHY

Abbot, G., 1634. *A Briefe Description of the Whole Worlde* (London).

Ackermann, R., 1814. *History of Oxford* 2 (London).

Allan, J. W., 1982, *Nīshāpūr: Metalwork of the Early Islamic Period* (New York).

Allan, M., 1964. *The Tradescants, their Plants, Gardens and Museum 1570–1662* (London).

Alpatov, M. V. (ed.), 1973. *La Grande Tradition du Bois Sculpté Russe* (Paris).

Anderson, R. M., 1969. *El Chopin y Otros Zapatos Afines* (New York).

Andree, R., 1901. 'Alte westafrikanische Elfenbeinschnitzwerke im Herzogl. Museum zu Braunschweig', *Globus* 79.156–9.

—— 1914. 'Seltene Ethnographica des Städtischen Gewerbe-Museums zu Ulm', *Baessler-Archiv* 4. 29–38.

Andreev, M. S., 1958. *Tajiki dolini Khuf* 2 (Stalinabad).

Andrews, K., 1977. *Adam Elsheimer* (Oxford).

Angelucci, A., 1890. *Catalogo della Armeria Reale* (Turin).

Anon., 1951. *Kitab Sejarah Keris* (Solo).

Anon., 1968. *Führer durch Burg Altena* (Altena).

Appleby, J. H., 1979. 'Dr Arthur Dee: merchant and litigant', *Slavonic and East European Review* 57. 32–55.

Arber, E. (ed.), 1884. *Captain John Smith, Works 1608–1631* (Birmingham).

Arenhövel, W., 1975. *Der Hezilo-Radleuchter im Dom zu Hildesheim* (Berlin).

Arkell, A. J., 1935a. 'Some Taureg ornaments and their connection with India', *Journal of the Royal Anthropological Institute* 65. 297–306.

—— 1935b. 'Forms of the Talhākim and the Tanāghilit as adopted from the Tuareg by various west African Tribes', *Journal of the Royal Anthropological Institute* 65. 307–9.

—— 1936. 'Cambay and the bead trade', *Antiquity* 10. 292–305.

Armand, A., 1883. *Les Médailleurs Italiens des Quinzième et Seizième Siècles*, 2nd edn. (Paris).

Arnold, J., 1968. *Country Crafts* (London).

—— 1975. 'Decorative features: pinking, snipping and slashing', *Costume* 9. 22–6.

Ashmole, E., 1652. *Theatrum Chemicum Britannicum* (London).

Ashmolean Museum, 1909. *Ashmolean Museum Summary Guide* (Oxford).

—— 1951. *Catalogue of Paintings in the Ashmolean Museum* (Oxford).

—— 1961. *Catalogue of Paintings in the Ashmolean Museum* (Oxford).

—— 1980. *Summary Catalogue of Paintings in the Ashmolean Museum* (Oxford).

Ashmolean Museum and Bodleian Library, 1775. *A Catalogue of the several pictures, statues, and busts in the Picture Gallery, Bodleian Library and Ashmolean Museum at Oxford* (new edn.) (Oxford).

Attwater, D., 1964. *The Penguin Dictionary of Saints* (Harmondsworth).

Aubrey, *Lives*, 1898. *'Brief Lives', chiefly of contemporaries set down by John Aubrey, between 1669 & 1696*, ed. A. Clark (Oxford).

Auerbach, E., 1961. *Nicholas Hilliard* (London).
Babelon, E., 1897. *Catalogue des Camées Antiques et Modernes de la Bibliothèque Nationale* (Paris).
—— 1902. *Histoire de la Gravure sur Gemmes en France* (Paris).
Backhouse, J., 1979. *The Illuminated Manuscript* (Oxford).
Bailey, J. T., 1971. 'Some seventeenth century images from Burma', *Artibus Asiæ*, 33. 219–27.
Balfour, H., 1934. 'The tandu industry in Northern Nigeria and its affinities elsewhere', in E. E. Evans-Pritchard *et al.* (eds.), *Essays Presented to C. G. Seligmann* (London), pp. 5–18.
Barbour, P. L. (ed.), 1969. *The Jamestown Voyages Under the First Charles, 1606–1609* (Hakluyt Society 136–7) (London).
—— 1970. *Pocahontas and Her World* (Boston).
Barrett, E. E., 1912. 'Cradles of the past', *Connoisseur* 33. 91–101.
Barrow, J., 1804. *Travels in China* (London).
Bartsch, A., 1866. *Le Peintre Graveur* (Leipzig).
Bassani, E., 1978. *Gli Antichi Strumenti Musicali dell' Africa Nera* (Padua).
Battke, H., 1938. *Die Ringsammlung des Berliner Schloss Museums* (Berlin).
Bauer, W. P. and Janata, A., 1974. 'Kosmetik, Schmuck und Symbolik in Afghanistan', *Archiv für Völkerkunde* 28. 1–43.
Beard, C. R., 1925. 'The clothing and arming of the yeoman of the guard from 1485 to 1685', *Archaeological Journal* 82. 91–148.
Becker, M. J. 1980. 'A ball headed club from the Eastern Woodlands in the collections of the Horniman Museum, London', *Pennsylvania Archaeologist* 50. 1–8.
Beckett, R. B., 1951. *Lely* (London).
Beckwith, J., 1965. 'A game of draughts', in K. Martin, H. Soehner, E. Steingräber, and H. R. Weihrauch (eds.), *Studien zur Geschichte der Europäischen Plastik: Festschrift Theodor Müller* (Munich), pp. 31–6.
—— 1972. *Ivory Carvings in Early Medieval England* (London).
Belous, R. E., 1964. 'A distinguished collection of arms and armor', *Los Angeles County Museum of Natural History Bulletin* 4.
Beltrami, L., 1896. *La Battaglia di Pavia* (Milan).
—— 1906. *La Chartreuse de Pavie* (Milan).
Benndorf, H., and Speyer, A., 1968. *Indianer Nordamerikas, 1760–1860* (Offenbach am Main).
Benthem, H. L., 1694. *Engeländischer Kirch- und Schulen-Staat* (Lüneburg).
Berliner, R., 1925. *Ornamentale Vorlage-Blätter der 15 bis 18 Jahrhunderts* 2 (Leipzig).
Bernsmeier, U. *et al.* (eds.), 1979. *Stilleben in Europa* (Münster and Baden-Baden).
Beverley, R., 1947. *The History and Present State of Virginia* (Chapel Hill).
Bezemer, T. J., n.d. *Indonesisches Kunstgewerbe Bilder-Atlas* (Amsterdam).
Birch, T., 1756–7. *The History of the Royal Society of London for Improving Natural Knowledge, from its First Rise* (London).
Birdwood, G. C., 1971. *The Industrial Arts of India* (London).
Birket-Smith, K., 1920. 'Some ancient artifacts from the eastern United States', *Journal de la Société des Américanistes de Paris*, NS, 12. 141–69.
—— 1924. 'Ethnography of the Egedesminde District', *Meddelelser om Grønland* 66, 1–484.
—— 1959. 'The earliest Eskimo portraits', *Folk* 1. 5–14.
Black, G. F., 1893. 'Scottish charms and amulets', *Proceedings of the Society of Antiquaries of Scotland* 27. 433–526.
—— 1894. 'Notice of a charm-bead from Craignish', *Proceedings of the Society of Antiquaries of Scotland* 28, 230–3.
Black, W. H., 1845. *A Descriptive, Analytical, and Critical Catalogue of the Manuscripts bequeathed unto the University of Oxford by Elias Ashmole, Esq.* (Oxford).
Blackmore, H. L., 1965. *Guns and Rifles of the World* (London).
—— 1971. *Hunting Weapons* (London).
—— 1976. *The Armouries of the Tower of London.* 1, *Ordnance* (London).
Blair, C., 1962. *European and American Arms* (London).
—— 1966. 'Cesare Borgia's sword scabbard', *Victoria and Albert Museum Bulletin* 2. 125–36.
—— 1974. *The James A. de Rothschild Collection at Waddesdon Manor: Arms and Armour and Base-Metalwork* (London).
—— 1975. 'Scottish firearms', *American Society of Arms Collectors* 31. 61–101.
Blow, M. (ed.), 1967. *The American Heritage History of the Thirteen Colonies* (New York).
Bocchi, A., 1574. *Symbolicarum quæstionum de universo genere quas serio ludebat libre quinque* (Bolognia).
Boccia, L. G., 1969. 'Un inedito dello Stradane: la "rotella" Odescalchi', *L'Arte* 5. 95–116.
—— 1980. *Palazzo Vecchio: Committenza e Collezionismo Medicei* (Florence).

Boccia, L. G., and Coelho, E. T., 1975. *Armi Bianchi Italiane* (Milan).

Bodleian Library, 1964. *William Shakespeare 1564–1964* (Oxford).

Boeheim, W., 1895. *Meister der Waffenschmiedkunst* (Berlin).

Boon, G. C., 1974. *Silchester: the Roman Town of Calleva* (Newton Abbot).

Boone, O., 1951. 'Les tambours du Congo Belge et du Ruanda-Orundi', *Annales du Musée du Congo Belge*, NS, 1. 1–121.

Borg, A., 1974. 'A Crusader in borrowed armour', *Country Life*, 156. 168–9.

—— 1976. *Heads and Horses: Two Studies in the History of the Tower Armouries* (Oxford).

Bosson, C., Géroudet, R., and Heer, E., 1969. *Armes de Chasse* (Geneva).

Böttger, J., 1910. *Philipp Hainhofer und der Kunstschrank Gustav Adolfs in Uppsala* (Stockholm).

Boukobza, A., 1974. *Poteries et Ceramiques Marocaines* (Casablanca).

Boulger, G. S., 1895. 'The first Russian botanist', *Journal of Botany* 33. 33–8.

—— 1918. 'A seventeenth-century botanist friendship', *Journal of Botany* 56. 197–202.

Brandt, E., Krug, A., Gercke, W., and Schmidt, E., 1972. *Antike Gemmen in Deutschen Sammlungen* 1 (*Staatliche Münzsammlung München.* 3, *Gemmen und Glaspasten der römischen Kaiserzeit sowie Nachtrage*) (Munich).

Brasser, T. J. C., 1975. *A Basketful of Indian Culture Change* (National Museum of Man, Mercury Series. Canadian Ethnology Service Paper 22) (Ottawa).

—— 1976. *'Bo'jou, Neejee!'* (Ottawa).

—— 1978. 'Early Indian–European contacts', *Handbook of North American Indians* 15. 78–88.

Brett, E. J., 1894. *A Pictorial and Descriptive Record of the Origin and Development of Arms and Armour* (London).

Briquet, C. M., 1907. *Les Filigranes* (Amsterdam).

British Museum, 1908–22. *Catalogue of Engraved British Portraits* (London).

—— 1925. *Handbook to the Ethnographical Collections* (London).

Brown, D. B., 1982. *Ashmolean Museum, Oxford, Catalogue of the Collection of Drawings*, 4 (Oxford).

Browne, Sir T., 1658. *Hydriotaphia: Urne-Buriall, or a Discourse of the Sepulchrall Urnes lately found in Norfolk* (London).

Brunin, H., 1968. 'De Erasmusportretten van en naar Holbein de Jonge', *Bulletin des Musées Royaux des Beaux Arts de Belgique* 17. 145–60.

Budge, E. A. Wallis, 1930. *Amulets and Superstitions* (Oxford).

Burke, B., 1844. *Extinct and Dormant Baronetcies* (London).

Burland, C., 1965. *North American Indian Mythology* (London).

Burlington Fine Arts Club, 1923. *Catalogue of an Exhibition of Carvings in Ivory* (London).

Burnham, D., 1981. *The Comfortable Arts: Traditional Spinning and Weaving in Canada* (Ottawa).

Buschan, G., 1923. *Illustrierte Völkerkunde* (Stuttgart).

Bushnell, D. I., 1906. 'The origin of wampum'. *Journal of the Royal Anthropological Institute* 36. 172–7.

—— 1907a. 'Virginia from early records', *American Anthropologist*, NS, 9. 31–44.

—— 1907b. 'Notes on certain clubs from North America', *Man* 7. 97–9.

—— 1908a. 'Old North American club in the Leiden Museum', *American Anthropologist* 10. 333–4.

—— 1908b. 'The Tradescant Collection', *American Anthropologist* 10. 494.

Butt, A. J., 1957. 'The Mazaruni scorpion – a study of the symbolic significance of tattoo patterns among the Akawaio', *Timehri: Journal of the Royal Agricultural & Commercial Society of British Guiana*, pp. 40–54.

—— 1961. 'Symbolism and ritual among the Akawaio of British Guiana', *Nieuwe West-Indische Gids* 2. 141–61.

Cameron, R., 1961. *Shells* (London).

Camman, S., 1957. 'Ancient symbols in modern Afghanistan', *Ars Orientalis* 2. 5–34.

Camps-Fabrer, H., 1970. *Les Bijoux de Grande Kabylie* (Memoires du Centre de Recherches Anthropologiques, Préhistoriques et Ethnographiques 12) (Paris).

Carpegna, N. di, 1969. *Antiche Armi dal Sec. IX al XVIII gia Collezione Odescalchi* (Rome).

Castle, S., 1973. 'Trial excavations at Brockley Hill', *London Archaeologist* 2. 78–9.

Chabouillet, A., 1858. *Catalogue Général et Raisonné des Camées et Pierres Gravées de la Bibliothèque Imperiale* (Paris).

Chagnon, N. A., 1968. *Yanomamö. The Fierce People* (New York).

Chambers, D., and Martineau, J. (eds.), 1981. *Splendours of the Gonzaga* (London).

Chang, H. T., 1926. 'On the question of the existence of the rhinoceros in N. China in historical times', *Bulletin of the Geological Society of China* 5. 99–106.

Charleston, R. J. (ed.), 1968. *World Ceramics* (London, New York, Sydney, Toronto).

Cheetham, F. W., 1973. *Medieval English Alabaster Carvings in the Castle Museum, Nottingham* (Nottingham).

Cheshire, N., Waldron, T., Quinn, A., and Quinn, D., 1980. 'Frobisher's Eskimos in England', *Archivaria* 10. 23–50.

Cirot, J. E., 1971. *A Dictionary of Symbols* (London).

City of Manchester Art Gallery, 1953. *16th Century Portraits of Famous Elizabethans* (Manchester).

Clayton, T., 1960. 'An historical study of the portraits of Sir John Suckling', *Journal of the Warburg and Courtauld Institutes* 23. 105–26.

Clough, A. H., 1902. *Plutarch's Lives* 5 (London).

Clough, B., 1834. *The Ritual of the Budd'hist Priesthood* (Oriental Translation Fund 2) (London).

Coe, R. T., 1976. *Sacred Circles. Two Thousand Years of North American Art* (London).

Collins Baker, C. H., 1912. *Lely and the Stuart Portrait Painters* (London).

Conway, Sir W. M., 1915. 'The abbey of Saint-Denis and its ancient treasures', *Archaeologia* 66. 103–58.

Corbett, M., and Norton, M., 1964. *Engraving in England in the Sixteenth and Seventeenth Centuries.* 3, *The Reign of Charles I* (Cambridge).

Corder, P., 1941. 'A Roman pottery of the Hadrian-Antonine period at Verulamium', *Antiquaries Journal* 21. 271–98.

Crawford, M. H., 1974. *Roman Republican Coinage* (London).

Crawfurd, J., 1856. *A Descriptive Dictionary of the Indian Islands and Adjacent Countries* (London).

Credland, A. G., 1972. 'The bullet crossbow in Britain', *Journal of the Society of Archer-Antiquaries* 15. 22–36.

Critchley, M., 1939. *The Language of Gesture* (London).

Croft-Murray, E., 1962. *Decorative Painting in England 1537–1837* (London).

Croker, T. C., 1853. *Catalogue of a Collection of Ancient and Medieval Rings . . . formed for Lady Londesborough* (London).

Cuming, H. S., 1866. 'On the hand-amulet', *Journal of the British Archaeological Association* 22. 291–5.

Cunnington, C. W., Cunnington, P. E., and Beard, C., 1976. *A Dictionary of English Costume* (London).

Curle, J., 1911. *A Roman Frontier Post and its People* (Glasgow).

Czekanowski, J., 1917. 'Forschungen im Nil-Kongo-Zwischengebiet', *Ethnologie* 1. 381.

Dalton, O. M., 1909. *British Museum, Catalogue of the Ivory Carvings of the Christian Era* (London).

—— 1912. *British Museum, Catalogue of the Finger Rings, Early Christian Byzantine, Teutonic, Medieval and Later, in the British Museum* (London).

—— 1915. *British Museum, Catalogue of the Engraved Gems of the Post-Classical Periods* (London).

Dam-Mikkelsen, B., and Lundbæk, T. (eds.), 1980. *Ethnographic Objects in the Royal Danish Kunstkammer 1650–1800* (Copenhagen).

Davies, K. C., and Hull, J., 1976. *The Zoological Collections of the Oxford University Museum* (Oxford).

Davis, J. B., 1864–5. 'Remarks upon a clogg almanack', *The Reliquary, Quarterly Archaeological Journal & Review*, 5. 205–10.

d'Allemagne, H. R., 1891. *Histoire du Luminaire* (Paris).

Dean, B., 1914. *The Collection of Arms and Armour of Rutherford Stuyvesant* (New York).

—— 1929. *The Metropolitan Museum of Art Catalogue of European Daggers* (New York).

de Boodt, A. B., 1644. *Le Parfaict Ioailier ou Histoire des Pierreries* (Lyon).

de Gheyn, J., 1607. *Wapenhandelinghe van Roers Musquetten ende Spiessen* (The Hague).

de Jorio, A., 1832. *La Mimica degli Antichi* (Naples).

Delaborde, H., 1853. *Emaux, Bijoux et Objets Divers exposés dans les Galeries du Musée du Louvre* (Paris).

—— 1888. *Marcantonio Raimondi* (Paris.)

de Lucia, G., 1908. *La Sala d'Armi nel Museo dell Arsenale di Venezia* (Rome).

de Nolhac, P., 1884. *Les Collections d'Antiquités de Fulvio Orsini* (Mélanges d'Archeologie et d'Histoire 4) (Rome).

de Poincy, L., 1658. *Histoire Naturelle et Morale des Isles Antilles de l'Amerique* (Rotterdam).

—— 1666. *The History of the Caribby-Islands* (tr. J. Davies) (London).

Deraniyagala, P. E. P., 1942. 'Sinhala weapons and armor', *Journal of the Ceylon Branch of the Royal Asiatic Society* 35. 97–142.

Dervieu, Lt. Col., 1912. 'Le lit et le berceau au moyen age', *Bulletin Monumental* 67. 387–415.
Diener-Schönberg, A., 1912. *Die Waffen der Wartburg* (Berlin).
Dietschy, H., 1939 'Die amerikanischen Keulen und Holzschwerter', *Internationales Archiv für Ethnographie* 37. 87–205.
Dieudonné, A., 1925. *Manuel des Poids Monétaires* (Paris).
Doppelmayr, J. G., 1730. *Historische Nachricht von den Nürnbergischen Mathematicis und Künstlern* (Nürnberg).
Doublet, F. J., 1625. *Histore de l'Abbaye de S. Denis* (Paris).
Douce, F., 1807. *Illustrations of Shakespeare* 1 (London).
Drummond, H., 1960. *Falconry for You* (London).
Duchartre, P. L., 1955. *Histoire des Armes de Chasse et de leur Emplois* (Paris).
Dugdale, W., 1656. *Antiquities of Warwickshire* (London).
Dumas, F., 1975. *Le Tombeau de Childéric* (Paris).
Duncan, P. B., 1836. *A Catalogue of the Ashmolean Museum* (Oxford).
Dwight, T., 1821. *Travels in New-England and New-York* 1 (New Haven, Connecticut).
Easton, J., 1799. *Human Longevity* (Salisbury).
Eaves, I., 1976. 'Further notes on the pistol in early 17th-century England', *Arms and Armour Society* 8. 269–329.
Edmond, M., 1980. 'Limners and picturemakers', *Walpole Society* 47. 60–219.
Edwards, I., and Blair, C., 1982. 'Welsh bucklers', *Antiquaries Journal* 62. 74–115.
Egerton of Tatton, Lord, 1896. *Indian and Oriental Armour* (facsimile reprint 1968) (London).
Ehrenthal, M. V., 1899. *Führer durch das Königliche Historische Museum zu Dresden* (Dresden).
Ehrwald, R., 1906. 'Biblia Pauperum, Deutsche Ausgabe von 1471', *Gesellschaft der Bibliophilen* (Weimar).
Eichler, F., and Kris, E., 1927. *Die Kameen in Kunsthistorischen Museum* (Vienna).
Ellis, B. E., 1921. *Gloves and the Glove Trade* (London).
Elmy, D., and Paterson, W. F., 1970. 'Japanese equipment. Part 1: bows', *Journal of the Society of Archer-Antiquaries* 13. 5–7.
Elworthy, F. T., 1958. *The Evil Eye* (New York).
Emeneau, M. B., 1953. 'The composite bow in India', *Proceedings of the American Philosophical Society* 97. 77–87.
Emery, J., 1976. *European Spoons before 1700* (Edinburgh).
Encyclopædie 1917–21. *Encyclopædie van Nederlandsch-Indië*, 2nd edn. (The Hague–Leiden).
Espérandieu, E., 1907. *Recueil Général des Bas-Reliefs de la Gaule Romaine* 1 (Paris).
Evans, J., 1921. *English Jewellery* (London).
—— 1922. *Magical Jewels of the Middle Ages and Renaissance* (Oxford).
—— and Serjeantson, M. S., 1933. *English Medieval Lapidaries* (London).
Evelyn, J., 1679. *Sylva, or a Discourse of Forest-Trees and the Propagation of Timber*, 3rd edn. (London).
Ewan, J., and Ewan, N. (eds.), 1970. *John Banister and his Natural History of Virginia, 1678–1692* (Chicago and London).
Fagg, W. B., 1959. *Afro-Portuguese Ivories* (London).
Falke, O. von, 1924. *Deutsche Möbel des Mittelalters und der Renaissance* 1 (Stuttgart).
—— and Frauberger, H., 1904. *Deutsche Schmelzarbeiten des Mittelalters* (Frankfurt am Main).
—— and Meyer, E., 1935. *Romanische Leuchter und Gefässe: Giessgefässe der Gotik* (Bronzegeräte des Mittelalters 1) (Berlin).
Feest, C. F., 1965. 'Tomahawk und Keule im östlichen Nordamerika', *Archiv für Volkerkunde* 19. 39–84.
—— 1966. 'Powhatan, a study in political organisation', *Wiener Völkerkundliche Mitteilungen* 13. 69–83.
—— 1967. 'Virginia Indian Miscellany II', *Archiv für Völkerkunde* 21. 5–25.
—— 1968. *Indianer Nordamerikas* (Vienna).
—— 1974. 'Another French account of Virginia Indians by John Lederer', *Virginia Magazine of History and Biography* 83. 150–9.
—— 1978. 'Virginia Algonquians', *Handbook of North American Indians* 15. 253–70.
—— 1979, 'Pictographic skin painting in Eastern North America: facts and fiction', *Archiv für Völkerkunde* 33. 85–104.
—— 1980a. *Native Arts of North America* (London).
—— 1980b. *The Art of War* (London).
Fellowes, E. H., 1944. *The Military Knights of Windsor* (Windsor).
Fenton, W. N., 1971. 'The New York State Wampum Collection: the case for the integrity of cultural treasures', *Proceedings of the American Philosophical Society* 115. 437–61.
Ferrandis, J., 1928. *Marfiles y Azabaches Españoles* (Barcelona and Buenos Aires).

Fezensac, B. de Montesquiou, 1973. *Le Trésor de Saint Denis* 1 (Paris).
—— 1977. *Le Trésor de Saint Denis* 2 (Paris).
—— and Gaborit-Chopin, D., 1977. *Le Trésor de Saint Denis* 3 (Paris).
Fiske, H., 1902. *The Fiske Family Papers* (Norwich).
Foulkes, C., 1911. 'A sword blade and a cinquedea in the Ashmolean Museum, Oxford', *Archaeological Journal* 68. 157–65.
—— 1912. *European Arms and Armour in the University of Oxford* (Oxford).
—— 1913. *Decorative Ironwork* (London).
—— 1916. *Inventory and Survey of the Armouries of the Tower of London* 2 (London).
Florit y Arizcún, J. M., 1927. *Catalogo de Las Armas del Instituto de Valencia de Don Juan* (Madrid).
Forrer, R., 1905. *Die Schwerter und Schwertknäuf der Sammlung Carl von Schwerzenbach* (Leipzig).
Fortnum, C. D. E., 1881. 'Notes on other signacula of St. James of Compostella', *Archaeological Journal* 38. 253–7.
Fossing, P., 1929. *Catalogue of the Antique Engraved Gems and Cameos* (Copenhagen).
Frankel, J. P., 1963. 'The origin of Indonesian "pamor"', *Technology and Culture* (1963), 14–23.
Frick Collection 1968. *The Frick Collection: an Illustrated Catalogue.* 1, *Paintings* (New York).
Froschover, C., 1560. *Icones Animalium Quadrupedem* (Zürich).
Furtwängler, A., 1896. *Königliche Museen zu Berlin: Beschreibung des Geschnittenen Steine im Antiquarium* (Berlin).
Gad, F., 1970. *The History of Greenland. Earliest Times to 1700*, 1, tr. E. Dupont (London).
Gaibi, A., 1962. *Armi Fuoco Italiane: dalle Origini al Risorgimento* (Milan).
—— 1978. *Armi Fuoco Italiane: dal Medievo al Risorgimento* (Milan).
Gaier, C., 1973. *L'Industrie et le Commerce des Armes dans les Anciennes Principautés Belges du XIII^me^ a la fin du XV^me^ Siècle* (Paris).
Gairdner, J., and Brodie, R. H. (eds.), 1910. *Letters and Papers, Foreign and Domestic, of the reign of Henry VIII*, vol. 21, pt. 2 (London).
Galey, J., 1980. *Sinai and the Monastery of St Catherine* (London).
Gamber, O., and Beaufort-Spontin, C., 1978. *Curiositäten und Inventionen aus Kunst- und Rüstkammer* (Kunsthistorisches Museum, Wien) (Vienna).
Ganz, P., 1950. *The Paintings of Hans Holbein* (London).
Garner, H. M., 1975. *Chinese Export Art in Schloss Ambras* (Second Hills Gold Medal Lecture, Oriental Ceramic Society) (London).
Gardner, J. S., 1914. *Ironwork*, 3rd edn. (Victoria and Albert Museum Handbook) (London).
—— 1922. *Ironwork* 3 (Victoria and Albert Museum Handbook) (London).
Gasparetto, A., 1958, *Il Ventro di Murano* (Venice).
Gaur, A., 1979. *Writing Materials of the East* (London).
Gay, V., 1887. *Glossaire archéologique du Moyen Age et de la Renaissance* 1 (Paris).
Geisberg, M., and Strauss, W. L., 1974. *The German Single-Leaf Woodcut* (New York).
Gendle, N., 1980. *Icons in Oxford* (Oxford).
Gianani, F., 1971. *Mirabello di Pavia. Il Parco, la Battaglia, la Parrocchia* (Pavia).
Gifford, E. S., 1958. *The Evil Eye* (New York).
Gilchrist, H. I., 1924. *A Catalogue of the Collection of Arms and Armor presented to the Cleveland Museum of Art by Mr. and Mrs. John Long Severance 1916–23* (Cleveland).
Gille, F., 1835–53. *Musée de Tsarskoe-Seloe* (Petersburg).
Giono, J., 1965. *Battle of Pavia* (London).
Giraud, J. P., and Molinier, M. E., 1892. *La Collection Spitzer* 6 (Paris and London).
Guiliano, A., 1972. *Il Tresoro di Lorenzo il Magnifico* 1, *Le Gemme* (Florence).
Glück, G. (ed.), 1931. *Van Dyck* (Klassiker der Kunst 13) (New York).
Gluck, J., and Gluck, S. H. (eds.), 1977. *A Survey of Persian Handicrafts* (Tehran).
Goldschmidt, A., 1923. *Die Elfenbeinskulpturen aus der Romanischen Zeit* 3 (Berlin).
—— 1926. *Die Elfenbeinskulpturen aus der Romanischen Zeit* 4 (Berlin).
Goldsmiths' Hall, 1953. *Treasures of Oxford* (London).
Gonzales-Palacios, A. A. (ed.), 1981. *Objects for a Wunderkammer* (London).
Gorlaeus, A., 1695. *Dactyliothecae, pars secunda, seu Variarum Gemmarum* (Leiden).
Gosch, C. C. A., 1897. *Danish Arctic Expeditions, 1605 to 1620*, 1 (Hakluyt Society 96) (London).
Graeven, H., 1898. *Frühchristliche und Mittelalterliche Elfenbeinwerke aus Sammlungen in England*, ser. 1 (Rome).
Grancsay, S. V., 1955. *The J. B. Speed Art Museum*,

A Loan Exhibition of Equestrian Equipment from the Metropolitan Museum of Art (Louisville).

Grant, M. H., [1926], *Old English Landscape Painters* (London).

Green, D., 1964. *Grinling Gibbons* (London).

Gregorietti, G., 1970. *Jewelry Through the Ages* (London).

Griffith-Williams, G. C., 1937. 'Suggested origin of the Malay keris and of the superstitions attaching to it', *Journal of the Malayan Branch of the Royal Asiatic Society* 15. 127–31.

Grimm, C., 1978. *Alte Bilderrahmen: Epochen, Typen, Material* (Munich).

Groneman, J., 1910–13. 'Der kris der Javaner', *Internationales Archiv für Ethnographie* 19. 90–109, 123–61, 178–211; 21. 129–37.

Grose, F., 1786. *A Treatise on Ancient Armour and Weapons* (London).

Guilmard, J., 1880. *Les Maitres Ornemanistes* (Paris).

Gunther, R. T., 1922. *Early British Botanists and their Gardens, based on Unpublished Writings of Goodyer, Tradescant and Others* (Oxford).

—— 1923. *Early Science in Oxford* 1 (Oxford).

—— 1925. *Early Science in Oxford* 3 (Oxford).

Gwynne-Jones, A., 1954. *Introduction to Still-Life* (London).

Habich, G., 1929. *Die Deutschen Schaumünzen des XVI Jahrhunderts* (Munich).

Haenel, E., 1923. *Kostbare Waffen aus der Dresdener Rustkammer* (Leipzig).

Hager, H., 1887. Appendix II to review of Schaible, K. H., *Geschichte der Deutschen in England* (1885), in *Englische Studien* 10. 445–53.

Hahlweg, W., 1973. 'Die Heeresreform der Oranier, das Kriegsbuch des Grafen Johann von Nassau-Siegen', *Veroffentlichungen der Historischen Kommission für Nassau* 20. 613–14.

Hall, C. C. (ed.), 1910. *Narratives of Early Maryland, 1633–1684. Original Narratives of Early American History* (New York).

Hamel, J., 1847. *Tradescant der aeltere 1618 in Russland* (St. Petersburg).

—— 1854. *England and Russia* (tr. J. S. Leigh) (London).

Hamel, J., 1967–71. 'Javaanse krissen', *Budidaja* (1967) 26–7, 43–50; (1968) 15–20; (1971) 19–21.

Hamy, E. T., 1897. *Galerie Américaine du Musée d'Ethnographie du Trocadéro* (Paris).

Hansmann, L. and Kriss-Rettenbeck, L., 1966. *Amulett und Talisman* (Munich).

Harland, J., 1864–5. 'On clog almanacks, or rune stocks', *Reliquary, Quarterly Archaeological Journal and Review* 5. 121–30.

Harle, J. C., 1974. *Gupta Sculpture* (Oxford).

Harris, J., Orgel, S., and Strong, R., 1973. *The King's Arcadia: Inigo Jones and the Stuart Court* (London).

Harting, J. E., 1891. *Bibliotheca Acciptaria* (London).

Hartshorne, A., 1897. *Old English Glasses* (London).

Hassall, A. G. and Hassall, W. O., 1976. *Treasures from the Bodleian Library* (London).

Hassrick, R. B., 1960. 'Indian Art of the Americas', *Denver Art Museum Quarterly*, Winter 1960.

Hastings, J., 1921. *Encyclopaedia of Religion and Ethics* (Edinburgh).

Haussherr, R. (ed.), 1977. *Die Zeit der Staufer* 1 (Stuttgart).

Hawkins, E., 1885. *Medallic Illustrations of the History of Great Britain and Ireland to the Death of George II*, ed. A. W. Franks and H. A. Grueber (London).

Hayes, J., 1965. 'British patrons and landscape painting', *Apollo* 82. 38–45.

Hayward, J. F., 1962. *The Art of the Gunmaker* 1 (London).

—— 1977. *Virtuoso Goldsmiths* (London).

Heath, E. G., and Chiara, V., 1977. *Brazilian Indian Archery* (Manchester).

Heawood, E., 1950, *Watermarks, Mainly of the 17th and 18th Centuries* (Monumenta Chartae Papyraceae) (Hilversum).

Henig, M., 1974. *A Corpus of Roman Engraved Gemstones from British Sites* (British Archaeological Report 8) (Oxford).

Henkel, F., 1913. *Die Römischen Fingeringe der Rheinlande* (Berlin).

Hennepin, L., 1697. *Nouvelle Découverte d'un Très Grand Pays (Utrecht)*.

Henriot, G., 1933. *Encyclopédie du Luminaire* 1 (Paris).

Henry, J. (ed.), 1972. *The American Indian Reader: Education* (San Francisco).

Heres, G., 1980. 'Kunstreiche Kirschensteine', *Dresdener Kunstblätter*, 24. 2–8.

Hildburgh, H. L., 1906. 'Notes on Spanish amulets', *Folk-Lore* 17. 454–72.

—— 1913. 'Further notes on Spanish amulets', *Folk-Lore* 24. 63–74.

—— 1914. 'Notes on Spanish amulets', *Folk-Lore* 25. 206–12.

—— 1951. 'Psychology underlying the employment of amulets in Europe', *Folk-Lore* 62. 231–51.

Hill, A. H., 1956. 'The keris and other Malay weapons', *Journal of the Malayan Branch of the Royal Asiatic Society* 29. 7–98.

Hill, G. F., 1920. *Medals of the Renaissance* (Oxford).

Hill, G., and Pollard, G., 1967. *Renaissance Medals from the Samuel H. Kress Collection* (London).

Hind, A. M., 1955. *Engraving in England. 2, James I* (Cambridge).

Hobley, B., 1967. 'A Neronian–Vespasianic military site at "The Lunt", Baginton, Warwickshire', *Transactions and Proceedings of the Birmingham Archaeological Society* 83. 65–129.

Hobson, R. L., 1921. 'Chinese art in England V: late Ming porcelain, polychrome and otherwise', *Country Life* 49. 7–9.

—— 1923. *The Wares of the Ming Dynasty* (London).

Hodge, G. S. (ed.), 1973. *The Art of the Great Lakes Indians* (Flint).

Hoever, O., 1962. *A Handbook of Wrought Iron* (London).

Hoey, W., 1880. *A Monograph on Trade and Manufactures in Northern India* (Lucknow).

Hoff, A., 1969. *Feuerwaffen* (Brunswick).

—— 1978. *Dutch Firearms* (London).

Hollstein, F. W. H., n.d. *Dutch and Flemish Engravings and Woodcuts ca. 1450–1700* (Amsterdam).

Holmes, M. R., 1957. *Arms and Armour in Tudor and Stuart London* (London).

Holmes, W. H., 1908. 'The tomahawk', *American Anthropologist*, NS. 10. 264–76.

—— 1910. 'Shell, shellwork', in F. W. Hodge (ed.), *Handbook of American Indians North of Mexico*, pt. 2, pp. 539–41.

Hoop, A. N. J. Th. van der, 1949. *Indonesische Siermotiven* (Djakarta).

Hope, W. H. St. J., 1890. 'On the sculptured alabaster tablets called Saint John's Heads', *Archaeologia* 52. 669–708.

Horne, J. S., 1948–9. 'Staffordshire clog almanacs', *Transactions and Annual Report of the North Staffordshire Field Club* 83. 13–28.

Hughes, T., 1961. *English Domestic Needlework 1660–1860* (London).

Hulton, P., and Quinn, D. B. (eds.), 1964. *The American Drawings of John White 1577–1590* (London and Chapel Hill).

Humphreys-Davenport, C., 1891. 'Cross-bows', *Antiquary* 23. 149–52.

Hunt, G. T., 1940. *The Wars of the Iroquois: a Study in Intertribal Trade Relations* (Madison, Wisconsin) (reprinted 1960).

Huyser, J. G., 1917–18. 'Het vervaardingen van krissen', *Nederlandsch-Indië Oud en Nieuw* 1. 235–6, 547–61; 2. 26–37, 102–14, 326–36, 411–17, 439–47.

Ilyin, M., 1967. *The Trinity - St. Sergius Monastery* (Moscow).

Irvine, W., 1903. *The Army of the Indian Moghuls: its Organization and Administration* (London).

Iveagh Bequest, 1967. *The Origins of Landscape Painting in England* (London).

James, M. R., 1928. *The Bestiary, being a reproduction in full of the manuscript II.4.26 in the University library, Cambridge, with supplementary plates from other manuscripts of English origin and a preliminary study of the Latin bestiary as current in England* (Oxford, for the Roxburghe Club).

Janata, A., 1970. *Völkerkundliche Forschungen in Westafghanistan, 1969, bustan 11/2–3* (Vienna).

—— 1981. *Schmuck in Afghanistan* (Graz).

Janós, K., 1971. *Régi Magyar Fegyverek* (Budapest).

Jarmuth, K., 1967. *Lichter Leuchten im Abendland* (Braunschweig).

Jasper, J. E., and Pirngadie, M., 1930. *De inlandsche Kunstnijverheid in Nederlandsch-Indië*, 5. *De Bewerking van niet-edele Metalen* (The Hague).

Jenyns, S. R., 1955. 'The Chinese rhinoceros and Chinese carvings in rhinoceros horn', *Transactions of the Oriental Ceramic Society* 29. 31–62.

Jessen, P., 1920. *Der Ornamentstich: Geschichte der Vorlagen des Kunsthandwerks seit dem Mittelalter* (Berlin).

Jettmar, K., 1975. *Die Religonen des Hindukusch* (Stuttgart, Berlin, Cologne, Mainz).

Johansen, U., 1963. 'The cradle and hearth as sources for the cultural history of Altaic peoples', in D. Sinor (ed.), *Aspects of Altaic Civilisation* (Uralic and Altaic Series 23) (Indiana).

Jones, W., 1880. *History and Mystery of Precious Stones* (London).

Josten, C. H. (ed.), 1954. *Scientific Instruments 13th–19th Century: the Collection of J. A. Billmeir Esq.* (London).

—— 1966. *Elias Ashmole 1617–1692* (Oxford).

Jourdain, M., and Jenyns, R. S., 1950. *Chinese Export Art in the Eighteenth Century* (London).

Juynboll, H. H., 1930–1. *Katalog des ethnographischen Reichsmuseums: Mohikken* (Leiden).

Kaeppler, A. L., 1978. *Artificial Curiosities ... Collected on the Three Pacific Voyages of Captain James Cook, R.N.* (Bernice P. Bishop Museum Special Publication 65) (Honolulu).

Kalmar, J. V., 1944. 'Zwei Cinquedeen des Quattrocento in Ungarischen Museen', *Waffen- und Kostumkunde* 8. 37–44.

Kauffmann, C. M., 1970. 'The altar-piece of St. George from Valencia', *Victoria and Albert Museum Yearbook* 2. 65–100.

—— 1975. *Romanesque Manuscripts 1066–1190* (London).

Kidd, K. E., and Kidd, M. A., 1970. *A Classification System for Glass Beads for the use of Field Archaeologists* (National Historic Sites Service, Ottawa, Occasional Papers in Archaeology and History 1) (Ottawa).

King, C. W., 1970. *Natural History of Gems* (London).

Kislyakov, N. A., and Pershits, A. I. (eds.), 1957. *Narody peredney Azii* (Moscow).

Kislyakov, N. A., and Pisarchik, A. K., 1966. *Tajiki Karategina i Darwaza* 1 (Dushanbe).

Klopsteg, P. E., 1947. *Turkish Archery and the Composite Bow* (Illinois).

Knorr, G. W., 1773. *Délices des Yeux et de l'Esprit* (Amsterdam).

Kocchlin, R., 1911. 'Quelques ivoires gothiques français connus antérieurement au XIX^e^ siècle, *Revue de l'Art Chrétien* 61. 281–92.

—— 1924. *Les Ivoires Gothiques Français* (Paris).

Konovalov, S., 1950. 'Anglo-Russian relations 1617–18', *Oxford Slavonic Papers* 1. 64–103.

—— 1951. 'Two documents concerning Anglo-Russian relations in the early seventeenth century', *Oxford Slavonic Papers* 2. 128–44.

Korzus, B. (ed.), 1966. *Kunst und Kultur im Weserraum 800–1600*, 2 (Münster).

Kötzsche, D., 1973. *Der Welfenschtz im Berliner Kunstgewerbemuseum* (Berlin).

Kraus, F. X., 1890. *Die Christliche Inschriften der Rheinlande* 1 (Freiburg).

Kremlin, Moscow, 1958. *The State Armoury Museum of the Moscow Kremlin* (Moscow).

—— 1969. *State Armoury in the Moscow Kremlin* (Moscow).

—— 1979. *The Armoury Chamber* (Moscow).

Krickeberg, W., 1954. 'Ältere Ethnographica aus Nordamerika im Berliner Museum für Völkerkunde', *Baessler-Archiv*, NS, 2. 1–280.

Kris, E., 1929. *Meister und Meisterwerke der Steinschneidekunst in der Italienischen Renaissance* (Vienna).

—— 1932. *Catalogue of the Post Classical Cameos in the Milton Weil Collection* (Vienna).

Kükenthal, W., 1896. *Forschungsreise in den Molukken und in Borneo* (Frankfurt).

Kunst, J., 1946. *The Peoples of the Indian Archipelago* (Leiden).

La Farge, O., 1962. *A Pictorial History of the American Indian* (London).

Laking, G., 1920–2. *A Record of European Armour and Arms* (London).

Landeszeughaus am Landesmuseum Joanneum, Graz, 1974. *Alte Schlagwaffen und Stangenwaffen aus Kroatien* (Graz).

Lane, A., 1957. *Late Islamic Pottery* (London).

Lane Poole, R., 1912. *Catalogue of Portraits in the Possession of the University, Colleges, City and County of Oxford* 1 (Oxford).

—— 1913. 'An outline of the history of the de Critz family of painters', *Walpole Society* 2. 45–68.

—— 1931, 'A MS from the Tradescant collection', *Bodleian Quarterly Record* 6. 221–2.

Lasko, P., 1972. *Ars Sacra 800–1200* (Harmondsworth).

Latham, J. D., and Paterson, W. F., 1970. *Saracen Archery* (London).

Laufer, B., 1914. *Chinese Clay Figures, Part 1* (Field Museum of Natural History Publication 177) (Chicago).

Lee, J. S., 1960. 'A Santhal bow and arrows' and 'The Bhumea and Baiga archers of central India', *Journal of the Society of Archer-Antiquaries* 3. 19–22.

Leeds, E. T., 1913. *The Archaeology of the Anglo-Saxon Settlements* (Oxford).

Lees, J., 1982, 'The restoration of the oldest-known contemporary ship model', *Mariner's Mirror* 68.

Leger Galleries, 1981. *Old Master Paintings* (London).

Lehmann, J., 1912. *Flechtwerke aus dem Malayischen Archipel unter Zugrundelegung der Sammlungen des Städtischen Völker-Museums* (Frankfurt am Main).

Leiris, M., and Delange, M., 1968. *African Art* (London).

Lentigny, M., 1980. 'Les Gaulois et le vin', *Histoire Magazine* 2. 112–15.

Le Roux, C. C. F. M., 1946. 'Madoerese che krisheften', *Cultureel Indië* 8. 161–71.

Leverian Museum, 1979. *A Companion to the Museum MDCCXC; The Sale Catalogue of the Entire Collection 1806* (facsimile reprint) (London).

l'Haridon, O. P., 1864. *Catalogue des Collections du Cabinet d'Armes de sa Majesté l'Empereur* (Paris).

Lightbown, R. W., 1968. 'The journey of the Bernini bust of Charles I to England', *Connoisseur* 169. 217–20.

Linkenheld, E., 1932. 'Une serpe d'origine grecque en usage chez les vignerons de France', *L'Art Populaire de France* (offprint).

Linné, S., 1955. 'Drei alte Waffen aus Nordamerika im Staatlichen Ethnographischen Museum in Stockholm', *Baessler-Archiv*, NS, 3. 85–7.

Lloyd, C., 1977. *Catalogue of Earlier Italian Paintings in the Ashmolean Museum* (Oxford).

Löffler, R., and Friedl, E., 1967. 'Eine ethnographische Sammlung von den Boir Ahmad, Südiran', *Archiv für Völkerkunde* 21.

Löffler, R., Friedl, E., and Janata, A., 1974. 'Die materielle Kultur von Boir Ahmad, Südiran', *Archiv für Völkerkunde* 28.

London Museum, 1928. *The Cheapside Hoard of Elizabethan and Jacobean Jewellery* (London Museum Catalogues 2) (London).

—— 1954. *Medieval Catalogue* (facsimile reprint 1967) (London).

Longhurst, M. H., 1926. *English Ivories* (London).

—— 1929. *Victoria and Albert Museum, Catalogue of Carvings in Ivory* 2 (London).

Longman, C. J., and Walrond, H., 1894. *Archery* (Badminton Library of Sports and Pastimes) (London).

Loringhoven, Baron F. van., 1976. *Europäische Stammtafeln* 3 (Marburg).

Lugt, F., 1968. *Musée du Louvre: Inventaire général des dessins der Écoles du Nord; Maîtres des anciens Pays-Bas, nés avant 1550* (Paris).

Lyne, M. A. B., and Jefferies, R. S., 1979. *The Alice Holt/Farnham Roman Pottery Industry* (CBA Research Report 30) (London).

Lyson, D., 1792. *Environs of London* (London).

Maaskant-Kleibrink, M., 1978. *Catalogue of the Engraved Gems in the Royal Coin Cabinet in the Hague* (The Hague).

McEwen, E., 1974. 'Persian archery texts: chapter eleven of Fakhr-i Mudabbir's Ādāb al-Ḥarb (early thirteenth century)', *Islamic Quarterly* 18. 76–99.

—— 1979. 'The chahar kham or "four curved" bow of India', in R. Elgood (ed.), *Islamic Arms and Armour* (London), pp. 89–96.

Macquoid, P., and Edwards, R., 1954. *Dictionary of English Furniture* (London).

Madan, F., 1905. *A Summary Catalogue of Western Manuscripts in the Bodleian Library at Oxford* 5 (Oxford).

Mâle, E., 1951. *L'Art Religieux de la fin du 16ème* (Étude sur l'Iconographie après le Concile de Trente) (Paris).

Mann. J., 1939. 'The lost armoury of the Gonzagas', *Archaeological Journal* 95. 239–336.

—— 1962. *Wallace Collection Catalogues, European Arms and Armour* (London).

Mann, V. B., 1977. 'Romanesque Ivory Tablemen' (University of New York Ph.D. thesis).

Marsh, G., and Tyers, P., 1978. 'The Roman pottery from Southwark', in J. Bird *et al.* (eds.), *Southwark Excavations 1972–74* (London), pp. 533–82.

Marshall, R. K., 1973. *The Days of the Duchess Anne* (London).

Maskell, A., 1905. *Ivories* (London).

Maskell, W., 1872. *A Description of the Ivories, Ancient and Mediæval, in the South Kensington Museum* (London).

Mason, A., and Packer, D., 1973. *An Illustrated Dictionary of Jewellery* (Reading).

Maurer, E. M., 1977. *The Native American Heritage. A Survey of North American Indian Art* (Chicago).

Meaney, A. L., 1981. *Anglo-Saxon Amulets and Curing Stones* (British Archaeological Reports, British Series 96) (Oxford).

Mehta, R. J., 1960. *The Handicrafts and Industrial Arts of India* (Bombay).

Meijer, J. J., 1917. 'Een javaansch handschrift over pamor motieven', *Nederlandsch-Indië Oud en Nieuw* 1. 107–14, 158–69.

Menzhausen, J., 1968. *The Green Vaults* (Leipzig).

Meyrick, S. R., 1824. *A Critical Enquiry into Ancient Armour* 2 (London).

Miles, G. F. J., 1899. 'A clog almanac', *Transactions of the East Riding Antiquarian Society* 7. xviii–xxii.

Millar, E. G., 1926. *English Illuminated Manuscripts from the Xth to the XIIIth Century* (Paris and Brussels).

Millar, O., 1963. *Tudor, Stuart and Early Georgian Pictures in the Collection of Her Majesty the Queen* (London).

—— 1972. *The Age of Charles I: Painting in England 1620–49* (London).

—— 1978. *Sir Peter Lely* (London).

Miller, G. S., and Kellog, R., 1955. *List of North American Recent Mammals* (United States National Museum Bulletin 205) (Washington D.C.).

Milward, C., 1940. 'A Japanese sword problem', *Apollo* 32. 131.

Moebirman, 1973. *Keris and other Weapons of Indonesia*, 2nd. edn. (Djakarta).

Molinier, E., 1886. *Les Plaquettes* (Paris).

—— 1896. *Les Ivoires* (Paris).

Morgan, N. J., 1982. *Early Gothic manuscripts 1190–1250* (J. J. G. Alexander (ed.), *A Survey of*

Manuscripts Illuminated in the British Isles 4) (London and Oxford).

Morison, S. E., 1942. *Admiral of the Ocean Sea: A Life of Christopher Columbus* 1 (Boston, Mass.).

Morris, D., Collett, P., Marsh, P., and O'Shaughnessy, M., 1979. *Gestures: their Origins and Distribution* (London).

Morse, E. S., 1885. 'Ancient and modern methods of arrow-release', *Bulletin of the Essex Institute* 17.

—— 1922. *Additional Notes on Arrow Release* (Salem, Massachusetts).

Müller, H., 1969. *Alte Geschütze: Kostbare Stücke aus der Sammlung des Museums* (Berlin).

Murray, H. J. R., 1913. *A History of Chess* (Oxford).

—— 1941. 'The medieval game of tables', *Medium Ævum* 10. 57–69.

—— 1952. *A History of Board Games other than Chess* (Oxford).

Musée des Beaux Arts, Ghent, 1955. *Charles-Quint et son Temps* (Ghent).

Musée Ducal de Bouillon, 1971. *Musée Ducal de Bouillon: Belles Armes Anciennes* (Bouillon).

Musée National des Arts et Traditions Populaires, 1971. *Techniques de production: l'agriculture* (Paris).

Musées Royaux d'Art et d'Histoire, 1967. *Exposition de Sculptures anglaises et malinoises d'Alabâtre* (Brussels).

Myres, J. N. L., 1977. *A Corpus of the Anglo-Saxon Pottery of the Pagan Period* (Cambridge).

Naish, F. C. P., 1950. 'The identification of the Ashmolean model', *Mariner's Mirror* 36. 129–33.

Nance, R. M., 1938. 'The little ship of the Ashmolean', *Mariner's Mirror* 24. 95–100.

National Gallery of Victoria, 1977. *British Painting 1600–1800* (Melbourne).

National Portraits, 1866. *Catalogue of the first Special Exhibition of National Portraits ending with the Reign of King James the Second, on Loan to the South Kensington Museum*, revised edn. (London).

Neubauer, A., 1884. 'A German at Oxford in 1640', *Athenaeum*, no. 2951, p. 632.

Neuhaus, A., 1935. *Deutsche Jagd-Altertumer* (Nürnberg).

Nikolayeva, T. V., 1960. *Proizredennia Melkoy Plastiki XIII–XVII (Vekov v Sobranii Zagorskogo Muzeya Katalog)* (Zagorsk).

—— 1968. *Plastic Arts of Old Russia* (Moscow).

Niox, Gen., 1917. *Le Musée de l'Armée, Armes et Armures Anciennes* 1 (Paris).

Nooter, G., 1971. *Old Kayaks in the Netherlands* (Mededelingen van het Rijksmuseum voor Volkenkunde 17) (Leiden).

Norridge, J. J., and Sitwell, R., 1966. *Mount Athos* (London).

Norris, A., and Weber, I., 1976. *Medals and Plaquettes from the Molinari Collection at Bourdain College* (Brunswick).

North, A. R. E., 1978. 'A Japanese short sword with "foreign" mounts', *Waffen- und Kostumkunde* (1978), 34–40.

Oakeshott, R. E., 1960. *The Archaeology of Weapons* (London).

O'Dell-Franke, I., 1977. *Kupferstiche und Radierungen aus der Werkstatt der Virgil Solis* (Wiesbaden).

O'Donoghue, F., 1914. *Catalogue of Engraved British Portraits* 4 (London).

Oman, C., 1968. 'A pole-lantern of the twelfth century', *Pantheon* 26. 136–7.

Orchard, W. C., 1916. *Technique of Porcupine Quill Decoration* (New York) (reprinted 1971).

—— 1974. *The Athapaskans: Strangers of the North* (Ottawa).

—— 1975. *Beads and Beadwork of the American Indians* (New York).

Oswald, F., 1931. *Index of Potters' Stamps on Terra Sigillata* (East Bridgford).

Oxford Historical Portraits, 1904. *Catalogue of a Loan Collection of Portraits of English Historical Personages who died prior to the year 1625, exhibited in the Examination Schools* (Oxford).

—— 1905. *Catalogue of a Loan Collection of Portraits of English Historical Personages who died between 1625 and 1714, exhibited in the Examination Schools* (Oxford).

Ozturk, O. M., 1974. 'Folk treatment of mental illness in Turkey' in A. Kiev (ed.), *Magic, Faith, and Healing* (New York), pp. 343–63.

Pächt, O., and Alexander, J. J. G., 1973. *Illuminated MSS. in the Bodleian Library* (Oxford).

Palacio de D. Manuel Évora, 1966. *Esposição Histórico Militar* (Évora).

Palazzo Strozzi, 1960. *La Caccia e le arti* (Florence).

Parthey, G., 1853. *Wenzel Hollar. Beschreiben des Verzeichniss seiner Kupferstiche. Von A. Parthey* (Berlin).

Paszkiewicz, M., 1975. 'Polish war hammers: czekan, nadziak, obuch', *Arms and Armour Society* 8. 225–8.

Pavitt, K., and Pavitt, W. T., 1929. *The Book of Talismans, Amulets and Zodiacal Gems*, 3rd edn. (London).

Peacham, H., 1606–12. *The Art of Drawing with the Pen and in Water Colours* (London).
Pedrini, A., 1929. *Il Ferro Battuto* (Milan),
Pelka, O., 1923. *Elfenbein*, 2nd edn. (Berlin).
Pératé, M. A., 1911. *Collections Georges Hoentschel* (Paris).
Peroni, A., *et al.*, 1978. *Pavia, Architetture dell'eta Sforzesca* (Turin).
Perrin, W. G. (ed.), 1918. *The Autobiography of Phineas Pett* (Naval Records Society 51) (Colchester).
Peterson, H. L., 1965. *American Indian Tomahawks. Contributions from the Museum of the American Indian* (Heye Foundation 19) (New York).
—— 1968. *Daggers and Fighting Knives of the Western World* (London).
Petrie, W. M., Flinders, 1914. *Amulets* (London).
Pettenati, S., 1980. *I Vetri Dorati Graffiti e i Vetri Dipinti* (Museo Civico) (Turin).
Pevsner, N., 1951. *Nottinghamshire* (Harmondsworth).
—— 1960. *Leicestershire and Rutland* (Harmondsworth).
Philippovich, E. von, 1966. 'Curiositäten und Antiquitäten', *Bibliothek für Kunst- und Antiquitätenfreunde* 46) (Braunschweig).
Picton, J., and Mack, J., 1979. *African Textiles* (London).
Pinto, E. H., 1952. 'Hand-made combs', *Connoisseur* 130. 170–6, 221.
—— 1969. *Treen* (London).
Piper, D., 1963. *National Portrait Gallery, Catalogue of Seventeenth Century Portraits* (Cambridge).
—— (ed.), 1975. *The Genius of British Painting* (London).
Planiscig, L., 1919. *Die Estensische Kunstsammlung* (Vienna).
—— 1921. *Venezianische Bildhauer der Renaissance* (Vienna).
Platt, C., and Coleman-Smith, R., 1975. *Excavations in Medieval Southampton 1953–1969.* 2, *The Finds* (Leicester).
Platt, R., 1949. 'Shells take you over world horizons', *National Geographic Magazine* 96. 33–84.
Plot, R., 1686. *The Natural History of Stafford-shire* (Oxford).
Plumier, C., 1701. *L'Art de Tourner . . . toutes sortes d'Ouvrages* (Lyon).
Pollard, A. W., and Redgrave, G. R., 1926. *A Short-Title Catalogue of Books printed in England, Scotland, & Ireland and of English Books Printed Abroad, 1475–1640* (London).
Pope-Hennessy, J., 1965. *Catalogue of the Renaissance Bronzes from the Samuel H. Kress Collection* (London).
Porter, D. A., 1974. 'Ivory Carving in Later Medieval England, 1200–1400' (State University of New York, Binghamton, Ph.D. thesis).
Praetorius, M., 1620. *Theatrum Instrumentorum* (Wolfenbüttel).
Quinn, D. B., 1966. *The Elizabethans and the Irish* (Ithaca, NY).
Rade, M., n.d. *Ornamental Metal-Work from the Royal Historical Museum at Dresden* (Boston and New York).
Raffles, T. S., 1817. *The History of Java* (Kuala Lumpur) (reprinted 1965).
Réau, L., 1956–9. *Iconographie de l'Art Chrétien* (Paris).
Record, S. J., and Hess, R. W., 1943. *Timbers of the New World* (New Haven).
Redfern, W. B., 1904. *Royal and Historic Gloves and Shoes* (London).
Reid, J. J., and Brook, A. J. S., 1890. 'The Scottish Regalia', *Proceedings of the Society of Antiquaries of Scotland* 24. 18–141.
Reid, R. W., 1912. 'Description of kayak preserved in the Anthropological Museum of the University of Aberdeen', *Journal of the Royal Anthropological Institute* 42. 511–14.
Reid, W., 1959. 'A royal crossbow in the Scott Collection', *Scottish Art Review* 7. 10–13, 29–30.
—— 1960. 'The Present of Spain', *Connoisseur* 146. 21–6.
—— 1965. 'Biscotto me fecit', *Armi Antiche* (1965), 3–19.
Reitzenstein, A. von, 1981. 'Die Feuerwaffen in der Rustkammer von Pfalz-Neuburg 1628 und 1654', *Waffen- und Kostumkunde* 23. 87–100.
Reuther, H., 1977. 'Ein architektonisches Raucherstandgefäss an die Cleveland Museum of Art', in F. Mielke (ed.), *Kaleidoskop. Eine Festschrift für Fritz Werner Baumgart zum 75 Geburtstag* (Berlin), pp. 24–34.
Richter, G. M. A., 1971. *Engraved Gems of the Romans* (Engraved Gems of the Greeks, Etruscans and Romans|Part 2) (London).
Ricklefs, M. C., 1978. *Modern Javanese Historical Tradition* (London).
Rimbault, E. F., 1851. 'The family of the Tradescants', *Notes and Queries*, ser. 1, 3. 353–5.
Rimer, G., 1980. 'The cinquedea', *Arms Fair Guide* (1980) (London) pp. 38–41.

Rindina, A. V., 1918. *Drevnerusskaya Melkaya Plastika* (Moscow).

Ripa, C., 1593. *Iconologia* (Padua).

Rivett-Carnac, J. H., 1900. 'Ancient Indian beads', *Journal of Indian Art and Industry*, vol. 9, no. 71, pp. 5–12.

Robert, L., 1890. *Catalogue des Collections Composant le Musée d'Artillerie en 1889* (Paris).

Robertson, J. (ed.), 1863. *Inventaires de la Royne Descosse* (Edinburgh).

Robinson, R., 1967. *Oriental Armour* (London).

Rohde, A., 1937. *Bernstein, ein deutscher Werkstoff* (Berlin).

Rorimer, J., 1951. 'The treasury at the Cloisters and two Ingoldstadt beakers', *Bulletin of the Metropolitan Museum*, NS, 9. 249–59.

Roth, W. E., 1924. 'An introductory study of the arts, crafts, and customs of the Guiana Indians', *38th Annual Report of the Bureau of American Ethnology, Smithsonian Institute, 1916–17* (Washington), pp. 27–745.

Rouille, G., 1553. *La Seconda Parte del Prontuario delle Medaglie* (Lyons).

Royal Academy of Arts, 1936. *The Chinese Exhibition. A Commemorative Catalogue of the International Exhibition of Chinese Art, Royal Academy of Arts, November 1935–March 1936* (London).

—— 1938. *17th Century Art in Europe* (London).

—— 1960. *The Age of Charles II* (London).

Royal Commission on Historical Monuments, England, 1928. *Roman London* (London).

Ryan, W. F., 1972. 'John Tradescant's Russian abacus', *Oxford Slavonic Papers*, NS, 5. 83–8.

Rydén, S., 1963. 'Discovery in the Skokloster Collection of a 17th-century Indian head dress from Delaware', *Ethnos* 28. 107–21.

Sackville-West, V., 1969. *Knole* (Sevenoaks).

Salwen, B., 1978. 'Indians of Southern New England and Long Island: Early Period', *Handbook of North American Indians* 15. 160–76.

Schedelmann, H., 1965. 'Der Waffensammler: gefälschte Prunkwaffen', *Waffen- und Kostumkunde* 7. 124–32.

—— 1972. *Die Grossen Buchsenmacher* (Brunswick).

Scheicher, E., Gamber, O., Wegerer, K., and Auer, A., 1977. *Die Kunstkammer* (Führer durch das Kunsthistorische Museum, Wien 24) (Innsbruck).

Scherer, C., 1931. *Die Braunschweiger Elfenbeinsammlung* (Leipzig).

Schneider, H., 1977. *Der Schweizerdolch* (Zurich).

Schobel, J., 1975. *Princely Arms and Armour* (London).

Schramm, P. E., and Mütherich, F., 1962. *Denkmale der Deutschen Könige und Kaiser* (Veröffentlichungen des Zentralinstitut für Kulturgeschichte in München 2) (Munich).

Seligman, S., 1910. *Der Böse Blick und Verwandtes* (Berlin).

Shaw, H., and Meyrick, S. R., 1836. *Specimens of Ancient Furniture* (London).

Shaw, W. A., 1937. *Three Inventories of the years 1542, 1547, and 1549–50 of Pictures in the collections of Henry VIII and Edward VI* (London).

Sheppard, T., and Musham, J. F., 1923. *Money Scales and Weights* (London).

Simpson, H. F. M., 1891. 'The Southesk and other rune prime-staves or Scandinavian wooden calendars', *Proceedings of the Society of Antiquaries of Scotland* 25. 256–332.

Singer, S. W., 1851. 'John Tradescant probably an Englishman, and his voyage to Russia in 1618', *Notes and Queries*, ser. 1, 3. 391–3.

Skinner, A., 1921. *Material Culture of the Menomini* (Indian Notes and Monographs 20) (New York).

Skinner, D., 1964. 'Arrows from New Guinea', *Journal of the Society of Archer-Antiquaries* 7. 20–3.

—— 1965. 'Archery of Melanesia. Part I', *Journal of the Society of Archer-Antiquaries* 8. 14–19.

—— 1966. 'The archery of Melanesia. Part II', *Journal of the Society of Archer-Antiquaries* 9. 10–13.

—— 1967. 'Archery in the New Hebrides', *Journal of the Society of Archer-Antiquaries* 10. 31–9.

Sleen, W. G. N. van der, 1963. 'Beadmaking in 17th century Amsterdam', *Archaeology* 16. 260–3.

—— 1967. *A Handbook on Beads* (Liège).

Slotkin, J. S., and Schmitt, K., 1949. 'Studies in wampum', *American Anthropologist* 51. 223–36.

Smith, G. F. H., 1940. *Gemstones*, 9th edn. (London).

Smith, H. C. 1908. *Jewellery* (London).

Society of Antiquaries, 1913. *Illustrated Catalogue of the Exhibition of English Medieval Alabaster Work, held in the Rooms of the Society of Antiquaries . . . 1910* (London).

Solc, V., n.d. *Swords and Daggers of Indonesia* (London).

Solyom, G., and Solyom, B., 1978. *The World of the Javanese Keris* (Honolulu).

Sórigo, R., n.d. *Pavia e la Certosa* (Italia Artistica 88) (Bergamo).

Souter, W. C., 1934. *The Story of our Kayak and Some Others* (Aberdeen).

South Kensington Museum 1866. *Catalogue of the first Special Exhibition of National Portraits ending with the Reign of King James the Second, on loan to the South Kensington Museum*, rev. edn. (London).

Spassky, I. G., 1965. 'Proiskhozhdenie i istoriya russkikh schetov', *Istoriko-Matematicheskie Issledovaniya* 5. 269–420.

Speck, F. G., 1915. 'Wampum in Indian tradition and currency', *Proceedings of the Numismatic and Antiquarian Society of Philadelphia* 27. 121–30.

—— 1919. 'The function of wampum among the Eastern Algonkian', *Memoirs of the American Anthropological Association* 6. 1–71.

Spencer, B. W., 1971. 'A scallop-shell ampulla from Caistor and comparable pilgrim souvenirs', *Lincolnshire History and Archaeology* 6. 59–66.

Spencer, M. G., 1975. 'Part of a match-lock revolving firearm in the Ashmolean Museum, Oxford', *Arms and Armour Society* 8. 257–9.

Spooner, B., 1976. 'The evil eye in the Middle East', in C. Maloney (ed.), *The Evil Eye* (New York).

Springell, F., 1963. *Connoisseur and Diplomat* (London).

Staatliche Museen zu Berlin, 1939. *Katalog der Ornamentstichsammlung der Staatlichen Kunstbibliothek* (Berlin).

Staring, A., 1951. 'De portretten van den Koning-Stadhouder', *Nederlandsch Kunsthistorisch Jaarbock* 3. 151–96.

Stedelijk Museum de Lakenhal, 1970. *Ijdelheid der Ijdelheden* (Leiden).

—— 1978. *Nederlandse Vuurwapens uit de 17e en 18e Eeuw* (Leiden).

Steinmann, A., 1954. 'Een oud-Javaansche kris met voorstellingen uit de Mintaraja', *Djawa* 2–3. 125–9.

Stephens, G., 1866–7. *The Old-Northern Runic Monuments of Scandinavia and England* (London and Copenhagen).

Stolpe, H., 1927. *South America. Atlas* (volume accompanying the essay 'Studies in American ornamentation. A contribution to the biology of ornament', in H. Stolpe, *Collected Essays in Ornamental Art* (Stockholm).

Stone, G. C., 1934. *A Glossary of the Construction, Decoration and Use of Arms and Armor* (New York) (facsimile reprint 1961).

Strachey, W., 1953. *The Historie of Travell into Virginia Britania* (1612), eds. L. B. Wright and V. Freund (Hakluyt Society ser. 2, 103) (London).

Strong, D. E., 1966. *Catalogue of Carved Amber* (London).

Strong, R., 1969. *Tudor and Jacobean Portraits* (London).

Sturtevant, W. C., 1974. 'Woodsmen and villagers of the east', in J. B. Billard (ed.), *The World of the American Indian* (Washington DC), pp. 101–49.

—— 1980. 'The first Inuit depiction by Europeans', *Études/Inuit/Studies* 4. 47–9.

Stuveras, R., 1969. *Le Putto dans l'Art Romain* (Collections Latomus 99) (Brussels).

Suhari, S., 1923. 'De Gajahmati te Solo', *Djawa* 2. 15–21.

Swarzenski, G., 1901. *Die Regensburger Buchmalerei des X und XI Jahrhunderts* (Denkmäler der Süddeutschen Malerei des frühen Mittelalters 1) (Leipzig).

Swarzenski, H., 1967. *Monuments of Romanesque Art*, 2nd edn. (London).

Szablowski, J., 1969. *Collections of the Royal Castle of Wawel* (Warsaw).

Tait, H., 1967. 'The devil's looking glass: the magical speculum of Dr. John Dee', in W. H. Smith, *Horace Walpole: Writer, Politician and Connoisseur* (New Haven), pp. 195–338.

Tarassuk, L., 1972. *Antique European and American Firearms at the Hermitage Museum* (Leningrad).

Tardy, 1972. *L'Ivoire* (Paris).

Tauern, O. D., 1918. *Patasiwa und Patalina; van Molukkeneiland Ceran und seinen Bewohnern* (Leipzig).

Tescione, G., 1965. *Il Corallo nella Storica e nell'Arte* (Naples).

Thiers, J. B., 1679. *Traité des Superstitions* (Paris).

Thomas, B., 1964. 'Erzherzog Karl II von Steiermark als Mazen der Waffenschmiedekunst', *Alte und Moderne Kunst* 75. 12–16.

Thompson, C. J. S., 1927. *The Mystery and Secrets of Magic* (London).

Thompson, E. M. (ed.), 1882–3. *The Diary of Richard Cocks* (Hakluyt Society 66–7) (London).

Thompson, J. M., 1931. 'The robbery from the Ashmolean Museum, 1776', *English Historical Review* 46. 96–117.

Thomson, D., 1971. *A Virtuous and Noble Education* (Edinburgh).

Thoresby, R., 1715. *Ducatus Leodiensis: or, the Topography of the Ancient and Populous Town and Parish of Leedes* (London).

—— 1816. *Musæum Thoresbyanum* (Leeds).

Titley, N. M., 1977. *Miniatures from Persian Manuscripts* (London).

Tooker, E., 1978. 'The League of the Iroquois: its history, politics, and ritual', *Handbook of North American Indians* 15. 418–41.

Tradescant, J., 1656. *Musæum Tradescantianum or a Collection of Rarities Preserved at South-Lambeth neer London* (London) (reproduced here as Microfiche 5).

Trigger, B. G., 1969. *The Huron: Farmers of the North* (New York and London).

Tudor-Craig, P., 1973. *Richard III* (London).

Turbervile, G., 1575. *The Booke of Faulconrie or Hawking* (London).

Turner, G., 1955. *Hair Embroidery in Siberia and North America* (Oxford) (reprinted 1976).

Twining, Lord, 1960. *A History of the Crown Jewels of Europe* (London).

Tyler, E. B., 1888. 'Notes on Powhatan's Mantle', *Internationales Archiv für Ethnographie* 1. 215–17.

Uffenbach, Z. C. von, 1753–4. *Merkwürdige Reisen durch Niedersachsen, Holland und Engelland* (Ulm).

Ullman, K., 1961. 'Dolchmesser, Dolche und Kurzwehren des 15 und 16 Jahrhunderts', *Waffen- und Kostumkunde* 3. 126–7.

Valeriano, J. P., 1575. *Hieroglyphica* (Basel).

Vatter, E., 1925. 'Ein bemaltes Büffelfell und andere seltene amerikanische Ethnographica im Städt', *Völkermuseum zu Frankfurt a. M. Abhandlungen zur Anthropologie, Ethnologie und Urgeschichte* 2. 75–112.

Verdiev, P., 1960. *Russian Art* (Baltimore).

Vertue, G., *Note Books*. 'Vertue Note Books I–V', *Walpole Society* 18 (1929–30), 20 (1931–2), 22 (1933–4), 24 (1935–6), 26 (1937–8).

Vianello, G., 1966. *Armi e Armature Orientale* (Milan).

Vickers, M., 1982. 'A painted window in St. Sophia at Istanbul', *Dumbarton Oaks Papers* 36 (forthcoming).

Vinkeroy, E. van, 1885. *Musée Royal d'Antiquités et d'Armures (Bruxelles); Catalogue des Armes et Armures* (Brussels).

Voeykova, J. N., and Mitrofanov, V. P., 1971. *Art in Ancient Yaroslav* (Leningrad).

Vollenweider, M. L., 1979. *Sceaux, Cylindres, Intailles et Camées* 2 (Musée d'Art et d'Histoire de Genève) (Mainz).

Wachsmann, K., 1970. 'A drum from seventeenth-century Africa', *Journal of the Galpin Society* 23. 97–103.

Wallis, W. D., 1959. *Historical Background of the Micmac Indians* (Ottawa).

Wallis, W. D., and Wallis, R. S., 1955. *The Micmac Indians of Eastern Canada* (Minneapolis).

Walters, H. B., 1926. *Catalogue of the Engraved Gems, Greek, Etruscan and Roman, in the British Museum* (London).

Waterhouse, E. K., 1958. *The Collection of Pictures in Helmingham Hall* (Ipswich).

—— 1962. *Painting in Britain 1530 to 1790* (London).

Watson, W. (ed.), 1981. *The Great Japan Exhibition: Art of the Edo Period 1600–1868* (London).

Waugh, N., 1968. *The Cut of Women's Clothes* (London).

Way, A., 1846. 'Ancient chess-men', *Archaeological Journal* 3. 239–45.

Webb, W. F., 1948. *Handbook for Shell Collectors*, 8th edn. (Florida).

Webber, R., 1968. *The Early Horticulturists* (Newton Abbot).

Weber, I., 1975. *Deutsche, Niederlandische und Französische Renaissance Plaketten* (Munich).

Wechssler-Kümmel, S., 1962. *Schöne Lampen, Leuchter und Lanternen* (Heidelberg and Munich).

Weijtens, F. H. C., 1971. *De Arundel-Collectie* (Utrecht).

Wenzel, H., 1956. *Mittelalterliche Gemmen in den Sammlungen Italiens* (Florenz Kunsthistorisches Institut, Mitteilungen 1953–6) (Florence).

Werner, O., 1977. 'Analyse mittelalterliche Bronzen und Messinge', *Archäologie und Naturwissenschaften* 1. 144–220.

Westwood, J. O., 1876. *A Descriptive Catalogue of the Fictile Ivories in the South Kensington Museum* (London).

Wheatley, H. B., 1897. *Historical Portraits* (London).

Wheeler, R. E. M., and Wheeler, T. V., 1936. *Verulamium: a Belgic and Two Roman Cities* (Report of the Research Committee of the Society of Antiquaries of London 11) (Oxford).

Whinney, M., and Millar, O., 1957. *English Art 1625–1714* (Oxford).

Whitaker, J., 1954. 'The Scottish kayaks and the "Finn Men"', *Antiquity* 28, 99–104.

—— 1977. 'The Scottish kayaks reconsidered', *Antiquity* 51. 41–5.

Whitehead, P. J. P., 1971. 'Museums in the history of zoology; *Museums Journal* 70. 50–7, 155–60.

Wilcox, U. V., 1976. 'The manufacture and use of wampum in the Northeast', *Bead Journal* 3. 10–19.

Wilkinson, F., 1967. *Swords and Daggers* (London).
Williams, R., 1958. 'Early Tudor bucklers with a note on an exhibit in Brecon Cathedral', *Transactions of the Radnorshire Society* 27. 12–19.
Williamson, C., 1932. *The Book of Amber* (London).
Wilson, D., 1863. *Prehistoric Annals of Scotland* 2, 2nd edn. (London and Cambridge).
Winstedt, R. O., 1912. 'Three early keris', *Journal of the Straits Branch of the Royal Asiatic Society* 62. 22–3.
Winter, F., 1906. *Die Kämme aller Zeiten* (Leipzig).
Winzinger, F., 1979. *Wolf Huber, das Gesamtwerk* (Munich).
Wittkower, R., 1955. *Bernini* (London).
Wood, W., 1825. *Index Testaceologicus, or A Catalogue of Shells, British and Foreign* (London).
Woodward, G. S., 1969. *Pocahontas* (Norman, Oklahoma).
Yamshchikov, S., 1970. *Suzdal* (Moscow).
Zerries, O., 1966–7. 'Einige alte ornamentierte Keulen aus Guayana im Staatlichen Museum für Völkerkunde zu München', *Folk* 8–9, 403–8.
Zschille, R., and Forrer, R., 1898. *Die Steigbugel in ihrer Formen-Entwicklung* (Berlin).
Zwierlein-Diehl, E., 1969. *Antike Gemmen in Deutschen Sammlungen. 2, Staatliche Museen Preussischer Kulturbesitz Antikenabteilung, Berlin* (Munich).
—— 1979. *Die Antiken Gemmen des Kunsthistorischen Museums in Wien* 2 (Munich).
Zygulski, Z., 1965. 'Shakespeare's chair and the romantic journey of Isabel Czartoryska', *Apollo* 82. 392–7.

GUIDE TO THE MICROFICHES

The principal documentary sources relating to the foundation collection of the Ashmolean Museum are reproduced here in microfiche form and are to be found inside the back cover. Further details of the manuscript sources are given on pp. 358–9.

FICHE 1

'Ashmolean Museum, Book of Benefactors, 1683–1766' (Ash. Lib. AMS 2). Facsimiles of the original entries alternate with printed transcripts and translations of the Latin texts prepared by Gloria Moss. An index to the contents of the fiche appears in Frame A2.

FICHES 2–3

'Liber Dñi Decani Ædis Christi' (Ash. Lib. AMS 8: 1685 catalogue A). Facsimiles of the original entries alternate with printed transcripts and translations of the Latin texts, prepared by Gloria Moss. An index of the contents appears in Frame A2 and an explanation of the conventions adopted in transcription is given in Frame A3 of each fiche.

FICHE 4

'Ashmolean Museum, Catalogue of "Artificial Works", *c.*1685' (Ash. Lib. AMS 18: 1685 catalogue B). Details as for Fiches 2–3.

FICHE 5

J. Tradescant, *Musæum Tradescantianum* (London, 1656). The complete first-edition catalogue of the Tradescant collection at Lambeth. A concordance of page numbers and frame numbers appears in Frame A2.

INDEX

Abbot, George, No. 252
Ackmoote, Sir John, 31, 33, 35
Alabasters, 66, (Malines) Nos. 218–21, (Nottingham) Nos. 222–4
Algiers, 7, 19, 29, 36, 89, No. 440
Amber, 65, Nos. 123, 177–80
Amulets, 88, Nos. 24, 190–1. *See also* Gamahe
Anglo-Saxon pot, No. 213
Archers' thumb-rings, Nos. 60–2
Armour, Chinese, No. 380
Arrows, Nos. 365–7, 371–6
Arundel (Countess of) 37, (Earl of) 33–5, 37, 60, 82, 84, 244, 298, 308–9, 312, No. 266, (Marbles) 47, 60, 66–7, 82, 84, 304
Ashmole, Elias, 3 (n. 1), 22, 24–5, 36, 38, 40–58 *passim*, 69, 232, 244, 265, (relations with John Tradescant II) 13–14, 24, 41–2, (dispute with Hester Tradescant) 41–3, (acquisition of Tradescant collection) 14, 39, 41–3, 45, 91, 96, 293–4, (house and garden at Lambeth) 10, 15–16, 43, 45, (collections) 42, 45–6, 244, (donor to Oxford) *v*, 40–58 *passim*, 293–4, 351, (epitaph) 58, (portrait) No. 281
Aubrey, John, 14 (n. 105), 15, 27, 56, 86, 297, 306–7
Axe, No. 91, axe-pistol No. 90

Bacon (Sir Butts) 28, (Sir Francis) 28, 80, (Sir Nathaniel) 28, 293–4, No. 254
Bags (grass) Nos. 359, 368. *See also* Pouches
Balfour (Sir Andrew) 90–1, (Sir James) 90
Bargrave, John, 89, 95
Barlowe (Thomas) 20, (Dr Thomas) 40, 50
Bartholin, Rasmus, 21–2
Basket, No. 377
Bead calculator, 65, No. 193
Beads (amber) No. 120, (glass) Nos. 117–9, (stone) Nos. 64–8, 115–16. *See also* Rosaries, Wampum
Beger, Lorenz, 76–7
Benthem, H. L., 62, 64, 272
Bestiary, moralized, No. 435
Boleyn, Anne, 21 (n. 15), 62, 93
Boots, Nos. 47–8, 107
Borlase, William, 68–9
Boswell, Sir William, 35–6
Bovey, James, 27
Bowl (agate) No. 217
Bows, Nos. 9, 33–41, 391–2
Box of counters, No. 188
Braithwait, Thomas, 56
Browne (Alexander) 25, (Sir Thomas) 25, 274, 316
Buckett, Rowland, 26–8
Buckingham (Duke of) 8–9, 12, 19–21, 26–7, 29–35, 37, 84, 90, 93 (n. 196), 298, (Duchess of) 30–1
Buddha, 66, No. 79
Bugg, Dr John, 35
Burgh, Nicholas, Nos. 290, 439
Bushell, Thomas, 28–9
Butler (Richard) 26–7, (William) 26–7

Cameos, *see* Medallions
Campden, Viscount, 26–7
Canoe (model) 21, 339, No. 355. *See also* Rarities: canoes
Canterbury, *see* Museums and Collections (Bargrave), Tradescant (John the Elder and John the Younger)
Carleton, Sir Dudley, 26, 28–9, 31–3, 35
Carlisle, Earl of, 27, 35
Cartier, Jacques, 81
Carvings (alabaster) Nos. 218–24, (amber) Nos. 177–80, (fruitstones) Nos. 181–4, (gemstones) Nos. 124–47, (ivory) No. 230, (shell) Nos. 78, 148–69, (wood) Nos. 185–6, 225–9
Cecil, *see* Salisbury
Chamberlayne, Edward, 60, 62
Charles I, 8, 19 (n. 13), 25, 28–31, 33, 35, 37, 84–5, 93 (n. 196), 192, 247 (n. 329), 298, 302, 309, Nos. 268, 287
Charles II, 39, 48, 60, 84–5, 89, 144, 192, No. 282
Charleton (Courten), William, 39, 43, 57, 85–7, 91
Châtillon, Duke of, No. 249
Chess-man, No. 236
Chilham, Kent, 6, 29
Chopines, Nos. 111–13
Chrismatory, No. 208
Claiborne, William, 37
Clein (Cline), Francis, 37–8
Clobery, Mr, 20
Clogs, Nos. 20, 59
Clubs (ball-headed) Nos. 2–4, (paddle-shaped) Nos. 5–8, 356. *See also* Rarities: arms and armour
Coins and medals, 334–7, Nos. 297–353. *See also* Rarities: coins and medals
Cole, William, 59–60
Combs, Nos. 195–6
Constantinople, St. Sophia (picture of windows) 21, No. 439, 137
Containers (skin) Nos. 72–3 (lacquered) No. 75
Cope, Sir Walter, 17–18, 93
Coral ornament, No. 114. *See also* Rarities: coral
Courten, William, *see* Charleton
Cradle, 62, 64, No. 210, (drain) No. 70
Cranborne, Dorset, 5, 26

Crew, Sir Clipsby, 30–1
Crispe, Captain, 20
Crossbow, No. 97
Crosses, carved, Nos. 228–9
Crystal (hoop) No. 128, (ball) No. 192. *See also* No. 209

Dagger sheath, No. 98
Danby, Earl of, 9
Davis, Mary, (her horn) 52–3, 56, 65
De Critz (Emanuel) 295–6, 299, 308, 311, Nos. 253, 262, 268–9, (John) 299, (Oliver) 296, No. 259, (Thomas) 296–7, 299, Nos. 259, 274, 280, (family) 4, 13
Dee, John, 294, No. 291
De Heere, Lucas, 94 (n. 204), 110
Dells, Mr, 31
Denbigh (Countess of) 30–1, (Earl of) 27
De Neve, Cornelis, 312, Nos. 258, 260, 264, 288, 290
Digby, Sir Kenelm, 35–6
Digges, Sir Dudley, 6, 27, 29
Diptychs, Nos. 232–3
Dishes (Palissy ware) Nos. 214–6
Dobson, William, 296–7, 308, 311
Dodo, 22, 68, 91, 346, No. 419
Drake, Sir Francis, 93, No. 286
Drum, No. 25
Dugdale, Sir William, 42, 45–6, 56
Duncan (J. S.) 69, (P.B.) 69

Edward the Confessor, 21 (n. 15), 93
Effingham, Charles Howard of, No. 270
Erasmus, 73, 294, 313, No. 255
Erndtel, C. H., 62
Evelyn, John, 5, 8, 10, 18, 22, 28 (n. 23), 31 (nn. 33, 35), 39 (n. 85), 40, 45, 72–3, 79 (n. 68), 82, 85, 88–91, 94, 262–3

Falkland, Viscount, 31–2
Fans, Nos. 388–90
Fiske, Nicholas, No. 288
Fleming, Sir Daniel, 22, 23 (n. 27), 59
Footwear, *see* Boots, Chopines, Clogs, Mules, Sandals, Shoes. *See also* Rarities: clothing and footwear
Friend, Roger (Zythepsa), 295, 326, No. 265
Fruitstones, carved, 20, 65, 294, 315, Nos. 181–4, 439

Gage (Mr) 33, (George) 35, (Thomas) 34–5
Gamahe, No. 189
George I, 48
Gibbons (Edward) 94, 294, (Grinling) 59–60, 329, Nos. 281–3
Gloves, Nos. 104–6. *See also* Anne Boleyn, Edward the Confessor, Henry VII
Goodyear, Aaron, 60, 62
Goring, Lord, 25, 31–3, 35
Gourd, carved, No. 71
Grew, Nehemiah, 87
Gun (3-barrelled) No. 89. *See also* Axe-pistol, Musket

Hammocks, 339, Nos. 16, 357–8
Hatchment (Tradescant), No. 296
Hatfield House, Hertfordshire, 4, 5, 25, 27, 29
Hawks hood, No. 103. *See also* Glove No. 104
Heath, Sir Robert, 31–2
Henrietta Maria, 8, 15, 19 (n. 13), 25, 28, 33, 36, 38, 93 (n. 196), 247 (n. 327), 302
Henry V, 206, 208, 272
Henry VI, 62, 207, 270
Henry VII, 21, 25
Henry VIII, 8, 21, 25, 93, 186–8, 209, 213, 217, 221–3, 225–8
Herbert, Thomas, 38
Heysig, John, 55, 65 (n. 47), 255
Holbein, Hans, the Younger, 294, No. 255
Hollar, Wenzel, 295, 297, 300, 302
Hookahs, Nos. 378–9
Horn (buffalo) 5, 181, (human) 17, 52–3, 56, 65, (ivory) No. 26, (rhino) No. 74. *See also* Rarities: zoological
Hortus Siccus, 16, No. 444
Hubert, Robert, 84–5, 87, 91, 93
Huddesford (George) 51, 68, (William) 68–9
Hudson (Henry) 93, 94 (n. 206), (Jeffrey) 93
Huntington, Robert, 60–2

Intaglios, *see* Medallions, Ringstones
Isidor (*De natura hominis*) 21, No. 435
Ivory, Nos. 22–3, 26, 80, 203–7, 230–48

Jaguar tooth, No. 14
James I and VI, 4, 29–32, 34–5, 85, 218, 272
James II, 52, 60
James V (of Scotland), No. 94
Jars (Chinese) Nos 76–7, (Roman) Nos. 211–12. *See also* Pot
Johnson, Cornelius (copy after) No. 279
Johnson, Thomas, 9–10, 22, Pls. CLXXIX, CLXXX
Jones, Inigo, 4, 302

Kalthoff (Calthoose), Gaspar, 39
Keris, Nos. 28–30
Killegrew, Lady, 28
Kirke, Sir David, 37
Knife, No. 96, (handles) Nos. 200–7. *See also* Keris

Lacquered box, No. 75
Lambert (John) 39, (William) 39
Lambeth (St. Mary at) 9 (n. 59), 14, 16, 58, (Ashmole's tomb) 58, (Tradescants' tomb) 7, 14–16. *See also* Ashmole, Tradescant
Lantern, No. 209
Lapidaries, 176, 232, 245, 252–3, 265
Laud, William, 25, 31, 34, 36, 88
Lely, Sir Peter (studio of) No. 256
Lhuyd, Edward, 51, 53, 57, 60, 62–4, 68
Ligon (Liggon), Richard, 38
Lilly, William, 294, No. 293
Lister, Martin, 48–9, 57, 59–62, 84
Lowin, John, No. 289

Maltravers, Lady, 37, 244
Manacle, No. 101
Manchester, Earl of, No. 272
Mansell, Sir Robert, 7 (n. 39), 36
Manwood, Sir Peter, 354
Manuscripts and books, 352–7, Nos. 433–57, (Burmese) 65, Nos. 80–3
Markgraf, Georg, 92 (n. 183)
Marshall, Alexander, 294, 301, No. 434
Match-coat, *see* Nos. 11–12
Medallions (verre églomisé) No. 130, (gemstones) Nos. 131–47, (shell) Nos. 148–69, (glass) Nos. 170–6
Melonniere, No. 443
Meopham, Kent, 3, 11
Millen, John, 38
Minerals, 350, (agate) Nos. 60–1, 65–6, 200, 217, (chalcedony) Nos. 65–7, 136–7, 201, (cornelian) Nos. 62–3, 68, 124–7, 202, (heliotrope) No. 131, (jasper) Nos. 115–16, 191, (jet) Nos. 129, 190, (lapis) No. 132, (mudstone) No. 189, (onyx) Nos. 134–5, 138–47, (plasma) No. 133, (serpentine) No. 64. *See also* Alabaster, crystal
Mirror case (ivory), No. 231
Models (cannon) No. 86, (canoe) 21, 339, No. 355, (ship) No. 85
Mohammed Ohadu, 144
Molyneux (Lady) No. 257, (Thomas) 59–60
Monconys, 88
Montgomery, Robert, No. 264
Morin (messieurs de) 83–4, (Pierre) 18, (René) 11, 13, 18
Mules, Nos. 55–7
Multiple balls and dodecahedra, Nos. 239–48
Munck, Levinius, 26–7
Mundy, Peter, 11, 20, 25
Murray, William, 38
Musæum Tradescantianum (Tradescant 1656), 6 (n. 28), 19, 21 (n. 15), 22–3, 24–39 *passim*, 40, 42, 84, 89, 107, 293–7, Nos. 1–439 *passim*, Fiche 5
Museums and Collections: principal historical references
  Austria: Graz (Steirmark) 74; Innsbruck, Schloss Ambras (Tirol) 73–4, 92, 95
  Czechoslovakia: Prague (Rudolph II) 74–5, 91, 95
  Denmark: Copenhagen (Nationalmuseet) 94–6, (Royal cabinet) 77, 80–1, 91–5, (Worm) 21–2, 76, 80–1, 93, 96, Pl. CLXXXV
  England: Canterbury (Bargrave) 89, 95; Leeds (Thoresby) 60, 89–90; London (Arundel) 84, (Buckingham) 19–20, 84, (Charles II) 84, (Charleton/Courten) 39, 85–7, 91, (Conyers) 86–7, (Cope) 17–18, 93, (Cotton) 83–4, (Hubert) 84–5, 87, 91, 93, (Petiver) 86–7, 91, (Royal Society) 62–3, 79, 87, 90, 91 (n. 179), 122, 252, (St. Lawrence Jewry) 71, (St. Mary Aldermanbury) 71, (Sloane) 51–2, 85, 87, 91, (Tradescant) 14, 15, 17–39 *passim*, 45–6, 84–5, 89–97, (Woodward) 86–7; Norwich (Browne) 89; Oxford, *see under* Oxford
  France: Aix en Provence (Peiresc) 82–4; Berry (Duke of) 70; Castres (Borel) 22 (n. 23), 83, 90, 92; Chevreuse (Duke of) 19; Montmorency (Duke of) 81–2; Orleans (Duke of) 82–3, 85; Poitiers (Contant) 83, 93; Paris (Boucot) 84, (Butterfield) 84, (Feydeau) 83, (Gau) 83, (Geoffroy) 84, (Lumagne) 83, (Count of Lyons) 94, (Royal collections) 81–3, (Saint Ambroise) 83, (Sainte Geneviève) 83–4, 95, Pl. CLXXXVI, (Tournefort) 84; Saint-Denis 70, 269–70; Saint Omer 70–1; Jean Savaron 82
  Germany: Berlin (Brandenburg Electors) 76–7, 91, Pl. CLXXXIII; Dresden (Saxon Electors) 73 (n. 25), 75–7, 91, 94, 232, 247; Halle (Francke) 77–8, 90–2; Heidelberg (Palatinate Electors) 76–7, 91; Kassel (Hessen-Kassel Electors) 76, 80; Munich (Bavarian Electors) 74–5, 92–3; Nürnberg (Imhoff) 77, (Praun) 77; Schleswig (Gottorp) 77, 79, 81, 91, 93–4; Erasmus Seidel 76; Xanten (Ewich) 77
  Holland: Amsterdam (de Boer) 80, (Reynst) 76, 79, (Rijksmuseum) 94, 230, (Ruysch) 80, 91, (Seba) 80, 91, (Swammerdam) 79–80; Delft 91 (n. 172); Enkhuizen (Paludanus) 77, 79–80, 91; Leiden (Anatomy School) 18, 77–9, 87, 91, 95–6, Pl. CLXXXIV, (Physic Garden) 79, 92
  Italy: Bologna (Aldrovandi) 72, 80, (Cospi) 72, Pl. CLXXXI; Florence (Medici) 71–2, 91, 95; Mantua (Gonzaga) 84; Naples (Imperato) 72, 80; Rome (Angeloni) 73, (Bellori) 77, (Kircher) 72, 90, (Mercati) 72; Venice (Calceolari) 72, (Vendramin) 79
  Russia: Czars 80, 91
  Scotland: Balfour 90; Sibbald 90
  Switzerland: Basel (Amerbach) 73, (Erasmus) 73, (Gesner) 73, 80, (Platter) 73, 80; Zurich 73
Musket, No. 87, (rest) No. 88

Nassau, Johan Maurits van, 76, 78, 85, 92 (n. 183), 95
Necklace (ocelot teeth), No. 15. *See also* Beads
Newhall, Essex, 8, 30
Nicholas, Edward, 19, 25, 30–2, 34–5
Norfolk, Duke of, No. 267
Northampton, Earl of, No. 270

Oatlands Palace, Surrey, 9, 13
Offley, Robert, 27–8
Oglander, Sir John, 31
Olearius, Adam, 77, 91 (n. 179)
Orange, William of, No. 279
Oxford: principal references
  Ashmolean Museum: *v*, 15, 88, 90, 96–7, Pl. CLXXVI, (foundation and construction) 23, 40–58 *passim*, (installation of Tradescant collection) 49, (opening) 52, 59, (regulations) 50–1, 53–5, 62, Pl. CLXXVII, (Book of Benefactors) 60, 62, 313 (n. 185), 358, 375, Fiche 1, (catalogues) 50, 54, 63, 107, 293–4, 330–4, 338, 346–7, 358–9, 375, *see also* Nos. 1–296 *passim*, Fiches 2–4, (early descriptions) 59–69 *passim*, (teaching role) 44, 50–1, 58, 61, 67, 69, (laboratory) 49, 52, 61, 67, (library) 47, 64, (robbery) 57–8
  Anatomy School collection: 50–1, 60, 68, 88

Oxford: principal references—*cont.*
Bodleian Library: 31, 44, 49, 51, 56, 68, 88, 351–7, Nos. 433–46
Botanic Garden: 9, 308 (n. 123)
Philosophical Society: 52, 56
Pitt Rivers Museum: 109 (n. 1), 338–45, 359, Nos. 354–92
St. John's College collection: 88
Sheldonian Theatre: 46–8, 52, 60, 66–7
University Museum: 346–50, Nos. 393–432
Wilkins collection: 88

Paddle, No. 1
Paintings, 293–333, Nos. 253–96, (unknown subjects) Nos. 270, 284–5, (unknown painters) Nos. 257, 261, 270–3, 275–8, 284–6, 289, 291–6. *See also under named subjects and painters*
Palissy, Bernard, 82, (Palissy ware) Nos. 214–16
Paludanus, 77, 79–80, 91 (n. 179)
Parkinson, John, 4, 7–10, 12, (*Paradisus*) 10–11, 15, 24, 351, No. 436
Parr, Old, 62, 293, 303, No. 275
Parry, David, 63–4
Pavia, siege and battle, 74, 297, 318–26, No. 263
Pendant (jaguar tooth), No. 14
Pett, Phineas, 7, 29, 35–6, 189
Platter (Felix) 73, 80, 93, (Thomas) 17–18
Plot, Robert, 44–6, 48–50, 52–4, 56–61
Pocahontas, *v*
Pollaxe, No. 92
Portraits, miniature (Nicholas Hilliard) Nos. 249–50, (unattributed) No. 251, (engraved) No. 252
Pot (Anglo-Saxon) No. 213. *See also* Dishes, Jars
Powder flask, No. 100
Powhatan's Mantle, 21, No. 12. *See also v*
Pouches (skin) Nos. 13, 369–70. *See also* Bags
Pound, D. J., 64
Povey, Mr, 85
Prideaux, Humphrey, 44, 67
Priwitzer, Johannes, 294, 310

Quivers (African) Nos. 365–7

Rarities: agents, dealers, and shops, 19, 34, 70–1, 77, 79, 82, 84, 90–1, 243–4
Rarities: catalogues, 50, 60, 63, 76–7, 79–81, 83–7, 93. *See also Musæum Tradescantianum*
Rarities: collections, *see* Museums and collections
Rarities: educational value, 22–3, 53, 59, 80
Rarities: Sources
The Americas 74, 78–9, 82–3, 89, 91, 94, 108–39, (Iceland) 80, (Greenland) 77, 85, 92, 94, No. 1, (North America and Canada) 17, 19, 21–3, 81, 89, 91–2, 94–5, 339, Nos. 2–4, 10–13, 354–5, *see also* Nos. 37–9, (Central and South America) 18–19, 22, 72, 74, 77–8, 81–2, 91–2, 95, 339, Nos. 5–9, 14–16, 356–8, (West Indies) 19, 21–2, 79, 86, 88, 92, No. 16
Africa 140–9, No. 368, (North) 7, 19, 60–1, 73, 78–80, 83, 88–9, 96, Nos. 17–19, 24, 43–4, 64–8, 76, (West) 19–20, 92, 95, 339, Nos. 21–3, 25–6, 365–7, (East) 95, 145, 346, Nos. 20, 359, 361–4, (Central) Nos. 25, 64–8, 360, 369
Asia 82, 150–85, (Middle East, Turkey, 'Arabia') 17, 19, 21, 34, 64, 74, 79, 82–3, 88, 92, 96, 164, 174, 182, 198, 250, 253, 276, Nos. 17–21, 27, 53, 55, 69, 70–1, 370, 379, (Afghanistan, 'East Indies', India and Ceylon) 17–18, 20–2, 31, 64–6, 72–3, 75, 77–83, 86, 88, 90–2, 96, 164, 178, Nos. 32–5, 43–4, 51–2, 54, 60–2, 64–8, 72–3, 371–5, 377–8, 383–4, 390, (Burma) Nos. 76–7, 79–83, (Malaya and Pacific Islands) 17, 77–8, 85, 96, 180, 182, 339, 385–7, Nos. 28–32, 36–41, 45–6, 59, 385–7, 391–2, (China, Japan, 'Far East') 17–18, 66, 72, 74, 77–9, 83–4, 90–6, 160, 167, 197, 232, 253, 263, Nos. 42, 47, 49, 56–8, 74–8, 376–7, 380–2, 388–9
Europe 91, 186–292, 334–7, (British Isles) 81–2, 86, 92, 94, 283, Nos. 84–5, 87–8, 90, 92, 97, 99, 101, 103–4, 108–10, 181–4, 188, 191–2, 195–6, 204, 210–13, 222–4, 227, 236–8, (France) 85, 176, Nos. 102, 195–6, 210, 214–17, 230–8, (Germany) 76, 82, 85, 176, 276, Nos. 86, 91, 93, 97, 100, 105–6, 123, 177–86, 207–9, 225, 239–48, (Greece) 83, Nos. 228–9, (Italy) 19, 70, 72–3, 76, 176, 250, Nos. 42, 89–90, 93, 95–7, 111–13, 117–19, 124–76, 195–6, 210, (Malta) 19, 113, (Poland) 150, Nos. 92, 107, (Portugal) 13, 19, 24, No. 96, (Scandinavia) 78, 85, No. 194, (Spain) 17, 19
Rarities: types and categories
Artificial rarities
Antiquities 22, 46, 61–2, 64, 70–4, 76, 78, 80, 82–6, 90–1; arms and armour 17–20, 22, 24, 72–4, 79, 81–3, 86, 88–90, 95–6; art objects 20–1, 30, 33, 42, 56, 64, 66–7, (carvings, statuettes, etc.) 20, 60, 66–7, 70–4, 82–4, (drawings and paintings) 20, 30, 70–6, 78, 82–4, ('perspectives') 20–1, 88–9; canoes and kayaks 17, 21, 83, 94, 339; ceramics 17, 74, 76–7, 82, 84, 88, 91, 96; clothing and footwear 17–19, 21, 24, 34, 66, 72–4, 79, 81, 83–4, 88, 90, 94 (n. 206), 95–6, 107; coins and medals 18, 20–1, 24, 40–2, 46, 55–6, 60–1, 63–5, 70, 73–4, 76–7, 79, 82, 84–5, 87–91, 244 (n. 310), 312; epigraphy, manuscripts and seals 18, 21, 31, 45–6, 55–6, 60–1, 65, 79–84, 89–90, 96; featherwork 17, 21–2, 66, 81, 88, 95; fruitstones (carved) 20–1, 65, 75, 93–4; historical items 17, 21, 25, 62, 72–4, 78, 82, 84, 93; instruments and 'mechanicks' 18, 24, 42, 71, 73, 75, 81, 84, 88, 90; miscellaneous 46, 74–5, 77, 81, 95; musical instruments 17–18, 20, 22, 74, 95–6; ornaments 17, 65, 76–7, 84, 90, 95; religious 17, 19, 21, 65–6, 70–1, 84, 88, 94; utensils 17, 21, 24, 33–4, 70, 74, 76
Natural Rarities
Anatomical 17, 21, 60, 74, 76, 78–81, 88–9; birds 17–22, 24, 45, 54, 68, 79, 83, 88, 91–2, (barnacle geese) 21, 45, 91–2, Pl. CLXXX; botanical 11, 18–22, 66, 70–1, 73, 79–80, 82–4, 86–8, 96; eggs 19, 70–1; coral 18, 65, 74, 84–5; fabulous (mermaids, unicorns, etc.) 17, 21–2, 70–1, 73, 75–6, 80, 83, 92–3; fish (including remora) 20–1, 24, 45, 54, 80, 83–4, 91–3; freaks of nature 17, 21, 65, 74–5, 78, 83,

92; insects 17–18, 24, 38, 54, 85–6, 91, 95; materia medica 63, 66, 75, 80, 90, 93; minerals, fossils, and gems 20–1, 24, 42, 63–5, 68, 74–6, 78, 80, 82, 84, 86–9, 93, (petrifactions) 21, 82, 84–6, 89; miscellaneous 31, 46, 61, 68 (n. 79); mummies and 'mummia' 21, 60–1, 72, 78, 93; shells 5, 18–21, 24, 63, 66, 73, 78, 82–6, 89–91; zoological 14, 17–21, 24, 34, 45, 63–5, 70, 73, 77–80, 82–9, 92, 96, (bezoar) 77, 93, (rhino horn) 17, 21, 75, 77
Rawlinson, Richard, 51, 68
Ray, John, 22, 68, 73 (n. 22), 76, 85, 91
Rhé, Isle of, 8–9, 35, No. 441
Rhino horn cup, No. 74
Riley, John, Nos. 281–3
Rings, Nos. 63, 129. *See also* archers' thumb-rings
Ringstones, Nos. 124–7
Roanoke, *see* Wampum
Robin (Jean) 4, 5, 11, 12 (n. 85), 13, (Monsieur) 83, (Vespasien) 12
Roe, Sir Thomas, 33–4, 85, 90 (n. 168), 96
Roman jars, Nos. 211–12
Rosaries, 65, 233, Nos. 121–3
Royal Society, 44, 62–3, 79 (n. 76), 87, 90, 91 (n. 179), 122 (n. 53), 252
Runic almanac, 55, No. 194

Saddle (Tartar) No. 27
Salisbury (1st Earl of) 4, 12, 17, 25–7, (2nd Earl of) 5–6, 25–7, (House) 5, 26–7
Sandals, Nos. 21, 58
Selden, John, No. 256
Shell (engraved) No. 78. *See also* 326, Nos. 2, 10, 12–13, 46, 148–69
Shields, Nos. 42–4, 45–6, 99, 381–2
Shirt, skin, No. 11. *See also* Rarities: clothing
Shoes, Nos. 49–54, 108–10. *See also* Footwear
Sibbald, Sir Robert, 90–1
Slany (Slainy), Humphrey, 20, 33, 35
Sloane, Sir Hans, 51–3, 63 (n. 33), 68, 85 (n. 129), 87, 91
Smith, Captain John, 25, 37, 95, 133–5, 357
Spears, Nos. 361–4, 383–7, (shaft) No. 32
Spoons (ivory), Nos. 22–3, (wood) Nos. 69, 197–9
Spurs, Nos. 17–19
Stanley, Richard, 29
Stettin-Pomarania, Duke of, 18
Stirn, Georg Christoph, 11, 21, 88, 92 (n. 184), 135, 235, 339, 351, 354, No. 438
Stirrups, 21, 25, 93, No. 84
Stool, No. 360
Suckling, Sir John, 297, No. 271
Swords, Nos. 31, 93–5, (handle) No. 200

Tablemen, Nos. 237–8
Thévet, André, 81
Thoresby, Ralph, 60, 85, 89–90
Tomahawks, Nos. 2–4. *See also* Nos. 5–8, 356
Tradescant, Elizabeth (Day), 3, 11, No. 294
Tradescant, Frances, 11, 14, 294–5, Nos. 269, 278
Tradescant, Hester (Pookes), 3 (n. 1) 13–15, 39, 41–3, 45, 294–6, 299, Nos. 261–2, 269, 280
Tradescant, Jane (Hurt), 11, 13, 310, No. 295
Tradescant, John (the Elder), 3–23 *passim*, (origins) 3, (marriage) 3, (will) 11, (death) 9, 13, 25, (tomb) 7 (n. 39), 14–15
As a gardener 3–11, 15, 30, (at Canterbury) 5–7, 11–12, 29, (at Chilham) 6, (at Cranborne) 5, (at Hatfield) 4–5, 13, 29, 278, (at Newhall) 8, (at Oatlands) 9, 13, (at Oxford) 9, (at Salisbury House) 5
As a botanist, importer and collector of plants 4–13, 15, 17–22, 24–5, 33, 38
As a collector of rarities 5, 15, 17–23 *passim*, 25, 43 (n. 29), 84, 86, 90–7, 283, 288
As a traveller (in France) 4–5, 8–9, 26, 36, No. 441, (in the Low Countries) 3–4, 8, 18, 26, 288, (in the Mediterranean) 7–8, 19, 29, 36, No. 440, (in Russia) 6–7, 12, 18–19, 29, No. 433
His house and garden at Lambeth 6, 9–11, 15–16, 20–1, 297, (garden list) 11, 24
His museum, *see* Museums: London (Tradescant)
Virginia (correspondence with) 12, 90 (n. 168), (investor in) 12 (n. 82), 13
Diary 6–7, 12, 18–19, 29, No. 433
Portraits 66, 294–5, 297, Nos. 253, 260, 276, 294
Tradescant, John (the Younger), *v*, 3–23 *passim*, 84, 89 (n. 156), (baptism) 11, (marriages) 11, 13, (wills) 3 (n. 3), 14, 41–3, (death) 14, (tomb) 14–15
As a gardener 11–13
As a botanist, importer and collector of plants 11–13, 15, 17, 24
As a collector of rarities 11, 14–15, 17–23 *passim*, 43 (n. 29)
At Canterbury 11, at Oatlands 13, in Virginia 11, 13, 23 (n. 28), 135, House and garden at Lambeth 9–11, 15–16, 20–1, 297
In legal disputes 14, 23
Acquaintance with Ashmole 13–14, 24
Deed of gift of collection 14, 39, 41–3, 91, 293–4
Portraits 295–6, 326, Nos. 262, 265, 274
Tradescant, John III, 11, 13, 15, 41–2, 294–5, Nos. 269, 277, 280
Tradescant (family and namesakes) 3, 14
Tradescant Trust, 16
'Tradescant's Orchard', 5, 351, No. 434
Trevor, Sir John, 35–6
Trumbull, William, 3
Tryon (Trion), Moses, 39

Uffenbach, Z. C. von, 51, 62–8, 76, 86–7, 91, 92 (n. 186), 185, 272

Van Dyck, Sir Anthonie, (copies after) Nos. 266–8
Vane, Henry, 31–2
Verre églomisé, No. 130.
Vertue, George, 144 (n. 5), 247, 298, 307
Villiers, Lady Mary, 30–1. *See also* Buckingham
Vineyard tool, No. 102

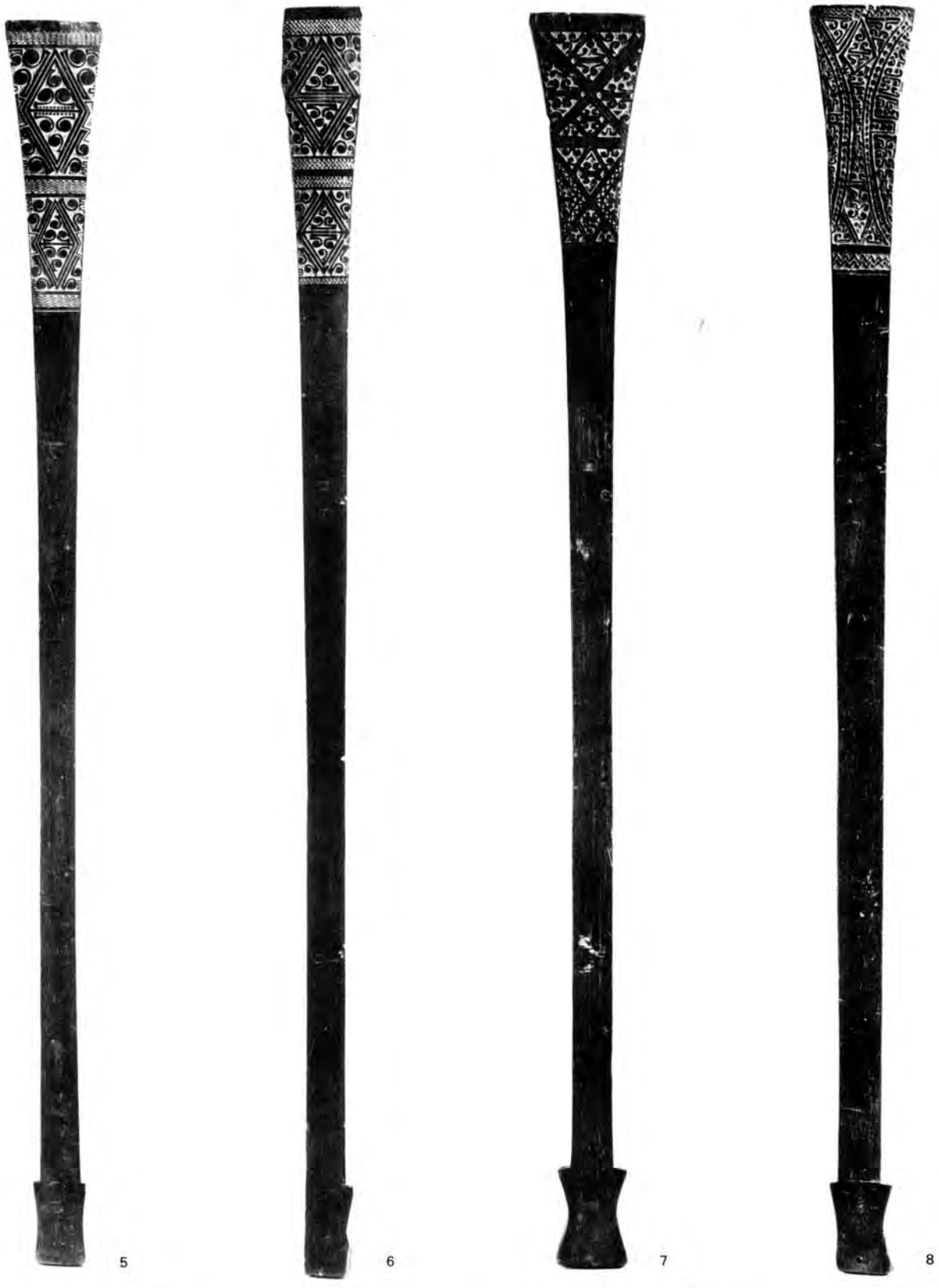
Walberswick, Suffolk, 3, 14
Walton, Izaak, 55–6
Wampum, 115, 136–7, 338–9, Nos. 10, 354

Wax plaque, No. 187
Weddell, Captain, 29, 33, 35
West, Francis, 37
Wharton, Thomas, 13–14, 24–5
Wheeler, Sir George, 48
White (Christopher) 48, 61, 67, (John) 94 (n. 204), 110, 137
Whiteside, John, 294, 300–27 *passim*
Wood (Anthony) 3, 40, 46, 49, 56, 58–9, (John) 20, (Thomas) 47–8
Woodham Water, Essex, 11
Woodville, Elizabeth, No. 273
Worm (Ole) 21–2, 76, 80–1, 93 (n. 190), 96, Pl. CLXXXV, (Willum) 21 (n. 17), 80
Wotton (Lord [Edward]) 6–7, 11–12, 29, 33, No. 270, (Sir Henry) 7 (n. 33), 31, 33, 37
Wren, Sir Christopher, 47, 89
Writing tablets, Nos. 234–5
Wyche, Sir Peter, 13, 90 (n. 168)

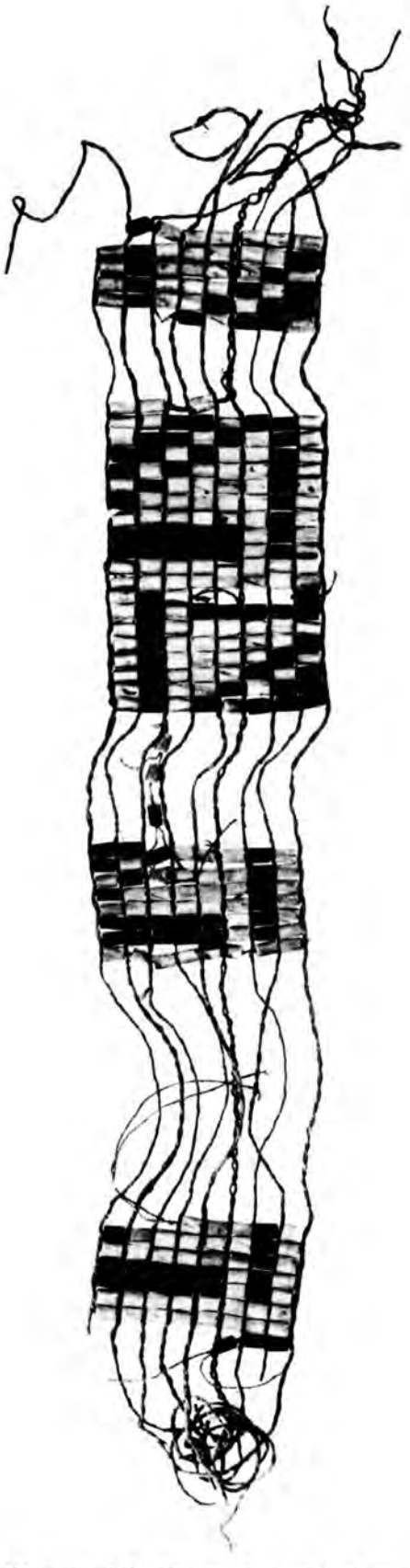
York, Duke of, No. 283

Zoological specimens, 346–9, Nos. 393–432. *See also* Rarities: zoological
Zoos, 92

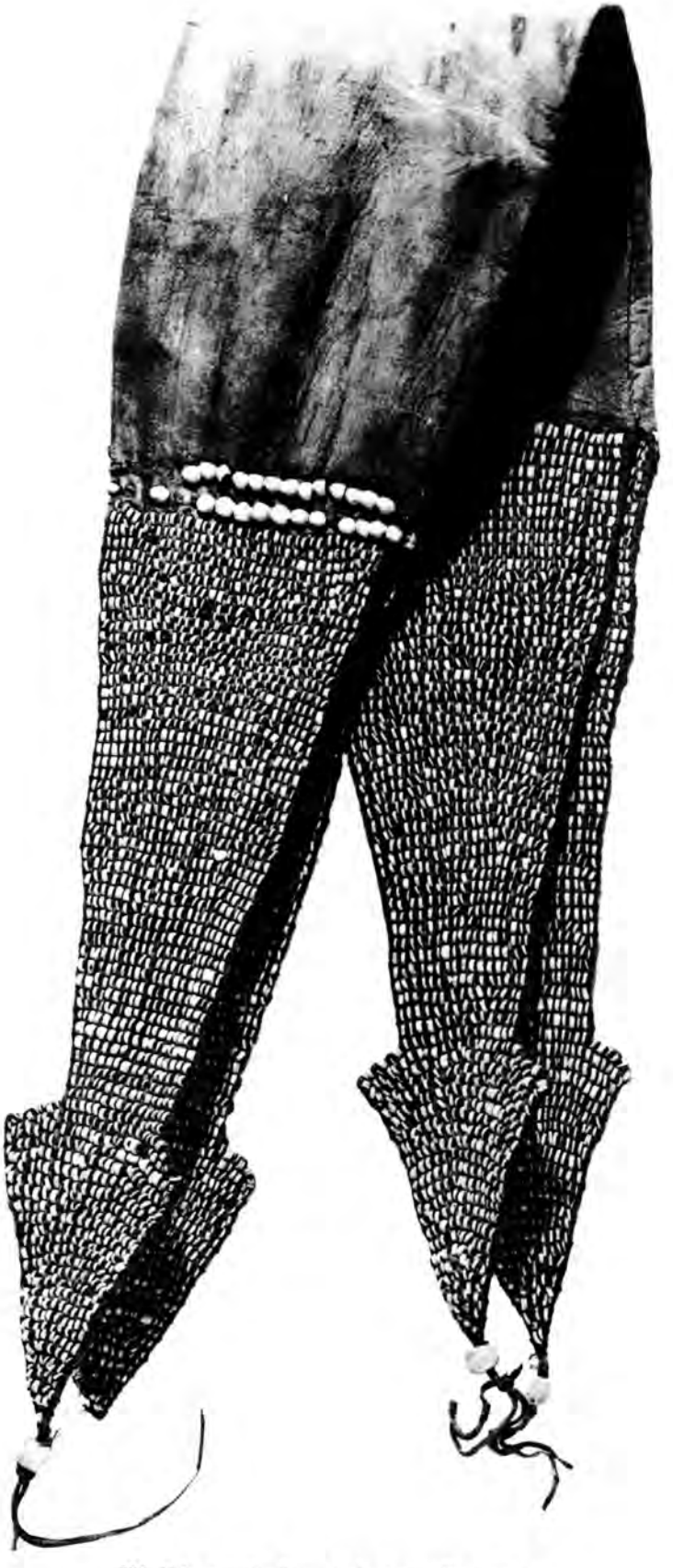
PLATES



I Clubs: No. 5 (L. 1.40 m); No. 6 (L. 1.34 m); No. 7 (L. 1.24 m); No. 8 (L. 1.14 m)



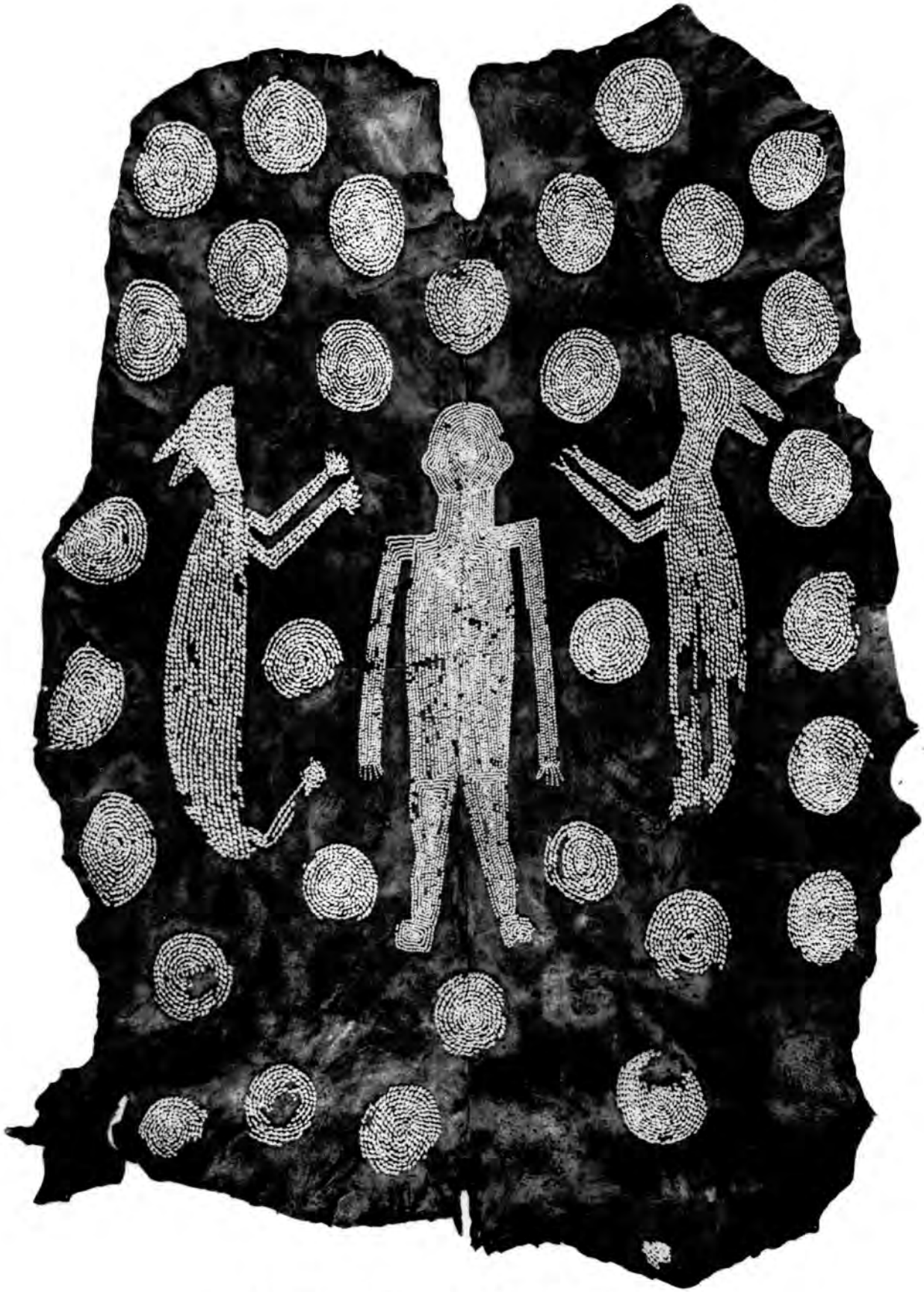
II Wampum belt, No. 10. L. (max) of warp 495 mm



III Skin pouch, No. 13. L. (overall) 0.77 m

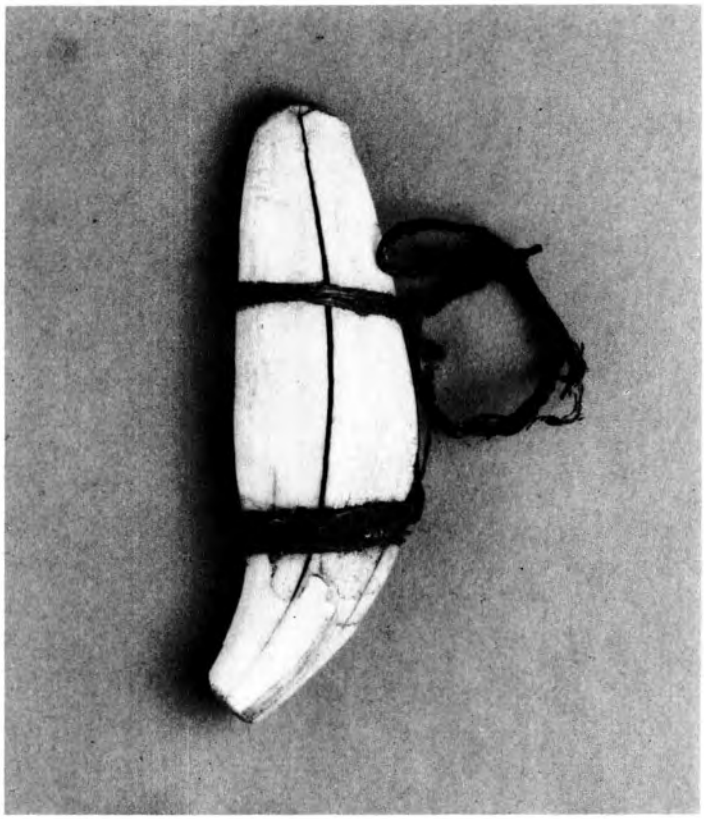
IV Skin shirt, No. 11: front. L. 1.26 m

V Skin shirt, No. 11: back. L. 1.26 m

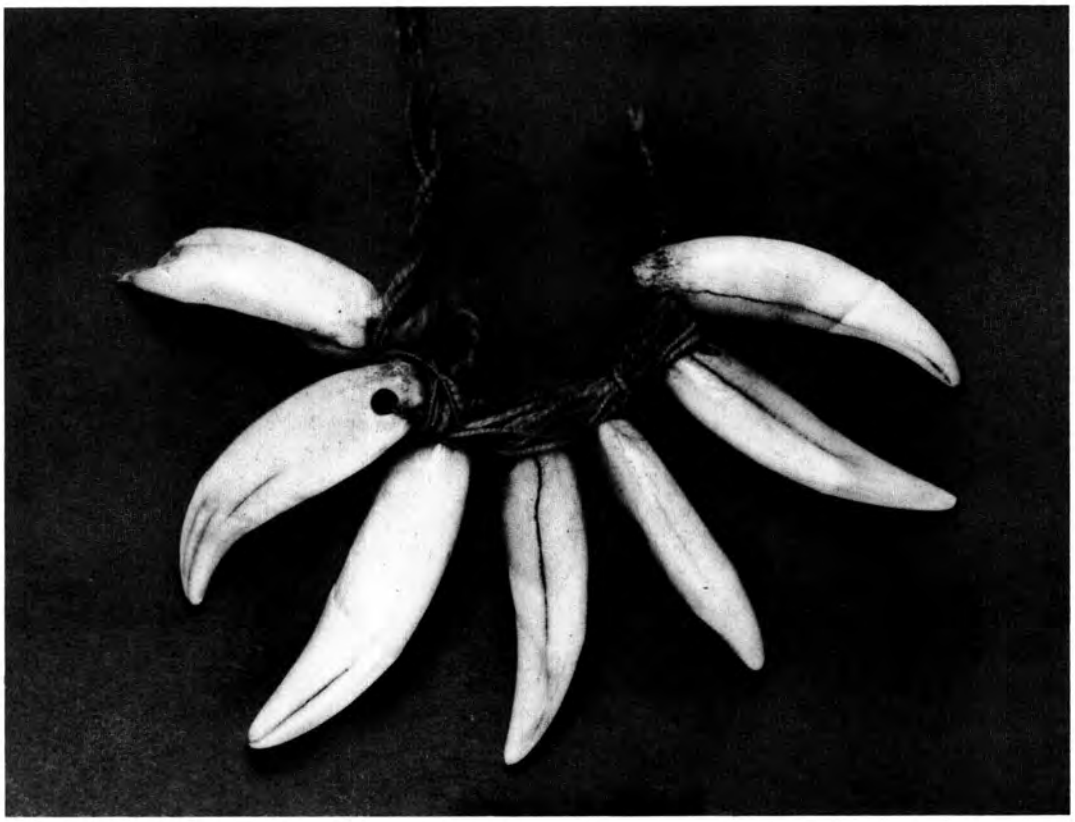


VI 'Powhatan's Mantle', No. 12: front. L. (max) 2.35 m

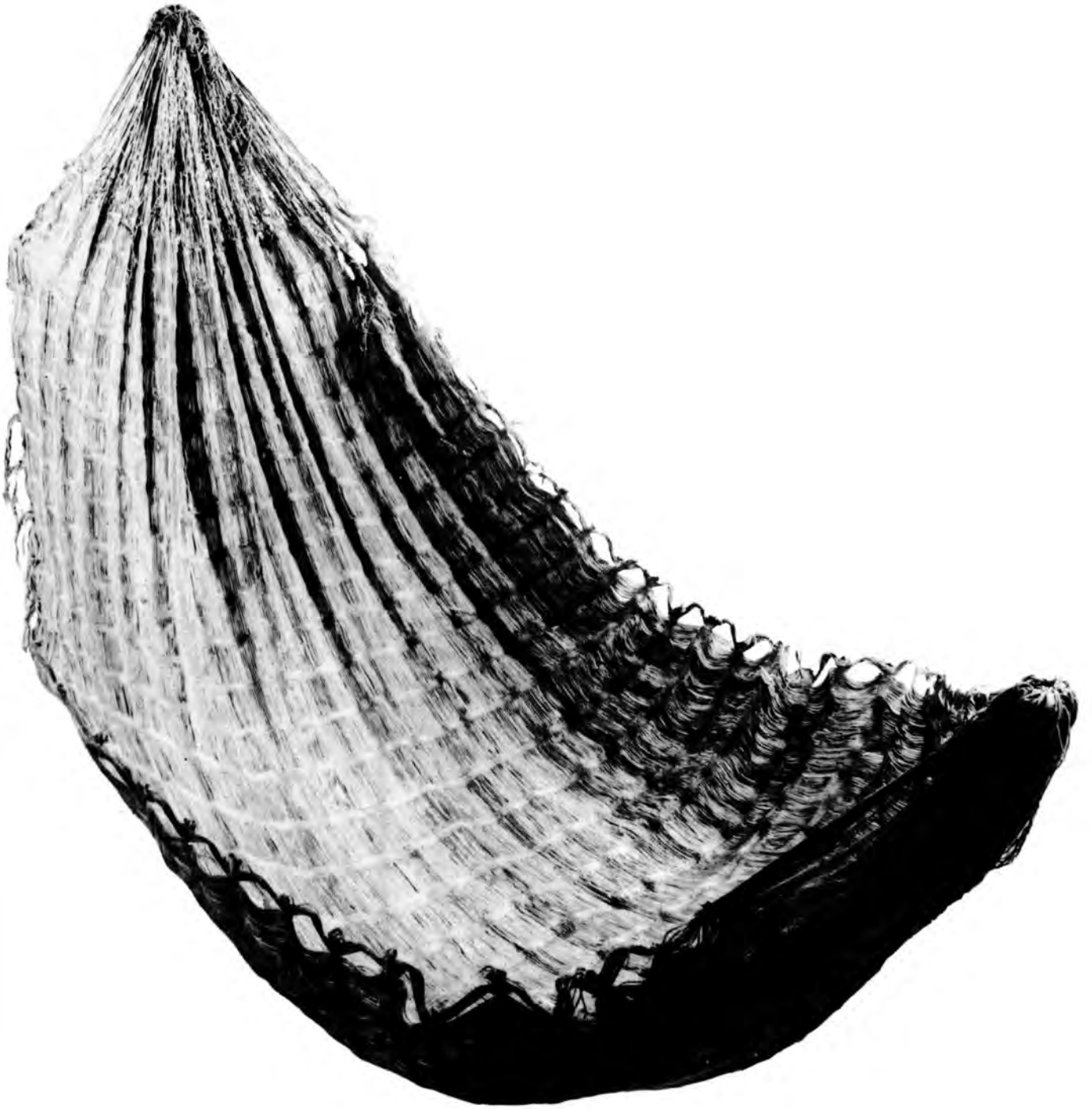
VII 'Powhatan's Mantle', No. 12: back. L. (max) 2.35 m



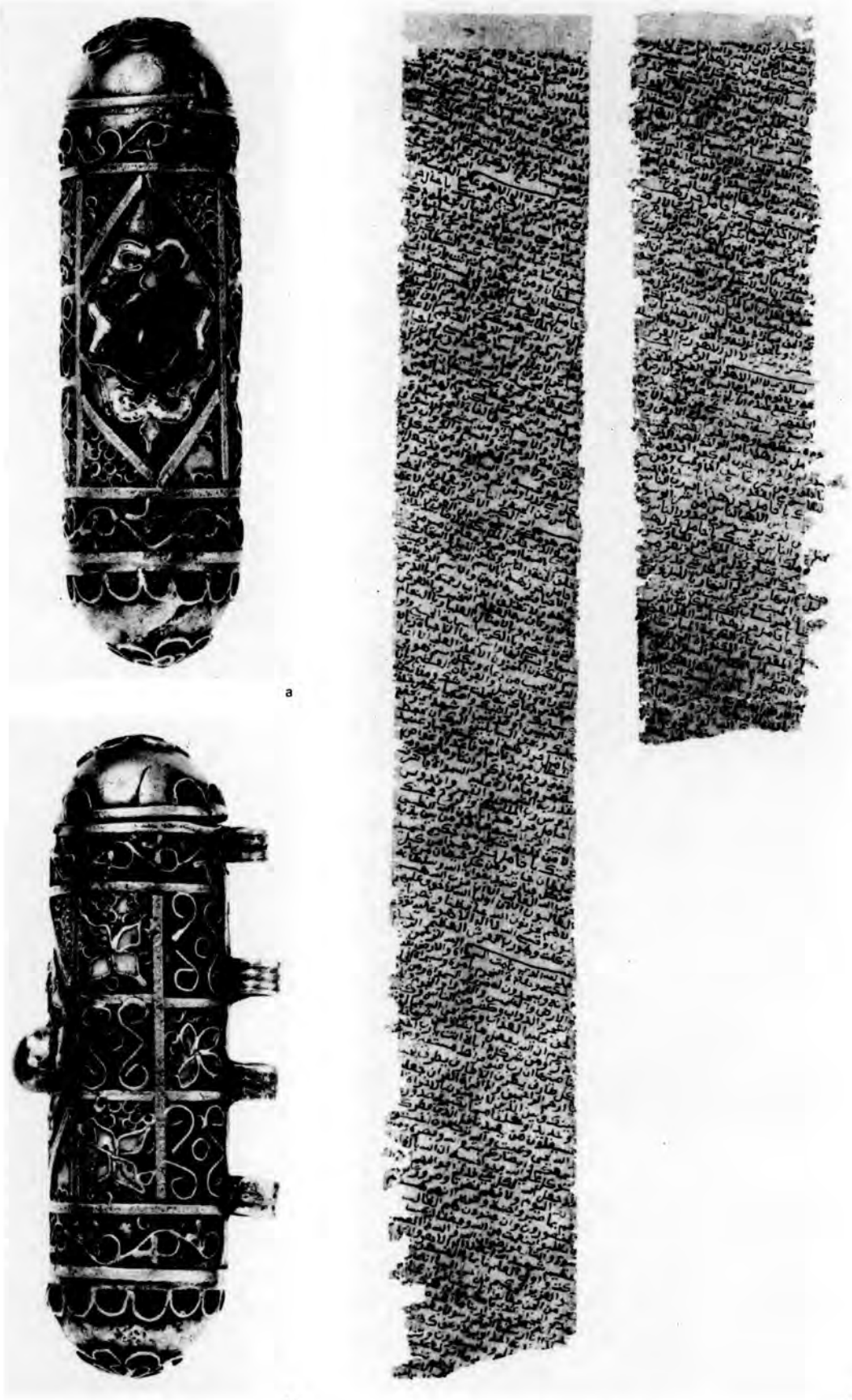
VIII Jaguar-tooth pendant, No. 14. L. 79 mm



IX String of ocelot teeth, No. 15. L. (max) of teeth 47 mm



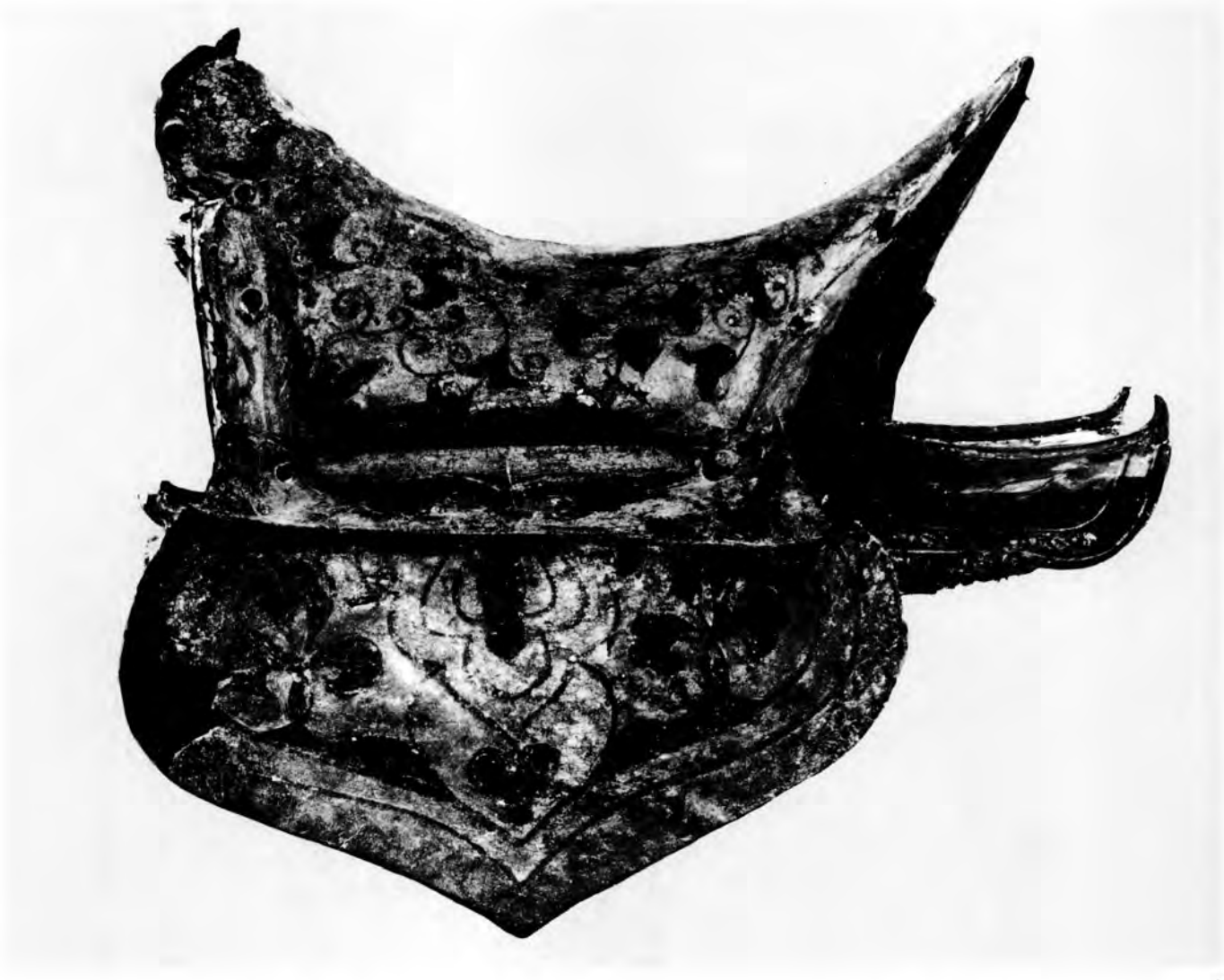
X Hammock, No. 16. L. 2.30 m



a b c

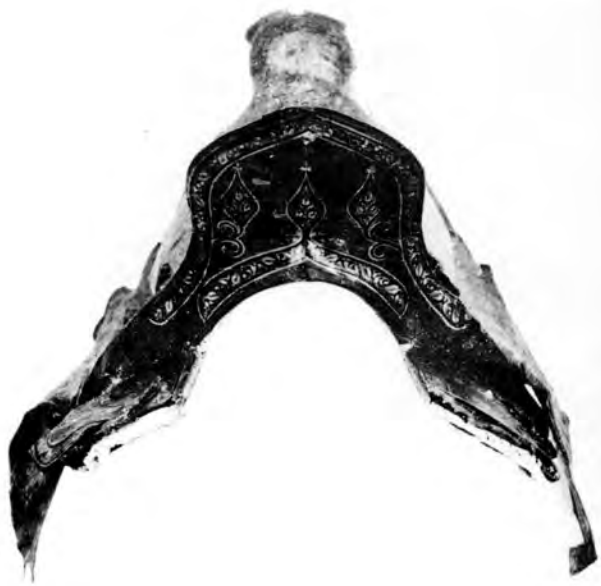
XI Amulet case with Koranic script, No. 24. L. (case) 77 mm

XII Double-membrane drum, No. 25. H. 0.59 m



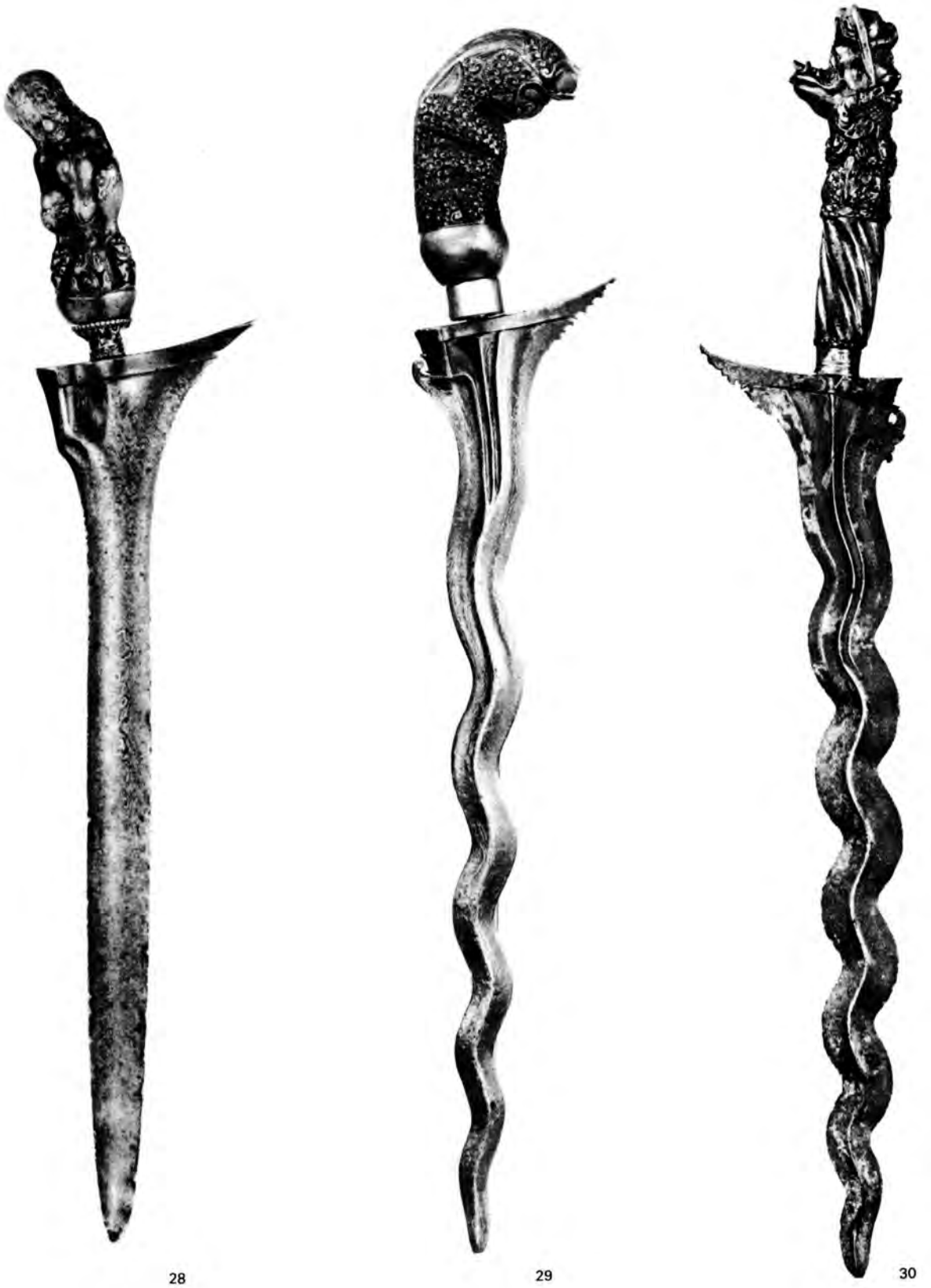
a

b



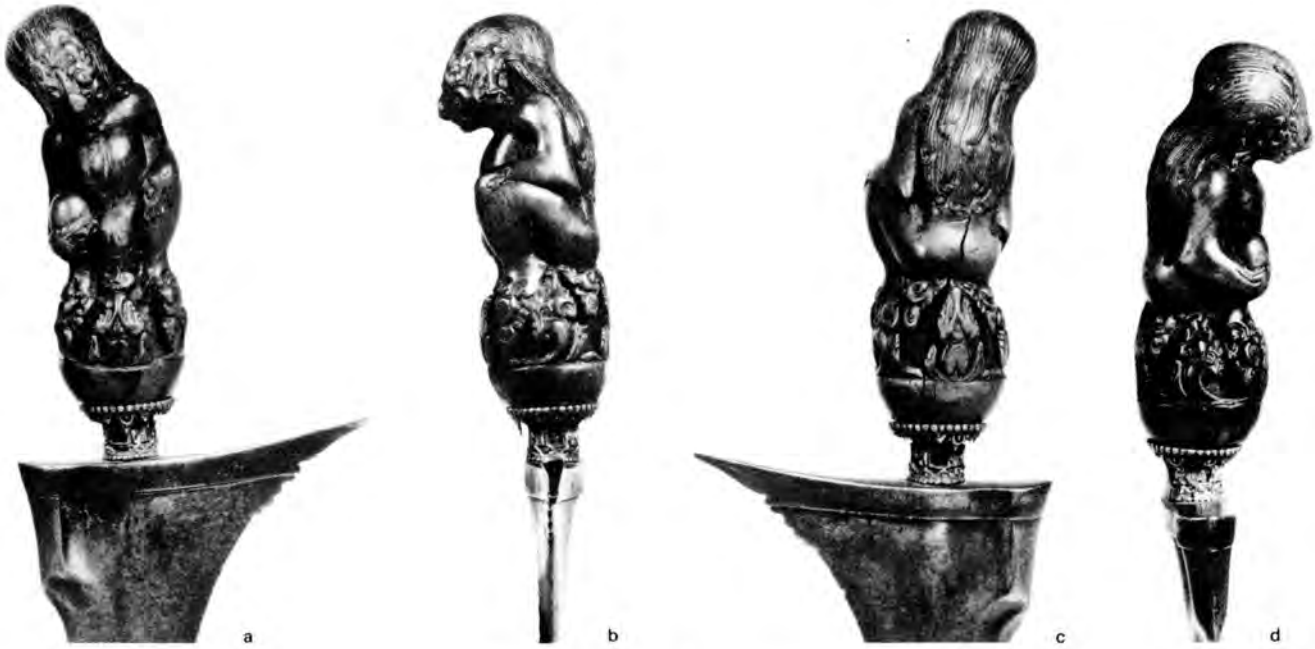
c

XIII Saddle, No. 27: a, side-view; b, bow; c, cantle. L. 413 mm

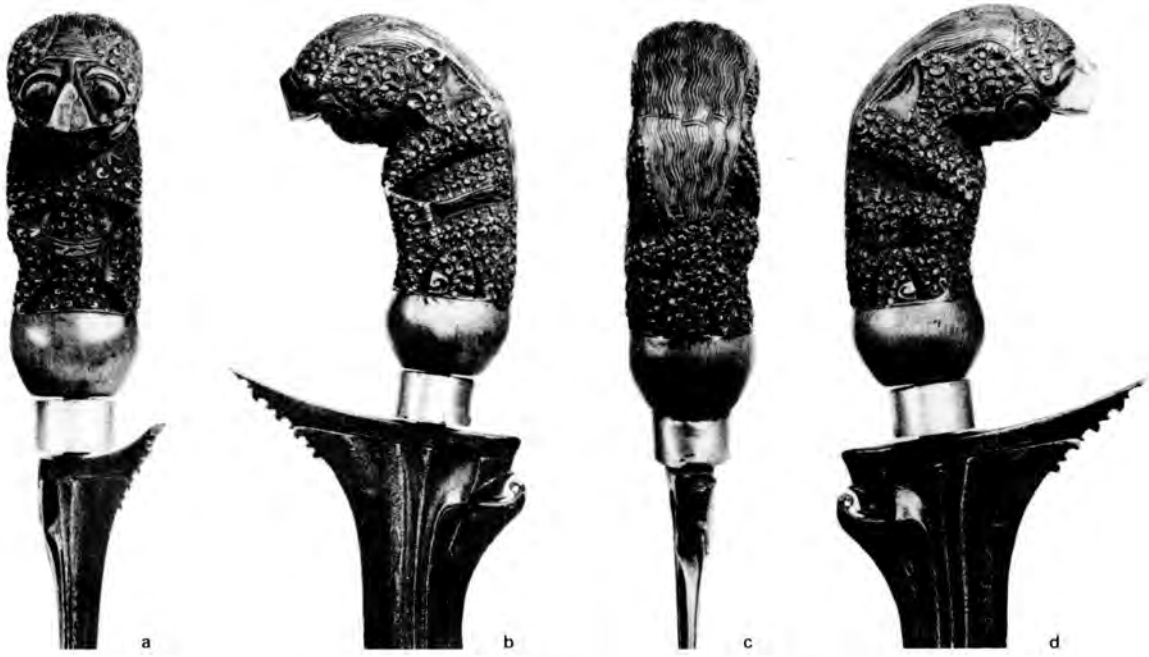


28 29 30

XIV Keris: No. 28 (L. 380 mm); No. 29 (L. 380 mm); No. 30 (L. 482 mm)



XV Keris, No. 28: details of grip. L. 81 mm



XVI Keris, No. 29: details of grip. L. 95 mm

XVII Keris, No. 30: details of grip. L. 130 mm

XVIII Composite bow, No. 33: a, belly; b, back. L. (nock to nock) 0.88 m

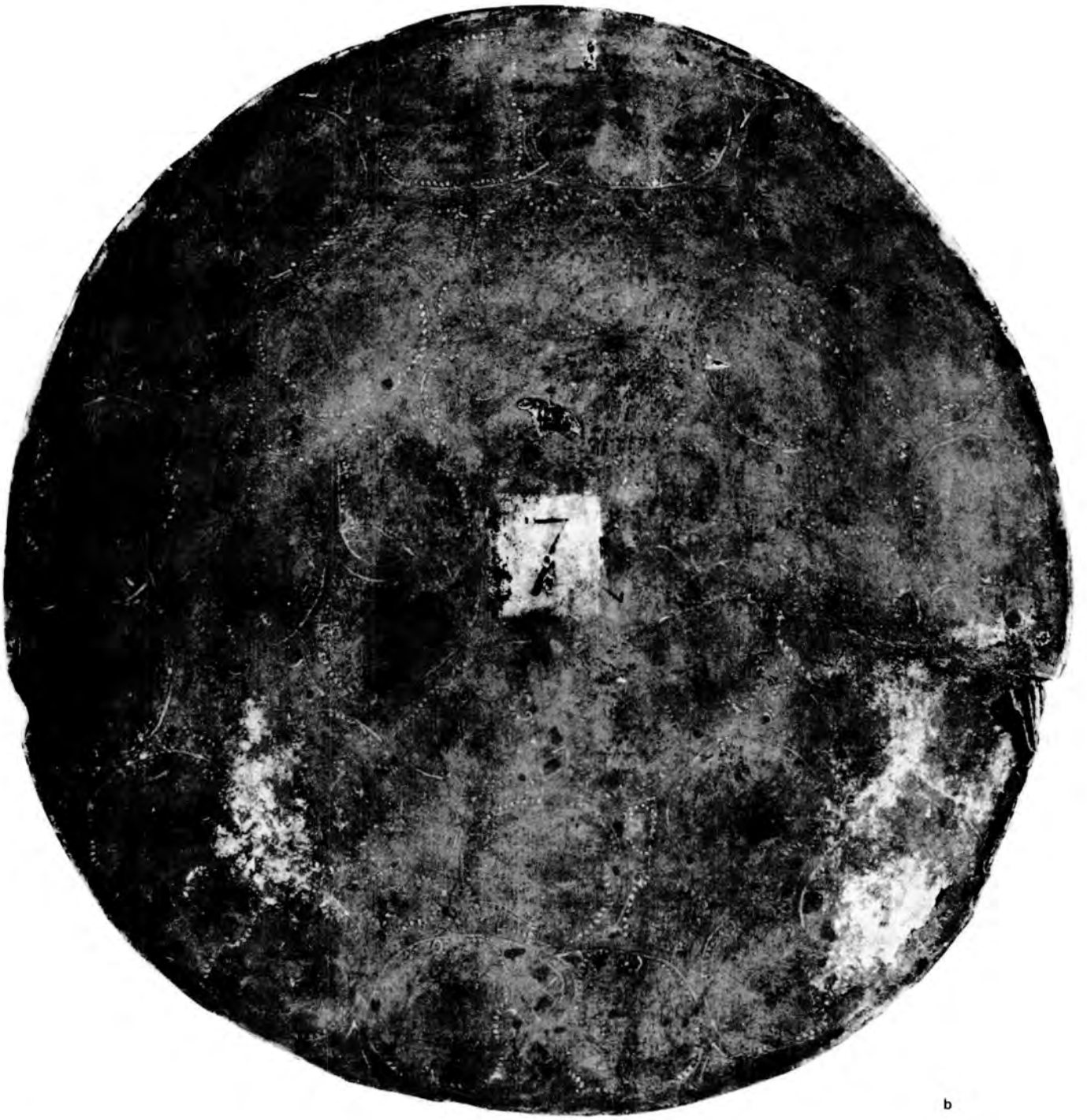
a

XIX Shield, No. 42: a, front; b, back. D. 0.54 m

b

a

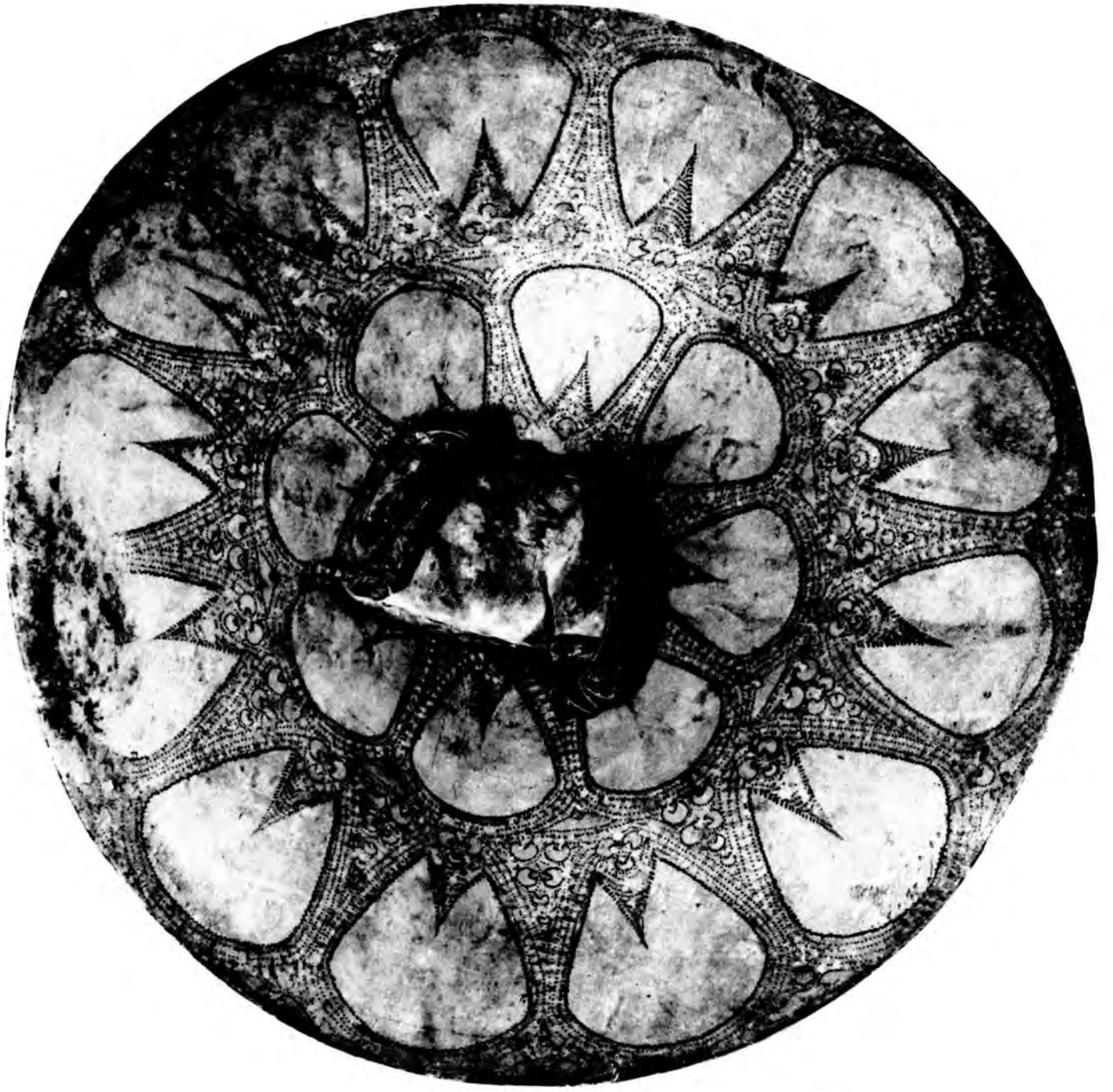
XX Shield, No. 43: a, front; b, back. D. 0.60 m



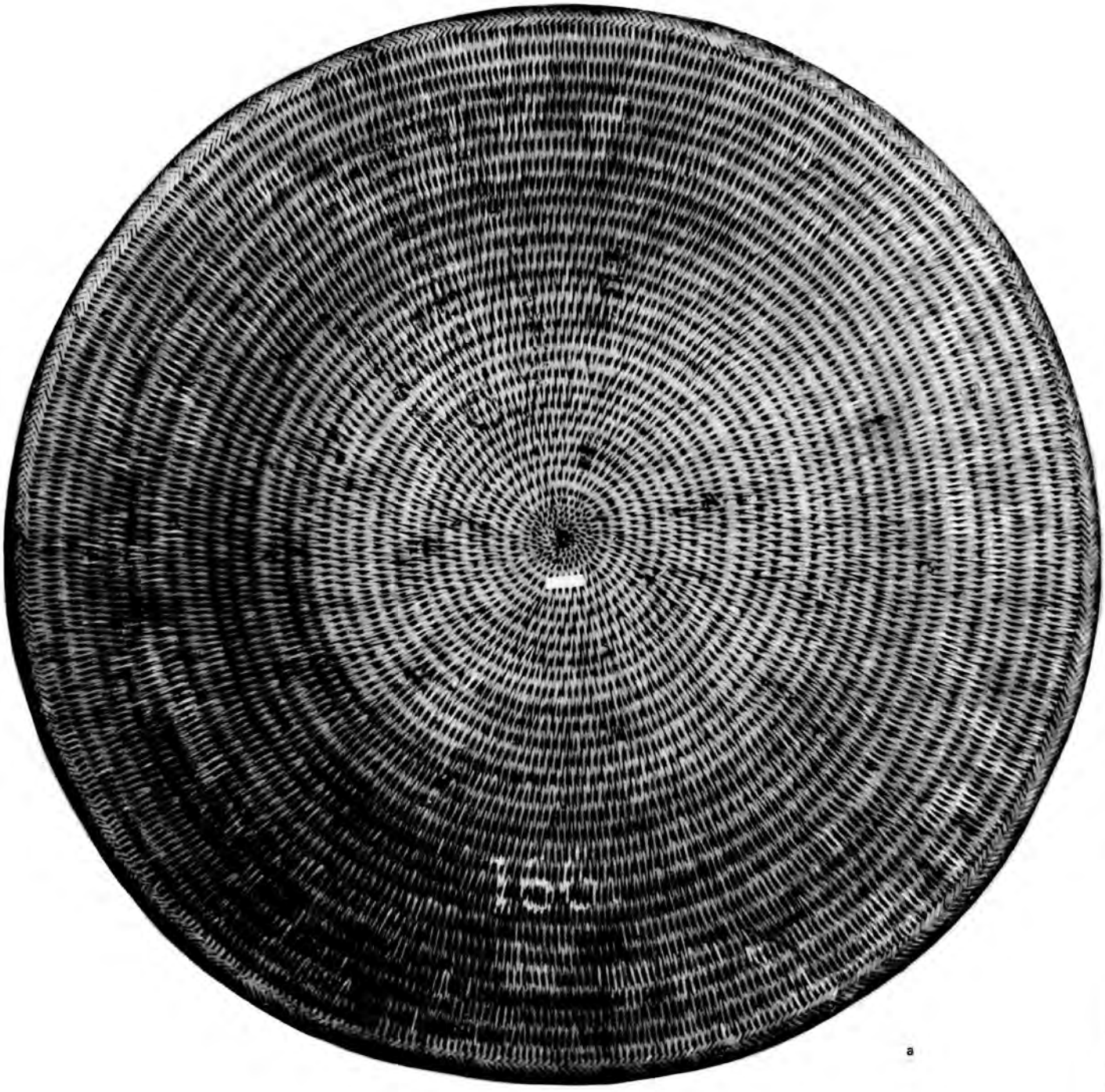
b

a

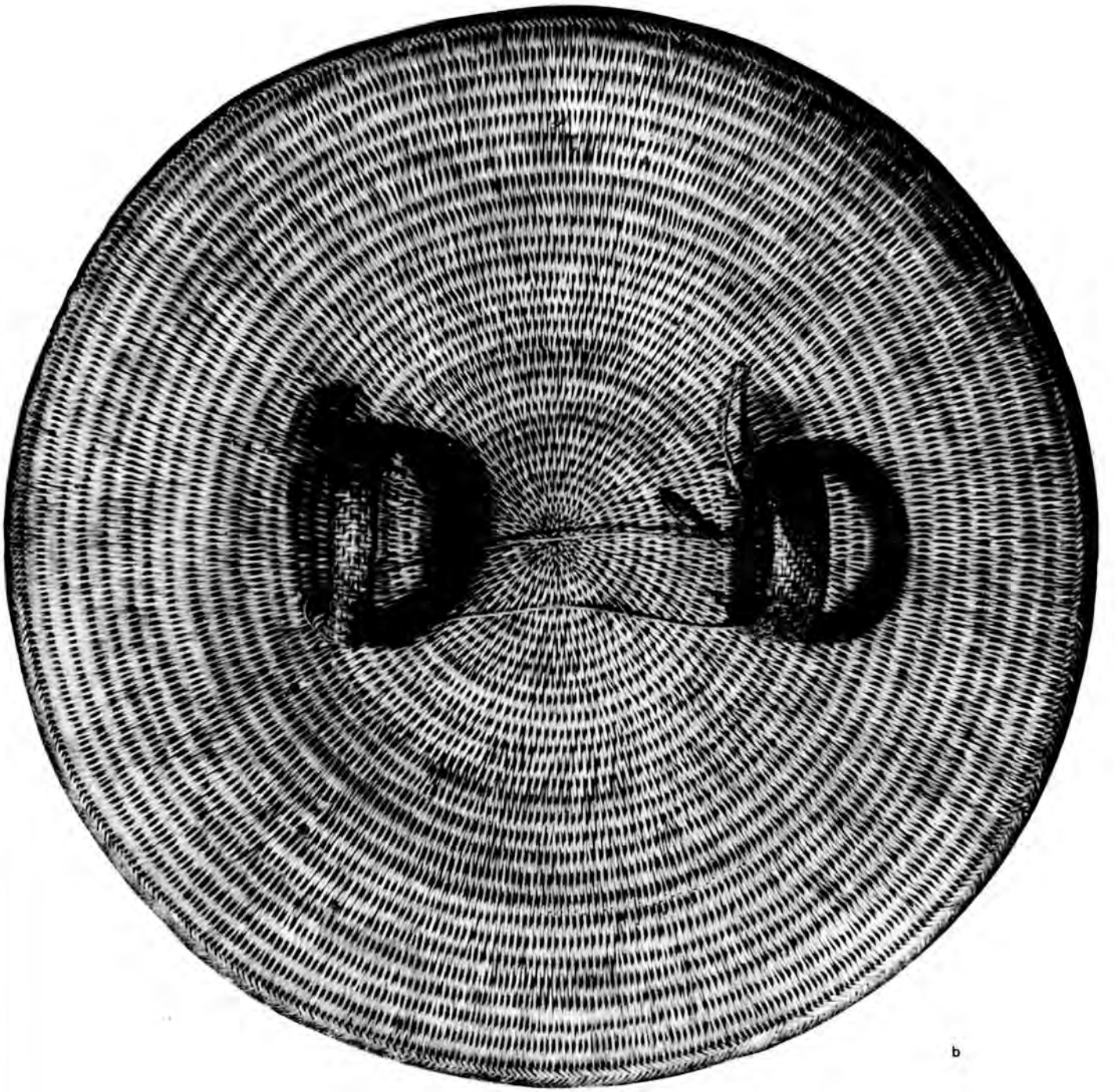
XXI Shield, No. 44: a, front; b, back. D. 0.54 m



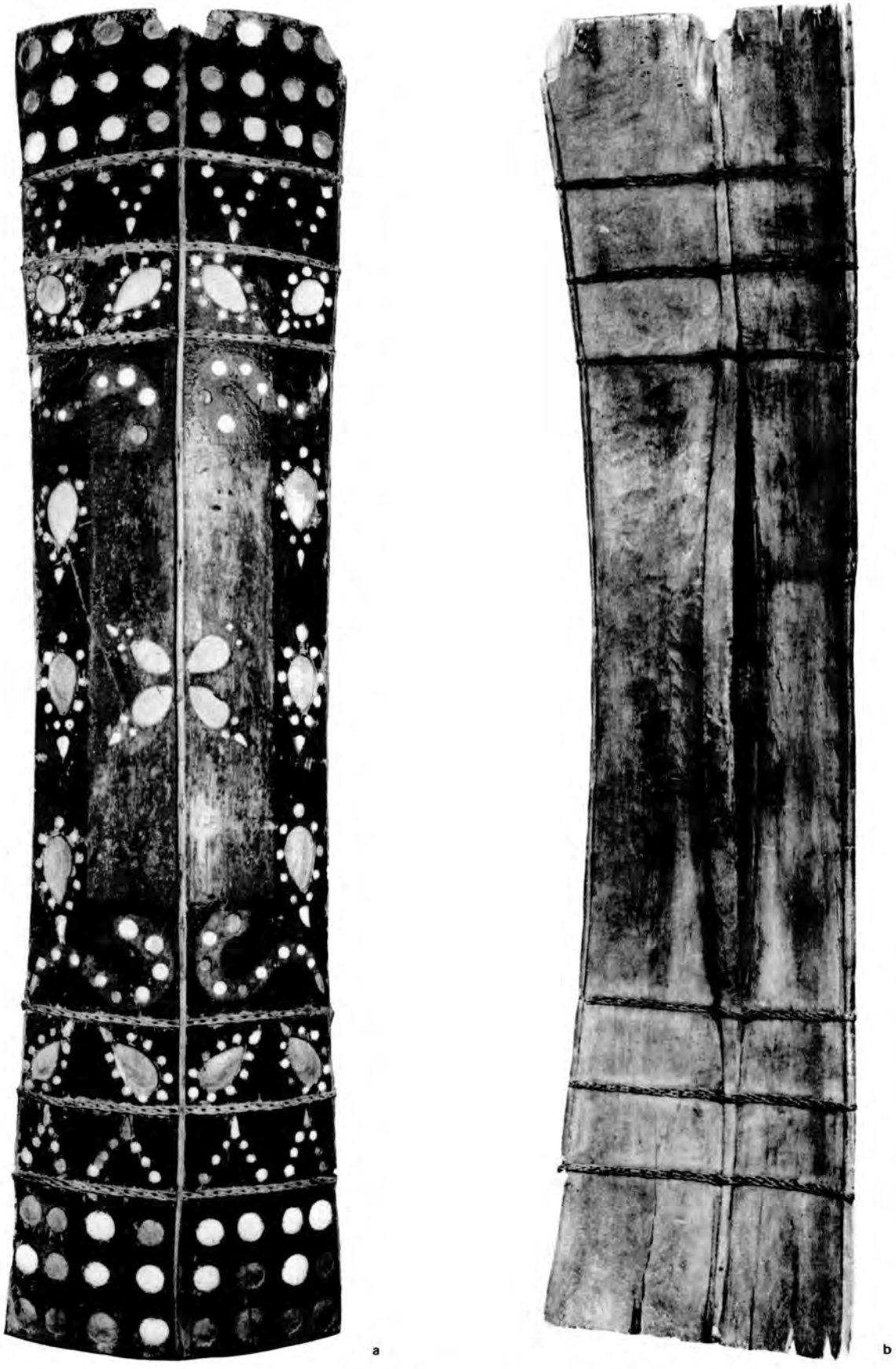
b



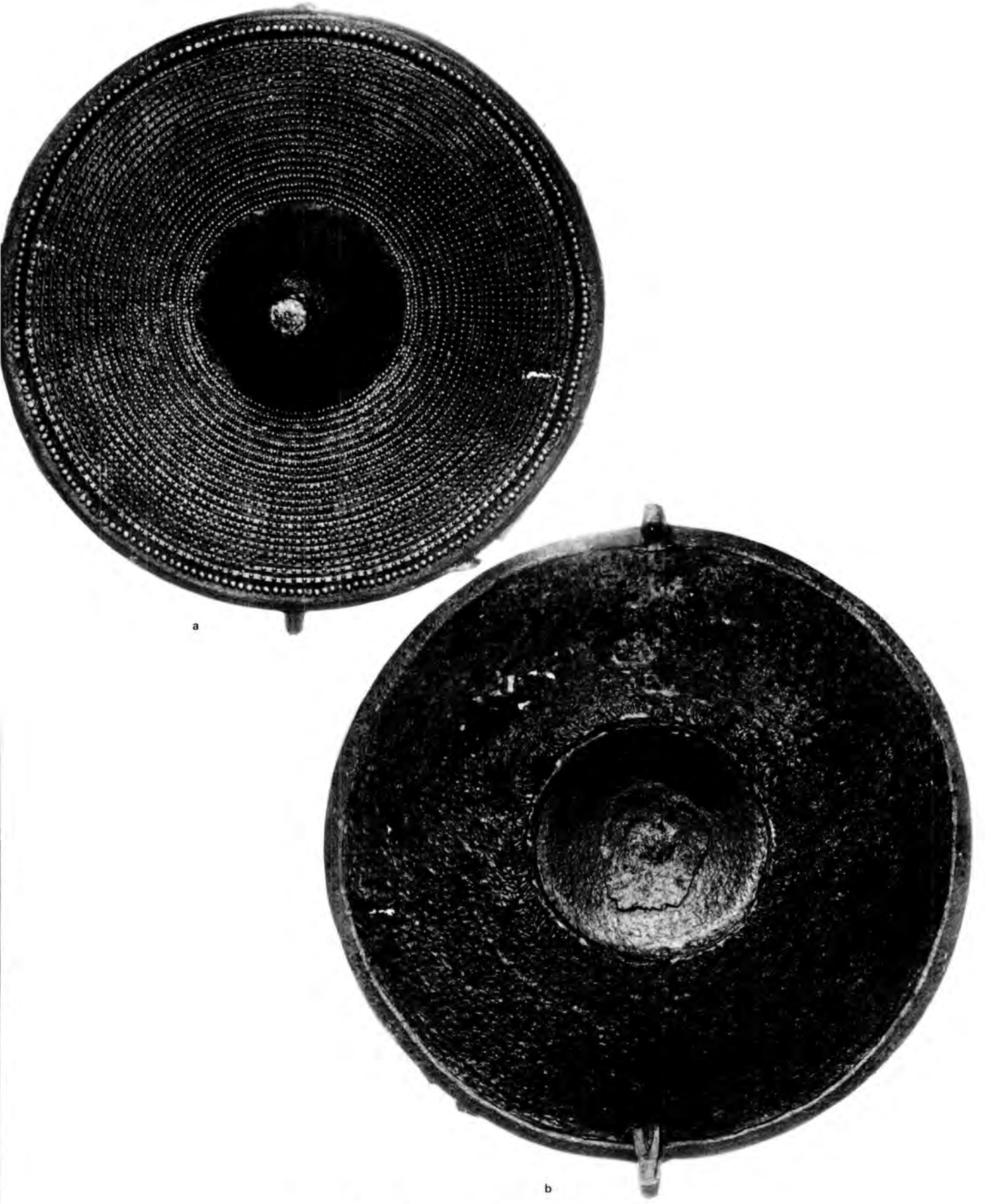
XXII Shield, No. 45: a, front; b, back. D. 0.59 m



b



XXIII Shield, No. 46: a, front; b, back. L. 1.24 m



XXIV Buckler, No. 99: a, front; b, back. D. 276 mm

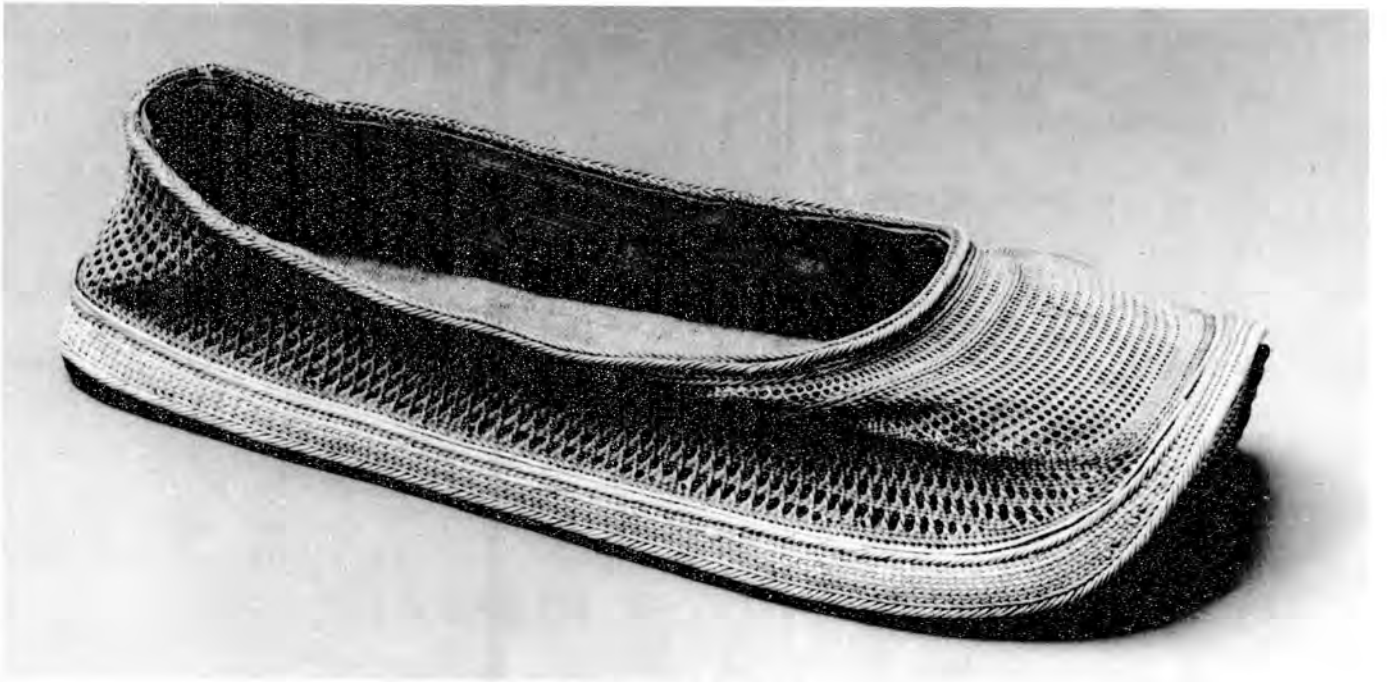
a

b

XXV (*above*) Boots with integral stockings, No. 47: a, boot; b, stocking. H. 430 mm

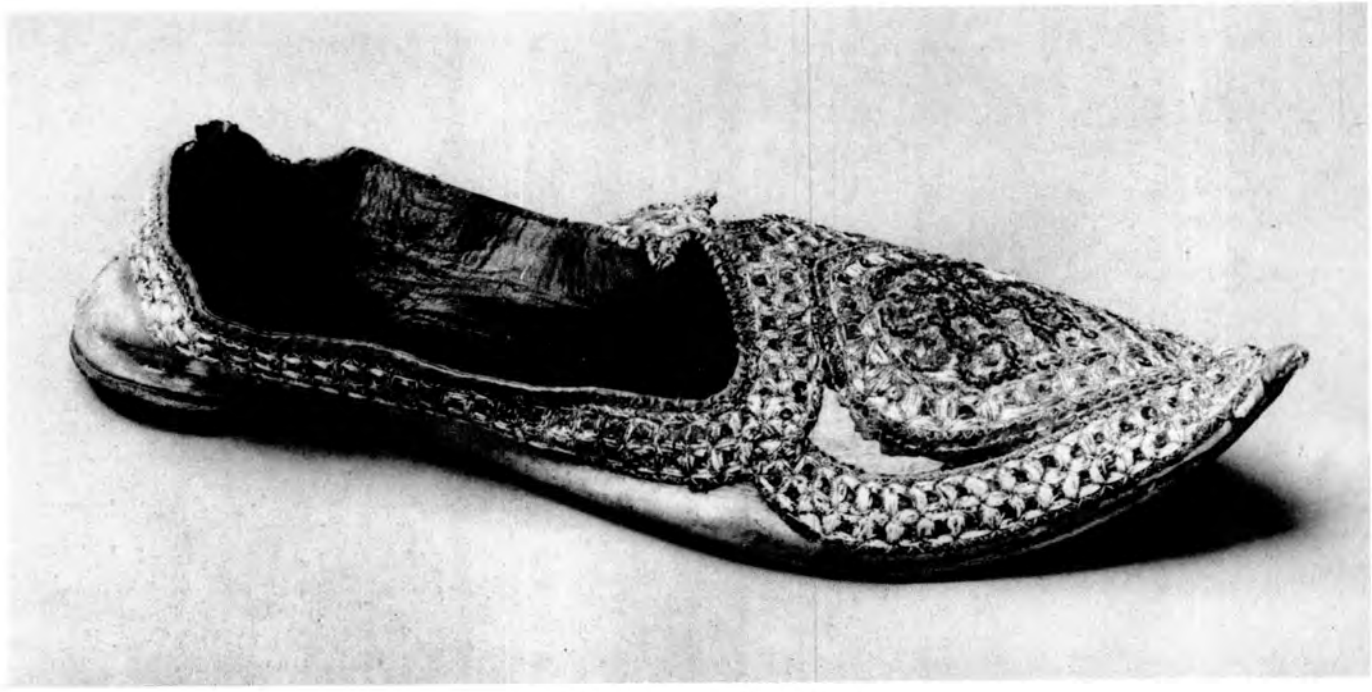
XXVI (*right*) Boot, No. 107. H. 550 mm

XXVII Ankle boot, No. 48. L. 268 mm



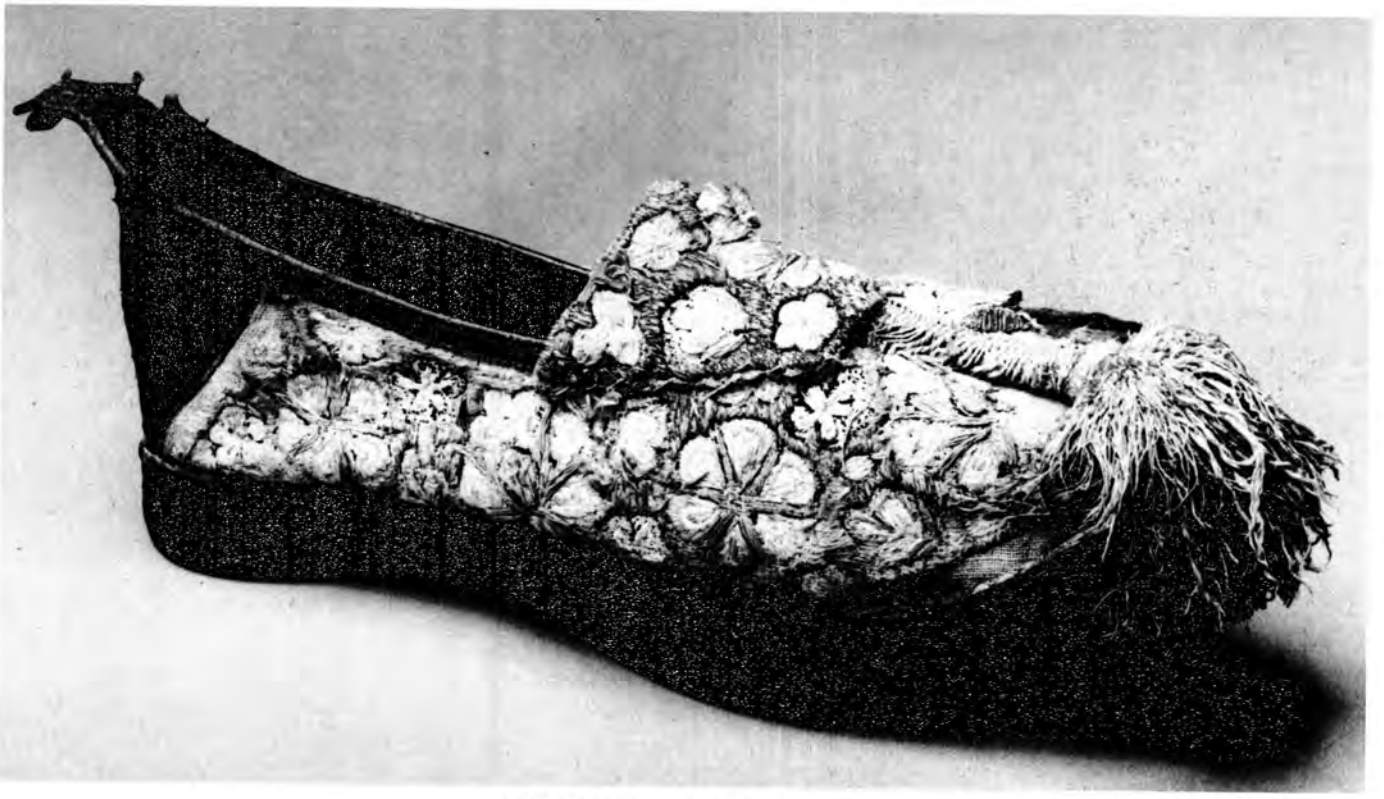
XXVIII Shoe, No. 49. L. 265 mm

XXIX Shoe, No. 50. L. 190 mm



XXX Shoe, No. 51. L. 280 mm

XXXI Shoe, No. 52. L. 290 mm



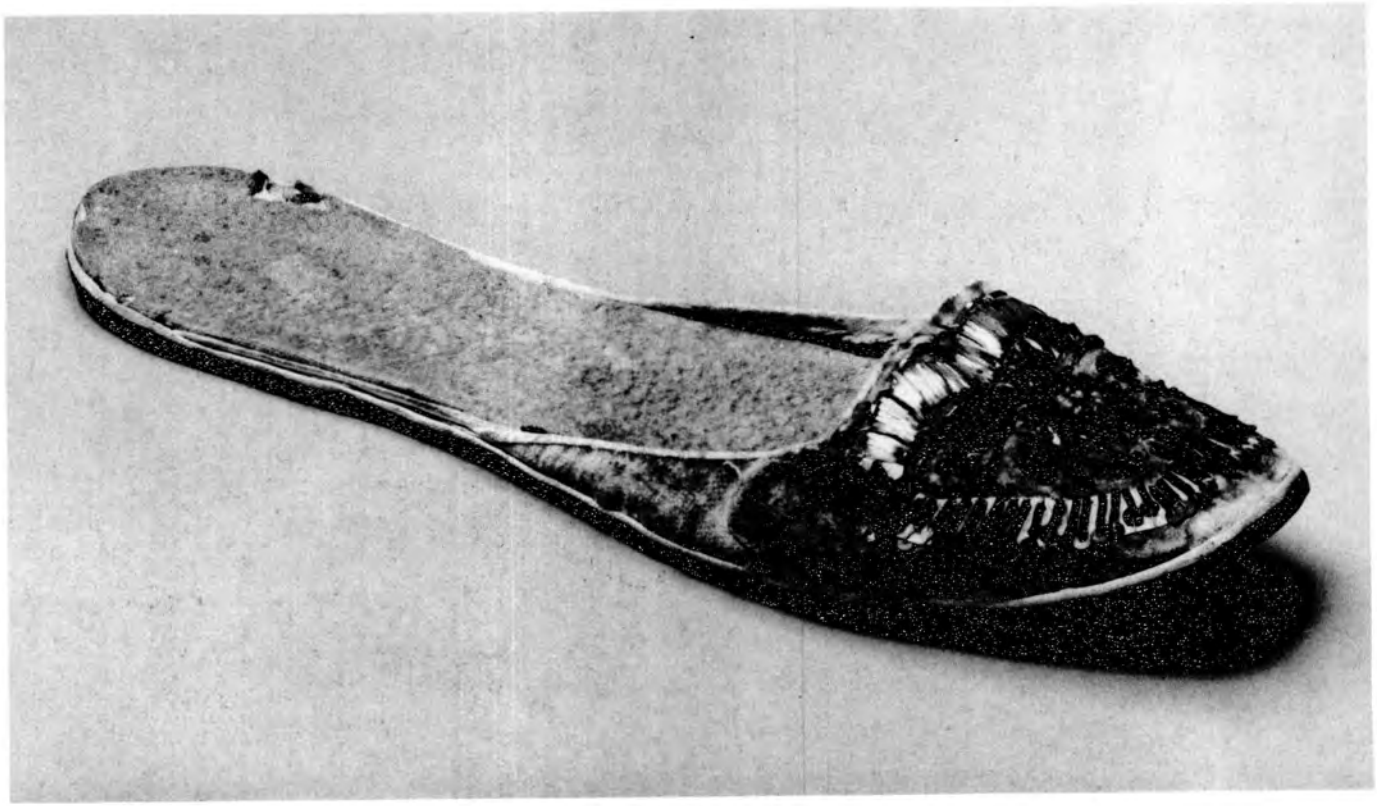
XXXII Shoe, No. 53. L. 238 mm

XXXIII Shoe, No. 54. L. 270 mm

XXXIV Shoe, No. 108. L. 202 mm

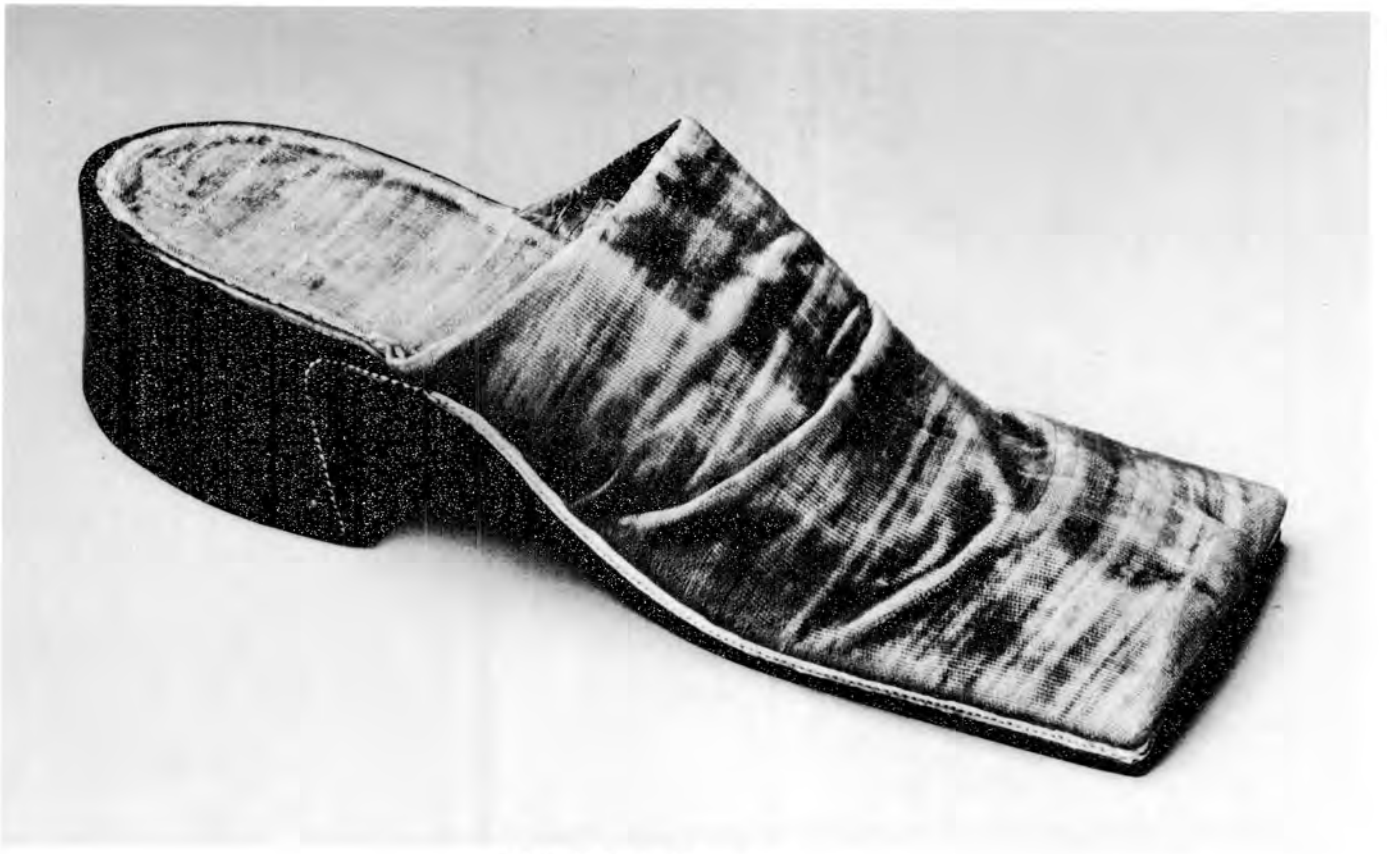
XXXV Shoe, No. 109. L. 203 mm

XXXVI Shoe, No. 110. L. 265 mm



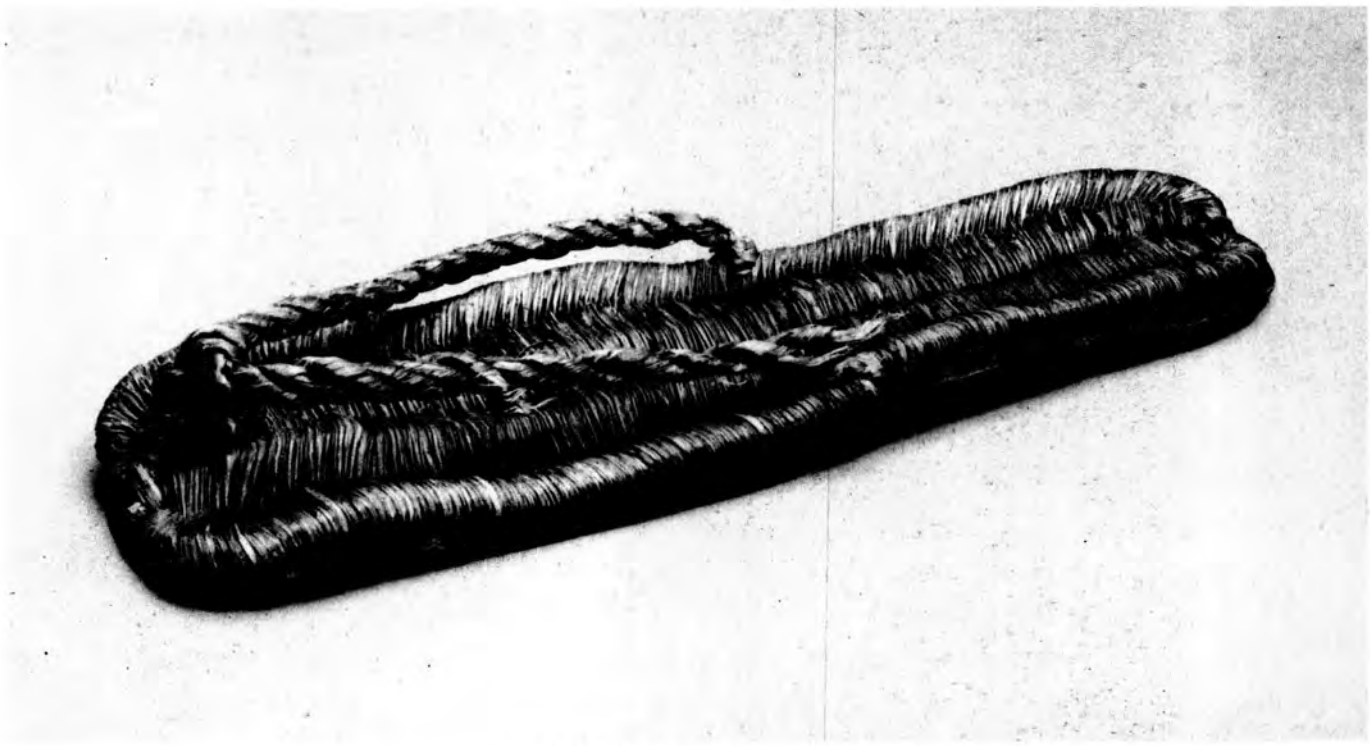
XXXVII Mule, No. 55. L. 259 mm

XXXVIII Mule, No. 56. L. 263 mm

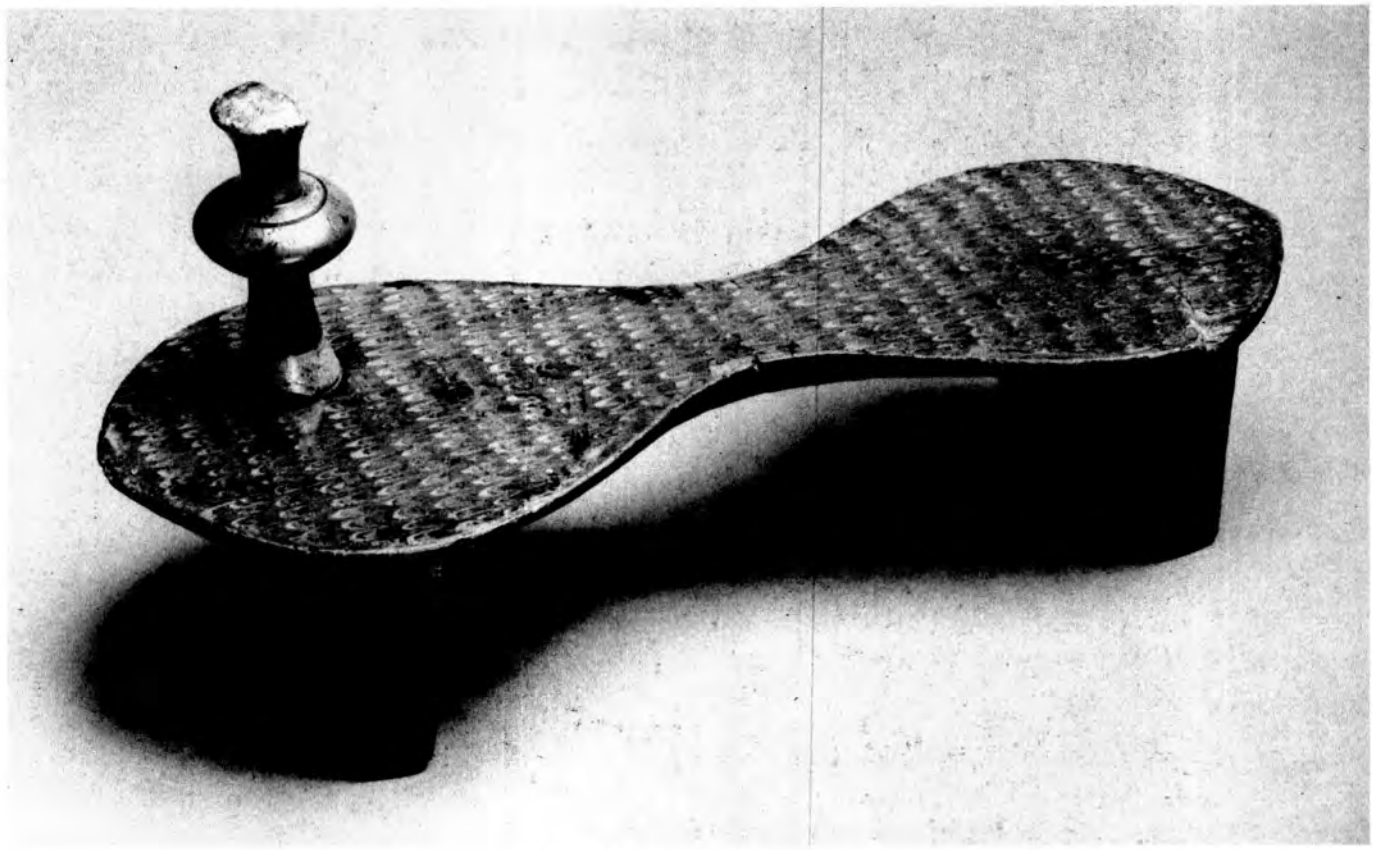


XXXIX Mule, No. 57. L. 245 mm

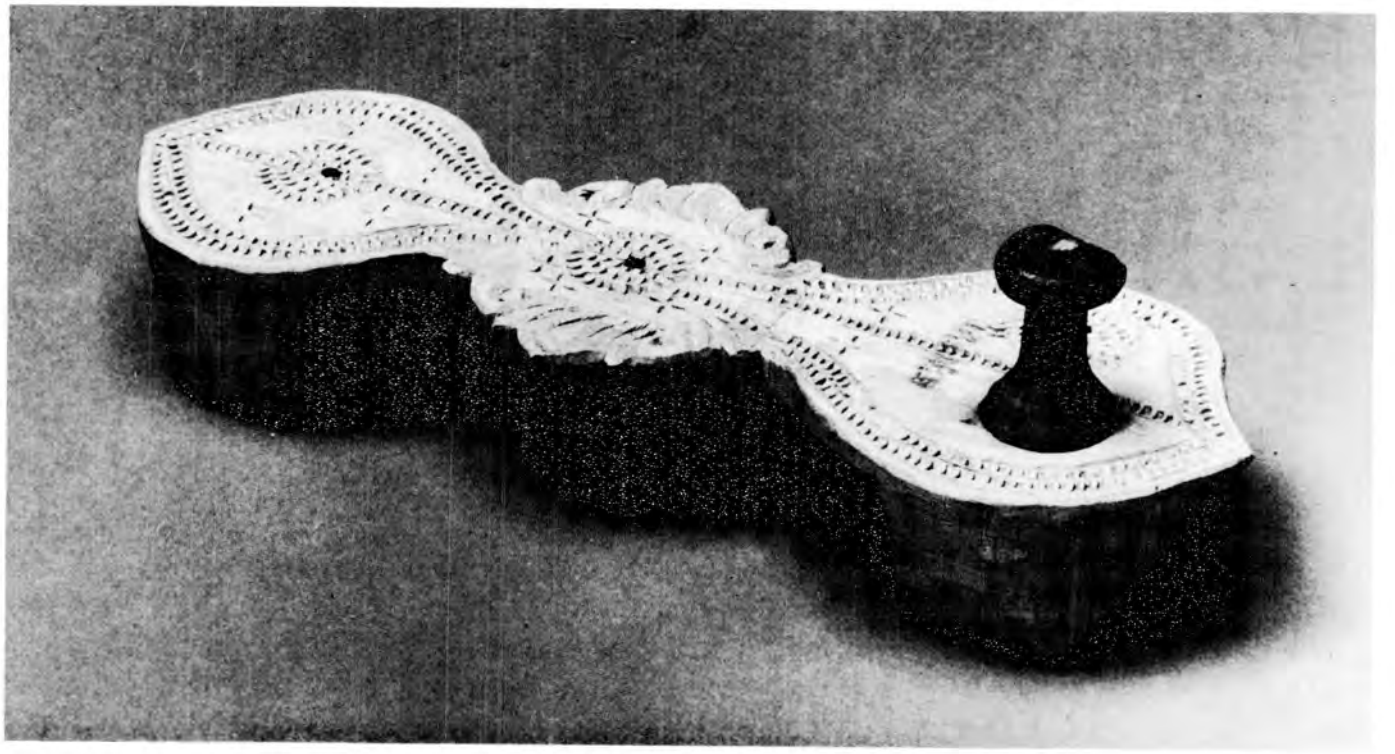
XL Sandal, No. 21. L. 261 mm



XLI Sandal, No. 58. L. 214 mm

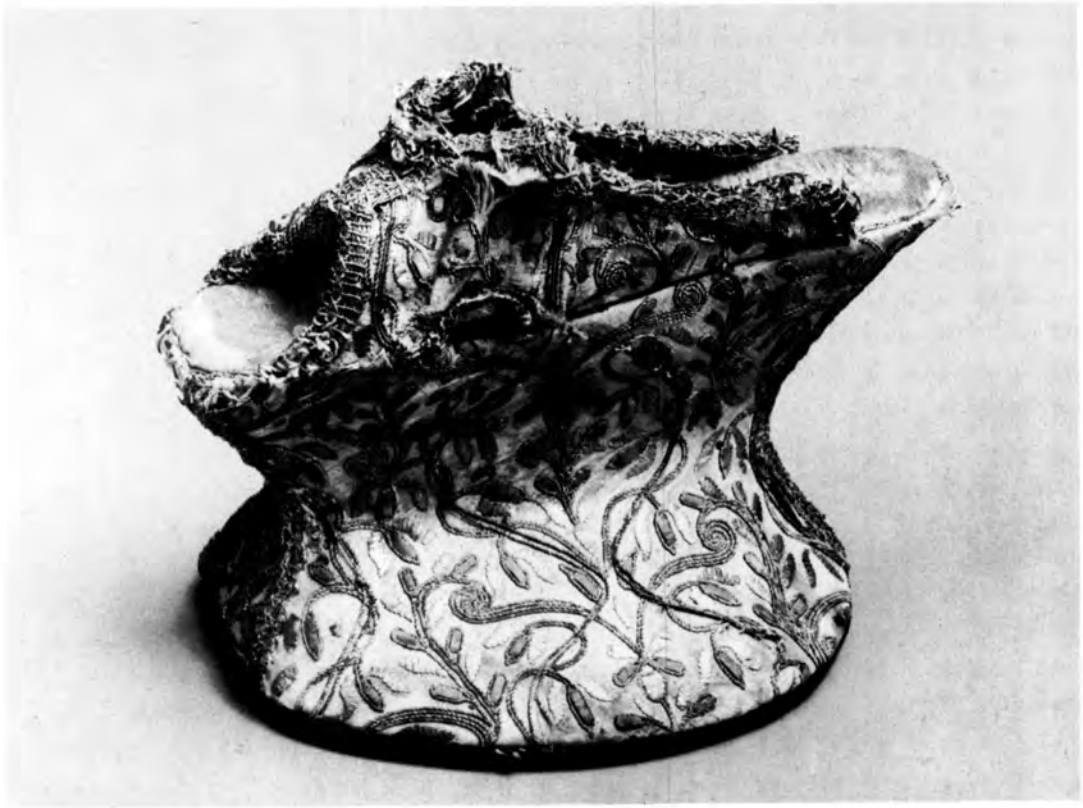


XLII Clog, No. 20. L. 245 mm



XLIII Clog, No. 59. L. 179 mm

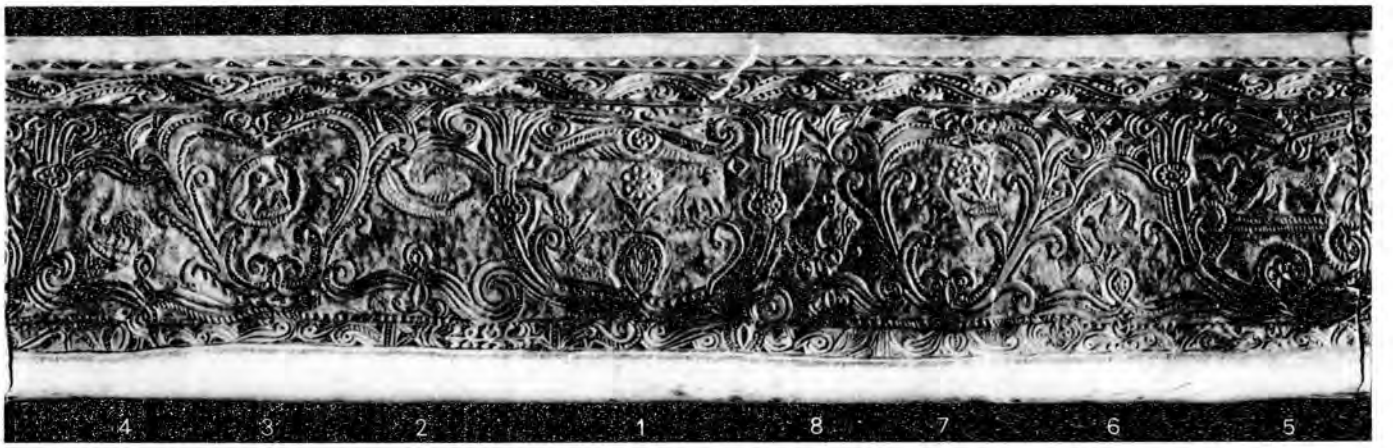
XLIV Chopines, No. 111. L. 138 mm



XLV Chopine, No. 112. L. 186 mm

XLVI Chopines, No. 113. L. 183 mm

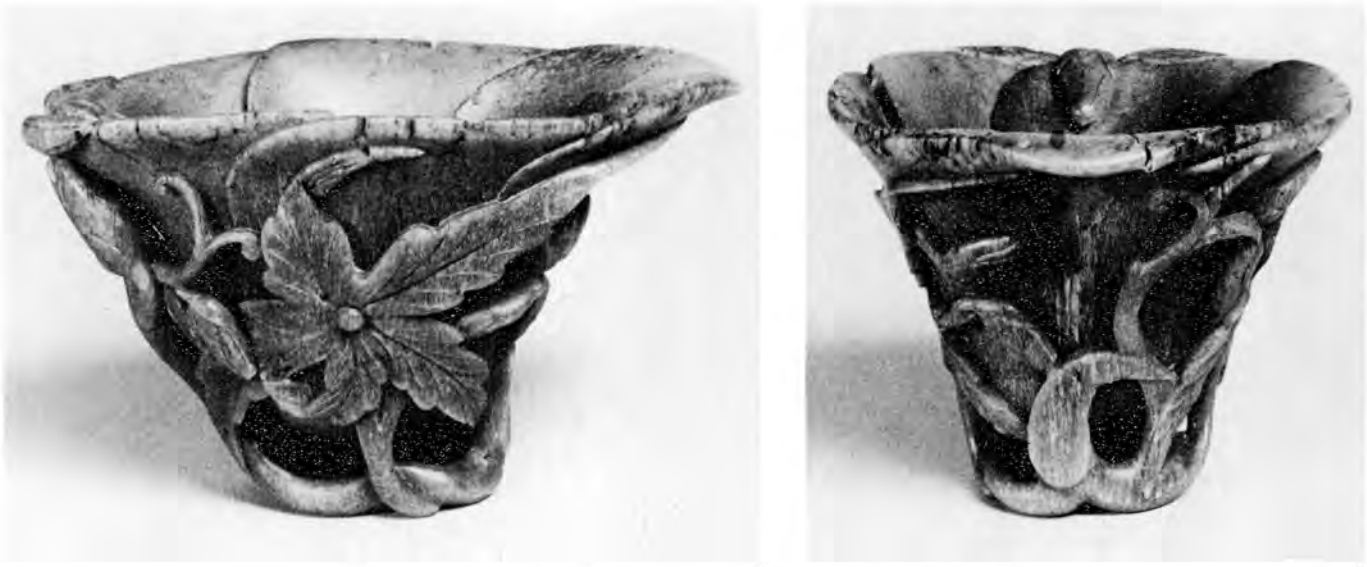
XLVII Carved gourd, No. 71. H. 154 mm



XLVIII Carved gourd, No. 71: peripheral photograph, the panels numbered as in the text.
Photograph by Mr F. Fox, Shell Research Ltd.

XLIX Skin container, No. 72. H. 0.57 m

L Skin container, No. 73. H. 0.65 m



a b

LI Rhinoceros-horn cup, No. 74: a, side-view; b, end-view. H. 89 mm

LII Lacquered box, No. 75. H. 295 mm

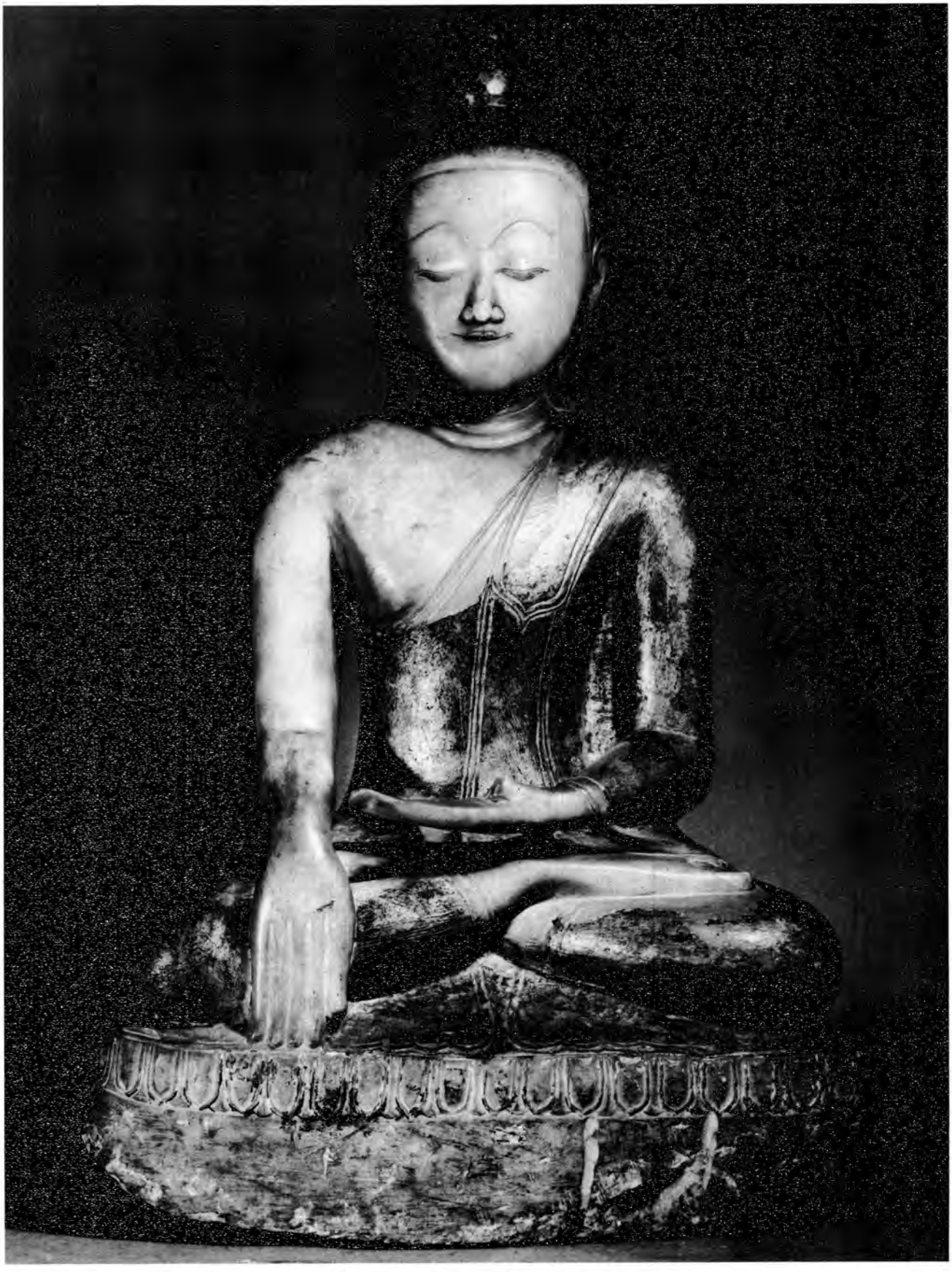
LIII Jar, No. 76. H. 295 mm

LIV Jar, No. 77. H. 325 mm

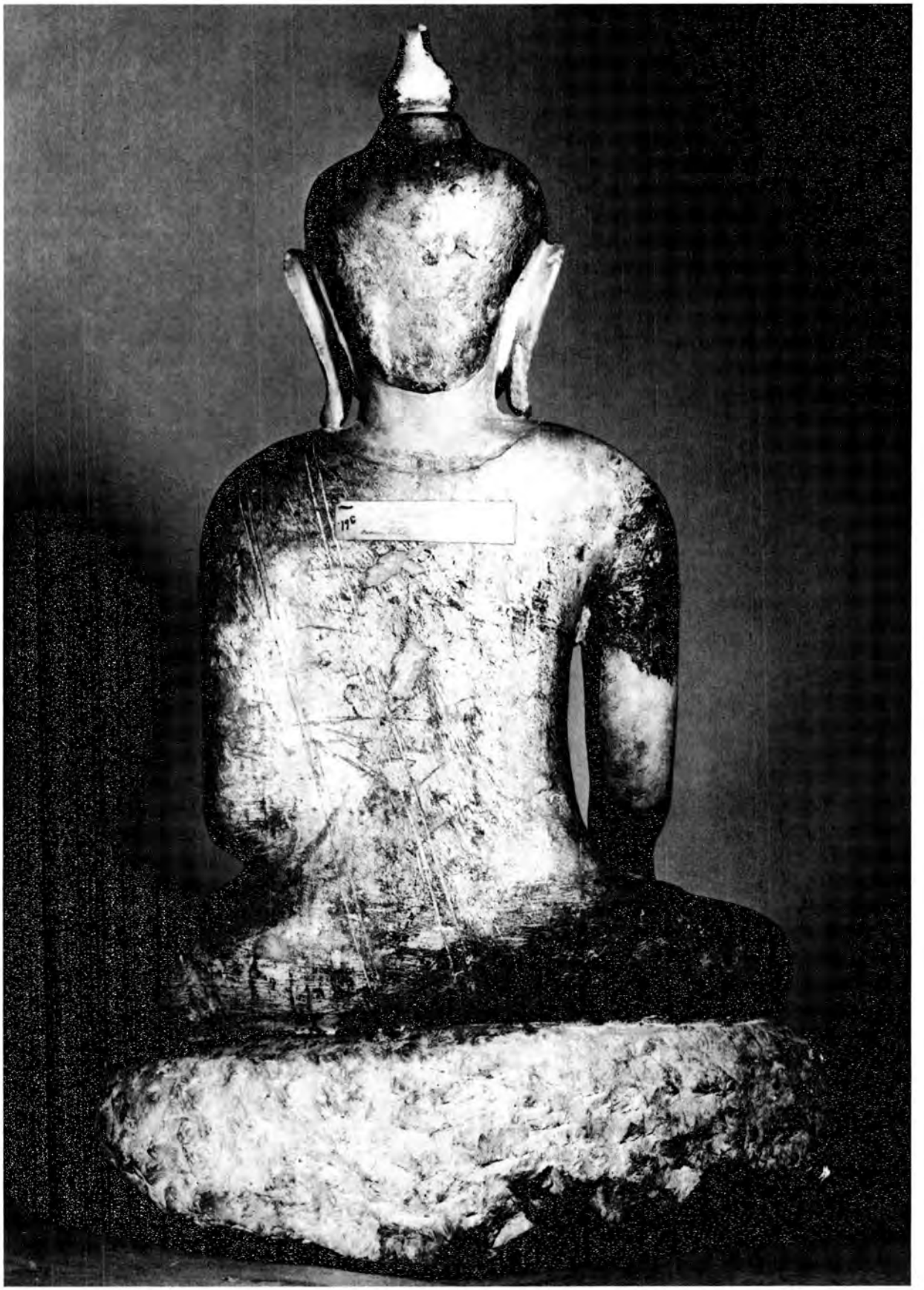
a

b

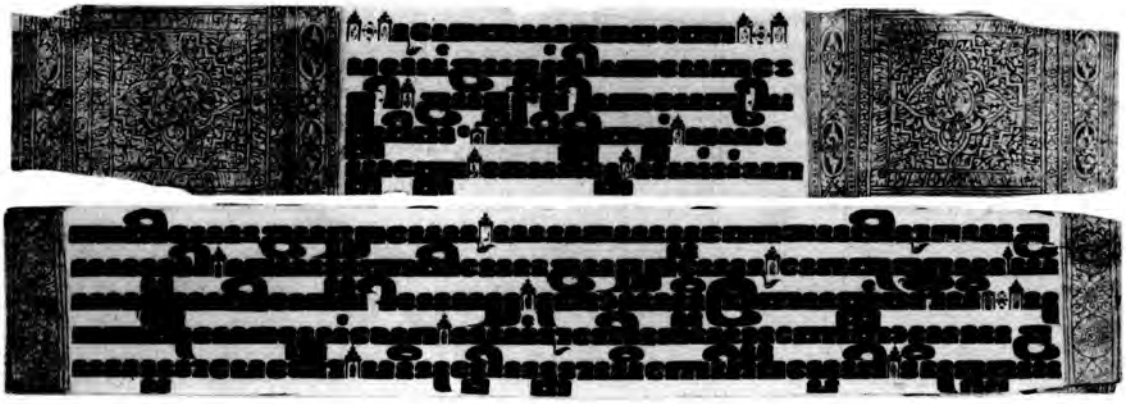
LV Engraved shell, No. 78. H. 110 mm



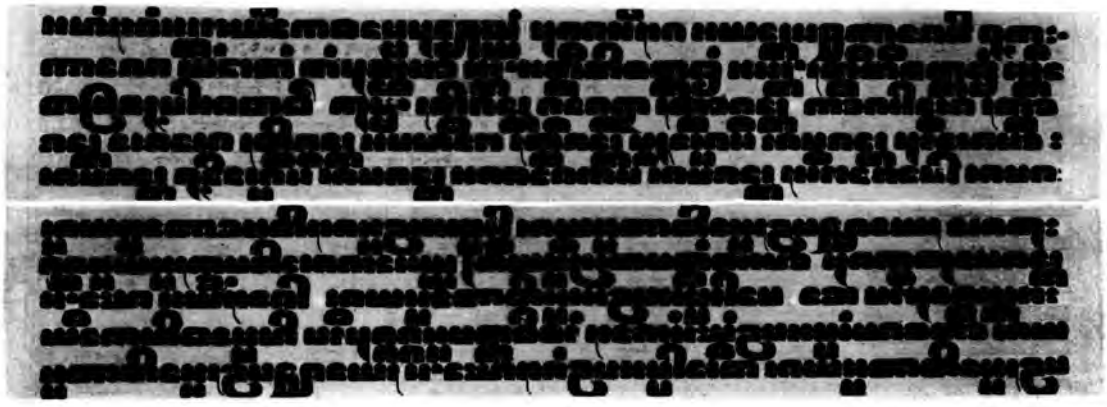
LVI Buddha, No. 79: front. H. 0.75 m



LVII Buddha, No. 79: back. H. 0.75 m

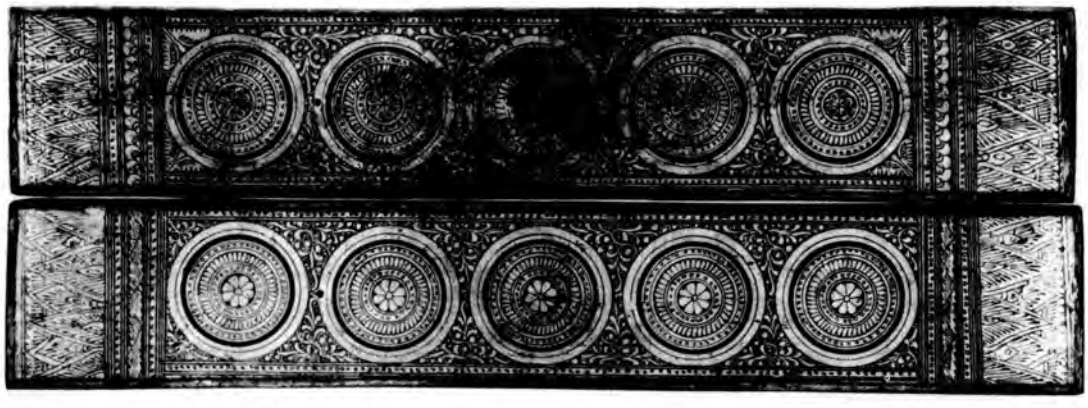


80



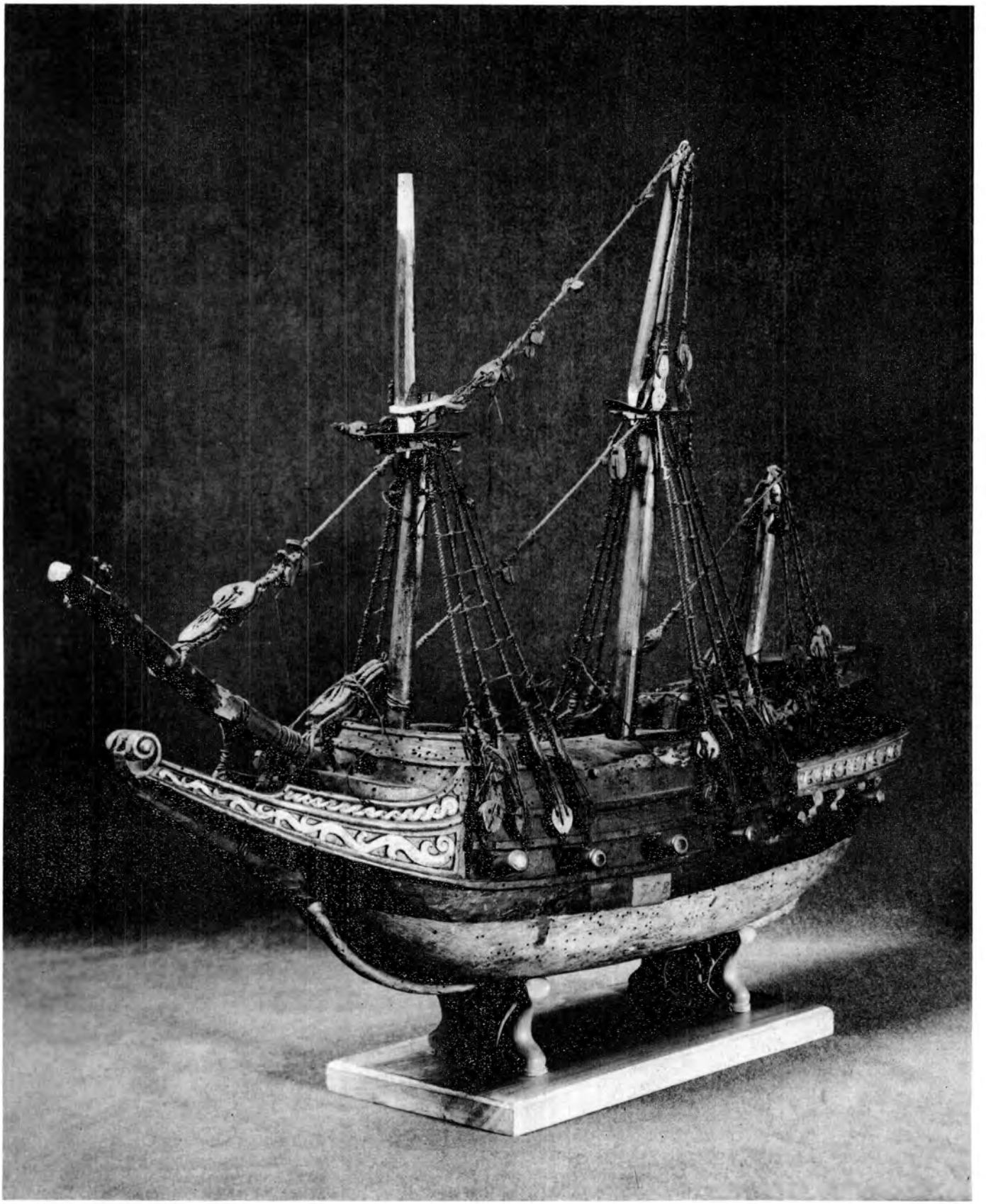
81

82



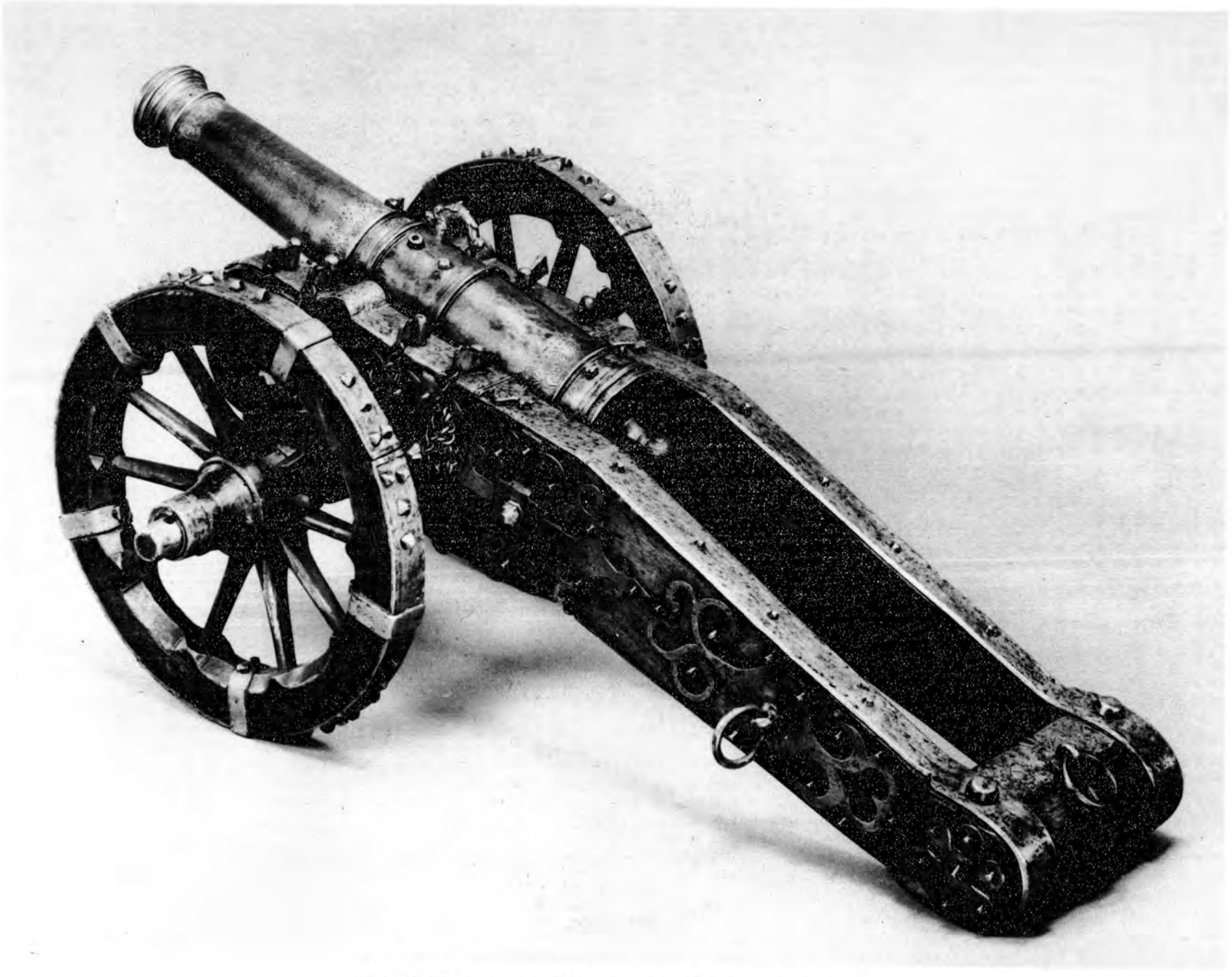
83

LVIII Burmese manuscripts and cover-boards, Nos. 80 (L. 557 mm); 81 (L. 543 mm); 82 (L. 545 mm); 83 (L. 555 mm)



LIX Model ship, No. 85, before restoration. L. 0.61 m

LX Model ship, No. 85, after restoration. L. 0.61 m



LXI Model cannon and field-carriage, No. 86. L. (overall) 568 mm

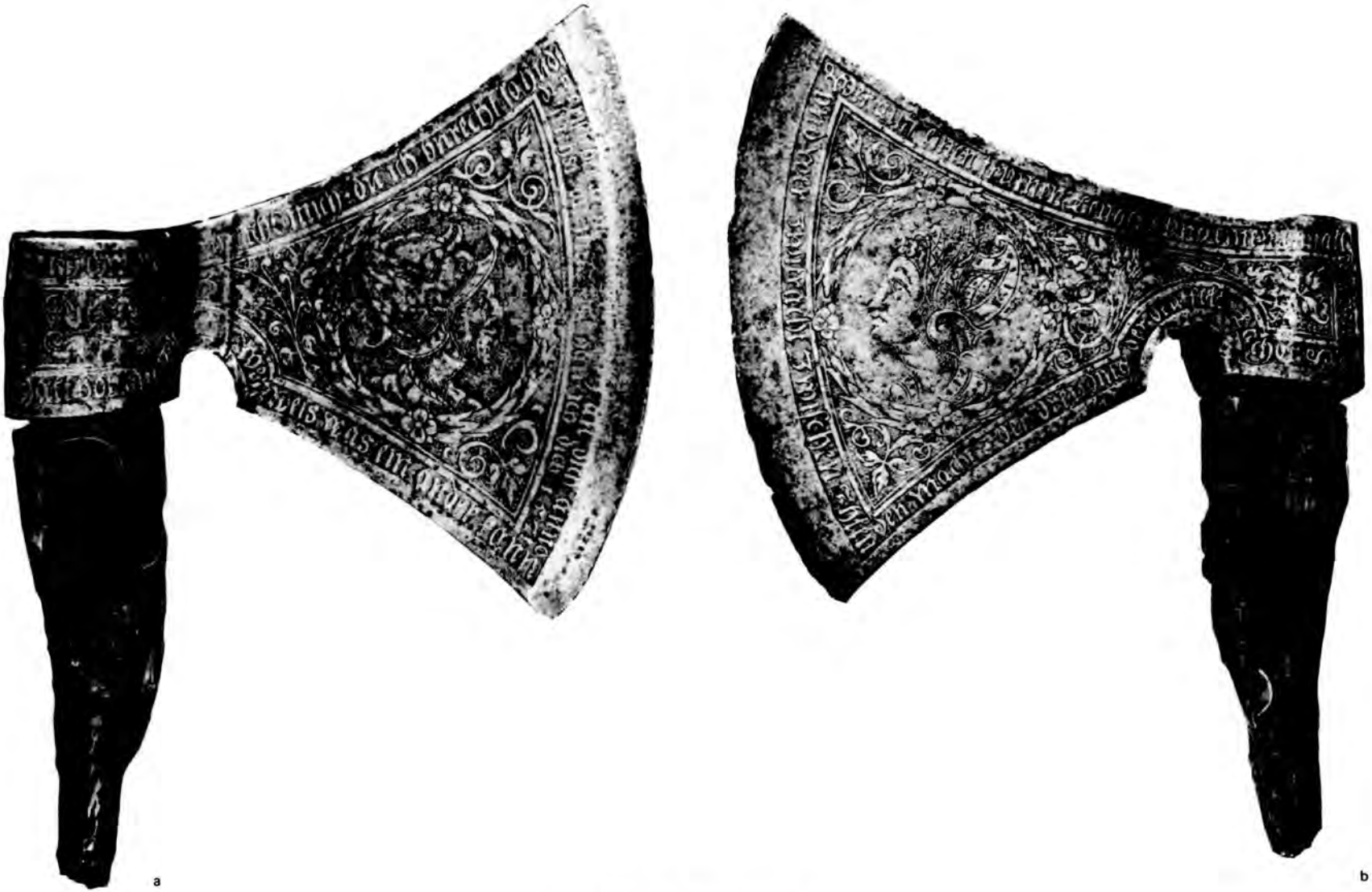
LXII Matchlock musket, No. 87 (L. 1.55 m), and rest, No. 88 (L. 1.18 m)

LXIII Matchlock musket, No. 87: detail of butt and lock

LXIV Barrel of three-barrelled revolving gun, No. 89. L. 369 mm

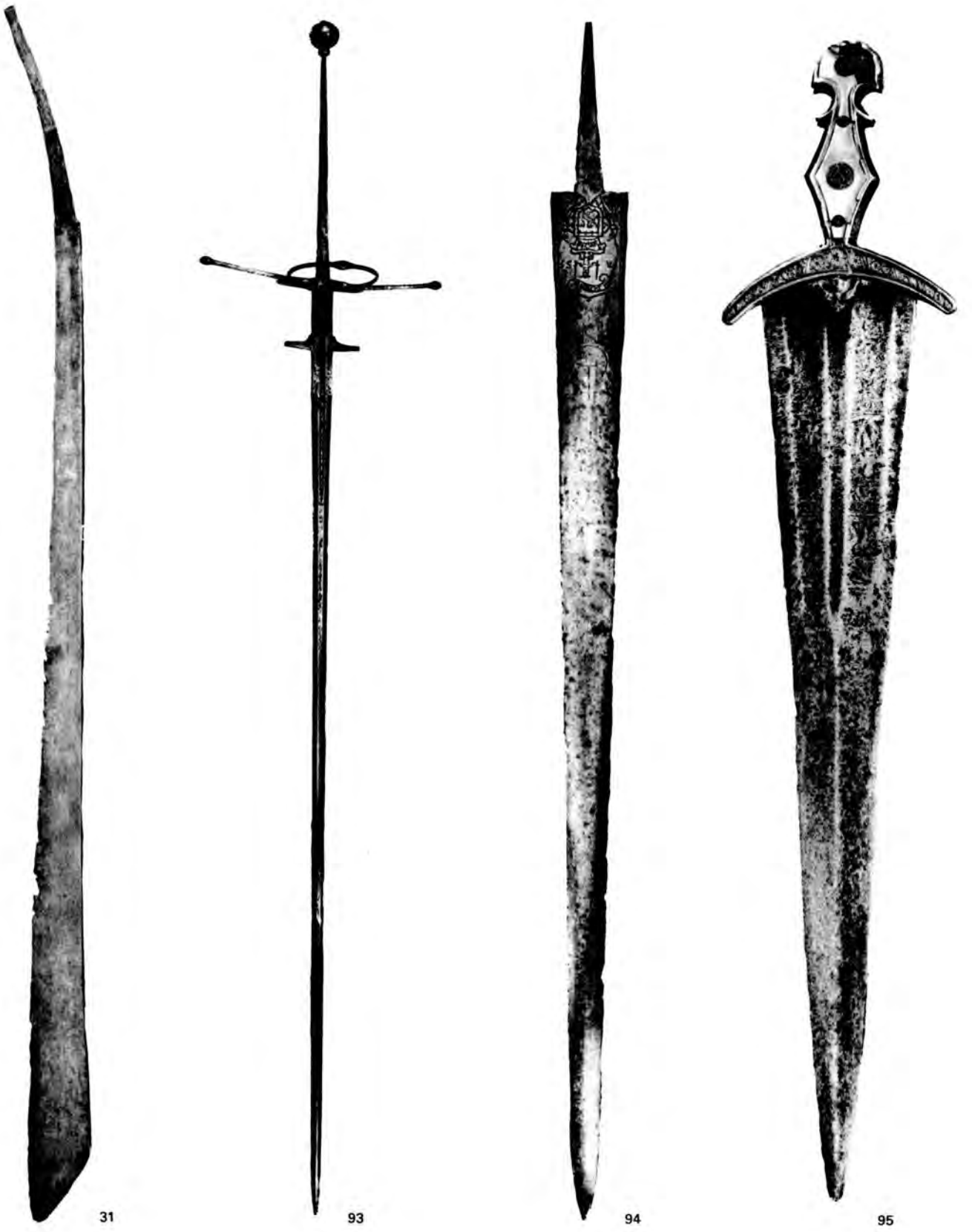
LXV Combined axe-pistol, No. 90. L. 567 mm

LXVI Polleaxe, No. 92. L. 0.7 m



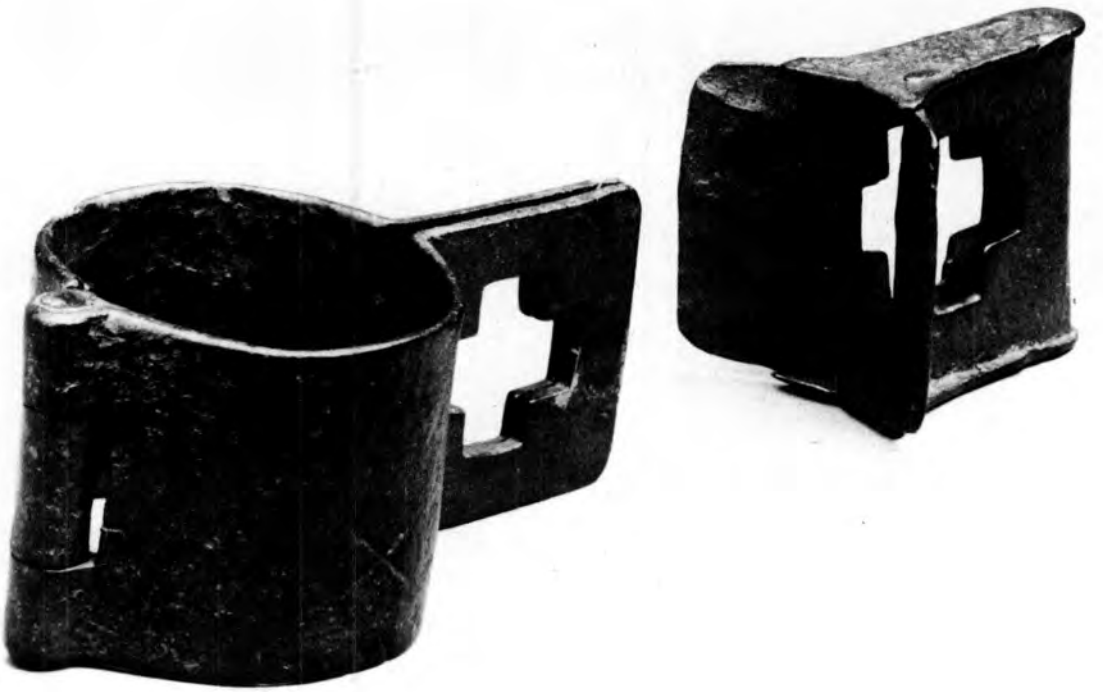
a b

LXVII Axe, No. 91. Depth 202 mm



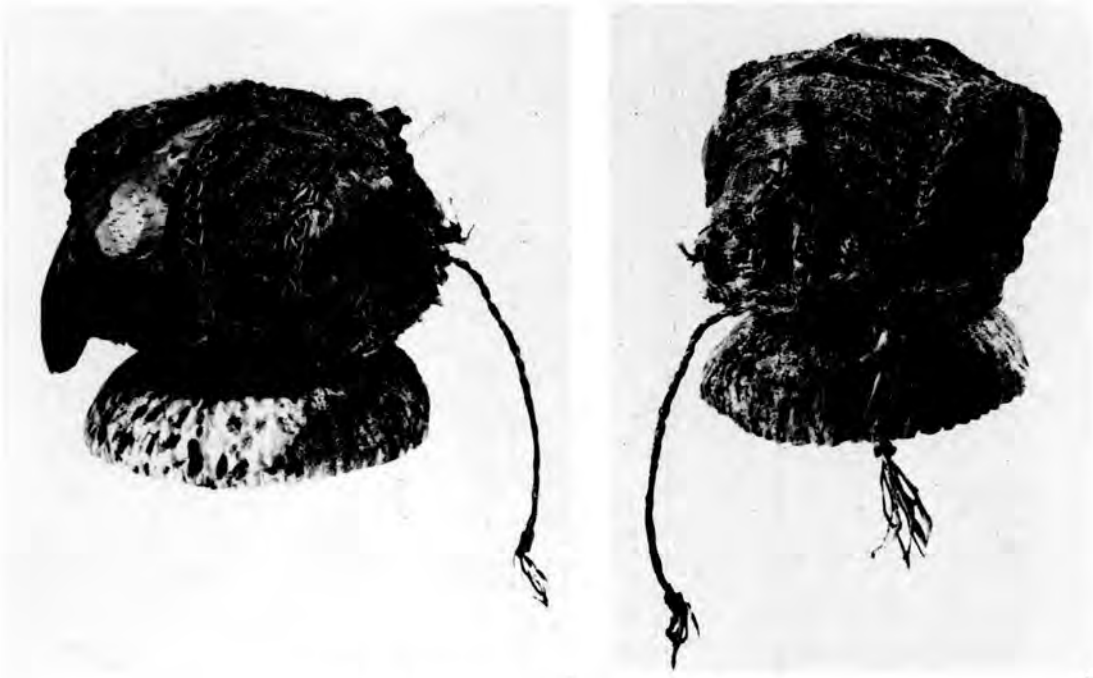
LXVIII Swords: Nos. 31 (L. 0.87 m); 93 (L. 1.73 m); 94 (L. 0.95 m); 95 (L. 0.51 m)

LXIX Powder-flask, No. 100. H. 173 mm



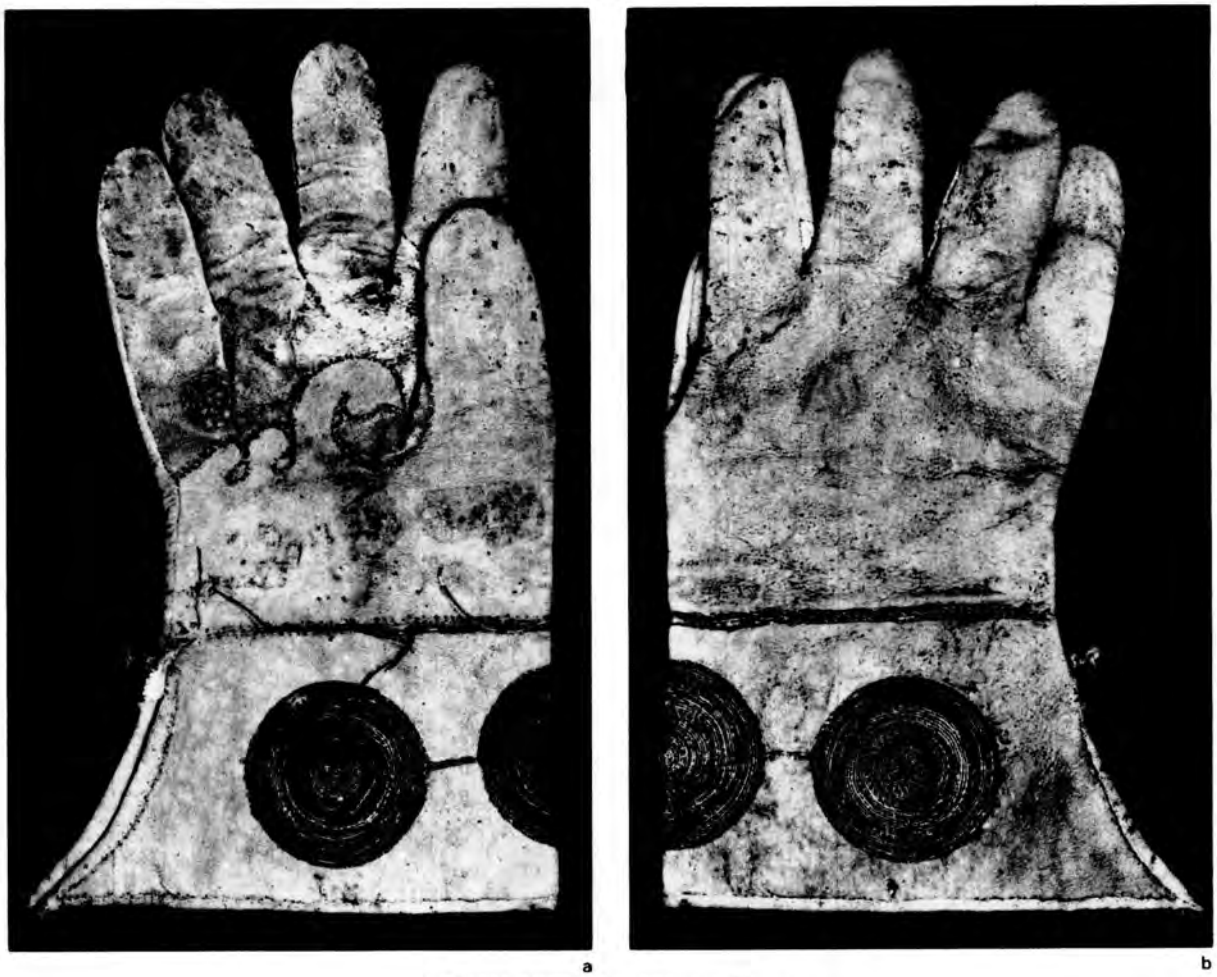
LXX Manacle, No. 101. H. 61 mm

LXXI Chrismatory, No. 208.
H. 140 mm



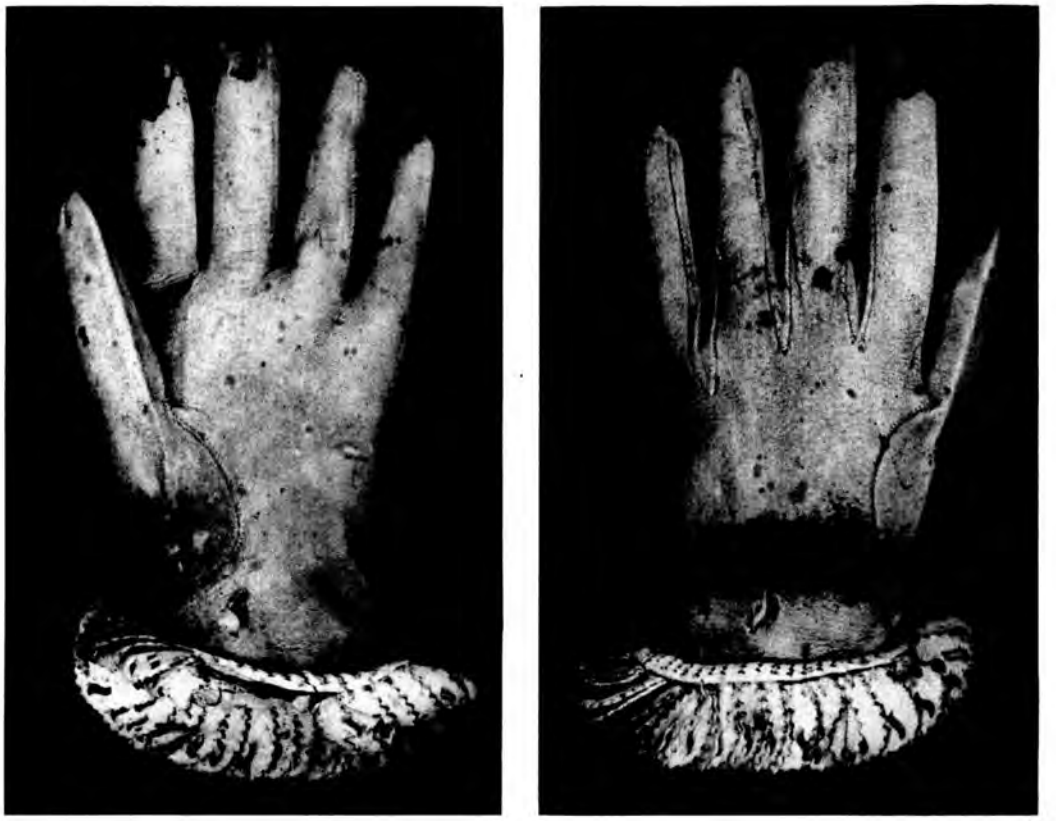
a b

LXXII Hawk's hood, No. 103. H. 38 mm



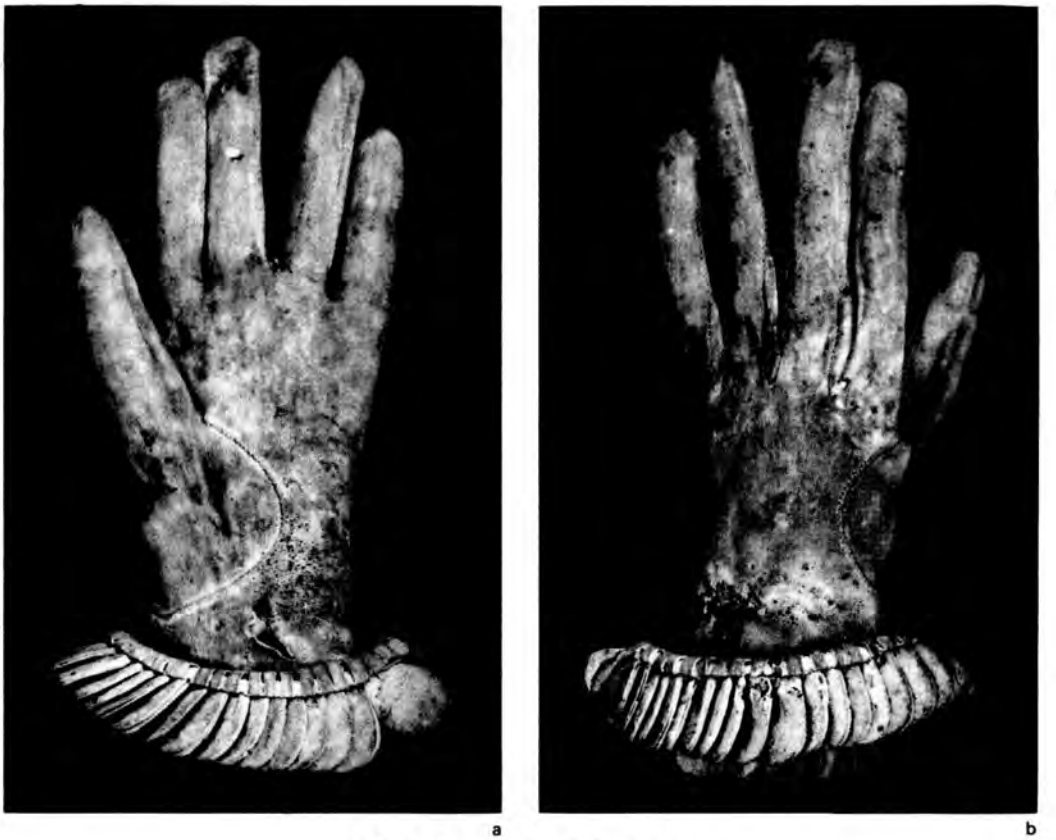
a b

LXXIII Glove, No. 104. L. 285 mm



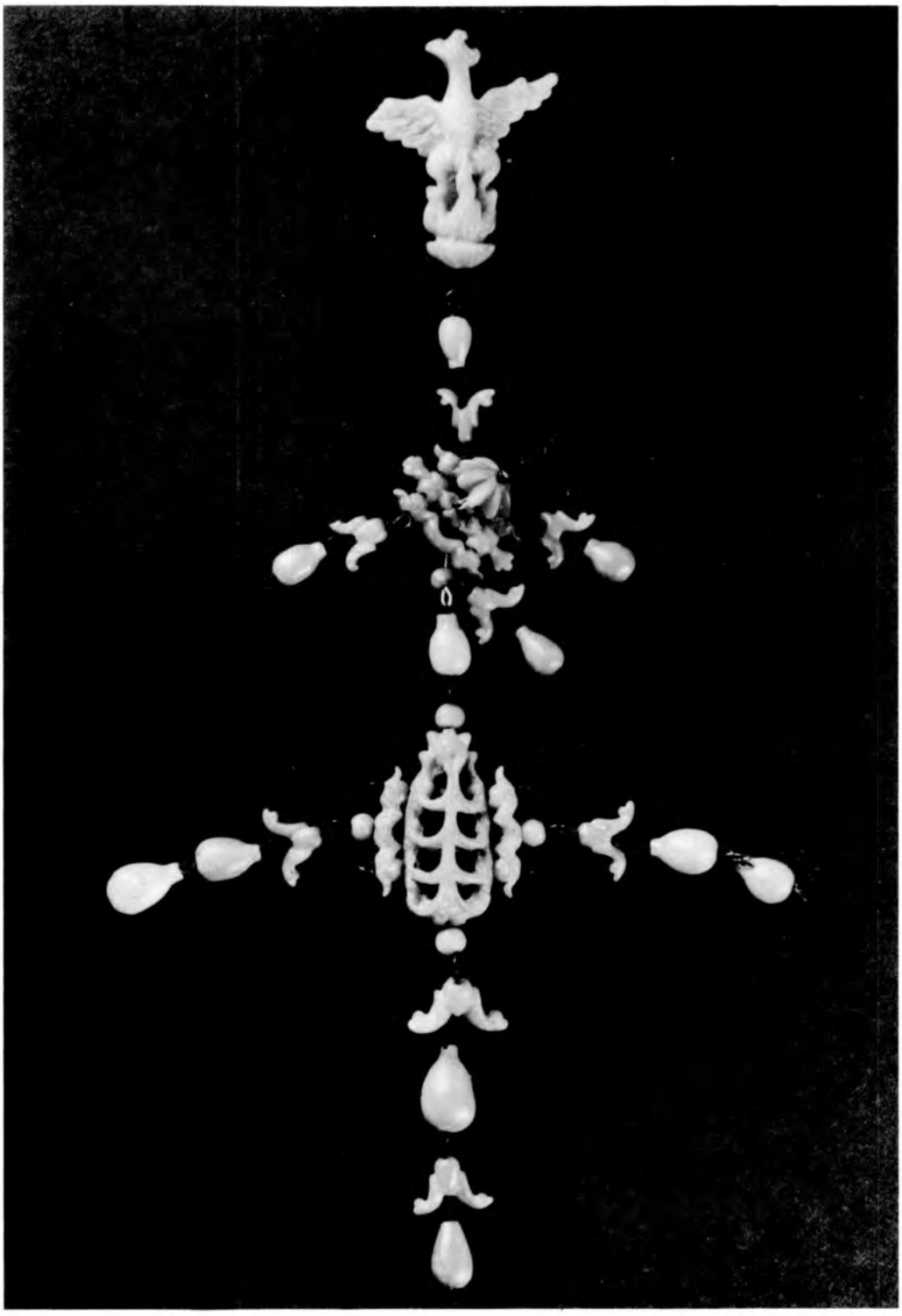
a b

LXXIV Gloves, No. 105. L. 225 mm

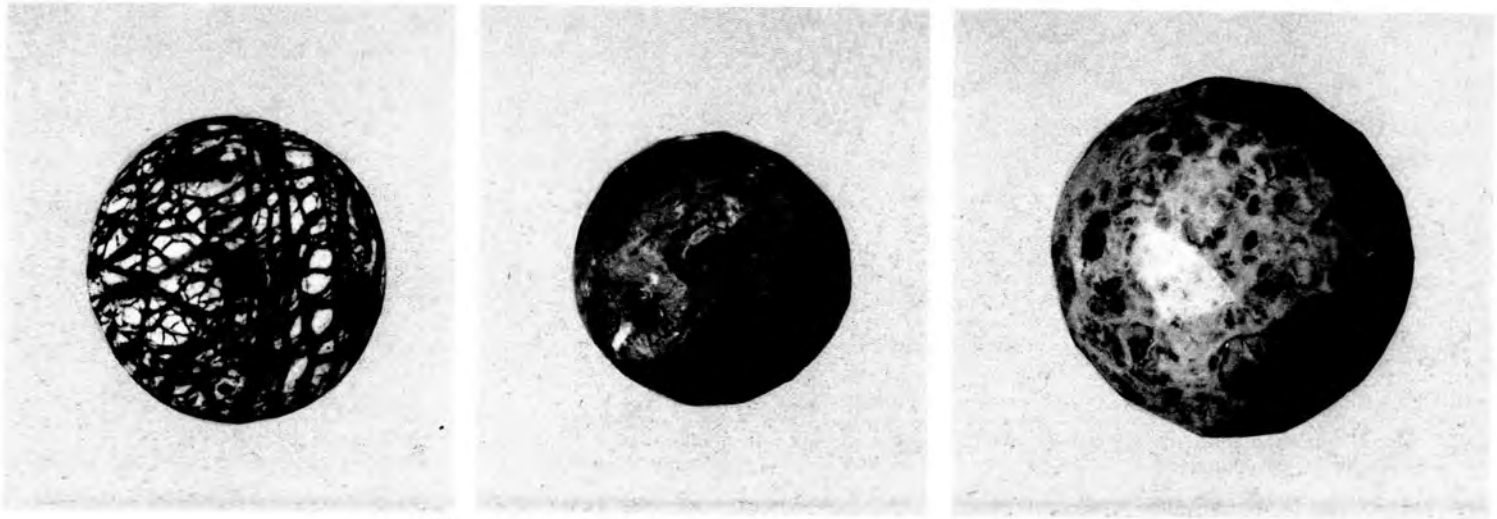


a b

LXXV Glove, No. 106. L. 205 mm

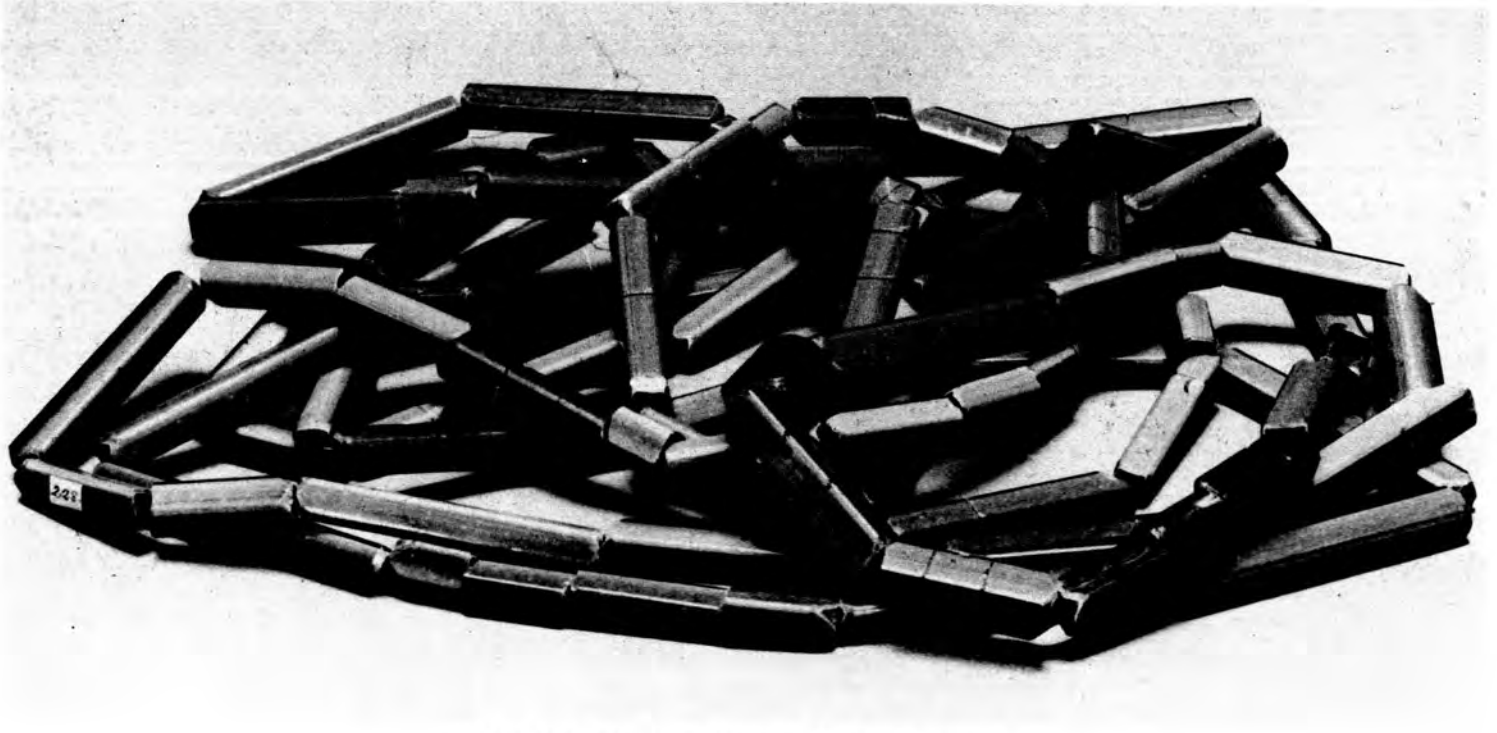


LXXVI Coral ornament, No. 114. L. 150 mm

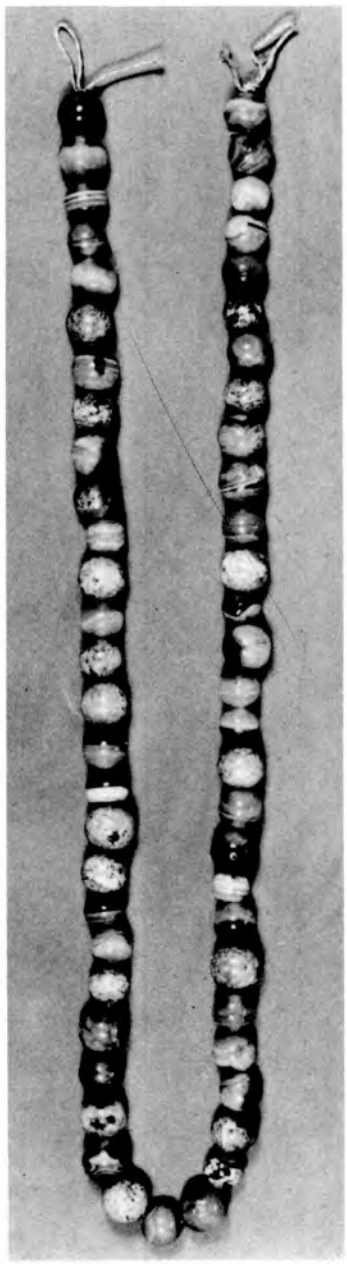


64 115 116

LXXVII Stone beads, Nos. 64 (D. 25 mm); 115 (D. 22 mm); 116 (D. 38 mm)



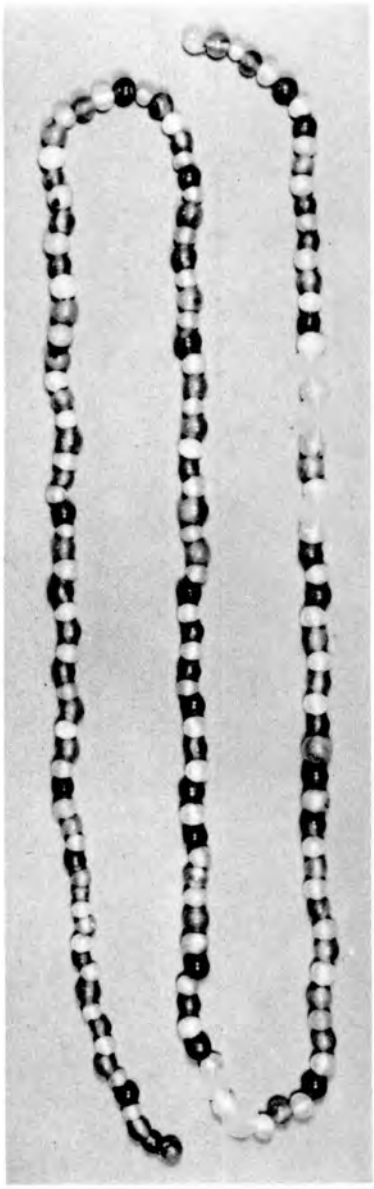
LXXVIII Glass beads, No. 117. L. (beads) *c.*60 mm



65

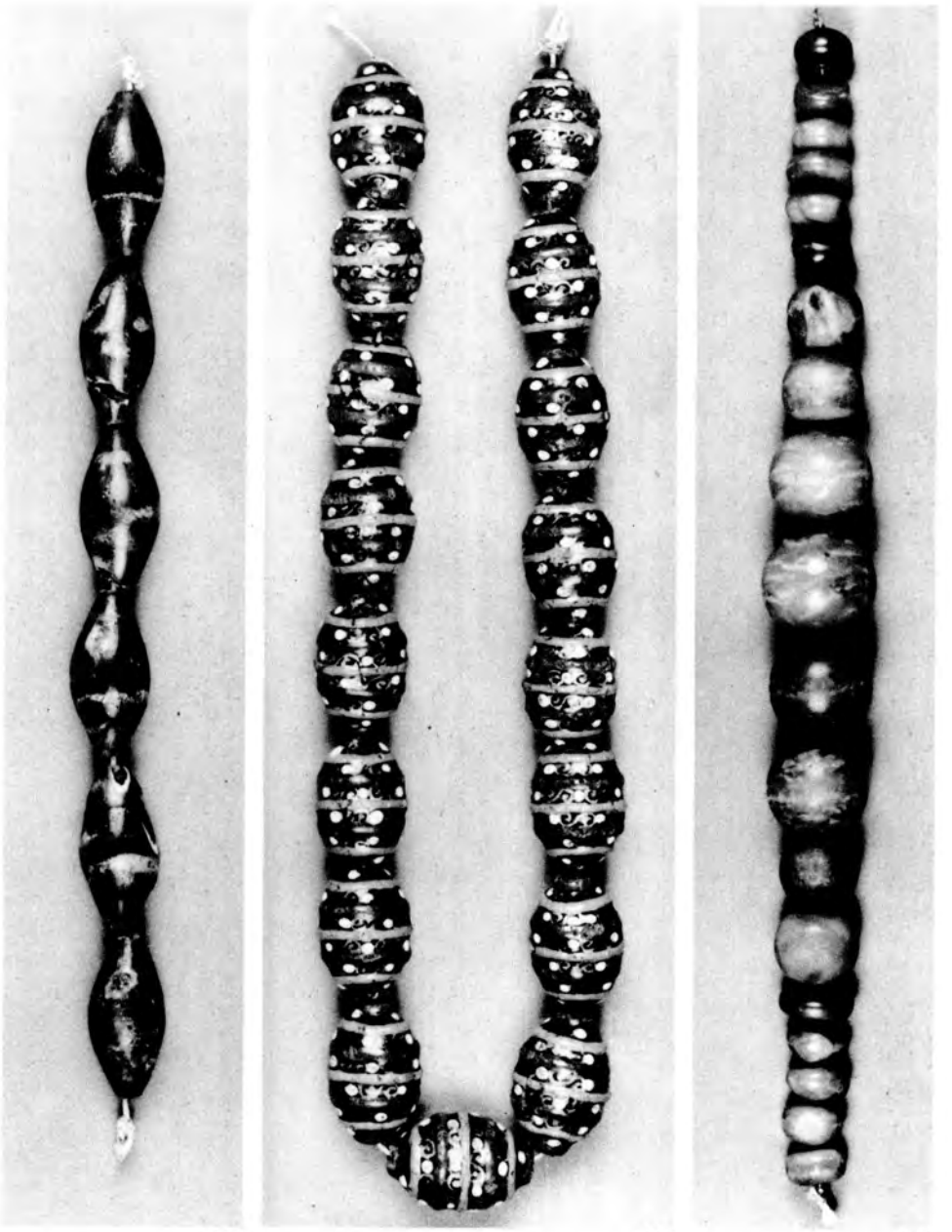
66

67



68

LXXIX Stone beads, Nos. 65 (D. beads 12 mm); 66 (D. beads 14 mm); 67 (D. beads 12 mm); 68 (D. beads 11 mm)



118 119 120

LXXX Beads of glass, Nos. 118 (D. 12 mm); 119 (D. 15 mm); and of amber, No. 120 (D. (max) 32 mm)

121 122 123

LXXXI Rosaries, Nos. 121 (L. 420 mm); 122 (L. 400 mm); 123 (L. 90 mm)

63

124

125

128

126

127

129

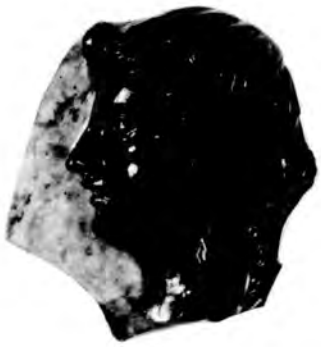
130

131

132

LXXXII Rings, Nos. 63, 129; ringstones, Nos. 124–7; hoop, No. 128; medallions, Nos. 130–2. Scale c.1:2

2:1



133

134

135

136

137

138

139

140

141

142

143

144

145

146

147

LXXXIII Medallions, Nos. 133–47. Scale *c.*1:2

2:1

148

149

150

151

152

153

154

155

156

157

158

159

160

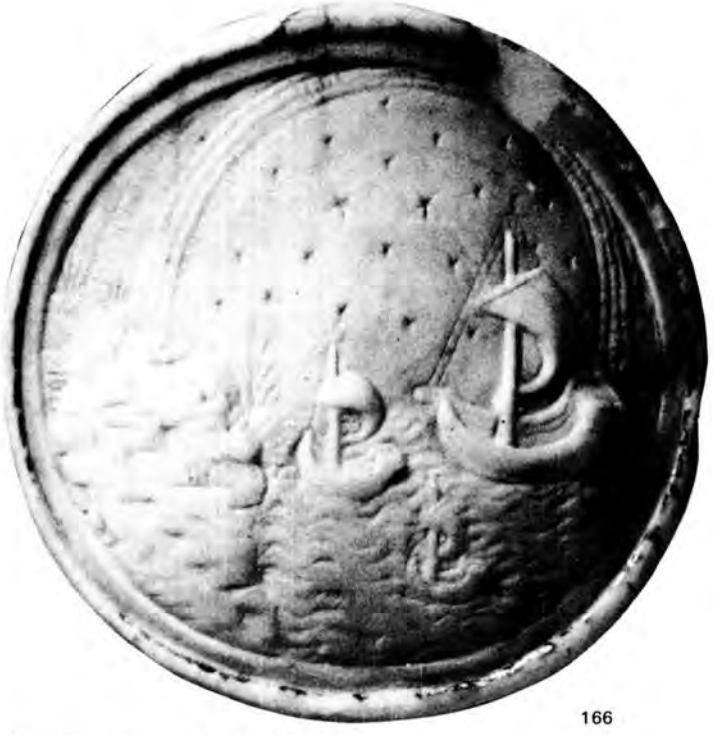
161

162

163

164

165



166

LXXXIV Medallions, Nos. 148–66. Scale *c.*1:2

2:1

167

168

169

170

171

172

173

174

175

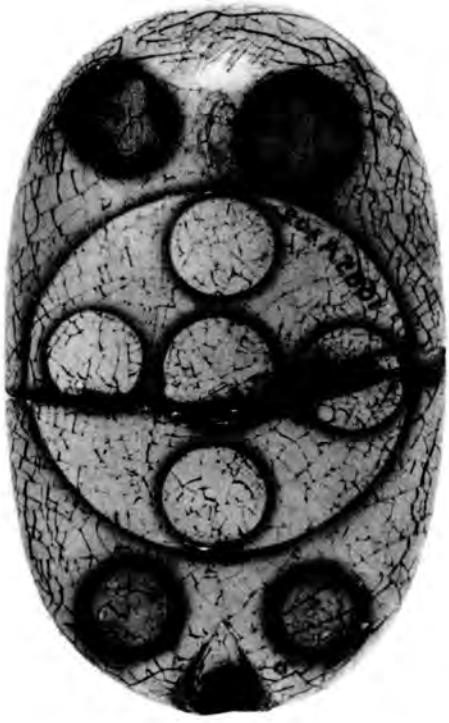
176

LXXXV Medallions, Nos. 167–76. Scale ~~c.1:2~~ 2:1

177

178

179



180

181

182

185

183

184

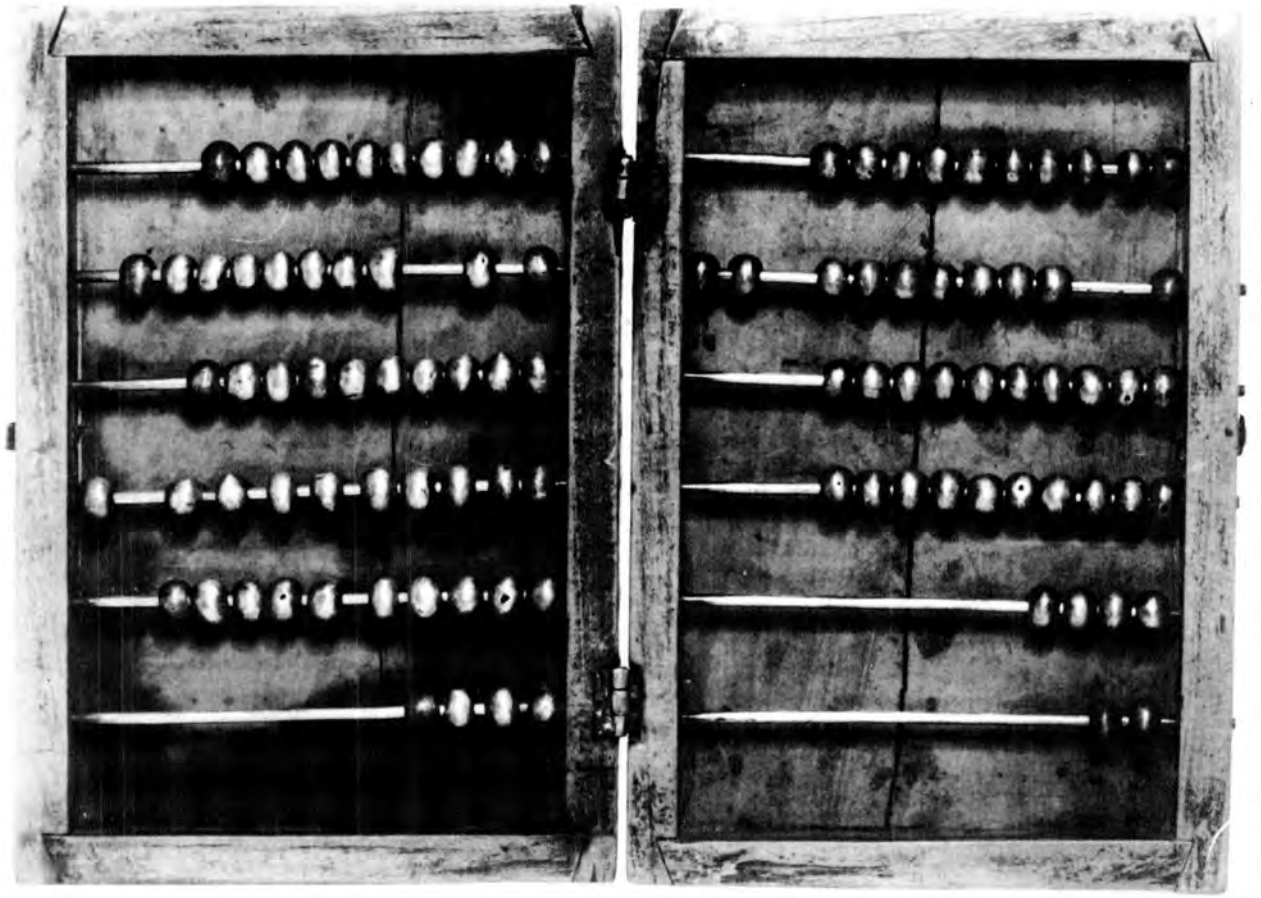
186

LXXXVI Amber (Nos. 177–80), fruit-stone (Nos. 181–4), and wood (Nos. 185–6) carvings. Scale c. 1:2

2:1

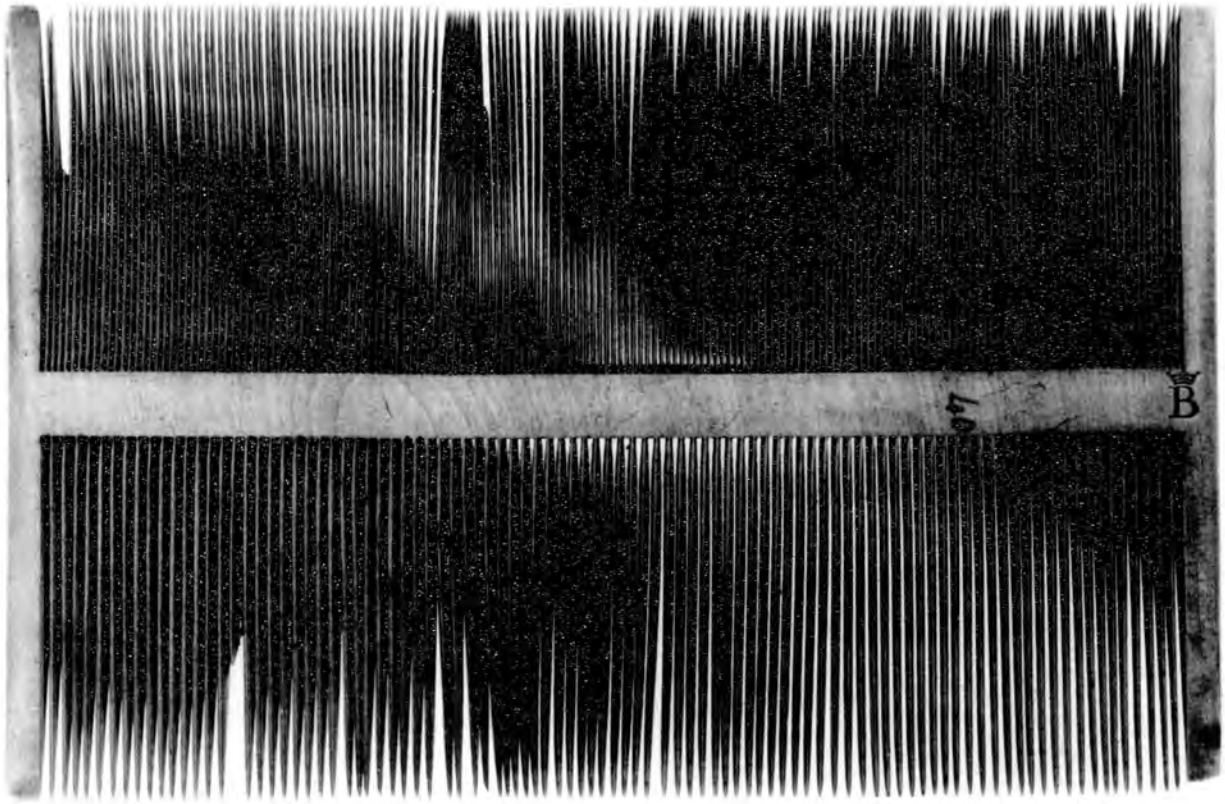
LXXXVII (*right*) Wax plaque, No. 187.
H. 70 mm

LXXXVIII (*below*) Box of counters, No. 188.
H. (counters) 15.5 mm

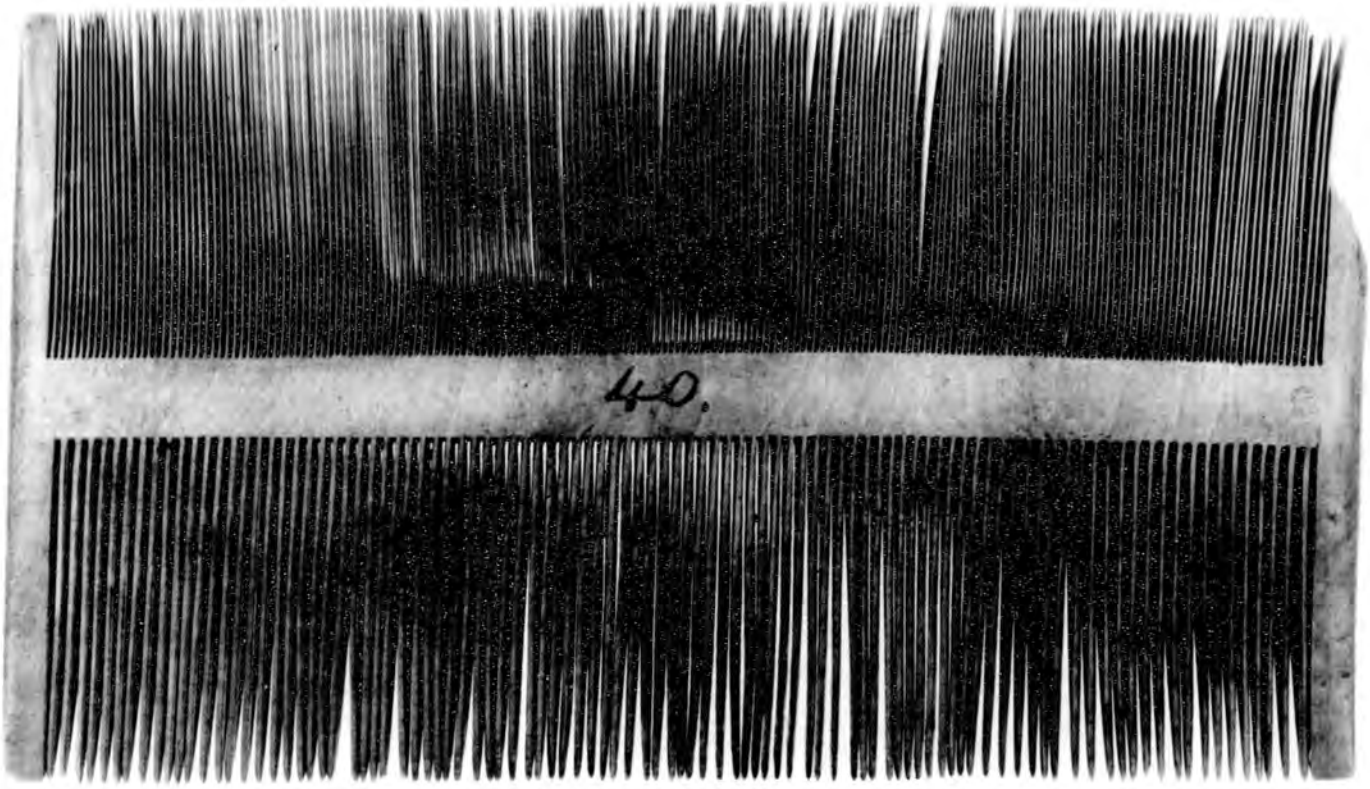


LXXXIX Bead calculator, No. 193. H. 97 mm

XC Runic almanac, No. 194. L. 105 mm



XCI Comb, No. 195. L. 212 mm



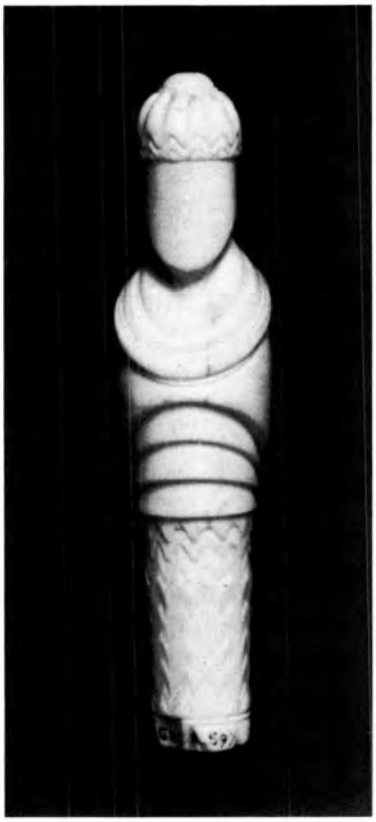
XCII Comb, No. 196. L. 267 mm

200

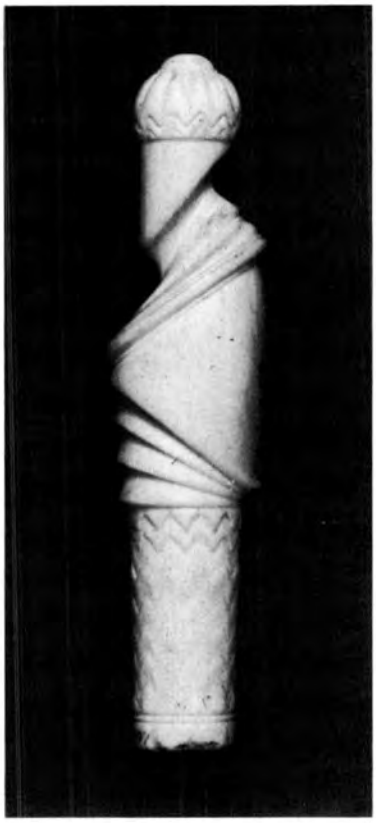
201

202

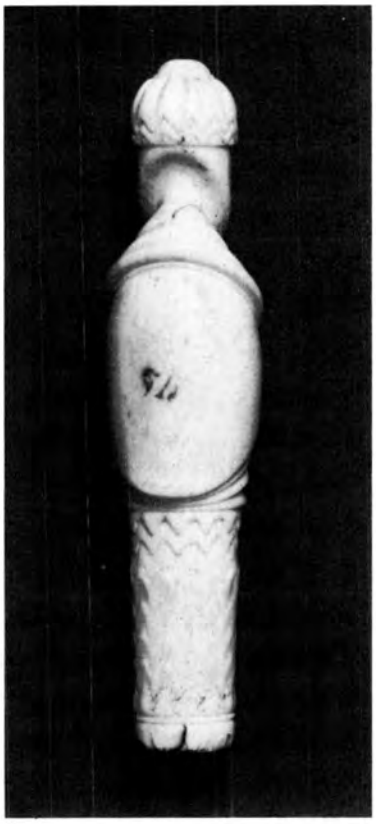
XCIII Knife handles, Nos. 200 (L. 87 mm); 201 (L. 65 mm); 202 (L. 45 mm)



a

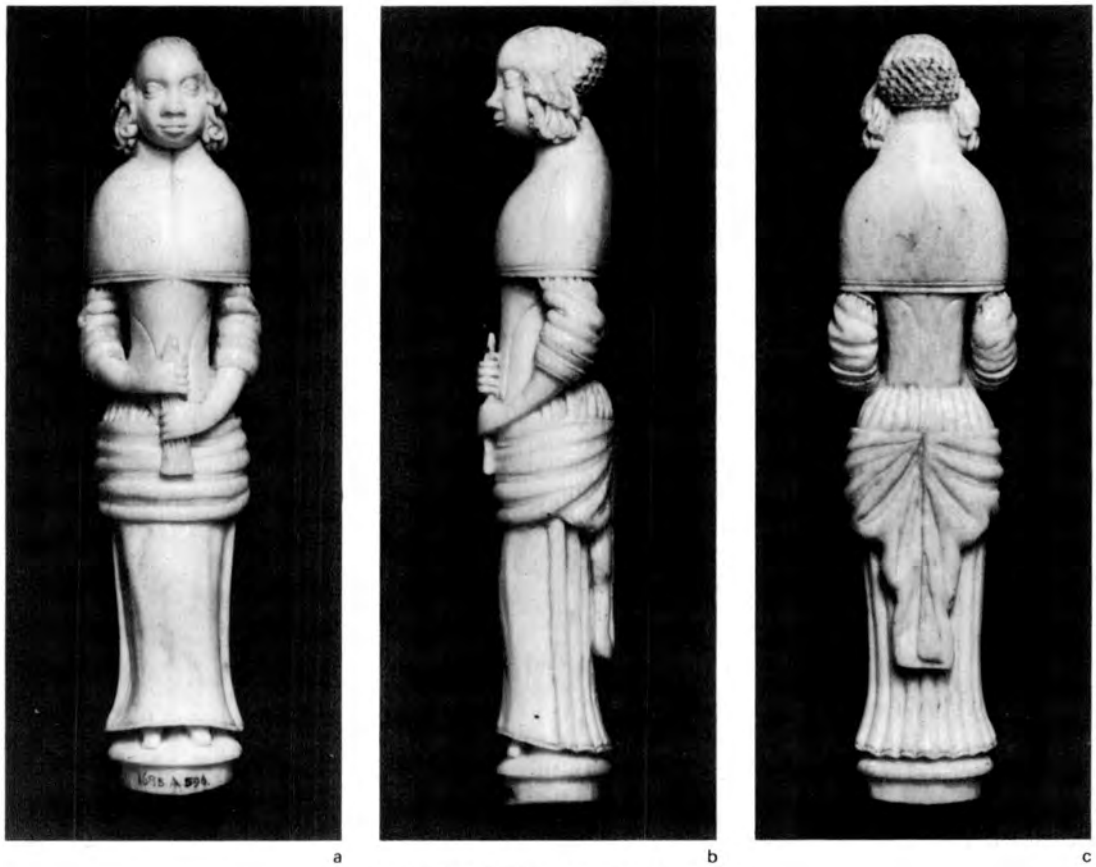


b



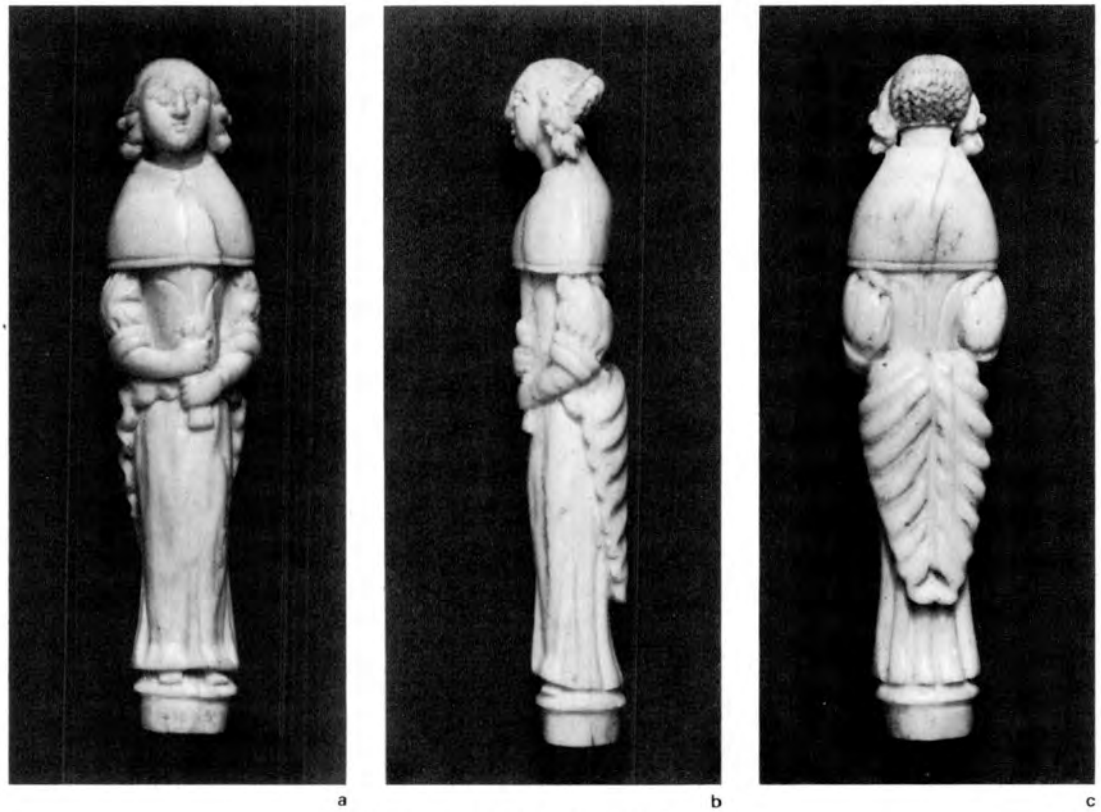
c

XCIV Knife handle, No. 203. L. 73 mm



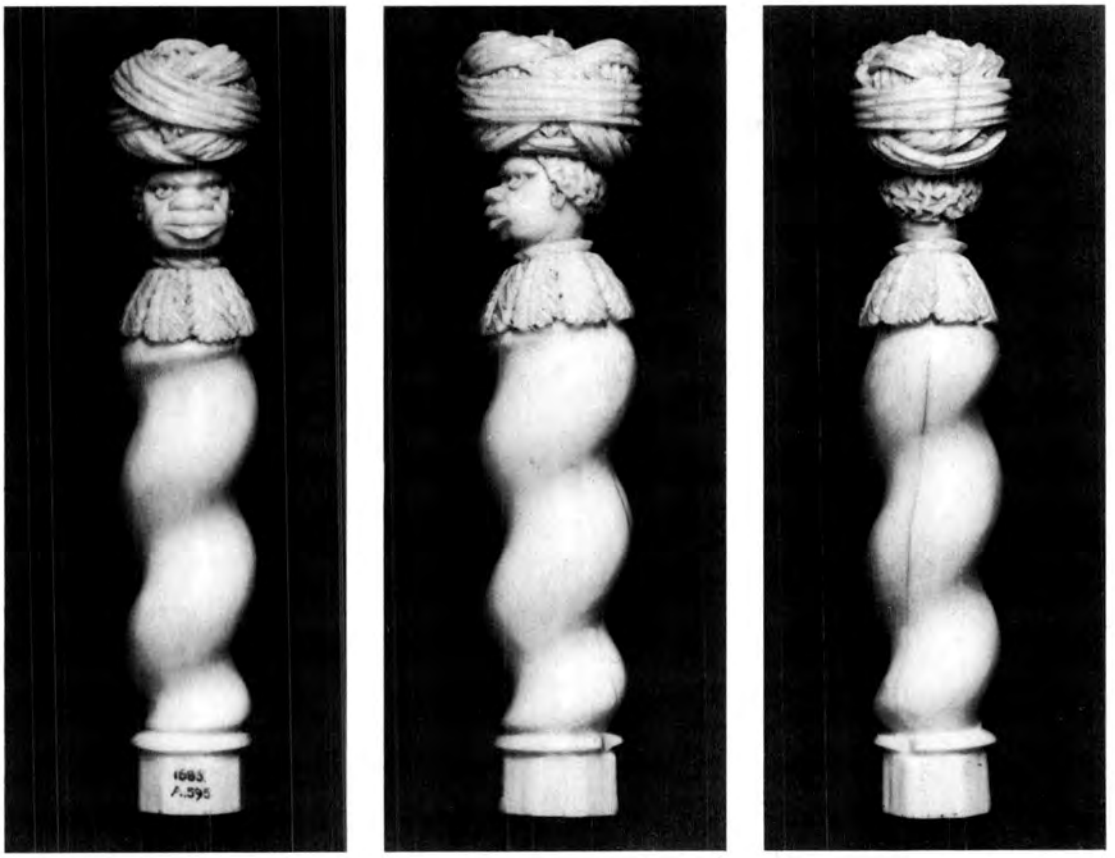
a b c

XCV Knife handle, No. 204. L. 91 mm



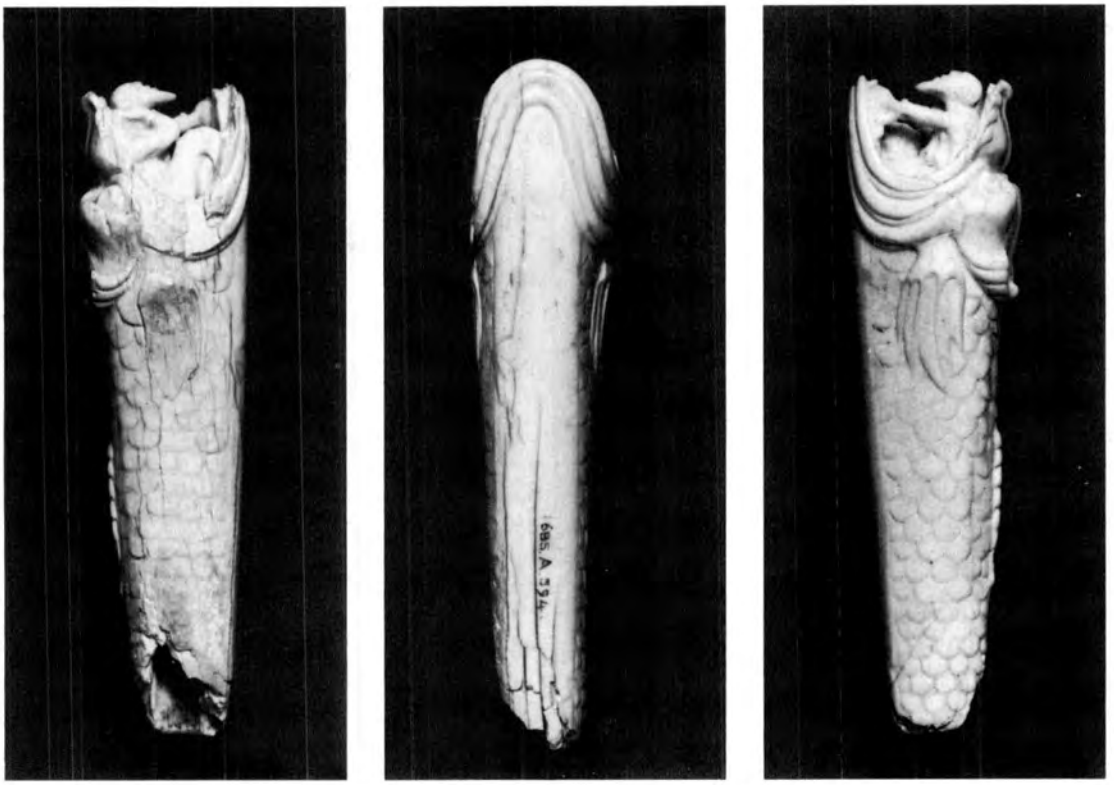
a b c

XCVI Knife handle, No. 205. L. 81 mm



a b c

XCVII Knife handle, No. 206. L. 90 mm



a b c

XCVIII Knife handle, No. 207. L. 78 mm

XCIX Lantern, No. 209. H. 286 mm

C Cradle, No. 210. L. 1.05 m

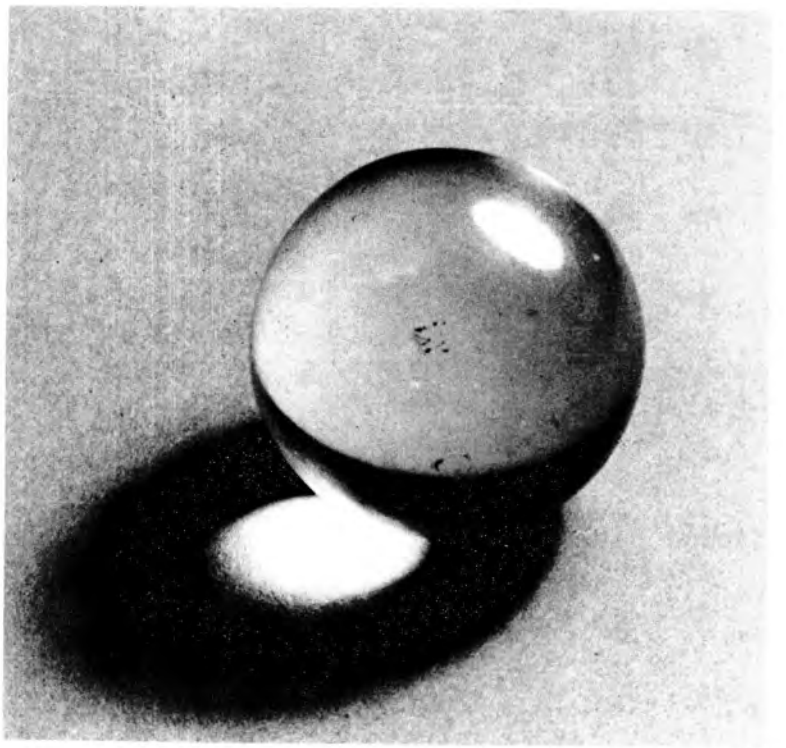
214

215

216

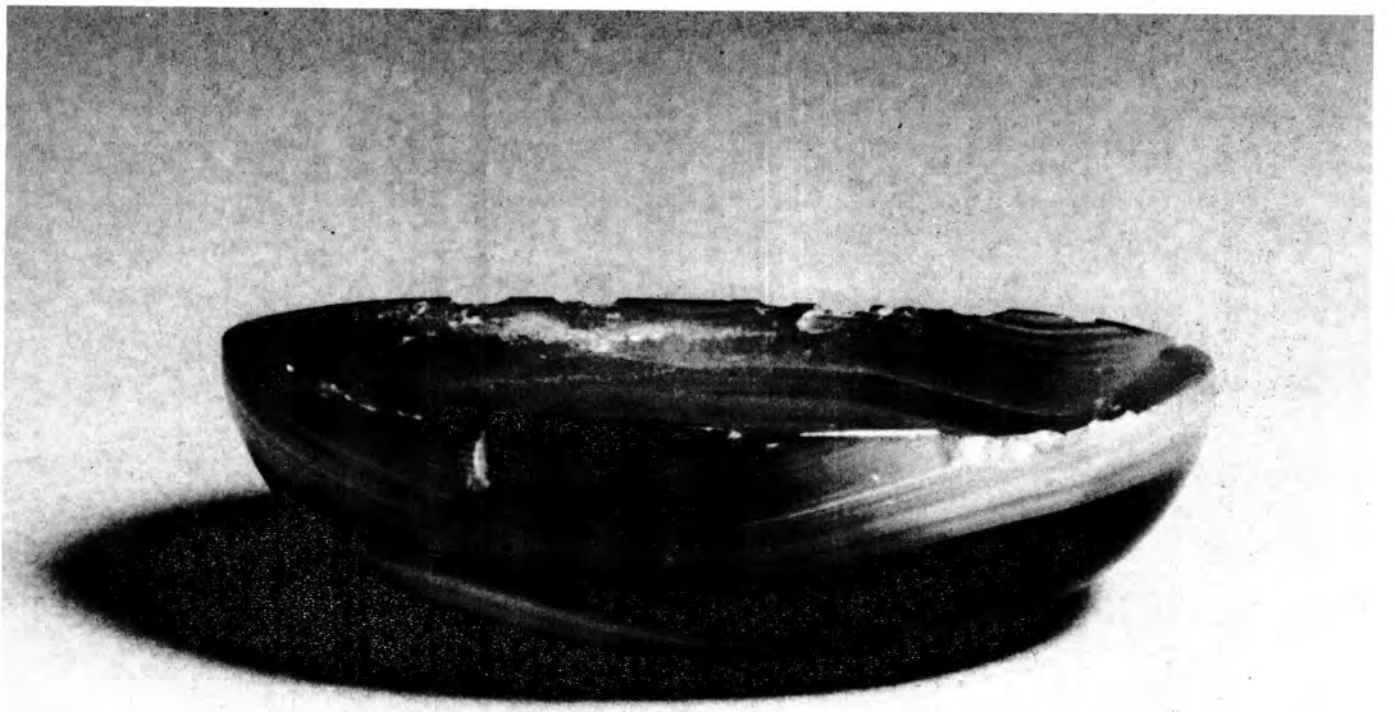
CI Dishes, Nos. 214 (L. 193 mm); 215 (L. 198 mm); 216 (L. 198 mm)

191

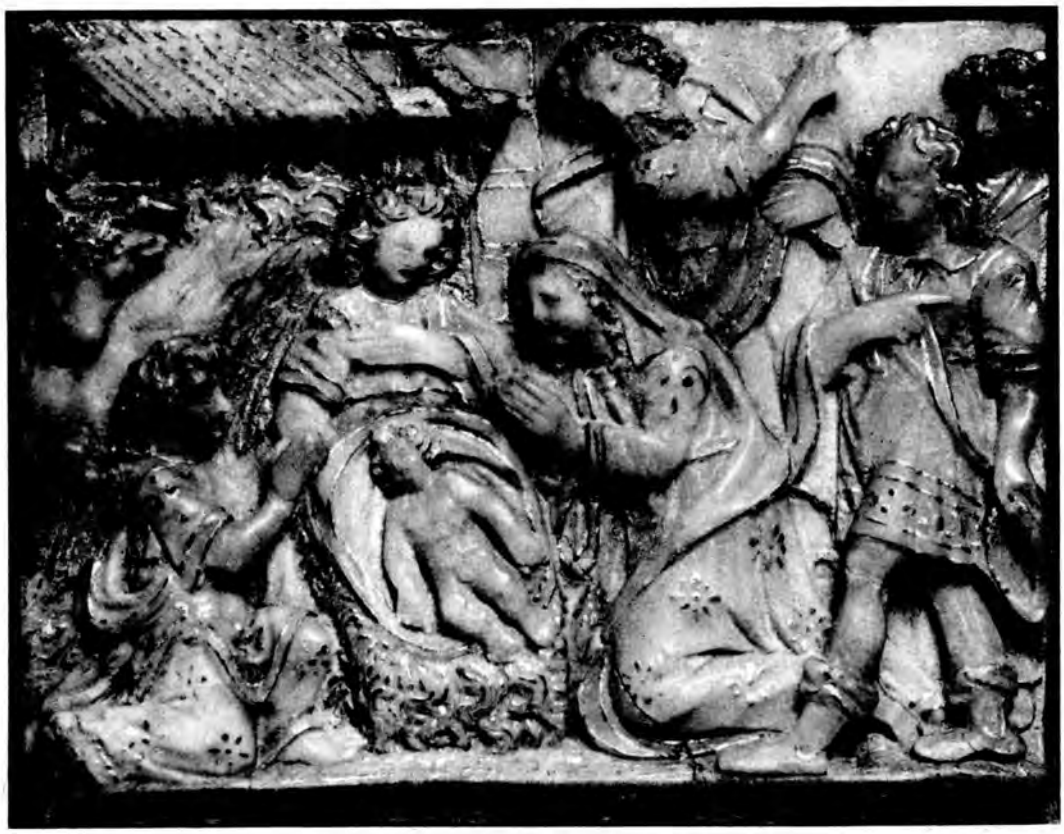


192

CII Jasper heart, No. 191 (L. 28 mm), and crystal ball, No. 192 (D. 38.5 mm)



CIII Agate bowl, No. 217. L. 52.5 mm



CIV Alabaster panel, No. 218. H. 93 mm

CV Alabaster panel, No. 219. H. 93 mm

CVI Alabaster panel, No. 220. H. 122 mm

CVII Alabaster panel, No. 221. H. 119 mm

CVIII Alabaster panel, No. 222. H. 410 mm

CIX Alabaster panel, No. 223. H. 535 mm

CX Alabaster panel, No. 224. H. (panel) 251 mm

CXI Wooden panel, No. 225. H. (frame) 355 mm

CXII Wooden figure, No. 226. H. 410 mm

CXIII Wooden figure, No. 227. H. 510 mm

a b

CXIV Carved cross, No. 228. H. 53.5 mm

a b

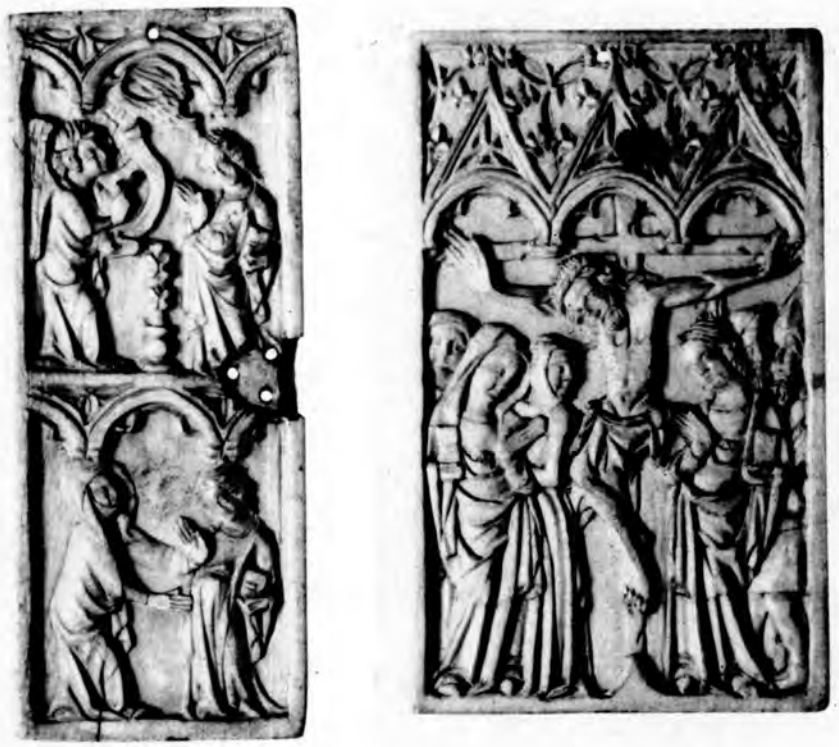
CXV Carved cross, No. 229. H. 74 mm

230 231

CXVI Ivory statuette, No. 230 (L. 72 mm), and mirror-case, No. 231 (H. 90 mm)

232 233

CXVII Ivory diptychs, Nos. 232 (H. 110 mm), and 233 (H. 120 mm)

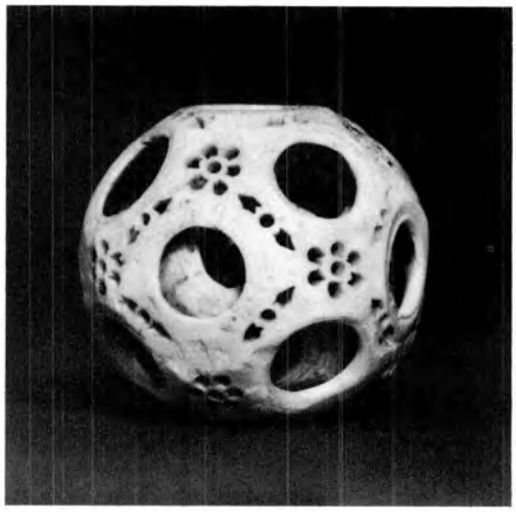


234 235

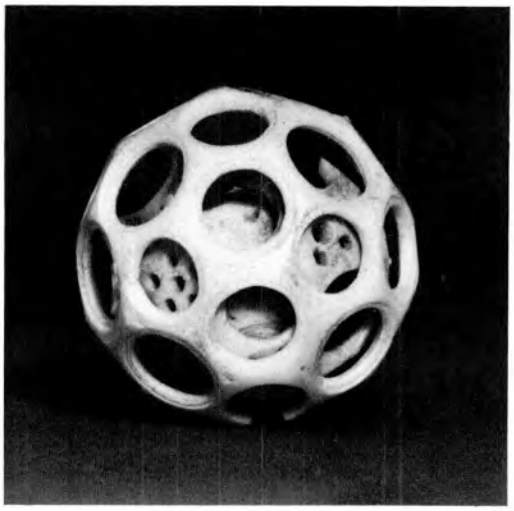
CXVIII Writing-tablets, Nos. 234 (H. 97 mm), and 235 (H. 92 mm)

237 238

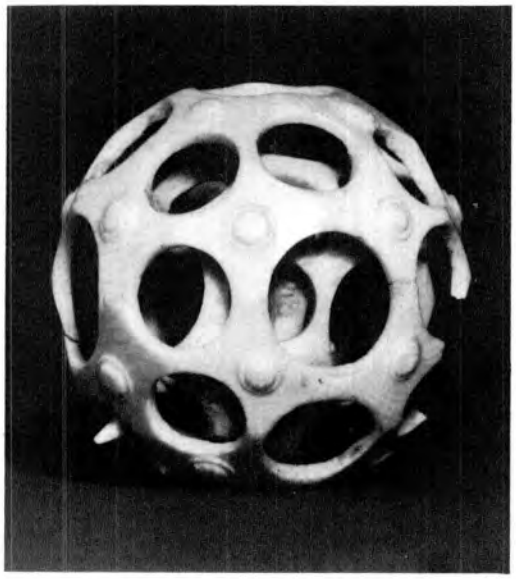
CXIX Tablemen, Nos. 237 (D. 64 mm), and 238 (D. 61 mm)



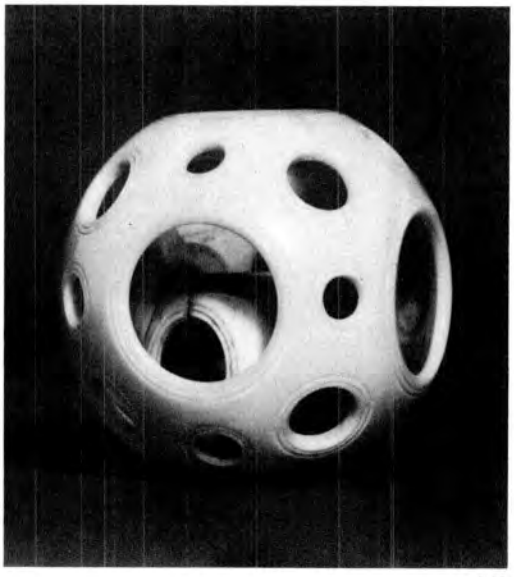
239



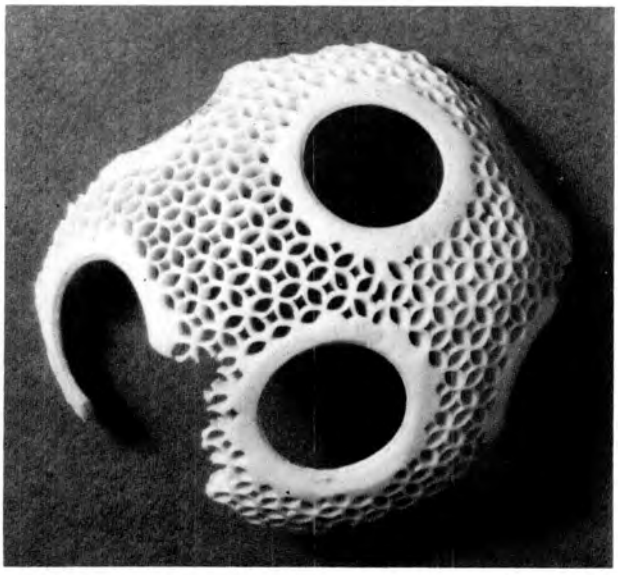
240



241



242



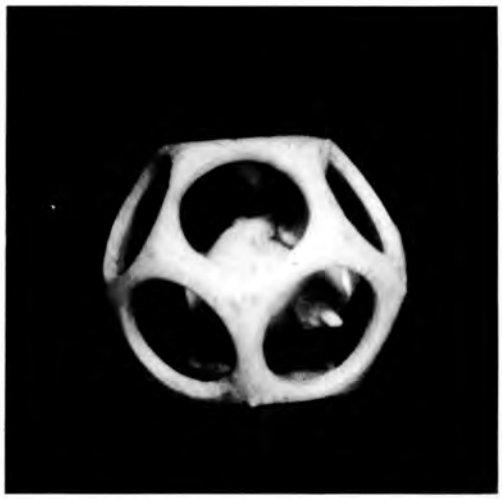
243

CXX Multiple balls, Nos. 239–43 (for dimensions see text)

244

245

246



247

248

CXXI Multiple dodecahedra, Nos. 244–8 (for dimensions see text)

249

250

251

252

CXXII Miniature portraits, Nos. 249–52

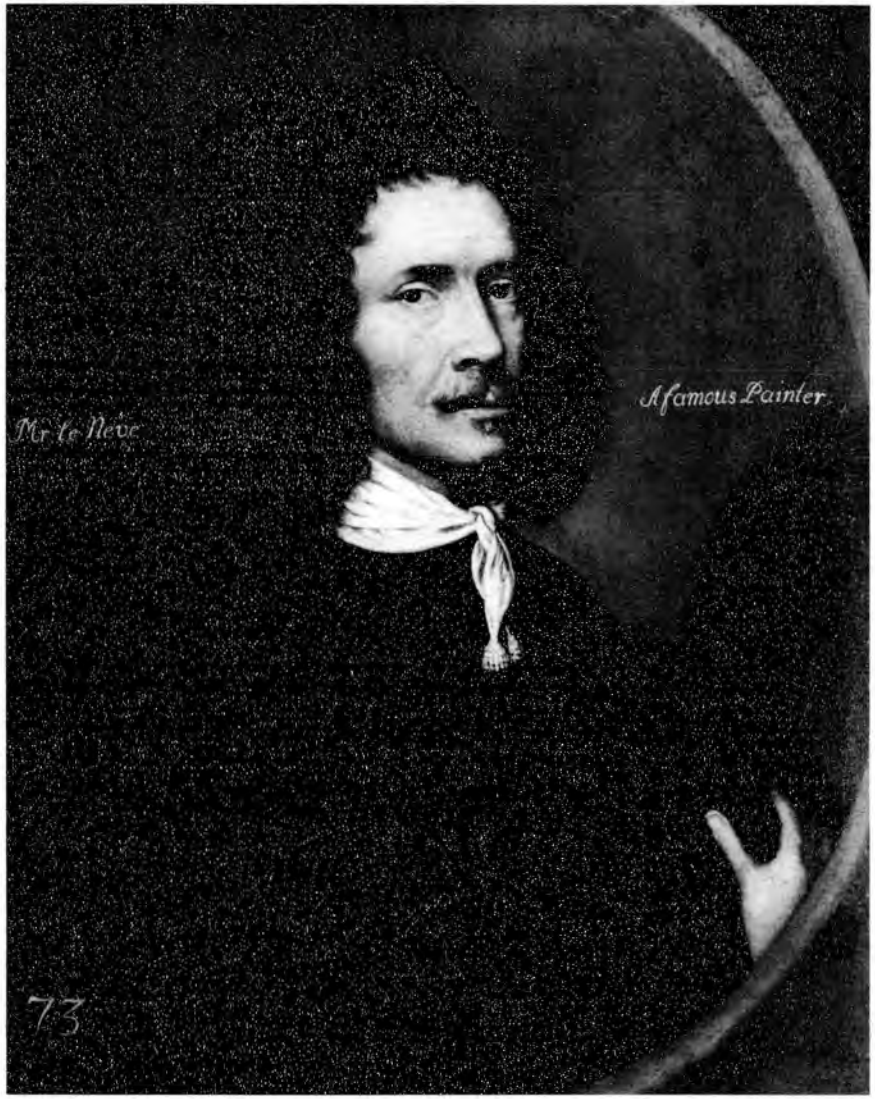
CXXIII John Tradescant the Elder, No. 253

CXXIV Landscape, No. 254

CXXV Erasmus, No. 255

CXXVI John Selden, No. 256

CXXVII Lady Molyneux, No. 257

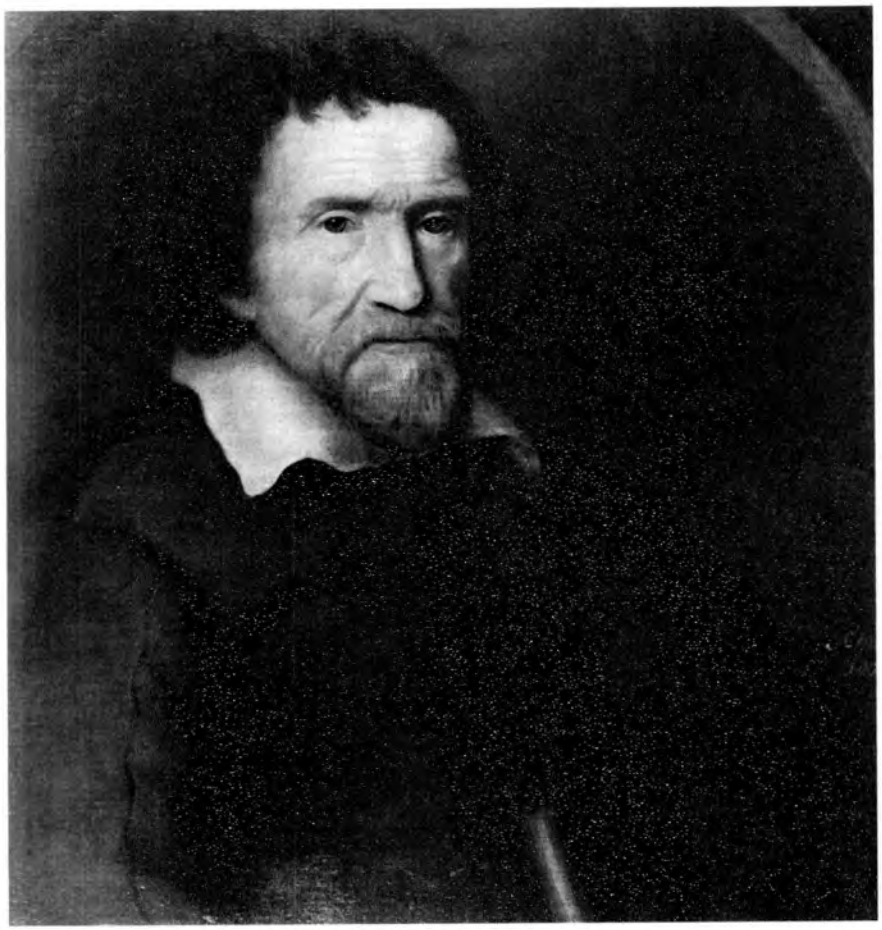


CXXVIII Cornelis de Neve, No. 258

CXXIX Oliver de Critz, No. 259

CXXX John Tradescant the Elder, No. 260

CXXXI Hester Tradescant, No. 261



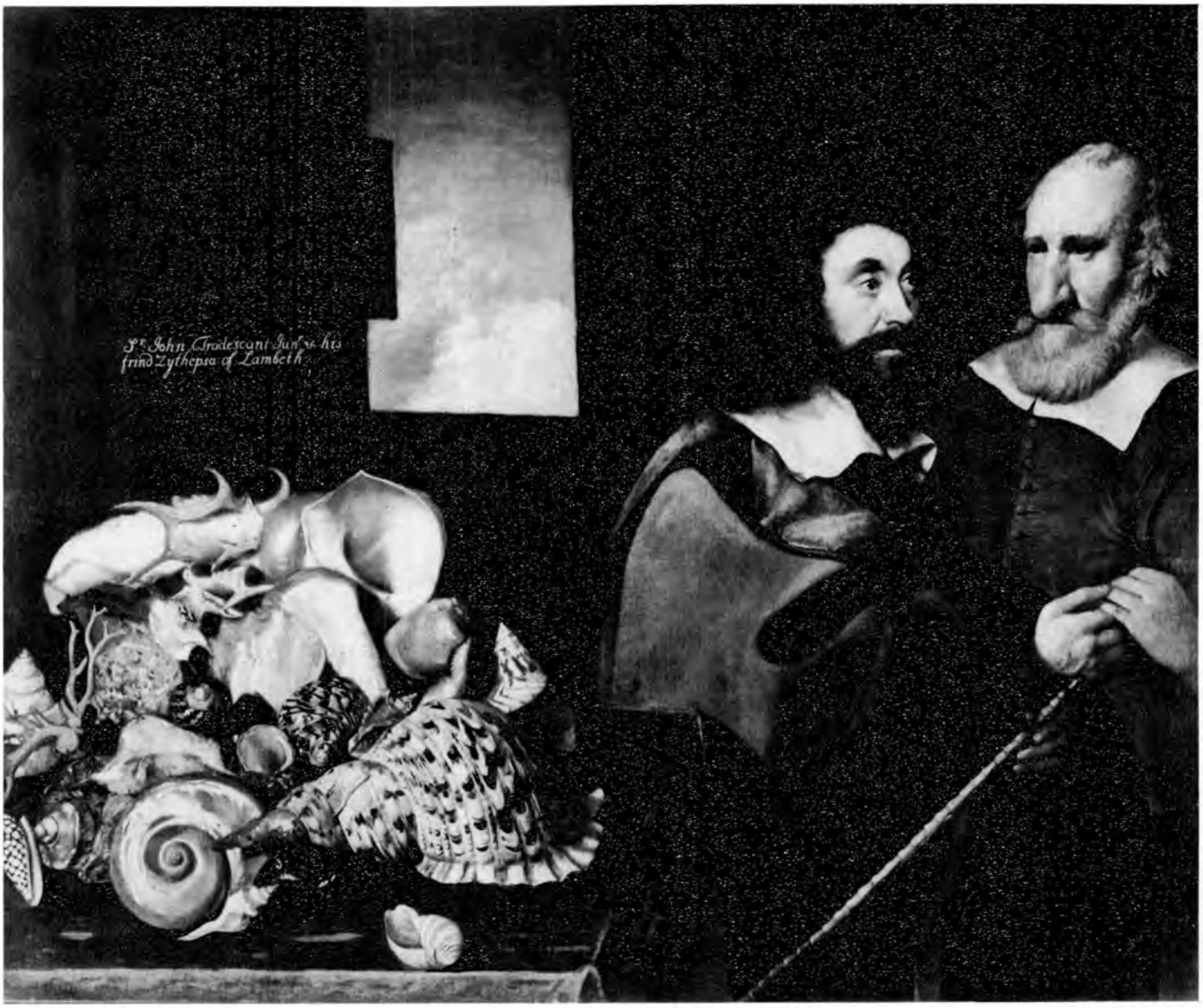
CXXXII (*above*) John Tradescant the Younger with Hester Tradescant, No. 262

CXXXIII (*right*) Robert Montgomery, No. 264

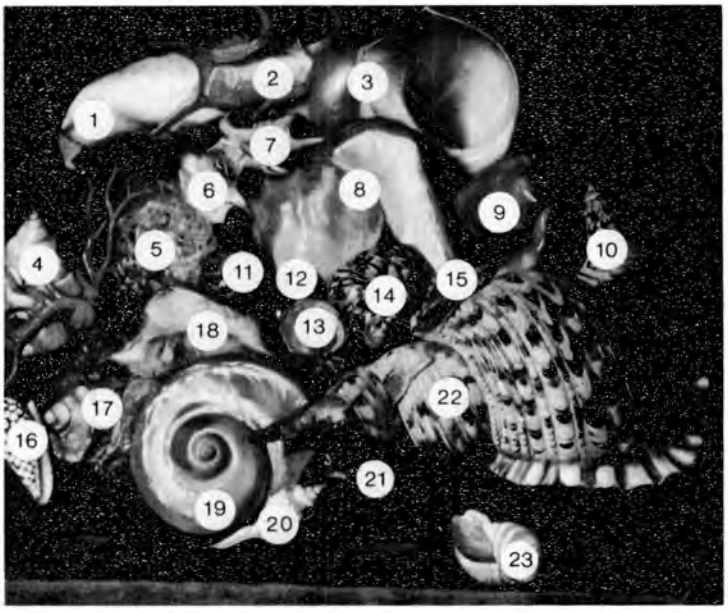
a

b

CXXXIV a, Siege and Battle of Pavia, No. 263; b, with key (see pp. 318–26)



a



b

CXXXV a, John Tradescant the Younger with Roger Friend, No. 265; b, with key (see p. 326)

CXXXVI Thomas Howard, Earl of Arundel, No. 266

CXXXVII Thomas Howard, later fifth Duke of Norfolk, when a boy, No. 267

CXXXVIII King Charles I, No. 268

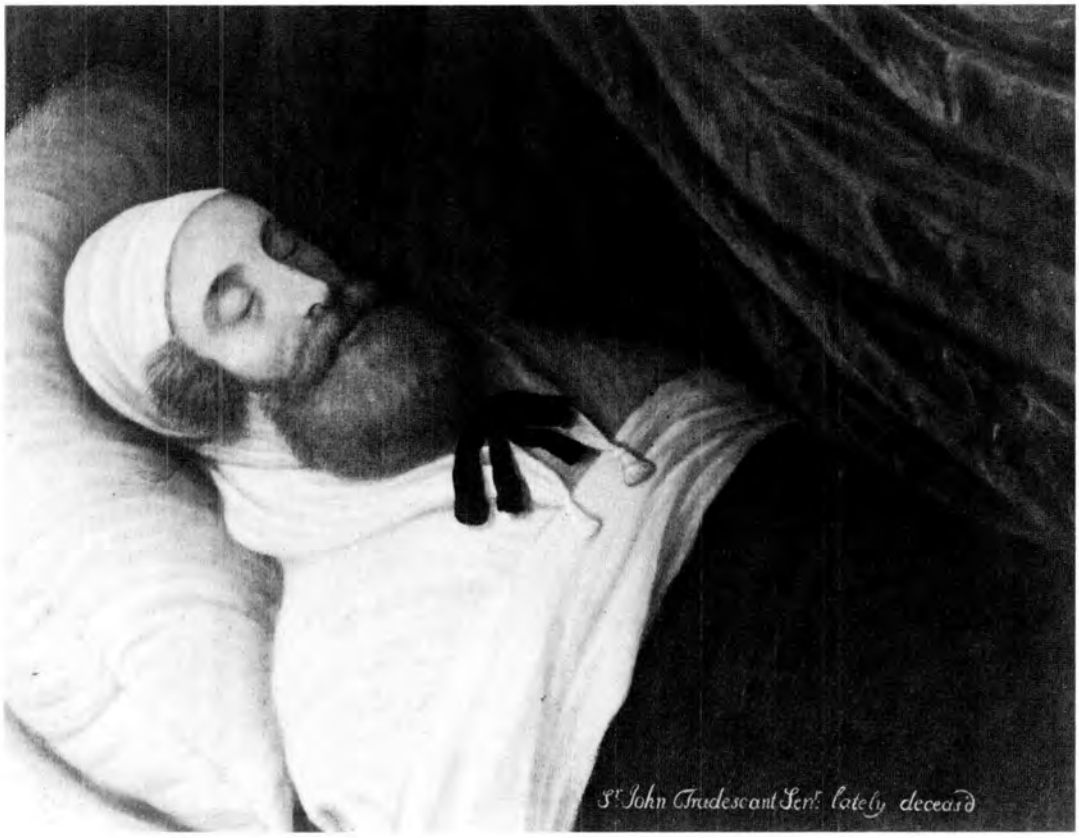
CXXXIX Hester Tradescant and her stepchildren, John and Frances, No. 269

CXL Portrait of a man, No. 270

CXLI Portrait of a youth, called Sir John Suckling, No. 271

CXLII Edward Montagu, second Earl of Manchester, No. 272

CXLIII Elizabeth Woodville, No. 273



CXLVI (*above*) John Tradescant the Elder on his deathbed, No. 276

CXLVII (*left*) John Tradescant III, No. 277

CXLIV John Tradescant the Younger, No. 274

CXLV 'Old Parr', No. 275

CXLVIII Frances Tradescant, No. 278

CXLIX Prince William of Orange, No. 279

CL (*above*) Hester Tradescant and her stepson, John, No. 280

CLI (*right*) Elias Ashmole, No. 281

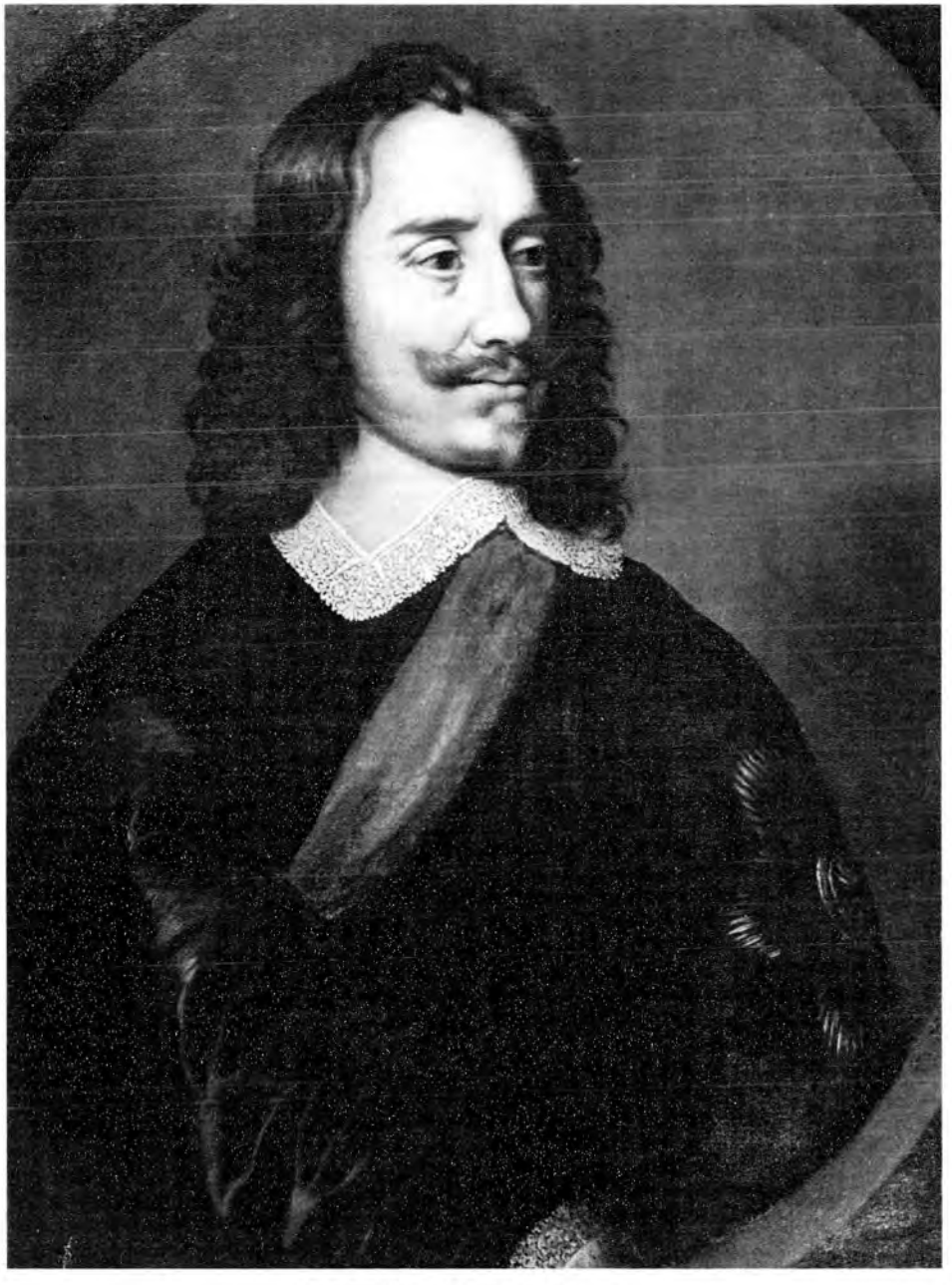
CLII King Charles II, No. 282

CLIII James, Duke of York, No. 283

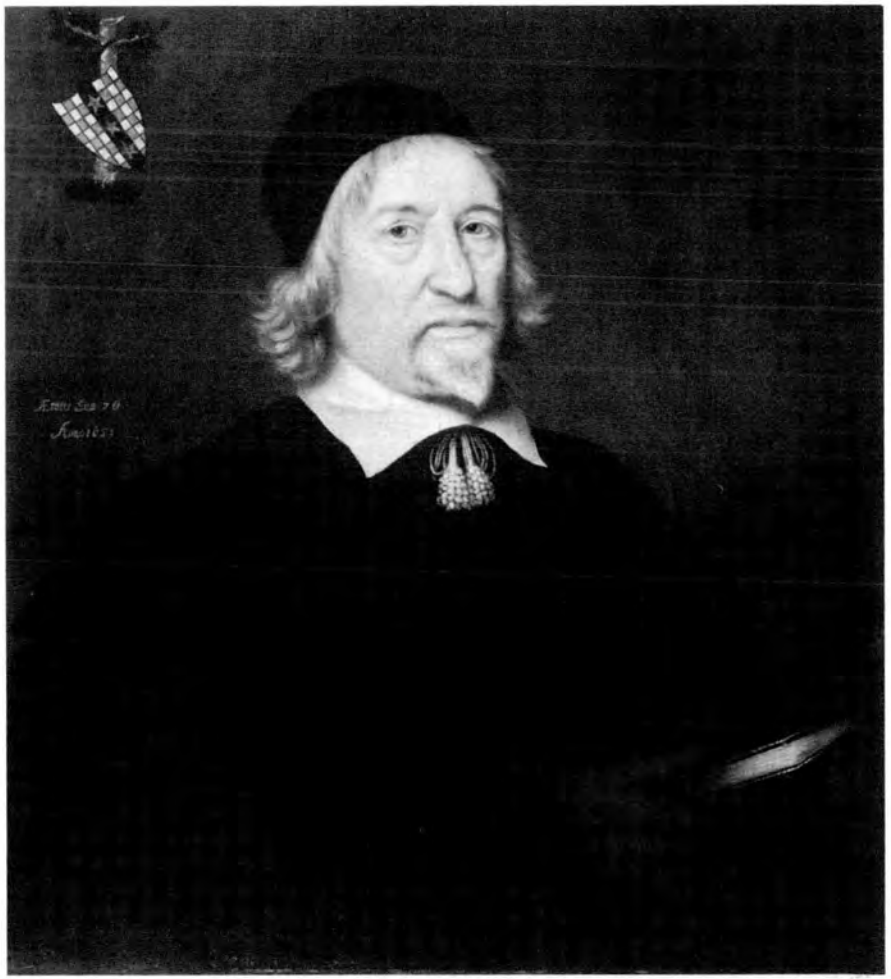
CLIV Portrait of un unknown young man, No. 284

CLV Portrait of an unknown young lady, No. 285

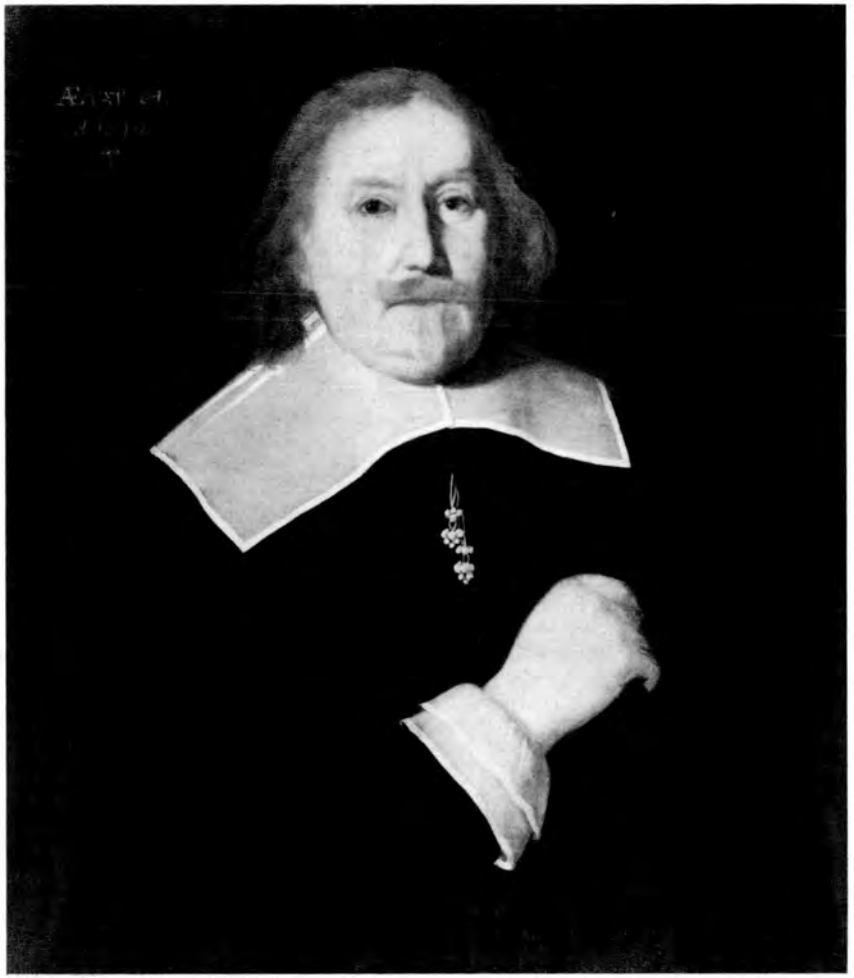
CLVI Portrait of a man, called Sir Francis Drake, No. 286



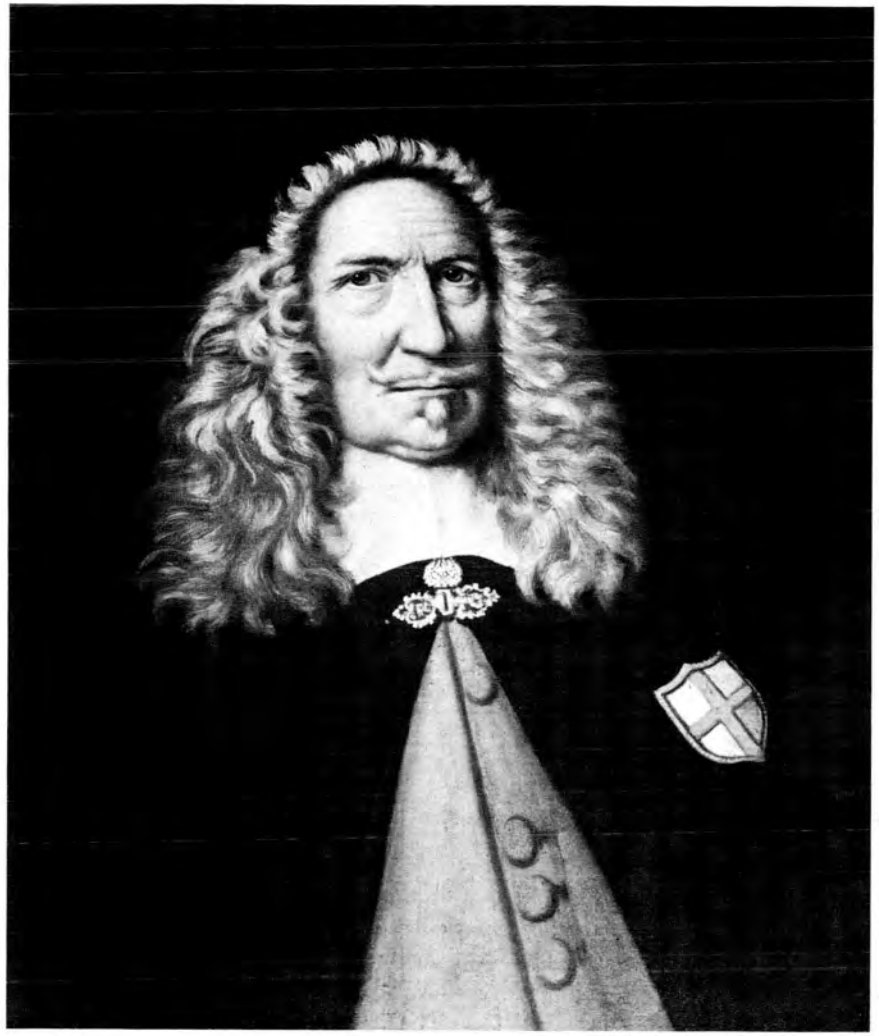
CLVII King Charles I, No. 287



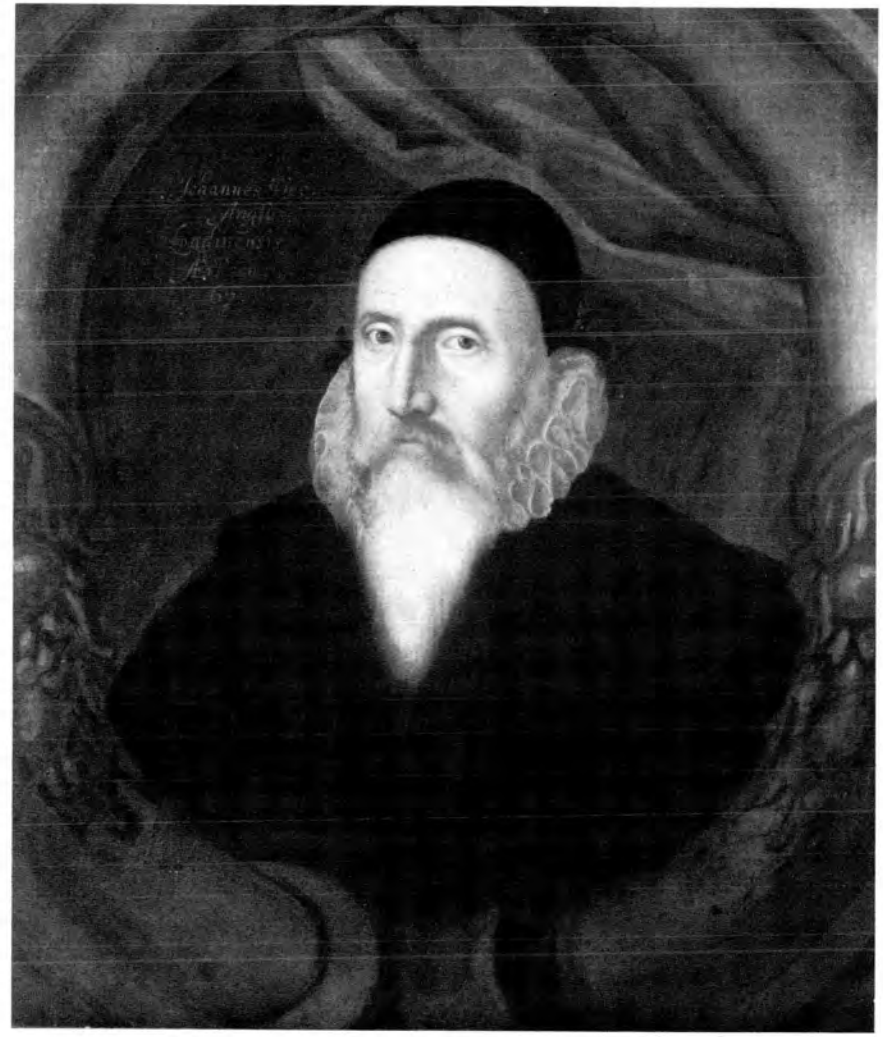
CLVIII Portrait of a man, called Dr Nicholas Fiske, No. 288



CLIX John Lowin, No. 289



CLX Captain Nicholas Burgh, No. 290



CLXI John Dee, No. 291

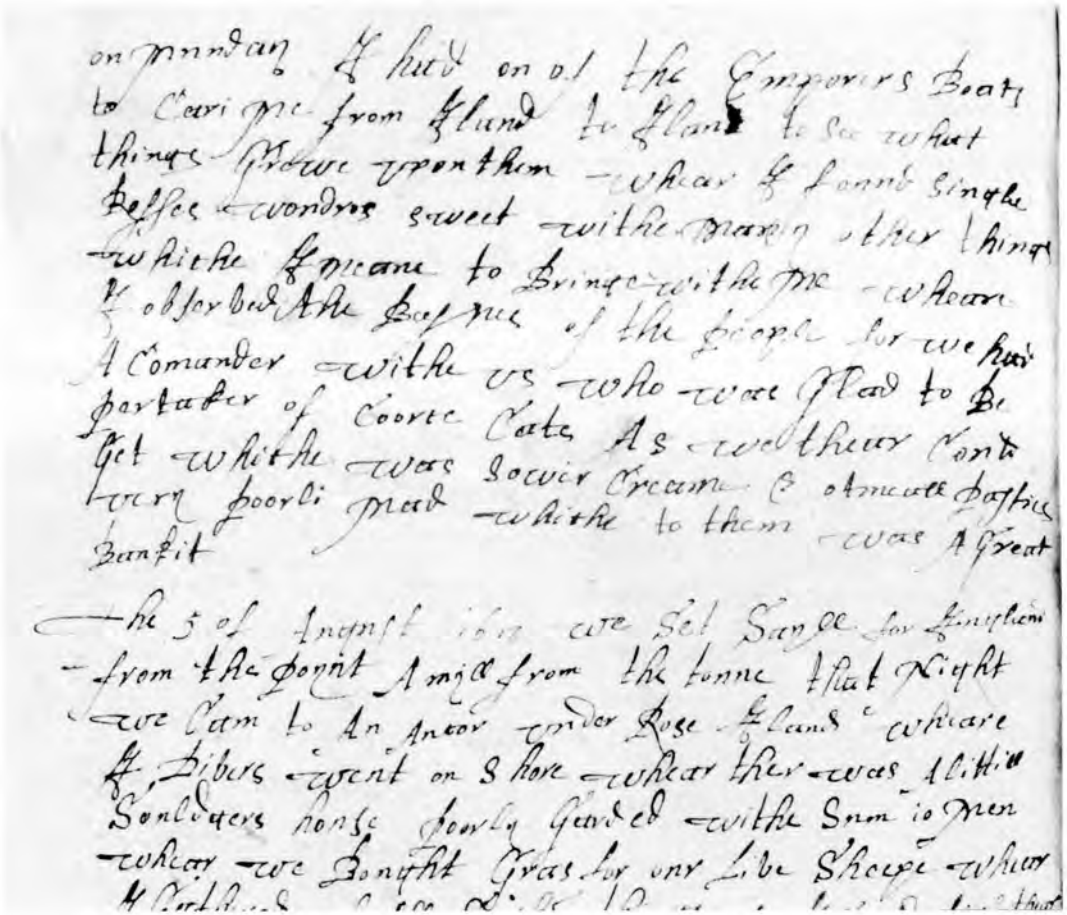
CLXII Richard Napier, No. 292

CLXIII William Lilly, No. 293

CLXIV Double portrait of an elderly couple, No. 294

CLXV (*left*) Portrait of a young woman, No. 295

CLXVI (*above*) Hatchment, No. 296



CLXVII (*above*) 'Tradescant's Diary', f. 179[v], No. 433

CLXVIII (*right*) 'Tradescant's Orchard', f. 86[r], No. 434

a

b

CLXIX Moralized bestiary: a, f. 22r; b, f. 95v, No. 435

AN

EXCELLENT

AND MATERIALL DISCOVRSE;

PROOVING

BY MANY AND FORCEABLE REASONS

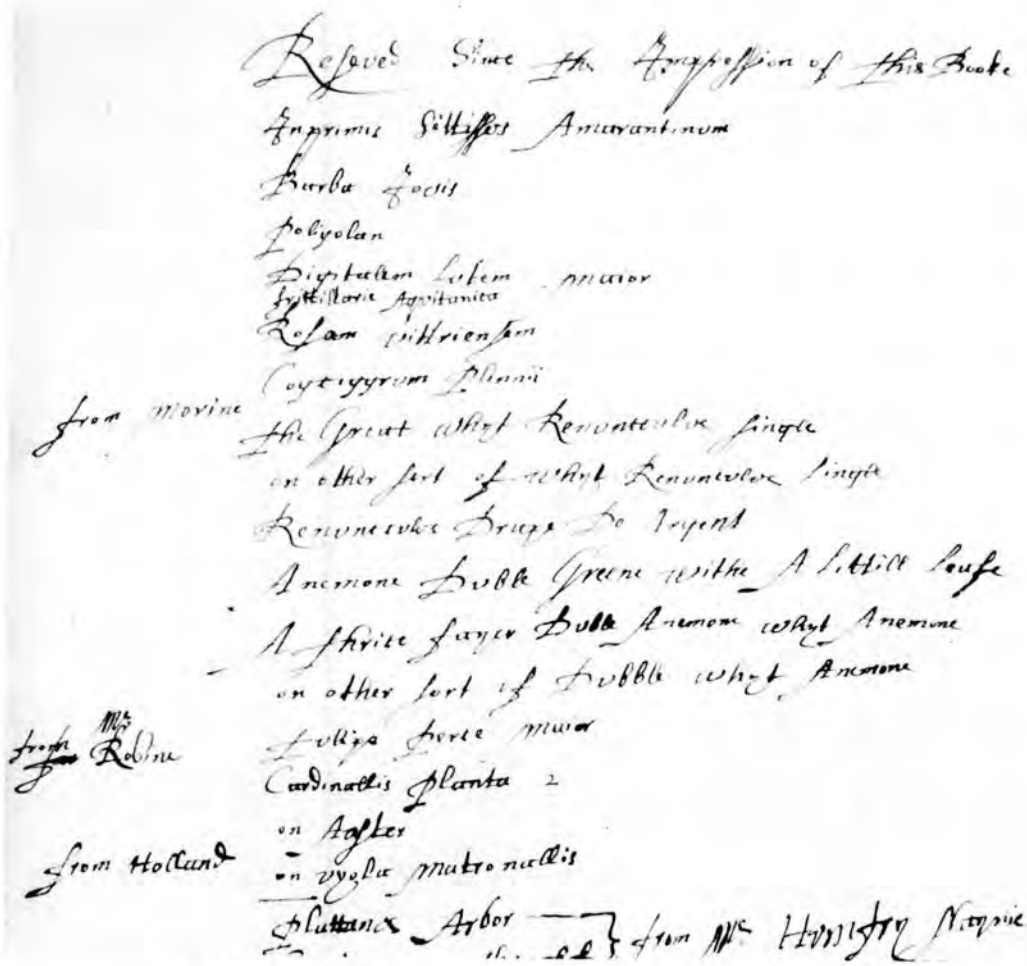
what great danger will hang ouer our heads of *England* and *France*, and alſo diuers other Kingdomes and Prouinces of *Europe*, if it ſhall happen that thoſe of *Germanie* which are our friends be ſubdued, and the King of *Denmarke* vanquiſhed.

And therefore how neerely it concerneth them all to put to their helping hands without any further delay, for the ayding of the King of *Denmarke*, and other of our Confederates in *Germany*, who at this time abide the brunt and ſhocke of the Warre.

Printed. 1626.

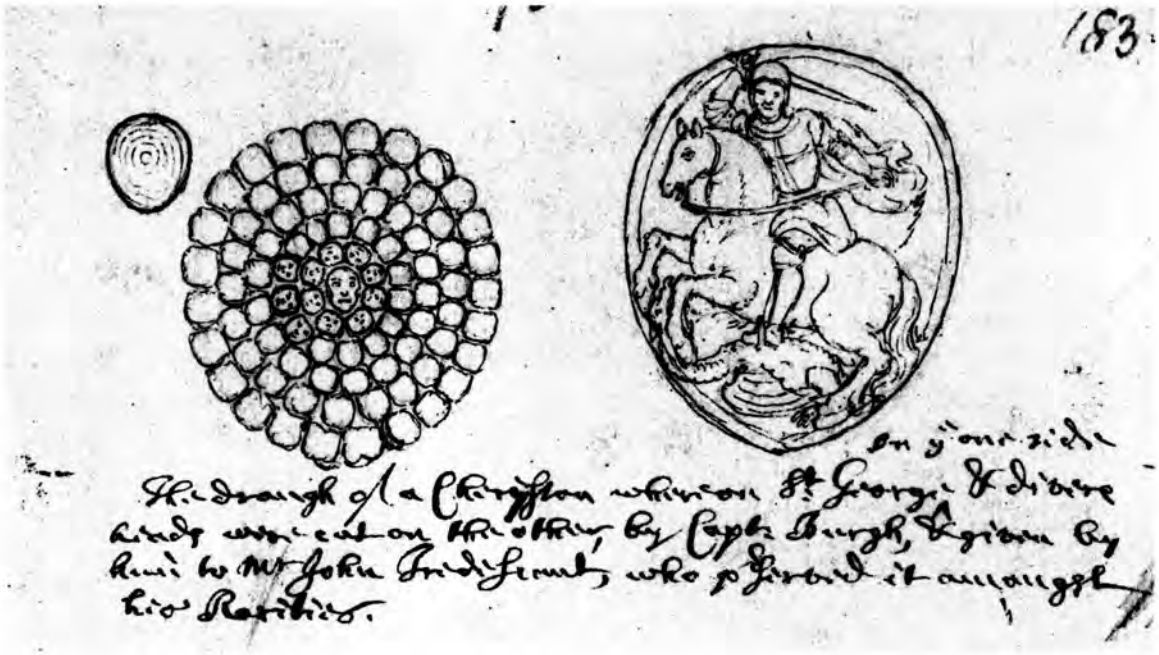
This is John Tradescants
Booke Bought in Zeeland
1626

CLXX *An Excellent and Materiall Discourse*, with Tradescant the Elder's ex-libris, No. 437



CLXXI Tradescant's copy of Parkinson's *Paradisus*, p. 630, No. 436

CLXXII The diary of Georg Christoph Stirn, f. 246r; Tradescant's 'instrument used by the Jews in circumcision' (see p. 21), No. 438



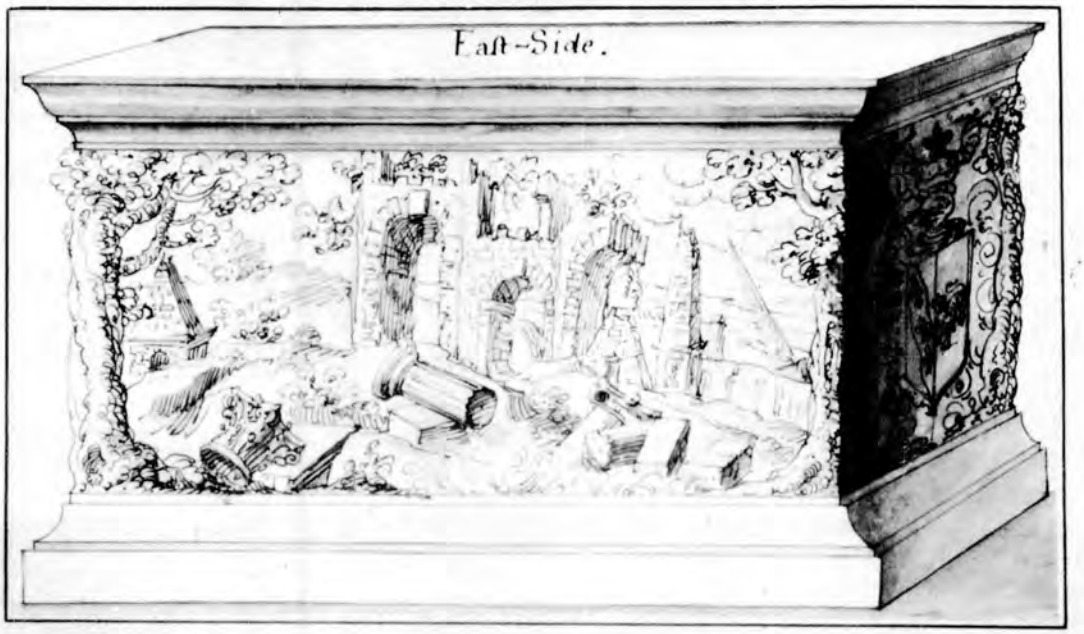
CLXXIII (*above*) Drawing of a cherry-stone carved by Captain Burgh, formerly in the Tradescant collection, No. 439*i*

CLXXIV (*right*) Drawing of St. George and the dragon, 'Coppied out of a Booke in Mr. Jo. Tredescants Closet', No. 439*ii*

Thames & its Views. 220.

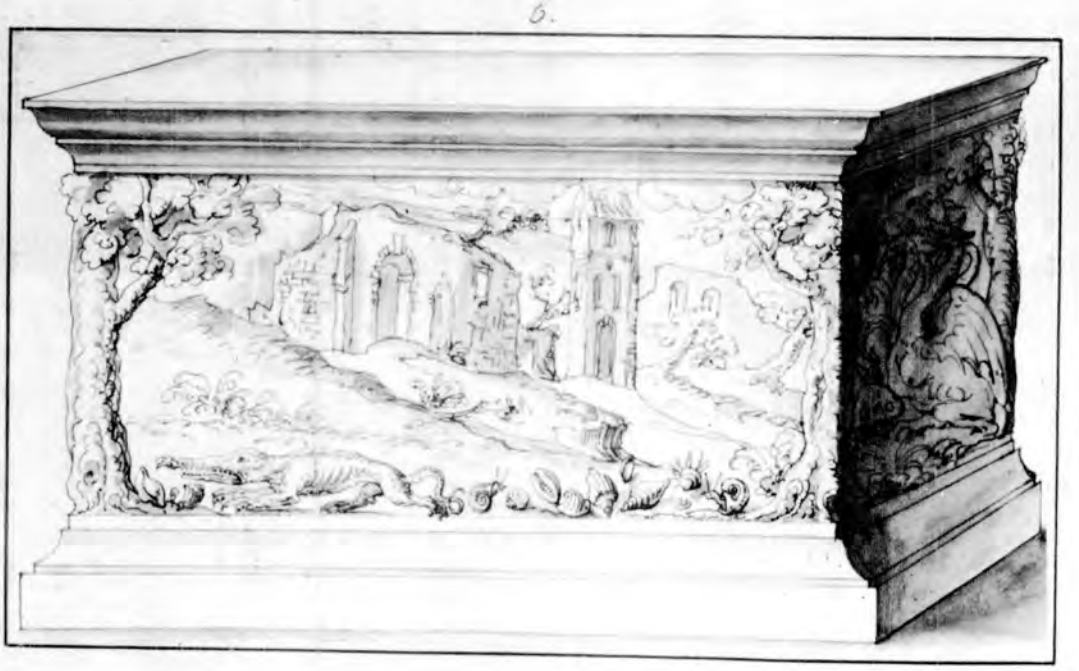
John Fredescant's Monumt. in Lamb.th Church-Yard

a

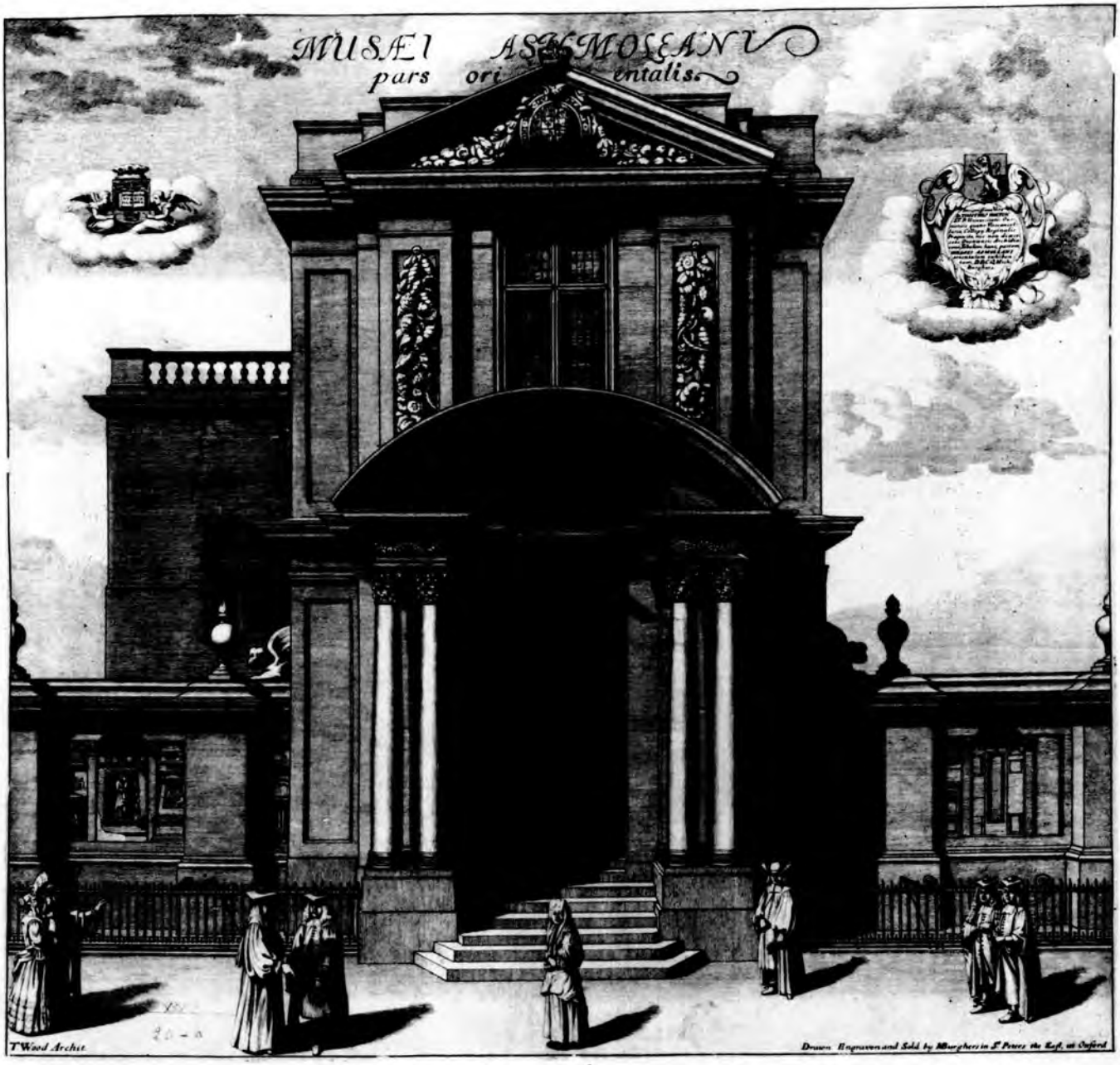


b. West-Side.

b.



CLXXV The tomb of the Tradescants at Lambeth. *Reproduced by permission of the Master and Fellows of Magdalene College, Cambridge.*



CLXXVI The original Ashmolean Museum (now the 'Old Ashmolean'), *c.*1685, by Michael Burghers

INSTITUTA ASHMOLEANA.

PRIMO, *MUSEI ASHMOLEANI Curatores (quos ipſe* CLARISSIMUS ASHMOLUS *Decreto Anno* MDCLXXXVI. *ſcripto, deſignavit)* ſunt D. Vice-Cancellarius, D. Decanus Ædis Chriſti, D. Principalis Collegii Ænei Naſi, D. Profeſſor Regius in Medicina, & Academiæ Procurator uterque, vel eorum Deputati.

II. Semel quolibet anno, nempe die Lunæ Dominicam SS. Trinitatis proxime ſubſequente, ad horam octavam dictum MUSEUM Curatores luſtrabunt; vel ſaltem ibidem conventi, Luſtrationem in alium diem differant. Hoc autem tempore Cimeliarchæ fidelitatem & induſtriam perpendent; videantq; quænam eo anno cujuſcunque generis acceſſerint Cimelia.

III. Omnia quæ vel jam dicto Muſeo data ſunt, vel olim donabuntur, Cimelia ſub variis Claſſibus diſtribuentur; adjecta ſingulis ſua teſſera, *vel numero*; qui & iiſdem adjiciendus erit in Muſei Catalogo, quam citiſſime ſumma diligentia conſcribendo.

IV. Pro Curatorum numero, dictum Catalogum in ſex partes dividi volumus; quo citius nempe luſtrationem abſolvant; quolibet Curatore ſuam partem cum ejuſdem Catalogo conferente; ne quid forte vel deſideretur, vel per nimiam Cimeliarchæ incuriam, corruptelam patiatur.

V. Si plura in Muſeo inveniantur ejuſdem ſpeciei Cimelia, liceat Cimeliarchæ annuente Domino Vice-Cancellario cum duobus aliis quibuſcunque Curatoribus, unum aut plura Exemplaria, vel pro deſiderato quodam commutare, vel etiam alicui honoris ergo gratis conferre.

VI. Præ nimia vetuſtate Cimelio quolibet pereunte; liceat Cimeliarchæ à ſuo loco in conclave quoddam dicti Muſei, idem ſubducere.

VII. Muſeum Aſhmoleanum iiſdem horis pateat, quibus Bibliotheca Bodleana; atque aliis inſuper prout Cimeliarchæ eidem adeſſe per privata ſua negotia licuerit.

VIII. Cimelium aliquod, vel Bibliothecarum Librum, extra Scholam Hiſtoriæ Naturalis nemini fas eſt deportare; nisi ut inſtauretur, vel ſaltem delineandi gratia, aut ſcalpturæ.

IX. Vacante loco Cimeliarchæ, ſucceſſorem deſignare eſto penes Curatores, (vel ſaltem eorum majorem Partem) eorumque Succeſſores in perpetuum; quibus Procimeliarchæ nulla habenda eſt ratio, ſiquem alium magis idoneum judicaverint.

X. Procimeliarcham & Sublibrarium quod attinet; Cimeliarchæ ejuſque Succeſſorum in perpetuum eſt, eos ad libitum eligere, & loco amovere.

XI. Cimeliarcha quolibet menſe quo Academia aberit, decem Nummos antiquos Muſeo reddet; vel ſaltem totidem alia Antiquitatis Cimelia, aut Mineralium, Plantarum, Animaliumve Exemplaria ibidem deſiderata; ſub pœna mulctæ decem Solidorum, in uſum Bibliothecarum hujus Muſei luſtrationis tempore, pro quolibet menſe quo anno elapſo defecerit ſolvendæ: perinde autem eſt utrum hæc Cimelia antequam debentur, an poſtea, conferat.

XII. Muſeum intrare nemini conceſſum eſt, antequam Cimeliarchæ, Procimeliarchæ, aut Sublibrario Præmium mox dicendum perſolvat.

XIII. Siquis ſeorſim Cimelia perluſtrare velit, ſex Denarios ad minimum perſolvat, quo facto, Cimeliarcha, vel Procimeliarcha per horam integram ei adeſſe teneatur, quæcunque ſpectare cupit (ſive ea in Scriniis, ſive alibi conſerventur) deſignans.

XIV. Si Duo ſimul intrare voluerint, unuſquiſque ſex Denarios ad minimum perſolvat; miniſtretque eis Cimeliarcha, vel is, quem deputaverit, per ſeſquihoram ſi id rogabunt.

XV. Si Tres eodem tempore aderint, quatuor Denarios ad minimum unicuique ſolvendum eſt; perque unius horæ ſpatium commorari poterunt.

XVI. Si Quatuor aut plures, tres Denarios ad minimum quilibet perſolvat; atque idem tempus (ſi iis videbitur) permaneant.

XVII. Siquis per duas horas in Muſeo commoratus fuerit, Præmium duplex Cimeliarchæ reddat.

XVIII. In qualibet inſuper Muſei Viſitatione Cimeliarcha veram & completam Curatoribus reddet rationem omnium præmiorum & emolumentorum, quæ præcedente Anno, Cimelia monſtrando collegerit. Computus autem hic annuus ad Feſtum S. Michaelis proxime ante Viſitationem elapſum terminabitur.

XIX. Academicorum nemini præterquam Graduatis librorum quorumcunque ad hoc Muſeum ſpectantium conceſſa eſt copia.

XX. Librorum autem uſum quamdiu in Academia manſurus eſt ſiquis Graduatus cupit, Cimeliarchæ quinque Solidos, & Sublibrario unum (cum nomen ſuum libello in hunc finem deſtinato inſeruerit) reddat: ſin vero breviori tempore eoſdem conſulere voluerit, vel ſex Denarios qualibet Septimana, vel duodecim per menſem ſolvat.

XXI. Siquis è Manuſcripto quopiam aliquid exſcribendum cupiat, id ei Sublibrarius exſcribat, pro qualibet Scheda duodecim Denarios accipiens; quod ſi ipſe exſcribere, vel proprium Amanuenſem eligere malit, id libere faciat, modo Sublibrario pro quolibet Codice quo uſus fuerit, tres Denarios per diem ſolvat.

XXII. Penes Cimeliarcham eſt Manuſcriptorum uſum quibuſcunque prohibere, uti & Cimelium quodvis delineandi copiam denegare, donec is qui alterutrum rogaverit, Syngraphum Mandatorium, cui major pars Curatorum manu propria ſubſcripſerint, protulerit.

XXIII. In ipſis Muſei Bibliothecis Studiis vacare nemini conceſſum eſt, niſi Cimeliarchæ Syngraphum adferat, Curatorum omnium Chirographis ſignatum: Studiis ſiquidem loca conſtituta ſunt Schola Hiſtoriæ Naturalis, & Proceſtrium Bibliothecæ Aſhmoleanæ continuum.

XXIV. Abſente Cimeliarcha, Procimeliarchæ eadem plane poteſtas & auctoritas.

In pleno Curatorum Conventu decimo tertio die Decembris Anno Domini MDCCXIV. *ratum eſt & ſtatutum, ut hæc Decreta Typis mandentur, eorumque poſthac Exemplaria in Muſeo Aſhmoleano, Schola Hiſtoriæ Naturalis, & in utraque Bibliotheca Aſhmoleana & Wodiana ſemper palam proſtituentur.*

Bernardus Gardiner *Vice-Cancell.*
Geo. BRISTOL. *Dec. Æd. Chriſt.*
Rob. Shippen *Coll. Æn. Naſ. Princ.*

C. Tadlow *Reg. Med. Profeſſ. Dep.*
Cha. Gardiner *Procurator Sen.*
Sam. Newte *Procurator Jun.*

‡ 5 *Phalangium Virginianum Tradeſcanti.*
Tradeſcants Virginian Spiderwort.

5 This plant in my iudgement cannot be fitlier ranked with any than theſe laſt deſcribed; therefore I haue here giuen him the fifth place, as the laſt commer. This plant hath many creeping ſtringy roots, which here and there put vp greene leaues, in ſhape reſembling thoſe of the laſt deſcribed: amongſt theſe there riſeth vp a pretty ſtiffe ſtalke jointed, and hauing at each joint one leafe incompaſſing the ſtalke, and out of whoſe boſome oft times little branches ariſe: now the ſtalke at the top vſually diuides it ſelfe into two leaues, much after the manner of *Cyperus*; between which there come forth many floures conſiſting of three pretty large leaues a piece, of colour deepe blew, with reddiſh chiues tipt with yellow ſtanding in their middle. Theſe fading (as vſually they doe the ſame day they ſhew themſelues) there ſucceed little heads couered with the three little leaues that ſuſtained the floure. In theſe heads there is contained a long blackiſh ſeed.

¶ *The place.*

1. 2. 3. Theſe grow only in gardens with vs, and that very rarely. 4 This growes naturally in ſome places of Sauoy. 5 This Virginian is in many of our Engliſh gardens, as with M. *Parkinſon*, M. *Tradeſcant*, and others.

¶ *The time.*

1. 4. 5. Theſe floure in Iune: the ſecond about the beginning of May: and the third about Auguſt.

¶ *The names.*

The firſt is called *Phalangium ramoſum*, Branched Spiderwort. 2 *Phalangium non ramoſum*, Vnbranched Spiderwort. *Cordus* calls it *Liliago*. 3 This, *Cluſius* calls *Aſphodelus minor: Lobell, Phalangium Cretæ*, Candy Spiderwort. 4 This is thought to be the *Phalangium* of the Ancients, and that of *Matthiolus*: it is *Phalangium Allobrogicum* of *Cluſius*, Sauoy Spiderwort. 5 This by M. *Parkinſon* (who firſt hath in writing giuen the figure and deſcription thereof) is aptly termed *Phalangium Ephemerum Virginianum*, Soone-fading Spiderwort of Virginia, or *Tradeſcants* Spiderwort, for that M. *Iohn Tradeſcant* firſt procured it from Virginia. *Bauhine* hath deſcribed it at the end of his *Pinax*, and very vnfitly termed it *Allium, ſiue Moly Virginianum*. ‡

¶ *The nature.*

Galen ſaith, *Phalangium* is of a drying qualitie, by reaſon of the tenuitie of parts.

¶ *The vertues.*

Dioſcorides ſaith, That the leaues, ſeed, and floures, or any of them drunke in Wine, preuaileth againſt the bitings of Scorpions, and againſt the ſtinging and biting of the Spider called *Phalangium*, and all other venomous beaſts. A

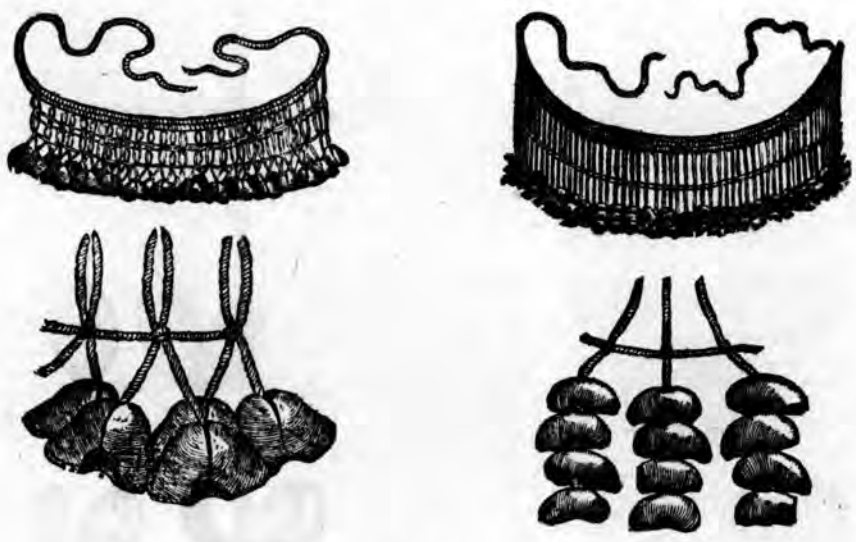
The roots tunned vp in new ale, and drunke for a moneth together, expelleth poyſon, yea although it haue vniuerſally ſpred it ſelfe through the body. B

CLXXVIII 'Tradescants Virginian Spiderwort', from Johnson's edition of Gerard's *Herball* (1633)

Of Indian Morrice Bells, and diuers other Indian Fruits.

† 1 *Abouay Theueti.*
Indian Morrice Bels.

† 2 *Fructus Higuero.*
Indian Morofco bels.



¶ *The Deſcription.*

THis fruit groweth vpon a great tree of the bigneſſe of a Peare tree, full of branches, garniſhed with many leaues which are alwaies greene, three or foure fingers long, and in bredth two: when the branches are cut off there iſſueth a milky iuice not inferiour to the fruit in his venomous

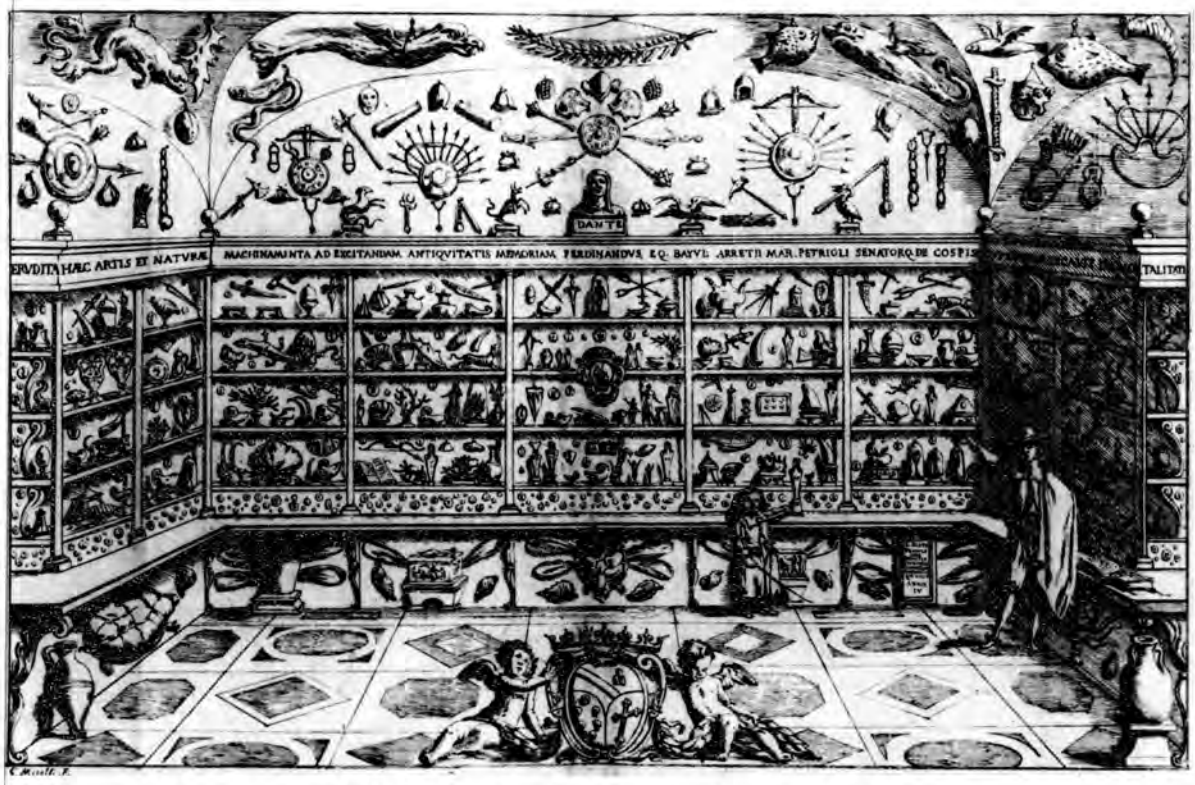
 qualitie.

CLXXIX 'Indian Morrice Bells', which could be seen, according to Johnson's edition of Gerard's *Herball* (1633), 'upon strings as they are here figured, amongst many other varieties with Mr. John Tradescant at South Lambeth'. A note in Johnson's text points out that the illustrations are transposed

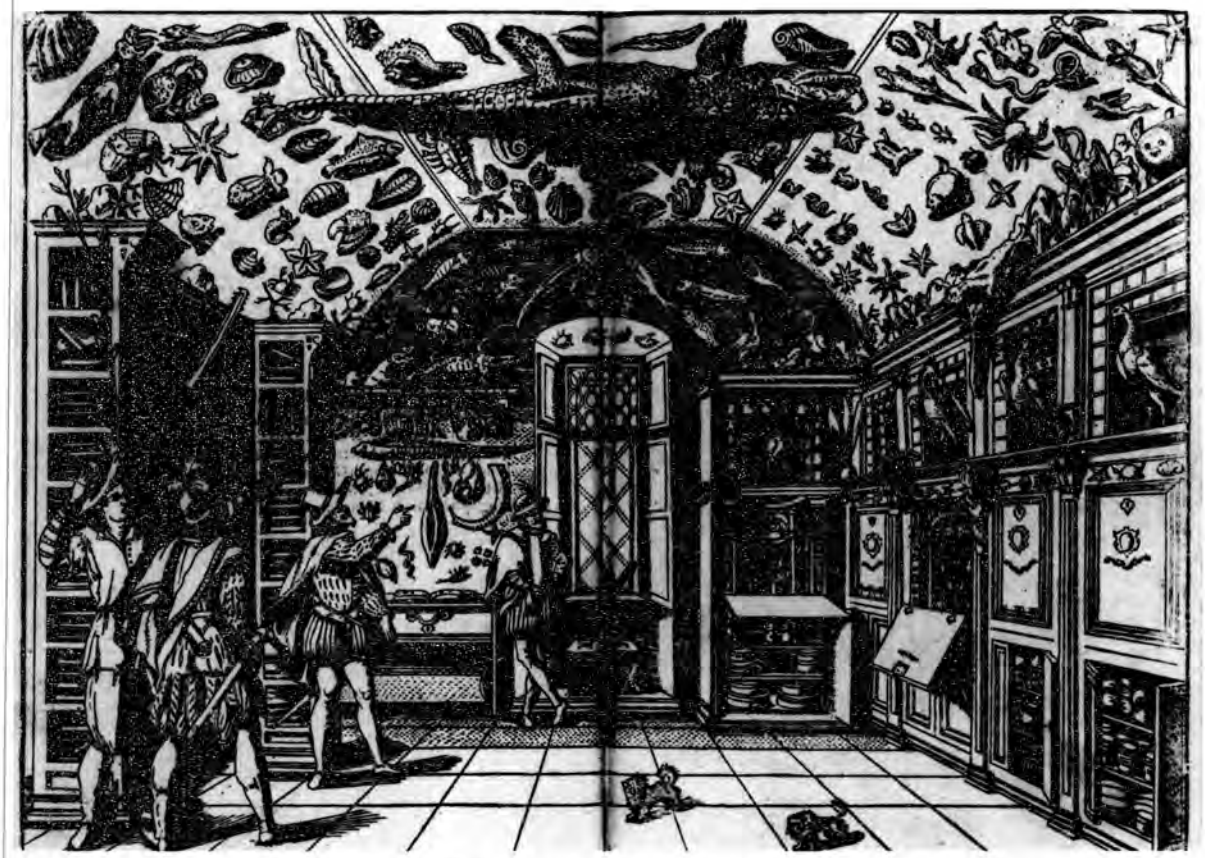
Of the Gooſe tree, Barnacle tree, or the tree bearing Geeſe.

Britannicæ Conchæ anatiferæ.
The breed of Barnacles.

CLXXX The 'Goose tree, Barnacle tree, or the tree bearing Geese' from Johnson's edition of Gerard's *Herball* (1633)

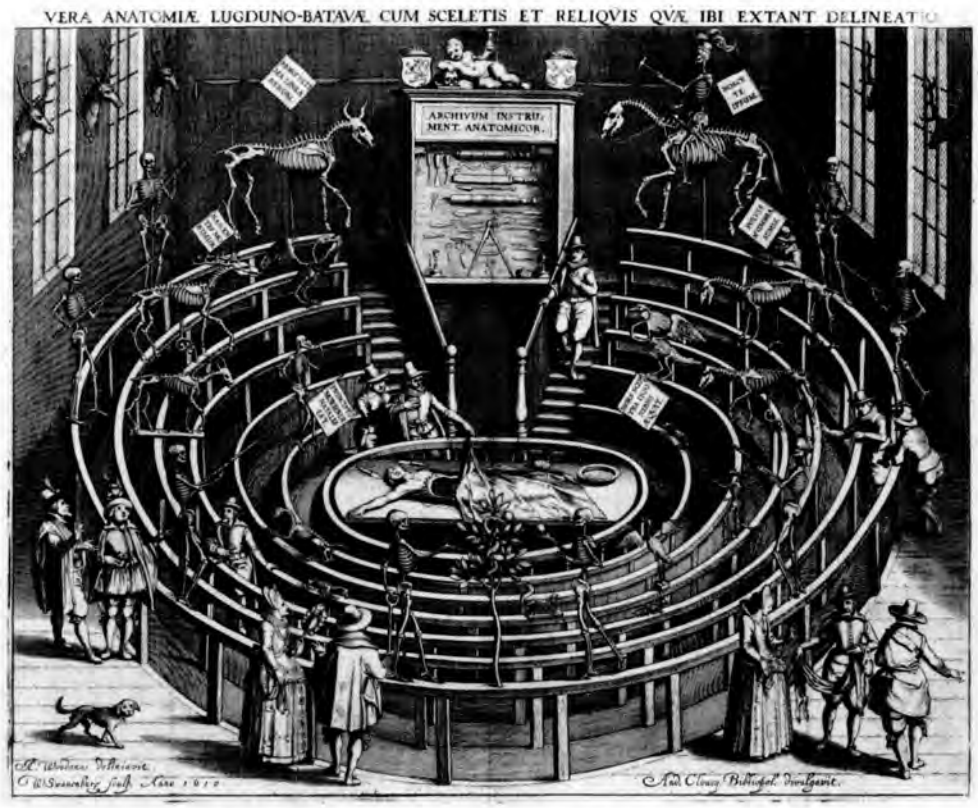


CLXXXI L. Legati, *Museo Cospiano* (1677), frontispiece

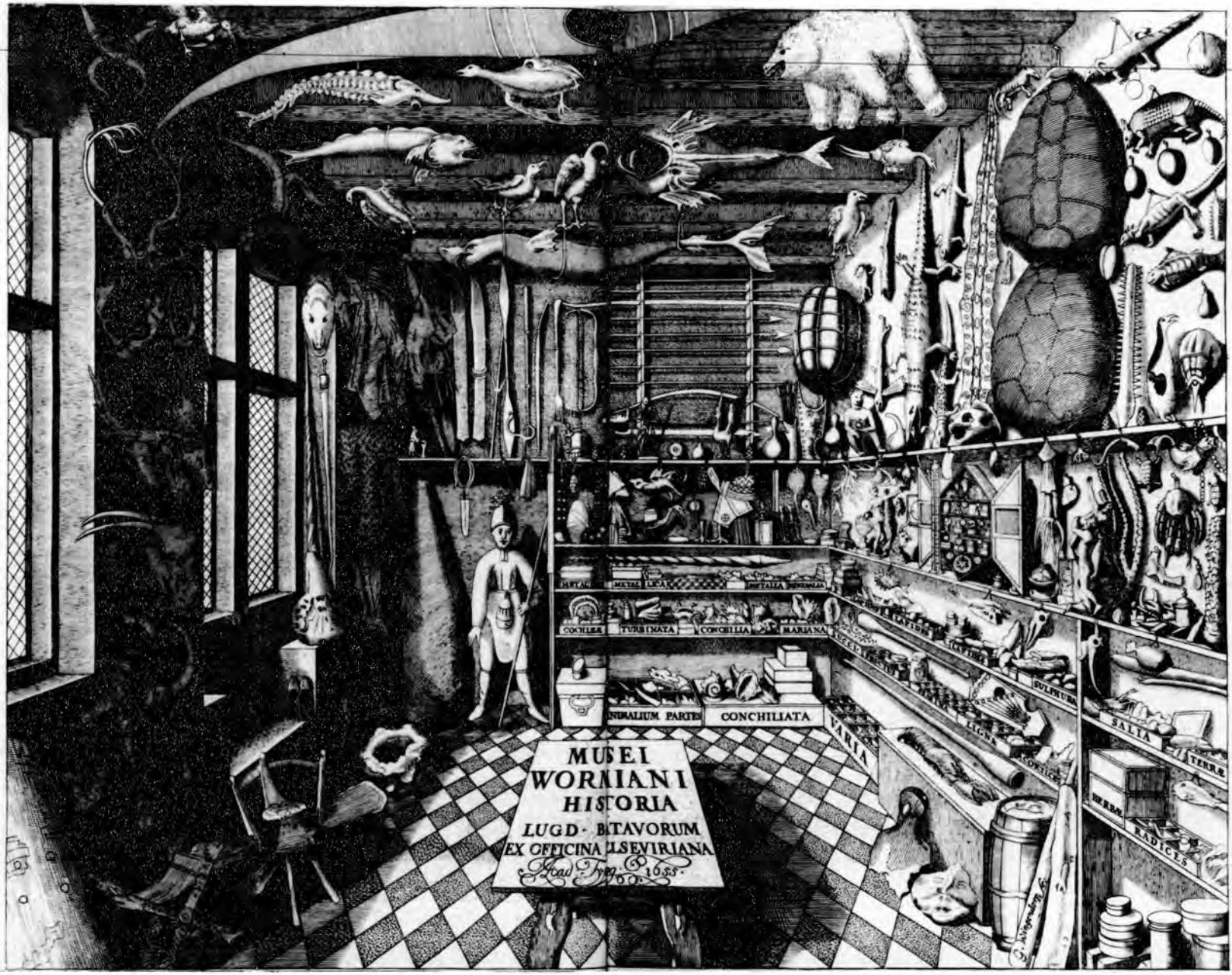


CLXXXII Ferrante Imperato, *Dell'Historia Naturale* (1599), frontispiece

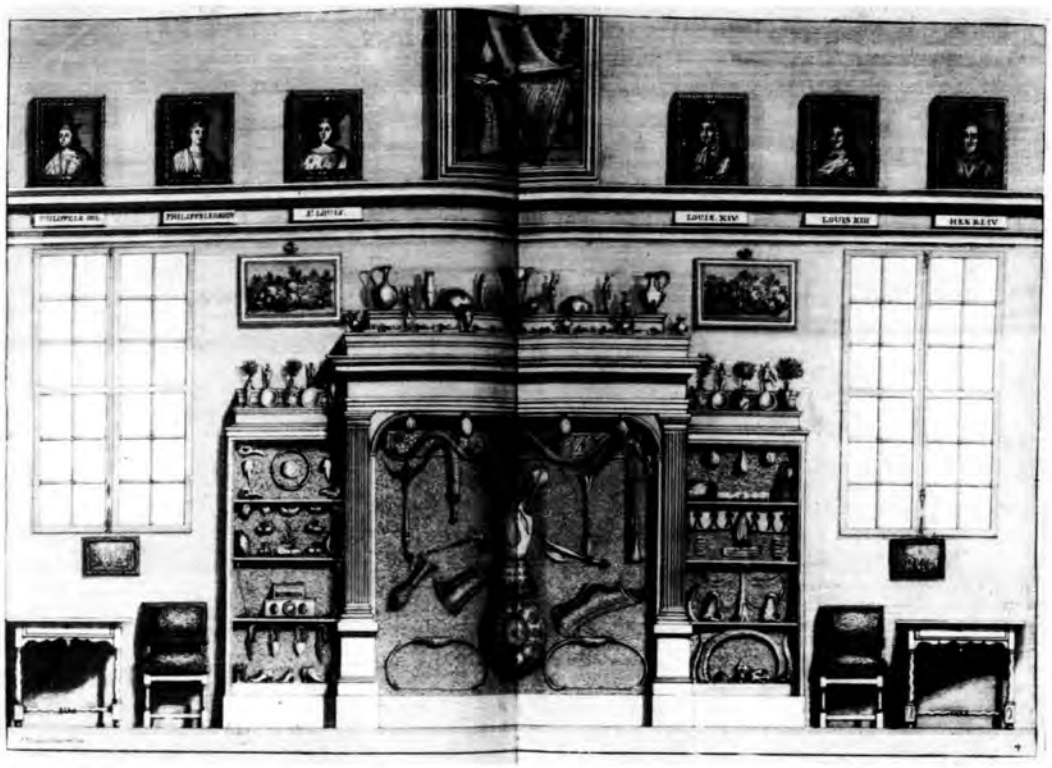
CLXXXIII Museum of the Electors of Brandenburg from L. Beger, *Numismatum Modernorum Cimeliarchii Regio-Electoralis Brandenburgici* (1704)



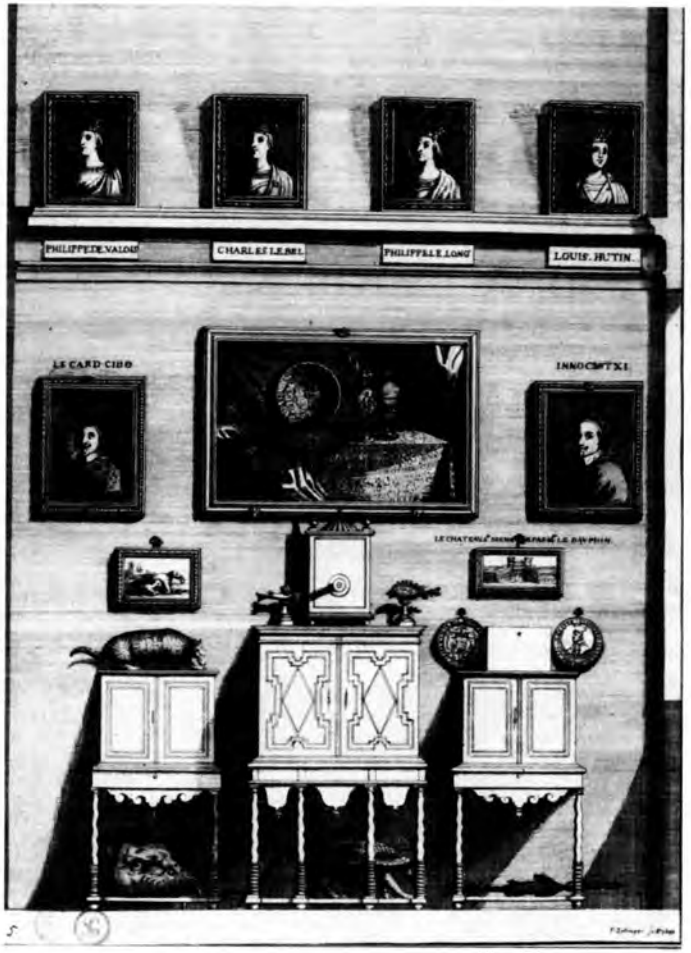
CLXXXIV Interior of the Theatrum Anatonicum at Leiden, after Jan Cornelisz van't Woudt (1610)



CLXXXV O. Worm, *Museum Wormianum* (1655), frontispiece

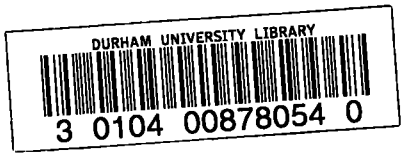


a



b

CLXXXVI Musée Sainte Geneviève, from C. du Molinet, *Le Cabinet de la Bibliothèque de Sainte Geneviève* (1692)


DURHAM UNIVERSITY LIBRARY
3 0104 00878054 0

CONFINED
TO THE
LIBRARY