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Colleen Elizabeth Batey

Freswick Links, Caithness.
A Re-appraisal of the Late Norse Site in its Context

This thesis brings together for the first time, in Part I, a series of disparate sources concerning the Viking and Late Norse periods in Caithness, Northern Scotland. After an Introduction concerned with the topographical background and history of archaeology in Caithness, place name, saga and historical evidence is considered. The archaeology of Viking and Late Norse Caithness is discussed against the wider background of the Viking period in general and Northern Scotland in particular. Fieldwork has revealed two new sites on the North coast of Caithness, at Robertshaven and Huna. However, as yet, the only excavated site of the period is Freswick Links on the East coast, the study of which is the major focus of this thesis.

Part II discusses a series of excavations on this multi-period site, from the Bronze Age to the 13th century A. D., which have been undertaken since c. 1900. The work of A. O. Curle in 1937-8 and V. G. Childe in 1941, is examined in detail. By re-examination of primary documentation, a more complex structural sequence emerges and a new phasing and dating of the site is suggested. Previously described as a Viking site, the bulk of the evidence indicates a Late Norse dating, based on the discussion of the artefact assemblage in Part III.

The majority of finds discussed in Part III has been collected from the site since 1941. This is the first time that this assemblage has been brought together and a catalogue is presented which also includes previously unpublished material from all excavations at the site. It is now clear that this can make a substantial contribution to knowledge of the Late Norse period. As well as a revised dating, the discussion considers wider parallels in the British Isles and in Scandinavia. It is clear that Caithness was of greater significance in the Late Norse period and the Northern Earldom than previously understood.

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Freswick Links, Caithness. A Re-appraisal of the Late Norse Site in its Context

Two Volumes

Volume One : Text

by

Colleen Elizabeth Batey

Submitted for the Degree of Doctor of Philosophy,
University of Durham, Department of Archaeology.

1984



20 NOV 1984

TABLE OF CONTENTS

		Page
Preface		i - iv
Acknowledgements		v - vi
Abbreviations		vii
Chapter 1.	An Introduction	1-19
1.1	The Geographical Setting	1
1.2	History of Archaeology in Caithness	11
Note		19

Part I: Viking and Late Norse Caithness in its Context

Chapter 2.	Place names, Sagas and History: the Evidence for Caithness and Sutherland	20-42
2.1	The Place Names	20
2.2	The Sagas and Historical Sources	28
2.3	Conclusion	39
Notes		41
Chapter 3.	The Viking and Late Norse Evidence in Caithness	43-65
3.1	Structural Evidence	43
3.1.1	Structures associated with brochs	43
3.1.2	Settlement Sites	44
3.1.3	Castles	48
3.1.4	Ring Works	50
3.2	The Graves	51
3.3	The Church	60
3.4	Hoards and stray finds	60
3.5	Conclusion	62
Notes		65
Chapter 4.	Viking and Late Norse in North and West Scotland: the General Context	66-120
4.1	Structural Evidence	66

			Page
	4.1.1	Structures associated with brochs	66
	4.1.2	Viking settlement sites ..	67
	4.1.3	Late Norse settlement sites ..	79
	4.1.4	Castles	94
4.2	The Graves		95
4.3	Runic Inscriptions		103
4.4	The Church		105
4.5	Hoards and Stray Finds		112
4.6	Conclusion		117
Notes			120

Part II: Freswick : The Site

Chapter 5.	Freswick: A Threatened Site		121-150
5.1	The Setting		121
5.2	Local Interest in the Site		124
5.3	Recent Survey at the Links		127
5.4	Recent Rescue Excavations at the Links and House		136
	5.4.1	Work at the Cliff Edge ..	137
	5.4.2	Inland Areas	141
	5.4.3	Excavations at Freswick House, 1979	143
5.5	Conclusions		149
Chapter 6.	Prehistoric and Early Historic Occupation at Freswick Links		151-165
6.1	Mesolithic/Bronze Age Occupation ..		151
6.2	Freswick Sands Broch		151
	6.2.1	The Work of Sir Tress Barry ..	151
	6.2.2	Recent Excavations ..	153
6.3	Souterrains and Hut Circles		155
6.4	Discussion		156
Note			165

Table of Contents (cont...)

			Page
Chapter 7.	Late Norse Occupation on Freswick Links ..		166-211
	7.1	Excavations by A.O. Curle	166
		7.1.1 The published Account of Buildings I - VI	166
		7.1.2 Recent Excavation of Curle's Building VI	173
		7.1.3 The Published Account of Building VII	175
		7.1.4 A.O. Curle's Notebook ..	177
	7.2	Excavation by V.G. Childe	184
		7.2.1 The Published Account ..	184
		7.2.2 V.G. Childe's Notebook ..	188
	7.3	Overall Considerations	192
		7.3.1 The Settlement	192
		7.3.2 Building Forms	195
		7.3.3 Ovens and Kilns	199
		7.3.4 The Bath House	200
		7.3.5 The Smithy	201
		7.3.6 Air Vents	202
		7.3.7 Building Construction at Freswick	203
Chapter 8.	Aspects of the Subsistence Economy of Late Norse Freswick		212-224
	8.1	Environmental Aspects from the Earlier Excavations	212
	8.2	Environmental Survey, 1979	214
	8.3	Environmental Work, 1980	216
	8.4	Environmental Work, 1981	218
	8.5	The Economic Significance	219
		Part III: The Artefact Assemblage	
Chapter 9.	Metals		225-276
		Introduction to the Catalogue of Artefacts	225

Table of Contents (cont...)

		Page
	Catalogue	229
	Discussion	251
Chapter 10.	Stone and Glass	277-318
	Catalogue	277
	Discussion	286
Chapter 11.	Bone and Antler	319-364
	Catalogue	319
	Discussion	346
Chapter 12.	Pottery and Burnt Clay	365-416
	Catalogue	365
	Discussion	397
Chapter 13.	Conclusions	417-429
Appendix A.	Non-Artefactual Material	430-439
Appendix B.	Finds held in NMAS from Midtown, Freswick ..	440
Appendix C.	Wall sherds from Recent Work, with Locational Information	441-445
Bibliography	.. ..	446-492
	Abbreviations	446-447
	Donations	448-450
	Works Cited	451-492

The Figures and Plates, to be found in Volume Two, are listed overleaf.

LIST OF FIGURES

(Drawn by the author unless otherwise indicated.)

Figure

1 Location of Freswick, Caithness (Drawn, N. Emery).

2 The Geology of Caithness (Redrawn after Omand, 1982, fig. 1.1, 6).

3A, B Relief and Ecological Zones of Caithness.
A, Butler, 1973, fig. 10, 62. B, Omand, 1973b, fig. 6, 35.

4 Archaeological Sites mentioned in Chapter 1 .

5A, B Norse Place Name Distribution in Northern Scotland (1)
A, name containing staðr . B, name containing setr.
(Nicolaisen, 1982b, figs. 1 and 2, 101-102).

6A, B Norse Place Name Distribution in Northern Scotland (11)
A, name containing dalr. B, name containing bólstaðr.
(Nicolaisen, 1982b, figs. 3 and 6, 104 and 109).

7 Canisbay Parish: Topography and Place Name Derivations.

8 Viking and Late Norse Archaeological Sites in Caithness.

9 The Site of Freswick Links (M. J. Rains).

10 Zones of Erosion identified between 1979 and 1931 (M. J. Rains).

11 Recent Work at Freswick Links: main areas examined (M. J. Rains).

12 Areas of Excavation at Freswick Castle 1979 (M. J. Rains).

13 Stone and Pottery (Lacaille, 1954, fig. 118, 268).
1) 6.8.23; 2) 12.2.6; 3) 12.2.7; 4) 12.2.8; 5) 12.3.16;
6) 12.3.?17; 7) 12.2.9; 8) 12.3.?8; 9) 12.2.?9.

14 Stone and Bone (Lacaille, 1954, fig. 117, 267).
1) 6.10.19; 2) 6.11.13; 3) 6.10.7; 4) 6.10.11; 5) 6.10.12;
6) 6.11.5; 7) 8.4.12; 8) 8.4.10; 9) 8.4.7; 10) 8.15.8;
11) 8.4.13; 12) 8.6.2; 13) 8.15.7; 13) 14.1.1.

15 Stone (Lacaille, 1954, fig. 72, 186)
1) 6.11.4; 2) 6.13.14; 3) 6.11.3; 4) 6.13.13;
5) 6.12.1; 6) 6.13.12; 7) 6.11.2.

16 Freswick Sands Broch (redrawn after R.C.A.H.M.S., 1911b, 14).

17 Excavated Brochs in the vicinity of Freswick Links, indicating some of the extra-mural settlement. (N. Emery, after Anderson, 1901).

Figure

18 Souterrains at Freswick Links (N. Emery, after Edwards. 1925, figs. 3 and 4, 91-2 and 1927, fig. 6, 201).

19 Overall plan of Buildings revealed during Curle's excavations (Curle, 1939, fig. 1, 74).

20A,B A, Group A, Buildings excavated by Curle (1939, fig. 2, 75).
B, Groups B and C, Buildings excavated by Curle (1939, fig. 4, 88).

21 Detail of the East end of Building I, published as West End (Curle, 1939, fig. 3, 76).

22 Plan of Curle's Building VI, as revealed during recent excavations (N. Emery).

23 Revised Plan and Phasing of Buildings revealed by Curle.

24 Buildings revealed during Childe's excavations (1943, fig. 1, 6).

25A,B A, Sections of Buildings excavated by Childe (1943, fig. 2, 9).
B, 'Phase 0' examined by Childe (1943, fig. 3, 12).

26 Revised Phasing of Childe's excavations.

27 Survey of the midden at Freswick Links using bore holes and column samples (M. J. Rains).

28A-F Metalwork, A, 1.1.1; B, 3.1.1; C, 4.2.1; D, 4.3.2; E, 4.3.6; F, 4.3.8.

29A-F Metalwork, A, 4.4.1; B, 4.4.2; C, 4.4.3; D, 4.4.4; E, 4.5.3; F, 4.5.4.

30A-H Metalwork, A, 4.6.1; B, 4.7.1; C, 4.7.3; D, 4.8.11; E, 4.8.2; F, 4.8.6; G, 4.8.7; H, 4.8.10.

31A-H Metalwork, A, 4.8.13; B, 4.8.26; C, 4.8.71; D, 4.8.81; E, 4.8.87; F, 4.9.3; G, 4.9.8; H, 4.9.17.

32A-H Metalwork, A, 4.12.1; B, 4.12.2; C, 4.12.3; D, 5.1.1; E, 5.2.2; F, 5.3.3; G, 5.4.2; H, 4.10.6.

33A-C Stone, A, 6.1.3; B, 6.1.12; C, 6.1.18.

34A-C Stone, A, 6.1.15; B, 6.1.17; C, 6.1.20.

35A-E Stone, A, 6.2.1; B, 6.2.2; C, 6.2.3; D, 6.2.10; E, 6.2.11.

36A,B Stone, A, 6.3.5; B, 6.3.7 (Drawn, N. Emery).

37A,B Stone, A, 6.3.4; B, 6.3.6 (Drawn, N. Emery).

Figure

38A-E Stone, A, 6.6.1; B, 6.6.2; C, 6.6.8; D, 6.8.1; E, 6.8.9.

39A-G Stone, A, 6.9.3; B, 6.10.5; C, 6.10.15; D, 6.10.16; E, 6.10.18; F, 6.11.18; G, 6.11.19.

40A-J Bone and Antler, A, 8.1.1; B, 8.1.2; C, 8.1.4; D, 8.1.5; E, 8.1.6; F, 8.1.7; H, 8.1.17; I, 8.1.18; J, 8.1.20.

41A-I Bone and Antler, A, 8.1.23; B, 8.1.31; C, 8.1.32; D, 8.1.35; E, 8.1.36; F, 8.1.37; G, 8.1.38; H, 8.1.39; I, 8.1.40.

42A-H Bone and Antler, A, 8.2.1; B, 8.2.2; C, 8.2.3; D, 8.2.5; E, 8.3.1; F, 8.4 16; G, 8.4.20; H, 8.5.3.

43A-F Bone and Antler, A, 8.7.1; B, 8.7.2; C, 8.7.3; D, 8.7.14; E, 8.7.29 F, 8.7.31.

44A-D Bone and Antler, A, 8.8.8; B, 8.8.18; C, 8.9.2; D, 8.9.4.

45A-D Bone and Antler, A, 8.9.13; B, 8.9.16; C, 8.9.17; D, 8.9.8.

46 Sections of a selection of composite combs.

47A-D Bone and Antler, A, 8.12.2; B, 8.12.3; C, 8.13.1; D, 8.13.2.

48A-E Bone and Antler, A, 8.11.3; B, 8.14.3; C, 8.14.5; D, 8.15.2; E, 8.15.11.

49A-F Pottery, A, 9.1.1; B, 9.2.2; C, 10.1.1; D, 10.3.4; E, 10.3.5; F, 10.3.6.

50 Distinguishable rim forms.

51 Pottery and burnt clay, A, 11.6.1; B, 13.1.1.

52 Grit tempered pottery (Gibson, 1982, 408, fig. F.S.I.)

LIST OF PLATES

Plate

1. A, B — Aerial Views of Freswick Bay (Photographs C. D. Morris)

2. A, B — Erosion at Freswick. A. General, Zone G, looking South. B. Detail, Zone E, looking West. (Photographs C. E. Batey)

3. A, B — Exposed Stonework at Huna, Caithness. (Photographs C. E. Batey)

4. A, B — Exposed walling and associated midden at Robertshaven, Caithness. (Photographs C. E. Batey)

5. — Thurso Runic Stone (Allen, 1903, 37, fig. 33).

6. — Oval brooches from gravel mound, Westerseat (Grieg, 1940, 25, fig. 9).

7. A, B — Grave group from Castletown, Caithness (Grieg, 1940, 23, figs. 7 and 8).

8. A, B — Grave group from Reay, Caithness (Grieg, 1940, 21, figs. 4 and 5).

9. A, B — Freswick Sands Broch excavation photographs. A, indicating intra mural staircase and chamber. B, detail of chamber. (Photographs via N. M. R. S.)

10. A, B — Freswick Sands Broch excavation photographs. A, indicating entrance passage. B, upstanding walling. (Photographs via N. M. R. S.)

11. A, B — Indeterminate Structures on the Links at Freswick. A, 'Shore Ruins'. B, 'Cremation' or possible earthhouse. (Photographs via N. M. R. S.)

12. — Interior Building I with flagging and bath (looking East) during Curle's Excavations (Curle, 1939, plate XXXVIII, no. 1).

13. — Detail North-East corner of Building I showing displaced flagstones North of Bath (Curle, 1939, plate XXXIX, no. 1).

14. — Detail interior of Bath in Building I indicating clay heap in North-West corner (unpublished, photograph via N. M. R. S.).

15. — Remains of 'Smithy' Building III with possible traces of hearth in foreground (unpublished, photograph via N. M. R. S.).

16. — General view looking East of Building VI under excavation (Curle, 1939, plate XLIII, no. 1).

17. — Building VI with foundations of secondary cross wall (Curle, 1939, plate XLV, no. 1).

List of Plates (cont...)

Plate

18. South side of Building VI during excavation showing cutting through the midden and walling in foreground not on final plan (unpublished, photograph via N. M. R. S.).

19. Vent at West end of Building VI, with overburden (Curle, 1939, plate XLIV, no. 2).

20. A, B Childe's excavations at Freswick. A, South wall of East room looking South with Freswick Castle in the background (Childe, 1943, plate 11, no. 2). B, West room looking South (Childe, 1943, plate 1, no. 2).

21. A, B Recent excavations of Curle's Building VI. A, East end indicating complexity of construction. B, entrance in South wall indicating partial blocking, paving and walling continuing to the South (Photographs, C. D. Morris).

22. A-C A, Brooches 2. 1. 1 and 2. 1. 2. B, Pin 2. 2. 1. C, Detail pin 2. 2. 1 (Photographs via N. M. A. S.).

23. A-C A, Coin obverse 2. 3. 1. B, Coin reverse 2. 3. 1 (Photographs T. Woods). C, Strap ends 4. 1. 1. and 4. 1. 2 (Photograph via N. M. A. S.).

24. A-C A, Buckles 5. 2. 1, 4. 2. 8 and 4. 2. 10 (Photograph T. Middlemass). B, Mount 4. 3. 1 (Photograph via N. M. A. S.). C, Tweezers 4. 7. 4 (Photograph T. Middlemass).

25. A-D A, Pin 4. 8. 80. B, Detail pin 4. 8. 80 (Photographs T. Middlemass). C, Pins 4. 8. 1, 4. 8. 5 and 4. 8. 12. D, Pins and needles 4. 8. 3, 4. 8. 4, 4. 9. 2, 4. 9. 4, 4. 9. 5 and 4. 9. 6 (Photographs via N. M. A. S.).

26. Pins 4. 8. 85/86, ring 4. 5. 7 and needles 4. 9. 18/19. (Photograph Mr. MacCallum, Thurso).

27. A-C A, Pin 4. 8. 82. B, Detail Pin 4. 8. 82 (Photograph T. Middlemass). C, Sheet metal 4. 10. 17, 4. 10. 18 and 4. 10. 16 (Photograph C. E. Batey).

28. A, B A, Knife 5. 3. 5. B, Barrel lock hook 5. 4. 1 (Photographs via N. M. A. S.)

29. Sinkers, top left 6. 1. 13, top right 6. 1. 1, lower right 6. 1. 7 (Photograph via N. M. A. S.).

30. A-C A, Whorl 6. 2. 5. B, Whorls 6. 2. 6 and 6. 2. 7 (Photographs via N. M. A. S.). C, Whorls 6. 2. 8 and 6. 2. 9 (Photograph C. E. Batey).

31. A-D A, Disc 6. 4. 5 (Photograph C. E. Batey). B, Quernstone 6. 5. 3 (Curle, 1939, plate XLVI, no. 1). C, Hones 6. 6. 6 and 6. 6. 4 (Photograph via N. M. A. S.). D, Hone 6. 6. 11 (Photograph C. E. Batey).

List of Plates (cont...)

Plate

32. A-C A, Steatite 6.3.1 (Photograph via N. M. A. S.). B, Steatite 6.3.7. C, Steatite 6.3.5 (Photographs C. E. Batey).

33. A, B A, Stone Vessel 6.3.3. B, Stone Vessel from Croft DUN 006, Dunnet, Caithness (Photographs C. E. Batey).

34. A-D A, Handle 8.11.2. B, Notched Bone 8.15.1 (Photographs via N. M. A. S.). C, Femur head whorls 8.7.27 and 8.7.18. D, Worked whalebone 3.15.13, 8.12.5 (Photographs C. E. Batey).

35. A, B Single-sided composite combs. A, 8.8.1. B, 8.8.7 (Photographs via N. M. A. S.).

36. A-C Single-sided composite combs. A, 8.8.14. B, 8.8.17 (Photographs T. Middlemass). C, 8.8.19 (Photograph Mr. MacCallum, Thurso).

37. A, B Double-sided composite combs. A, 8.9.1 (Photograph via N. M. A. S.). B, 8.9.20 and 8.9.21 (Photograph Mr. MacCallum, Thurso).

38. A-C Double-sided composite combs. A, 8.9.7, B, 8.9.9 (Photographs via N. M. A. S.). C, Parallel from Schleswig Excavations (Photograph via Ulbricht, Schleswig).

39. A, B Comb cases. A, 8.10.1 (Photograph via N. M. A. S.). B, Similar example from Sigtuna, Sweden (Statens Historiska Museum, Stockholm) (Photograph C. E. Batey).

40. A, B Wheelturned Pottery, 10.2.5 (Photographs T Wood).

41. A, B Complete grass tempered vessels. A, 11.1.1. B, 11.1.2 Photographs via N. M. A. S.).

42. A, B Grass tempered handles. A, 11.2.10 (underside). B, Robertshaven HR 1345 (Photographs via N. M. A.S.)

43. A, B Grass tempered handle from Bucholly Castle, Caithness (Photographs T. Middlemass).

44. A, B Details of grass tempered fabric (handle plate 43) (Photographs T. Middlemass).

45. A, B Daub fragments. A, 13.3.2/3 (Photograph via N. M. A. S.). B, 13.3.5 (Photograph C. E. Batey).

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'... So ruinous were the buildings, and so meagre the finds that I don't think anyone else is likely to disturb the remains in the future.'

(Curle notebook ms 28b (SAS 461), 73)

PREFACE

The work for this thesis began in 1978 and at that time it was envisaged as half of a one year Masters Degree, with the Earldom site of Orphir, Orkney forming the other part. The fact that such an approach was even considered is a clear indication of the lack of knowledge of Caithness in general and Freswick in particular in the Viking and Late Norse periods. However, the unexamined wealth of this period in Caithness became apparent after a few months' work, and this thesis is the result of a concentration on the Freswick and Caithness information for a period of over five years.

Even so, the subject is far from exhausted; the initial work on the site of Freswick led directly to the sponsoring of a small-scale survey there by the Scottish Development Department (Ancient Monuments Branch). This work revealed the scale of the damage to the site since Curle's excavations, and a larger project of survey and excavation, funded by the Scottish Development Department, has followed (Batey et al, 1981; 1983). This thesis is not particularly concerned with the results of the rescue excavations, but with the survey up to 1981. Therefore, the scope of this thesis is the range of earlier excavations at the site, the various collections of artefacts made since Curle and Childe, and the material from recent surveys carried out under the direction of the author. Although the final excavation reports will be published elsewhere, a brief and interim outline is provided in Chapter 5 of the excavation work up to 1981, to indicate how the understanding of the site is developing.

The site of Freswick Links, on the East coast of Caithness, has been examined archaeologically at various intervals over the last 80 years or so, yet its significance is still underestimated. That is, prior to the production of this thesis. Early occupation at the site includes a probable Bronze Age horizon, a partially upstanding broch, a number of souterrains or earthhouses

and an extensive Norse settlement. After the excavations by A. O. Curle and V. G. Childe between 1937 and 1941, the site was not investigated until work recommenced in the late 1970s. Between c. 1942 and 1978 therefore, the comment by Curle that 'The Freswick settlement discloses by its relics a class of occupants in poorer circumstances, as the finds were fewer in proportion to the area uncovered, /at Jarlshof/, and as a rule, also, they were ruder in character' (Curle, 1939, 107-8), was the accepted view.

It was one of the major purposes of this thesis to re-examine this statement, by a study of all finds recovered from the earlier excavations. Perhaps surprisingly, much of this material was unknown and is here examined systematically for the first time. This thesis also brings together a large amount of unpublished information which has been gathered from the site since these excavations, and thorough study of the original site documentation certainly presents a much fuller picture of the Freswick settlement.

It is of crucial significance to set an individual archaeological site against its regional setting. Unfortunately, prior to work on this thesis, very little was known archaeologically about this context. It was therefore a subsidiary aim to provide an up-to-date summary of the available disparate sources concerning Viking and Late Norse Caithness. It is now possible to see Caithness and Freswick more clearly in the wider setting of the Earldom of Orkney - Caithness as well as that of Viking and Late Norse Scotland. Although essentially focussing on the Viking and Late Norse aspects of the site, since the settlement can be traced back to the Bronze Age, this wider chronological context at the site has been outlined.

In this thesis the term 'Late Norse' has been adopted to distinguish later phases of Scandinavian activity at the site. 'Viking' here is limited to the period of the earlier settlement, up to the 11th century. Perhaps surprisingly

in the light of the previous descriptions of the site as Viking, the bulk of the evidence is from the Late Norse period. Independently, a similar distinction has been noted for the site of Sandwick, Shetland by Gerald Bigelow. He has recently noted that at Jarlshof, Hamilton's terminology for the period of occupation, involved a number of different aspects.

> 'Norse' was used as a generic term conveying the cultural or ethnic identity of the colonists, 'Viking' was a more specific label for the period in question and, secondarily, for the nature of the settlement as one aspect of Viking activity; the exploring and taking of land.
>
> (Bigelow forth)

At Jarlshof, the Viking period terminated in a phase which

> witnessed a series of structural alterations and additions which reflect a major change in the history of the settlement, together with the introduction of new diagnostic artefact type.
>
> (ibid.)

This was defined by Hamilton as the Late Norse occupation, dating from the 12th to 14th centuries. Bigelow would extend the range to c. 1500 A. D. because he can see no distinction in the Shetland archaeological record until the 16th century. The term 'Late Norse' is employed in this thesis both to indicate cultural continuity of a Scandinavian nature, and to cover the period of the 11th to 13th centuries. Whether the date range could be extended as late as in Shetland will require further work in both the historical and archaeological fields.

Through the identification of Freswick as a Late Norse site, questions are raised concerning Caithness at this time and the earlier Viking period, which on present evidence cannot be fully answered. The importance however lies in the fact that now at least the questions can be posed. Before this work, it was not known where the problems lay.

The thesis is divided into three main sections: Part I deals with Viking and Late Norse Caithness in its overall context; Part II is a detailed

study of the site of Freswick with an analysis of the structural evidence and inherent problems; Part III is a catalogue and discussion of all known artefacts from the site up to 1981. It is included in the main body of the text because of its profound significance for the understanding of the structural archaeology of the site. Most of this material is unpublished, and brought together here for the first time.

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ABBREVIATIONS

M. P. B. W.	Ministry of Public Buildings and Works.
N. M. A. S.	The National Museum of Antiquities of Scotland, Edinburgh.
N. M. R. S.	The National Monuments Record for Scotland, Edinburgh.
O. S.	(not underlined to distinguish it from O. S.: Orkneyinga Saga), Ordnance Survey.
R. C. A. H. M. S.	Royal Commission on the Ancient and Historical Monuments (and Constructions) of Scotland.

Abbreviations used solely in relation to bibliographical references will be found at the beginning of the bibliography.

Chapter 1

An Introduction

1.1 The Geographical Setting

At the extreme north east corner of Mainland Scotland lies an area of some 700 square miles of gently rolling countryside, an area which in present times is often regarded as peripheral to main events: this is Caithness.[1] The aim of this piece of work is to dispel the idea that Caithness has always been of marginal importance, and to show the significance of the archaeological remains of the Norse period in particular in a wider sphere. The sphere of influence was formerly dominated by Scandinavia, which in geographical terms is as near, or nearer than southern England (Figure 1).

The gently undulating scenery, generally lying below c. 183 metres belies the fact that Caithness (the modern county) has a complex geological history. It has been noted that Caithness differs geologically from its neighbour, Sutherland, in that Caithness is basically made up of Old Red Sandstone (except the western hills which are granite (Whittow, 1977, 314)), whereas Sutherland is of igneous and metamorphic rock, resulting in a totally different and mountainous terrain (Ritchie and Mather, 1970, 3). Caithness originally formed part of a great basin extending to Shetland in the north and to the Moray Firth in the south; the basin of Lake Orcadie, which was formed 370 million years ago (Omand, 1982, 8). It was during the deposition of strata at the base of the lake that the fossiliferous bands of fish, for which parts of Caithness are now famous, were laid down (Saxon, 1978).

The Old Red Sandstone can be subdivided into three different elements, Upper Old Red Sandstone (mainly seen at Dunnet Head); the Upper Middle Old Red Sandstone (mainly John O'Groat Series Sandstones) and Middle Old Red Sandstone (more commonly known as Caithness Flagstone Group)(Ritchie and Mather, 1970, 3). All three of these elements can be seen eroding along the 167 km. of 'fretted cliff coastline, interrupted only where sand has accumulated

in open shallow bays' (Omand, 1382, 12). The highest cliffs are composed of Upper Old Red Sandstone, as at Dunnet Head, but the cliff edge is less severe in the areas where flagstone and John O' Groat Sandstone are exposed, as for example at Freswick Bay, on the east coast. Inland the highest areas are of resistant quartzites or conglomerates, as at Morven and Maiden Pap.

A series of faults have been noted (Figure 2), as for example in Freswick Bay, where the John O' Groat and Ackergill Beds meet (Steers, 1973, 198). It has been suggested that this weakness may have led to increased erosion of the bay deposits (Crampton and Carruthers, 1914, 58). This was only noted indirectly by the recent survey of the Bay by Ritchie and Mather (1970, 40). It has, however, resulted in the presence of a rocky foreshore at the southern end of the Bay, which, as will be seen below, may have assisted in the drying of fish caught by the occupants of the site. (Plates 1 and 2).

The major watershed in the modern county runs from Ben Alisky, through Spittal and Olrig and through to Duncansby Head. To the west of this, for example, the Thurso River runs north-west; to the east the Wick and Dunbeath Rivers run south-east. The waters of Langwell and Berriedale seem to be superimposed on the drift geology and are deeply incising, which is probably the result of glacial activity.

The glacial activity in Caithness seems to have been restricted to the deposition of a thin skim of till (generally 1 metre, but deeper where it filled pre-glacial features) and caused very little erosion (Ritchie and Mather, 1970, 4-5). Omand has distinguished three slightly different tills in the county, and from these suggests a sequence of ice movement (Omand, 1982, 18-20). He feels that the most significant till, that termed the 'Lybster till' which is very distinctive because of its shelly nature, represents the glacial maximum in Caithness. The filling of pre-glacial valleys in conjunction with isostatic

adjustment after the Ice Age, has led to the extreme downcutting noted above and also accounts for some of the eccentricities of river paths, as in the Thurso River, where a number of rectangular bends have been noted (Omand, 1973b, 36-7).

The highly spectacular cliff scenery, composed of stacks and geos at various points among the coast, depending on the outcropping rock (e.g. Duncansby Head), must be one of the highlights of the Caithness landscape (discussed in Steers, 1973, 192-200). Geologically comprising a series of resistant and gently dipping beds of a relatively high plain, the faces have been attacked along the vertical joint planes (Ritchie and Mather, 1970, 4). However, there are other aspects of the coastal scenery which are of importance. On the north coast, there are low cliffs with foreshore reefs, e.g. Skarfskerry.

The sea is at present in the process of excavating a fossil coastline which was formed during the Ice Age, and Omand has suggested that there is evidence for a submergent cliff coastline (Omand, 1982, 12-13). The presence of a raised shoreline, which is to be seen more clearly at Dunbeath in the south of the county, can be detected on the north side of Freswick Bay (Steers, 1973, 198) although the level of this feature is declining northwards from Dunbeath.

The sandy bays of the Caithness coast have, however, proved the most interesting from an archaeological point of view. Most of these bays have attested archaeological occupation, particularly Norse, e.g. Freswick, Robertshaven, Huna and Sandside Bay (Reay). The extensive dune systems have been divided by Omand (1973b, 39 and 1982, 16) into three groups. The range of dunes which runs parallel to the coast and is backed by machair (defined by Steers as sandy pasture (1973, 15))and more commonly associated with the Western Isles of Scotland (c.f. Ritchie, 1967) but also noted at Keiss or Dunnet; the

irregularly distributed dune system as at Freswick or Reay; and the links areas of low fixed dunes of shell sand as at John O'Groats.

A further major element in the Caithness landscape is peat, with blanket peat covering approximately 60 per cent of interior Caithness. There are three main bogs, Altnabreac, Achairn Bog and Shielton Bog, and the produce of these is still a major source of fuel in the county (Penny, 1973, 57). Modern reclamation methods, including drainage and the application of loose sand to the surface, are being employed to recover some of the land which is useless for anything except peat cutting.

The modern soils of Caithness are usually peaty podsols in the west and south of the county and these are generally under heather dominated vegetation. The arable soil in the Caithness 'Lowlands' are non-calcareous gleys and those which have formed on the dune sands tend to be light brown calcareous deposits; the best drained soils are however formed on the morainic deposits (Futty, 1973, 50-53). The county as a whole is characterised by a lack of trees, absent since the last period of glaciation (Peglar, 1979, 245-6), and now only confined to small clumps in sheltered valleys especially in south east Caithness, and to private walled gardens where they have been deliberately planted and protected.

The lack of trees in the Caithness landscape has resulted in a lack of woodland species in the faunal assemblage. However, both the red and roe deers have adapted to a treeless environment, with the red deer being more numerous. The red deer can now be found commonly on the moors and hills at the west of the modern county, and the roe deer generally in more moist areas. Other wild creatures which are common in the county include the fox which was formerly more confined to the higher ground and moors of the west, but which has spread eastwards in search of food. Rabbits, rats and mice, stoats and weasels have been noted commonly, with fewer sitings of the badger

and even wild cat being recorded (Brown, 1973). Brown lists other elements of this wild faunal assemblage.

The Caithness vegetation has been affected by a number of factors; the nature of the soil, temperature, wind, exposure of the site, water supply and the supply of mineral salts. There can be distinguished in the county, four distinct ecological habitats, the stone scree, sand, clay and peat, based on the factors listed above. The shortness of the growing season, and its late arrival in late April, as opposed to March in the south, and the lack of summer warmth has led to the stunted growth of most species. All vegetation which survives these problems is affected to varying degrees by the lashing winds and salt sprays. Butler lists vegetation from the zones he distinguished (Butler, 1973) but despite the extensive species list the fact that only the hardiest of plants and shrubs can survive, cannot be escaped. (Figure 3).

Work by Peglar at the Loch of Winless, 5 miles west north west of Wick, in 'fenland' has indicated that perhaps the situation in the area was not always so extreme (Peglar, 1979). Although there does not appear to have been extensive tree cover in the area since the last glacial period, some tree cover has been noted in the pollen core examined. For example, c. 5000BP a small but convincing elm decline was noted and in c. 2500BP there was a marked increase in the presence of tree pollen, and in Gramineae and weed pollen. The fact that such fluctuations were noted in this core should be indicative of the fact that there were some trees in the vicinity, in a number sufficient to register in the pollen record. From the period c. 4000BP, pasture land seems to have been present in the vicinity of the pollen core. Before Peglar's work, there had been only one published pollen core from Caithness (Durno, 1958), from a moorland context and, unlike Peglar's core, lacking any C14 determinations.

The present climate of Caithness may be described as essentially maritime, i.e. mild winters and cool summers. This is an understatement since the coolness of the summer months can only be paralleled in the Arctic Circle (Hart, 1973, 41)! Omand has suggested that, in the past, the climate may have been more temperate (Omand, 1973a, 26), quoting a reference for vineyards in Caithness in the 12th century; this cannot however be supported with a precise reference (Omand, pers. comm.). Climatologists have, however, noted a climatic optimum, thought by Lamb to be between c. 1000 and 1300 A.D. (Lamb, 1966, 163) and by Parry c. 1150 - 1250 A.D. (Parry, 1978, 97). After this period, when the summers were warmer and autumns drier, a phenomenon experienced throughout Northern Europe in general, the weather cooled and areas of cultivation in uplands became more marginal (see, for example, Parry, 1981, 326-7). This picture is superimposed in Scotland by analogy with neighbouring areas although there is no conclusive climatic or vegetational evidence for the climatic optimum there (Lamb, 1966, 167).

A survey in 1969 for the Highlands and Islands Development Board concerning the agricultural landuse in the county (Senior and Swan, 1972, 11-40), indicated that 77 per cent of the 403,800 acres of agricultural land available was given to rough grazing, compared with 17 per cent of grass land and 6 per cent of tillage crops. The outdoor wintering of cattle is virtually impossible in most parts of Caithness, being restricted largely to the east coastal areas. Cattle are recorded in 54 per cent of the holdings with sheep in 64 per cent. However, generally the flocks are small in number, for sheep for example, the flocks ranged from less than 25 breeding animals to over 500, most commonly of the North Country Cheviot breed. Few pigs are kept in the county, and small numbers of poultry occur on most holdings, chiefly for egg production. The

cattle are mostly for beef, with a few dairy herds in the Wick area.

The remaining agricultural landuse, also discussed by Senior and Swan (1972, 11-40) indicates that 54 per cent of the holdings in the county are of less than 50 acres, and of this figure 80 per cent are less than 25 acres; only 13 per cent of the holdings have over 250 acres. Most of the crops produced, oats, potatoes, turnips and barley, are for consumption on the holding and so very few agricultural commodities are exported from Caithness to other markets; these commodities include barley and beef from the larger holdings.

The topography and drift geology have moulded the modern county of Caithness into three main ecozones - the sand dunes, peat lands and uplands. Extensive archaeological field work in the last two categories is noted below, but it is the archaeological information being yielded by the areas of sand dune which forms the core of this thesis.

Considering the climate and vegetation in Caithness, it cannot be surprising to note that most of the recorded settlement lies along the coastal margins and along the river valleys; such vast expanses of Caithness are peat-covered that land is limited and the available land cannot usually support large numbers of people. This pattern has been largely moulded also by the episode of the Clearances (see for example Richards, 1982).

The 'Agrarian revolution' or Clearances which took place between circa 1780 and 1855, spread throughout most of upland Scotland. The landowners moved families away from the small communities to enable the land to be enclosed for extensive sheep grazing; this was thought to be more financially viable. The clearances of Sutherland were more extensive and violent than those of Caithness, and involved the removal of the people to small holdings on the coast, for example at Bettyhill in the north. The Caithness clearances were

generally undocumented, unless the events were particularly dramatic, as at Dunbeath where violence accompanied the evictions or at Dunnet where the evictions were meted out as a punishment for taking part in the Thurso food riots of 1847 (Richards, 1982, 378-80). Both these documented incidents took place at the hand of the Sinclairs, the Freswick landowners. The village of Badbea in south Caithness was one of the coastal settlements occupied by the dispossessed population of the Langwell area (Gunn, 1973, 142). Remarkably little of the settlement of this period has been examined archaeologically to date. The excavations of Fairhurst at Rosal, Sutherland stand alone (Fairhurst, 1968).

Ironically, the development of the fishing industry in Caithness was in part connected with the resettled population. The need to survive encouraged the integration of the fishing industry into the poor subsistence economy. The newly established port development at Wick, based on the herring fleets, took in some of the displaced people, both from Caithness and further afield. Others were driven by hunger to work in the south, or to seek new lives further afield. This has led to a pattern of dispersed settlement, even in the relatively rich agricultural area of Canisbay parish, the parish which holds the three settlements which can be ascribed to the Late Norse period. The major areas of concentrated settlement are Wick, Thurso and Castletown, with other minor ones. There are, however, also other reasons apart from agriculture for the development of these settlements: the flagstone industry, fishing or more recently the development of Dounreay on the north coast, which is a major employer in Caithness. Since the 19th century, parts of Caithness have yielded large amounts of flagstone. The industry developed from the quarry at Castlehill (Castletown), Olrig in 1793, and spread from then, with the period 1899-1902 being the boom period (Porter, 1982). Settlements

developed around the quarries, particularly Castletown, Olrig. In 1949, the Spittal Quarry was reopened, following the decline of the industry when concrete was used for paving rather than flagging. In modern Caithness, the flagstone is most commonly used for field boundaries and in outhouses, especially in the older buildings where stall divisions can be seen. In the modern times, the cost of transporting the slabs has proved prohibitive to the expansion of the industry.

Caithness does not have rich reserves of other minerals. Sharpe and Saxon discuss the elements associated with the granitic rocks in the west of the county, milky quartz and Blue John (1973). In the sandstone, of which there is considerably more in Caithness, calcite, fluorspar, barytes, hematite, iron pyrites and copper pyrites are to be found. However, none of these are in marketable amounts. The gold found in the Helmsdale region to the south of Caithness in the last century, whilst potentially a marketable quantity, can still only be of very limited significance in economic terms.

The importance of the sea to the people of Caithness cannot be over-stressed; this is due mostly to the limited nature of the exploitation possible on the land. Exploitation of the beaches and cliffs, whilst perhaps not so extensive in the modern day, was formerly considerably more so. Fenton discusses the importance of sea fowl (Fenton, 1978a, 510-23) from the cliffs, of which there are many in Caithness, and Baldwin outlines the methods of catching the birds from the cliffs (1973). The wealth of the seashore, including the potential uses and significance of a stranded whale, are also discussed (Fenton, 1978a, 545-551). It is, however, the significance of seaweed from the shore which has been largely neglected. A recent study by Bell has pointed out this omission, and it is interesting to note that recent excavations are recovering this element in the floral assemblages, such as Birsay in Orkney

(Donaldson et al, 1981, 78-9) and at Buckquoy, nearby (Ritchie, 1977, 251) and other sites noted by Bell (1981, 117-26). There are many uses to which this could be put, including in the process of making glass (Bell, 1981, 117). Fenton outlines the progress of the 18th to 19th century kelp industries in the north, and mentions seaweed as a source of iodine and potassium salts, and the use of kelp (alkaline ash) for soap manufacturing (1978a, 58-66). It is, however, highly likely that it was in more common use in the north, as an enrichment to farm land. This use is recorded in the Old Statistical Account of 1793 (OSA, vol. 8, 148), and it is particularly interesting to note that this still happens on a reduced scale in the bay of Freswick which is a good bay for attracting seaweed, as Robertshaven and Huna are on the north coast (see below).

However, as would be anticipated, it is the fish of the sea which play the most significant role in the economy; chiefly herring, cod and ling. Fenton has again discussed the social consequences of fishing within the context of the Northern Isles, during the last few centuries, in a period for which there is good documentation (Fenton, 1978a, 571-584). It is possible to a certain extent by analogy, to transfer some of the information about the 16th and 17th centuries back further, but such an approach should be tackled only with the greatest of care.

The importance of fishing in the economy of the Late Norse sites available for examination, can be seen to be paramount - for example at Freswick in Caithness and at Jarlshof and Sandwick (Hamilton, 1956; see below) in Shetland (Bigelow forth). However, these are settlements which failed to continue for some reason. It is possible that the shoals of fish moved away from the areas fished by these people and so the emphasis on the economy must have altered, perhaps disastrously. There are more recent examples of such decline in the fishing industry, perhaps most clearly seen in the case of Wick

which was a thriving herring port in the 19th century, leading to the expansion of the town with Pultneytown (see, for example, Dunlop, 1982) and also at Staxigoe (which has since failed totally); this decline was caused by the movement of fish banks and the over-exploitation and slow development of processing techniques and, especially at Wick, by the smallness of the harbour. The presence of numerous ice houses along the modern Caithness coast attests the former importance of fishing, but these are seldom used now, e.g. Keiss. Ackergill Shore and Wick.

It is perhaps with a picture of faded former glories and importance, that a study of Caithness should begin. However, it is in the archaeological study of these elements that a fuller picture of the settlement and economic position of modern Caithness can be understood. The site of Freswick, very rich in archaeological terms but now hardly to be described as the hub of fishing activity on the east coast, has played an important role in the past development of the area.

1.2 History of Archaeology in Caithness (Figure 4)

It is a measure of the relatively small amount of archaeological examination which has taken place in Caithness, relative to the large number of monuments, that it can be outlined here so briefly. Almost without exception, the earliest excavations took place on the most obvious mound sites. These generally enclosed broch towers or chambered cairns. It was noted early in the history of Caithness archaeology that 'green mounds' were most commonly brochs, but 'grey mounds' were cairns (Stuart, 1868, 305).

Some of the earliest recorded work was undertaken by A. Rhind in c. 1852 on the broch of Kettleburn (Rhind, 1853a ; 1853b). He noted the appearance of the mound covering the broch at Yarrows (Stuart, 1868, 293). On his death, Rhind left a fund to examine '. . . (not exclusively)

the upland districts of the counties of Caithness, Sutherland and Ross' (Stuart, 1868, 289). Through this, J. Anderson was enabled to excavate at the mound at Yarrows (spelt Yarhouse), in 1870 (Anderson, 1873, 131-142). The archaeological wealth of the area was never in doubt. Rhind had already noted that

> Perhaps, with the exception of some districts in the Orkney Islands, there is, so far as I am aware, no tract of country in all Scotland of similar extent that can furnish the archaeologist with so many examples of primeval skill as are yet to be found in the south corner of the parish of Wick, comprehending the localities of Yarrows, Warhouse, Ulbster, Watnyn and Camster.
>
> (in Stuart, 1868, 292-3)

This concentration of monuments was noted by S. Laing in 1865. He noted, whilst staying at Keiss, some five mounds of potential archaeological interest, within the immediate area. He excavated these, of which two were brochs and one was the burial mound mentioned below (page 56). He took great care to note the stratigraphical sequence at each of the sites examined (Laing and Huxley, 1866, 10-19; Laing, 1868, 57-60).

In the following two years, J. Anderson, then resident at Wick, and R. I. Shearer were sponsored by the Anthropological Society of London to examine a number of monuments in Caithness. These included Camster Round Cairn (Anderson, 1866a), Camster Long Cairn, Ormiegill and Garrywhin near Bruan (Anderson, 1866b; 1868; 1870, 221-225). They identified in the last two monuments a new type of cairn structure, the horned cairn. In 1871, Anderson reported to the Society of Antiquaries in Edinburgh the excavation of a number of cairns in Caithness, including Warth Hill, Duncansby for example (Anderson, 1872). In the same year he also reported a number of excavations on broch sites, including Dunbeath and Bowermadden (Anderson 1873). He had been made Keeper of the National Museum of Antiquities in Edinburgh in 1869 (Graham, 1976, 279) and from then his field work in Caithness

was limited.

However, in 1901, Anderson presented the excavation details from the work of Sir Tress Barry. He had excavated nine brochs along the coastal margin between the Water of Wester in the south and Skirza Head in the north, in the years 1890 to 1900. These included Nybster, Ness and Freswick Sands brochs which are noted below (page 152). Anderson also noted that Tress Barry had examined 'several other rude stone structures, some of which appear to be sepulchral' (Anderson, 1901, 112). At the beginning of the article, Anderson listed other broch excavations which had taken place prior to those of Tress Barry, at Dunbeath by W. S. T. Sinclair in 1866 (also Anderson, 1873, 114-146) and at Ousdale by J. Mackay in 1891 (Mackay, 1892). However, he concluded that prior to the work of Tress Barry, very few brochs had been systematically excavated 'for the purpose of scientific record' (Anderson, 1901, 113). In modern terms it is difficult to see the excavations of Tress Barry in that light. However, the fact that no other brochs have been located within the coastal margin examined by Tress Barry, must suggest some form of organised approach. It would have been more helpful if Tress Barry had published the information himself, perhaps then more detail would have been available in the published record.

Between 1900 and 1910 very little archaeological activity is noted in Caithness. There are only occasional references to Tress Barry, for example, excavating at Skitten, Kilimster in 1904 (in Calder, 1948, 124). However, in 1910, the first overall and multi-period survey of the archaeological wealth of Caithness was undertaken by A. O. Curle in the summer and autumn of that year (RCAHMS, 1911b, iii). This can be seen as the first departure from the obsession with broch-examination. This survey work remained the only one of its kind in the county until work of the 1960s by the Ordnance Survey. It

included recommendations for the preservations of monuments. These were subdivided into 'a) those which appear to be specially in need of protection and b) those worthy of preservation but not in imminent risk of demolition or decay'. It was noted that the monuments and constructions located were 'more numerous and important than was expected' (RCAHMS, 1911b, iii). Of particular significance was the increase in the number of known brochs, 79 being distinguished in 1870 and 145 in 1910. Curle also distinguished other types of monuments and in his introduction to the Caithness volume, as Secretary for the Royal Commission, he discusses them in chronological order and divides them by type and function, for example ecclesiastical, castellated, domestic. It is not always possible to be so sure of the identification from a ground survey, but generally his interpretations can be upheld. He also noted concentrations of monuments in certain areas, for example in the Yarrows and Warehouse area, Loch Calder, Shebster Hill, and the lower areas of the Langwell and Dunbeath Straths. He excavated a site that he distinguished as a galleried dwelling at Langwell (RCAHMS, 1911b, no. 250, 68; Curle, 1912). It is interesting to note that this site was actually recorded in the volume in March 1911 rather than summer 1910, after this excavation.

The history of Caithness archaeology is based on a series of different characters, with often a single person dominating a few years at a time of the archaeological activity. This feature has been recently discussed by Graham (1981, 216-18). After Curle's work, A. J. H. Edwards came to the fore in the 1920s, working extensively and regularly in the county. Prior to 1924, Edwards worked at the chambered cairn at Ham on the north coast and also at Freswick Links (see below, 155) (Edwards, 1925). Funded by money from the Gunning Fellowship in 1925 and 1926, he excavated cists and associated kerbed cairns at Ackergill Links (discussed below, 55) (Edwards, 1926; 1927)

and an earth house at Freswick Links which is noted below (page 155). In 1928, funded from the same Fellowship, he examined walling found in 1913 at Reay, near a Viking grave, and a horned cairn at Lower Dounreay (Edwards, 1929).

A.O. Curle returned to work in Caithness in 1937 and 1938 at Freswick Links and this work forms a large part of Chapter 7 below. In the following year, 'when I had completed my Freswick adventure...' (Curle, 1941, 24), he turned to the excavation of the 'Wag' of Forse, Latheron. This site had been noted in the Commission volume of 1911 as a galleried dwelling (RCAHMS, 1911b, no. 263, 72-3). Despite an open-minded approach to the excavation of this site, Curle could not distinguish its function, although he tentatively dated it in the Early Iron Age (Curle, 1941). This site was examined into the late 1940s (Curle, 1948).

In 1940, C.S.T. Calder of the Royal Commission, undertook one of the earliest rescue excavations in Caithness at the broch of Skitten, previously excavated by Tress Barry. The site was to be levelled for the building of Skitten aerodrome. The site was of particular interest because of its good state of preservation and because 'later erections (were) noted within the tower itself' (Calder, 1948). The following year V. G. Childe conducted a further excavation at Freswick Links, once again with a rescue motive. This is discussed below (Chapter 7) (Childe, 1943).

After a lapse in the published record of some twenty years, excavations in 1961 by J. W. X. P. Corcoran on three chambered cairns at Loch Calder were recorded in 1965 (Corcoran, 1965). These were Tulach an t-Sionnaich, a passage grave set in a heel-shaped cairn with later extensions and Tulloch of Assery A and B, a short-horned cairn and a circular cairn. This excavation was one of the last to be undertaken in a single season. The succeeding excavations were funded on budgets which enabled successive seasons' work to be completed.

The work of H. Fairhurst at the broch of Crosskirk, between c. 1966 and 1972 will shortly come to publication (Fairhurst forth). Interim reports, however, indicate that a settlement was traced immediately outside the broch tower to the east (Fairhurst et al, 1966, 19). In the tower, a long period of occupation was identified with interior reorganisation (Fairhurst and Taylor, 1970, 19-20). In the latest stages, a souterrain was constructed at the site and remains of a secondary enclosing wall around the broch appeared to run below St. Mary's Chapel to the south (Fairhurst and Taylor, 1971, 53). Contained within this enclosure, the settlement noted previously was examined in the final season in 1972, and appeared to have been long established after the construction of the broch and outwork, i.e. it was post broch. The site could not be preserved because of severe undercutting by the sea, and it has now been left to the elements (Fairhurst and Taylor, 1972, 54).

E. Talbot of Glasgow University excavated at Scrabster Castle between 1970 to 1973. This site was again eroding and rescue excavations revealed a 15th century addition to the Castle buildings, all arranged within an enclosure (Talbot, 1970, 60; 1973a; 1973b, 21). Finds indicate a 13th century occupation and possibly earlier.

In 1975-77, E. Talbot also excavated at Clow Chapel, Watten. This site, ruinous by the 18th century, even after excavation, proved difficult to date precisely. A series of skulls and associated vertebrae were recovered in small cists and there were possible suggestions of an earlier timber church which had been destroyed by fire. The pottery evidence could suggest a 13th century dating (Talbot, 1980, 17; 1976).

Major work at the site of Camster Long Cairn re-commenced in earnest under L. Masters of Glasgow between 1976 and 1980. Work had been undertaken since Anderson by Corcoran in 1971 and was significant because the suggestion

was raised of a chamber leading from the south side of the cairn, near the facade of the South West forecourt (Corcoran, 1971, 52-3; Selkirk, 1972, 286-7). Masters concentrated on the actual composition of the cairn (Masters, 1978, 453-4, 459; 1981, 171-2), noting for example that one side of the cairn had been built of overlapping slabs, whilst the other was more irregular. He also succeeded in tracing parts of the kerb of the cairn where it remained (Masters, 1976, 25-6). Post holes were recovered in the pre-cairn land surface which seem to suggest positioning involved with the actual laying out of the cairn, being situated along the central line of the cairn's long axis. There was extensive examination of the pre-cairn land surface also (Masters, 1980, 17).

Following a site survey at Freswick in 1978, a major programme of excavation and survey in Caithness by Durham University commenced in 1979. This is discussed extensively below (Chapter 5). The project is based on a rescue strategy with research input and is ongoing.

The move away from purely research criteria in the archaeological work can be clearly seen in the last 40 years in particular, beginning with Calder at Skitten and Childe at Freswick. Research excavations are now largely integrated with the consolidation of sites, as when they are taken into Guardianship and thus opened to the public as at Camster Long Cairn.

As can be seen from the discussion above, a series of major excavations have taken place in Caithness, on sites of various types and several periods. Despite the promising beginnings of Curle's survey work in 1910, very little had taken place until the Ordnance Survey Work of the 1960s and A. Henshall's study of Chambered Tombs (Henshall, 1963, and 1972). This is now supplemented by a major campaign of multi-period work. R. J. Mercer of Edinburgh University has undertaken work in 1977 in areas to be afforested,

such as Aukhorn (Mercer, 1980, 10-16, 84-88) and in 1980-1 (Mercer, 1981) along the north Caithness coast. Further survey on the coastal stretch was also undertaken by C.E. Batey in 1980-2 (Batey forth) between Dunnet and Ousdale. All these have substantially increased the corpus of material available for study. For example, Batey records a 200 per cent increase in sites known along the coastal margin from Dunnet in the north to Ousdale in the south (Batey forth).

Note

1. For the purposes of this thesis, Caithness is considered as at the pre-1975 administrative unit. The regional re-organisation in 1975 added the Sutherland parishes of Tongue and Farr to Caithness. In 1977, however, after representations by these parishioners, Tongue and Farr reverted to Sutherland. Thus the present-day county of Caithness is the same as before the regional re-organisations. (I acknowledge here the help of Mrs. J. Campbell, Depute Chief Executive, Caithness District Council.)

PART ONE

VIKING AND LATE NORSE CAITHNESS IN ITS CONTEXT

Chapter 2

Place names, Sagas and History: the Evidence for Caithness and Sutherland

There are three main non-archaeological sources open to one in the study of Viking and Late Norse Caithness: the place names, the saga evidence and the historical documentary sources. The place names have been extensively studied by Professor W. F. H. Nicolaisen and the historical sources by Dr. B. E. Crawford. It remains here to summarise their main findings and to gather together the saga information. Unfortunately the main information concerning the early history of Caithness and Sutherland relies on the sagas. There are many problems involved in the use of these sources, noted elsewhere (e.g. Anderson, 1922, VIII; Sawyer, 1971, 37-41; Cowan, 1982, 26), but, given the lack of other information, these have to be employed. The work of Nicolaisen has served to indicate the extent and concentration of Norse influence in the area, and that of Crawford to provide the information on the later period of the Earldom history. The available sources of information, thus, provide a complementary picture, although it is one which the lack of archaeological information can do little to supplement. There are settlements which are recorded archaeologically, for example, such as Reay in West Caithness, which do not appear to be recorded in the literary record. However, there are also sites which are known from the Sagas which have produced little or no archaeological evidence to support the identification, such as Thurso. The three sources therefore must be considered not as individual elements but as a whole and complementary body.

2.1 The Place Names

It has been noted that,

> The distribution of Scandinavian and Scandinavian-influenced place names is the best index of the former extent of the settlement of these people and of their mingling with the local population in all parts of Britain.
>
> (Phillips et al, 1973, 11)

Recent work by Nicolaisen and, before him, Marwick and Brøgger, has indicated that this is very clearly seen in the northern British areas of Scandinavian settlement: the Western Isles, particularly in the Hebrides, the Northern Isles of Orkney and Shetland, and the mainland earldom areas, Caithness and Sutherland (Figures 5 and 6).

The place nomenclature of these areas is intimately linked with the Norwegian homelands, being derived either directly or indirectly from these. The precise dating of the naming elements cannot be accurately given, but a relative chronology has been suggested by Nicolaisen (discussed below), with naming probably continuing into the 9th century (Nicolaisen, 1980, 107). Brøgger has plotted the setr name element in Norway, and noted its concentration in the Møre and Trøndelag areas, thus suggesting an influx of population from this area to the North and West of Scotland (Brøgger, 1929, 74-8). This homeland area is supported by the distribution of the bólstaðr element in Norway, with a notable concentration in the Møre district (Brøgger, 1929, 78-81). The staðir element seems to be concentrated in the Agder-Rogaland area of West Norway (Brøgger, 1929, 81-2). This information is corroborated by the work of Borgstrøm, who has traced the settlement of both Sutherland and Lewis for example, back to south-west Norway, on the basis of pre-aspiration and pitch pattern of Norse elements transmitted through the Gaelic (Borgstrøm, 1974).

Before considering which elements in the place names of the north are of particular significance, it is necessary to note which elements were likely to have been present prior to the Norse arrival. It is interesting that the name of Caithness itself is likely to be one of the oldest names (Nicolaisen, 1982a, 76-7). There are indications in the place name record, as in the archaeological one (see below), of the presence of the Picts in Caithness. An

example of this is the name of the stretch of water between Orkney and Caithness, the Pentland Firth. This is considered to be derived from the ON Pettlandsfjörðr (Pictland Firth). However, no Pit place name elements have been distinguished in Caithness, the most northerly ones being Pittentrail and Pitfour (Nicolaisen, 1982a, 76) in Sutherland. The name element Papa, indicating the presence of Celtic priests, may also assist in the identification of pre-Norse elements. Only 27 of these have been noted by MacDonald in the North and West of Scotland, with 2 in Caithness (Papel, Canisbay and Papigoe, Wick). None were located in Sutherland (MacDonald, 1977, 27). In Caithness, there do not seem to be any certain names of Norse origin which incorporate any earlier elements. The only possibility may be in the name Duncansby, incorporating the Celtic name Dungal (Nicolaisen, 1982a, 79).

Nicolaisen suggests that the incoming Scandinavian population would name the coastal features first and then the land use and drainage elements (1980, 110). If they came to a nameless landscape, as in effect the situation would be if it had been named by a population in a language which could not be understood by the Scandinavians, the incomers would face a place naming crisis. Presumably they would have to name features which resembled their homeland scenery, in the way to which they were used. The overall Scandinavian place name distribution in Northern Scotland has been mapped out using various place name elements. Considering the elements of staðr (dwelling place or farm), setr (dwelling), or saetr (shieling), bólstaðr (farm) and dalr (valley) as being the most significant of those distinguished by Marwick in Orkney[1], for reasons noted (1976b, 86), Nicolaisen places these sequentially, based on their gradual spread of influence. In Northern Scotland, Nicolaisen would see the element of bólstaðr (farm) as in Lybster or Scrabster in Caithness, Embo or Skibo in

Sutherland, as representing the maximum extent of Norse settlement (Nicolaisen, 1976b, 92). This Nicolaisen suggests was Scotia Scandinavica (1982b, 105). The distribution of the place names noted falls within this maximum distribution.

Staðr, an early element, found in Scandinavia in the second half of the 7th century (Nicolaisen, 1982b, 100), is common in Orkney and in the Western Isles, but is not found on the Mainland. Nicolaisen's maps all indicate a single example of this element in Caithness, at the south of Dunnet Head. It seems likely that this represents Wester, but in his more recent account he specifically notes that no staðr elements are to be found on the Mainland (Nicolaisen, 1982a, 80). This may suggest a rethinking of the name Wester which is noted elsewhere as a setr element (Nicolaisen, 1976b, 91).

Nicolaisen has suggested that setr was a consolidation of the staðr settlement distribution (1969, 11), concentrated particularly in Shetland (see map 6, 1976b, 89) and including some 56 examples in Caithness such as Seater and Reaster. He suggests a scatter around 900 A.D., but stresses that this dating cannot be conclusive (1982b, 100). He has also noted the potential confusion between the element setr and saetr (Nicolaisen, 1976b, 91).

A further consolidation of the settlement may be represented in the increased concentration of bólstaðr place names. These are relatively common in Orkney and Shetland, and increasingly so in Caithness and Sutherland. This is the first Scandinavian element distinguished in Sutherland. This element is represented in such names as Lybster and Stroupster, Camster and Thrumster in Caithness, and in Sutherland by the element -boll or -pol. The distribution of these latter forms is confined to Sutherland and has been interpreted as the combination of Gaelic and Norse (Nicolaisen, 1969, 15-16). A dating of the 10th

to 11th centuries has been suggested by Nicolaisen, as the height of Norse power in the North (1982b, 103).

The distribution of the dalr element is particularly wide, heavily concentrated in Orkney and Shetland, and widely distributed in Northern Scotland, although not concentrated. This is seen to represent the naming of valleys by the Norse, and does not necessarily indicate permanent settlement. Examples of this element are common, and include for example Berriedale in Caithness and Ospisdale in Sutherland.

The suggested chronological sequence here outlined is depicted in a series of maps produced by Nicolaisen (for example 1976b, 88-95) and discussed by Morris (forth a) (Figures 5 and 6). Although the obvious dissemination of Norse names can be seen in these maps, he has pointed out that it is not possible to ascribe a particular name to a particular date range. For example the element bólstaðr which is so common in Northern Scotland is likely to have continued in use for a long period (Nicolaisen, 1982a, 82) and was presumably still applied, where appropriate, to certain locations at any period. The establishment of a relative chronology is possible, but absolute dating is dependent on the framework constructed from other sources and this can easily result in a circular argument. The lack of staðr names in Caithness may seem to suggest that it had ceased to be a place name generic by the time the Vikings came to Caithness. Nicolaisen has suggested a date in the mid 9th century as the initial naming period. However, he also states that a variety of place names are likely to have been used from the beginning of the settlement period (Nicolaisen, 1982a, 80 and 82). Various categories of naming have been distinguished, personal elements as in Assery (Asgrim's shieling) or Auckengill (Hakon's ravine); noteworthy features of the settlement as in Nybster (new farm)

or Sannick (sandy bay); place names established with reference to another feature in the vicinity, as in Wester (homestead by the loch), or Stroma (island of the current) for example; also prominent regional features may be included, as Reiss (meaning ridge) or Watten (water) (Nicolaisen, 1982a, 82-3).

However, the giving of Norse-type names continued in Northern Scotland through Norn, the local development of the Norwegian language in the post Medieval period (Wainwright, 1962, 120). Unlike Sutherland, there is no evidence in Caithness that the language passed through Gaelic into Scottish language, more that it was taken directly into Lowland Scottish. Thorsen concludes that the linguistic remains in Caithness indicate the long survival of the Norse colony and presumably the use of Norse place names (Thorsen, 1954). Nicolaisen sees only a relatively late mingling in Caithness of the Norse and Gaelic names, chiefly at the 'borders' and sees no evidence for the use of the two languages by the same people at the same time (Nicolaisen, 1982a, 84). These factors indicate the problems of trying to date precisely the place name elements, even given other frames of reference.

The problems of an incomplete place name record are obvious, and the dangers of using modern forms rather than the oldest elements cannot be over-stressed. This problem is particularly common in coastal situations and is considered below. Regardless of such reservations,however, the concentration of Norse names in the Northern Isles and Northern Mainland cannot be ignored. The names of Caithness divide into Gaelic and Norse, but in Sutherland they are a combination of Gaelic, Pictish (Celtic P) and Norse, and some Gaelic-Norse hybrids have been distinguished. The county name itself would seem to suggest a naming from a Northern viewpoint (Nicolaisen, 1982a,77). There are concentrations of Norse elements along the seaboards and up the valleys, the

element of dalr being particularly common because of the topography, as at Torrisdail, Tongue Parish and Helmsdale, Kildonan Parish. The latter is particularly interesting because in Celtic the name was Strath-ilidh and was changed by the Norse (Brøgger, 1929, 59) and may possibly be interpreted as Hjalmund's Dale (Watson, 1906, 363). In the study of Sutherland place names we are fortunate to have a number of compilation works, such as that of Watson (1906) and Gray (1909; 1910). Although incomplete, they form a basis from which to work and indicate the range of names involved. Although many elements are topographical, others are concerned with settlement, such as Borroboll, Farr Parish (indicating a fort-steading) and Fiscary, Tongue Parish (indicating a shieling site). The place names of this area have been recently studied by Fraser (1979).

However, the situation in Caithness has long excited comment because the Gaelic and Norse elements in the place name record appear to be mutually exclusive. Nicolaisen has plotted out the Gaelic elements baile (village, farm, permanent settlement) and achadh (field) (1976, 138, Figures 14 and 15) in the west of Caithness and has suggested that these Gaelic areas may have limited the Norse spread (1982b, 108). Omand has recently distinguished a line running from Brims through Loch Calder to the Latheron area, where the names with Gaelic derivation fall to the west and those with Norse to the east (Omand, 1973c, 222). Such a clear cut division is not however rigid as there lies between them a grey area noted by Nicolaisen (1982a, 79). That a division does exist is clear, however, and has been long noted (e.g. Curle, 1939, 71), forming a basis of the modern place name studies in the area.

Such an area within the purely Norse sphere of influence is the parish of Canisbay which has a particular wealth of Norse place names, with virtually

all names in the parish identified as Norse[2] (Figure 7). This would seem to suggest a total suppression of all place names from the pre-Norse period, although a pre-Norse population which presumably had place names of its own is archaeologically attested. This is perhaps supported by an interpretation of the name Freswick by Mowat, suggesting that this may have been a Norse rendering of the pre-Norse name Camas na Traghad (meaning a sandy bay) and interpreted in Norse as Þraðsvík (Mowat, 1931, 7). It is, however, difficult to substantiate such a suggestion or indeed to find comparable examples in the area.

The wealth of Norse names in Canisbay is indicated on the map (Figure 7). Many of these names represent topographical features such as Geo of Bedsdale, ON beitis dalr (pasture dale) or ON beðjá dalr (dale of folds); Clett, ON klettr (isolated rock pillar), or Warth Hill, ON varða (beacon hill). There are a few which represent settlements however, possibly Sonsiquoy, ON sand kví (sand farm). Brabster, ON breiðu bólstaðr (broad homestead), or Stroupster, ON storr bólstaðr (big farm).

However, a note of caution should be sounded. The coastal names are chiefly descriptive terms, as Skippie Geo, ON skipa gjá (ship geo), and Fullie Geo, ON fugla gjá (possibly meaning bird geo). It is however a distinct possibility that the tradition of such names continued for a long period, especially since Thorsen suggests that Norn continues in Caithness up to the 16th century (Thorsen, 1954, 233). Such terms as geo would therefore be common for a long period, as seen in Kingan Geo, traditionally so named because King James V visited the spot. Others such as Deubie Gill and Sheavie Gill are more likely to be Scottified terms from the Norse and hence the chronology is difficult to determine because the priority of the two elements is obscure.

Caithness has been termed a mainland bridge head of Scotia Scandinavica (Nicolaisen, 1982b,105), but perhaps the evidence other than the place names indicates much more satisfactorily the position of the North East Mainland of Scotland in the Norse settlement, particularly in the period of the Earldom.

2.2 The Sagas and Historical Sources

For the history of events in Viking Caithness proper, the saga literature is the only source of information. Although far from ideal, the suggestion that the Orkneyinga Saga 'claims implicitly to be history rather than art' (Taylor, 1938, 7) should give one grounds for hope.

One of the earliest datable references to Caithness in the Orkneyinga Saga is dated c. 874 and tells of an alliance between Earl Sigurðr and Þorsteinn the Red, which resulted in the conquering of 'all Caithness and much more of Scotland, and Moray and Ross' (O.S. Ch. V, 8; Taylor, 1938, 139). Heimskringla, suggesting a dating of c. 889-892, limits this conquest to 'Caithness and all Sutherland, as far as Ekkialsbakka' (H. Harald Fairhair's Saga, Ch. 22, 122); possibly in the area of Strathoykell (Taylor, 1938, Note 5, 353). These sources seem to indicate that Vikings were already established in Orkney, and then came to Caithness, and after the victory 'many Vikings settled in the lands, (both) Danes and Norwegians' (H. op. cit.).

From this point on in the saga literature there are various references to Vikings in Caithness. The Orkneyinga Saga provides very valuable information, and its clarity of topographical description in many cases has led various authors including Taylor, to suggest that the author of the Orkneyinga Saga may have stayed in Caithness for some time, thus writing at first-hand knowledge. Taylor has gone even further to suggest that the author may well have visited the mainland at least once between 1190 and 1210, probably staying with a branch of Sveinn Asleifarson's family in Duncansby (Taylor, 1938, 28).

In Orkneyinga Saga there are numerous references to Caithness and the earldom élite, and these are supplemented by other saga sources. Taylor has observed that 'the interests of the compiler of Orkneyinga Saga lie very obviously in Orkney and Caithness' (Taylor, 1938, 93) and for this fact a student of Viking Caithness is most grateful. A recent survey of Caithness in the Sagas has been made by Cowan (1982) and his work provides further examples to those here quoted. The Orkneyinga Saga text relies heavily on the presence of a number of colourful characters, most commonly the Caithness and Orcadian élite but others are mentioned, particularly Frakokk who owned lands in Kildonan and who was of the Moddan clan, a so-called Celto-Norse kindred (Cowan, 1982, 32). From the sagas we learn of battles, settlements and leaders, often not archaeologically recorded. For example in the Orkneyinga Saga we learn of battles at Dale and Skitten, both of which were victories for Ljótr, husband of Frakokk, against the Scots (O.S. Ch. IX and X, 20-23; Taylor, 1938, 145-8). The Saga also tells that Earl Harald Maddadarson raised an army of 6,000 men in Caithness in 1202 against the King of the Scots (O.S. Ch. CXII, 296; Taylor, 1938, 347).

Through the actions of some of the characters it is possible to learn something of the settlement distribution of the time. For example, there are many references to Sutherland which indicate a more widespread and dense population there than the present archaeological evidence would support. All indications in that area, are however, for a more integrated presence with the local population than the sagas would suggest was the case in Caithness. Frakokk, the daughter of Moddan, is recorded in the Saga as marrying Ljøtr Niðingr in Sutherland (O.S. Ch. LIII, 114; Taylor, 1938, 214) and henceforth they had a 'bu' in Helmsdale (Taylor, 1938, Note 2, 373). This was destroyed by Sveinn and Frakokk was killed (O.S. Ch. LXXVIII, 178; Taylor, 1938, 264). Later in the

Saga, Earl Rognvaldr is recorded at the wedding of his daughter, Ingiridr to Eirikr Stagbrellr (O.S. Ch. LXXXIV, 254; Taylor, 1938, 315); it is stated that Eirikr had been brought up in Sutherland on Frakokk's estates (O.S. Ch. LV, 119; Taylor, 1938, 217). There are also references to Moddan raising an army there (O.S. Ch. XX, 44; Taylor, 1938, 164) and plundering by Sveinn (O.S. Ch. LXXVIII, 178; Taylor, 1938, 264). However, it is not clear whether, in the case of the army-raising, the people were Norse or Norse-influenced at all, and in the case of the plundering whether these were rival Norse bands raiding Sutherland Norse or a local Gaelic population. Either way, there must have been a sufficiently concentrated population there, whether Norse or Gaelic, to warrant attention. A further reference to Sutherland in the Saga, concerns the death of Earl Sigurdr and his burial at Ekkjalsbakka (Oykell's Bank) 'And Sigurd the Mighty is buried in a barrow on the banks of the River Oykell.' This has been interpreted as 'the hilly north bank of the river Oykell as it widens out into the Dornoch Firth' (O.S. Ch. V, 9; Taylor, 1938, footnote 5, 353).

For Caithness, the well documented exploits of Sveinn Asleifarson provide us with particularly interesting information in the study of the site of Freswick.

Occasional saga references such as those of Njál and the Orkneyinga Saga mention the site of Þrasvík: this is commonly identified with Freswick (Taylor, 1938, footnote 3, 397). In Njál's Saga, Earl Sigurdr's brother-in-law Havardr is described as living at Þrasvík (N.S. Ch. LXXXV, 206) and later Kári Solmundarson and his crew sailed to Caithness and 'went ashore at Freswick to the home of a worthy man called Skeggi...' (N.S. Ch. CLV, 444). In the Orkneyinga Saga, 'Sweyn Asleif's son was at Freswick in Caithness, and was keeping guard over his stepson's estate' (O.S. Ch. XCII, 242; Taylor, 1938, 306). It is also reported

that Anakol and Þorsteinn Rognuson and 20 men pulled their boat up at Freswick, and hid themselves in thickets not far from the Hall[4] at Freswick, having sheltered in caves nearby (O.S. Ch. XCIII, 248-9; Taylor, 1938, 311; footnote 4. 398). Taylor would see this as taking place at the northern end of the Links, but it could equally well have been the south side,if indeed the Norse hall lies below the modern building of Freswick Castle,which is also on the south side of the Links. Taylor has used the vivid description of the site of Freswick to support his argument for first hand knowledge in the Saga writing. It is, however, rather difficult to avoid a circular argument here, because the following description of Lambaborg which is vivid, is taken as indicating a particular location (discussed below) but the identification of that site is totally based on the saga description, rather than on any other evidence. The site called Lambaborg in the immediate vicinity of Freswick, is thus described:

> Then they went to Duncansby to see Sweyn. Then Sweyn gathers men, and marches to Lambaborg, and fortified himself there. This was a fine natural stronghold. And he took up his quarters in it with sixty men, and got provisions and other necessary stores. The fortress stood on some sea-girt crags, and there was a stoutly built wall before it on the landward side. The crags stretched well out to sea on the other side. (Sweyn and Margad) did great mischief in Caithness by pillaging, and they carried their plunder thither to the fortress. And they became very unpopular.
>
> (O.S. Ch. LXXXII, 188; Taylor, 1938, 270-1)

The story then continues to relate how Sveinn and Margad were besieged by Earl Rognvaldr in Lambaborg and their supplies cut off. They escaped by night by climbing down the cliff with the aid of a twisted rope and escaped by swimming (O.S. op. cit; Taylor, 1938, 271-1). This tale in the Orkneyinga Saga of the activities of Sveinn and his fort at Lambaborg have caused many problems: the location of this fort should in theory be distinctive enough, and indeed two entirely different locations can be made to fit the description. Various authorities have sided with Bucholly, a castle on a 'sea-girt' promontory approximately

two miles south of Freswick (e.g. Bramman, 1973, 126; Pálsson and Edwards, 1978, 221; MacGibbon and Ross, 1889, 340): an idea perpetuated by the Commission (1911b, no. 32, 11-12) and possibly originating from Pennant (1769, 16 and 162 with illus.) who illustrates Bucholly with the title of Freswick. Taylor, on the other hand, believes the site to be that of Ness Broch immediately south of modern Freswick Castle (Taylor, 1938, footnote 4, 390).

There are, however, problems with each suggestion; Bucholly as yet lacks structural remains which can be attributed to the period under consideration. It is possible that the present castle on the site, built during the period 1400-1542 (MacGibbon and Ross, 1889, 161) overlies or incorporates elements of an earlier structure. There is an eroding midden visible at the seaward side of the promontory, which is immediately below the standing castle. Curle recovered from this pieces of grass tempered pottery similar to that at Freswick (NMAS HR, 588). Robert Gourlay more recently confirms this with other sherds and Mr. Martin of Keiss has in his possession a fine ridged grass tempered strap handle (see Plate 43). This last item is important in the argument for contemporaneity with Freswick. The precise form is present at both sites as well as at Robertshaven (see below). Occasional sherds in this fabric which are lacking distinctive form cannot be seen as chronological indicators because the pottery is so crude and generally undiagnostic, but such similarity in form is significant.

The suggestion of Ness Head as Lambaborg is also lacking definite corroboration. The name element -borg, indicating tower or possibly broch as in other parts of the Saga (Taylor, 1938, footnote 7, Ch. V, 352), is perhaps one of the most significant parts of the argument in its favour. However, perhaps further information would have been provided about the site if it had looked as impressive as it does today, even allowing for the reconstruction after the excavation (Anderson,

1901, 143). There do not appear to be any structures at this site which could have been Norse in origin, although pre-Norse buildings could conceivably have been occupied. The statement that

> It was on Wednesday in Easter week that Sweyn Asleif's son had gone up to Lambaborg with a handful of men. Then they saw that a cargo ship was coming from the east from the Pentland Firth. (O.S. Ch.XCII, 242; Taylor, 1938, 306)

indicates that the site had a good vantage. This, however, would suit both sites although the idea of coming from the east from the Pentland Firth may perhaps give cause for concern, because on the east coast it would appear to be more of a northerly approach.

The discovery of Norse remains under the present Castle at Freswick may conceivably broaden the list of Lambaborg candidates. Admittedly it does not fit the description as neatly as the other sites, but it does present archaeologically contemporary material in a relatively defensive position. This cannot, however, be viewed as a serious contender because there is evidence at the site of the Castle at Freswick that the course of the Burn has altered within the last 200 years (visible on the 1:10,000 O.S. map of 1969 by the form of the foreshore). Such an alteration would eliminate the possibility of a defensive position and with that preclude that part of the site in any consideration of the Lambaborg enquiry. The problem must remain unresolved as to the precise location of the fortress.

In the course of the adventures of Sveinn Asleifarson, it becomes obvious that his family had lands at Duncansby (Dungalsboe). Earl Olâfr of Gâreksey (Gairsay) in Orkney, the father of Sveinn is recorded as having these lands in Caithness (O.S., Ch.LVI,120; Taylor, 1938, 218) and in 1029 Earl Þorfinnr (Thorfinn) stayed at Duncansby (O.S., Ch.XX, 45; Taylor, 1938, 164) and Heimskringla tells that Þorfinnr spent much of his time there (H. St. Olaf Saga,

Ch. 98, 163). The significance of the site at Duncansby can be seen by the fact that it is one of only two 'bu' sites noted in Caithness, the other being Freswick. This class of site is discussed extensively by Clouston (1927). A number of important characters in the Orkneyinga Saga are associated with Duncansby. The association of Þorfinnr and Sveinn Asleifarson with the site is noted above. However, Njál's Saga tells us that Moddan came from Duncansby (N.S., Ch. 83, 202) and that the Scottish king Malcolm collected an army from Duncansby (N.S., Ch. 86, 207). Audr, mother of Þorsteinn who conquered Caithness, had a grand-daughter who married Dungaðar (Duncan), Maemar of Duncansby (H. St. Olaf Saga, Ch. 96, 159). The associations with Duncansby include some of the most significant people of the time, and it would be tempting to suggest that the remains recently located there (see below) could represent part of that settlement. It would, however, be unwise to pursue this connection too far, particularly before the site is excavated.

Similarly, there is a reference relating to Höfn, as the burial place of Earl Hlodvir (O.S., Ch. XI, 124; Taylor, 1938, 148). Höfn was identified as Huna in the Origines Parochiales (Innes, Ed. 1855, 794-813). However, Taylor explains that in his view (Taylor, 1931, 43) where the original form is Hwhaye, there is no phonological connection between the two. Indeed, he adds that O.N. Höfn often results in the name of Ham and therefore could equally well be the place of that name in Dunnet parish. Graves have been recorded at Huna, however, and these will be discussed below. It is not possible to relate this Saga reference conclusively to the known archaeological material so it would be better to avoid such spurious associations.

In the case of Thurso, we are perhaps better served in the saga literature, if lacking on the archaeological side. The small amount of conclusive

archaeological evidence is discussed below (page 48), although Thorsen described Þorsá as a township from c. 1200 onwards (Thorsen, 1968, 71) and in the Orkneyinga Saga there are various references to the settlement there.

The derivation of the name Thurso has caused much debate. One of the more recent ideas (Thorsen, 1968) suggests that Þorsá, the township mentioned in the Saga, could be derived from two possible sources; either meaning 'river of the god Thor' from þorsá or from þorshaugr, meaning 'Thor's mound' or alternatively þorsó meaning 'bull's river'. Nicolaisen has recently set out the possible suggestions of derivation (1982a,84-5).

The saga informs us that the Moddan Clan held lands in Caithness, which may have included Thurso (O.S., Ch.XX, 48-9; Taylor, 1938, 166-7). In 1156-1158, it is recorded that the earls were at Thurso for the deer hunting (O.S., Ch.CII-CIII, 275-6; Taylor, 1938, 332-3) and more spectacularly, that in 1231, Earl Jon Haraldsson, the last of the Scandinavian line, was killed in the cellar of his own home in Thurso (H.S., Ch.171, 150).

In 1151, Earl Harald Maddadarson was trapped in Thurso harbour and made to pay tribute to King Eysteinn of Norway (O.S., Ch.XCI, 240; Taylor, 1938, 304). This anomalous situation, with Norway holding considerable moral power, if not actually physical power, in Caithness, was to be the cause of the downfall of that power, studied by Crawford (1971). That there was a settlement of some note at Thurso, therefore, in the Norse period cannot be denied from the sources, although archaeologically it has not yet been located.

There are other locations mentioned in the Orkneyinga Saga one of which, the farm at Forsi, the home of Hallvardr, was visited in the story of the two saga heroes Þorbjörn and Rognvaldr (O.S., Ch.CIII, 276-82; Taylor, 1938, 333-7). Taylor believed that it was possible to trace the journey made by Rognvaldr in

this event and proceeded to undertake the journey on his bicycle (Taylor, 1938, footnote 1, 402-3)!

One area which is often neglected in the study of Caithness is the island of Stroma (Straumey) in the Pentland Firth. Although to the southern view point this may seem to be of little significance, its position in the Pentland Firth, at the hub of the routes between the Orkney and Caithness earldom lands, cannot be under-estimated at this period. There are constant references in Orkneyinga Saga to the rulers of Orkney and Caithness moving between their areas of power and close contact across the Pentland Firth (e.g. O.S., Ch. LXXVIII, 178; Taylor, 1938, 264; O.S., Ch. XCI, 240; Taylor, 1938, 304).

There are various references in the Orkneyinga Saga to activity on Stroma in the Norse period. For example, Sveinn Asleifarson is recorded sailing to Stroma the home of Amundi (O.S., Ch. XCVII, 268; Taylor, 1938, 326-7). Perhaps more important information is provided by the statement that after a meeting there between Sveinn and Haraldr, Sveinn sailed south to Caithness and his adversary to Orkney (O.S., XCVII, 268; Taylor, 1938, 327), reflecting the situation of the island as a stepping-stone between the parts of the Earldom. There is as yet scant evidence on the island to indicate settlement of any scale, if indeed there ever was much.

There are also references to the island of Swona (Sviney). It is described as the home of a poor man, named by Torfaeus as Grimus (Pope, 1866, 98), and his sons, Asbjörn and Margadr (O.S., Ch. XLVI, 121; Taylor, 1938, 218).

Such is the information concerning the Caithness part of the Earldom provided by the Saga sources. Crawford has considered this in conjunction with the historical documentary sources for the period up to 1470 (1971). She has noted that

> As part of the mainland of Scotland, the province of Caithness was implicitly recognised as Scottish territory by the Norwegians in the treaty of 1098 between their king, Magnus Barelegs, and King Edgar of Scotland. Being, however, the only part of the mainland which was thoroughly settled by peoples of Norse extraction, Caithness was in a totally different situation from any other part of the Scottish littoral.
>
> (Crawford, 1977b, 97)

It is this awkward situation which led to an unusually strong Norwegian influence in the area, perhaps as a counter attack to the continuous attempts by the Scots to gain control of the North mainland.

The Earldom of Orkney including Caithness (although not Shetland for most of the period under consideration - see below), developed into a completely distinctive administrative unit, inspired by the Norwegians (Crawford, 1971, XIX). In Caithness Crawford has suggested that the Scottish Earl's or Mormaer's position by the 12th century had a 'definitely official quality'. However, although the Norse earls of Orkney had lands in Caithness, they cannot be seen as officers of the Scottish Crown (Crawford, 1971, 67). This completely anomalous situation which resulted in constant confrontation between the Norse earls and the Scots, who wanted power in Caithness, has been extensively explored in the thesis of Dr. Barbara Crawford (St. Andrews University (1971)) and to her any student of the period in the north should be most grateful. Throughout the whole period of her thesis (1158-1470), for only 81 years were the two parts of the Earldom, Orkney and Caithness ruled by different persons. Anderson has listed the Norse earls who ruled both sides of the Pentland Firth (Anderson, 1907b, 420-22), including Sigurd, Thorfinn and Rognvald.

The Province of Caithness had been recognised as Scottish territory by the Norwegians in a treaty of 1098, but as the settlers in Caithness were from Orkney, the Earls of Orkney claimed jurisdiction over them. They theoretically held Caithness (including Sutherland unless otherwise specified) with the boundary

being at Ausdale (O.S., Ch.CXII, 296; Taylor, 1938, 347) as an Earldom of the Kings of Scotland (Crawford, 1977b, 97). The links with Norway were always close, particularly in the 11th - 12th centuries. Marwick has noted the division of land in Caithness and Sutherland into Ouncelands and Pennylands, as in Orkney (Crawford, 1977b, 99). The close inter-relationship with the Church in the Earldom, assumes that Caithness lay within the jurisdiction of the early Bishops of Orkney. The first Scottish bishop in Caithness prior to the founding of the first Caithness bishopric in 1147-51, proved to be very unpopular (Crawford, 1977b, 99). The close relationship between the Earl and the Church is emphasised by the close proximity of both Halkirk, the main church, to Brawl, the main seat of the Earl, and of Scrabster to the earldom seat at Thurso, noted in 1154 (O.S., Ch.CVI, 294; Taylor, 1938, 346). The Scots attempted to reorganise the Caithness church, with Bishop Gilbert in 1223 moving the church from Halkirk to Dornoch in Sutherland. The combination of this action and the increased tiends and dues in Caithness due to the Church, heralded the active Scottish intervention through Alexander II in 1233. Gilbert de Moravia was established as Bishop Adam's successor at Dornoch. This move to Sutherland, indicates the situation that Sutherland was becoming increasingly Scottish, being held by the de Moravia family, and it was in this period that Sutherland can be seen to separate from the Northern Earldom lands of Caithness and Orkney (Crawford, 1977b, 101-8).[5]

The direct Norse influence through a Norse line ended with the murder in Thurso of Earl John in 1231, and then the Scottish line succeeded (Crawford, 1971, 102). The son of John, the minor Magnus was 'guided' by a member of the Scottish Angus family, and on the death of Magnus in 1239, he was succeeded by Gilbert I and II and then Joanna de Moravia. At this period Caithness was carved up between Joanna and her sister Mathilda on the death of their father

Gilbert II. The possessor of the other part died childless and his identity is unsure (Crawford, 1971, 17).

Trouble continued in Caithness,because in 1263 Alexander III took hostages in the area and feared the loyalty of the population in Caithness. Norwegian influence must still have been significant therefore, although not perhaps as influential as it had been in 1231, when the murderers of Earl John went to Norway for judgement even though by then Caithness was in Scottish hands (Crawford, 1971, 159).

The Strathearn family dominated the history of Caithness in the period 1350-60 with the Sinclairs becoming increasingly powerful. Henry Sinclair made himself an earl in Orkney in 1379, with a grant from King Hakon Magnusson. Henry II,however, was viewed as a Scottish magnate and based his activities in mainland Scotland (Crawford, 1971, 224-45). In 1458 Orkney and Shetland were pledged to Scotland, and for the first time since 1195, the history of the two areas, which are today termed the Northern Isles as a single unit, coincided directly. The information for Shetland is little and basically independent from that of Caithness and Orkney. Separated as a fine imposed by King Sverre on Harald Maddadson, the Shetland of 13th - 14th centuries formed part of the Norwegian scattlands which owed dues directly to the crown (Crawford, 1971, 353). Only by the actions of private individuals, such as the Sinclair family who bought land in Shetland, did the islands become part of Scotland (Crawford, 1971, 365).

2.3 Conclusion

Borgstrøm has stated that 'bilingualism was the exception rather than the rule during the five hundred years when Norse was spoken in Scotland' (1974, 102). This suggestion certainly would seem to be supported by the

distribution of Norse and Gaelic place-name elements distinguished above. It is impossible to know the precise situation in Caithness at the time of the giving of place names, and the sagas cannot assist. The sagas were written down later than the period under immediate consideration, probably by people far removed from the situation, despite the suggested connections with Caithness noted above. The sagas, therefore, provide an incomplete picture of Caithness once the Norse settlement was fully established. The problems of the early settlers, their place naming activities and land taking do not appear in that source of information.

However, the sagas and even later historical documents do provide a reasonably full picture of the life of the élite in the Caithness Earldom lands. The problems of sagas as historical sources may, to some extent, negate their use, although, in the absence of other information, they are better than nothing at all. They are important, if only to indicate the relationship with Orkney and Norway, points expanded by Crawford's studies (1971, 1977b). The close connections between the two parts of the Earldom, Orkney and Caithness, cannot be over-stated and the constant interferences by Scotland, outlined by Crawford (1971), did nothing to counter this. On the contrary, the actions served to concentrate Norwegian efforts on the area, to form a bastion against Scottification.

It is with this view of intense Norwegian influence chiefly countering the Scots' advances to the south, that the Norse activity as archaeologically recovered, ought to be considered. Unfortunately, at the time of writing, there is a relative paucity of Norse archaeological evidence, in relation to the place names and perhaps this settlement evidence ought to be seen as the homes of the great land owners in Caithness, at Duncansby and Freswick for example. The homes of the ordinary people, mentioned so fleetingly in the Orkneyinga Saga, have not yet located.

Notes

1. Hugh Marwick, a great Orcadian scholar, has attempted to establish a relative chronology of the Norse settlement through a study of farm names, rentals and general topography. In a survey of the main Norse place names, Marwick suggests the elements of skáli (homestead), garðr (farm), bólstaðr (farm) (although these were probably used over a long period) and byr (farm settlement) or bu (farmstead, estate) as being most likely to represent the primary settlement. Kví, meaning an animal congregating area, are located on the higher slopes and possibly therefore secondary (although it could be associated with the early settlement) and setr (dwelling) elements possibly representing secondary infilling in the settlement pattern. The widespread distribution of settlements named after a geographical feature, e.g. Westness, Rousay, he suggests, are probably also relatively early (Marwick, 1931; illus. .in Bailey, 1974, 76). However it is possible to contest this on the grounds that although they may represent initial Norse settlement at that site, that does not necessarily indicate an early date, or even an early position in the sequence.

2. I am most grateful for the help and advice of Doreen Waugh, M. Litt. Student in the School of Scottish Studies, Place name survey, who is considering the Caithness material in her thesis. Also for the willing assistance of Ian Fraser of that Department in this section of my thesis.

3. The arguments for the dating of the compilation of the Orkneyinga Saga and the identification of the author(s) have been extensively examined by Taylor (1938, 28-9, 80-88) suggesting dating of the main text in two stages between 1210-25 and c. 1225-35, with later interpolations. Taylor has more recently reconsidered the evidence to indicate a compilation of the first part of the Orkneyinga Saga c. 1192-1206 (Taylor, 1973, 396). The compilation is considered by Taylor to have been made in Iceland (1938, 13), probably at the behest of a patron there (Taylor, 1973, 398).

4. I am most grateful for the assistance of Mr. John McKinnell in the translation of this passage, which suggests a hall building near a farmstead. '(he) came to the farm (i.e. the whole spread) a bit earlier, and went to the hall building. Then he heard (the sound of) armed men, and rushed into the hall and out at the other doors and wanted to get to the ship...'

5. The historical evidence for the Norse province of Suðrland is both incomplete and complex. Crawford has described the area as the 'southern more Scottish half of the province' of Caithness (Crawford, 1977b, 99). Sutherland was for a long period part of the Province and Diocese of Caithness and its history was largely guided in the later period (12th century) by the attempts of the Scottish Crown to weaken the Norse hold on Caithness. Under the de Moravia family, Sutherland was absorbed into the Scottish Kingdom. This family held a large amount of Sutherland, possibly after the loss by Harald Maddadson in 1197-8 of half his kingdom. The saga seems to suggest that most of Sutherland was in the power of Moddan in the Dale in the mid 12th century, and it is unknown whether Sutherland was former earldom land or not, when the de Moravias took over. The son of Hugh de Moravia who seems possibly to

have gained Sutherland in c. 1198, was William who in the early Thirteenth Century was 'dominus de Sutherlandia'. It was probably at this time that Caithness began to lose control over Sutherland, and it may be suggested that the support by the Scottish Crown for the de Moravias in this struggle was a move to leave the province of Caithness more vulnerable so that the Norse hold could be reduced.

Chapter 3

The Viking and Late Norse Evidence in Caithness

The archaeological study of Viking and Late Norse presence in Caithness and the islands of the Pentland Firth, cannot be viewed without consideration of the place name and historical sources outlined above. The place names indicate a concentration of Scandinavian influence in the north-east of the modern county, with the indigenous population more restricted inland. The nature of this apparent dominance of the local population (as suggested by the place names, see above page 26) is undocumented and the archaeological evidence of the Norse presence only recorded in a series of scattered references which are seldom considered as a whole. It is the aim here to gather together this wealth of information concerning the Norse presence as archaeologically attested.

The 1911 Royal Commission report for Caithness (RCAHMS, 1911b) failed to report any structural remains which could be related to the Norse period of settlement in the county. Although the middens and a structure were noted at Freswick (op. cit. 18-19, nos 48 and 49), they were not distinguished as being Viking. However, other Norse elements were noted by the RCAHMS: the graves of Castletown (87, no. 320) and Westerseat (op. cit., XXVIII), the Kirk O'Tang 'bracelets' (27, no. 81) and the Thurso runic stone (123, no. 446) for example. More recent work has enlarged this corpus, and for the first time this body of information is gathered together here. (Figure 8)

3.1 Structural Evidence

3.1.1 Structures associated with brochs

The corpus of material derived from the study of extra-mural structures associated with brochs in the county is increasing. For example, at two of the brochs at Keiss, Whitegate and Keiss broch itself, there are undated structures of rectangular form in the immediate vicinity. They appear to have been constructed of stone robbed from the brochs and are thus of later date, although

they could conceivably be contemporary with the brochs, having made use of the same stone quarry (Batey forth. WIC 098, 100). There are, however, other examples, which are perhaps more convincing in this argument. A fine example occurs at Birkie Hills, Keiss, where approximately 100 yards (c. 91.5 m) to the north of the broch, a rectangular dry-built stone structure was excavated by Tress Barry (ND 3392 5847). Weight is added to the idea that this may be of the Norse period because it is paved with slabs, including a Pictish symbol stone (Allen, 1903, III, 27), indicating a possible Late Pictish/Early Viking period date. Other brochs present tantalising possibilities in this field. For example, at Tulloch Broch, Latheron (ND 2529 3597) building traces of a vague rectangular form to the north and west could indicate later secondary occupation up to the Viking period, but only excavation can solve such problems (Batey forth. LAT 239). These statements are based on the assumption that the Vikings built in another form to the broch extra-mural structures. Without excavation it is impossible to tell whether the Vikings occupied the earlier structures or indeed if they themselves built in the type already in existence.

Evidence of continued 'occupation' of the brochs in some form is suggested by the presence of Norse type artefacts found within some brochs, for example in the Sands Broch, Freswick, in the form of Norse comb fragments (8.9.1, 8.9.2 : see discussion below, Chapter 11) and also possibly at nearby Everley Broch. The presence of such artefacts does not, however, necessarily indicate any permanent presence within the broch, only that the broch was at least partially standing during the Viking period. (See Plates 9 and 10).

3.1.2 Settlement sites

The presence of Norse artefacts at Freswick Sands broch is not unexpected, given the proximity of the extensive Norse site on the Links there. The Norse occupation at Freswick has been known through the excavations discussed in the

chapters below, but until more recent years, it was the only recorded Norse settlement site in the county. More recent fieldwork in the county is helping to broaden the picture of settlement of potentially Late Norse date. Two new settlements have been located on the north coast at Robertshaven and Huna, which are discussed below (pages 45-47). This is a traditionally inhospitable area, but is an obvious location, considering the economic importance of the sea and the close relationships there must have been with Orkney in the period of the Earldom (see above).

There are possible references to the site of Huna (ND 3995 7358; Batey forth. CAN 035) in the Orkneyinga Saga, which have been discussed by Taylor (see above page 34). Graves have been recorded at the site, which will be discussed below. However, since 1977, sherds of grass tempered pottery of a type and form identical to those found at Freswick have been found in the area to the east of the jetty at the site. Before recent work on the Caithness Coastal Survey (Batey forth. op. cit.) no structural evidence had been recorded from the site. The location of Huna, opposite Stroma, in a good sheltered natural harbour makes the site an obvious choice for settlement at any period, especially the Norse period when fishing was so important. It is interesting to note that in the 19th century, Huna was the point of departure for crossings of the Pentland Firth (Morrison, 1883, 66) although the antiquity of this cannot be proven; the proximity of the John O'Groats ferry point which was used in the late 15th century (Mitchell 1874, 673) may indicate only small scale operations. Recent sand quarrying revealed that a low irregular mound at Huna was made up of a series of structural phases. Sherds of grass tempered pottery were found in association with walls protruding at the upper level. Although it is impossible to know without excavation, the structures seem to be built gable end-on to the sea, as at Freswick and possibly Robertshaven. Further survey work around this bay

revealed traces of two further structures on the same alignment. Although conceivably representing boat nausts (even of the Norse period), the traces and possible dimensions probably indicate a more domestic use (Batey forth). (Plate 3).

A second newly recorded site on the north coast is at Robertshaven, approximately 1 mile to the east of John O'Groats (ND 3880 7360, Batey forth. CAN 041). In a sheltered bay, over the past three or four years the site has been revealed by finds of scattered sherds of the distinctive grass tempered pottery and various artefacts possibly of the Norse period. A fine bone pin, approximately 23 cm in length with a decorated head and double perforation, similar to examples from Hedeby (Schwarz-Mackensen, 1976, 36-7, 38-9), was found during excavations for a post approximately 200 m inland from the Ness of Duncansby (Simpson, Keiss, pers. comm.). Apparently, during this work, the foundations of a substantial wall were uncovered. The 1980 and 1981 Coastal Surveys recorded extensive bands of midden material, with structural features associated with the upper layer. In 1980 the upper midden deposit and a structure (with mortar-bonded walling) were recorded. However, in 1981, these deposits were revealed as being considerably more extensive. A small seasonal stream cuts through the lower midden layer which extends to the west under an over-burden of approximately 3 m of sand. Both midden layers have produced grass tempered pottery and large fish bones, as at Freswick, and stray finds in 1980-82 include a stone pot lid and miscellaneous fragments of iron. At the eastern end of the site, a relatively modern boat naust is built on top of, and apparently out of, the stone from the underlying structural remains; this was revealed by a partial collapse of the naust in 1980-81 caused by extreme weathering of the underlying archaeological deposits. (Plate 4)

The owner of the land at Robertshaven, Mr. Magnus Houston of The Mill Farm, John O'Groats has noted that further rectangular structures were located

during the building of sheep pens and dips further to the west. He also notes that sand has been extensively removed from the immediate area of the site during the period 1945-65 and therefore presumably other contemporary or later building evidence could have been removed without note. Without excavation it is impossible to make comment on the status of this site, except to note that Storer Clouston has pointed out that only two bus were known in Caithness, one at Freswick and the other at Duncansby (Clouston, 1927, 49).

During excavations for the flag pole by the John O'Groat Hotel (presumably in the early 19th century), the foundations of a rectangular structure were uncovered in a mound (RCAHMS, 1911b, no. 55, 20). There are no indications of the date of this structure, but it is temptimg in the light of other finds around the same bay at Robertshaven to see this as possibly Norse. There are no records available indicating whether there was a boat service from this spot before the John O'Groat family apparently received the ferry charter in 1496 (Mitchell, 1874, 673). The building may have been associated with fishing or with normal domestic activities.

The similarities between the site of Robertshaven (and the possible extension to John O'Groats) and Freswick are more easily seen than at Huna because of the larger available artefactual assemblage. The presence of the simple hand-made grass tempered pottery and other artefactual evidence, in conjunction with probable building form, may suggest that there was a group of sites in the north east corner of the county at roughly the same period. This may seem to be an obvious statement, but it is a statement which could not have been made even three years ago. The grass tempering alone cannot be seen as a chronological indicator. The simple forms continue throughout the assemblage and late examples have more developed forms, for example ribbed strap handles of Medieval type[1] have been found on Freswick Links (11. 2. 3, 11. 2. 5) and at Robertshaven[2], (see below, pottery discussion, chapter 12).

Apart from Freswick, there have been no other concentrations of Late Norse period settlement recorded in Caithness, although they presumably do exist elsewhere. For example, at Reay to the west of Thurso, there are fleeting references to structures in the vicinity of the graves (discussed below), although it is not always clear to which period they may be ascribed. For example, in the Ordnance Survey Notebook 9 (1873, 7-8) it is recorded that in 1751 floodwater at Reay revealed seven stone built houses in a line, with the remains of others and paving. Roger Mercer who recently excavated at Cnoc Stanger on the west side of Sandside Bay, Reay has also recorded possible traces of Norse settlement (Mercer, 1981, no. 281, 134-5).

In Thurso, two burials, one with a runic inscription (noted below), seem to be the only attestable Norse evidence from the place commonly referred to in Orkneyinga Saga as a rallying place and centre of settlement (O.S., Ch. XX, 49; Taylor, 1938, 166; O.S., Ch. CIX, 291; Taylor, 1938, 344). It was apparently the home of Earl Ottár, a "man of high rank" (op. cit. O.S. Ch. LV, 291; Taylor, 1938, 217), who presumably had a number of other people around him to serve or assist him in various ways. They would all need housing, but their homes have not yet been traced archaeologically.

At the northern end of Stroma, in the Pentland Firth, just south of the present harbour at Nethertown, structural remains and associated midden deposits have been located (ND ce 356 788). Although the RCAHMS suggests a Prehistoric date for the remains (RCAHMS, 1911b, 21, no. 60), more recent examinations of the site could indicate a date in the Norse period (R. Gourlay, pers. comm.).

3.1.3 Castles

A further body of structural evidence, which is often ascribed to the period under consideration, is that of the castles. There are some sites which, through

tradition, have been ascribed to this category. The site of Flandie Clett, Stroma (ND 3589 7658) is such a site, but without excavation this ascription can neither be confirmed or denied. Cruden, writing in 1963, suggested a Norse origin for some of the castles (1963, 18-22), and Talbot (1974, 40) continues the idea in his suggestion that the Castle of Old Wick (ND 3692 4883) and that of Bucholly (ND 3821 6579), south of Freswick, could date from the 12th century. Talbot has found pottery at the latter site, and more recently a fine ribbed strap handle of grass tempered pottery has been found from a midden eroding from below the standing castle (Plate 43, pers. comm. Martin, Keiss). This strongly suggests that the site could be ascribed to the period under consideration. Although there is a lack of associated structural evidence at the site, the visible remains all being of the 16th century, this midden evidence would seem to suggest an earlier underlying structure. The castle at Old Wick is itself of a very simple form (Batey, forth. 177), being a single square tower with a series of square and rectangular grass covered structures stretched along the promontory (RCAHMS, 1911b, no. 49, 137). The dating of this structure remains a mystery but must be roughly contemporary with its close parallel at Brough in Dunnet Parish (Batey forth. DUN 007) (ND 2283 7404). The basic argument for 12th century dating of these structures - Kastali - (Clouston, 1929, 57) is outlined in Talbot, (1974) but it must be stressed that simplicity in form does not always represent an early date.

The castle at Halkirk, confusingly named Braal Castle, comprises a rectangular stone built tower of two storeys and dated by the Royal Commission to the 14th century (RCAHMS, 1911b, no. 95, 30-31). A possible predecessor to this structure was the episcopal manor house of Bishop Adam at Halkirk (in Crawford, 1971, 90) which apparently stood in the vicinity of the Manse, but there are no traces remaining (Morrison, 1883, 48). Crawford has noted

that the earl dwelt near the episcopal manor house, presumably at Brawl. This was later known as the 'caput' or administrative centre of the Caithness Earldom (Crawford, 1971, 90). Located near to Scrabster, lies the site of Things Va (ND 081682) (Mercer, 1981, no. 461, Figure 34) located on a gentle slope two miles to the west of Thurso (RCAHMS, 1911b, 119, no. 432). The site is a broch (very similar to that at Tingwall, Evie Parish, Orkney (RCAHMS, 1946, no. 268, 80))and was damaged even at the time of the writing of the Commission volume. The site of Scrabster has been examined by Talbot, and, although he could not ascribe any structural elements to the 12th century, he believes that some of the pottery recovered could date to that period (Talbot, 1973a, 37; 1974, 43).

The Bishop's Palace at Scrabster, although not archaeologically proven, is certainly noted in the Orkneyinga Saga (O. S., Ch. CXI, 294; Taylor, 1938, 346) and the potential association of the administrative centre at Halkirk and then the Thing at Scrabster serve to suggest the extent of political power held in the hands of the Church in the 12th century.

3.1.4 Ring works

Another class of monument tentatively ascribed to the Norse period is the 'ring work'. The evidence available in the county is rather scanty and the basis for a date in the Norse period largely relies on similarities between Castlehill, Bower, and the Norse stronghold of Cubbie Roo's Castle on Wyre (Marwick, 1928b, 9-11),whose earliest phase resembles a ring work. It is not certain, however, at Cubbie Roo's Castle, whether the ditch predated the rest of the structures by any considerable period, or whether the ditch was associated with a timber phase underlying the stone structure now visible. The ascription to the Norse period on this analogy is therefore rather tentative. Talbot, however, points out in his convincing listing of the supportive evidence, that the ring work

was a distinctive feature of the Anglo-Normans in Scotland in the 12th century (Talbot, 1977). The Royal Commission visit to the site of Castlehill in Bower (RCAHMS, 1911b, no. 4, 2-3) (N. D 2828 6182) records a substantial feature with a well-defined ditch and causeway, possible traces of walling on the counter-scarp and an entrance. It is obvious that such a site, which has a ditch around it some 35 feet (c. 10.7 m) wide, must have involved a vast amount of corporate effort and some possibly centralised form of organisation. Talbot suggests that it may have served as a campaign castle or more permanent fortification, built during the activities in Caithness of William the Lion. One feels that the reservations voiced in Talbot's article on the subject (1977) must be repeated in the light of insufficient evidence.

3.2 The Graves

The graves in Caithness can be divided into various categories as can the contemporary Orcadian examples. There are, for example, graves recovered from mounds either man-made or natural, sand dunes and cairns. However, there are often no precise details about the circumstances of recovery.

The grave at Castletown was located in 1786 and 'dug out of the top of the ruins of a Pictish house ...' (Anderson, 1874, 549-51); the broch in question being that of Castlehill, Olrig parish (RCAHM, 1911b, 87, no. 320). A similar pair of oval brooches was recovered in association with a skeleton, presumably female, underlying a flat slab itself covered by a thin deposit of earth. The brooches are decorated with bosses and silver chains and have iron pins on the reverse. Wilson noted that the iron corrosion products have preserved textile traces on the underside of the brooches (Wilson, 1863, 265-6). Brøgger adds to these finds a jet armlet and a roughly made bone bodkin (Brøgger, 1930, 192-3)(Plate 7)

The grave at Westerseat near Wick was also located near a broch, that of

Kettleburn (c. ND 357 513). Here a pair of dissimilar oval brooches were found in a cist. The dimensions of the cist are problematical because Anderson states that it was a short cist (Anderson, 1874, 551-2), whereas Brøgger specifically notes that no dimensions were given for the cist (Brøgger, 1930, 195). The find was made during quarrying in a gravel hillock and no other items are noted from the deposit, not even a skeleton. The lack of a body may not perhaps cause concern considering the circumstances of recovery (Plate 6). However, if the cist was a short one, perhaps this may not even have been a grave but a deposition of objects. This feature is more commonly noted however in the context of valuable objects (Anderson, 1881b, 36-7) as at Kirk O'Banks, Canisbay (Campbell, 1872).

The finest collection of graves from the Viking period, however, comes from Reay to the west of Thurso (ND ce 968 658). Here, severe weathering of the dunes in Sandside Bay has revealed over a number of years five pagan graves and various stray finds, representing either further graves or occupation at the site. Due to the circumstances of recovery, it is not possible to determine whether these were simply buried in the sand, or whether, as at Pierowall in Orkney (Thorsteinsson, 1968) (see below Chapter 4 , page 97), they were buried under man-made sand mounds, possibly even with cairns. There has been confusion concerning the finds from various grave deposits found since the beginning of the century. For example, J. Curle ascribes a pair of tweezers found to a particular grave (Curle, 1914, 295; Figure 10, 298) but Grieg does not (Grieg, 1940, 22-4, Figure 6). Grieg's treatment of the Reay graves is rather unsystematic, so here it is proposed to deal with the graves in the order in which they were found (Plate 8).

The earliest recorded Viking grave from Reay was found in 1912, and comprised a skeleton found in association with a buckle from a horse bridle

nearby. There are no further details available, except that the skeleton was reburied in Reay cemetery (Notes, 1912). In 1913, the action of the wind revealed a skeleton with associated artefacts which indicated a female grave. These were a pair of slightly dissimilar oval brooches (type Rygh 652 according to Brøgger (1930, 190)), a small bronze buckle, a steatite spindle whorl and plain iron bridle bit. A bronze pin termed by Grieg as a penannular brooch, although actually a ring headed pin (illus. Brøgger, 1930, Figure 99, 192), was also from the same deposit. The skeleton was in a crouched position and the deposit was greatly disturbed, with the grave goods scattered around the burial (Grieg, 1940, 21-2).

J. Curle ascribes to this grave a possible iron buckle and a pair of cruciform tweezers (paralleled at Birsay in Orkney (C. L. Curle, 1982, 63, no. 431)) and also adds the interesting comment that the brooches were actually found face to face which in itself is rather unusual (J. Curle, 1914, 295). At this point there is some confusion as Grieg states that the buckle and tweezers possibly represent a further burial (Grieg, 1940, 22-24), but the problem may be resolved by the statement that these objects were found '...shortly after the unearthing of the skeleton ... picked up within a radius of two or three yards from the grave' (J. Curle, 1914, 295). Given the circumstances of the recovery, therefore, the number of grave deposits actually represented cannot be stated without doubt.

Further activity at the site in 1920 revealed a rich male Viking grave located on the north side of Drill Hall at Sandside Bay, about six feet below the modern turf line. An extended inhumation was located on a paved surface with the head resting on a stone. At the bottom of the grave was a burnt deposit containing pieces of slag and burnt iron. The burial is particularly of interest for two reasons; one is that it was covered by a mound of stones, a feature common in the areas of Viking activity, c.f. Knock y Doonee, Isle of Man (Kermode, 1930,

127-8) and Skaill in Orkney (Watt, 1888, 283-5); the other lies in the artefacts associated with the skeleton. Grieg described a pin in the deposit as a penannular brooch, much as in the previous grave (Grieg, 1940, 19-20). This pin is, however, of a distinctive type recovered in other Viking graves, for example at Machrins, Colonsay, in the Hebrides (Ritchie, 1981, Figure 5, 273). It is characterised by having a larger ring than the conventional ring headed pin and a much shorter and stumpy pin. Other finds in the grave include an iron axe, shield boss, iron sickle and two pieces of flint (Brøgger, 1930, Figure 102 and 103, 194) mostly ascribable to the 10th century on Petersen's chronology (1928). Edwards, writing in 1927, notes that there were several graves or stone remains in the same hollow (Edwards, 1927, 203), but unfortunately does not give any further information on this.

The presence of possible cairns or stone built graves at Reay led to further work in 1928, when there was a re-examination of a series of small mounds in the locality of the 1913 grave. This examination revealed that the grave was located near to a length of dry stone walling which suggests strongly a circular construction (Edwards, 1929). Whether this represents a kerbed cairn (see discussion below page 55) or an adjacent and possibly funerary structure, cannot be determined with the present information. Edwards, in the same article, refers to a number of similar constructions in the same locality although in no case can a distinctively Viking grave be said to be directly associated with one of these structures. It is possible that at this site there is a continuity of burials, ranging from the type possibly of the pre-Viking period as seen at Ackergill (discussed below) to the typical Pagan Viking graves of the late 9th to 10th centuries.

The long cist graves noted by Edwards in 1928-9, which are orientated east-west, are likely to be Christian as they also have no grave goods. This

makes their attribution to a specific period, whether pre-Viking or Christian Viking, impossible.

In addition to this substantial body of evidence there are also a number of stray finds from the site such as a strap end (Edwards , 1929, 139-40) and a mould for a ring headed pin (Donations, 1927). It is possible that these may represent further burials or occupation in the area.

The graves at Ackergill, south of Keiss (ND 3483 5497) which are mainly kerbed, have in the past been generally ascribed to the Viking period (Edwards, 1926, 176) on the basis of a chain. There are, however, various problems with this ascription. The series of seven rectangular cairns, one round cairn and two isolated cists at the site have produced evidence of the interment of some fourteen individuals, including an infant, a child of eight years and an adolescent (Edwards, 1926; 1927; Bryce, 1926). The burials are commonly, but not exclusively, in the form of rectangular or square kerbed enclosures of stone (as at Dunrobin, Close-Brooks, 1980, Figure 2, 331, 328-32), with marked corner posts and pebbled interiors overlying a cist or cists. This is distinctive and particularly diagnostic of pre-Norse or Pictish customs (discussed more recently by Ashmore, 1980). Edwards argues for some similarities between these burials and pre-Viking types in Scandinavia (Edwards, 1926, 176). However, Edwards pronounced the only identifiable artefact from the graves, a fine bronze chain, as typically Viking. This conviction coloured future interpretation of the evidence and hence distant similarities became pronounced. This suggestion is not acceptable (see for example Ritchie, 1974, 31-2; Ritchie and Ritchie, 1981, 175).[3]

The presence of pebbles covering the deposit is a feature common to many periods including both the Viking and pre-Viking eras. For example, at Sandwick, Shetland (Bigelow, 1978), recent excavations of a square cairn of similar type indicated a pre-Viking date whereas at Knoc y Doonee, in the Isle

of Man,where small stones covered the deposit (Kermode, 1930, 127-8),it was considered to be Viking age. Supporting a pre-Viking date for these graves is not difficult, especially when one considers that a fragment of Class One symbol stone was found at the head of one of the isolated cists and,in previous years, another stone had been recovered from near the round cairn. For this reason, it is not difficult to give a pre-Viking date. If all the graves cannot be ascribed to the Viking period, there is at least conclusive evidence to suggest Pictish activity here, paralleled at Dunrobin, Golspie in Sutherland for example (Close-Brooks, 1980). The final point to dispel the theory that these graves belong to the Viking period lies in the identification of the bronze chain as 'typically Viking'. Ingmar Jansson of Uppsala University has investigated this and believes that it does not belong to the Viking period (Ingmar Jansson pers. comm.). It was apparently found in the round cairn,which is separated spatially from the other cairns,and in a possibly secondary interment (Ashmore, 1980, 348).

This other round form of cairn may possibly be paralleled at the 'Chief 's Grave' at Keiss (ND ce 3440 6025), which is tentatively dated to the Prehistoric period (Laing and Huxley, 1866, 14-15). However, at Ackergill, as at Watenan (see below), there is a lack of diagnostic finds. The simple isolated cist graves, also lacking grave goods, may possibly be related to the other graves on the basis of body alignment. In 1865,four cists and possible traces of a round kerbed cairn were found six miles south of Wick at Watenan. Although at the time, this was interpreted as a possible hut circle, it may have similarities with Ackergill (Edwards, 1926, 173-4). Brøgger notes that a bronze chain paralleled in Gotland and Finland, dated to the Viking period, was found here in the 1860s (Brøgger, 1930, 196-7). The circumstances of the recovery of this evidence and the similarities to the Ackergill evidence suggest that this also may not be termed a Viking grave.

The site of Huna discussed above (page 45), approximately 2 miles to the west of John O'Groats, has been suspected as a Norse site since 1935 when Curle recorded finding a boat grave there. He noted that 120 feet above high water mark and approximately 200 yards to the west of Huna Hotel, in an area of blown sand, traces of a probable Viking ship burial were recovered. He surveyed the remains in September 1936, indicating on the plan in his notebook that the overall extent of the rivets, timber fragments, piece of skull, chain fragment and two possible iron rope restrainers, covered an area of approximately 30 square feet. There appears to be no further information about this find and its significance lies in the fact that no other boat graves are attested even to this degree in Caithness. (NMAS ms 28(SAS 461),20-1).

In 1950, two suggested Norse burials were reported from Huna. Information concerning those graves, noted by the Ordnance Survey, was largely confined to the two line report in the Bulletin of the British Archaeological Association for 1950 (Anon., 2), until the chance discovery in 1981 of an unregistered letter in the N. M. A. S. in Edinburgh from Simon Bremner of Midtown, Freswick to R. B. K. Stevenson of that institution, dated 3rd May 1950. A single detailed paragraph in this document forms the only record of any significance concerning the two graves from Huna. It will therefore be quoted in extenso.

> Quite recently I examined two long cists which recent gales had exposed at Huna Links. One of the graves was unpaved with the skeleton lying north-south with the head at the south end. The body had been laid on its left side, the knees drawn up, the left forearm drawn up with the hand under the cheek and the right forearm across the lower breast. This skeleton was in excellent preservation. With the exception of three white pebbles there appeared to be no relics in the grave. I covered the cist with sand and stones in order to preserve it from destruction. The other cist lying east west was paved but the skeleton was fragmentary. I covered it up too. Sand and stones are being removed daily from the area...
>
> (NMAS ms. not accessioned)

There seems to be nothing in this report which could categorically point to either of the graves being Norse, and certainly nothing which dates them specifically to the Pagan period of Norse settlement in the county. The presence of pebbles may be paralleled at Birsay, Orkney (Morris, 1978b, 24), where they are suggested as shroud weights and in a pre-Viking context.

A possible Norse grave was found in 1973 in the vicinity of the settlement at Nethertown, Stroma, noted above (page 48). There is, however, no further information concerning this (O.S. Card. No. ND 37, NW/NE 9).

Searching through the Ordnance Survey records for Caithness, a number of other possible Viking graves have been distinguished. For example, at Dunnet, three mounds shaped like inverted boats were suggested by Anderson as being Norse ship burials (ND 2504 7378). This is an interesting idea but one which cannot be proven (O.S. ref. only ND 27 SE 8). Housle Cairn in Halkirk parish (ND 1190 5960) was examined in c. 1850, and revealed several stone cists and human remains. These were associated with bronze rings and iron spearheads amongst an otherwise undistinguished assemblage (Graham, 1947, 96). Unfortunately, there is insufficient information about this deposit to provide a clue to the dating but it is conceivably of the Norse period.

To the north west of Wick, at Watten, a ten inch (25.4 cm) long bronze spearhead was found in or near a possible short cist (ND 2511 5496). Brøgger dates it to the later Viking period (Brøgger, 1930, 195, Figure 105, 196). Shetelig twice records a possible female Viking grave at this site, but each time gives no further details (Shetelig, 1954a, 72; Shetelig, 1945, 8).

In Olrig Parish, near Murkle, (ND 1662 6904), many human bones have been recovered from the shore over a long period: this is the reputed site of a nunnery of the Late Norse period (see below) (O.S. Card no. ND 16 NE 25). At Wester Broch, Birkle Hills (ND 3385 5831), Anderson noted four long cists

deposited in the top of the mound (1901, 122), and there are countless numbers of other graves which lack grave goods or contexts and to which it is dangerous to try to ascribe a period. It is safer to turn to one of the few attestable Christian graves from the Norse period. We are fortunate for a variety of reasons that the runic cross from St. Peter's Church in Thurso was discovered (Plate 5). Without this stone, there would be no attestable Viking presence in Thurso, despite numerous references in the Orkneyinga Saga (O.S., Ch. XX, 49; Taylor, 1938, 167; O.S., Ch. XCI, 240; Taylor, 1938, 304). Also, without this grave marker, the skeletons recovered would have joined the long list of chronologically unplaced graves. In 1896, two graves were located near the ruins of St. Peter's Church (ND 1203 6861), specifically noted by Romilly Allen as being found when some buildings across the road from the east end of the church were being removed (Allen, 1903, pt. III, 36-7). The graves were made of rough stones set on edge and orientated east-west. It has been suggested that the present remains of the 16th century church may overlie a 12th century chapel. Some indication of this may be found in the Orkneyinga Saga, for Earl Rognvald was brought to Thurso on his death, which in itself may suggest the presence of a chapel site there (O.S., Ch. CIII, 282; Taylor, 1938, 337). The Royal Commission suggest that parts of the present ruins, such as the apsidal cell which has a square exterior (RCAHMS, 1911b, no. 418, 110), may date from the 12th century. The obvious Christian nature of the graves would strongly suggest a contemporary church in the immediate vicinity. The graves were of a child and an adult in a flexed position, with the cross slab lying on top of the adult. It is evident from the inscription that the stone was intended as a grave cover rather than an upright marker; it has been interpreted as '... made overlay this after Ingulf Father his' (Anderson, 1897, 293-6; Allen, 1903, pt. III, 37). The church and the graves are located in the old part of the town of Thurso, by

the river, and although this would seem to be an ideal location for the Norse settlement in the area, there are no traces of contemporary occupation.

3.3 The Church

The recovery of the Norse graves at Thurso may serve to indicate the site of a possible earlier church, below or near the standing church. There seems to be no archaeological evidence of the Church for the period pre-dating the 12th century in Caithness and of that, very little is documented. There are references to a possible nunnery at Murkle, as noted above page 58 (Auld, 1891, 3; ND 1662 6904), presumably linked with an organised church. The site of St. Mary's Lybster (Crosskirk) (ND 0250 7009) is also considered to be an early foundation (Craven, 1908, 5).

Historical sources refer to the founding of a Bishopric of Caithness prior to 1147-51 with Bishop Andrew as the first Bishop. This represented a splintering off from the Bishopric of Orkney (see Crawford, 1971, 65) and from that point onwards, the church was very much a tool for royal Scottish influence in Caithness. Of the pre-Bishopric structure, nothing is known. Horne lists early chapels in the county (1907 , 255-6) although this was apparently gleaned from unlisted 'scattered sources', and of unknown antiquity. Probably the most reliable reference to the church, albeit indirect, refers to Bishop Adam being burnt at his episcopal manor house at Halkirk. This is thought to be the site of one of the most important churches (ON Ha Kirkjá) if Crawford's suggestion is to be accepted (Crawford, 1977b, 100). None of this evidence however, has been archaeologically proven (Anderson, 1881a, 62-63).

3.4 Hoards and stray finds

With this rather scanty evidence for the archaeological presence of Norse settlement in the county, the picture remains to be completed by a brief summary of the hoards and stray finds from the area which can be ascribed to the Norse period but which do not necessarily indicate settlement.

Perhaps the most important piece of evidence comes from Kirk O'Banks, a small chapel of unknown date, located on the north coast of Caithness, only a matter of a few hundred yards from an eroding broch (ND 2532 7399; Batey, forth. DUN 020). In 1872, during excavations at the site for drainage channels, 100 yards east of the Burn of Rattar behind the small church, a cist was disturbed. Initially it was thought that the piece of metal recovered was a coffin handle but when seven other similar ones were recovered it was realised that they were bracelets or arm rings (Campbell, 1872). They were lacking decoration and were all roughly the same weight (recently studied by Warner, 1976). They have been interpreted by Graham-Campbell as 'ring money' of the type common in Scotland from the late 10th century onwards (Graham-Campbell, 1976, 129). This is so far the only Viking period hoard from Caithness and thus its nature and significance are important in the study of evidence from the area. It is likely to have been deposited in time of stress and not recovered. Its nearest parallels of form are in the Skaill hoard in Orkney. Graham-Campbell lists forty hoards in the whole of modern Scotland, distributed mainly in the north and west, some coin dated and others not (op. cit. 114-35).

Two steatite urns, possibly ascribable to the Viking period, were found at Aucorn near Wick in the 1850s. The published illustration is rather poor and although they do not seem to be of a particularly typical Viking form, the illustration may be misleading (Anderson, 1874, 538-9). It is conceivable that they may be Prehistoric in date, similar to finds from Jarlshof in a Bronze Age context (Hamilton, 1956, 20, Figure 11). The finding of possible 'Scandinavian weapons' was recorded by Pope (in Anderson, 1874, 563) at Halmar near Thurso. They were described as '... old machines of rusty iron resembling plough-shares'. There does not seem to be any further information for this find but it is possible that they were swords, conceivably of the Viking period.

Stray finds of the Norse period from the Pentland Firth islands not already noted are somewhat scarce. The Pentland Skerries themselves can boast a bone comb and sherds of grass tempered pottery both as at Freswick (Donations, 1936, 393); and more recently Hunter has noted midden and structural traces which may conceivably be Viking (Hunter, forth. Site 4).

3.5 Conclusion

The present picture of Norse settlement in Caithness, based on the surviving structural remains, is very incomplete. The apparent coastal concentration cannot be ignored however, with Reay, Huna, Robertshaven and Freswick all located on sandy bays. These sites have been recovered because of the actions of severe erosion and are thus likely to form only a limited part of the complete picture. The distribution of stray finds may tentatively suggest a more inland spread, but at present there is a lack of associated structural evidence. The place names indicate a coastal and eastern Caithness distribution, but it is very likely that inland from the coastal margin there are other settlements awaiting examination. It is probable that these lie under the modern farms because of the success of the sites chosen. It is always important to remember that the majority of sites recovered in a rural context are to a certain extent failed sites: circumstances which encouraged settlement at those points changed and the population moved on.

There is still obviously a considerable bias in the evidence for the Norse in Caithness, because most of the evidence available is in the form of graves and the associated assemblages.

The distribution of graves recovered in Caithness is largely, but not exclusively, coastal, as is the settlement evidence. There is close association with mounds, either natural (possibly at Westerseat), or those concealing brochs (as at Birkle Hills and Castletown). The distribution of those graves which may be tentatively ascribed to the Christian Norse period, also seems to be largely

coastal, as at Thurso, Murkle, and Freswick where long cists recovered during sand quarrying may be Norse in date. This distribution, often in association with recorded Norse settlement evidence, is likely to reflect the actions of erosion at the coast, or in some cases the disturbance by road building or structural developments. There is no reason why Norse burial activity should have been restricted to the coastal areas of Caithness, and it is sad to reflect that during the last century many inland brochs were levelled or dug into and the findings not adequately recorded. Comments by Anderson, writing in 1871, (Anderson, 1873, 131-98) indicate that secondary occupation and interments were a common feature noted from the examination of the brochs. The evidence now, however, is tantalisingly incomplete.

The range of Norse burials represented in Caithness is broad: burial in mounds, perhaps especially constructed, brochs or natural elevations. One, at Reay, is recorded as underlying a cairn of stones, whereas others may have been covered by sand mounds disturbed by wind erosion. The suggestion of a ship-burial at Huna is also exciting, and not a common feature recovered in Scotland in this period, Westness on Rousay, Orkney (Kaland, 1980, 25) and Kiloran Bay, Colonsay (Shetelig, 1907) being rare Scottish examples[4]. The precise relationship of the burials to the settlements so far recovered is not clear on the available evidence, but there does seem to be a common distribution.

The recovery of both rich male and female graves has resulted in a large body of artefacts available for consideration. Roesdahl has noted that in Denmark late 10th century Pagan burials were stereotyped, all with a standard range of grave goods (Roesdahl, 1982, 169). This observation is likely to be relevant to the situation in Caithness, where Brøgger noted that the graves seem to date from the 10th century on the basis of the finds recovered (Brøgger, 1929, 125).

The presence of Christian graves always poses problems, because by definition, they lack grave goods and are consequently difficult to date. The recovery of the cross-shaped runic stone from Thurso therefore assumes a disproportionate importance and for the period in Caithness remains unique.

The problems inherent in dealing with stray finds, especially ones recorded in the last century (as with the graves) are many. It is often not possible to understand the precise locations and circumstances of recovery of the objects, and initial romantic, and often inaccurate, ideas about the origins of such finds are hard to dispel in the absence of the artefacts themselves.

Notes

1. The ribbed strap handles from Freswick, Robertshaven and Bucholly, all in grass tempered pottery, are of particular interest. They copy forms more commonly found in finer fabrics and noted in Medieval contexts, such as Aberdeen (Murray, et al. 1982; illus. 71, no. 42, 134; illus. 74, no. 124, 125, 137) or Southampton (Platt and Coleman-Smith, 1975; Figure 142, no. 234, 68; Figure 144, no. 295, 72). These examples in Caithness would seem to be locally made copies of other vessels, presumably imported.

2. I am grateful to Mr. Manson, John O'Groats Post Office, for drawing his finds from the site to my attention.

3. It has to be pointed out that the Kiloran Bay boat grave (Anderson, 1907a, 443-49), cited as a similar site because of its rectangular enclosure, cannot really be termed typically Viking. The grave is, however, obviously Viking and conceivably the form may be a pre-Viking manifestation. The cross slabs were not noted as coming from the corners but from the East and West ends, and in fact, no pronounced corner posts were found.

4. A grave from Rerowall, Westray, possibly intimated by Grieg (1940, 93) as a boat grave, has been refuted by Thorsteinsson (1968, 160).

Chapter 4

Viking and Late Norse in North and West Scotland: the General Context

It is not possible to consider the Late Norse occupation of Caithness in total isolation. It has to be seen as part of a trend of 'Scandinavianisation' throughout the North and North West of Britain. Other areas of the North have considerable evidence for the earlier activity of the Vikings, in particular Orkney. The importance of the limited Caithness evidence can only be judged in relation to the Viking expansion and the Late Norse occupation elsewhere. It is of major significance, for example, that at present there is no evidence predating the 10th century in Caithness, which is a sharp contrast to Orkney and Shetland. This dearth may perhaps be more comparable to the picture in the Faroe Islands where, as yet, nothing conclusively predates the 10th century (see below). The lack of early Viking evidence in Caithness is therefore a cause for concern, but the overall picture of Viking activity in the North cannot be ignored simply because, either through lack of detailed work or absence of occupation, Caithness is not represented in that group of settlements.

4.1 Structural Evidence

4.1.1 Structures associated with brochs

One of the most obvious places to start the search for Viking activity is in association with the numerous standing brochs in the north. There is evidence in Caithness for such association, although it is particularly difficult to be sure that a small assemblage or part of a rectangular structure is indeed Viking or Late Norse.

It is easier to document Norse presence at broch sites than it is to demonstrate the actual construction of buildings there. For example, in Shetland, Norse presence at Mousa is known from the sagas (O.S., Ch. XCIII, 249; Taylor, 1938, 311) but there is a lack of actual archaeological evidence for this. Elsewhere, rectangular structures have been recorded by the Royal Commission Survey, in

association with brochs. In Bressay Parish, the broch at Noss Sound is recorded as having a superimposed rectangular structure (RCAHMS, 1946, 4, No. 1085) and at a broch near Feal, Fetlar, small sub-rectangular structures were noted nearby (op. cit., 56, No. 1211). Ruins at Kirk Holm, Sandsting described in the survey seem to indicate eight or nine sub-rectangular house platforms (op. cit., 111, No. 1460) and in Tingwall Parish, at Mailland, a midden and former rectangular structure are noted (op. cit., 121, No. 1504). These may simply be the remains of old crofts which were built adjacent to a good stone supply, as Anderson has described at Kettleburn, Caithness (1866b, 227). There are also examples of Norse presence on broch mounds: in Sutherland at Carn Liath broch (Curle, 1954, 22) and in the West at Dun Mor Vaul (Mackie, 1974, 90-91), although actual settlement is not conclusive. In Orkney, a Viking building was located at the broch of Gurness (Richardson in RCAHMS, 1946, No. 263, 78-9) measuring 30 feet long, 12 feet wide internally (9.14 m x 3.67 m). This is in a securely stratigraphed position in relation to the out works of the broch, but unfortunately there is a lack of associated finds (Clouston, 1937, 9-10), although nearby a Viking female grave was recovered (Robertson, 1969).

4.1.2 Viking settlement sites

The lack of early Viking settlement traces in Caithness (and indeed Sutherland) has already been noted. The wealth of information from the areas in the immediate vicinity raises questions which cannot be conclusively answered in the light of present knowledge. The lacuna may be the result of inadequate fieldwork or, more likely, that the earliest settlements were in the most successful settlement locations and may therefore be buried under the modern settlement as at Thurso, for example. Such a picture would seem to echo that found in the Faroe Islands, discussed below. It may also be conceivable that all traces of early settlement have since been destroyed, perhaps during the early broch

excavations. It is most unlikely that all traces would have been thus eradicated and we are left with the final suggestion: did the Vikings ever actually settle Caithness before the 10th century, or did they merely visit from nearby Orkney? These questions must unfortunately remain unanswered for the present. The wealth of the Viking period in the surrounding 'colonies' must bear silent witness to the events in contemporary Caithness.

In Sutherland, there is a general lack of archaeologically attested settlement of the Viking and Late Norse periods, despite the extensive Saga references already noted. Only three possible sites have been suggested, although unexcavated and inconclusive in dating. At Klibreck, Loch Naver, foundations of a small rectangular building of external measurement 21 feet (6.4 m) and internally 12 feet (3.67 m) (RCAHMS, 1911a, 86, No. 249) may be of Scandinavian influence but a date in the Viking or Late Norse period could not be proven without excavation. At Tongue, Eric Talbot of Glasgow University, has noted a rectangular structure of indeterminate period (pers. comm.) and R.S. Murray has noted further rectangular structures, as at a culvert in Ault Loch Sian (pers. comm.). The major problem however, in such field observations is distinguishing relatively modern crofts from possible Norse remains. The major differences between these two types of structure have been extensively discussed, chiefly in conjunction with suggestions that the simple croft or 'blackhouse' of the West was directly derived from Norse prototypes (Fenton, 1978b; Crawford, 1967; contra Curwen, 1938).

In Orkney, a number of settlement sites have been examined which provide information both of the early Viking period and the Late Norse period. At Skaill, Deerness, Gelling excavated a series of sites which date from the pre-Viking period through to the 12th century. There is considerable evidence of the rebuilding of a structure during the Viking period (Wilson and Hurst, 1965, 176; Gelling, forth.).

Unfortunately, information concerning this site is as yet limited due to the untimely death of the excavator.

Extensive archaeological work has been undertaken in the last 9 years around the Bay of Birsay. Mentioned in the Orkneyinga Saga in relation to the Earls of Orkney and as an ecclesiastical centre, described by Adam of Bremen as a 'city' (quoted in Morris, 1983, 119), the quantity of archaeological material revealed is no surprise. The site on the Brough of Birsay has been long known (Dryden in MacGibbon and Ross, 1896, 135-41; RCAHMS, 1946, No. 1, 1), but on the mainland, Viking period middens, graves and structural traces have been recorded in the northern part of the Bay (Morris, 1983, 132-40), and in the village itself (Beachview, see below). A long-established interest in the Brough of Birsay (outlined in Curle, 1982, 11-17) has distinguished a series of alterations in the layout and orientation of the structural elements of the site. Archaeological evidence representing the pre Viking period, in the form of a chapel or possible monastery was noted by J. Richardson (RCAHMS, 1946, 1, 1-5; Radford, 1959, 3) in association with an early graveyard. Respecting the line of this and the later Norse cemetery, a series of Viking buildings were built up the slope to the west and north of the island. These structures are of variable sizes, ranging from 15 to 20 metres in length to much smaller examples. Constant rebuilding and realignment of these structures has been identified in recent excavations at the site (e.g. Cruden, 1965, 26, Figure 2; Hunter and Morris 1981; illus. Morris, 1982, Figure 5, 80; Hunter, 1983). The precise dating of some of these structural alterations cannot as yet be ascertained until C14 analysis is complete. However, Radford (1959, 3) and Cruden (1965, 26) date the structures they examined to the 9th century, referring to Jarlshof (see below). It is interesting however, that traces of iron smithing have been recovered at one of the Viking sites, Site IX (Hunter, 1983, Figure 8, 167), and work by Mrs. Curle on the finds from earlier

excavations indicates an active use of bronze worked at the site into pins and brooches in the pre-Norse period (Curle, 1982, 26-42).

Work at the site of Room 5 at the heart of the complex settlement group east of the Churchyard, revealed superimposed occupation and structural traces from the pre-Viking to later Norse periods, although very little remains of the upper horizon (Hunter and Morris, 1982, 131).

At Buckquoy nearby, Dr A.Ritchie has excavated a Pictish settlement with overlying Norse phases, representing a combined byre and barn, succeeded by a threshing barn and finally an incomplete dwelling of the period. It is incomplete because of severe coastal erosion (Ritchie, 1977, 134-9). In the top of the mound created by the successive settlement at the site, had been placed a 10th century Norse inhumation.

At the extreme southern end of the Bay of Birsay, Hedges has recently excavated the mound of Saverough, where a series of 4 phases of Norse structures were found over Pictish levels. The site had been previously called a broch (Hedges, forth b.).

Throughout Orkney, there are a number of eroding settlement sites which are likely to be from the Viking period, but without excavation, cannot be distinguished from the Late Norse period. At Skaill, Sandwick, there are extensive eroding remains which could be of the Late Norse period, as at Saviskaill, Rousay (Lamb, 1982, No. 83, 23) and likewise on Sanday at the site of Pool (Lamb, 1980, No. 84, 18).

There is a bias in the evidence recovered from excavated sites in Orkney, as much of the major work has been undertaken at high-status sites (c.f. Westness, Orphir, Birsay below). There is, to date, a lack of information concerning the 'lower' status sites. This could be remedied through further

fieldwork, or perhaps the reconsideration of known assemblages, as at Burrian, North Ronaldsay, where a Pictish assemblage was located, stratigraphically later than the broch occupation (MacGregor, 1974, 102).

In Shetland, the comprehensive excavation and study of the multiperiod site now called Jarlshof, proved to be a turning point in the study of settlement of the Viking period (Wainwright, 1962, 147). Hamilton distinguished particularly the structural remains and assemblage of Phase 5 from that of Phase 4, dating it to the 12th century, and thus in effect, to the Late Norse period (Hamilton, 1956, 156 and 168).

Phase 1 was dated to the 9th century and comprised a two-roomed structure 'the parent dwelling', a bathhouse or 'hof' (discussed below p. 200-1), a smithy and byre. The parent house was 70 by 20 feet (21.34 x 6.10 m), with bow-shaped walls of undressed stone and a core of compacted earth. The exterior of the north wall was alternate turf and stone and the original east gable was removed when the byre was added. The main entrance to the north, and to the south was possibly another entrance into the cobbled courtyard and it was here that the midden deposits developed. The midden overlying the bathhouse included two 9th century combs and it is therefore thought that this structure was abandoned early in the settlement's history. The smithy was built at right-angles to the parent dwelling with the north gable comprising part of the pre-Viking enclosure wall built on the same alignment as the parent dwelling, i.e. across the slope, and it had curving walls but no internal features could be distinguished. The fourth structure apparently associated with the initial phase, was simply termed an outhouse by Hamilton. This was to the west of the byre and overlying the foundations of pre-Viking structures.

In Phase 2, dated to the mid 9th century, the parent house was still dominant but there were alterations to the outbuildings. Immediately north of the abandoned hof or bathhouse, a range of two cobbled compartments in one outhouse were erected, probably serving as a stable. The yard was relaid and another small building was built. A new farmstead was built at right-angles to the original parent dwelling, further downslope and with an enclosure wall to the west. Despite being extensively damaged in the later period, with an entrance in each gable and a third in the west longitudinal wall. Traces of central paving in the lower part of the house were found and the whole overlay midden from the initial house. The bathhouse was demolished and covered with midden in this phase.

In Phase 3, dated on the basis of artefactual evidence to the 10th century, another farmstead was built parallel to the dwelling built in Phase 2. The building was rectangular in form, 73 x 16 feet (22.25 x 4.88 m) with doorways in both the north and south gables and the west wall. Despite remodelling in the later phases, it seems that the lower part of this structure functioned as a byre. An out-building was added to the south-west corner of the Phase 2 building and a barn was constructed west of the initial dwelling.

Phase 4 was dated to the first half of the 11th century on the basis of artefact types. In this phase, a large outhouse, approximately 45 feet (13.7 m) long was built parallel to the farmstead built in Phase 3 and also within its enclosing yard. Large scale demolition at a later period means that again the interior details are obscure, although it seems to have been roughly paved and divided into two unequal parts. There was only one entrance to this building, that facing the side entrance to the neighbouring farmstead.

Jarlshof has produced a substantial amount of Viking period settlement and artefactual information (considered in relation to the finds from Freswick where appropriate below) and provides an invaluable data-base for the period, not only for Shetland but for the North in general. Hamilton himself noted that "prior to the discovery of the Jarlshof settlement our knowledge of the earlier Norse colonisation of the islands was extremely limited" (1956, 93). The excavations here have revealed the changing emphasis placed on certain buildings during the life of a single settlement. This is particularly clear in the case of the initial parent dwelling which continued in use in various forms through to the 13th century (Phase 7) when it was abandoned. Initially it may have been considered as the main dwelling but gradually became one of many.

The study of such a concentration of structures with many phases, considerably advanced the understanding of Viking settlement mechanisms, although there are obviously unsolved problems of dating (see p 264). This site gives an insight into the changing requirements of a group of people, which a single settlement unit as at Underhoull, for example, can only provide a single (or at best double) episode in this development. When Small excavated Underhoull, Unst, he dated it to the 10th century, on the basis of structural form and artefacts. In a forthcoming reassessment of the site in relation to Sandwick, Unst, Bigelow suggests a later date for Underhoull, probably in the Late Norse period (Bigelow, forth.). As the detailed analysis of this comparison is not as yet available, the interpretation of the excavator must stand, and this site will be considered as a site of 10th century, Viking occupation. This site may be described as a single-celled unit of settlement, lacking the structural complexities seen at Jarlshof and indeed at Freswick, Caithness and Birsay, Orkney. It is therefore likely to have had a relatively short-lived occupation.

The Norse site is located approximately 55 m inland on a margin of narrow, gently rising land, at the head of Burga Bay. The site was deserted for sometime before the Norse occupation but buildings visible at the time of the Norse settlement were probably robbed for building stone. This re-use is witnessed by the incorporation of a broken trough quern robbed from the nearby souterrain, used as a kerb stone in a primary Norse pathway (Small, 1966, 235). This situation probably pertained at Freswick, where the broch would have proved a good source of building stone.

The area to be built on at Underhoull was levelled out and cut into the hillside on the north side to be set on bedrock, but the rest of the building was founded on relatively undisturbed Iron Age deposits. On the south there are traces of artificial terracing to extend the ground available to accommodate the larger Norse structure.

The longhouse itself is approximately 19 m in internal length with a maximum central breadth of about 5 m; the ends are almost semi-circular thus forming an almost bow-shaped structure. The walls are of dry-stone construction, approximately 1 m thick and with a smooth internal face, with traces of alternating turf and stone externally for wind-proofing (Fenton, 1968). Rebuilding was necessitated because of the periodic rotting of the turf and this has led to a thickening of the west and north walls of the building. Only two post-holes were noted along the central axis of the building and this has been interpreted by Small as probably representing a single line of central post-holes along the length of the narrow building.

Within the structure, the living accommodation was located in the central and eastern parts of the building, with possible traces of benches there; the western end was restricted to the animals with a separate approach through the

courtyard. The byre end was characterised by rough paving, in contrast to beaten earth/clay elsewhere in the house. The courtyard approach had to have only a shallow incline to allow the cattle to use it and this consideration led to problems of subsidence and traces of up to three rebuildings of this paved trackway. This levelling up has been seen at Freswick in the building identified as a smithy, where a number of stone layers have formed a solid foundation for the anvil.

The economic evidence from this site indicates a mixed agriculture with traces of broken ploughshares and querns, as well as carbonised seeds from the site. The location is advantageous because it is adjacent to good fishing grounds and the sands of Burga Bay apparently afford small craft to be drawn-up. A nearby naust,which produced a piece of steatite in association with the floor deposits,may also possibly be interpreted as being contemporary with the settlement at Underhoull. Small suggests that the local steatite may have been for rougher vessels and that there may possibly have been some trading for professionally made vessels (Small, 1966, 243).

Small also suggests an occupation at this site dated between the 9th and 10th centuries. He has also traced an eroding Norse midden about 300 m away, further around the same bay, and presumably associated with a further settlement unit, a neighbouring farm perhaps. The possibility of a more extensive settlement being located in this area cannot be ignored, and the suggestion made that this unit extended around the bay and did not therefore build on top of the existing structure.

In the Western Isles, despite the relatively rich finds of graves and stray finds of the Viking period discussed below, there is still a shortage of Viking settlement evidence. The recovery of Viking artefacts from a midden

near the earth house at Galson, Borve must be indicative of a settlement in the vicinity, although to date the site itself is unrecorded (Edwards, 1924). However, at Drimore Machair, South Uist, Maclaren has recorded a structure which is datable on the artefactual assemblage to the Viking period. The structure, 14 by 5 metres internally, had walls which were reduced practically to ground level. Enough of the form of the building remained to indicate a rounded end with a probable repair at the east end. At the centre of the building a long hearth was revealed and the concentration of the finds in the east part of the building has led to the suggestion that that was the area of domestic activity (Maclaren, 1974).

To gain a more complete picture of Viking period settlement in the West, it is necessary to turn to the site of the Udal (Coileagan an Udail), North Uist. At this site, Iain Crawford has revealed through a series of excavations over fourteen seasons of excavation, occupation spanning from the Bronze Age through into the Medieval period. Seldom are we fortunate enough to recover such continuity at a single site, Freswick and Jarlshof being amongst the few obvious parallels for this. The importance of the excavations at the Udal has been to provide information about the period of the Viking arrival. At some sites, notably Buckquoy, Orkney (Ritchie, 1977), the excavator has suggested a peaceful infiltration of the incoming Vikings into the native population (discussed recently in Ritchie, 1983, 63-4 and Morris forth. a). At the Udal, Crawford suggests a violent arrival, seeing the establishment of an early Viking fort as an obvious response of the incomers to a hostile reception (Crawford and Switsur, 1977, 131; Crawford, 1981, 264-5). The recovery of at least ten immediately pre-Viking dwellings or buildings, apparently immediately overlain by buildings of rectangular, Viking form, Crawford would see as supporting this suggestion. This whole issue has been discussed by Crawford (1974) and Ritchie (1974), but the precise relationship between native and incomer is one which is fraught with problems. Of those

sites which have produced evidence of early Viking and late Pre-Viking activity, the results have been varied. The suggestion of a violent arrival may be supported at Skaill, Deerness. At this site, the excavator noted a burnt horizon between the Pre-Viking and Viking levels (Gelling, pers. comm.) but confirmation is awaited in print. To date, too few sites have produced sufficient evidence to solve this problem. There may well be more than one solution and negative evidence may not provide a positive answer. It is likely that incomers were accepted willingly in some areas, but not in others; the reaction would have surely relied on the intentions and attitudes of the incomers.

Such is the evidence for settlement in the West of Scotland in the Viking period. It is mostly founded on the results from the Udal, and for this site, the final report is eagerly awaited.

In the Faroe Islands, there are a number of sites which have been dated to the Viking period. The site of Kvívík, on western Streymøy, is one of the better documented. The settlement comprises a farmhouse and an adjacent building which seems to have combined the functions of barn and byre. Both structures are orientated north-south with the southern ends eroded by the sea. The farmhouse is 21 - 22 metres long and 5.75 metres wide, with an entrance in the long eastern side towards the stream. There is a central fireplace with embers pit and traces of stone and earth benches along the inner walls. The floor of both buildings was partially paved with stone and covered by a trodden floor of ash, soot, clay and sand. Roof remains represented by two rows of post holes and traces of straw, birch bark and turf seem to indicate close parallels with the modern techniques of roof construction (i.e. birch bark and turf over a wooden construction). The walls were double faced, up to 1.5 metres thick and standing 0.8 - 1.5 metres high. The barn/byre building to the west is of the same construction; it is 10 by 35 metres long with a stone channel in the southern part where it is divided into stalls,

now 8 remaining, but there were possibly up to 12. The other part of the building was probably for storage (Dahl, 1965, 137-9; Thorsteinsson, 1976, 12). Animal bones from the site indicate that sheep, pigs, cows, seals, whales and cod were utilised (Dahl, 1951; 1970, 66-69).

At the less well-known site of Fuglafjörður on Esturøy, a further building of the Viking period has been excavated (Dahl, 1958). Although only 10 metres now remains, it was thought to have been originally about 17 metres in length. The distinctive central fireplace and embers pit was identified, and there were clear indications that the roof was supported by a system of posts on stone pads in two parallel rows (Thorsteinsson, 1976, 13).

There are many other sites in the Faroe Islands which have been examined and dated to the Viking period of settlement. However, more recent excavations are considerably extending this corpus. Work at Sandur, Sandøy, has revealed,beneath the present standing church, remains of an earlier church of substantial timber construction and dated to the 11th century. Excavations within the present graveyard have revealed a large structure of Viking type only 8 metres from the church itself. In 1863, a silver coin hoard with a deposition date 1090-1100 was found in this same graveyard (Krogh, 1975). In 1977, a Viking house was excavated at Skaravanes, Sandøy. It was located close to the present coastline and underlying the modern settlement. Many domestic Viking age artefacts were recovered and so there is no problem in the dating of this site. However, at the site of Eídí, Esturøy, a waterlogged site was located during road construction. The preservation of wooden elements within a stone structure are of particular interest, but whether this can be precisely dated to the Viking period cannot yet be concluded, because of incomplete post-excavation work (Thorsteinsson, pers. comm.). The location at the heart of

the modern settlement, however, as with many other Viking sites, may be significant in this discussion.

The site of Kirkjubøur in Southern Streymøy is noted for its fine Medieval Cathedral remains (Dahl, 1968). However, unpublished excavation material from the sea edge, undertaken by Dahl, indicates the presence of a timber structure with outer stone cladding in the form of a long house (pers. comm., Thorsteinsson). The similarity of building construction with those buildings dated on artefactual grounds to the Viking period is striking and may suggest a Viking period date for these remains. However, relatively modern buildings in the Faroe Islands are still built in the same techniques, so the similarity of construction may not be conclusive of a Viking date.

4.1.3 Late Norse settlement sites

The relative wealth in some areas of settlement evidence for the Viking period has been outlined above. However, there is an increasing body of information concerning settlement sites which may be distinguished as having a Late Norse date, in the North and West of Scotland. This information is of more relevance in the consideration of the settlement evidence for Caithness, which is predominantly later. In Sutherland and indeed the Faroe Islands, where site continuity has masked this evidence, little can be said.

In the light of present information gained through excavation, the Orkney Islands are not the richest in terms of Late Norse settlement evidence. However, the imbalance between Orkney and Shetland which is discussed below, is gradually being rectified as further sites are identified and archaeologically examined. The likelihood, but not inevitability, of the association with Viking sites proper cannot be ignored and perhaps would be a useful starting point for the search for Late Norse sites. Work, for example, at the Brough of Birsay has

produced such information. Information concerning the Late Norse period on the Brough of Birsay revolves around the establishment of the Norse chapel and enclosure. This was on a slightly different alignment to that of the earlier period, and has been dated to the mid 11th century by Radford (1959, 5) and to the 12th century by the Royal Commission (1946, No. 1, 3). The group of buildings to the north of the chapel were dated by Radford to the early 12th century (Radford, 1959), and may be interpreted as the 'Bishop's Palace' according to Radford (1959, 11-12) or monastery according to the Royal Commission (RCAHMS, 1946, No. 1, 1-5).

One of the chief problems is the presence of the chapel and in particular who actually built it. The suggestion that Thorfinn built his Christchurch on the Brough of Birsay (e.g. Radford, 1959, 6) has been challenged by Lamb (1974) and noted below. If in fact the church on the Brough, termed 'Cathedral' by Radford (op. cit.) was not built by Thorfinn, the identification of the other structures apparently contemporary with the church, may be different. The 'Bishop's Palace' has been mentioned above, but the so-called 'Thorfinn's Palace' to the east of the church (Cruden, 1958; Radford, 1959, 16) must be reconsidered. Radford claimed a series of buildings over 'Thorfinn's Palace' to date to the 12th century and related to the church in that they were dwellings of the Bishop's priests or officials (op. cit.). The presence of Late Norse artefacts at the site has been discussed by Curle (1982, 83-4).

Recent work by Morris in Birsay village has revealed at the site of Beachview a virtually complete building very similar in form to Freswick examples, upstanding in places to over a metre with possible traces of a byre at its seaward end (Morris, 1983, 141-7). The interest of the building, apart from its exciting location in the heart of the modern 'village', is both its condition of preservation

and the fact that it is partially infilled with rich midden deposits containing objects which would be complementary to those recovered from Freswick, late Jarlshof and Sandwick in Shetland. The building in part is probably Late Norse, but basically of the Viking period. The wealth of the artefactual assemblage recovered, including fragments of daub with wattle impressions, a bone comb and fragments with copper alloy rivets, steatite and grass tempered pottery, is more consistent with the later Norse assemblages, not only in calibre but also in quantity. A particularly important aspect of this site is that the building seems to be sited on a mound composed of occupation debris (Morris, 1983, 142), rather as noted at the Udal (Crawford and Switsur, 1977, 126).

In searching for Late Norse sites, those noted in the Orkneyinga Saga are perhaps the most hopeful. Such an example currently being excavated is Tuquoy on Westray. This is an eroding site which is producing evidence dating to the Late Norse period. Lamb has attempted to relate these remains to the saga character Haflidi (The Orcadian, 23 July 1981). The site of Tuquoy was visible prior to excavation in 1982 in a 75 metre long exposed cliff section in which were visible both large structural traces and rich midden deposits apparently of Late Norse date and character. The structural features revealed were of particular interest because, although clay bonded, they were also faced with yellow-white lime plaster. Excavation in the first season has revealed at least three structural phases, and, confirmed by the artefact assemblage and large amount of coarse pottery, a date of at least part of the site to the Late Norse period (Owen, 1982).

Excavations by Dr. Sigrid Kaland of Bergen University at Westness, Rousay, revealed a large hall-like structure and two smaller buildings adjacent interpreted as byres for cattle and sheep (Kaland, 1973). Westness is recorded

in the Saga as the home of Sigurd and such a hall building would not be out of character with this connection (O.S., Ch. LXXVI, 171; Taylor, 1938, 258). One aspect of this site which is of particular interest in this context is the presence nearby of the cemetery site which has to date produced two boat-graves (the second found in the 1933 season) and a series of rich male and female graves (Kaland, 1980, 25). This association with a settlement is not surprising, but what is surprising is the fact that the graves cannot be dated beyond the 10th century with any certainty, but the structures would not be out of context in the Late Norse period.

At the site of Skaill, Deerness, mentioned above (page 68), Gelling examined a large stone structure which was initially thought to be a tower. The precise identification is now under discussion, but a date in the 12th century has been suggested (Gelling, forth.). Previous excavations at the Earldom site of Orphir have revealed substantial remains, interpreted as the drinking hall of the Earls Paul and Harald (Johnston, 1903). With extensive saga references as a background (e.g. O.S., Ch. LV, 117-8; Taylor, 1938, 216), inevitably there has long been interest in the site, with various attempts in the 18th and 19th centuries to resolve the lack of supportive archaeological evidence for the 'Drinking Hall'. The Round Church has long been visible; in fact it was intact as late as 1757 (Kemp, 1887, 137).

The first recorded archaeological investigation for the hall is noted by Torfaeus in 1758. There was no known tradition about buildings existing in the area of the church, despite the Saga reference. However, "on digging earth for the Bow or farm of Orphir, and near the round house called the Gerth-House of Orphir, they found large foundations, and laid very deep, which must have supported some great buildings" (Pope, 1866, 107). Excavations in 1859 by Petrie revealed "numerous traces of ancient buildings, which are believed to

be the remains of the palace of Jarl Paul, who lived at Orphir in the twelfth century" (Petrie, 1861, 227). Subsequent work by Johnston in 1899-1901, after a grave-digger found traces of walls in the north-west corner of the churchyard, located a wall 104 by 4 feet long (31.7 x 1.2 m), dry-built and random coursed. There were possibly two phases of construction represented in the wall, because one part of the wall was mortar bonded. A possible doorway was located beneath the old path to the Round Church from the road, and is now revealed. The base of the wall foundations were on a level with the Round Church, although a large slab which was taken as a threshold stone was actually approximately 75 cm above this level. (Thus allowing for the Saga reference to steps leading down to the Church from the Hall (O.S., Ch. LXVI, 151; Taylor, 1938, 242).) The only find recorded from this part of the site is a simple bone handle; most of a finely decorated bone-comb was found near the apse of the Church (Grieg, 1940, 148-9). Taylor combined this archaeological work and the Saga references to produce a plan of the Hall and the adjacent Church (Taylor, 1938, 385, Figure 1, Note 7).

Work between 1978 and 1980 has added further information to the knowledge of the immediate area in the Viking period, but not conclusively in the Late Norse (Batey, 1981). Approximately 30 m to the north of the present Guardianship site, a subterranean passage has been partially excavated; this may be a tunnel or a drain. This was shown by a juxtaposition of extensive rich midden deposits to have been either built in the Viking period, or at least open to the surface then. The passage is sealed by a midden including not only very rich environmental evidence in the form of carbonised seeds, but also a complete bone pin, part of a steatite weight possibly once used in fishing, also a sherd of a thick steatite vessel, all with strong Norse affinities. This midden deposit seals the passage which is roofed with substantial slabs set on walls made of smaller stones set in five or six dry-stone courses, and also envelopes the

northern wall. This deposit is separated both spatially and temporally from a further midden deposit to the south which is of a different character, being made up of mainly burnt stones and carbonised seeds, but lacking the great amounts of large fish bone so common in the other deposit. Further midden deposits had previously been located to the west, but only a few centimetres below the surface, unlike the 60 - 70 cm depth at the other point. This deposit was also extremely rich in environmental evidence and initial examination of the deposits in 1979 revealed a fine iron rivet, and iron knife blade and a small annular bronze gilded brooch which has parallels in Scandinavia. This deposit also overlies the passage, although excavation was halted before the tunnel roof was reached, so the depth is unknown. It is possible that this passage feature may be a souterrain and that the midden at the higher level may be the same as the one encountered in relation to the tunnel to the west, and that at the higher point it is rising over a chamber. This point may be supported by the presence of an extensive clay bank overlying the lower midden which could be a levelling up deposit related to later building on the site. The precise relationship between the passage and the buildings of the Bu cannot be known at this stage.

To the north-west of these sites, a mound noted by Johnston (1904, 197) as Lavacroon, revealed during field walking large amounts of pottery ranging in period from the Prehistoric period to the Post Medieval; also a piece of whalebone, pumice, iron slag and fuel ash, pieces of furnace or hearth, steatite and part of a polychrome bead which is paralleled in an Anglo-Saxon grave at Londesborough in East Yorkshire (Swanton, 1964, 270-5). It is possible that there was a Norse phase at this site, as most periods seem to be represented in the assemblage. It would not be possible to distinguish, for example, whether the iron smelting took place in the Viking period, without excavation. Scattered finds in the

general area, including the runic inscription in Tankerness House and which apparently came from St. Nicolas' Church, Orphir, c. 1953 (see below page 108), indicate more extensive occupation than perhaps previously considered. Perhaps the most conclusive Norse evidence in the area however is the Viking grave found at Greenigoe in a cist c. 1889. In the grave were found various textile fragments although no trace of the body remained. There were also paste beads and an amber one. The interesting fact about the textiles is that two of the fragments are paralleled from examples at Birka, Sweden (Henshall, 1952, 17) in a 9th century context, and possibly indicating here that an earlier Viking site may yet be waiting to be found.

As already noted, one of the most extensively examined settlement sites is that of Jarlshof, Shetland. This site has evidence from the Prehistoric period through to the Medieval. Hamilton has produced a very detailed report on the excavations at Jarlshof through all periods (Hamilton, 1956) and the similarities in the building forms and artefact types at the site in comparison with Freswick necessitate a rather more detailed consideration of the Late Norse evidence. The two sites have been briefly compared by Curle (1954, 61-3) who distinguishes between the relatively rich assemblage of artefacts from Jarlshof and the much poorer one from Freswick. He does however, accept similarities between the structure he examined in 1934 and Building VI at Freswick. After Hamilton's extensive excavations at Jarlshof the complexity of the site would seem to provide a close parallel to that found at Freswick. The variety of building uses is discussed below (Chapter 7) with a detailed description of the building forms.

Phase 5 was a period of extensive alterations and extension of standing buildings as well as a period of demolition and abandonment. The parent dwelling became increasingly dominant; it was enlarged by 23 feet (c. 7 m),

for a byre at the eastern gable and as this decreased the living area, this was extended to the west and the kitchen was enlarged by the removal of a partition wall. The second farm was demolished to be replaced by cattle enclosures. The third farm was converted to a byre without the living area and the associated outhouse was demolished. At an intermediate stage, this outhouse was used as a smithy, and then became a small stalled byre. This group of buildings must have resembled the farmsteads which can be seen in modern Caithness, with a main farm building surrounded by its outbuildings. To the west of the parent dwelling, two or possibly three buildings were situated in this phase; one was built on the foundations of the original smithy and another on top of 9th and 10th century midden deposits, the third being represented in excavation by traces of masonry at the south side of the original barn.

These new houses were of different type to the earlier ones. They were aligned down the slope, at right-angles to the parent dwelling and close to each other, lacking an enclosure wall. They are generally shorter, with all the space for living rather than sharing with animals. In one of these examples two hearths were found in the structure, of a new, more squared shape.

Midden extended over the whole area and over the abandoned buildings. From these midden deposits were recovered the first sherds of pottery to come from the Viking or Late Norse layers, and they have been dated to the early 12th century at the earliest. There was noted an increase in steatite linesinkers, indicating more exploitation of the sea and perhaps, when viewed in relation to the fact that at this time no new outhouses were built, fishing could have been taking over in the farming economy from the mixed agriculture so far seen (Curle, 1936; Hamilton, 1956, 136-68).

In Phase 6, the drawing together of the outhouses to the parent dwelling was increasingly obvious and a more coherent group developed. Overlying the

secondary farmstead of Phase 3, a range of outhouses was built with the eastern part actually bonded onto the south-east of the parent dwelling. The continued use of alternate stone and turf in the walls and stone re-use, made it difficult to see the different phases of building here. The actual outbuildings comprised two separate structures. The one to the west had two separate compartments one of which was paved, it had two entrances and was interpreted as a byre. The larger building to the east was rectangular and had three entrances; traces of two stone-lined post-holes along the central axis indicate that the roof was of the ridge-pole type. This building was interpreted as a sty. The growth of this settlement was continued in the other houses which were built in the last phase. One expanded to the north, with the extension of 36 feet (c. 11 m) resembling a byre. It seems most likely that only the older part was living quarters and here there was evidence of repaving and the central hearth was reset as a 4 feet square (1.2 m^2). Another of the earlier houses had an extension to the south making a total length for this building of over 80 feet (32.3 m). The floor was partially paved and to the east there was a further small paved extension. Although there was no fireplace recovered in the excavations of Hamilton in 1951, Curle noted concentrations of burnt ash within the large building (Curle, 1936, 257). The third of the structures to be amended in this phase was to the west, where the large building and the outhouse immediately to its south were linked by an extra entrance put on the south side of the northern building and one on the north wall of the other, thus forming easy access to each building from the other.

In Phase 7, the last designated to the Viking and Late Norse period, the original parent dwelling and the west part of the adjacent outhouse range were abandoned. Richardson excavated a new building which was built

down the slope parallel to the two dwellings of Phase 5 and at right-angles to the original dwelling. The new building was 63 by 15 feet (19.2 x 4.6 m), had three entrances and partitions divided the structure into three rooms. The two structures of Phase 5 were amended, the one with the byre being contracted and that end converted to storage, although a blockage in the entrance after a short time would seem to indicate a short life time for this part of the structure; a small outbuilding to the east of the structure built at this time echoes the format of the new building to its east. The building to its west was also altered, and the southern barn extension was abandoned and replaced by a smaller one (24 x 12 feet, 7.3 x 3.7 m) to the west side of the living area. The west outbuildings of the previous phases were abandoned and partially covered by extensions in this phase and midden deposits from the adjacent houses. After the abandonment of the initial parent dwelling, a short break followed before the western foundations were used for a small building. Discoveries in 1949-51 indicate that the majority of the finds of the earlier houses were deposited outside the walls. Large amounts of pottery and steatite were recovered, steatite vessels being largely of a square-sided form and probably of an early Medieval date. There was a lack of pottery in the middens of the 9th to 11th centuries, presumably because steatite was readily available from nearby outcrops. The pottery was in two main forms, "vessels with four-sided mouths tapering to a rounded base" and "large open bowls with a flat section, sometimes with inverted rims" (Curle, 1936, 260; Hamilton, 1956, 174-89). Although the square-sided form cannot be paralleled at Freswick, the other forms are common (see below Chapter 12).

Remaining finds include combs with double-convex terminals dated in Scandinavia to the 13 - 14th centuries, and similar to examples from Freswick

(such as 8.9.19). The most easterly of the houses of Phase 5 had 100 sherds of steatite and several haunched hones, the westerly house of that phase had 136 loomweights, including 52 in a single cache and was thus interpreted as a possible loom position.

It is possible to see various uses of the buildings in the later stages of the settlement, for example from hone and loom weight accumulations. This specialisation is interesting and usually only obvious on sites where a number of buildings have been excavated. The site of Sandwick, Unst, discussed below is an important exception in this, and could indicate that modern excavations and careful consideration of particular problems could shed considerable light on the problem.

In Shetland, there are three other sites which date from the Late Norse period. Located on the south-east coast of Unst, Sandwick is now standing at the high water mark and is consequently subjected to a very severe erosion threat. Late Norse artefacts have been collected from the site since the 1930s and although then three main concentrations of finds were noted only one has been examined in detail (Bigelow, 1978, 1).

Work in 1980 at the site of an eroding midden deposit 800 metres to the north of the site produced Late Norse artefacts similar to those from the excavated site. This would support the idea that the excavated site is only part of a settlement group. The excavated site has been examined over three seasons, 1978-1980, revealing a rectilinear stone building with an enclosure. The excavated structure measures 15 by 3.25-4 m and has walls of the usual drystone construction, standing between 1 and 1.5 m high and caulked with turf. Doorways in the north gable and mid-west wall were located as well as minor rooms separated by rubble from the main house; these measure 2.3 by 2.8 m and 2.5 by 3.7 m respectively. Benches at the sides in the main building have

produced different types of artefacts. One showed a concentration of loom-weights and a quernstone, while the other had line-sinkers and scrap-iron. The interior of the building was divided into 5 spatial units (Bigelow, 1978, 3-4) with raised platforms at each end and in the middle. One end was probably the byre, with an unbonded wall to facilitate easier cleaning-out; the floor was paved with the stones held together by a series of keystones to prevent slippage (Bigelow, 1980, 1). Other areas identified included the kitchen and a living area, characterised by a very high artefact density which Bigelow suggests could be representative of a wooden super-structure which prevented retrieval (Bigelow, 1978, 6; 1979, 8). Post-holes were noted along the central axis of the house and at the 'zonal' boundaries.

A large variety of artefacts on the site were made of steatite (the nearest outcrop being only 1.5 miles away) and included steatite weights, many of which were broken at the site and probably represent home production of such objects (pers. comm.). The large amount of iron slag on the site seems to suggest iron working and many iron artefacts such as nails and rivets have been found. Bone also has survived on this site, thus giving a more complete picture than at Underhoull. Twelve combs and pieces of combs from the site are of the later Norse types. It is very interesting, however, that despite the survival of bone here, there are very few other artefacts made of bone on the site and it might be tempting to consider that here, objects, often made of bone elsewhere, are made of either iron or steatite. Bigelow notes that 56 per cent of the Late Norse finds from Jarlshof are represented at Sandwick (pers. comm.) and after further analysis a similar figure might also be applied to Freswick. A preliminary analysis of the economic implications of the site (Bigelow, 1979, 9-10) seems to indicate that there is a predominance at the site of large fish bones,

especially ?cod (Gadidae) and that cattle, sheep/goat, pig, etc. were of secondary significance. The evidence for cultivation has come from the recovery during the extensive sieving programme employed at the site throughout the excavation. Cl4 analysis of shell and mammal bone has yielded the following results: (calibrated) respectively 1250±80 A.D. (UCLA 2180F) and 1300±80 A.D. (UCLA 2180E).

Bigelow suggests a relatively short period of occupation at the site although,as at Underhoull, structural alterations were noted. Excavations in summer 1980 revealed that the wall at the south end was secondary and related to a shortening of the house by 3.5 m. Traces of a platform similar to that at the other end of the house were recovered. The remodelling appears to have been contemporary with the sealing of the south-west doorway, the reconstruction of the new platform at the other end of the structure, the deposition of a clay sealing deposit over the hearth and the construction of an oven-hearth in the north-east corner. Two distinct phases were also noted in the construction of the yard wall, with the latest phase incorporating more turf and thus sustaining more damage than that of the first phase (Bigelow, 1980, 2).

The site at Papa Stour would seem to be of later date than those already considered. It serves to bring the Shetlands settlement into the historic period. Located by using a multi-disciplinary approach, Dr. Crawford suggests that the site represents "a residence of the Kings of Norway in their Atlantic possessions" (B. Crawford, 1977a, 1). Such a royal or ducal residence is thought to have existed in the 13th century, as it is recorded in the oldest document written in Shetland (1299) concerning the rents owed to the Norwegian Duke from Papa Stour. This mentions specifically the house of Hakon, a Norwegian Duke (B. Crawford, 1978, 25-27). He is known to have held Shetland as a 'ducal appanage' from 1280-1299.

The limited amount of land available and suitable on Papa Stour for cultivation and therefore most likely to have settlements concentrated in the area, is centred around just two sandy bays. Between these is a raised area called 'Da Biggings' adjacent to a church on a known Medieval site. Here is a mound named 'Da Görl' (ON garð hóll, farm hill, Crawford, 1979, 3). Excavations here between 1977 and 1982 located traces of a substantial building orientated east-west - unlike the modern crofts - and walls with a smooth inner face and a less regular external face suggesting a turf exterior; it had well-laid stones and a projecting foundation course. Traces of complete peats and large amounts of birch bark were found, which were too large to be native to Shetland and probably imported from Norway as roofing material. Further structural features were revealed and interpreted as a barn, and a further house. An extensive series of drainage channels, a large cooking area and a distinctive cooking oven were also revealed. Excavations in 1979 within the large structure uncovered an area of undisturbed flooring composed of transverse pine timbers and possible remains of upright panelling or a bench structure; the timber was probably imported again from Norway (Crawford, 1979, 2). This feature was excavated in the last season and revealed important traces of wall-panelling or bench edge (Crawford, 1982, 1). The artefacts seem to be consistent with an occupation during the 12th and 13th centuries and once more include a full and varied assemblage despite the fact that bone has not survived the acid conditions.

In the Western Isles, the complexity of the site revealed in the excavations at the Udal in North Uist has already been noted. I.Crawford terms the post Viking development as sub-Norse, which may be rather misleading, followed by the later Norse period (Crawford and Switsur, 1977, 131) dated to

the 10 - 11th century, perhaps a little earlier than seen in Caithness. Structurally this period was represented by six buildings all of which were badly damaged by later constructions. A late 11th century destruction was noted and this in turn was succeeded by the development of a single long house with internal compartments which continued in some form or other into the 13th century (op. cit., 132).

The only other site in the West to date to suggest a Late Norse dating is that of Little Dunagoil, Bute. The remains of two structures 45' x 22' (13.7 x 6.7 m) and 42' x 22' (12.8 x 6.7 m) were recovered within the rampart of an earlier structure. The walls were built of turf and stone and the hearth, which was possibly not long in use, was recovered. Marshall, the excavator, would suggest a date in the 12-13th century bracket on the basis of finds (which were few) and cultural affinities of the building form (Marshall, 1964, 32 and 56).

There are therefore a number of other sites in the North and West of Scotland which are comparable to those known in Caithness, although with Freswick as the only excavated site in Caithness, one must be wary of generalisations. There should be more certainty in identifying the type and affinities of the settlements of the period, the study of which is only in its infancy. Such sites are relatively common in Orkney, but this may simply reflect the amount of work in that area. There is Pictish evidence in Caithness, as discussed elsewhere, but it is difficult on the limited data-base in Caithness to prove succession at sites. Perhaps there may be a similar situation in the Faroe Islands, where Viking settlement commences in the 10th century, on archaeological grounds, although there are literary references to suggest presence at an earlier date (for example, Dicuil, Tierney Ed. 1967, Ch. 15, 76-7). The important analogy here is the continuity of building techniques and above all the siting of settlements. The constant use of the same site for centuries has led to a fossilised settlement

pattern. This could be the same situation in Northern and Western Scotland (and is strongly suspected for Caithness, see above page 62) and has been clearly demonstrated in Deerness, Orkney. At Quoys in Deerness finds of the Norse period were recovered during the removal of an old croft overlying even older foundations (Steedman, 1980, n. p., No. 43). This feature of continuity of site development is very common in the Faroe Islands (Thorsteinsson, 1981).

4.1.4 Castles

A feature of settlement which is commonly ascribed to the Late Norse period is that of the castle. A number of monuments of this type have been recorded in Orkney and it is quite clear that they are not in the same class of monument as the castles identified in Caithness. The Castle of Old Wick has, for example, been suggested to date back to the 12th century (Talbot, 1974, 40), but if this is the case, the dissimilarities of the general form and location between the two areas are noticeable and quite distinct. The Caithness example is formed of a single tower with other buildings spread along a promontory whereas the Orcadian examples are considerably more compact in form. Unfortunately, an example suggested for Thurso cannot be traced structurally (Clouston, 1931b, 16). This divergence of type cannot be seen in any other aspect of Late Norse activity between Caithness and Orkney. The most famous one is Cubbie Roo's Castle on Wyre; the name is probably derived from Kolbein Hruga, whose stronghold on Wyre is noted in the Orkneyinga Saga (OS, Ch. LXXXIV, 192-3; Taylor, 1938, 275), where it is described as a fine stone castle, and a safe stronghold. The castle platform is surrounded by a ditch complex; there are various phases represented but the earliest is a small almost square tower, now reduced to its lowest level, to the well or store room (RCAHMS, 1946, 619, 235-39; Clouston, 1931b, 23-7). On the nearby island of Rousay, 'The Wirk' has a

similar form and is suggested as dating from the same period (RCAHMS, 1946, 550, 191-2; Clouston, 1931b., 27-31). In the parish of Holm, a similar structure at Castle Howe has been noted (e.g. RCAHMS, 1946, 103, No. 361) and linked with the stronghold of the Saga called Papuli (Clouston, 1931b, 33-5; Taylor, 1938, Note 2, 372). A further reference to such a stronghold in the Saga at Cairston, Stromness Parish (RCAHMS, 1946, 918, 322-3) has been discussed by Clouston (1926, 291-2; 1929, 57-61) along with others of the type. They are, however, rather different to the examples from Caithness and one must wonder whether they are truly comparable. As noted above (page 50) the ringwork at Castlehill in Caithness has been likened to a possible early form of the Castle at Wyre.

4.2 The Graves

As demonstrated in Caithness at Castletown and Westerseat (discussed above), there are a number of Viking graves which have been inserted into already existing mounds. In Orkney, this re-utilisation is also well-attested, for example at Howe, Cairston near Stromness (a site which has recently been extensively excavated: see below page 158). At this site, the mound had on it an apparent grave deposit which produced a fine glass linen smoother (Grieg, 1940, 80-1; Marwick, 1928a) as well as a bone handle, two whorls, sandstone disc and part of a steatite vessel (Donations, 1889, 238). In the Birsay district, the mound of Saverough at the south of the bay yielded a number of cist graves in the excavations of Farrer in 1862, although no goods were recovered. In more recent excavations (Webster and Cherry, 1978, 152; Hedges, forth b) there are indications that these graves overlay houses of the Norse period. The situation is identifiable at Buckquoy, where a male inhumation had been placed in a small scoop in the rubble over the structures of Norse date. This was

dated to the 10th century by the presence of a coin, and there was also a ring-headed pin and bone mount (Ritchie, 1977, 190). As extensive ploughing had damaged the deposit, it is unknown whether this grave was marked in any way, although a small hump noted is suggested as having been caused by the rubble disturbance. A possible grave deposit, found at Moan, Harray, was a ploughed-out small cist in the top of a mound. Although unlikely to be Viking, the find of distinctive segmented glass beads seem to be of the period under consideration (Cursiter, 1887).

In the west, the same phenomenon of mound burial is noted at Tote, Sheabost in Skye, where a deposition of an axe, and a bronze penannular brooch in a cist were found in a secondary position in the mound (Lethbridge, 1920, Nos. 305-8, 135).

Graves have also been recovered beneath mounds of sand, earth or stone cairns. Four widely-spaced mounds recovered north of Loch Stemness and Lyking may represent the remains of a Viking gravefield. The Lyking grave deposit comprised burnt bones with a bone comb and small iron strap buckle (Grieg, 1940, 80), the other was a female inhumation accompanied by a ring headed pin (Charleson, 1904, 565-6), not a penannular brooch as Grieg notes (Grieg, 1940, 80). A similar deposit from 'an island near the mainland' indicated a rich female grave buried under a mound (Charleson, 1904, 560). Ploughing at Swandro, Rousay, has disturbed in the past the remains of one or more male graves within the mound there (Anderson, 1874, 564; Grieg, 1940, 90). In 1939, during clearance work at the broch of Gurness, a female grave was located. The deposit included oval brooches and a small iron sickle, sealed beneath a flat slab over which had been raised a mound of earth (Robertson, 1969). Precise dating of these deposits is not easy, but the Gurness grave has been dated on the basis of the typology of the oval brooch to the 10th century;

the ring headed pin from the Stenness grave also would seem to date to that period.

The extensive grave field at Pierowall, Westray, comprises mounds both manmade and natural. Use has been made of dunes which were already in existence (the pre-formed mounds previously distinguished) and mounds heaped up over the burial. There are many problems involved in the distinction of man-made sand mounds and natural ones, particularly in areas of extensive wind blown erosion. Thorsteinsson, in his recent re-evaluation of the graves at this site, has distinguished three main concentrations of burial and sixteen graves in all. Some graves include horses, and it was originally thought that others had boats as burial containers. However, Thorsteinsson has since suggested that there is no evidence to support this suggestion. Seven males and five females were identified in the recent re-evaluation (Thorsteinsson, 1968).

There is an extensive number of Viking graves from mounds in the Western Isles. At Carn Nan Bharraich, Oronsay, for example, in 1913, three graves were found including one with Viking grave goods; all three were located in a large mound (Grieve, 1914, 272-91). The grave deposit recovered at Kiloran Bay, Colonsay, and which is noted above, had a mound covering the male burial with the goods and accompanying horse in a distinctive stone setting (Anderson, 1907a, 443; Shetelig, 1907, 172). On the island of Eigg, a number of Viking graves have also been found in mounds (Macpherson, 1878, 586-7), and at Valtos, Uig, a female Viking grave deposit was found in 1915, recovered from a small sand mound near to other mounds (MacLeod, 1916, 131).

In Hov Parish, Suðurøy, in the Faroe Islands, there is a further example of a grave from a mound. In the Saga of the Faroe Islanders, this is the home

and burial place of Havngrímr (FS, Ch. 7 , 16) and a mound bearing this name is situated at the highest point of the cultivable land. Excavations in 1835 produced small iron fragments and pieces of cranium but a Norse date cannot be proved (Dahl, 1970, 63). Excavations at Gilgarnes, Vagur, at the beginning of this century in a flattened mound called Ottishegur, produced objects and bones which have since been lost or which have disintegrated (Dahl, 1970, 63-5).

A better documented grave group was found at Tjørnuvik, to the extreme north of Streymøy. Here, approximately twelve graves were located by an old track. They had been buried in a shifting sand dune and since covered by a landslide. The graves were buried about 50 cm into the sand and then covered with stones. The goods included remains of a knife, a buckle, boat rivet or spike and a ring-headed pin with attached textile (Dahl and Rasmussen, 1936), which is paralleled in Iceland and there dated to the 10th century (Dahl, 1965, 137). The apparent focal point of the grave group was a small ship setting around one of the graves. No traces of wooden coffins or other wooden relics have remained but there is some evidence that burial occurred in or under woven clothes. As yet there are no traces of associated settlement in the area (Dahl, 1965, 137; 1970, 65).

There is a single example of Norse burial under a cairn at Skaill, Sandwick, where a roughly paved stone cist was found with traces of beach pebbles having been piled on top of it. The deposit seems to have been that of a male with finds including a bone comb, an iron knife and a spearhead (Grieg, 1940, 81-4; Watt, 1888).

A single report of a possible female Viking grave was made by Lethbridge (1950, 96) in Sutherland:

> I have seen two Scottish sites which may date back to the days of the Norse settlement. One of these was at Keoldale in Sutherland, within a short distance of a rifled barrow, which appears to have been that of a woman provided with tortoise brooches and padlocked chests...

Further information on this find seems to indicate that in 1835 two cairns were opened here, at Cnoc nan Ceannan near Keoldale, Durness, and,as Horsburgh reports,

> I was told that the bottom of a brass candlestick was found in it; this was no doubt an elliptical Scandinavian brooch.

The other cairn had within it a small cist and burial (Horsburgh, 1868, 278). The New Statistical Account (Findlater, 1845, 94) includes within the find, "a small polished bone supposed to be used for fastening the military plaid".

There are a number of graves found with cist inhumations but no remaining traces of a superstructure, if there ever was one. Such an example is the female grave at Greenigoe, Orphir (Henshall, 1952), for here there is nothing known about the ground overlying the grave. Another example is at Westness, Rousay, where a series of Norse burials have been excavated in recent years. Prior to excavation there were no traces of the cemetery above the ground, but rich male and female graves have been recovered including two boat - graves (Kaland, 1980, 25). The mound known as Swandro, however, which produced Viking age artefacts (Grieg, 1940, 88-90) is thought to have been part of this cemetery (Kaland, pers. comm.).

In Shetland, a group of finds which seem to indicate a burial were found c. 1863 at Clibberswick, Unst, and recorded in 1882 (Donations, 1883, 17-19). This included a pair of single-shelled oval brooches formerly decorated with six projecting bosses. In relation to this was found a trefoil brooch (Grieg, 1940, 103-5) and a plain silver bracelet (Graham-Campbell, 1976, 124), and two polychrome beads, but the latter two items have since disappeared (Curle, 1914, 299-300).

An unprovenanced deposit from Unst is also considered to be from a female Viking grave. This was found in 1861 and included an oval brooch, a small hemispherical bronze cup (or scale-pan?) which Grieg notes seems to have originally had a hinged lid and a small perforation at one side (Grieg, 1940, 103).

The two deposits noted above are in a category about which there is little recorded; that is the type of grave lacking any elaboration at all, those which have been simply placed in the ground. There are two such examples from Birsay, Orkney, which had been simply placed in a developing midden deposit (Morris, 1983, 137-8). One is accompanied by a bone comb which may be dated to a 10th century context and the other accompanied by an iron knife (at present of unknown form). Nearby, the grave from Buckquoy was recovered (discussed above pages 96-7).

There are other types of deposits which cannot be certainly identified and placed in any of the above categories. Such an example is a ring-headed pin from Birsay which was found through a human skull (Donations, 1864, 16), and perhaps we see here more of a ritual significance than in any of the other graves. A find of 10 glass beads from a bog at Hillswick, Shetland, has been suggested as representing the remains of a disturbed Viking female grave. This cannot be supported by further evidence (Grieg, 1940, 69). The beads are mostly cylindrical and include 4 of yellowish paste with radiated spots and two plain blue glass ones with the surface longitudinally ribbed (Donations, 1886, 8-9; Brogger, 1929, 116).

The examination of Viking flat graves has often been by chance, the discovery often being accidental and recovered through ploughing, for example. A concentration of apparently Viking graves has been noted in the vicinity of Dunrobin Castle, Sutherland. Here, three graves and a series of stray finds

which may represent further graves could suggest Norse presence. The first grave was found during improvements "west of the new garden at Dunrobin". This grave was orientated SW-NE and 8 ft. long (2. 4 m) with a paved floor and built sides; it was a double male grave with one skeleton in relatively sound condition and the other much more decayed. This was suggested as representing deposition "with a very considerable interval of time between". The only recorded grave-good is a hollow piece of iron, possibly a handle. (Stuart, 1854). This grave is of particular interest because one of the three capping stones of the grave , the one at the head of the skeletons, is a symbol stone of Class I type, including the fish, comb and mirror elements (Allen, 1903, Pt. 3, 42). Close-Brooks has recently argued that this is unlikely to be a Norse grave, however (Close-Brooks, 1980, 334). Another grave was located nearby, a few yards to the west. It was orientated SW-NE and of the same kind of construction but lacking the symbol stone. A single skeleton was recovered, with the head to the SW and extended with the right leg crossed over the left at the ankle. It was of a relatively old male, with the bones recovered in very poor condition. There were no goods found with the interment but Stuart commented that,

> From the locality which was one often frequented and sometimes possessed by the Norsemen, there seemed a likelihood that the present cist was a Scandinavian one.
>
> (Stuart, op. cit., 298-9)

The third grave found at Dunrobin was of a female and more likely to be Viking. This included two oval brooches which although in poor condition, were of the same type Rygh 652 (Grieg, 1940, 16-17) and thus of the 10th century.

There were found also in the vicinity of Dunrobin Castle a series of demonstrably Norse objects but lacking any known context; they may represent graves. These include an iron axe (Rygh 560) which is very badly corroded,

and a small iron ring which may have been found in association with this axe (Grieg, 1940, 17). A pair of very corroded iron tongs, possibly used in smithing, were also from the area (Shetelig, 1954a, 72; Grieg, 1940, 162), and a badly corroded iron knife with a short single-edged blade (Grieg, op. cit., 163).

Other areas have also yielded grave material of the period. A possible disturbed grave deposit was found near Ospisdale House, Dornoch c. 1840. The find comprised a single oval brooch, type Rygh 652 (dated to the 10th century) with both the inner and outer shells remaining although the outer shell is damaged. There are traces of a textile imprint on the inner face of the brooch and half the iron fastening pin is now missing. Apparently it was found with the remains of a stone vessel, possibly steatite but now lost (Grieg, 1940, 18). Shetelig in 1954 (1954a, 92) mentions the find as being made by a standing stone, however this is corrected (1954b, 238) and it was apparently found a field away from the stone so any association is unlikely.

Although there are a substantial number of grave deposits from the period in Orkney, there are few cemeteries as such in association with chapels; one such example is on the Brough of Birsay. Other burials associated with a church may perhaps be postulated by the presence of the hogbacks noted below. The later graves at Birsay were aligned with the 11th (or 12th) century church (discussed below page 106) in the areas to the west, south and east of the church, about fifty graves in all. These formed a later group to the Pictish ones associated with the earlier structure (Radford, 1959, 13). Originally covered by a flat slab, the edges of the graves were on the level of the old ground surface; they were all orientated East-West and lacking grave goods as would be expected (Radford, 1959, 13-14; Cruden, 1965, 24-25). Such flat graves of the Norse Christian period are archaeologically difficult to denote unless

they are in association with such a church. However, in the pre-Christian Viking period, when goods were deposited and often either mounds/cairns erected over the burial or the burial was inserted into an ancient mound, they are easier to identify.

The third possible grave deposit was found in St. Olaf's Churchyard, Whiteness in the Parish of Tingwall, Shetland (RCAHMS, 1946, 125, No. 1527). In 1938 an iron axe-head of Viking type was found and subsequently ascribed to the late 9th century by Shetelig (1945, 19). This was associated with bones in a stone-lined grave in the churchyard. In 1933, during the enlargement of the churchyard, a fragment of sculpted stone with crude interlace was found. This fragment had on one side two panels with interlace, one vertical and the other horizontal; on the opposite side were two vertical mouldings terminating in a knot at the foot .This has been interpreted as a fragment of a cross-slab/shaft and it may possibly be ascribed to the Viking period (Reid-Tait, 1937).

4.3 Runic Inscriptions

A number of runic inscriptions have been recovered from the area of immediate contact with Caithness, in the same cultural milieu. In Orkney, for example, the largest collection was found inside the chambered tomb of Maes Howe, where not only 30 different inscriptions were noted but also a number of fine animal carvings including a 'dragon-type' creature dated by Shetelig to the 12th century on stylistic grounds and a 'walrus' (RCAHMS, 1946, No. 886, 309-13). The inscriptions were apparently made at different periods, recording 14 personal names and the fact that Crusaders broke into the mound and removed the treasures there; this event has been linked with an expedition of Earl Rognvald which spent the winter of 1150-51 in Orkney.

There are five inscriptions in all which discuss the treasure (Liestøl, 1968). Another refers to a further group staying there to shelter from a snow storm on 12th Night 1152 (O.S., Ch. XCIII, 247; Taylor, 1938, 310). The runes are transcribed in RCAHMS (1946, No.886, 306-113). Four separate runic inscriptions have been found in Birsay, one reused in the church wall on the Brough (Marwick, 1922; Olsen, 1954, 163-4), two found during work at the site in 1934 (RCAHMS, 1946, No. 1, 3) and an inscription on a seals tooth from the site (Curle, 1982, 59, iii, 37). There is an inscription recorded from one of the damaged stones at the Ring of Brodgar, which includes 4 twig/crypt runes, 1 common rune and an incised cross below (Cursiter, 1908). It may possibly be interpreted as Björn, a Christian name or the ON for bear (Olsen, 1937). A second inscription came from a stone wall near Brodgar and is of the same twig runes; it cannot be translated (Donations, 1928, 14; Olsen, 1954, 164-5). By Loch Stenness a stone block was found with runes (RCAHMS, 1946, No. 905, 319; Olsen, 1954, 166), and at a site which is now destroyed, the Broch of Stackrue, Sandwick, a small disc with one face divided into four fields with runes was found (Olsen, 1954, 167-69).

In Shetland, there are three fragments with runic inscriptions from the same small area in Cunningsburgh at Mail (Olsen, 1954, 158-60) which are unquestionably runic in character and a further piece from Crosskirk, Northmavine which is more dubious (Olsen, 1954, 162). One from Cunningsburgh (RCAHMS, 1946, 14, No. 1136(5)) although fragmentary, has a suggested interpretation of "...(he)carved me"; another small fragment found nearby cannot be read (RCAHMS, op. cit. (6)). However, a longer more legible inscription from the churchyard has been read as "...(rais)ed this stone after his father Thurbair(n)" (Goudie, 1904, 62; Allen, 1903, Pt. 3, 19). All these fragments were found between 1872 and 1877.

The 'runic' inscription found on a sepulchral slab at Crosskirk was described by Low in his tour of 1774 as having an inscription of "a mixed runick" (Low, 1879, 136) and Goudie managed to interpret it as "Pray for the soul..." (Goudie, 1879, 143). However the Royal Commission dismiss it as being of the 17th century (RCAHMS, 1946, No.1351, 89). The inscription is now apparently lost (Allen, 1903, Pt. 3, 18), so it must remain a mystery. In 1951 a runic stone was recovered at Papil, in the vicinity of the old church. It has been read as 'R. Reisti. S" (Moar, 1952, Illus. plate XLIII; Olsen, 1954, 162).

There is no collection comparable to that from Maes Howe in the area covered by this survey, and indeed there is only one inscription from Caithness to date. The only runic inscription which is likely to be similar to the one from Thurso, has come from St. Nicolas' Church, Orphir in Orkney. The stone was apparently found during the demolition of the church wall in 1953. The inscription has been interpreted as:

Ingi ok Jökla gerdu yfir/eftir...

Ingi and Jökla made over/on behalf of (transl. McKinnell)

It is possible that the stone may have originally have been part of a 'label' or border to a tomb, possibly dated to the 12-13th century.

4.4 The Church

It has been recently noted that in Sutherland "no structural remains can be attributed, without reserve, to a period before the 13th century" (Omand and Talbot, 1982, 174). The close association with the diocese of Caithness has been already noted (above page 38) and the move away from Halkirk, Caithness to Dornoch in Sutherland of the diocesan centre in the mid 13th century. Attempts have been made to discover, through fieldwork,

sites which may represent slightly earlier evidence of monastic activity in Sutherland, but the results are not conclusive (Omand and Talbot, 1982, 174-5).

The Orkneyinga Saga refers to the forced conversion of the Orkney Isles by Olaf Tryggvason c. 995 (O.S., Ch. XII, 26; Taylor, 1938, 149). However, the lasting conversion did not begin until after Thorfinn had visited Rome and returned to build "a fine minster at Birsay", c. 1050, called Christchurch. Dispute has arisen over its location on either the Brough of Birsay or at the site of St. Magnus' Church in the village of Birsay (Radford, 1959; 1983; Lamb, 1974; 1983). Later still in the 12th century, Bishop William was responsible for the ecclesiastical organisation which resulted in the building of a series of churches throughout the islands (Radford, 1962, 164-5).

The church at Birsay lay within a rectangular wall-enclosed graveyard, containing graves clearly in alignment with the church. The Norse church actually overlies an earlier structure, which has also been interpreted as a church or oratory. In the absence of the final excavation report for this feature, the precise dating is problematical. Marwick has noted that the first Norse churches were built in each ounceland division in Orkney, and it is to be presumed that such a regularity may have been the result of a directive from the Earl (Marwick, 1951, 112-3). (The origin of these ouncelands has been discussed recently by Sawyer (1976)). Any churches immediately predating this and denoted by the place-name Kirbister meaning church farm, Marwick would suggest, were presumably erected by Norse who had adopted Christianity at an early date. This Marwick believes is corroborated by the fact that such farms were fully scatted, implying an existence prior to the establishment of the Earldom (Marwick, 1951, 113). However the problems inherent in ascription of a placename element to a particular period have been noted above (page 24).

One of the better documented of the churches associated with a 'bu' farm[1] is Orphir, where a distinctive small round church has long been known.

> In the churchyard are the remains of an ancient building called the Girth-House, to which great antiquity is ascribed. It is a rotundo of 18' in diameter, and 20' high; open at top; and on the east side is a vaulted concavity, where probably the altar stood, with a slit in the wall to admit the light; two-thirds of it have been taken down to repair the parish church. The walls are thick, and consist of stones, strongly cemented with lime...
> (OSA, 1797 , 177)

This description by Liddell, written in 1795, of the Round Church at Orphir, provides one of the earliest written records of the monument, and by its proximity to the "drinking hall," it is very likely to be the one mentioned in the Saga (see above). Although not actually described as a Round Church in the Saga, it is probably the one concerned (for reasons mentioned below) or lies on the site of a Norse-period church (Taylor, 1938, 384, note 6). Between 1741 and 1748, it was used for storing lime used in repairing the Parish church built in 1705 to its south-west (Johnston, 1904, 198). Although it is now badly damaged, having been partially destroyed during the building of the new parish church immediately adjacent to it in 1829, Petrie records that the church had a completely circular apse whose foundations continued beneath the parish church (Petrie, 1861, 228-9). Pope in 1866 (1866, 108 note) records the repair of this parish church with stone from the Round church. The plan of the Round church is now laid out on the ground at the site, the last parish church having been removed in the mid 1950s, to a site some one and a half miles to the east.

In 1900, Johnston excavated at the church, clearing the debris from the interior of the apse; he noted traces of plaster on the east wall but no earlier remains on the site (Johnston, 1904, 201-6).

The dedication of the Round Church is known only from a funeral intimation in 1757 as St. Nicolas' and prior to that from information from R. Halcro at Houton dated 1682 (Johnston, 1904, 184). The antiquity of such a dedication, however, cannot be known with any certainty. The unusual form of this church has been the subject of many suggestions. Similar churches were possibly inspired by the Church of the Holy Sepulchre in Jerusalem (Heales, 1892, 65; Clouston, 1932, 374), being built after Crusading visits in the 12th century. The Orkneyinga Saga reference, dated in Taylor to 1135 (O.S., Ch. LXVI, 150 Taylor, 1938, 241), mentions Earl Paul living at Orphir. His father Earl Hakon was the first and only Earl before that time to visit Jerusalem (Johnston, 1903, 26). There does not seem to be evidence to suggest that Hakon ever lived at the bu, although he may well have stayed there on a visit to Orkney. It does therefore seem possible that Hakon may have had the Round Church built at Orphir on his return from the Holy Land. Hakon died c. 1103, so the building period may have been around this time, conceivably later than 1103 as it could have been built by one of his companions. MacGibbon and Ross (1896, 145) suggest a date bracket of between 1090 and 1137 based on the life and travels of Hakon. The Royal Commission suggest a date in the second half of the 11th century on architectural grounds: the position of the window case being so far back from the outer face of the wall, "combined with the appearance of the splayed sides" (RCAHMS, 1946, No. 483, 174).

Similar examples have been suggested in Scandinavia, all of roughly the same period, e.g. Olafskirken, Tunsberg (Dietrichson and Meyer, 1906, 89) and possibly Ný-Lars Kirke, Bornholm (Heales, 1892, 81-2). However, all are generally much larger and taller than the example at Orphir.

There are a number of churches in Orkney which are dated to the

12th century, chiefly on architectural grounds, by Dietrichson and Meyer. It is not generally possible to be as precise as Dietrichson and Meyer are about the church on Egilsay, dating it to between 1135 and 1138 (1906, Book II, 23). These include, St. Tredwells (Radford, 1962, 180) and slightly later St. Boniface (RCAHMS, 1946, No. 518, 179) both on Papa Westray, St. Magnus', Egilsay (RCAHMS, 1946, 611, 228; Radford, 1962, 182); Eynhallow (RCAHMS, 1946, No. 613, 230-34), Wyre, dedicated to either St. Mary or St. Peter (RCAHMS, 1946, No. 618, 234-5) and Marwick, Sandwick, (RCAHMS, 1946, No. 5, 6-7; Radford, 1962, 180). It may be possible to add to this list St. Peters, Deerness, where two coins dated to the late 13th century were associated with a structure underlying the present church (Steedman, 1980, no. 39); there is also a hogback monument from the graveyard here which is dated to the late 11th - early 12th century (Lang, 1974, 232).

There are a variety of plans involved in these churches. Although generally of a simple rectangular form as at Wyre or Marwick, there are more elaborate examples, as at Egilsay, with its fine high round tower, as Low also noted at Deerness (Low, 1879, 54), or the three chambered church on Eynhallow (ON Holy Island). Some of the churches have other buildings in association as at Eynhallow, St. Boniface Papa Westray, Brough of Birsay or Brough of Deerness, leading to the suggestion that some of these were monastic in function (Lamb, 1974, 202-3). Recent work at the Brough of Deerness has raised questions concerning the traditional interpretation of the site as a Celtic monastery (Radford, 1962, 166-7). A new survey of the site has indicated a regular planning of structures around the chapel enclosure; this may reflect a monastic function as Lamb would suggest (1973, 93-6) or a secular settlement as seen at the Brough of Birsay (Morris, 1977). Excavation of the Chapel

has revealed two major constructional phases in the Norse period with very few associated burials in the churchyard (Morris, 1976; 1978a, forth b). A further site in the vicinity of Deerness at Newark Bay has yielded traces of a Norse Chapel and associated cemetery dated by coin evidence to the 10th century, underlying a 16th - 17th century fortified house (Brothwell, 1977). A lack of systematic fieldwork, however, at present prevents a full understanding of the inter-relationships of such sites, and indeed of the social order to be associated with them. Many of the churches have enclosures, such as Marwick, where the church is surrounded by a roughly square enclosure, more symbolic often than functional and a feature very common to most ecclesiastical structures. Finally there are examples with particularly interesting dedications such as St. Magnus' Egilsay; by tradition, Magnus was slain near a church on Egilsay by Earl Hakon c. 1116. The present church may be built on the site of a simpler church, since rebuilt more elaborately to honour Magnus (Radford, 1962, 182).

The most elaborate church in Orkney, is however, St. Magnus' Cathedral in Kirkwall. This was built in 1137 by Earl Rognvald to venerate the remains of Magnus which had been removed from Birsay in 1135 by Bishop William. It was probably first dedicated in c. 1142, and was subsequently expanded to its present form (RCAHMS, 1946, No. 339, 113-41). In the 1920s, actual remains of St. Magnus, Bishop William and Earl Rognvald were recovered in the pillars of the Cathedral (Mooney, 1929).

Confirmation of the early dating of some of these churches had been aided by the recovery of hogback monuments in the churchyards at Kirkwall Cathedral, dated to the 11th century, at St. Boniface Church, Papa Westray of the 12th century and at St. Peter's Deerness of the late 12th century (Lang, 1974, 206-36).

In his consideration of the church in Shetland, Cant has recently noted that "not only is documentary evidence regarding them (churches and chapels) relatively scanty but the actual physical remains are meagre in the extreme" (Cant, 1975, 7). Nevertheless, he goes on to outline the details of the chapels recovered and lists some "30 major churches, and over 90 lesser chapels" (Cant, 1975, 15-20). The intimate association with the church structure in Orkney at the period is not surprising, because the Bishop of Orkney was in fact also the Bishop of Shetland. The chief difference in the organisation seems to have been based on the fact that in Orkney the chapel distribution was related to the eyrisland units, whereas in Shetland it was associated with the skattalds system[2]. That church and chapel building in Shetland took place in the 10th century and most certainly in the 11th is suggested by Cant. However, one of the most important of his suggestions concerns the fact that he believes that the coming of the Vikings did not in any way disrupt the progress of Christianity (Cant, 1975, 8). Perhaps linked with this suggestion is the further information that Cant considers it likely that the Celtic church at St. Ninian's Isle has traces of a superseding Norse one (Cant, 1975, 9). However, the evidence in the available publications is insufficient to be conclusive on this point (Small et al., 1973). Most of the Norse chapels and churches were generally small structures, with occasional ones of more elaborate form, as St. Magnus' at Tingwall of a similar form to that of St. Magnus on Egilsay in Orkney. Research based on fieldwork is in progress and will produce further information on this aspect (C. E. Lowe, pers. comm.).

There seems to be at present a lack of information for the Western Isles concerning the Early Church. As part of the Suðreyar, it probably shared the system of the Isle of Man, once more based on administrative units (C. E. Lowe,

pers. comm.). There is not, however, any conclusive archaeological evidence to support this suggestion to date. Recent excavations at the site of Teampull Mholuaidh, Eoropie, Lewis have however tentatively suggested a 12th century dating for the simple chapel there (Barber, 1980). Simpson has noted other possible examples in the west (Simpson, 1961, 8-9).

The pre Viking Christian occupants of the Faroe Islands are remembered in the placename element of papa although there is very little archaeological evidence to support this claim. Only a handful of 'early' cross-incised stones have been recovered but there are no structural traces. (Kermode, 1931; Radford, 1983, 14). The site of Kirkjubøur on Streymoy was a 'Primatial See' (Cant, 1975, Figure 1, 10) and the fine Medieval church visible today was built in the 13th century (Dahl, 1968, 187). At the site can be seen large dwellings of the Bishop, although there are traces of an earlier structure, possibly a church near the later one. The precise relationship with this earlier church and the timber structure referred to above cannot be known without excavation; it is therefore difficult to suggest a similar system of patronage for the church in the Faroe Islands to that in the Northern Isles.

4.5 Hoards and Stray Finds

The relative paucity of stratified finds relating to the Viking and Late Norse periods, has forced a reliance on the recovery of information concerning stray finds. Whilst perhaps lacking the attention of hoards, they can supplement the meagre picture.

In 1880 at Swardale near Bonar Bridge, a corroded iron fragment was found and interpreted as part of a plough, which, although apparently of larger proportions than the 'regular' Norse type, would seem to be of a very similar type This was found in association with a possible steatite vessel

(Grieg, 1940, 162). Joass (1864) records the finding of a runic inscription in an earth house near Dunrobin. The stone was actually incorporated in the upper courses of the wall and afterwards moved to Kintradwell nearby. This is unique in Sutherland, however, the unusual context for such a find must surely call into question its interpretation as a runic inscription, despite the convincing sketch supplied in the article quoted.

Curle notes that at the broch of Carn Liath, a Late Norse comb type with double convex terminals was found, but there are no other references to this (Curle, 1954, 22). No hoards of the Viking period have been recovered from Sutherland.[3]

There are five hoards in Orkney dating to the period of Norse presence in the islands of which the largest is undoubtedly that found at Skaill, Sandwick in 1858. It is in fact by far the largest Scandinavian type silver hoard from Scotland (Graham-Campbell, 1976, 119). This comprised 9 penannular brooches, 14 twisted neck rings, 23 solid silver armrings, 11 ingots and a silver bar as well as a large amount of hack silver. The presence of three silver Anglo-Saxon and 10 Cufic coins suggests a deposition date c. 950 A. D. (Anderson, 1881c; Thompson, 1956, 119, No. 322; Graham-Campbell, 1976, 130). Although this hoard was dispersed at the time of recovery, Petrie managed to recover 16 lbs (7.25 kg) of silver and Graham-Campbell suggests 8 kg as the approximate original total weight (op. cit.). A deposition dating c. 950 A. D. is postulated of this hoard which may originally have had up to 100 separate items (Graham-Campbell, 1976, 120).

A smaller hoard of similar composition but lacking the penannular brooches was found on Burray in 1889. Although it is recorded that some twelve coins existed at the time of recovery, they were too fragile to survive

and only three complete coins survive with four fragments. If such a small number of coins can provide a date of any validity, regarding the deposition of the hoard, is of doubt, but in the event it must suffice. The latest possible date of the coins is 1016, giving a deposition probably around the early 11th century (Cursiter, 1889; Acland, 1898, 114; Thompson, 1956, 20, No. 61). The third hoard to contain coins was found in 1774 at Caldale near Kirkwall. This comprised two horns containing 300 coins all of the reign of Canute (1016-1035) and nearby "several pieces of fine silver, in the form of crescents or fibulae, differing from one another a good deal, both in figure and dimensions" (Barry, 1805, 224-6; Wilson, 1863, 132-3; Thompson, 1956, 21, No. 66). The two final hoards lack any coinage, the Stenness hoard comprising four fine gold rings, similar to those found in silver at Skaill (Donations, 1880, 174-6), and the Brodgar hoard of 9 silver 'fibulae' found in one of the mounds near the stone circle. The illustration would seem to indicate that these were "ring money" (see Graham-Campbell, 1976, 125-6) similar to examples at Skaill (Grieg, 1940, 134). Although no precise dating can be made for the hoards lacking coins, some idea can be gained by analogy with the dated hoards.

The stray finds are only of limited significance because of their generally portable nature, but they can serve a useful purpose. Grieg notes a ring-headed pin from Stenness (Grieg, 1940, 170), and at Skaill, Sandwick a small urn of green steatite and a linen smoother were recovered (Grieg, 1940, 170-1). The ring headed pin from Birsay has already been noted. In some cases, for example at Sties, Sanday, and the surrounding area, Lamb has been able to piece together isolated finds to make a more coherent picture, and possibly a grave field is represented in the scattered finds recorded (Lamb, 1980, 22, No. 132).

In Shetland, there are many stray finds from the Norse period; they range from steatite vessels found in Unst (Greg, 1940, 174-5) in a peat bog to a

totally unprovenanced steatite spindle whorl with runic inscription (Grieg, 1940, 161-2; Donations , 1898, 320-1). A fine penannular brooch was found in a peat bog at Gulberwick (Grieg, 1940, 139; Graham-Campbell, 1976, 131, fnlll). This has a close parallel in Rygh (1885, No. 680), which is unfortunately unprovenanced. In 1830, six or seven silver bracelets were found with a hoard of Anglo-Saxon coins in a horn and five broken steatite vessels at Garths banks, Shetland (Grieg, 1940, 140). The coins included examples from Athelstan to Aethelraed II (Stevenson, 1966, XIX), and there were also "bits of uncoined silver" in the horn. Graham-Campbell suggests a deposition date c. 1000 A. D. and has identified the bracelets as ring money (Graham-Campbell, 1976, 128-9). A single find of a gold finger ring was found at Marrister, Whalsey in a deep peat deposit (Grieg, 1940, 141, Figure 64). This has similarities with an example in Rygh (1885, No. 714). "One of the finest of its kind" was the way in which Graham-Campbell described the gold armlet from Oxna (Goudie, 1913, 444; Graham-Campbell, 1976, 124); it is approximately 6 cm wide and weighs 964 gms troy.

Relatively few Viking age coins have been recorded from Shetland. Dolley has recorded a late 11th century coin of Norwegian type from an unstratified context in an 18th century graveyard from Jarlshof (Dolley, 1968). It was in very poor condition but apparently had affinities with some of the later Hiberno-Norse series. This silver penny has parallels in Central Norway where it dates to c. 1080. Another coin was recorded by Stevenson from Jarlshof, found in 1935 (Stevenson, 1966, XX). It is a coin of Ethelred II and its approximate find spot is suggested as being next to one of the outhouses in the settlement area. In the Parish of Dunrossness, a coin hoard, deposited c. 1060 A. D. was found and included a coin of Harald Hardrada (Dolley and

Skaare, 1973, 222-4); also included in the hoard were cut up arm rings which Graham-Campbell would see as ring money (see above) (Graham-Campbell, 1976, 123). This is the latest recorded hoard of purely Scandinavian nature to contain silver from Britain and Ireland (Graham-Campbell, op. cit.).

In 1955, O'Dell began work at the site of St. Ninian's Isle, known traditionally to be the site of an early Church. After two seasons locating the precise site, traces of a Mediaeval church boundary wall were located. O'Dell believed that 4 phases could be defined, dating back to the Bronze Age. Excavations in the east of the Nave revealed the burial of a larch wood box, containing a fine silver hoard. It has been suggested that it was buried during a period of great threat and, as the objects in the board date from c. 700 to 825 A.D., the early Viking raids have been suggested as the threat (Wilson, 1973, 146). If indeed this is the case, it may perhaps be paralleled in Orkney with the 'Birsay bell' from Saverough (Anderson, 1881a.167-73) or the 'Birsay box' from Evie (Cursiter, 1886; Cruden, 1965, 25). However, legitimate doubts have been raised about the Birsay examples (Morris, 1982, 79; 1983, 121, 140-1). The nature of the hoard has attracted much attention and a variety of interpretations. McRoberts for example, would see it as an ecclesiastical hoard representing the church silver (McRoberts, 1965; O'Dell et al. 1959, 267). Wilson, on the other hand, has suggested that the hoard may have been that of a jeweller's stock-in-trade or the accumulation of a single family (Wilson, 1973, 146). However, the presence of so many duplicated objects in the hoard, such as 6 drinking bowls and 12 penannular brooches, is an unusual feature and perhaps difficult to explain in such a context.

Turning to the Western Isles, there are also stray finds and hoards of the Viking period to be considered. One of the largest hoards was found at

Storr Rock on Skye. It included a silver ring, silver mount, plate and ingot fragments; also 31 Anglo-Saxon and Cufic coins, and a further fragment, a deposition date in the mid 10th century has been suggested (Grieg, 1940, 113-5). The hoard was recovered in 1891, when it was recorded as having 108 coins and 23 pieces of silver (Richardson, 1892; Stevenson, 1966, XXIII). Two other hoard finds from Skye cannot be more precisely provenanced. Ring money was recovered from a mound in 1850, possibly in a cairn (Grieg, 1940, 112), but there are no further details. Another find of ring money was also made in Skye, when only 2 fragments were recovered (Grieg, 1940, 112-3).

There are considerably more recorded stray finds of the period, however. For example, a sword handle and fragments is recorded from Bute (Grieg, 1940, 165); from Islay an iron sword, which is now lost, and from Dalvadie, Islay a glass linen smoother (Grieg, 1940, 165-6). From Colonsay, a bronze ring-headed pin (Grieg, 1940, 166-8) is recorded, and a further example from Eigg (Grieg, 1940, 168). Finally, from Eigg a fine stem post from a Viking vessel was recovered (Grieg, 1940, 179-80).

The paucity of hoard evidence in Caithness, and the few stray finds noted above (Chapter 3) certainly provide a contrast to the richness of the deposits noted here. It has to be presumed that the contrasting situation must represent a lack of field work. However, there have been many finds recovered from peat bogs throughout the north and western areas discussed, and the peat bogs are worked equally as extensively in Caithness.

4.6 Conclusion

The lack of early Viking evidence from Caithness has already been stated, and it can clearly be seen from this section why it is a cause for concern. Other areas in the North and West, excluding Sutherland, have

produced a wealth of information on all aspects of Viking occupation - ranging from structures through to objects. This potential lacuna may be the result of a lack of detailed archaeological investigation.

The settlement concentrations, noted for example at Jarlshof, Shetland, Birsay, Orkney and the Udal, N. Uist are important, although it is not possible to be entirely sure how many of the structures may have been occupied at any one time. The settlement group at Freswick, Caithness has the same problem with its chronology, and it is possible that the earlier Viking material may be either located beneath the later buildings or elsewhere on the site, conceivably lost all together through erosion. However, it is these sites with more than one structure which indicate, particularly but not exclusively in the Late Norse period, the different uses of each of the structures. This has been noted at the Udal, Birsay and indeed Freswick. The detailed work of Bigelow at Sandwick has revealed differential use within a single structure of the Late Norse period, as in the earlier Viking 'longhouses' noted at Birsay and Jarlshof. The site of Kvívík in the Faroe Islands has produced a variant on this feature with two similar structures side by side (in a secondary phase) with different functions but within a restricted settlement unit.

The picture of Viking and Late Norse occupation has altered dramatically within the last five years. For example, five years ago the following sites were not excavated and some not even known at all - Beachview, Birsay, Tuquoy, Westray and Sandwick, Unst. Others were still in the early stages of excavation and material was not available for consideration. Most of the other sites noted have not yet reached final publication, with the notable exceptions of Jarlshof, Underhoull and Buckquoy, and so information cited relies heavily on interim accounts. This is not a criticism, but an inescapable

fact and the direct result of extensive environmental considerations made during the excavations.

The consideration of the pagan Viking graves is restricted by the fact that, with the single exception of Westness, Rousay, most finds have been made without thorough archaeological investigation. Such an example is Kneep, Valtos, in the Western Isles where a rich female grave was discovered among sand dunes approximately 3 years ago and only by chance was an archaeologist involved and then only after the event (Cowie, et al. forth).

The consideration of this period, therefore, constantly returns to the gaps in the information provided. The lack of detailed archaeological involvement has severely limited the archaeological information to be gained even from so many rich finds as noted here.

Notes

1. The term Bu is used to describe the temporary residences of the Norse Earls whilst they were collecting taxes in Orkney. The Bus themselves did not pay Skat as they were Earldom lands (Clouston, 1927).

2. The Orkney chapel distribution and its relationship to Eyrisland units has been discussed in detail by Clouston (1918, 229-32), where he suggests that the term Eyrisland or Urisland was 'first used as a technical term for a given taxable area.' He has also discussed the intimate relationship that existed between the members of these units and the chapel within it (Clouston, 1932, 142-7).

   Skattald, which is confined to Shetland, in its general usage is identified with pasture land liable to skat duty and was distinguished from arable land, being udal land and free (Drever, 1933, 331). Cant outlines the evidence for the relationship between the skattald and chapel distribution (1975, footnote 29, 36-7).

3. The famous find made in 1868 within Rogart Parish of 3 penannular brooches of silver alloy and gold decoration, is often included in a summary of the Norse relics from Sutherland. However, as these brooches, since named the Cadboll brooches (Anderson, 1881b, 6-12), are of a purely Celtic nature and without a stratified context, they have been omitted from the collection on the grounds that they are too early in date and that a deposition within the Norse period can only be suggested rather than supported.

PART TWO

FRESWICK : THE SITE

Chapter 5

Freswick : A Threatened Site

5.1 The Setting (Figure 9)

Freswick Links is situated at the head of Freswick Bay in the parish of Canisbay on the east coast of Caithness (centred at NGR ND3765 6760). It is an area of shifting sand dunes rising eight to ten metres above sea level, and of gullies inscribed by the wind, now the home of countless rabbits. The area is traditionally delimited on the north side by the road to Skirza Head and on the south side by Freswick Burn (although a more southerly extension to Freswick House may now be included, see below page 143), an area of approximately $^{1}/_{3}$ km^{2} (Figure 9).

At the site today there are various standing structures which are interesting in themselves. Freswick House (also called Castle) lies at the southern end of the Links, south of Freswick Burn, at whose mouth it stands. Tranter notes that it was probably built in the 17th century with an 18th century extension. It has a modified L-shaped plan with the main block lying roughly east-west and standing five storeys high; the walls are harled (Tranter, 1970, 90). It may originally have been built by the Mowat family after receiving a charter for Freswick from Robert the Bruce. The Barony was sold to Andrew Mowat in 1549, and Roger Mowat was laird of Freswick in 1635 to 1661 when it was sold to William Sinclair of Rattar. James Sinclair was laird in 1675, and it is likely that it was one of these later lairds who built the present building on the site (Tranter, 1970, 91). The older name for the site was possibly 'Burnside', noted on the map of Pont published in 1662 as 'Burnsyde' with a 'castle' (Blaeu, 1662, 133-34).

There are a number of references to the Freswick landowners, and the estates, noted in the First Statistical Account (OSA, 1793, 142-169). At that time, Robert Sinclair of Freswick and the family of Brabster were the only landowners in Canisbay; Freswick House was described as a 'modern building'.

In 1794, William Sinclair inherited the estates of Freswick which extended from Dunnet in the north to Dunbeath (and possibly beyond) in the south. He was responsible for the attempted clearances in the Dunbeath area (Richards, 1982, 378-82). In 1828 William Sinclair died and was succeeded by W. J. A. Sinclair, and in 1847 there was very great hardship recorded in the parish of Canisbay (Richards, 1982, 381).

Located 'on the north side of the House of Freswick' (although in fact on the west side), lay the chapel of Saint Moddan. This is now overlain by a relatively modern 'mausoleum' built by Sir William Sinclair of Freswick House, circa 1670 (Mowat, 1931, 9). The site is marked on the 1906 6" O.S. map as 'St. Moddan's Chapel', a name with various possible associations, including a possible origin in the 6th century abbot who worked in Stirling and Falkirk (Farmer, 1978, 281) or Maden, a Breton saint of Cornish descent (Holwick, 1924. 636). Johnston records St. Moddan as being remembered in Bowermadden and notes also the Moddans referred to in the Sagas (Johnston, 1910, 71; O.S., Ch. LIII, 114; Taylor, 1938, 213). The modern building, probably overlying the earlier structure (now strongly indicated by a large mound on which the mausoleum stands), was apparently the scene of many superstitious rites quoted by D. Beaton (1909, 49). Mowat claims that the modern building was never used (1931, 9), which would seem to be in direct conflict with E. Beaton concerning the burial there of a branch of the Kennedy family (Beaton, E., 1980, 8).

Located approximately 120 m west of Freswick House is a fine bell-shaped doocot built in two stages and still standing complete to 20-22 feet (6.1 - 6.7 m). From a height of 7 feet (2.13 m) above the floor it is lined with stone nests (RCAHMS, 1911b, no. 47, 18). It may also be described as beehive shaped and dated to between the 16th and 18th centuries (presumably contemporary with the castle building and a fine bridge nearby with the arms of the Sinclairs built into it).

Beaton sees this as reflecting the status of the large estates and castles (Beaton, E., 1980, 16).

Nearby, to the north-west, are the remains of a mill which has proved elusive in documentation. It is mentioned in conjunction with the Barony of Burnsyde in 1549 (Mowat, 1931, 9), and illustrated on a map of Canisbay published by J. Thomson in 1830 (in Bell ed. n.d., 7).

Activity at the site since then has been largely confined to sand quarrying in the three main sand pits described below. The sand is apparently very good for cement, and was therefore used in the construction of the airstrip at Wick (Gulloch, pers. comm.) and for the building of defences in the last war. Childe notes the presence of soldiers digging trenches on the Links in 1941 (Notebook, 2; see Chapter 7), for example, and it is possible that traces of this activity were also located in the more recent excavations in Area 2 (Curle's Building VI (see Chapter 7). There are still the scars of war to be seen at the Links, in the form of tank traps which litter the seaboard, preventing the landing of enemy forces in Freswick Bay. This form of damage has now ended, but the sand-quarrying continues, still forming a threat to the remaining archaeological deposits.

Natural erosion problems at the site are also threatening these deposits. In some places, the wind has swept away large amounts of sand to reveal old land surfaces and traces of masonry. The site today is littered by large amounts of stones, which are reddened by fire and shattered by heat. The extensive tracts of midden deposits, most commonly limpet shells, animal and fish bones, are debris from the occupation of the site, and include remains from the Prehistoric period to the 12th or 13th centuries. Settlement has been traced here both by the discovery of stray finds by local people and through the excavations of F. Tress Barry, A. J. H. Edwards, A. O. Curle and V. G. Childe. The site is now a scheduled ancient monument (MPBW, 1967, 18).

5.2 Local Interest in the Site

The acute awareness of the history and archaeology of Caithness, and the interest thereby engendered in the local people of Freswick, has resulted in the survival of evidence which would otherwise have been lost. An extensive collection of finds from the site, including a great wealth from the Late Norse period of occupation, have been recovered since the excavations by the late Simon Bremner-foreman on Curle's excavations - and his daughter Mrs. Margaret Rosie of Midtown. The keen eye of both has resulted in the survival of finds ranging from tiny bronze and bone pins to large steatite sherds and bone comb fragments, mostly collected from the areas of severe erosion at the sea edge.

Casual walking over the eroding areas of the site since the excavations has resulted in the collection of considerable quantities of grass tempered pottery ('Freswick Ware') amongst other types, both older and younger. These collections of material form a substantial supplement to that to be found in the NMAS. Mrs. Rosie of Midtown has the largest of these collections, with some 209 individual items, including 20 comb fragments and one complete example, 14 bone points and pins, 5 bone 'toggles' and 16 femur head whorls both complete and damaged. Amongst the other items are fragments of whalebone and antler, 4 steatite sherds and 3 steatite weights, 69 copper alloy pins of various types, 6 buckles, a single piece of daub with the impressions of wattles and 31 pieces of flint and chert, as well as 64 sherds of pottery of various fabrics.

Other local collections are held by Mr. Mackay of Keiss, who has in his possession a fine copper alloy dress pin and comb fragments of antler. Mrs. Dunnet of Duncansby Head has a comb fragment, a steatite sherd and sherds of grass tempered pottery. Mr. Manson of John O'Groats has a single

find of a stone weight. The Thurso Museum holds pottery sherds, flint and chert pieces, amongst other small things. There are also other items from the site which it has not been possible to examine personally, but which are known through personal communication or photographs.

Other items have come to light which have been collected from the site over a number of years, but which have left Caithness. Amongst these are finds removed by R.S. Murray of East Lothian, who holds 2 pot lids and a few pottery sherds, other items having been dispersed after recovery (such as the comb (8.9.9)). Other items, mainly sherds of grass tempered pottery, have been widely dispersed, with present locations ranging from Tankerness House Museum, Kirkwall, Orkney, to Inverness Museum and even the Ashmolean Museum in Oxford. Most of these finds have been recovered by people passing through Caithness, holiday makers. A total of 249 individual items and 248 sherds of pottery are held outside the NMAS, excluding material from the Durham excavations.

The finds from the early excavations have been housed in the NMAS, but by further donations this body of material has been very much enlarged. Most of the donations have been from either Simon Bremner or his daughter Margaret Rosie; all have been recorded in the Donations lists of the Society of Antiquaries over various years between 1927 to 1952. Items have also been purchased from this same source, between 1935 and 1973. More recent donations and purchases have continued up to 1980. Although the bulk of this material has been sherds of grass tempered pottery, comb fragments, bone pins and copper alloy pins have also been accessioned in the NMAS. The finds from the excavations of Curle were donated in 1939 (IL 523-653), when 171 items, including 73 sherds, were given. In 1943, 20 items, including 12 sherds, were donated after Childe's excavations (IL 657-70).

Although the excavations of Dr. A. O. Curle in 1937-8 and Professor V. G. Childe in 1941 perhaps indicated the peak of the earlier archaeological activity at Freswick, other features of archaeological import have been noted in the intervening period between the war years and the renewed activity at the site by Durham University. In 1965, during a visit to the site by the Ordnance Survey, a cist was located approximately 50 yards (45 m) south of the visible remains of Curle's excavations (Building VI at the north-west of the complex). The cist, measuring 2.1 m in length, 0.6 m wide and deep, was unpaved and lacking the slab at the east end. It contained an adult inhumation, unusual in that it lay face down, and lacked grave goods (O.S. card no. ND 36NE 4). The location of an empty cist-grave during the more recent excavation (1980) in Area 3 (possibly the O.S. one), stirred memories amongst the locals. For example, Donald Omand of Halkirk (Dept. of Extra Mural Studies, Aberdeen) remembered, as a child, seeing stones set on edge in a roughly cist-like form and orientated approximately east-west. Mr. Mackay of Keiss remembered the emptying of such a cist-grave about 50 years ago in roughly the same area, and Mr. William Laird of John O'Groats recalled the recovery of two stone cists with skeletons, but no grave goods, found during sand quarrying in the middle of the bay circa 1956, in an area which is now eroded away. All these memories and the archaeologically attested examples are consistent in that they all indicate the same area of the Links as the area with the cists. This becomes perhaps disproportionately important when considering the site, because most of the available information, chiefly from the artefacts, is totally lacking in context. A more recent collection of eroding material from the site has been made by Glasgow University Archaeology students under Mr. Eric Talbot. This has consisted chiefly of pottery, and is included in the catalogue.

It was due to this body of artefactual information, and the knowledge that erosion at the site regularly increases the assemblage available for study, that a programme of survey and excavation was initiated in 1978 by Durham University.

5.3 Recent Survey at the Links

The earlier work of Curle and Childe et al on the site (see below Chapter 7) had indicated that multi-period occupation was present, and the inconclusive nature of Childe's rescue excavation at the cliff edge suggested the same degree of complexity encountered by Curle further inland. The fact that Childe's site was removed during sand-quarrying in World War II only reinforced the view that the eroding cliff-section visible in 1979 (which lay behind Childe's site) had to be examined in order to record the information which was being so rapidly and incoherently removed. In order to establish a framework for subsequent work, an extensive programme of survey work began in 1979.

A starting point for investigation of the extent of erosion was the 25" O.S. map, produced in the late 1960s. On this were clearly marked three sand pits, apparently worked both before and during the war (pers. comm. F. Gulloch). A series of points was established on the ground from which it was possible to gain some idea of the extent of erosion since the production of the O.S. map. From this it can be seen that although large amounts of sand were removed during the war for the construction of the airstrip at Wick (pers. comm. F. Gulloch), there has been erosion along the whole coast since, which is especially marked at the areas of the sandpits. Very severe depletion of archaeological deposits is evident, with well over 25 metres eroded in many places (Plates 1 and 2).

Each zone of erosion at Freswick Links was given a letter for identi-

fication purposes (Figure 10), and the area photographed and examined systematically for archaeological material between 1979 and 1981. The detailed collection and recording has served to indicate the nature of the deposits at each zone. Some of the zones, as seen below, would seem to be mostly eroded out, with the sand having been blown away, leaving the heavier archaeological material, originally from several different contexts, mixed together. Other zones are still covered by sand at the cliff edge and are being eroded from the side, often with the undermining of structural elements, which have consequently become displaced, but with parts of the deposit still intact behind the cliff-edge. Further zones of erosion are due to a combination of rabbit activity and wind erosion. All the finds mentioned below are included in the catalogue.

Zone A is an area of active weathering at the north end of the bay in the east face of high dunes. It lacks archaeological material except for occasional shells and bones traceable along the water course of a small stream running through it. By the time of the 1981 survey here, two extensions were noted, one to the immediate north, the other to the south. Throughout the period of examination, no finds of archaeological significance have been recovered from here.

An erosion area to the east of the old track into the wartime sand pit was designated Zone B. Despite active erosion, no archaeological material is visible and it is likely that this is an area of redeposited sand. Between 1979 and 1981 there have been no significant alterations in this area and no archaeological finds.

Located at the back of the northern-most sand pit, Zone C displays a large spread of material, consisting largely of burnt stones, shells and a few animal bones, but very few artefacts. One iron hook-shaped object (5.5.11)

and pieces of industrial residue (such as 5.7.4) and flint (6.13.152), in addition to 6 sherds of grass tempered pottery and one non-grass tempered sherd, were recovered. The indications are that this was a large area of midden, which has now mostly weathered out. On the seaward side of this zone, traces of masonry could indicate a structure which is being uncovered by weathering, or which has already been displaced from higher up. By 1981, an extension to the original area had been noted in the form of a vertically eroded dune face at the northern margin, and a midden layer was revealed. Generally, throughout the period examined, this area did not produce many archaeological finds.

Located south of Zone C, Zone D lies on the side of the former spur between two sand pits. This is an area of rapid and extremely noticeable erosion at the top of the slope, with some degree of re-grassing lower down towards the beach. Midden layers are seen clearly here, mainly shells and burnt stones to the north, and, towards the south and Zone E, a more pronounced black organic layer. Large amounts of grass tempered pottery were recovered (222 sherds in all), and one non-grass tempered, also iron (such as 5.5.37, 5.5.43) and industrial residue (5.8.5, 5.8.22). At one point, a large part of a single vessel was recovered, together with an iron knife-blade (5.3.8/9). Towards the next zone, very large fish bones were recovered. Finds in 1980 were more diagnostic in type, e.g. a steatite spindle whorl (6.2.12) and the terminal plate of a bone comb (8.9.19). The erosion by 1981 had continued progressively, with small areas covered by undercut turf. The lower, less steep, slopes were becoming grass-covered.

Zone E is probably the most vulnerable zone in terms of the speed of erosion in relation to visible remains. At the back of the second sand pit (but considerably extended) this area has, at its centre, the remains of a structure.

Part is visible in the cliff-section, and groups of large stones have tumbled out down the face. This structure is overlain by midden deposits, which extend from Zone D. The midden layers are exceedingly complex and distinctive, with one almost entirely consisting of fish bone. Many pieces of pottery were found in this zone (87 grass tempered and 4 non-grass tempered), together with large amounts of burnt stone and some mammal bone. Small finds included industrial residue (5.8.6, 5.8.16), flint, (6.13.151) and iron (5.5.37 and 5.5.43). By 1981, the structure in the centre of the zone had been badly damaged, with further large stones from it having fallen down the sand slope.

The northern part of the former third sand pit forms Zone F. Erosion has taken place in the past between this zone and Zone E, but the spur has regrassed and is relatively stable. Active erosion is evident at the back of the area, and there are traces of structures. Material visible on the surface included a large amount of pottery (111 sherds of grass tempered and 1 of non-grass tempered), various iron fragments (e.g. 5.5.26), a possible nail shank (5.5.24) and pieces of industrial residue (such as 5.8.15). Many burnt stones were visible, together with a predominance of shell, but a notable lack of bone. By 1981, the northern end of this zone had continued to stabilise. Further south, the low sand cliff continued to erode despite consolidation lower down the slope. There are relatively few finds from this zone.

Zone G is the southern part of the southernmost sand pit. Immediately behind the face of this zone, but not yet eroding out, are groups of stones. Over most of this zone, a large number of shells and small stones are visible. Material recovered includes large animal bones, pieces of steatite (including 6.3.10), industrial residue (5.8.18, 5.8.35) , iron (5.5.27 and 5.5.28) and part of a slate whetstone (6.6.12). Slightly less pottery was recovered from this zone, 69 sherds of grass tempered ware, mostly

small and splintered, and two sherds of non-grass tempered ware. By 1981, this zone appeared generally unchanged, except for the continued erosion at the cliff-top and signs of regrassing on the lower slopes.

Located to the south of Zone G, Zone H is an area probably quarried in the 1940s, but with regrassing of the upper slopes. Erosion at the base of the face indicated groups of stones, and small pockets of midden: burnt stones, shell and some animal bone has eroded out. No pottery was evident in 1979, but, in 1981, 8 sherds were recovered (all grass tempered), industrial residue (5.8.9, 5.8.24) and two fragments of steatite (e.g. 6.3.23). Throughout the period under consideration this area continued to produce few finds and had not suffered severely from erosion.

Zone J is a sloping cliff-section which has been partially regrassed. However, it is being eroded from the east, causing slippage, particularly of stones which are probably related to stones visible behind the section. Evidence of possible metal-working is seen in fragments of industrial waste (such as 5.8.14) including a fragment of crucible or furnace. A limited amount of grass tempered pottery was collected, 8 sherds only, and 1 of non-grass tempered ware, a hard fired red fabric, probably a later medieval type. A single fragment of glass was also found (7.1.2). In 1981, a landward extension was noted revealing midden traces below a small sand and turf overburden.

Zone K is an area of sand quarrying linking to Zone J, but with little archaeological material evident despite its large size. The few finds include 2 small pieces of industrial residue (e.g. 5.8.12), part of the head of a ring headed pin in bronze (4.8.87), and 9 sherds of grass tempered pottery. This trough-like area enlarged considerably throughout the period 1979-81, both on the seaward and landward edges. The high sand banks at the north and

south edges were reduced and undermined. In the western inland extension no midden was visible,but elsewhere the wind was removing the light sand to reveal traces of midden. This led to an increase in the number of finds recovered; these included industrial residue (5.8.37), iron (5.5.38 and 5.5.39) and a single piece of flint (6.11.45).

A small area at the southern end of the bay, Zone L, shows some erosion of midden material , but the finds included animal teeth, burnt stones and shell in 1979. By 1980, further erosion revealed industrial residue (5.8.25) and iron (5.5.25). In 1981,the northern extension of this zone had linked with the seaward extension of Zone K, forming a much larger unprotected area, although still producing relatively few finds; iron (5.5.38) and industrial residue (5.8.31). Eight sherds of grass tempered pottery were recovered from this zone.

Zone M is an area behind the World War II tank traps at the southern end of the Links, and therefore partially protected from wind erosion. Rabbit activity,however, is considerable but,despite that, little archaeological material was recovered: none in 1979, and in 1980 a single piece of iron (5.5.31/35). By 1981, slight traces of midden deposit were exposed, revealing a steatite fragment (6.3.25) and a piece of industrial residue (5.8.32); in all only 9 sherds of grass tempered pottery were recovered.

The small area of erosion,Zone N,opposite Freswick Castle has produced no archaeological evidence,and between 1979 and 1981 no change was noted in this zone.

Zone P, an area at the south-west end of the rough links area, is scarred by rabbit activity and the wind; stones and animal bone are present. A very serious situation would develop if this area linked with Zones K and J. In 1981, an additional small area of erosion was noted to the north of this zone

but lacking anything of archaeological significance. Only a single fragment of industrial residue was noted (5.8.33) and 1 sherd of grass tempered pottery.

Zone Q is the very large inland area to the east of the rough links, with active erosion both from the elements and rabbits. Large stones from structures and paving stones have been uncovered, together with midden material. Shell, bone and burnt bone are evident, together with burnt stones and 100 sherds of very weathered grass tempered pottery and 1 sherd of non-grass tempered ware. There was a noticeable lack of fish bone present in this area, but many other types of finds are recorded; iron (such as 5.5.29), industrial residue (5.8.13 and 5.8.19/20) , flint (6.13.150) and one roe deer antler tine (8.16.21). Although by 1981 the general appearance was as in previous years, an extension was noted to the south and the area as a whole continued to produce many finds; iron (including 5.5.30), industrial residue (5.8.34) and flint (6.13.150) were the types represented-as in previous years-and the pottery continued to be very worn.

The base of the ridge running roughly north-south at the western edge of the Links, designated Zone R, is badly damaged by both rabbits and wind, but midden material is very sparse here and no structures are evident. Nothing of archaeological significance was noted here between 1979 and 1981, and the extent remained basically unaltered.

Located at the northern end of the Links at Lady's Brow, Zone S is below a very high dune. Stones, probably representing a wall, and midden layers were revealed in 1979 and still visible in 1980. By 1981, these stones had been displaced by the trampling of the area by cattle, and in general the whole area had been badly damaged over the winter of 1980-81. Trial excavations were undertaken in 1981 (see Area 9 below) to examine any structural remains still intact at the site. Finds prior to excavation included only fragments of industrial residue (e.g. 5.8.40, 5.8.41).

This survey of erosion zones at the site has provided interesting information on various fronts. The monitoring of erosion at different parts of the site has indicated the order of priorities for archaeological examination. It is not feasible to excavate the entire site, but areas which are most vulnerable and rich can be concentrated on. The centre of the erosion problem unfortunately concentrates on the heart of the archaeological site, as indicated in the material collected. This is unfortunate because it is not now possible to judge how much of the seaward extent of the site has disappeared. Although the sand-quarriers only removed clean sand, stopping at discoloured material or stones, the fact that the area excavated by Childe is no longer present certainly suggests that some part of the site has gone. The erosion, however, is perhaps fortunate in that it is revealing large amounts of archaeological evidence which add greatly to the picture of the site in the Norse period. Under different circumstances, this material would not be available for study and, indeed, without the severe erosion, the site would not be open to reinterpretation.

An important possibility, as yet unproven, is that the walling revealed in Zone E is likely to be associated with the east end of Curle's buildings excavated in 1937-38. The analysis of the midden layers related to the exposed walling may assist in the interpretation and identification of the middens associated with Curle's buildings, and then those of Childe. Without excavation in the intermediate areas, however, there must remain an element of doubt in such interpretations.

The material collected from the designated zones indicates that the area at the centre of the Links is the richest. This concentration is seen most clearly in the distribution of the pottery: a total of 638 grass tempered sherds and 11 non-grass tempered pottery were collected between 1979 and 1981. Of these, 589 grass tempered sherds (including 222 from Zone D alone) and 9 non-

grass tempered sherds were from the central part of the Links, i.e. Zones D to G inclusive, and Zone Q immediately inland from these. This means that 92 per cent of the grass tempered wares and 82 per cent of the non-grass tempered sherds were from this central area. There are distinct reductions in the amount of pottery present to the north and south of this area. This central area of the Links contained both the excavations of Curle and Childe, indicating great complexity of structural remains (see below Chapter 7) and, in conjunction with the fact that the majority of the material collected came from that area, this must indicate that that is the heart of the remaining settlement. It is, however, quite possible that, as that part of the site is eroding the fastest, it is producing a disproportionate amount of material in relation to the rest of the site. Only stripping of most of the site could solve this problem.

The other interesting concentration in the material collected is in the steatite: although only 16 sherds have been recovered during the recent surface collection, 5 are from Zones G and H, generally on the southern limit of the pottery distribution. It is possible that the steatite may be from a deposit underlying the pottery-rich layers, but it cannot be proven on the available evidence. The lack of steatite from the site in general (see catalogue below), with only 2 sherds recovered in Curle's excavations (both from relatively early stratified contexts), may indicate that pottery was preferred and presumably more easily accessible than the steatite, which would have to be imported from Shetland, as the nearest outcrop, or even from Scandinavia. It is conceivable that the few pieces of steatite on the site were highly prized, as supported by the presence of re-used sherds discussed below, or even that they belonged to the earlier settlers on the site during the Norse period. This cannot be proven either way on the available evidence.

The other classes of material, industrial waste and iron, show no

special concentrations, being spread throughout most of the zones from the north to the south. Individual pieces of flint collected are unworked and represent beach deposition rather than anything more significant. From all the finds recorded during this exercise, four should be noted as especially significant. From Zone D, a complete steatite spindle whorl (6.2.12) and the terminal plate of a double sided bone comb (8.9.19) of a type dated by analogy with Scandinavian types to the 12-13th centuries (see below); also a fragment of a slate whetstone (6.2.12) which is now broken but which would seem originally to have been a pocket type, judging by its dimensions; and from Zone K, part of the ring of a bronze ring-headed pin (4.8.87), a more diagnostic find belonging to the truly Norse milieu.

The range of material from the eroding zones is broadly comparable with that from the early excavations. The large amount of pottery and small amount of steatite are noted from Curle and Childe's work . The recovery of industrial residue is interesting in that Curle only records any significant amount from the 'forge'; however, the amount gathered in the surface collection cannot be called significant as only approximately 40 pieces were found in all.

5.4 Recent Rescue Excavations at the Links and House

The excavations of 1980 and 1981 on Freswick Links were the result of the survey information gained in 1979, both of the erosion zones and of the environmental potential. These were intended as assessment excavations with an integrated environmental analysis programme. The scale of work was consequently exploratory rather than comprehensive (Figure 11).

In 1980, excavation was initiated at four widely-separated locations on the Links. The intention in Areas 1 and 2 was to attempt to locate, and then examine, the condition of parts of the site excavated by F. Tress Barry

(Anderson, 1901) and A. O. Curle (Curle, 1939). This work is discussed in relation to the former excavations. The intention in Area 3 was to examine part of the most severely eroding inland area (Zone Q), and in Area 4 to carry out extensive examination, by excavation and sampling, of the eroding midden deposits in Zone D behind the cliff edge from which Column Sample 2 was collected by D. J. Rackham in 1979. In 1981, cliff-side trenches 5 to 8 were examined on the same basis as Area 4, and Area 9 was the direct response to severe cattle damage to Zone S at the north end of the Links.

5.4.1 Work at the Cliff Edge

In 1980 and 1981, 43 metres of the severely eroding cliff section was drawn in an attempt to establish the relationship between layers to the north of the Links, and those further south. An extensive number of individual midden dumps were recorded, suggesting a more complex picture than previously suspected. Collapses in the course of this recording indicated that some of the midden dumps visible at the cliff edge did not extend far inland. The differences indicated within such small areas of erosion serve as a warning when trying to consider the nature of these middens at a point where it is known that many metres have been eroded.

In 1980 a 4 m by 1 m cliff edge trench (Area 4) was laid out and the fills (excluding wind-blown sand overburden) were sieved to one millimetre. Due to the deep overburden of sand, the sides of this trench needed battering to counter collapse. Thus the trench narrowed to 0.75 m at its deepest point. In order to sample constant-sized columns from the cliff-edge trenches, it was decided in 1981 to expand their dimensions to 4 m by 2 m, and take a central strip of fills, 0.50 m wide, for sieving. This strip was divided into four one metre blocks. Thus four columns of 0.50 m x 1 m were taken from each trench. All deposits were excavated stratigraphically. Two of the four trenches were

completely excavated and sieved (Areas 5 and 6), the remaining trenches requiring more work in the 1982 season (Areas 7 and 8).

Area 4, examined in 1980, was placed behind the cliff area from which Column Sample 2 was collected in 1979. The aim in opening a small trench was not specifically to examine features, but the nature of the biological material in these deposits. A series of superimposed midden deposits here confirmed that, although not all the layers seen in Column Sample 2 were identified in the trench, the section which was drawn for 9 metres of the cliff face around that column sample and the section of the trench are complementary, and intelligible in terms of successive dumping of material from several adjacent areas. As only small patches of sand blow appeared within the deposits, the middens appeared to be largely continuous and possibly deposited over a relatively short period of time. One aspect that was not anticipated was the presence in one layer of an articulated mammal skeleton (probably that of a pig) and in another of large amounts of shell, alongside consistently high levels of fish bone. Carbonised seed was also recovered from one layer. Grass tempered pottery was recovered throughout the excavation of the midden layers, although not in as great concentrations as expected. A large proportion of a single pot was found in association with a group of burnt stones.

Area 5, opened in 1981, was placed immediately adjacent to Zone C, approximately 1 metre from the cliff edge. The aim was to examine the nature of the deposits of the zone, especially at Zone C, where the cliff edge midden deposits were compressed. A sand overburden of only c. 0.12 m was removed onto a heavily stone-laden dark brown middeny deposit. There were slight differences in colour and texture due to a series of small sandblows within it. It may be suggested that this represents an interface, with the effect of erosion being to blow out the light sand, leaving the heavier stone to

drop onto the lower midden layer. The midden deposit was excavated stratigraphically in small spits and produced a number of finds, e.g. a double-ended bone tool (SF 251), a femur head whorl (SF 255), industrial waste and large fragments of grass tempered pottery. The deposit was relatively uniform for a depth of approximately 0.10 m, variations occurring only with individual small dumps of peat ash or shell. The midden was much shallower at its north end, petering out towards the north of Zone C. It seems likely that the midden had been dumped against an existing sand dune. The relatively uniform nature of the upper midden present at the northern end directly onto the dune, contrasted with the variations to the south of the trench, such as the presence of a dark humic layer with heavy stone content, located only at the southern end. There was also a clean grey windblown sand banking against the dune,below this lower midden at the south. Some 0.10 m below this, sampling revealed a greyish layer with burnt stone, fish bone and shell, interpreted as a midden. Underlying this were further layers including another possible midden layer, located only at the southern end. Excavation of this trench was terminated at a depth of 1.5 m, coinciding with the safety limit and a light-coloured sand taken to be in situ natural.

Area 6 was located immediately to the west of Zone D. Below an overburden of approximately 0.80 - 0.90 m, a stony, sandy deposit was interpreted as in Area 5, as an interface. It immediately overlay a dark brown dense midden material in large patches over a coarse shell sand, with further patches within it of a looser coarse sand. This latter sand gradually appeared at the southern end of the trench. Underlying this was a chestnut brown deposit with some stones. This produced large sherds of grass tempered pottery, probably representing most of a single vessel. This layer sealed a grey brown shell sand which had light coloured streaks of sand running in parallel lines across it in a north-east

to south-west direction. These have been provisionally interpreted as cultivation marks, apparantly skirting around the side of the looser, coarser dune. The grey brown sand had in it two small sherds of pottery, one of which is grass tempered, and the other much coarser and possibly pre-Viking.

A small area in the north of the trench was examined to ascertain the nature of the deposits under the cultivation marks. A thin humic layer and one containing charcoal flecks were distinguished overlying sterile shell sand.

Area 7 was located approximately 1 m from the dune edge on the east side of the Links, in the centre of Zone E, and between Area 4 to the north and Area 8 to the south. Below the sand overburden of approximately 0.30 m, a single midden with sand lenses was examined. An interesting feature of aligned upright stones could represent a crudely built drain, possibly associated with a structure to the west of the site. The only dating material as yet from this trench is a small collection of wheelthrown pottery, indicating a Medieval date for the upper layer. The deposits revealed seem to be dipping both northwards and southwards, as though eroding from the highest point at the centre of the trench. Here the deposits are over a series of sandstone blocks, possibly structural, and related to one revealed in the cliff section drawn in 1981.

Area 8 was located at the southern end of Zone E, approximately 1.5 m away from the cliff edge. The sand overburden, which varied in thickness between 0.09 and 0.29 m was removed to reveal a series of superimposed layers including a black humic deposit with some shell and fish bone and a similar deposit with a much higher sand content. It appeared that these layers were dipping towards the north-east corner. The uppermost tip, a black humic deposit, was collected as a total sample. This overlay a firm

clayey peat ash deposit immediately over Feature 1, a wall line running roughly north west - south east across the north east corner of the trench. A relatively uniform layer of dark brown sand lay to either side of this, but not over it.

Elsewhere in the trench, a complex series of interleaving midden-like layers and sand blow deposits was examined but could not be understood because of the small size of the trench. All layers were sampled. At the south-west corner, three stones (Feature 3) were set into a dark turfy layer, rather than a midden deposit. Underlying this feature the firm brown humic sand lipped up to the wall (Feature 1). At the interface with the dark turfy layer below, a complete annular bronze brooch was found (S.F. 315) (this has 12th century parallels); associated with grass tempered pottery. Below all these interleaving layers, a uniform deposit of brown sand was reached at the end of the 1981 season.

5.4.2 Inland Areas

Area 3 was a 10 m x 2 m trench over a part of Zone Q, an area which is heavily disturbed by rabbits and where the originally turf-covered surface has been badly wind-scarred. As noted in 1979, this zone is very large and extends in two arms from a large open dune to the west. The 1980 trench lay north-south over the northern arm extending eastwards. It was deliberately sited to minimise further erosion by the cutting of the turf for the trench. Walking of the area previously had suggested (see page 133), from the character of the finds recovered, that the midden might well have been virtually eroded out. The area within the trench immediately to the north of the bare sand did, indeed, reveal a shallow midden-like layer, although one not notably rich in artefacts. Regular sampling took place in this layer. The deposit was less easy to distinguish to the south and indeed the only feature of note was a setting of stone slabs that appeared to be the remains of part of a long cist grave, the contents of which were no longer present. It is possible that this was the one examined by the Ordnance Survey (see page 126). Below this and the midden-

like layer to the north were clean sterile sands. Whether these represent natural sand or sand blown dune overlying earlier deposits could not be defined within such a small area, which was constantly restricted by collapse and rabbit burrows throughout the area.

The location of the cist, and the possibility that others are in the immediate vicinity, may indicate here, to the south of Curle's excavation area, the presence of a long cist cemetery. Unfortunately, the number of cists in the area is difficult to ascertain. It cannot be confirmed that this cist excavated in 1980 was the one examined by the Ordnance Survey and it may indeed be the one opened by Mr. Mackay of Keiss in the 1950s. Likewise, the precise number of cists disturbed during sand-quarrying remains a mystery; it is safe only to assume that more than one was disturbed. However, despite these uncertainties, it can be argued that there is a concentration of long cists here, and they probably constitute a cemetery, although whether it is of Early Christian or Norse date cannot be judged on the present evidence.

The excavation of Area 9 took place in 1981, in erosion Zone S, to the north of Lady's Brow. The intention of the excavation was to assess both the damage to, and the potential of, this site and, despite a truncated excavation here, it is possible to draw some conclusions from the evidence recovered.

The latest archaeological layers were located approximately 1.5 m below the present turf line under sterile dune sand. The whole upper part of the site's stratigraphy had been extensively damaged by the cattle, leading to considerable confusion in the layers. However, the upper layers can be interpreted as a large midden, possibly of Late Norse date (as suggested by the presence of grass tempered pottery), with individual midden tips separated by thin sand blows. These layers are distinctive because of the high content of fuel ash and industrial waste within them, a great contrast to deposits examined elsewhere on

the Links. The midden rises to the south-west of the area, becoming thicker, and peters out to the north-east. A different sampling strategy was adopted in this area. As the area consisted of thin midden layers separated by lenses of wind-blown sand, it was agreed that as much as possible of the midden deposits should be processed. In addition to sampling the midden layers, thin grey homogeneous layers below, which extended over the entire site, were examined. These proved to contain little domestic refuse but were replete with the shells of terrestrial mollusc, suggesting that the layers represent buried turf horizons.

The uppermost midden was separated by these turf lines from the underlying layers of thin midden bands and further wind blown sand deposits. These layers represent an earlier occupation phase unfortunately lacking, as yet, anything distinctly dateable. The occupation phase overlies another turf line, separating this from the earliest occupation phase, with structures related to complicated and disturbed midden layers. Underlying all these occupation deposits, a pit had been cut into the dune sand, with the uppermost filling comprising sea shells.

Selective sampling of the layers has yielded considerably more evidence about the character of the site than excavation could have achieved alone; for example, indicating turf lines and revealing extensive deposits of tiny fragments of fuel ash and industrial waste. Further work would be needed to substantiate these interpretations, but in view of the logistics of examining this site in relation to other priorities, this site has now been consolidated.

5.4.3 Excavations at Freswick House, 1979 (Figure 12)

The first excavations at Freswick in the recent campaign took place at the large house, at the south of the Links, known as Freswick House. Building alterations were being undertaken at the time of the 1979 survey, which required

archaeological examination prior to the total destruction of the deposits.

Excavation in the building was dictated by pure rescue criteria; time did not allow for examination of areas not directly involved in the renovation programme (which was basically the lowering of the basement floor by approximately 30 cm) and, indeed, the area of the Hall and passage way had already been badly damaged, from an archaeological point of view, before the involvement of the Durham team.

The paving slabs for the Hall floor had been re-laid over a sand bedding, but it was possible to observe in the entrance area that they overlay a dark clayey earth above a natural reddish clay. This relationship was also observed in section under the north and south walls of the passage, where, further to the east, it was replaced by a dark layer with shells, presumably midden deposit. Below the south wall and part of the west wall of the passage was a pink clay bedding above these dark layers. At the south-east corner, a loose sandy bedding for this exterior castle wall was noted.

The west wall of the passage clearly meets the castle south wall in a butt-joint and there is an assymetrical ceiling line, which both suggest that this was a later addition. The doorway from the Hall appears to be made of re-used stones and opens into the passage. This contrasts with those of Rooms 1 and 2, and there is no reason to consider either of these as not being contemporary with each other or the walls into which they are set. Although the threshold stone for Room 1 had been destroyed, in Room 2 it was seen to be below the jambs and the lowest level of the east wall of the passage.

The southern part of Room 1 was covered with flagstones, but in the north the area had been extensively cleared by workmen, and a trench 3 m x 1 m was opened immediately adjacent to the exterior north castle wall. A layer, presumably originally underlying flagstones here, had been reduced by

approximately 5 cm. This was a rich brown midden deposit, remaining to a depth of approximately 3 cm., which produced 223 sherds of grass tempered pottery and 8 sherds of finer wares, possibly of a later date (see pottery discussion below). There was a reduction in concentration towards the west of the trench. This deposit overlay a rich black shelly layer varying in thickness between 0.17 and 0.15 m. This produced 206 sherds of grass tempered pottery and 26 of the finer types. Adjacent to these deposits was the footing of the castle wall, which is underlain by an earlier wall predating the upper levels of the black, shelly midden-like layer. This earlier wall is constructed of massive stones, including beach pebbles, and overlies 0.05 m of the black shelly deposit which here is characterised by a lack of finer wares.

The sequence here is one of a developing midden with a wall built on top of it, and then continued development of the midden against it. A foundation trench cut for the later castle wall, built on top of the earlier wall, cuts through both the upper levels of the black midden and the rich brown midden deposit over it, and so the exact relationships of the later wall phases and midden are not entirely clear.

Room 2, adjacent to Room 1, is separated by a later partition wall so it is possible to see a continuity of the midden deposits and walling in this room. A trench 3 m x 1.5 m was examined but, because of extensive damage from rodent burrowing, some important relationships had been destroyed. All deposits were covered by a mortar floor, varying in thickness between 0.10 and 0.50 m and lipping onto the footing of the north exterior castle wall. Underlying this, a bedding of red clay sealed the remaining traces of midden deposit. In the eastern section, the most disturbed, only two small pedestals of midden remained; these produced only 13 sherds of grass tempered ware between them. Any relationship with the main north castle wall had been destroyed - in part by

the cutting of a foundation trench and in part by burrowing. In the west of the trench, the deposits were less disturbed and it was possible to distinguish two midden deposits here: an upper one, black and shelly covering a brown deposit, producing 18 and 10 grass tempered sherds respectively. The lower midden layer underlies the lowest course of the north castle wall and therefore pre-dates this. The relationship with the upper midden layer was destroyed by rodent burrowing along the foundation trench; however, from the remaining few centimetres of the section left, there does seem to have been a similar relationship to that in Room 1.

As a result of the renovations in Rooms 1 and 2, large trenches for drainpipes were dug by workmen to the north of these rooms. In all, a length of 20 m had been dug, and it was examined in October 1979. The workmen had cut a trench around the north-east corner of the castle down to the natural clay; the east wall was built directly onto this clay rather than onto other stones, as was noted to the west (see below). A clay and mortar raft was located under the north-east corner of the castle, presumably to act as an extra support since, at this point, the mound on which the castle is built slopes away steeply. At this corner, an easterly extension was made to test for earlier features undisturbed by foundation trenches for the castle walling. Nothing was located except dumped modern material from previous renovations to the castle in the 1950s.

To the north of the House wall, the only traces of black midden were outside Room 1. Although in the western part some ran up to the footings, in the part of the trench to the east, it was not located underlying the walls. The nature of this deposit, however, is similar to that in Room 1. Walling was noted underlying the footings in the west, but not on the same alignment. It is unfortunate that it is not possible to relate clearly the structural sequence here to that inside the building.

Two rooms were examined in October 1979 in the West range prior to drainage improvements. It was hoped to answer two main questions:

1) whether the site with grass tempered pottery, represented by the material in Room 1, and possibly originally present under the Hall, extended to the west.

2) whether a massive stone feature observable on the ground-surface outside the west wing, resembling a pathway, extended into the rooms and had any other archaeological significance.

In each room, a fine cobbled floor was located, bedded in a fine white sand. This indicates the former use of these buildings as stables (substantiated by F. Gulloch).

In Room 3, the sand covered a brown clay deposit which was spread very thinly over a trough-like feature containing black midden and cut into natural. Both the clay layer and the midden produced sherds of grass tempered pottery, 48 sherds in all, with only 6 from the brown clay deposit. The trough feature had an average depth of 0.10 m and was approximately 2.6 m in length aligned roughly east-west in a slight arc. This was interpreted tentatively as a foundation trench, and the excavation was extended westwards to examine its extent. The western extremity in the area originally opened was damaged, possibly when the large deep slabs dividing up the cobbled floor were dug into the clay. The extension revealed only smears of black material of a similar nature, but lacking a distinguishable form and without pottery or shell. This was covered by a very thin layer of redeposited natural clay, a feature noted in the adjacent Room 4.

The first trench opened in Room 4 in the north-east corner of the room produced pure natural clay immediately below the white sand bedding. In the second trench, the same black smearing as in Room 3 was noted underlying the

redeposited clay skim. Once more, the black deposit had no particular form. There were no indications of a deposit contemporary with the trough feature. The large stone slab paving outside the structure must be interpreted as contemporary or later than the range of standing buildings because it bears no relation to the internal features.

The other two rooms in the range were not available for excavation.

Excavation was necessitated by deep ploughing of an area 40 m x 100 m of the garden where many very large stones had been dislodged; some later Medieval pottery sherds were collected on walking over the site. Two small trenches, 1 m x 5 m, were placed in the area being ploughed, in the areas of greatest stone concentration. In the first trench, underlying the garden soil at a depth of approximately 0.15 m, large tumble was located roughly confined to about 2 m minimum width, possibly representing a wall line. In the second trench, a similar stone scatter was located in association with a slightly shelly deposit. No dateable finds were recorded.

As these trenches were at opposite sides of the ploughed area and about 25 to 30 m apart, these stone concentrations could indicate that the whole central band of the ploughed area has a spread of large stones. This might well represent the remains of a croft traditionally located on the site (pers. comm. Wm. Gulloch). To the west of this concentration, ridges can be seen in the grass, possibly representing a garden enclosure or another structure. Lack of time and resources prevented more extensive examination of the site.

The major significance of the evidence from the excavations outlined above can be seen when the nature of the pottery is compared to that found on the Links situated immediately to the north. The grass tempered pottery from the House is identical in form to that from the Links. This demonstrable southerly

extension of the Late Norse occupation at Freswick, of itself is significant, and has added importance as it was clear that the present castle walls were built directly on top of walls contemporary with the midden containing the grass tempered pottery (see Batey et al, 1981; Batey et al, forth b).

5.5 Conclusions

The renewed campaign of work at Freswick was, therefore, the result of the severe erosion of the archaeological deposits along the seaward edge of the Links. Without the previous work, there would have been few indications of the potential importance of the site, but there are elements which have been revealed in a more recent study of the site which had not been sufficiently commented on before, chiefly the environmental wealth which forms an equally important element in the understanding of this site as the structures and the artefacts. This is considered in detail below (Chapter 8). The recent work has taken the form of three main aspects: survey to establish the rate of removal at the site by natural forces, environmental analysis to expand the picture gained by the third aspect, the actual structural and artefactual information retrieval.

The cliff-side trenches, when the material is fully analysed, will enable an in situ study of the eroding deposits and the context of artefacts similar to those which have been collected during the survey of the zones of erosion. Of particular importance in this respect is the recovery of the cultivation marks below the midden horizons in Area 6, a feature noted in the 1982 season further south in Areas 11-14 (see Batey et al, forth a).

The initial survey of the Links which provided the basic information on the erosion situation and on which the series of zones of erosion was based, formed a framework for an excavation strategy which was specifically designed to gain the most information for the least financial input. It was, for example,

possible to give some kind of spatial context of stray finds in these zones, which was an improvement on the complete lack of context of the finds collected randomly since the excavations of Childe. This collation of material has enabled the heart of the settlement at Freswick to be identified as Zones D and E (in the immediate vicinity of Curle and Childe's excavations), in the area of the most acute erosion problem. The continued consideration of the cliff face has enabled the deposits at the northern end of the Links to be linked with those to the south (completed in 1982) and thus to assist in the development of some relative chronological framework for the seaward edge of the Links.

The limited areas of excavation, apart from those areas opened specifically for the analysis of environmental material, have also revealed important details about the site. Area 3, which produced the cist grave was informative and suggestive, serving perhaps to concentrate local memories of similar finds, and hopefully not to colour them too much. Structural evidence in Areas 7 and 8 at the cliff edge is significant because these lie at the suggested heart of the settlement and future analysis will assist in the interpretation of this obviously complicated area.

Finally, the work in 1979 at the south of the Links, in Freswick House, has been important because it has provided a southern extension to the known site. It is interesting that this is the only part of the site so far identified where occupation continued on precisely the same spot; it may perhaps be misleading to read too much into this however, and it would never be possible to safely attribute that location to any mentioned in the sagas.

Chapter 6

Prehistoric and Early Historic Occupation at Freswick Links

6.1 Mesolithic/Bronze Age Occupation

Work by A. D. Lacaille in the late 1930s at the site revealed the earliest evidence from the locality. At the northern end of the Links, 'small truncated blades with batter-trimmed edges' of the microlithic industry were recovered. He considered these to be Mesolithic (Lacaille, 1937, 56 and 63). Apparently overlying this, and separated by a deposit of sand, several unpatinated flints including coarse flakes, cores and a few retouched flakes, also potsherds with bone (Figures 13-15) and antler tools, were noted (Lacaille, 1954, 185). In both assemblages, the flint types differ only in that the lower ones are unpatinated in contrast to the upper examples. Potsherds, which Lacaille only restricts by inference to the upper horizon, include a rim of 'cord ornamented' vessel, a rim decorated by a single 'hyphenated line' (or rouletted), and sherds of a softer black ware decorated similarly. Lacaille notes similarities between these sherds and ones from the upper levels at Skara Brae and Rinyo (Lacaille, 1954, 266-269), and consequently interprets this evidence as representing a Bronze Age development on a Mesolithic foundation. Such an interpretation could, however, be challenged on the basis that microlithic flint tools in Scotland need not necessarily be Mesolithic at all, but Bronze Age: see for example Clarke (1976, 457), who suggests that microlithic assemblages enabled the maximum use from the minimum available flint. At Freswick, the flint is either from the drift geology or from the beach, and hence available only in small pieces (Omand, 1973a, 27). The two assemblages noted by Lacaille, separated only by a sand blow, seem to be rather too similar to allow for such an assumption to be made.

6.2 Freswick Sands Broch (Figure 16)

6.2.1 The Work of Sir Tress Barry

The work of Sir F. Tress Barry between c. 1890 and 1900, on the brochs

of Caithness (Anderson, 1901), indicated a marked concentration in the immediate vicinity of Freswick Bay (Figure 17). Ness Broch (ND 38146665) is located on a promontory to the south of Freswick Bay (Anderson, 1901, 143), and is notable for its extensive range of extra-mural settlement (RCAHMS, 1911b, 13-14, no. 33). To the north of the Links, two brochs were opened by Tress Barry. Everley Broch (ND 36996828 (RCAHMS, 1911b, 16, no. 35)) is located adjacent to the A9 (Anderson, 1901, 142-3) and, when examined by Tress Barry, was found to be badly damaged. On the headland to the north of the bay, Skirza Broch (ND 39406844) was also examined by Tress Barry in the same campaign (Anderson, 1901, 144-5), and was found to have extra-mural settlement as at Sands and Ness (RCAHMS, 1911b, 15-16, no. 35) (see Figure 17).

Located in the sandhills at the northern end of the Links, Sands Broch (ND 37606761) is at the heart of this concentration. It is recorded as having walls $11\frac{1}{2}$' thick (c. 3.50 m), enclosing an area 32'8" (c. 9.96 m) in diameter. The walls are generally standing to 7' (c. 2.13 m) and, within the thickness of the wall, 14 steps remain and also a small chamber. The entrance is 2'3" (c. 0.69 m) wide and 4' high (c. 1.22 m), leading to a chamber 12' long x 4' wide x 7' high (3.65 m x 1.22 m x 2.13 m). Two curved secondary walls divide the interior (Anderson, 1901, 143-4). The Royal Commission visit to the site in 1910 recorded the broch as ruinous and covered by debris, but there were sufficient surface indications to enable a plan, the only published one, to be produced (Figure 16, after RCAHMS, 1911b, 14, no. 34, Figure 6). This is particularly interesting because extra-mural chambers are indicated, although not previously mentioned. The recorded finds from the site range from two bones of the Great Auk (8.16.1/2) to bone pins (e.g. 8.1.6), half a bone whorl (8.7.3) and two antler combs (8.9.1 and 8.9.2) of Norse character. The National Museum houses a number of finds from these excavations (GA 753-777) although

the finds listed in Anderson (1901, 144) are not there, and are more likely to be held locally. The presence of Norse artefacts at this part of the site is not unusual, although they are, apparently, few at the other broch sites in the immediate vicinity. Work at Everley Broch produced a steatite vessel, formerly with a handle (GA 698),which could be Norse (see Plates 9 and 10).

6.2.2 Recent Excavations

In 1980, at the northern end of Freswick Links a 40m by 25 m grid was laid out over an area that appeared likely from surface inspection and contour survey (carried out by F. and G. Bettess in April 1980) to be Sands Broch. In excavation, as the aims were strictly limited to location and examination of present conditions, the method employed was that of two trial trenches at right-angles to each other. In the event, lack of suitable manpower prevented Trench B from being continued below the removal of turf cover over a mass of rubble. Trench A consisted of a 2 m wide trench running for 25 m north-south across the western part of the area laid out. Within this area, deposits of rubble and sand blow were immediately evident on removal of the turf. Two features within the sand were clearly seen on excavation to be earlier trenches dug against two wall faces, later backfilled with clean dune sand. Since the walls revealed at the northern and southern ends of the trench both curved in an arc of a circle, identification seems consistent with that of Tress Barry's broch. It is evident that the early excavations did not disturb too much in situ material (at least at this part of the site), and did not even cross the interior of the structure. While it is possible that there was considerable depletion of standing walls, there is no evidence for removal of major internal features, (although there is a very large mound of stones immediately to the east which may have been the spoil heap of Tress Barry). However, to the north and south of the two walls, deposits may well be far less well preserved. Safety factors

prevented full examination in either area; in the south, below masses of sand and rubble, considerable rubble remained outside the line of the outer face of the wall. Most of the outer wall face, where visible, had been robbed or had collapsed, except at the SSW where one side of an entrance through this wall was uncovered. It is possible that this rubble overlies the remains, at a lower level, of an outer wall. Certainly, at the north end of the trench, excavation revealed a double wall with a chamber between, possibly that noted by Tress Barry (see page 152). The inner wall curves in much the same line as the south wall and will undoubtedly join it. The inner chamber was seen to be corbelled and therefore intramural, although the outer wall's outer face has not yet been located as a mass of rubble at the north end of the trench remains. Within the area bounded by the northern and southern walls, deposits of sand and rubble collapse were removed to reveal an occupation layer, not mentioned in the previous excavations. Since this deposit appears to be potentially rich in midden, which could fruitfully be compared with other midden deposits on the Links, it was decided at this stage to carry out no further work beyond the collection of environmental samples and a charcoal sample for C14 determination. Some fragments of grit-tempered pottery as well as shell and bone and stone objects were also found. They are consistent with an Iron Age occupation, and are earlier than that represented by the Late Norse parts of the site. Some of the finds from the earlier excavation of the broch seem to indicate Late Norse occupation of the structure. Lines of stones protruding through the organic deposit may be either secondary or primary features depending on the results of the environmental analysis of the deposits.

Large-scale work would be required to assess the situation outside the structure, as the overburden of sand and rubble is too great for trench excavation to be undertaken safely. It is hoped that the outer wall faces will

be uncovered and the exterior buildings noted by Tress Barry will be revealed by future excavation.

6.3 Souterrains and Hut Circles (Figure 18)

Excavations in the early 1920s (Edwards, 1925, 89-94),in a gully 600 yards (c. 549 metres) north of Freswick House (Castle), produced an oval-shaped construction 17' x 13' (5.18 x 3.96 m) of single boulders with a gap to the south-west side, interpreted as a doorway, and a paved area possibly represented a hearth or fireplace. Edwards considered this to be a prehistoric hut circle despite the fact that the midden immediately adjacent to the structure produced finds of a Norse character, for example a sandstone sinker with longitudinal groove (6.1.3.), grass tempered pottery (11.5.1 and 11.4.1) and steatite whorl (6.2.4) of a re-used vessel sherd. North of Lady's Brow, scattered boulders, limpet shells, burnt stones and traces of walls indicated the presence of two further structures, both of which after excavation proved to be roughly pear-shaped with long paved entrances. These were interpreted as earth houses. The westerly one comprised two chambers with an entrance passage and walls of rough boulders and slabs. Separated from the main chamber by two upright slabs was another small chamber with paved floor. The only finds from these structures were the lower jaw of a child and a skull fragment, a saddle quern and rubber (not in NMAS). No pottery at all was recovered within the building and only a limited amount from the midden outside (one very coarsely gritted (not in NMAS) and the other more grass tempered (cited above)), in association with a hollow flint scraper (6.10.5), a femur head whorl (possibly 8.7.4) and a simple copper alloy finger ring (4.5.1).

Further work in 1926 at the site, on an area covered by a deeper sand overburden, revealed 'two curvilinear chambers with a passage of entrance' (Edwards, 1927, 200-2). The two chambers were separated by an extension of

one of the walls of the outer chamber. The walls were dry-built stone, and in parts formed of upright slabs with traces on the interior wall face of clay plastering. There were no finds recorded from inside the chambers but, to the west, a midden, predominantly of fish bone, included most of a coarse hand-made pot containing fish remains (N.M.3 , not in NMAS). The pre-Viking evidence for these structures relies on the presence of a saddle quern of Prehistoric type, the most distinctive find actually from the chambers. Although the Ordnance Survey has suggested (O.S. Card ND 36 NE4) that some of these structures may be extra-mural settlement around Freswick Sands broch (c.f. Ardross, Alcock, 1980, 67), their affinities lie more generally with souterrains, as Edwards noted.

6.4 Discussion

Lacaille claimed a Bronze Age development on a Mesolithic base for the two prehistoric assemblages distinguished at the northern end of the Links. For a number of reasons this claim is not as convincing as initially thought. Very little material of the Mesolithic period has so far been distinguished in Northern Scotland (see Morrison, 1980, Figure 7.8, 156), and there does not appear to be very great variety between the two distinguished assemblages, except in the pottery restricted (by inference only) to the upper horizon. No actual settlement remains were recovered during the work of Lacaille. Many other flints have been collected as stray finds on the Links, including a concentration at a 'flint working site' located near a chambered cairn (the precise position of which remains unknown). The concentration of this material is known through its donation to the NMAS (Donations, 1935, 246, no.1 (Bremner)). The scattered nature of the overall flint assemblage from the Links, totally lacking detailed distribution details and totally unstratified, means that it is not possible to develop further the thesis of Lacaille. In Morrison's recent brief consideration

of Lacaille's material from Freswick, he states that 'on present evidence none of the material can be seen as unequivocally Mesolithic'. The forms of flint tools are not inconsistent with Mesolithic types, but mixing of contexts has caused many problems (Morrison, 1980, 164). Earlier work by Lacaille at the site of Ballentrae, Ayrshire, indicated Bronze Age implements of 'microlithic' forms, dictated by the limited amount of available flint (Lacaille, 1945, 100-1, 103, Figure 5). More recently, Coles has pointed out the problems of ascribing cultural labels to the workers of pebble flint (1971). In a recent study of the Beaker pottery from Freswick, Gibson has noted that the available pottery assemblage is consistent with that of a 'domestic site' (Gibson, 1982, 157-8).

The position in chronological terms, and in the stages of the development of brochs, is currently being reviewed. Traditionally the origins of the broch-type structure have been seen in Orkney (Childe, 1946, 128; Hamilton, 1968, 98), which would place the brochs of Caithness relatively early in the sequence of development because of the close proximity and contact. More recent work by Mackie has argued against this (e.g. Mackie, 1974, 96-8; Mackie, 1975, 82), indicating the problems with the interpretation of the northern information, and coherently argues for an early development in the Western Isles. However, work taking place in Orkney within the last two or three years, at Bu Broch, has indicated dates of occupation of the tower from $490^{+}_{-}65$ bc and $510^{+}_{-}80$ bc (Hedges and Bell, 1980b, 90; a, 48), considerably earlier than previously suspected.[1] It is still conceivable that the Caithness brochs may be early in the sequence of development but this is not yet conclusive.

The main features of brochs in general have been extensively outlined elsewhere (e.g. Mackie, 1975), and work by Young (1962) has divided the known brochs (some 160 definite out of 304 total in Northern Scotland, according to

Graham (1947, 50-1)) into two types. Type one is earlier and of larger internal diameter, having corbelled cells within the walls, a well, etc, and with a distribution confined mainly to the Northern Isles, Caithness and the East coast. Type two is of smaller internal diameter (19' - 32', c. 5.8 - 9.8 m), often governed by the lie of the land and within easy reach of water, also with corbelled mural chambers and often not rebuilt; this type is generally of much wider distribution. In this second category is Freswick Sands Broch (Young, 1962, 183) and the others in the immediate vicinity of the bay - Ness, Skirza, Everley and Nybster. Current work on the broch may well influence this typology which is now twenty years old (Hedges forth. a).

Further development has been taking place in the study of the extra-mural structures associated with brochs. Earlier work failed to mention these structures (e.g. Tress Barry in Anderson, 1901 at Freswick Sands), although many are likely to have been visible (c.f. Freswick Sands RCAHMS plan (1911b, no. 34, Figure 6, 14)), and those which were mentioned were often thought to be secondary to the tower (e.g. Gurness, Orkney (RCAHMS, 1946, no. 263, Figure 129, 76)). Important work in Orkney by Hedges at Howe, Stromness, questions this assumption. In line with a suggestion by Mackie (1975, 79) that stratigraphical excavations at Jarlshof and Midhowe (Orkney) had indicated the presence of demonstrably secondary structures over broch tower defences, Hedges has demonstrated that there was extensive post-broch settlement (Pictish) built out of and amongst the ruins of structures contemporary with the building of the broch tower. Thus, some of the extra-mural buildings recorded elsewhere may be contemporary with the occupation of the broch. Hedges sees the evidence from the Howe as a broch (in this case standing to 4 m high), with an externally defended village around it (Hedges and Bell, 1980a).

The study of broch typology and development is too complex and, as

yet, incomplete, to enable much to be referred to the example at Freswick Sands. The extra-mural activity is not recorded anywhere in writing, only in the illustration previously referred to in the RCAHMS, so its precise status cannot be assessed. However, the fact that the cultural deposits remain in situ (1980 excavations) is important because the economic information and floor plan of the broch are still available for future study. It is very interesting to note the degradation of the south broch wall, suggesting robbing out, possibly for Pictish period occupation in the vicinity (not yet archaeologically attested) or equally for the Norse structures to the south. The structure must have still been visible in the Norse period because of the recovery of Norse artefacts from the broch deposits excavated by Tress Barry (e.g. 8.9.1 and 8.7.3). This is similar to other recorded examples of Norse presence at brochs, for example at Dun Mor Vaul in the Hebrides (Mackie, 1974, 90-1). There are other examples where the mounds of brochs have been used for Viking burials, such as Castletown, Caithness (RCAHMS, 1911b, no. 320, 87. See above p. 51) and at Gurness, Orkney (Robertson, 1969, 289). It cannot be guaged whether the depositions were made because of the presence of a mound per se or because of the associated tradition of the site of a broch.

The hut circle examined by Edwards in the 1920s is of a very simple form, being a roughly-formed circle of single boulders resting on sand. The middens in the immediate vicinity have produced Norse artefacts, but the feature itself lacks anything which is period diagnostic. The floor itself was covered with thick clay, and the presence of limpet shells, with a concentration of whelks at one point, do not assist in the identification of the use of the structure. A somewhat similar 'hut circle' has been recorded at Ackergill (Cree, 1911), and considered there to be 'prehistoric', but it is worth noting that middens there in the vicinity have produced grass tempered sherds of

pottery (pers. comm. R. Gourlay). It may be possible to find a context for this structure at Freswick in the study of surface structures associated with souterrains. Wainwright has, for example, illustrated a simple roughly circular boulder structure as part of the development of a structure above the souterrain of Ardestie (Wainwright, 1963, Figure 20.2, 69), and, more recently, Watkins has distinguished timber hut circles in a similar context at Dalladies (Watkins, 1980a, 161).

The concentration of three earth houses or souterrains examined by Edwards at the northern end of Freswick Links is interesting and possibly similar to the distributions at Tealing and Airlie in Angus (Barclay, 1980, Figure 13, 201). The examples from Freswick seem to have similarities in form to examples published by Wainwright (1953, 219-32); for example Buchaam, Aberdeenshire (illus. Figure 5, 227), and Ardross 1, Fife (illus. Figure 6, 229), which lack the complexes of upright slabs found in Orcadian examples, such as Hatston and Biggings (illus. Figure 3, 224).

More recent work by Watkins at Newmill (1980b) has drawn attention to the great length of tunnel/passage associated with the souterrains (e.g. Ardestie, Airlie III), a feature not recorded from Freswick examples, Edwards notes only one as being 5' long (1.5 m) (Edwards, 1925, 92). However, the various discussions published concerning roofing methods of the structures (Wainwright, 1963, 5; Watkins, 1980b, 195-6; Barclay, 1980, 204-206) have not provided any suitable solution. In this, the Freswick example may assist: the published section through the chamber (Edwards, 1925, Figure 4, 92) indicates a clay capping to a corbelled roof. Edwards notes that this clay became very hard on exposure to air. If this were to explain the missing key in the other sites, however, it would be suspicious not to have located any traces at all.

The difference in size between those previously recorded and those at

Freswick is striking. Barclay notes overall lengths ranging from c. 12.2 m at Mudhall, Perthshire, to 39.6 m at Carlungie, including passages (Barclay, 1980, 202). However, an examination of the chambers without the passages is perhaps more informative, given the incomplete nature of the Freswick examples. The chamber at Tealing 111, for example, is 6m across, that at Freswick c. 15 feet (4.6 m) up to 18 feet 9 inches (c. 5.7 m). It is important to be comparing like with like. One feature at Freswick which is particularly interesting is the apparent deliberate backfilling of the passage with midden material (Edwards, 1925, 92). This can be compared with the backfilling at Dalladies (Watkins, 1980a), Ardestie (Wainwright, 1963, 73) and Carlungie (Wainwright, 1963, 99).

The wall construction of the souterrains at Freswick can be directly compared with other examples of the same genre. Wainwright noted that in the Angus souterrain group, for example, the walls were normally built of 'rounded boulders and split flagstones, put together in a distinctive manner and corbelled inwards to carry a roof of heavy stone slabs...' (Wainwright, 1963, 5). It is exactly this type of construction which Edwards illustrates for the Freswick examples (Edwards, 1925, Figure 4, 92). Ritchie has however noted the long-lived nature of this building method, adding a note of caution to prevent its use as a chronological indicator (Ritchie, 1977, 182). The actual uses of souterrains remain a problem. Arguments have been set out by Wainwright in 1963 (Wainwright, 1963, 9-19), and more recently by Barclay (1980, 206-7), but there remains nothing conclusive: suggestions still range from use as a dwelling, a refuge or storage area. It is hoped that further work may assist in this problem (See Plate 11B for a possible further example of the type at Freswick).

The dating of this class of structures has caused problems, and still remains rather inconclusive. Wainwright in 1963 suggested that the evidence from Ardestie and Carlungie supported an occupation date in the Roman Iron

Age, i.e. up to c. 250 AD (with occupation at the site continuing on the surface up to c. 450 AD (Wainwright, 1963, 112-116)). Recent work by Watkins at Newmill has produced C14 dates which indicate construction c. 55 ± 90 bc and destruction c. 195 ± 55 ad (Watkins, 1980b, 196). This whole aspect of the study of souterrains has been hampered by the lack of comparable sites producing complementary evidence to support such conclusions.

The presence of possible earth houses or souterrains on the multi-period site of Freswick is of great interest, and with hindsight not surprising. There is an increasing corpus of sites where souterrains appear in direct relation to Norse sites. For example, Small notes the presence of a souterrain at Underhoull, Shetland, (Small, 1966, 227-8) as well as a broch. At Jarlshof, Hamilton noted the same (Hamilton, 1956, 32-6) and at Orphir, Orkney, Batey suggests a similar situation where Norse middens actually seal the tunnel entrance (Batey, 1981). In Lewis, at Galson, Edwards noted a souterrain with adjacent midden which contained ring-headed pins, steatite fragments and a 10th century coin of Edgar (Edwards, 1924). This element of site continuity is, therefore, not an isolated phenomenon, and would no doubt be present at a number of other sites were it looked for.

The presence of the Picts at Freswick can only be suggested by the recovery of loosely stratified finds, such as 2.1.1 from Curle's excavations in Building VI (Curle, 1939, pl. XLVIII, no. 6) and various bone and bronze pins discussed below. Nothing directly ascribable to the Pictish period can be noted from the excavations at the broch of Freswick Sands either. Concerning potential structural evidence relatable to the Picts, there are various elements at Freswick which, by analogy with other sites, may be thus ascribed. Alcock has drawn attention to the possibility that surface buildings at Carlungie may be Pictish (Alcock, 1980, Figure 4.2, no. 1 and 2,67), and suggests in rather

tentative terms that the main settlement form of the Picts (and Proto-Picts) may have been the souterrain form of settlement complex (Alcock, 1980, 68). Watkins at Newmill also noted that occupation continued on the site into the 9th century (C14 date ad 840^{+}60) in the form of metal working, although not actually in the souterrain itself; this is conceivably Pictish evidence in support of part of Alcock's argument. If this information is relevant to the fragmentary evidence recovered at the souterrains of Freswick, then it is conceivable that traces of Pictish occupation may be represented here.

The argument for Pictish occupation related to brochs has, however, more information on which to make judgements. The recent work of Hedges at the Howe in Orkney has proved that Pictish buildings overlie extra-mural activity thought to be contemporary with the broch tower (Hedges and Bell, 1980a). Other sites have conclusively produced evidence of Pictish activity in a secondary context to the broch occupation, such as the Broch of Burrian in Orkney (MacGregor, 1974), and this certainly lends support to Alcock's rather bald statement that '...it is certain that, by the time the Picts emerged into the light of history, brochs were everywhere in a state of disuse and dilapidation' (Alcock, 1980, 70). The extra-mural structures briefly noted at Freswick do, indeed, superficially resemble those noted by Ritchie (1974, Figure 1, 26), thought to be Pictish. Other extra-mural settlements in the more immediate vicinity of Freswick itself are the Road Broch, Keiss (Anderson, 1901, Figure 14, 132), White Gate Broch, Keiss (Anderson, 1901, Figure 11, 128), and particularly Keiss Broch (Anderson, 1901, Figure 7, 122), in addition to Yarrows already noted by Ritchie (1974, 26). Alcock and Ritchie have also included the rectangular building of the Wag of Forse, also in Caithness, in this category. Clearly, the simple plan of the structure(s) at Freswick Sands cannot be resolved into any category without further excavation. It cannot be judged whether this belongs to the phase of the broch tower or

whether it is secondary, as are the internal walls dividing the broch interior (Anderson, 1901, 144).

One final element of structural information at Freswick which is conceivably dateable to a Pictish phase of occupation, is the wattle and daub which was found to underlie Curle's Building VII (see below page 176). This could conceivably be Pictish, but it is more likely that it is Norse. Analysis of the stratigraphy of Group 1 (discussed below, pages 167, 177) has indicated that Building VII is relatively late in the structural sequence at this part of the site; the wattle and daub, therefore, which lies below this, need not be either Pictish or even early Viking as suggested by Ritchie (Ritchie, 1977, 189). It is very difficult to prove the date of that horizon with any certainty, but a Pictish assignation must come at the bottom of the list of suggestions.

Note

1. This suggestion of an early position in the sequence is supported by the study of quern replacement in the study of broch chronology (Caulfield, 1978, 129-39).

Chapter 7

Late Norse Occupation on Freswick Links

Evidence for the later occupation was recorded prior to the first Norse excavations by Curle in 1937-8. The Royal Commission report on the site in 1910 reports the ruins of a rectangular building,'exposed by excavation', approximately 200 yards south of the modern chapel. The walls were 4' (1.22 m) thick and had traces of lime on the walls, the entrance was 2'5" (0.74 m) wide in the south-east wall with bar-holes behind the jambs, and slag was recovered from the floor (RCAHMS, 1911b, 19, no.49) (see Plate 11A). This structure was also noted by Curle in his note book (Curle, NMRS ms.28a(SAS 461), 2). The NMAS accessions catalogue suggests that the 'whalebone' whorl, donated to the NMAS in 1929 (8.7.2), was found in the foundations of the 'stone and lime building' at the northern end of the Links, presumably the same structure. Steatite fragments and a whorl were recovered prior to 1935 at the foot of a cairn on the Links (6.3.27 and 6.2.3).

7.1 Excavations by A.O. Curle (Figures 19-21)

7.1.1 The published Account of Buildings I - VI (Curle, 1939)

It was not until 1937 that excavation was undertaken to examine walling, midden and burnt stone revealed by wind erosion, the settlement evidence for the Norse at Freswick Links. A.O. Curle divided the buildings he excavated into three groups, A, B and C (Figure 19), with A being the first discovered and consequently possibly later than some other parts of the site examined. This was, Curle believed, 'the site of a considerable settlement of the Early Norse or Viking period over an area of several acres' (Curle, NMRS ms 28a(SAS 461) 6). The finds were donated to the National Museum in Edinburgh in 1939, and are accessioned as IL 523-653.

Group A consisted of four buildings (Buildings I - IV) and a suggested boat naust (Building V) (Figure 20A). Building I had walls of an outer stone facing with an inner earth core; it measured internally 30' x 14' (9.2 x 4.3 m) and no

definite floor level could be identified (possibly indicating a beaten earth floor). There is evidence of reconstruction because the east and west walls of the designated building are of different construction. The interior was filled with midden material which yielded both fragments of medieval glazed (9.3.10) and unglazed pottery (10.1.1) and sherds of coarse pottery (e.g. 11.3.19 and 11.4.63), which Curle interpreted as Viking. Two femur head whorls (8.7.34 and 8.7.36) and a whalebone sneck (8.12.2) were also found. Dominating the central axis of the house was the long fire, approximately 11' (3.4 m) in length, which may have been screened from draughts by two large upright slabs between it and the door. A drain in the house was covered by heavy flagstones and led from a small asymmetrical interior chamber in the east of the structure, which had a hearth of burnt stones and peat ash. The small chamber was paved throughout, except for the area of the hearth, and there was evidence of levelling up of the floor with flagstones. A removable stone plug in the paving and a sump towards the north wall, facilitating easy drainage, seem to support the interpretation that this was a bath house (Plates 12 & 13). It is secondary to the main structure, as an original entrance in the east wall of Building I was blocked at apparently the same time as the bath house walls were built. The entrance to the bath house was through the south wall, and a corresponding gap in the north wall of the structure was interpreted as a vent leading into a small closet of irregular shape, with traces of a gutter passing through it, presumably from the bath. Another vent through the west wall was terminated by the fireplace. A pile of levigated clay in one corner of the bath house may indicate a subsequent re-use as a potter's working area. (Plate 14). A small drain feature east of the entrance, leading into a sump, suggests a latrine, and, underneath the midden refuse in the house, a small open gutter was traced beneath the bath building (Figure 21).

On the same alignment as Building I lay Building II, immediately

adjacent to it and separated by a common wall with a secondary blocked entrance. It was 30' x 11 - 12' wide (9.2 m long and 3.35 - 3.66 m wide) with badly damaged walls and, as it lacked all traces of a central hearth, was interpreted as a storehouse. Once again, midden was scattered over the floor surface and patches of burning were noted within it. Amongst the few objects recovered, was a fragment of garnetiferous schist rotary quern (6.5.4).

Underlying Building II were traces of an even earlier structure. Only the north-south wall, with part of the west return towards Building I, remained. Examination of these traces was halted because the bath building would have to be removed and this was not considered appropriate.

Building III was a range of two badly-damaged rooms at the south-west corner of Building I; the original entrance between I and III seems to have been blocked up at some stage (possibly in the form of a wooden partition). A doorway was opened at the west end of the south wall of the eastern compartment. The east room had five superimposed floor levels of flat stones, the uppermost very carefully fitted together and rising slightly in the centre, a depth of 9" (22.9 cm) paving in all. Below the upper paving layer, a secondary hearth was located. The only finds in this eastern chamber were three femur-head whorls (not individually identified). In the south-west corner of this room was a pit, with a post-hole counter-sunk in the middle, and surrounded by packing stones; it had a diameter of 9" (22.9 cm). Between the two parts of Building III, the partition wall of thin flat stones had subsided in its southern part because, there, it was founded on midden deposits. There was paving in the east of the west chamber, between the long hearth 10' x 8' (3 m x 2.44 m) and the entrance in the partition wall; the whole of the west wall, and almost all of the north wall, had been removed and, therefore, there are no dimensions available. The hearth was kerbed on all sides except the east; the kerbing on the north and south

sides was, at the east end, placed inwards of the general alignment and behind this, was a paved recess in the hearth, free from the deep deposit of peat ash found in the rest of the hearth. Opposite, at the base of the southern wall, a large stone was suggested by Curle as a possible anvil (Curle, 1939, 82). On the north side of the hearth, a flue over 1' (30.48 cm) wide had been formed by two flat stones set on edge, parallel to the kerb. There was evidence that this had been reused as a fireplace and the flue itself terminated in a slope of compacted peat ash to the north of the building. Finds seem to indicate that the western building was the smithing area, for instance, slag residue of bog iron ore and six haunched hones (e.g. 6.6.4 and 6.6.6), but no traces of bloomery found. The extreme west end of the building was badly damaged, and the recovery here of non-industrial finds could indicate a disturbed earlier or later phase of occupation. These include a hammer-headed bronze pin (4.8.11), a small-toothed single-sided comb (8.8.4) , a penannular bronze finger ring with tapered extremities (4.5.2) , a bone point (8.4.17) and a grooved sandstone pebble plummet (6.1.12). Curle explained a row of heavy boulders to the south of the wall at the south, as buttressing (Curle, 1939, 82) (see Plate 15).

Building IV, approximately 29' x 12 1/2' (8.8 x 3.8 m), lay to the north of these buildings, where the walls were badly damaged and surviving only at foundation level. Although it is on a different alignment, it was taken by Curle as contemporary with the others in the final phases (Curle, 1939, 83). Apparently the walls were of a single build, although wider at the east end, and the building narrowed to the west end. In the north wall were two blocked entrances, and at the east entrance possible traces of outbuildings or windshield were represented by a wall outside the gable, forming a paved passage with a massive kerb. The entrance was, therefore, near the south-east angle of the building and led to the sheltered entrance in the east wall. The gable built at the north end

was founded on midden deposits and had consequently subsided. The resulting steep slope in the passage had been levelled up with several layers of paving. In the building interior, a curious feature was found north of the doorway, being a box-like enclosure 5' x 4' (1.5 x 1.22 m) divided lengthwise into two areas, with one paved. It may have been for an animal or for storage, but there is no conclusive evidence. Once again, in the house a long fire dominated the central axis, and was laid on the midden deposit which formed the floor. Other features noted include a possible bed in the form of a slightly raised area in the south-east corner, outlined by a setting of flagstones, as well as putative bench supports in the form of stones projecting from the north wall. A possible partition wall in the west of the building seems to have been erected on top of a wall of an earlier structure. Below the west end were two intersecting channels, one east-west and 18" wide (45.7 cm), the other north-south and 12" wide (30.48 cm). The latter drops steeply at the southern extremity where it passes through the wall; Curle thought that this may have been associated with a water system (Curle, NMRS ms 28b(SAS 461), 15). Possible traces of the end of the forge vent were noted, but not investigated. Sited on the north-west part of the wall was a small enclosure in the form of a rough quadrant of a circle; half had been paved, apparently at a later date. This was tentatively suggested as a sheep fold at the time of excavation (Curle, 1939, 85). Part of the walls of the structure may have originally been constructed of turf or earth, as no traces of an outer facing were located. Finds from this building include two femur head whorls (possibly including 3.7.12), one stone whorl (6.2.5), a whalebone sneck (? 3.12.5), an iron knife (? 5.3.3), slag (5.7.1), a thin sheet of bronze with rivets (4.10.6), possibly a cauldron patch, also a tapered penannular ring (? 4.5.3) and part of a rotary quern (6.5.5).

The so-called 'naust', Building V, was an irregular U-shaped construction

with foundations of large heavy boulders at the east end of the complex. Curle himself notes that there was no associated slipway leading down to the sea (Curle, 1939, 85), and this, in conjunction with the highly irregular form, seems to suggest strongly that the idea of a 'naust' cannot be substantiated here. Instead, it seems likely that the 'naust' was made up of a series of different buildings and phases, with, for example, the central part of the foundations of the west wall being made up of a straight wall, 12' long by 2'6" (c. 3.66 x 0.76 m) wide. Very few internal features were noted from this 'structure'. Immediately in front, on the seaward side of the walls, a hearth with a single rivet (? 5.).46) and a vessel of crude hand-made pottery (11.1.1) were found, with a smaller example found in the immediate vicinity (11.1.2).

These group A Buildings were dated by Curle to the 13th century, on the basis of a single sherd of Medieval pottery paralleled in Essex (10.3.3) and a surface find of a coin (not since located) of Henry III dated 1251-72 (Curle, 1939, 86). He thus associated the end of occupation at Freswick with the levying of fines by Alexander III in 1264 on Caithness for the submission to Haakon of Norway (e.g. Crawford, 1977b, 114). Such precision in dating on the basis of pottery might, however, be challenged today.

Group B was located partially underlying Building IV of Group A (Figure 29B). Building VI, to the west, was built onto the north side of an east-west wall some 56' (17.10 m) long by 5' (1.5 m) wide, of a larger 'structure' (possibly up to 81' (24.89 m) long) (Curle, 1939, 88) which appears to represent an earlier phase. This part of the site is being re-examined by modern excavations. The walls were on average 3' (c. 0.9 m) thick, with the interior length of the building being $36^{1}/2'$ (12 m) and the width varying between approximately 12' and 13' (c. 4 m). There was a southern entrance with traces of blocking, and a further entrance traced at the extreme east of the earlier wall immediately south of Building IV.

Five post-holes to the south and four to the north (with some being preserved by a covering of pointed boulders) indicate an aisled support of upright and cross timbers for the roof. A single post-hole out of line was covered by a quernstone (6.5.3) and had within it traces of carbonised willow. In the middle of the west wall, a small gap of approximately 1' (30.48 cm) formed the mouth of a paved vent which extended to the west of the hearth. The long hearth showed indications of two phases of use, with a layer of discoloured sand separating two peat ash deposits. The original hearth, which was paved, was approximately 12' x 8 1/2' (3.66 x 2.60 m) but in the later phase was reduced, by flagging of about 3' (0.91 m). This reduction was apparently associated with the building of a secondary cross wall within the structure. This was almost a metre in width and not bonded at the north or south junctions. There was an irregular entrance within it. To the north of the hearth, a badly damaged 'cooking oven', with burnt stones and a slightly sloping slab forming the rear wall, was located. On the south side, nearer the west wall, another stone-lined pit was revealed but it was of uncertain use, although it contained sherds of pottery (Curle, 1939, 91). In the south-west corner a possible bed was identified by the presence of clean sand in a roughly square area. The floor of the building was of compacted clay and peat ash, and the eastern end of the house was covered by midden deposits (predominantly limpet shells). This produced, for example, a copper alloy strap end of possible zoomorphic form (4.1.1), a comb fragment (8.9.5), three broken hones (e.g. 6.6.8), two bone whorls (not identified in NMAS), an iron knife blade (5.3.3) and a large piece of steatite vessel (6.3.28). This midden also extended over the north wall of the building (See Plates 16 - 19).

Only fragments of buildings from the rest of this group remained: immediately east of the dwelling house, an area was enclosed on three sides

only and paved (its north wall was of an earlier structure). Supporting this paving was a bed of rounded water-worn stones surrounded by silty deposits; this was suggested as a store area with good drainage (Curle, 1939, 93). The building-traces to the east of this were very confusing, and included a secondary cross-wall only 1'6" (45 cm) from the southern wall with paving between. Carried through both walls was an air vent running roughly north-south. This had very similar characteristics to that emerging from the west of Building VI. Obviously, this part of the complex had been subject to much reconstruction. Midden deposits here produced a portion of penannular brooch with zoomorphic terminal (2.1.1). To the west of this, in the midden, the fine comb case was found, unfortunately not directly related to a structure (8.10.1). Other walling fragments were not directly associated with these Group B structures. For example, from the front of the doorway at the eastern extremity of the early wall, a short length of even earlier walling ran southwards, apparently in isolation (only slightly visible on pl. XLIII, no. 1) (Curle, 1939).

7.1.2 Recent Excavation of Curle's Building VI (Batey et al, 1981, 19-20; 1982, 57)

Prior to re-examination in 1980-81, the area of Building VI could be distinguished as a notable hollow with a mound to the north and an exposed section of walling to the south. The contour survey (carried out by F. and G. Bettess in April 1980) demonstrated that this hollow continued to both east and west, and the walling to the east. Because the original area opened in 1980 (Area 2A), which was 27.5 x 3 m, did not have sufficient diagnostic features visible, a second area 8.5 x 5 m was opened 2 m to the east (Area 2B) to include an area where it appeared that a cross-wall running north-south could be picked out within the turf. Within these areas, two east-west walls were located. That to the south, including the exposed area of walling, could be clearly distinguished as the wider south wall, which remained standing several courses high. But

only the lowest foundation level remained of the northern wall-as Curle had noted . A blocked entrance was found at the extreme south-west end of the southern wall, and it was clear that this was Curle's Building VI. Curle had excavated behind both walls and,in the bottom of the trench behind the south wall, stones that formed parts of other walls and flagging were encountered. However, since they underlay undisturbed occupation deposits to the south, they were not excavated at this stage (Figure 22 , Plate 21).

It is clear that Curle excavated behind most of the walls and some relationships are consequently obscured, especially on the south side. It is evident that the entrance to Curle's building was in the south wall and that the earlier entrance had been partially blocked. The wider southern wall has at least two phases, the earlier of which appears to relate to the north, east and west walls. The sequence appears to be the reverse of that published by Curle.

Excavation of the occupation deposits included regular grid sampling for environmental analysis. The same policy was in force for excavation to the north of the north wall. Excavation within these walls and the north-south wall to the east, revealed darker occupation deposits and, adjacent to the walls, features that appeared to be the emptied post-holes noted by Curle. In Area 2B, raised areas with stone facing along the northern and eastern walls appeared to correlate closely with those noted by Curle in Building VI (Curle, 1939, Figure 4, 88). Some remnants of the edging of the hearth and the 'low platform' at the east were located, but preliminary examination of the eastern area appears to indicate that the 'rows of boulders' may be part of earlier wall lines. Excavation did not continue below the level reached by Curle within the building.

No work was conducted on layers and features to the east of the building, and the main objective was to achieve the plan of the building as distinguished by Curle. Work was limited in excavation and sampling,therefore,

to the occupation layers to the north of the building, and, on a lesser scale, to the south. There was little lateral variation, except for thin lenses, throughout the thick organic layers.

Around the building, the sampling continued in the sample areas begun in 1980, producing interesting comparisons with the midden material at the cliff edge (see below pp.218-9). Although excavation did not reach a consistent base level, in places there were clearly earlier structural features below the layers reached. The examination of these will follow in 1984. At the south-west corner of the building, there was disturbance in the form of narrow trenches and an irregularly cut square pit, possibly associated with World War II activities (pers. comm. F. Gulloch).

7.1.3 The Published Account of Building VII (Figure 20B)

Group C (Building VII) was found to underlie part of Building V and was on a lower level than either of the Groups previously mentioned. Orientated north-south, although badly damaged, the walls could be seen to be up to 4' (1.22 m) across and of the same construction type as Group A. The northern part was dune-covered and thus not available for examination. The extent of the west wall was examined by digging through a deep midden rich in fish bone and it is most likely that parts of the wall were still visible when the midden which filled most of the west part of the building was being initially laid down. In the interior of the west wall, which was traced for 36' (11 m) in all, the skull of a small whale had been incorporated. The doorway, 3' (0.91 m) wide, was in the southern part of the building in the west wall. The floor was of hard packed clay and peat ash, and there were no certain central hearth remains. Curle noted that 'it is doubtful if the building had been used as a dwelling' (1939, 80) and, for this reason, it was interpreted as a possible barn or storage area 18' x 14' (5.5 m x 4.27 m) (Curle, 1939, 95). In the south-east corner was a round kiln

filled with peat ash and incorporated into the original fabric of the structure. The walls of the structure were badly damaged throughout, except in the immediate vicinity of this kiln. The kiln measured 9' (c. 2.74 m) from front to back (although Curle's notebook gives the different measurement here of 7'6" (2.32 m) (NMRS ms. 28b(SAS 461), 55)). A potential second kiln might have been located on the north side of the partition wall, where a vent led into a roughly semi-circular area. The vent had traces of daub within it, the significance of which is indicated below (pp. 206-7). The whole building, especially the southern part, seems to have had a large amount of clay within and, also, sealing it: 'the quantity of clay all about is surprising, a layer some 3" (7.6 cm) thick covers the floor' (Curle, ms 28b (SAS 461), 45). There were also large amounts of pottery recovered, including a very large number of variable rim forms (e.g. illus. Curle, 1939, fig. 6, no. 4. Not in NMAS). Within the actual kiln, there was a vent and a large amount of peat ash and Curle noted that the width had been reduced by a lining of stones on one side, possibly to support a floor. The use of the kiln should remain conjecture. Opposite the flue-mouth, a small rectangular luted basin was found, possibly corresponding to a similar feature in the south-west corner of the north part of the building near the other possible kiln. The finds from here, although dominated by the pottery, included a partially worked bone pin (8.3.1) and a copper alloy piece interpreted as a cauldron patch (?4.10.8).

To the south of this structure, and crossing Building II, the walls previously mentioned as predating Building II, also seemed to be predating Building VII. Beneath Building VII, traces of carbonised wattle and daub were located lying on a bed of clay. There were actual traces of this daub within the walls of the superimposed building and, as noted previously, within the vent of the northern kiln, (e.g. 13.4.1 and 13.4.2).

7.1.4 A. O. Curle's Notebook (NMRS ms 28a-c (SAS 461) (Figure 23).

There are slight problems in the use of Curle's original site documentation owing to the fact that he used different numbers for the structures from those he used in the final publication. It is fortunate that he has made a list at the front of his notebook to explain this (NMRS ms 28a (SAS 461), 11), but even so it is easy to forget this change when using the notes. However, study of the notebooks is crucial to the understanding of the site and some important new pieces of relative chronological information have been revealed during the study of these notes.

The excavations of Curle revealed a complex group of interrelated structures which, unfortunately, have become oversimplified in the final publication. There are gaps in the information available in the notebooks but they are few. (All three notebooks are unpaginated, but each is numbered here for ease of reference.) The trouble seems to have arisen in the synthesis of the material. Some important pieces of walling have been virtually ignored, such as those around Buildings IV and VI, where even earlier phases of building are suggested. The constant re-use of stone from earlier structures, as must have happened in Buildings VII and IV, has caused many problems in interpretation, but the excavation material was not used to the full. There are a number of interesting additions to be found only in Curle's site notebook, which amplify the published report. Indeed, this further information gives indications that the parts of the site excavated by Curle are consistently more complicated than initially suspected.

In Curle's Building I (the same number as in the notebook), it is particularly interesting to note the presence of a large piece of unglazed Medieval pottery from a primary level (NMRS ms 28a(SAS 461), 29), and likewise a piece of glazed pottery (9. 3. 2) from below the clay pile in the

'bath'; these indicate a relatively late date of occupation here. The south wall of the building was constructed irregularly and Curle suggests possible evidence for the use of turf in its construction (op. cit., 34). The presence of large boulders at the base of the wall has particularly interesting parallels in the standing buildings in Caithness today. The vent noted in the east wall, blocked at the time of the 'bath' building, was initially suggested as a vent by Curle because of its narrowness (NMRS ms 28b(SAS 461), 51). Prior to the alterations to Building I, below midden deposits underlying the 'bath', a small open gutter was located (loc. cit.). This latter piece of information is particularly significant because it indicates conclusively that it was stratigraphically impossible for that drain and the 'bath' to be directly related-as perhaps indicated by Curle in the published report (Curle, 1939, 78). The alterations to Building I are shown to be relatively late in the sequence at the site. In fact, as shown below (p. 181), they fall practically at the end of the sequence of occupation there.

Building II (in the notebook Building 3) has very little information, even in the notebook. The only information which may be added is that the level of the top of the north wall is associated with grass tempered pottery (NMRS ms 28a(SAS 461), 40), a fact of very limited use at such a site as Freswick. Perhaps more interesting is the additional information that the wall at the west end of the building, which underlies Building II, also underlies the east wall of Building I (Curle, 1939, fig. 3, 76) and VII (NMRS ms 28b (SAS 461), 67).

Building III (notebook Building 4) appears on the final plan as an incomplete structure. In Curle's notebook it is clearly indicated that Building III is on a different alignment to the small room to its east (NMRS ms 28c(SAS 461), 31) (Figure 23). The east chamber walls are recorded

as very insubstantial, the north and south ones being offset at the end of the west chamber (loc. cit.). This possibly indicates that they are later than the east wall of the west chamber. There are problems with the hearth in this structure because, for example, it appears to be disproportionately large, and also the midden refuse seems to be relatively localised to the hearth position. The notebook does not help in this. The large amount of iron recorded from the west chamber still supports the suggestion of a forge at this part of the site.

Building IV (notebook Building 2) is recorded as a very badly reduced structure, with the foundations at the east end having been actually removed (NMRS ms 28a(SAS 461), 9). Beneath, and to the north end of the structure, a deep (2', 0.61m) bank of rich fish midden was located, but the additional north part of the structure was bedded on clay and more upstanding (loc. cit.). An earlier wall beneath the west end was located running north-south, although it does not appear on the final plan; it had been partially removed during the building of the overlying structure (NMRS ms 28a(SAS 461), 11). The substantial wall extending east from Building VI was replaced by clay bedding over the north-south wall previously noted (op. cit., 14). A feature of the long east-west wall, which was barely noted in the published report, was that it ended at an entrance-way south of Building IV (Curle, 1939, fig. 1, 74, 88). The mysterious quadrilateral feature at the north was roughly paved some time into its existence (op. cit., 16), but there is no further information provided. Medieval pottery was found in the midden below the east entrance and also at the level of the wall head elsewhere (op. cit., 39. 67). This relationship could be interpreted possibly as the digging away of the middens to place the foundations.

Building V (notebook Building 6), lacks further information of the

structure. Two dubious post-holes were found in the north-south wall, but there was nothing to give insight into this mixture of walling here. A possible piece of human skull was recovered from the north side (op. cit., 56).

Building VI (notebook Building 5) had a secondary cross wall lying on, and interspersed with, quantities of shells and midden. The apparent entrance gap in this was both narrow and irregular. It is interesting to expand on the published report and to note that Curle stated that this wall reached the south wall at a point 'where the reduction in the height of the wall occurred' (op. cit., 3, 17, 21). This reduction coincided with a different building method, presumably representing a different building phase. To the south of the main south wall, traces of walling noted by Curle, but barely commented on, seem to indicate a further structural phase (NMRS ms 28b(SAS 461), 19). The east wall of Building VI was suggested by Curle as having two phases, and he suggested in his notebook that the walling at the south side could return northwards under the remaining east wall (op. cit., 4). This has since proved unlikely (see p.174). The extremely long south wall (81' in all (24.89 m)) is indicated in the notebook as being two different walls, examined by sondages, and not joined. It may also be significant that no midden was located between Buildings IV and VI. Finally, the problem of the remarkably large and long hearth (13' long (3.96 m)) located only 14" (35.6 cm) from the surviving south wall, was considered by Curle (op. cit., 21). It is stratigraphically possible that it predates the south wall, but it is not clear in the notebook.

Building VII (notebook Building 7), was recorded as being very deeply bedded and therefore 'probably of earlier date'; hence the walls were followed through the rich fish midden (op. cit., 27, 29). The higher parts of the wall, Curle states, must have been visible at the time of the midden deposition (op. cit., 29). Two distinct building fills were noted by Curle: in the west, a

kitchen refuse rich in fish and mammal predominated, in the east, more clay and stones. The clay floor was littered with sherds of pottery and overlain by a layer of dark sand 1' (39.48 cm) deep (op. cit., 45, 47). The fascinating wattle and daub traces, occurring beneath and within walling, in the vent of the kiln for example, cannot be readily explained as a gable substitute as Curle suggested (op. cit., 61). The pieces seem on balance to represent an earlier structure than this north-south one, but Curle could shed no light on this matter.

Having established the additional information in the notebooks, it is possible to elucidate the buildings as originally published. In Building I, the remodelling for the 'bath house' was late in the developmental sequence of the structure, and it is of fundamental importance to know that unglazed Medieval pottery was found in a primary level within the structure, and that glazed pottery was located below the dump of clay which would seem to be the latest recorded event within the structure. If it had not been evident from the structural relationships of this building, as far as they can be reconstructed, the position of this pottery places these events relatively late in the chronology of the site. It is also important to realise that the drain and the 'bath' are totally stratigraphically unrelated because they are separated by midden deposits. This fact is not made clear in the published report (1939, 78). Thus, it may seem to support the suggestion of a bath house in the publication, which is by no means conclusive in the archaeological record.

There is a curious lack of information available for the study of Building II; it is obviously overlying an earlier north-south wall, which is the earliest feature at this part of the site. However, it is not possible to establish clearly the relationship between Building II and Building I, except that in Figure 3 (1939, 76) its west wall is clearly shown as being secondary to the

north-south walls of Building I. It could therefore be later than the bulk of Building I. Building III is very complicated, and this situation is made no easier by the fact that Curle did not publish exactly what he recorded in his notebook (Figure 23). It is not possible at present to understand why this was the case; possibly he noted it down incorrectly in his notebook and this was corrected by C. S. T. Calder (of the Royal Commission) when he came to prepare the final plan (stated by Curle in his notebook (NMRS ms 28b (SAS) 461), 55) to be only a couple of days before the end of the excavation). It is not known what happened to the west end of Building III; it was not examined because of overburden, and thus the south-western extremity of the site was not located at all.

Building IV has traces of an earlier structure beneath it. The earlier north-south wall was partially removed during the building of the later structure (Building IV), and it is interesting that Medieval pottery was found in the midden below the eastern entrance. This may possibly indicate that the structure may also be relatively late in the site's structural development. Building V has a considerable amount of mixed wall phases within its form, which may well be purely circumstantial rather than of any great significance. It most certainly cannot be a naust-if only because it lacks a slip way. It overlies Building VII and, therefore, must be very late in the relative sequence at the site. Building VI has walls of different phases and remodelling (for example the cross-wall). It is stratigraphically just possible that some of the internal features may indicate phases pre-dating the standing walls, but this information is based more on the later reappraisal of this building by excavation than by any facts detailed in the notebook. Building VII was initially suggested by Curle as

probably the earliest on the site, because of its depth from the present surface. It had been filled with midden from a later structure or occupation phase, but overlies a possible wattle and daub structure and also the early wall below Building II.

This additional information reveals considerably more phases in the structural sequence than considered in the text published (see Figure 23). Building I as published had many phases noted, but it is important that the bath and drain are not directly associated and that there is Medieval pottery throughout the sequence represented. Building II itself overlies an earlier wall and seems to post-date Building I. In Building III there are many problems, but an intermediate building phase is represented in the eastern element because it is butt-joined onto the west wall there. Below Building IV there is an unpublished building phase running north-south, and below the long wall of Building VI. The Medieval pottery noted below the entrance in a midden deposit may be indicative of a relatively late stage in the development. Building V, also, has many problems in its interpretation. All that can be stated with conviction is that it is later than Building VII which it overlies. In Building VI there is complex remodelling, there being at least two wall phases and a cross-wall which post-dates both of these. Running south from the southern wall are further traces of walling apparently below the south wall, indicating a further structure and yet another phase. Building VII was filled in with midden from a later occupation, presumably in the immediate vicinity; it is earlier than V, and later than the possible wattle and daub structure and the wall below Building II.

It is possible to distinguish a relative chronology within the parts of the building groups which are interconnected, but the problem which cannot be resolved is the relationship between the north and south groups of buildings.

The section through the two groups drawn by Calder cannot really assist in this because it concentrates on the relative levels of the structures and takes no account of the underlying material which has influenced that height, particularly any dunes which may have been built on,or midden banks, etc. (Calder, NMRS ms. 36/13, 76-7). It is only possible,at best,to get a relative chronology from the information available to us, often because the associated artefacts cannot be specifically married with their deposits,and the deposits with the planned walling.

7.2 Excavation by V. G. Childe

7.2.1 The Published Account (Childe,1943) (Figures 24-25)

Further excavations at the site were directed by Childe in 1942 because the combined action of sand-quarrying and winter storms of 1940 revealed another building complex,about 1 m below the modern turf line and to the north-east of Curle's excavations, ' on the seaward edge of the high dune' (Childe, 1943, 5). These produced a midden layer ('a tough layer of midden-like material littered with stones, bones and sherds') which appeared to be associated with Curle's buildings. This comprised a series of structures of different phases, badly reduced by the time of the excavation, which were examined and planned prior to removal. This was the first 'rescue' excavation at the site. It is likely from the examination of site photographs (Plate 20) that this site was located on the small spur of land between Zones D and E (see Figure 10) i. e. between two sandpits. This is an area now badly eroded but rich in pottery falling from the eroding cliff-section which stands some 2 m above the present sand slope. There are many problems involved in the study of Childe's excavation results, chiefly because such a small area was examined and Childe's methods were inadequate (see below p.187). The published report is often difficult to understand in relation to the published plans and sections.

Childe distinguished four phases of structural development here, although as will be seen this is once more rather over-simplified. In the earliest phase, Phase 0, (see Figure 25) a line of slabs running roughly east-west was defined, separated from the next phase of development by a sand blow; it was 21' (6.4 m) in length, and had paving in association to the south of the line it formed, and some 9" (22.8 cm) below the floor of Phase I. The slabs rested on pure sand. Only one find, that of a piece of corroded iron (which was never accessioned in the NMAS), served to indicate an 'Iron Age' date.

Phase I comprised a 'long house' (Childe, 1943, 7), just over 28' (8.5 m) in length, with the walls founded on a bed of grey clay and a basal course of thin stone slabs. The eastern part had been lost because of erosion, and the west wall was replaced by, or included in, the wall (KA) of Phase 2 (see Figure 24). Only the north wall (PQ) and south wall (DE)-(EX) had clear Phase I elements visible. In the centre of the house was a long fire, represented by a kerbed bed of peat ash about 15' (4.57 m) long (one of the kerb stones being part of a mica schist quernstone), with an oval fire pit at the west end. The floor was apparently partially paved mainly in the east part (not certainly in Phase I, however), with ash both below and on top of it, with the rest being either grey clay or tough brown midden mixture. Near the south wall, a line of four slabs on edge was suggested by Childe as a pallr (Childe, 1943, 8).

Phase II had walls ((HJ), (inner KA), (AB), (DE) and probably (CD) and (SR)) constructed of large boulders, and in the west room the floor was of irregular paving, covering the Phase I hearth and itself covered with midden (including many fish bones); the north face of the south wall rested on 9" (17.8 cm) midden. The paving was bounded by a groove roughly marked out by pairs of thin slates

sunk into the floor, and interpreted as a groove for a wooden partition with a gap for a doorway. The entrance in the south had a $9\frac{1}{2}$' (2.9 m) long passage in this phase, being 1' (0.3 m) higher than the floor level, necessitating a step down into the structure. There was a second doorway in the north-west corner and possibly one east of (H) (see Fig. 24) in the north. It was suggested that traces of the collapsed turf roof were found between sand bands, where a tough sterile black band of material was thought to be turf. This was separated from earlier walls at the site by a sand blow which was very thin in some parts. A possible channel was located in the western part of this structure partially underlying (AK) and leading below the wall (MN). This latter wall was the eastern wall of the ruinous structure (LMNO), apparently also of Phase II. The south wall was represented by a foundation of slabs and the north by a continuous boulder line; the west wall was lacking and no floor level could be distinguished. The channel from (AK) reached this structure at the south east corner. Approximately 1' (0.3 m) above the wall (MN), a secondary floor level was distinguished, with some traces of paving extending westwards. It was during the collapse of the north-east corner of the walling at this level, that a large vessel (11.4.77) and fine whalebone draughtsman (8.13.2) were buried. (See Figure 26).

In Phase III, a new construction was built over the east part of the building, incorporating some of the walls (see Figure 26), but mostly separated from Phase II by 1' (0.3 m) of sand accumulation. This building lacked both a hearth and a definite floor level.

In the finds recovered from these excavations, there was a lack of items which could be attributed to the second and third phases. Probably of the second phase are a femur head whorl (8.7.15 or 8.7.16) and a pyramidal loomweight (?6.1.16). From Phase I, two femur head whorls

were recovered (?8.7.15 or 8.7.16); also a stone whorl (? 6.2.6), two pyramidal loom weights (including 6.1.17), a grooved netsinker (6.1.18) a broken bone pin (? 8.1.31) and part of a flat rotary quern of mica schist (6.5.6) were noted. Dating the structures is a problem because the gaps between the phases separated by sand blows cannot be guaged; in a single storm, one foot of sand could easily cover the site. Most of the finds are stylistically difficult to date, but it might be significant that all pottery recovered in this excavation was grass tempered with relatively elaborate rims.

There are a number of problems relating to these excavations by Childe which are chiefly concerned with the published plan and sections. The final plan, for example, does not have marked on it all the numbers mentioned in the text such as (E) and (R). This is a major problem because Childe refers to these constantly and it is often confusing when that part of the information is lacking. There is also no scale marked on the published plan. The method of recording the spatial relationship by having all or most phases on a single diagram, while useful to a certain extent, does, however, cause even more problems than it solves. This is caused chiefly by the fact that Childe does not also publish individual phase plans, so all interior features on the plan cannot be associated with the walls of each phase without a considerable amount of work (see Figure 26 for an attempt at this). It had been hoped that the published sections (Childe, 1943, 9) might have assisted in a possible reinterpretation, or at least assist the understanding of the site (see Figure 25). They are, however, often unclear at critical points, e.g. in Section 1, the precise relationship between the wall (WX) and the almost adjacent cross-hatching representing ash layers is unclear. Chiefly, however, the sections serve to throw some doubt on Childe's original phasing of the site. Phase II can be

shown to divide into two parts. For example, (CD) is different from (DE) although they are placed in the same phase (Section 2), and (AK) was obviously remodelled in Phase II, see for example the crossing slab below the outer part of the wall.

It had been hoped to resolve these problems by the use of the original site documentation (Notebook no. 65, held in the Institute of Archaeology, London). This book contains copious drawings and measurements, unfortunately using a different number sequence and thus rendering it almost useless when considered even with the published report. It is not always possible to be sure which part of the site is being discussed as,even with drawings, most parts of the site cannot be individually distinguished.

7.2.2 V.G. Childe's notebook

It has been possible to gain a small amount of information from the detailed study of the notebook. (The original is unpaginated but numbered here for ease of reference.) Taken in relation to the phases noted by Childe, i.e. considered as belonging to phases before, after or between the phases he distinguished, the additional information is informative (see Figure 26). There is little additional evidence available for the earliest phase of this part of the site, Phase 0. It is important because it is likely to represent pre-Norse occupation here, or even possible early Viking activity, rather than Prehistoric (which is noted at a lower level in Childe's notebook, 2).

It seems highly likely that it was a timber phase; the walls found in excavation were very insubstantial and they are too consistently narrow to support the idea of robbing. No occupation debris was recovered, except a single piece of iron which unfortunately never reached the National Museum and is,therefore,not available for study. The lack of midden or debris of any kind might suggest the idea of temporary settlement in the immediate area, possibly supported by the suggestion of a purely timber phase. The possibility

of this being the remains of a timber 'lining' to a stone structure as in Norway, e.g. Ytre Moa (Bakka, 1965) and Ullandhaug (Myhre, 1973, 17), cannot be supported on the remaining evidence.

In the east of the complex, there are indications of interior fittings associated with Phase I. The upright slabs indicated seem to be ideally placed, in relation to the southern wall of Phase I, to support this suggestion (Notebook, 5). Likewise, upright slabs to the north could easily be consistent with kerbing for the Phase I hearth, a feature supported also in Section 1 (Childe, 1943, 9). Unfortunately, the paving is not indicated on that section but, as it seems to overlie part of hearth 1 and is under the walling (WZ) of Phase III, it probably belongs to Phase II. There are problems with items attributed to phases incorrectly as well as with those not actually attributed to any (Notebook, 12). The timber slot (bp) is noted as being in Phase II, but in Section 3 it is clearly shown as being after Phase I. It seals the fire pit of that phase, and the paving which seems to be associated with it underlies walling (CD) of Phase II (which itself is later than (DE) of Phase II). At this stage it seems safer to term it Phase IB rather than anything else. There is an area at the north-west corner which is badly damaged and does not assist the interpretation. The paving in that area continues through the wall itself (according to the plan), which may indicate a doorway here in Phase I. Alternatively, the paving could be of Phase II (as Childe suggests) and a standing wall was broken through for a doorway. This paving cannot be conclusively attributed to either Phase I or II.

In Phase II, there are problems with the relationship between the walling (AK) and the stretch marked (AB), which cannot be resolved from the available information. However, other aspects of the phase can perhaps be elucidated. The relationship of the suggested channel lying below wall (AK) of

Phase II, must indicate that it predates part of it, and likewise the wall (MN) has the same relationship to this feature (Notebook, 26). It could have been associated with the building of the Phase II structures, in that it was deliberately deposited below the wall for some drainage purpose for example. However, (AK) has itself a later remodelling on the outer side, the part which only overlies the channel. The inner part of (AK) blocks the channel below it, so is therefore later, probably of Phase IIA. Alternatively, it might be possible to suggest that the outer part of (AK), the channel, and possibly building LMNO belong to Phase IIB rather than to the initial building phase in II. Turning to the eastern part of the structures, the paving in the extreme east is a problem since all eastern relationships had been eroded away by the time of the excavation. The paving seems to be extending beyond the projected line of (ZY) and may therefore not be associated with this phase, but with Phase II; there is, however, no conclusive evidence either way.

Evidence for Childe's Phase III in the publication is also sparse, so additional information from the notebook is particularly useful. In the west part of the Phase II structure the walls were badly damaged and extensive midden deposits were found on the floor (Notebook, 6). The important fact here is that underlying the midden is a layer of sand, directly onto which stones from the collapsed walling of Phase II had fallen (Notebook, 6). This is significant because it indicates that the midden must have been dumped into this part of the complex at a time when the walls were in decay. The midden must, therefore, be associated with the Phase III occupation visible from the excavations, or from another structure of similar period out of the excavation area. The area west of (CD) is noted as having had a midden rich in fish bones and shell (Notebook, 4). This is interesting because most of the other midden deposits on this part of the site have been basically of peat ash rather than

food refuse. It cannot be categorically ascertained from the available evidence whether this refuse was directly associated with the Phase III occupation or whether it gathered within the structure during occupation in Phase II. One final, but equally interesting, note in the notebook concerns walling (ZY) (Notebook, 6). Childe notes that this is bedded lower than walling (EZ) (WZ), possibly indicating subsidence caused by the settling of the midden deposits on which the structure had been built (see, for example, Curle's Buildings III and IV for this similar problem). It is conceivable that it might be indicative of an earlier building utilised by the builders of Phase III. There is no clear evidence either way because, although (ZY) shows on Section 1 (see Figure 25), the precise relationship between it and (WZ) on Section 3 is too difficult to unravel because of the lack of information.

Apart from the four basic phases distinguished by Childe (0 - III), it is possible to distinguish at least two further phases of occupation within the basic phasing. Phase IIB is represented by the timber slotting (bp) plus the paving below wall (CD) of Phase IIB. In Phase IIB there are possibly the outer walling of (AK) and (LMNO), with the channel (although this could be much earlier than (LMNO), the evidence available does not help), and also the walling (CD) (clearly seen in Section 2 (1943, 9)). In Phase III there may also be two phases of building, but the differences noted could be due to subsidence only. Most of the problems still remain, even after the recovery of the notebook, because of the circumstances of the excavation and the small area examined.

The redrawn Phase diagrams help in the understanding of this complex sequence of structural development, but do not assist much in the overall interpretation of this part of the site. The significance here must lie, not so much in what was found, but where it was found, and how and in what state it was recovered.

7.3 Overall Considerations

7.3.1 The Settlement

It is in the Late Norse phase of occupation that the site can more easily be seen in its wider context, if only because there is more information available and larger areas excavated systematically. The plan of the buildings recovered by Curle and Childe at the site indicates a linear extension of rectangular buildings, constructed gable end on to the coast; a form common in Northern regions (Ingstad, 1977, 149; Small, 1968, 7). Although the evidence from Childe is very incomplete, the alignment is clear (Childe, 1943, 6, Figure 1) and there are indications of part of another structure (LMNO) to the west of the main part excavated, which would be consistent with this orientation. Within the complex of buildings excavated by Curle, there is a single exception to this east-west orientation, that is Building VII, which lies at right angles to the rest of the complex. Such a change in alignment has been noted at two other sites in the North, Jarlshof, Shetland (Hamilton, 1956, Figures 51 and 61) between Phases I and II, and Birsay, Orkney (e.g. Hunter and Morris, 1981, Figure 2), where the buildings lie down the slope, with a single example at right angles to them. At Birsay, Hunter would suggest climatic reasons behind the re-orientation of buildings, both that excavated by Radford (Cruden, 1965, Figure 5, 26) and those of his own excavations, and would see a total rebuilding programme rather than piecemeal redevelopment (Hunter, 1983). This cannot be shown at Jarlshof or indeed conclusively at Freswick. It is conceivable that the orientation of Building VII (which is relatively late in the structural sequence at that part of the site) could have been for climatic reasons or for improved drainage conditions. Alternatively, it has been suggested by Ritchie for Buckquoy, that one of the structures was on a slightly different alignment because it was used as a threshing area (Ritchie, 1977, 186). This

is a possible interpretation for Building VII, but cannot be readily proven. An alternative suggestion is given by Alan Small, who has pointed out the need for the gable to be in the face of the prevailing wind (Small, 1966, 237), to prevent a through draught in the house.

The complexities of rebuilding on the same site with some of the same stone are indicated at many of the northern sites - Jarlshof (Hamilton, 1956, e.g. 157), Underhoull (Small, 1966, Figure 10, 236) and Birsay (Morris forth. c. and Hunter, 1983)-and inevitably the case is the same at Freswick. The shortening and remodelling of Buildings VI and I respectively is possibly echoed in Jarlshof Buildings 1 and 7 (Hamilton, 1956, Figure 80, 174-5). The picture of re-use of stone and the robbing-out of the earlier structures has been supported by evidence from the west, in Crawford's excavations at the Udal (Crawford and Switzur, 1977, 131). Some of the alterations may be explained in terms of differing economic or environmental criteria. For example, this is very clearly to be seen in the progress of the structural decline of the Parent dwelling in Phases 1, 6 and 7 at Jarlshof (Hamilton, 1956, Figure 51, Figure 79 and Figure 80). The structure developed from being a dwelling house with separate byre in Phase I, had a separate byre added to one end wall in Phase 6 with a series of other outbuildings, and in Phase 7 was reduced to a single dwelling unit within the original structure. This may, perhaps, be reflected in a considerably less developed form at Freswick Building VI (the recent excavation Area 2), where the secondary wall seems to have separated a potential byre in the building from the dwelling area (Curle, 1939, Plate XLV, no. 1) . Curle himself suggested that Building VI was built within a larger structure represented by the large south wall (Curle, 1939, 88); this has since been shown to be incorrect (see above p. 174).

The remaining impression of the buildings at Freswick is coloured

by the fact that the seaward edge of the site, represented at the very least by Childe's excavation area, has been lost. It is conceivable that Building VII examined by Curle was not the only structure thus orientated, as was seen at Birsay but, as discussed above (p. 192), broadened by more recent excavations. Although the buildings examined by Childe seem to have been on the same alignment as the majority of Curle's, the presence of more north-south orientated structures, as seen at Jarlshof (Hamilton, 1956, Figure 80), would seem possible.

Small has noted that 'the growth of clustered settlement appears to be peculiarly Scottish in the Viking context, the single dispersed farmstead being characteristic of the Faroes, Iceland and Greenland' (Small, 1971, 79), and Morris has further distinguished Orkney from Shetland (Morris forth a.). This would appear to be the natural response to the occupation of an area which could support a relatively large number of people, but it must be remembered that it is very difficult to establish how many of the structures at Freswick, for example, were occupied at the same time, and just how many people are represented at each settlement concentration. The settlement clusters of Freswick, Jarlshof and the Udal, for example, are interesting, but perhaps misleading. These are areas which have either had extensive area excavation or surface evidence for the extent of settlement. Other sites, such as Sandwick (Bigelow, 1978; 1979; forth), Underhoull (Small, 1966) and Drimore Machair (Maclaren, 1974) have had more restricted attention, but indications are that these were not the isolated type of farmstead noted by Small in a North Atlantic context. At Underhoull, Small records the discovery of Norse artefacts and midden further around the bay, indicating settlement which was not further examined (Small, 1966, 247). At Sandwick, Bigelow notes the recovery of artefacts at three distinct locations around the bay at Sandwick

(Bigelow, 1978, 1). At Drimore Machair, the published plan may indicate further structural remains attached to those excavated. It is highly likely that there are more in the immediate vicinity (as indeed were noted nearby at the Wheelhouse à Cheardach Mhòr (Young and Richardson, 1960, 158), but missed by the restricted excavation area (Maclaren, 1974, Figure 1, 10). The limited Viking structural evidence from the site at Buckquoy (Ritchie, 1977, 184-89) also produced evidence for three dwellings, rather than an individual one. These are thought by the excavator to be of different phases, and Ritchie suggests that there were probably other structure(s) in association.

7.3.2 Building forms

It is interesting that the buildings so far recorded at Freswick are, with a single exception, built onto one another in a linear development. This is a common practice in the north today, and is pictorially displayed in a recent article by Stell (1982, 89, Figure 6.2). Archaeologically, this is seen for example at Jarlshof (Hamilton, 1956, 162, Figure 75), where three phases of building are seen in this form in House 7 and also possibly in House 6 (op. cit., 161, Figure 74). This amendment of structures could explain Freswick Buildings I and II, for example. Fenton has noted the linear development of the modern croft (1978a, 114), with man and beast under one roof. It is dangerous to assume that the linear croft developed directly out of the Norse structure, as Childe pointed out (1943, 17). Work in the west on the so-called 'blackhouse' by Fenton notes the close similarities between the black house and (Late) Norse buildings, although clearly stating that development of the form has taken place in the last 150 years (Fenton, 1978b, 32). The study of the derivation of these features of vernacular architecture is complex and controversial, and it is not appropriate to enter into the argument in this thesis.

It cannot be judged from many sites whether they were associated

with yards, paved areas or field boundaries as at Sandwick (Bigelow forth) or Jarlshof (Hamilton, 1956, Figure 79, 170-1). Often the area around the actual building was not available for excavation, as at Buckquoy (Ritchie, 1977), or simply not investigated, as at Drimore (Maclaren, 1974). At Freswick, at this stage it is not possible to state whether these were associated with the settlement, but it is hoped that the recovery of areas with cultivation marks at the seaward edge of the site (see below, p. 219), could suggest differential use of areas of the site, and as such there could be evidence of boundaries between.

There are similarities in the actual form of the structures of some of those examined at Freswick and the Medieval one at Jarlshof (Hamilton, 1956, 191, Figure 86). The similarity may, perhaps, be misleading because of the incorporation of the kiln at the north-west corner of the structure, which is rather similar to that of Building VII at Freswick. The juxtaposing of the structures of the farmstead next to each other, however, cannot be supported at Freswick. There are, possibly, closer similarities to be found at Underhoull (Small, 1966) where the structure was assigned to the 10th century by the excavator, but which could be assigned to the 11th or 12th century by analogy with Sandwick, on the basis of artefactual and building study (Bigelow, pers. comm.).

The range of building uses as represented at Freswick is interesting and useful - smithy, barn/storehouse, dwelling, bath house, 'naust', kiln and dwellings (possibly in the north range). Although not entirely unexpected, this range of buildings is difficult to parallel in the British Isles at this period because of a lack of comparable excavated sites. It is, however, common in Iceland, for example at Stöng (Roussell, 1943b,). At the Udal, Crawford records in the Norse horizon, a corn drying kiln and threshing floor, metal working

furnaces and 'other small buildings of unknown function' (Crawford and Switzur, 1977, 131). Bigelow at Sandwick attempts a spatial analysis of the zones of the building, based on the study of the range and distribution of artefacts, suggesting cattle at one end of the structure, and dwelling at the other. These features may not necessarily be distinguishable structurally, but may be detectable in the study of the artefact distributions (Bigelow forth.).

It is interesting to note that at Freswick, there are no true byres yet recorded, although Building VI may conceivably have been thus used, as at Jarlshof (Hamilton, 1956, Figure 79, particularly Building 6), or as at Kvivik in the Faroes (Dahl, 1965, 137-9), or probably Beachview, Birsay (Morris, 1981). One potential candidate may be the structure partially examined in Area 7 (Batey et al, 1983, 53-4) at Freswick, which has produced a substantial drain which could possibly be part of the byre end of a building. This lack of structural element at the site could be explained in a number of ways; the most obvious one is that there are further buildings to be located on the Links. Alternatively, it is possible that there was no need for the overwintering of cattle inside during the Norse period in this part of Caithness. It is, after all, less extreme of climate than, for example, Shetland or Faroes although in modern Caithness cattle are often wintered indoors. The lack of structural evidence required to support the idea of a byre within one of the structures already examined on the Links, may be explicable in terms of the arguments put forward by Bigelow (forth). Artefact distribution may be informative, and also he suggests that a byre could be represented, even if the entire area was not fully paved. Again, it has been noted that both at Sandwick (Bigelow forth) and at Jarlshof (Hamilton, 1956, Figure 61) there are separate entrances, particularly in the earlier phases (2, for example). However, Building 6 of Phase 6 at Jarlshof (Hamilton, 1956, Figure 79) does not fit

into this model, there clearly being a byre end to the structure, but no obvious second entrance. The argument for a byre at Freswick must therefore remain unresolved for the present.

There is a relatively wide variety of internal layout represented in the excavated structures in the Late Norse period at Freswick. Only Building IV had a large hearth anywhere near what could be described as the centre of the building. The hearths of Buildings VI, III and I are located at one end of the room, with that of Building III being peculiarly large for the width of the surviving structure; this could be indicative of a differential use of the other end of the structure, where a hearth was not required.

In the excavation of Childe there appears to be the only clear evidence of benches, the other main feature of Norse structures, in the form of a stone line parallel to the wall line of Phase I (Childe, 1943, Figure 1, 6). In Curle's excavations at the south-east corner of Building IV there is a feature which has been described as a bed, but which could also appear to be a truncated bench (Curle, 1939, 84), and likewise possibly in Building VI (Curle, 1939, 90). These are common features throughout Scandinavia and the areas of Viking colonisation. Examples are; Aslákstunga Hín Innri (Erlingsson, 1899, 36) and Stöng (Roussell, 1943b, 85) in Iceland; Fuglafirður, (Dahl, 1958, Figure 2, 121) and Kvivik, Faroe Islands (Dahl, 1965, 137-9); Trelleborg, Denmark (e.g. Schmidt, 1973); and Ytre Moa, Norway (Bakka, 1965, 125). The use of timber in the actual building construction has been noted, for example, at Ytre Moa, Norway (Bakka, 1965, Figure 19, 32) and at Stend (Myhre, 1976, Figure 5, 35), amongst others.

The curious lack of information on Curle's Building II, which apparently lacked all internal features, seems to suggest that this may have been a store area, but it cannot be conclusive. Its possible association with Building I

may be suggested by the fact that it has apparently only one entrance, that leading from Building I. That this was blocked at the time of the building of the bath house, could suggest that it was not in use at the time when that structure was amended. Alternatively, it is possible that the building could have been entered at a level higher than the foundation course, possibly a raised timber floor, as at Papa Stour, Shetland (Crawford, 1982, 3), or for storage, as in Late Medieval Scandinavia, described by Borchgrevink recently (1980).

7.3.3 Ovens and kilns

Only one of the structures examined is recorded as having an oven, that is Building VI of Curle's complex. The type of oven is closely paralleled at Jarlshof (Hamilton, 1956, 109), where it was located in a suggested kitchen area. This could be a possible explanation of the fact that the hearth in Building VI is located at that end of the structure. A possible similar feature noted as a stone lined cooking pit may also be cited from the site of L'Anse aux Meadows in Newfoundland (Ingstad, 1977, 139).

The incorporation of one kiln and possibly a second one in the north of Building VII, presumably indicates a building designated specifically for working. It cannot be judged if the kiln(s) was used for parching the grain which could have been stored in that building (or nearby Building II ?), and dried out within the building on the clay floor, a good heat conductor (Small, 1966, 238-9). However, a clay surface could also have been used to form a threshing floor (Fenton, 1978a, 364), which could also substantiate the presence of grain in that building. The threshing floor from Buckquoy, Birsay, had a paved surface (Ritchie, 1977, 186). Curle, however, notes that the clay overlay the kiln (1939, 95) and this clay deposit is therefore not likely to represent a floor. Alternatively, the kiln could have been used for the drying of fish or

the firing of pottery, and Curle noted the large amount of pottery recovered from this building. However, there is a possible explanation for this which again could refer to the use of the building in the context of grain preparation. Fenton notes the drying of small amounts of grain in pottery vessels (Fenton, 1978a, 375), and this in turn may be an explanation of the presence of large amounts of pottery sherds, exhibiting a variety of rim forms and thus representing a large number of individual vessels.

Regardless of the nature of the use of the kiln itself, there are some interesting details available concerning its actual form. There are two measurements available for the kiln, one in the published report of 9' (2.75 m) from the intake of the vent to the back of the chamber (Curle, 1939, 95), and the other 7'6" (2.32 m) in the notebook (NMRS ms 28b(SAS 461), 55): this difference may possibly be explained by the measurement of slightly different points. The kiln was noted by Fenton as being square (Fenton, 1978a, 379), but the report by Curle is not conclusive on this point. The flue to the kiln was filled with wattle and daub, but it is not known whether it was in situ, i.e. acting as some kind of lining, or whether it represents traces of earlier structures on this part of the site (see below pp. 206-7). The actual width of the kiln was reduced by a stone ledge (Curle, 1939, 95), but there are no further details supplied. It is likely to be coincidental that wattle and daub was found in a flue at Ardestie earth-house by Wainwright (1963, 114).

7.3.4 The Bath House

Amongst other individual interior features which are of interest at Freswick, the 'bath house' in Building I merits closer scrutiny. It is rather difficult to find conclusive close parallels for this kind of feature. A small separate structure was recorded at Jarlshof in Phase 1 (Hamilton, 1956, 110, Figure 53). Its general form is similar, having two entrances and being of roughly

the same square shape. The internal measurements of the Jarlshof example are 13' x 12' (3.96 x 3.70 m), but the Freswick one is less than 6' x 6' (c. 1.8 x 1.8 m). At Jarlshof there was noted a long fire in the middle of the structure, but at Freswick this feature is confined to one corner, possibly because of the lack of available space. The attribution of the structure at Jarlshof as a bath house was not conclusive, as Hamilton alternatively suggested interpretation as a small 'hof' or temple (Hamilton, 1956, 110). Other bath houses have been noted from Iceland, e.g. Gröf (Eldjárn, 1965, 16, Figure 3) and possibly at L'Anse aux Meadows, where Building G has been so interpreted (Ingstad, 1977, 218). One of the main pieces of evidence cited to support the suggestion as a bath house at Freswick, was the presence of an underlying drain, which has however been shown (see p. 181 above) to be an earlier feature and stratigraphically unrelated. Having cast doubt on its function as a bath house, other suggestions for its use could have been a store house or a potter's work area (Curle, 1939, 80); neither of which are conclusive.

7.3.5 The Smithy

The attribution of Building III as a smithy at Freswick, seems safe. Many other sites in the north have produced similar evidence. For example, at Jarlshof one was located at right-angles to the parent dwelling (Hamilton, 1956, 110-111 and Figure 53). The Jarlshof building was paved and measured 21' x 10' (6.4 x 3.05 m), and its main feature was a large hearth. There was a further smithy associated with House 4 (Hamilton, 1956, 159-60), which replaced an earlier one. It is recorded that this made bronze pins, the moulds of which were recovered here.

Two smithies were therefore noted at Jarlshof, and indeed the case may have been so at Freswick. One was excavated by Curle (Building III, Curle 1939, 81-2), and another stone building is recorded at the northern end of the

Links (Shore Ruins, Plate IIA) which is recorded as having slag all over the floor (RCAHMS, 1911b, no. 49, 19). The Ordnance Survey confused this building with that from Curle's complex (OS card no. ND 36 NE 4, 1); it cannot possibly be the same structure for two very good reasons. The first is that the photograph available of it shows it as being relatively upstanding, whilst Building III was very badly damaged and reduced to foundation level at most points. Secondly, the northern ruins are only 200 yards (183 m) south-east of the modern chapel, considerably further north than that excavated by Curle.

The presence of a smithy on this and other Viking sites is not unexpected. They are a common feature, and have been recorded extensively in Iceland, at Skallakot and Stöng for example (Roussell, 1943a, 68-9; b, 84-6), and in Greenland, at Gardar (Nørlund, 1930, 111-112) and other sites. This element would be expected on a site which would have to be self-sufficient. It is interesting, however, that very little slag was recorded at the Icelandic sites, but a large variety of iron objects - knives, pins, rivets and nails, padlock and key, etc. Other sites more within the immediate sphere of Freswick which have produced evidence for on-site smithing, include Birsay, where Curle has noted extensive use of moulds in the immediate pre-Viking period to make copper alloy pins and brooches (Curle, 1982, 26-39), and Hunter's excavations at the site also indicate iron-working (Hunter and Morris, 1981, 255). Also the Udal (Crawford and Switzur, 1977, 131) and Westness, Rousay (Kaland, 1973, 84) have produced this evidence.

7.3.6 Air Vents

An intriguing element in the constructions of a number of buildings examined by Curle and one example from Childe's excavations, was the recovery of a series of narrow vents and drains. Such examples are; Building VI at the west end, Building IV at the north and west sides,

Building III leading directly to the hearth and Building I below the level of the bath house but separated from it by midden (see above p. 181). This disproportionate number of air vents or drains is interesting. Building VI has no definite indications of a byre at the west end, whereas that in Building III leads to the fire and so cannot be a drain; it is more likely to be a flue. This is similar to an example from Underhoull where it is suggested as providing a draught to the fire (Small, 1966, 245). This feature is tentatively suggested as being associated with the raising of steam or smoke, possibly in association with the preservation of fish at the site. This aspect is discussed below (p. 223).

7.3.7 Building Construction at Freswick

The most obvious remains of the buildings recovered are in stone. The actual construction method of the walls at some of the dwellings examined by Curle can be shown to have close similarities with other sites of the period elsewhere in the 'Viking World'. The use of the beach stones has been commented on before in relation to the earlier evidence from the Links. This was seen in the excavation of Building VI in Curle's excavation, particularly clearly in some of the published photographs of those excavations (Curle, 1939, Plates XLIII, 1 and 2; Plates XLIV, 1 and 2). The north, east and west walls are of water-worn beach pebbles in a double line and now badly reduced. The south wall, which is later, is of coursed slabs for the most part, over the beach pebbles and sometimes incorporating them in the construction (Curle, 1939, Plate XLIII, 1). The east end however, has a variation in that it is a complete mixture of pebbles with coursed stone (Curle, 1939, Plate XLIV, 1).

This has also been noted at Drimore Machair (Maclaren, 1974, Plate 1) and at Jarlshof (Hamilton, 1956, Plate XIXc). The use of slabs in the construction of the walls, which is clearly illustrated by Curle (1939, Plate XLIV, 1 and Plate XL, 2)

in Buildings VI and III respectively, can be clearly seen at Jarlshof (Hamilton, 1956, Phate XIX a and b), also in a dwelling and in the smithy. At Sandwick, Bigelow excavated a building which was relatively upstanding (over 1 m) and here the walls are of coursed slabs. There are problems in the consideration of the structures at Freswick, as at Drimore; because of the extensive robbing of the walls, it is not always possible to be conclusive as to the method of wall construction. It is possible that the basal courses of beach slabs were superimposed by slabs, in the manner described by Ritchie (1977, 179) and as seen in modern Caithness.

Many problems have arisen because of the re-use of stone at the site and the superimposition of buildings. The reduced nature of the walling in the north of Building VI and at the west of Building III, the smithy, must suggest robbing to rebuild other structures. The remains of the walling now visible cannot be explained as the foundations for turf walls, because they are not wide enough. Wide walls are particularly common in Iceland , e.g. Stöng, 2 m (Roussell, 1943b, 84), and in Faroe, e.g. Kvívík, 1.5 m (Dahl, 1965, 137-9). It is interesting to note, here, that the south broch wall at Freswick was very badly damaged and may have also been robbed for stone buildings elsewhere on the site (see discussion above pp.154, 159). The use of clay bedding for walling, as seen in the south wall of Building VI (Curle notebook NMRS ms 28a(SAS 461), 14) and in Childe's wall(PQ)(1943, 7), is interesting and can be paralleled at Birsay (Hunter, 1983; Hunter and Morris, 1981, 250).

The use of flat slabs to form level, or levelling, surfaces is also worthy of note. At the east end of Building IV the pathway was levelled up by flat slabs, very much as it was at Underhoull(Small, 1966, 239). The floor of the smithy was also carefully made up of flat slabs (Curle, 1939, 81) but elsewhere, flagging was used to cover drains or put in areas of extensive use.

The form of the buildings at Freswick is interesting in that they lack opposing entrances, unlike examples at Jarlshof (Hamilton, 1956, Figure 79, Building I) and at Sandwick (Bigelow forth.). The relationship of this absence to the potential presence of cattle has been noted above (p.197). The buildings at Freswick are square-cornered, differing from some other Northern examples, such as Drimore (Maclaren, 1974, Figure 1), Buckquoy (Ritchie, 1977, Figure 3) and Underhoull (Small, 1966, Figure 10). This difference can be seen in two sites in the Faroes; at Kvívík, the ends are rounded (Dahl, op. cit.) but at Fuglafirður they are squared (Dahl, 1958, 118-46). The difference may be a response to differing roofing construction, with the curving ends possibly representing a hipped gable, as suggested at Ribblehead (King, 1978, 25). The distribution of the post-holes in Building VI at Freswick could indicate an aisled construction, as at Jarlshof (1956, 107, 160) where the buildings are generally squared at the ends. Of the few remaining post-holes at Sandwick, the indications are that they supported a central ridge-pole (Bigelow, 1978, Figure 2), and at Underhoull, Small notes a similar distribution (Small, 1966, Figure 10).

The use of timber in the construction of the buildings at Freswick is poorly documented, apart from the post-holes in Building VI which indicate an aisled roofing construction. But what other interior features were of timber? The bed in Building IV was presumably composed of wood, and in Childe's Phase I there are suggestions of stone restraints for timber elements (see above p.185). It is also conceivable that Childe's Phase 0 may represent a series of post-pads, or part of a turf-clad wall. In the complex examined by Curle, the area between Buildings I and III, delimited by a series of small stones, could represent the base of a timber partition. Recent work in the Faroes by Thorsteinsson can assist our interpretations of such elements (Thorsteinsson,

1976), where evidence of timber panelling, for example, has been noted in excavation. The use of timber in the construction of houses is well documented in Scandinavia, for example at Ullandhaug (Myhre, 1973, 17), Stend (Myhre, 1976) and Stord (Hinsch, 1960) in Norway. Also in Faroe, work at Kvívík by Dahl (1965, 137-9), and the recovery of the evidence of post-pads at Fuglafirður (Dahl, 1958, 118-46), is additional important evidence in this consideration.

The lack of suitable timber for construction purposes could be overcome in a number of ways. Drift wood as a source of timber is recorded in excavation at Underhoull (Small, 1966, 238), Jarlshof (Hamilton, 1956, 199) for example, also at Birsay (Donaldson et al, 1981, 80), to name the more obvious examples. At some sites, such as Papa Stour, there is evidence for the direct importation of timber for constructional purposes, in that case for a fine timber floor and wall panelling (Crawford, 1982, 1) on the 'royal farm' there. It is also possible, but not supported by any contemporary evidence, that the forests of Sutherland in the southern part of the Norse earldom, may have supplied timber to Caithness.

Apart from the potential presence of timber elements on the site at Freswick, it should be noted that, in the west wall of Building VII in Curle's complex, the skull of a small whale was located. The use of whalebone in constructional positions can also be paralleled at Drimore (Maclaren, 1974), and Buckquoy (Ritchie, 1977, 179) in late Pictish context. Other items employed in the construction of walling or interior features on these sites, include the use of a broken quernstone in the kerb of Childe's hearth (1943, 7), and the incorporation of steatite sherds within the fabric of the walls at Underhoull (Small, 1966, 238)-in the rebuilding of walls which had collapsed because of the rotting of the turf within them.

The presence of wattle and daub at the site of Freswick, below Building VII, has caused many problems in interpretation. It is often difficult

to know if the wattle and daub is associated with any of the walling (as Curle suggests at Jarlshof (1954, 17)), or if it predates all of it, thus leading to incorporation into the fabric of the walling. It is likely to have represented a structure or structural element, but one thing that can be said with certainty is that, whatever its provenance, the structure must have been destroyed by fire; this has led to the baking of it and the resultant preservation. The kiln has wattle and daub within the actual flue, but its significance is unsure, although it could represent a possible lining to that feature. Equally, it is likely that it represents earlier occupation at this part of the site, Curle noting that it looked as if it was laid down flat, possibly suggesting a wall (NMRS ms 28b (SAS 461), 67). Initially, it was thought to be a partition wall of Building VII, but the evidence does not support this because it underlies the walls of that structure. For that reason, it is also not the inner lining of the stone structure because of its stratigraphical relationship with the walling. It must predate Building VII, but it is not known by how much; it could even conceivably be associated with the earliest structure below Building II.

Wattle and daub constructions or elements have been noted at a number of sites, particularly in urban contexts at York, Coppergate (Hall, 1982, 234-6), Dublin (Wallace, 1982, 273; Murray, 1981) and Durham, Saddler Street (Carver, 1979, e.g. Figures 5 and 6). In a rural context, examples have been noted in a pre-Norse context from the Brough of Birsay (Hunter, 1983, 156) where wattle type fencing on Site VIII was suggested as a shelter enclosing or protecting an open working area with hearths; Hunter thinks that it could be a seasonal activity at the site. (Wattle and daub hurdles have been noted as yard-dividers at King's Lynn also (Clarke and Carter, 1977, 60).)

Wattle and daub has been recovered from other sites, including an earlier context. Mackie has noted this in association with the Phase I ground level at the broch of Dun Mor Vaul (1974, 151).

7.3.8 The Phasing and Relative Dating (Figures 23, 26)

It is not possible to relate the structures excavated by Childe to those of Curle; likewise, no precise stratigraphical relationship can be satisfactorily made between the two ranges of buildings distinguished by Curle. Consequently, it is possible only to create a relative chronology with the available information; and it will be seen that this chronology has to be split between three groups of relationships. It ought to have been possible to distinguish phases through an artefact study, but the precise stratigraphical relationships between the objects is usually rather obscure. It is possible, therefore, to make comment on the relative stratigraphy within the groups of buildings which are actually directly inter-related. Three individual groups can be distinguished.

Group 1

This includes Buildings I - III and V and VII. The earliest part of this site (Phase I) is the well-built wall underlying Building II and the mutual wall with Building I; it also underlies Building VII. This is sequentially followed by the main north and south members of Building I (Phase II), with most of the walling of Building II following this. As there is a lack of information on this building much more cannot be said, except that in Curle's notebook (NMRS ms 28b (SAS 461), 67) it is recorded that this phase (Phase III) in the sequence is earlier than the walling of Building VII.

Building III is problematical (Phases III-V) because of rebuilding and alterations, particularly at the junction of Buildings I and III. The junction between the west end of the building and the east chamber is only indicated in Curle's notebook (NMRS ms 28c (SAS 461), 31). It is not clear if this was actually the case, but there are

indications that the other parts of the walling may be alterations. The south pier west of the south entrance in Building III is bedded more deeply than the northern part (possibly because it overlay midden from an earlier deposition) and the west adjacent wall is founded at a higher level than the east part of the structure. Within the 'Ante room' of Building III,a kerbed hearth is recorded in the notebook (NMRS ms 28c(SAS 461), 31) but the relationship with Building I is only indicated on the plan as the next phase, and so it must remain.

Building V, the 'naust' (Phase V),is obviously complex because it is made up of a number of different walls; it is known to overlie Building VII (Phase IV) (Curle, 1939, 74, Figure 1). Building VII itself (Phase IV) has a few structural alterations also; the thick cross wall partially across the mid-part of Building VII predates the two smaller sections of walling coming in from the east side. These have been termed Phase V because of this relationship.

Phase IV or V is associated with Building I, the building of the bath house,which involved the blocking of the entrance in the east wall of that structure. The bath house has within it a dump of clay,and this seals a sherd of Medieval pottery.

Group 2

Buildings IV and VI are the structures involved here. According to Curle, Building VI underlies the west end of Building IV and,therefore,must predate it. The stratigraphical details concerning these are very limited,so a relative chronology must again suffice.

The bulk of Building IV was noted by Curle as the third phase, possibly contemporary with Building II. This evidence is based on relative levels of the final stage of its occupation. This information is rather inconclusive,so

it has been decided to ignore this possible relationship and work within the information provided.

The stratigraphically earliest recorded walling was found underlying the large south wall of Building VI. Although in Curle's excavation trench, this was not recorded until the 1981 work there (Batey et al, 1983, Figure 4). Also underlying the main south wall are the three badly reduced walls of Building VI and a wall below the Phase V walls of Building IV. It cannot be judged whether these are of Phase I or II. The main south wall has been suggested as Phase III,with the secondary cross wall and partial door blocking as Phase IV in Building VI.

The walling and the vent-like construction east of Building VI,and below Building IV (noted by Curle as overlying this walling),cannot be ascribed to a particular phase, but they underlie the walling of Building IV, Phase V (which may or may not equal Phase IV of Building VI). Also, the vent part is likely to overlie the south walling of Phases I or II in Building IV,because they do not appear on the plan of the previous stage in the excavation (Curle, 1939, Figure 2, 75).

Phase VI can be distinguished as a few minor changes only; two blocked entrances in the north wall of Building IV and a small extension of the east wall to form an enclosure. The final phase, Phase VII could be the same as Phase VI,but this cannot be proven. This is suggested at the northern part where the small enclosure is added and an entrance blocked, possibly indicating the same phase of alterations.

Group 3 (Figure 26)

This is the area excavated by Childe and has been dealt with extensively above (p.184). Briefly, it comprises four phases which Childe distinguished, but with a number of modifications and additions. These are particularly in Phase II where the pier(CD)can be shown to predate the adjacent walling also

apparently of Phase II (see Section 2, Childe, 1943, 9). It is also possible that the wall (AK) has two phases within it, the channel leading towards (LMNO) structure to the west, only partially underlying the wall (AK) and suggesting thus two possible building phases. The initial phase (O) distinguished by Childe, could be a timber one, because of its insubstantial nature, and is particularly interesting because it could represent early Viking activity at the site.

There are major problems involved in trying to relate these three groups to each other, although they are located within 100 m^2 of each other. Dating the relative parts cannot really be aided by the study of the artefacts from these different phases because they are often lacking precise layer contexts and stratigraphical information. There are occasional hints at a chronological indicator, such as the Medieval pottery in the bath house or the Medieval pottery associated with the wall head of Building IV. However, unless they are in a sealed context, as that in the bath house appears to be, they could be the result of disturbance, the digging out of foundation trenches for walls for example. The constant re-use of the stone and the building of other structures on the sites of earlier ones has resulted in the loss and damage of large amounts of valuable stratigraphical information, which cannot now be reconstructed. For some parts of the site, further excavations may help to clarify matters, but for much, the above analysis and reworking of the original site documentation is likely to be as far as it is possible to go with the available information. Even so, considerable modifications to, and, in places radical revision of, the earlier excavators' conclusions have been proposed.

Chapter 8

Aspects of the Subsistence Economy of Late Norse Freswick

8.1 Environmental Aspects from the Earlier Excavations

One of the most important elements of the recent work at Freswick is the collection and study of the environmental data. The earlier work at the site did not place any great importance on environmental study, resulting in the recording of brief and isolated comments concerning this. However, when they are collected together they form a useful body of information, particularly when considered with the information gained in the recent excavation programme.

In the 1930s, the work of Lacaille specifically involved the Prehistoric evidence at the site. He noted that a bed containing the early flint assemblage was revealed beneath an overburden containing pot sherds and bone tools (Lacaille, 1954, 185). The deposit itself contained many shells, 'remains of large red deer, birds and fishes' (Lacaille, 1954, 266).

The excavation report of Tress Barry's examination of Freswick Sands Broch is brief, and lacks any information of environmental significance (Anderson, 1901, 143-4). However, the work reported by Edwards is more helpful in this aspect. He notes that prior to excavation, the site of the hut circle was indicated by a scatter of midden deposit sloping down towards the beach. The actual floor of the hut circle, on excavation, was partially paved, with thick clay having limpets impressed into it and a concentration of whelks (Edwards, 1925, 89-90). In the area of Lady's Brow, at the north of the Links, midden deposits of limpets and fish bones were exposed; this is the area north-east of Zone S (see above, page 133), with portions of quernstone, beds of limpets and large amounts of burnt stone exposed. Both souterrains examined had paved passages, one filled with compacted dark soil mixed with limpets. Near the entrance, a limpet bed included a child's jaw and skull fragments. The smaller compartment of earth house B was filled with burnt stone mixed with dark soil (Edwards, 1925, 90-93). His second excavation season concentrated on the site

of another apparent earth house to the north east of A and B, and although no environmental information is given for the actual structure itself, Edwards notes that,on the west side of the building near the wall, a midden with large amounts of fish bone was located (Edwards, 1927, 202). Perhaps the most significant statement deals with the recovery of a highly fragmented pottery vessel, in rough fabric, containing grey matter, later interpreted as the remains of a cod's stomach contents, examined by A. C. Stephen (in Edwards, 1927, 202) (II.1.3).

Both Curle and Childe drew attention to the fact that the site was being badly damaged by storms (Childe, 1943, 5), Curle noting that 'yearly these banks are eroded and driven farther back by the tempestuous winds which prevail on that coast' (1939, 72). Over most of the eroded areas,midden refuse and burnt stones were exposed. Explicit references to midden deposits located during excavation are few. Curle noted that the floor of Building I was covered deep in kitchen midden (1939, 73), as was that of Building II (1939, 80),with the additional important information that one of the walls of Building II was actually founded on midden (1939, 81). The east end of Building VIwas filled with midden and to its south there existed a large midden. In his notebook,Curle records inBuilding VII 'following the wall and digging down through a deep kitchen midden which contains more fish remains than any midden previously explored' (NMRS mss. 28b(SAS 461) 27-8). The significance of this remark will be considered below in relation to more recent work at the site. The report on the animal remains by M. I. Platt (in Curle, 1939, 109) notes the recovery of small mature ox, pony, dogs, sheep, red deer, grey seal, pig, gannet and cod(gadus callarias L.). Childe adds to this scanty picture in the statement that the structures he examined were within a midden deposit 'demonstrably continuous with that on and in which Dr. Curle's buildings stood' (1943, 5). Childe refers to a midden floor deposit in Phase 2

including a tough brownish deposit full of fish bones, separated from the floor and hearth of Phase I by an inch of sand. The west room of Phase 2 had an irregularly paved floor beneath a 'deposit of midden and fish bones' (1943, 10).

The consistent noting of fish bones within the middens is interesting in the light of more recent excavated deposits. The fact that so few individual components of the middens are noted must indicate that the fish bone was present in great abundance, as other elements such as mammal bone are rarely noted. The overall significance of these deposits is discussed below (p. 219-24).

Previous excavations at the site, therefore, had referred to the extensive midden deposits on the Links, but often only in a superficial manner; there certainly had never been any detailed examination of the deep deposits, seen so clearly in the eroding cliff section. It was, therefore, decided that such an examination should form a major element in any renewed campaign and, to a large extent, most of the following work was structured to this end (with the exception of the excavations at Area 1, the Broch, and Area 2, Curle's Building VI). Two environmental specialists (D. J. Rackham and A. K. G. Jones) were introduced to the site to examine various aspects, and an interim report based on their findings follows.

8.2 Environmental Survey, 1979 (Figure 27).

An auger survey was carried out in order to ascertain the extent of the midden deposits to the west of the eroding sand cliffs. Although the survey was partial, it did indicate considerable differences across the Links, with an absence of midden in the northern area, except in one small section in a raised dune. This contrasts with the considerable survival of midden deposits in the southern area. However, even here there is apparently a concentration to the seaward side, suggesting that in some parts of the site as a whole, the midden has been largely destroyed by human or animal agency as well as natural forces. Coring in the central area, on the other hand, indicates that the midden extends up to 100 metres

inland, although gradually becoming thinner.

Seven groups of phosphate samples were taken from coastal locations for analysis by Mr. M. Alexander of Durham University. The intention here was to test the feasibility of carrying out a phosphate survey on the Links. The samples taken at the northern end of the Links suggested natural soil levels of phosphate. In the area around Zone D and northern Zone E, i.e. mainly in the vicinity of Childe's work east of Curle's area, and further south towards Zone F, the tests clearly picked up the midden horzons and seemed to differentiate between midden and buried dune surfaces. Leaching had not significantly affected the phosphate values (Rackham et al., forth).

The sand cliff is eroding heavily in places and it is apparent that much of the midden has been, and is still being, lost. Although the eroded cliff edge shows that the midden deposits are immense, the actual landward extent is uncertain. The visible sections of the deposit show a very clear stratigraphy with a number of layers that can be traced for some metres; the total thickness of the deposit varies somewhat around 75 cm.

In order to make some assessment of the potential of these deposits, four samples were taken from the cliff section in Zone D for analysis in 1978. The samples were taken as a column of four, each sampling about 15 cm of the section at a point where the depth of the deposits was approximately 60 cm. The sample column was 22.5 cm wide by 20 cm deep. There were varying characteristics plainly visible in the stratigraphy of the section that were later confirmed when the samples were processed. The samples were all wet-sieved through a series of sieves with diminishing mesh size; 3.35 mm, 1.0 mm and 600 mu apertures. Floating material was collected, as it washed over, in a 300 mu sieve.

Different concentrations of material were noted, despite the crudity of the stratigraphical differentiations. Fish was concentrated mainly in the 68-72 cm

band and differences in fish ranging from ling at the top to cod and haddock and then cod. Limpet shells were concentrated towards the top of the profile, as were burnt and scorched stones. Some carbonised seed was recovered especially in the upper sample, which included hulled barley (Rackham et al., forth.).

A second column sample, 1.5 m x 45 cm x 30 cm, was taken from Zone E and sampled in a more detailed manner with 15 stratigraphical contexts distinguished. The archaeological indications are more interesting. As in the previous sample, the percentage of fish bone and molluscs in the samples far exceeded that of the mammal bone. The range of mammal bone present includes ox, sheep/goat, rodents, small mammal. Although cod, saithe and ling, varying in size between 30 cm and over 1 m, were predominant, other species were noted in fewer numbers; these include eel, haddock, whiting and herring. The most important feature of the fish bone present is that it is all in very good condition and includes elements not often recovered on archaeological sites, such as otoliths, fish scales and tiny fragile bones.

These preliminary results suggest a fishery at the site specialising in the capture of large cod and ling, discarding other coastal species (Rackham, et al., forth.). The small size of the sample would invalidate, at the moment, any generalisations about the site as a whole, although the indications are that the percentages of material seem consistent with other samples examines from the site (Rackham, et al., forth.).

8.3 Environmental Work, 1980

Work in the 1980 season was organised by A.K.G. Jones, and continued to explore the composition of the midden deposits. This took the form of sieving the

entire contents of Area 4; thus, in effect, four adjacent 1 m square columns were examined. The trench was excavated to a depth of approximately 1.25 m where clean wind-blown sand was encountered. In addition, a number of samples of comparable size were processed from other areas excavated during the season. By far the majority of the samples were washed using a 'bulk-sieving tank' as described by Kenward, Hall and Jones (1980). One millimetre mesh was used both within the tank and on the flot sieve. The water supply was pumped from Freswick Burn.

In the region of four tonnes of soil were processed in 1980. The resulting residues are extremely rich in fish bones and marine mollusc with lesser quantities of mammal and bird bones, and crustacean remains (including barnacle plates and crab exo-skeleton fragments). Macroscopic plant remains are restricted to a few carbonised grains and the occasional piece of heather (Calluna vulgaris). The number of charred grains in the deposits is very small: usually 5 - 10 grains per 60 litres of soil.

Although detailed analyses are far from complete, it is possible to present some general comments on the kinds of fish present. The majority of fish bones are from large members of the cod family (Gadidae); saithe (Pollachius virens) ling (Molva sp.) and cod (Gadus morhua) dominate the assemblages. In addition, haddock (Melanogrammus aeglefinus) and flat fish bones are fairly common. Perhaps surprising at first sight is the discovery of fairly large numbers of tiny fish bones. These are from fish in the region of 0.10 m in length. It seems probable that these bones were discarded with the viscera of the larger fish, and represent the last meal of the larger food fish. Of particular interest are the relatively large numbers of otoliths and otolith fragments. These are in a good state of preservation and should prove of great value when considering the age, size and possible season of capture of the fish.

8.4 Environmental Work, 1981 (Figure 10 (Zone S = Area 9) and 11)

The main environmental objectives of the 1981 season were to sieve soil samples from the four cliff-side trenches (Areas 5 - 8 inclusive), to examine an area to the north of Lady's Brow (Area 9) and to continue sampling Area 2 (midden deposits in and around the buildings excavated by Curle in 1937-8). While some samples appeared to consist mainly of plant remains, identifiable macro- and microfossils were not observed, suggesting that organic preservation is not good. A coprolite was also examined but no identifiable animal remains were recognised. While detailed analyses are far from complete, the fish bones recovered from the 1981 season are broadly similar to those obtained in 1980, i.e. the majority of the fish bones are from large members of the cod family (Gadidae), dominantly saithe, ling and cod; also haddock and flat fish bones are relatively common. A number of cattle bones were recovered from the samples at Area 2 but less common at the cliff edge trench Area 4 (Jones et al., forth.), of 1980.

In addition, a small number of samples were examined microscopically to assess the preservation of animal and plant remains smaller than 1 mm. A gouge auger was also tested to determine if it might be appropriate for examining midden stratigraphy in areas that will remain unexcavated in the present project. (Preliminary augering had taken place in 1979, with interesting results; see pp. 214 - 215 above, for details of this). The auger was tested on an area to the south of the site, with a number of cores being taken along grid line 275. After much hard work, the attempt was abandoned because of the difficulty of pushing the auger into the soil. The force of inserting the auger compressed the core of soil, thereby obscuring the stratigraphy of the section examined. In brief, the gouge auger is not a suitable tool to explore the whole of the Links, but it did prove useful in probing particular areas in order to see if midden lay below.

In conclusion, with the end of the 1981 work, it has become clear that

the site is so extensive that resources will, in future, have to be concentrated on particular aspects. With the completion of sample Areas 4 - 8, an unparalleled mass of environmental data, mostly (but not exclusively) from the late Norse period, will be available from Zones C, D and E for analysis. The results outlined here are dealt with more fully elsewhere (Batey et al., 1981; Batey et al., forth.a). The importance of the renewed campaign of excavation at Freswick lies in the fact that all midden-like deposits encountered during excavation have been subject to detailed environmental analysis. This integrated approach, combining environmental information with the archaeological study, has resulted in a much broader and more comprehensive, understanding of the site, providing insights into the environment and economy of the site in the late Norse period.

8.5 The Economic Significance

Advance in archaeological method and the awareness of economic and environmental indicators has resulted in the recovery of a mass of such information from this site (Jones et al., forth; Rackham et al., forth).

Work in 1981 revealed a series of probable cultivation marks at the northern part of the Links, shown in section in Zone E at the heart of the erosion, and demonstrated in 1982 to continue at the south end of the Links. Whilst at this early stage it cannot be fully substantiated, it is likely that barley and oats were being cultivated at the site (Batey et al., 1981, 24; forth.a; Rackham et al., forth.). It is hoped to be able to support this presence archaeologically, already indicated by the recovery of carbonised seeds from the deposits, and by the presence of the impressions on the grass tempered pottery. It is also conceivable that Building VII in Curle's excavations was being used as a threshing area with a kiln for parching the grain. This would suggest production, therefore, probably for the population at Freswick, in an area which is today still of importance for such crops. Whether this was being sent inland, to settlements as yet archaeologically

unattested, to people who could not provide their own cereal (but perhaps could exchange peat) cannot be proven, only suggested.

The recovery of the bones of small cattle at the site (Rackham, pers. comm.) and particularly in association with the settlement (see above in relation to the Area 2 midden deposits (Jones et al., forth))serves to indicate a mixed economy. The almost complete skeleton of a pig,however, from Area 4 (1980) may raise a slightly different point. Many pig bones were recovered from Jarlshof in a late Norse context (Platt, 1956, 215),but Bigelow notes very few at Sandwick (Bigelow forth) and suggests that they would be uneconomic to keep in forage in a northern environment on a settlement the size of Sandwick. They may also be destructive for cropped areas unless sufficiently restricted. It cannot be guaged from a single skeleton, although other bones may be amongst material now being processed, whether pigs were common at the site. It is likely, however, that there would have been sufficient space to keep them because,in contrast to Unst, Caithness is a relatively rich area, especially in the immediate vicinity of Freswick itself.

The presence of a mixed economy at such a site as Freswick, does not cause surprise. Nor indeed does the presence of fishing evidence; for a seafaring people, the sea is an easy place to exploit. However, the degree of this exploitation as exhibited at Freswick, is astounding. There are layers on the site which are entirely composed of fishbones. The earlier excavators also continuously note the presence of fishbone. There is evidence from the middens so far excavated that deep sea fishing was taking place on a very large scale, probably commercially (Batey et al., forth); the resources needed to support this must have been considerable. It is likely to have been selective, in favour of cod, ling and saithe (Batey et al., 1981, 24-5), with the element of small fish being explicable as the content of large fish stomachs. Parts of fish of up to 2 m in length have been recovered and are commonly in excess of 1 m. The density of the fish

remains must indicate commercial activities - there is too much to indicate home consumption alone. Indications at a preliminary level are that different areas of the site were involved in differing processes such as gutting and heading. The fish bones near Area 2 (Curle's Building VI), are more damaged and suggest possible consumption at this area (Jones et al., forth).

As can be seen from the catalogue of finds from the site (see Part III), there are relatively few artefacts which can be readily assigned to fishing activities. Small's work at Underhoull produced a vessel fragment described as for rendering down fish livers (1966, 242, Figure 14). The plummets and sinkers are very few in relation to the numbers which must have been needed. However, only a small area of the site has been examined and it is possible that this evidence is largely restricted to a specific area. The paucity of fishing equipment recovered contrasts greatly with the large amounts found at Jarlshof, Hamilton,for example, noting a marked increase in the numbers of steatite line-sinkers from Phase 5, a late Norse context (Hamilton, 1956, 157) onwards. Goodlad has made an interesting observation on this phenomenon (Goodlad, 1971, 54), suggesting that the increased deposition of linesinkers could reflect the fact that they were an obsolete method and consequently discarded. There are some examples from Freswick which are obviously broken or damaged (e.g. 6.1.19 , 6. 1.23), and therefore would have been abandoned. It is possible that the deposits so far examined at Freswick, mainly the midden tips, the rubbish, have resulted in a bias of this type of material.

If the present consideration of the fish material, which forms the bulk of all the sieved deposits, should substantiate the suggestion of commercial fishing, there are problems involved. The main problem is a lack of comparable contemporary sites. Most of the Norse sites excavated in the North have produced evidence of fishing in the economy, usually within a mixed economy.

These include, for example, Jarlshof (Hamilton, 1956, 6); Sandwick (Bigelow, forth); Birsay (Seller, 1982, 133) and Buckquoy (Ritchie, 1977, 191), with fishing apparently being of variable importance at each of the sites mentioned. The problem is, however, where the fish was being sent from Freswick. Was it being sent inland to supply non-specialist sites? Or was it being sent further afield? These can only be suggested as possibilities at the moment, because nothing can be proved.

Another chief problem is the consideration of the way in which the fish was being treated at the site. There are extensive tracts of burnt stones which could indicate smoking or boiling of the fish; it could have been salted in barrels using sea salt, but there is no archaeological evidence to support this suggestion. It is possible that there will be no structural traces to find in association with the drying of the fish; Fenton illustrates, for example, the use of a rocky foreshore for drying the fish, at the beginning of the century in Shetland (Fenton, 1978a, Figures 269-70, 579-80). Alternatively, Building VII's kiln could have been used for smoking the fish, with drying or storing taking place in the remaining part of that building, or even in the adjacent Building II. There are a number of vents and drains at Freswick, some of which cannot be explained as hot air ducts (as Building III, leading to the hearth) or drains (as possibly Building VI which could be for cattle drainage). The vents below the west end of Building IV for example and the one below the bath house in Building I, may have served a different purpose; conceivably this may have been associated with the processing of fish at the site.

It had been hoped to confirm this suggestion by analogy with other sites which have produced archaeological deposits rich enough in fish remains to suggest fish processing. Some sites, such as Exeter (Wilkinson, 1979, 80), Fuller's Hill, Great Yarmouth (Rogerson, 1976, 131-235) or King's Lynn in Norfolk (Wheeler,

1977), although suggested as fish processing sites, have failed to produce anything distinctly identifiable in a structural sense which could be associated with the fishing aspect. However, perhaps this suggestion may be supported by examining two other sites, one late Anglian or Anglo-Scandinavian, but the other Roman. Excavations at St. Mary Bishophill Junior, York, revealed a re-used Roman building associated with the processing of herrings or sprats. Large quantities of scales and fish bones were found compacted on the damaged Roman surface. In association with this, 40 post-holes, a clay-lined pit and a culvert which was lined with re-used Roman stone were located (Wilson and Hurst, 1963, 312; 1964, 238-9). It is thought that the post holes may have been racks or shelf supports for the drying and processing of the fish (Cramp, 1967, 18). Excavations at the Tower Bridge site of Peninsular House in London have revealed clear evidence for the processing of herring and sprats along the waterfront (Bateman and Locker, 1982). Here a deposit of fish remains was found over a timber floor and filling a contemporary drain in the floor, dated to the late 3rd to early 4th centuries. The suggestion of commercial activity at these sites is based on the large amount of the same kind of fish being represented, rather than on anything structural. This association with drains may indeed be circumstantial but the possibility cannot be ignored that this may be a feature linked with the 'industrial' side of the site's economy.

The economic indicators at Freswick, therefore, suggest a mixed economy with a great bias towards fishing. As there is no conclusive evidence at this site for earlier Viking occupation, the transition from farmers to fishermen cannot be substantiated here as at Jarlshof (Hamilton, 1965, 6) or Birsay (Seller, 1982; Donaldson et al., 1981, 77 and references therein).

There appears to be no archaeological evidence to suggest a reason for the abandonment of this settlement. It does not appear to have been obviously overwhelmed by sand, nor to have been destroyed by fire. As far as it is possible to judge, the many resources available at the site do not seem to have changed, although conceivably the banks of cod and ling may have moved (see above). This feature has been noted in relation to herring shoals elsewhere (Marcus, 1980, 144). Possibly the growth of other sites in the area, such as Staxigoe (although only dating back as yet to the 18th century with certainty (Dunlop, 1982, 131)), may have resulted in the gradual move away from Freswick. It is, however, a documentary study of the 13th and 14th century economy which may assist in this part of the study, in conjunction with work on the local political history. Archaeology cannot yet answer this question.

PART THREE

THE ARTEFACT ASSEMBLAGE

Chapter 9

Metals

Introduction to the Catalogue of Artefacts.

Entries in this catalogue have been divided in the first place according to material type, and then, within that, by artefact type. They are listed in the following order:

Metals.Chapter 9.

1. Gold.
   - 1.1 Finger Rings.
   - 1.2 Pins.

2. Silver.
   - 2.1 Brooches.
   - 2.2 Pins.
   - 2.3 Coins.

3. Lead.
   - 3.1 Whorls.
   - 3.2 Waste (Appendix A).

4. Copper Alloy.
   - 4.1 Strap Ends.
   - 4.2 Buckles.
   - 4.3 Mounts.
   - 4.4 Brooches.
   - 4.5 Finger Rings.
   - 4.6 Bracelets.
   - 4.7 Tweezers.
   - 4.8 Pins.
   - 4.9 Needles.
   - 4.10 Sheet Metal.
   - 4.11 Lace Tags.
   - 4.12 Miscellaneous.

5. Iron.
   - 5.1 Strap Ends.
   - 5.2 Buckles.
   - 5.3 Knife Blades.
   - 5.4 Padlocks and Keys.
   - 5.5 Nails and Rivets.
   - 5.6 Miscellaneous.
   - 5.7 Amorphous Iron (Appendix A).
   - 5.8 Waste (Appendix A).

Stone and Glass. Chapter 10.

6. Stone
   - 6.1 Sinkers and Weights.
   - 6.2 Whorls.
   - 6.3 Vessels and Vessel Sherds.
   - 6.4 Stone Discs.
   - 6.5 Quernstones.
   - 6.6 Hones.
   - 6.7 Beads.
   - 6.8 Chipped Pebbles.
   - 6.9 Arrowheads.
   - 6.10 Scrapers.

6.11 Retouched flakes and fragments
6.12 Cores.
6.13 Non-artefactual(Appendix A).

7. Glass — 7.1 Vessel fragmnets.
7.2 Beads.

Bone and Antler. Chapter 11.

8.1 Pins.
8.2 Needles.
8.3 Roughouts.
8.4 Points.
8.5 Pin Beaters.
8.6 Spindles.
8.7 Whorls.
8.8 Antler combs.Single-sided composite.
8.9 Antler combs.Double-sided composite.
8.10 Comb-case.
8.11 Handles.
8.12 Snecks.
8.13 Gaming Pieces.
8.14 Perforated metapodials.
8.15 Miscellaneous.
8.16 Non-artefactual(Appendix A).

Pottery and Fired Clay. Chapter 12.

9. Wheelturned Glazed Pottery. — 9.1 Handles.
9.2 Rims.
9.3 Wall sherds.

10. Wheelturned Non-Glazed Pottery. — 10.1 Handles.
10.2 Bases.
10.3 Rims.
10.4 Wall sherds.

11. Grass Tempered Pottery. — 11.1 Complete Vessels.
11.2 Handles.
11.3 Bases.
11.4 Rims.
11.5 Wall sherds.
11.6 Whorls.

12. Hand-made Gritted Pottery. — 12.1 Bases.
12.2 Rims.
12.3 Wall sherds.

13. Burnt Clay. — 13.1 Loomweights.
13.2 Whorls.
13.3 Daub.

14. Shell. (Appendix A) 14.1 Non-artefactual.

For the purpose of consistency and ease of referencing, each entry is numbered consecutively with a unique number. This number is composed of three separate elements; thus, for example, 8.1.10 is a bone item, in the first category, which is pins, and it is the tenth entry to be made under that heading. These catalogue numbers are used in the discussion sections, which follow where possible,the order of the artefact types in the catalogue.

The order within the artefact grouping is by separate collections as follows:

National Museum of Antiquities of Scotland, Edinburgh (- NMAS).
Other Museum Collections.
Collection of Margaret Rosie, Midtown, Freswick(-Rosie).
Other Collections in Caithness and elsewhere.
Recent Work on site by C.E. Batey/ Durham University.
Not Located.

Further ordering within the NMAS entries is based on numerical ordering of the NMAS accession numbers, which are recorded in each entry.

Within the individual entries, there is also a set order, as follows:

-brief description of the item (s).

-measurements in millimetres (mm),L-length,W-width,T-thickness,D-diameter.

-NMAS or other museum accession number; excavation number where available,from Curle's excavations (FR- 1937 season, FS- 1938 season) or Childe's excavation number (Childe no.).

-any references, generally relating to the NMAS accession, and any other references available from publications. Specific notebook entries are added if no details of the find are available in the published reports.

-any locational/contextual information available, generally provided by the notebooks, excavation reports or NMAS accessions catalogues.Finds from the recent work are identified by Zones as previously defined in the text eg. FL79 indicates the season of work, UJ indicates that the find came from Zone J, and SF no. 35 indicates its site record number.

-Figure or Plate number in this thesis.

It is hoped that this method of correlating diverse information about finds from a variety of sources will be flexible enough to enable the catalogue to be used for a variety of purposes. It has been prepared on a microprocessor, and can be sorted using different criteria. It has also been devised in a manner that can take account of further work on the site, as the numbering scheme can be extended with new discoveries.

1.GOLD

1.1 Finger Rings.

Rosie Collection.

1.1.1 Damaged ring,decorated on bezel with three circular perforations and radiating line decoration,probably gem settings.Probably modern.
D23,W4 max,T1mm.
Figure 20A.

1.1.2 Incomplete and uneven ring,possibly gilded,traces of worn hallmark.Probably modern.
D23,W3,T3mm.

1.2 Pins.

Other Collections.
Not Located.

1.2.1 Object of gold and iron,possibly a pin for a brooch.
Not available for measurement.
Saxon,Thurso.

2.SILVER

2.1 Brooches.

NMAS

2.1.1 Approximately half silver gilt penannular brooch, with dragon head terminal,incised hatched decoration within fields.At mid-point around the circumference, an area of decoration around a central boss bounded by curvilinear frame.Underside completely plain.
D 56 externally,D42 internally,W8,T1.5mm.
IL 559 FS63.
Donations 1939,335 no.10.(Alexander Sinclair).
Curle 1939, 100-102,pl.XLVII no.6.
Laing 1975, 309 fig.111 no.18.Wilson 1973,89 no 7.
Found in small chamber at west end of Building IV.
Plate 22A.

2.1.2 Half small silver gilt penannular brooch,flat on underside with file marks. Upper surface partially gilded and remains of amber setting.Quadrilateral terminal with lines and circles radiating from the central setting.
L25,W5,T2mm.
IL654.
Donations 1940, 151.Illus. pl. LIV no.2, and note, 138 no.7. (Purchase). Edwards 1940,138.Wilson 1973,89 no 8.
Plate 22A

2.2 Pins

NMAS

2.2.1 Hand pin with lower part of round sectioned shank,slightly bent.Three circular areas at head have traces of green enamel. Lower semi - circular portion has small central opening,solid area filled with blue glass. Two trumpets subdividing spandrels filled with green enamel marbled with red.Three grooves around the edge are filled with green and red enamel.
L105,D3mm.
FC254.
Donations 1947,196 no 4.Illus.fig.1.3,192 (Purchase anon.)
Found in ruined structure on Links.
Plate 22B,C

Other Collections.
Not Located.

2.2.2 Two domestic silver pins.
-3 Not available for measurement.
Saxon ,Thurso.

2.3 Coins.

Rosie Collection.

2.3.1 Worn coin of James II (1437-60),Edinburgh mint,long used possibly c 1480-90.Indistinct crowned head on obverse,short cross with three dots in each field.Legend rather indistinct. Irregular shape.
D15,T1mm.
Plate 23A,B

Not Located.

2.3.2 Worn silver penny of Henry lll inscribed 'Willem on Lund' from London mint,1258-72.
Curle 1939,102.
Surface find.

3.LEAD

3.1 Whorls.

NMAS.

3.1.1 Small roughly conical weight with large central perforation.
H6,W19,D hole 10mm.
HD 501.
Donations 1935,246 no. 1(Bremner)
Figure 28B.

Not Located.

3.1.2 Small piece of lead with perforation.
L10,W17mm.
FS 40

Curle notebook,NMRS ms 28 a (SAS 461),58.
Found clearing the foundations of Building V.

4. COPPER ALLOY

4.1 Strap Ends.

NMAS

4.1.1 Possible schemmatized zoomorphic design,including two open fields. Cross bar for attachment to belt still remaining. Double sided.
L62,W15.5,T4mm.
IL558 FS46.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100 ,plate L,5.
Found above floor level, on level with wall head of Building VI.
Plate 23C

4.1.2 Strap end ornamented with a single animal seen from above.Long tapering snout and serpentine body.Derived from English Urnes style (pers.comm.O.A.Owen).Slightly hollowed on under side and split for attachment at broader end.Two rivets remaining.
L45,W 12 max.,T4mm.
IL 672
Donations 1947,196,plate XXIV, no4 (Purchase Bremner)
Curle 1954,note 39,56 and fig.24.
Plate 23C

4.2 Buckles.

NMAS

4.2.1 Roughly D-shaped,complete except for tongue,flat underside, thicker where tongue touches the bar.
L21,W25,T2-4mm.
HD 560.
Donations 1936,358 no.3 (Bremner).
Figure 28C

Not Located.

4.2.2 Buckle with thicker outer edge and transverse lines,short sides rounded. Iron tongue rusted to narrow bar forming fourth side.
L15,W11,T3mm
TXB 11
Possible Edwards donation?
From excavated Earth House

Rosie Collection.

4.2.3 Complete buckle pin, head formed by overturned metal.Shank smoothed.
L51,D3,headD5,perforation L3mm.

4.2.4 As above,head crook like with two simple incisions at neck.Tip flattened.
L55,D2,headD9,perforation L7mm.

4.2.5 Damaged buckle pin,shank broken and twisted.Loop complete.
L38,W5,headD11,perforation L6mm.

4.2.6 Approximately half of a rectangular buckle,no tongue remaining.Square section.
L19,W16,T1mm.

4.2.7 Incomplete D-shaped buckle,lacking tongue.
L 13,W12,T2mm.

4.2.8 Complete double-sided buckle of ' spectacle' form with tongue of tapered metal around central member.
L26,W18,T2mm,tongue L15mm.
Plate 24A

4.2.9 Fragment of buckle with slight corrosion and traces of flattening where tongue touched the bar.Slight thickening towards the middle.
L35,W5,T4mm.

4.2.10 Small oval buckle,complete.Tongue slightly decorated by an additional line.Formed by bending of single piece of metal not joined where tongue attached. Metal thicker at centre of buckle.
L17,W10,Tmax.2mm.
Plate 24A

4.3 Mounts.

NMAS

4.3.1 Square button or stud with part of square shank on rear face. Upper surface divided into quadrant fields by deep incisions,infilled with yellow champlevé enamel.
L13,W13,T2mm max.
FC256.
Donations 1948,322 no 5 (Purchase anon)
Found inside end of broch passage.
Plate 24B

4.3.2 Hexagonal slightly domed piece of sheet copper alloy,traces of two small iron rivets at opposing edges. Possibly a mount.
L26,W25,T1mm.
HR910.

Donation 1940,151, no.5(Purchase).
Figure 28D

4.3.3 Possible head of convex button,conical and hollow. Lower edges inward turned.
H8.5,W15,T1mm.
HR1015.
Donations 1950,230 no.38 (MC Bremner)

4.3.4 Possible head of convex circular button / mount,edges slightly worn.On underside small piece of metal at apex could indicate method of manufacturing or of attachment.
H3.5,W18,T1mm.
HR1015 (dup.no.).
Donations 1950,230 no.38 (MC Bremner).

4.3.5 Small fragment of sheet metal with two copper alloy rivets remaining,possible mount.
L4,D10,rivets L3mm.
IL 565 FS15.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 48.
From surface of south gulley.

4.3.6 Piece of decorative copper alloy,possibly part of a mount or brooch. Lozenge shaped rod with two notches,roughly arc shaped and misshapen.
L33,W4,T3mm.
IL 567 FS14.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 48
Found near wall head of Building II.
Figure 28E

4.3.7 Button with circular shank,square with cut corners,decorated with a circular medallion of hatched lines and a row of 5 stars diagonally across the centre.
L11,W11,T1mm.Shank D4mm.
TK 45.
No reference.

4.3.8 Rectangular strip of sheet metal,curving section with two small rivet holes,one rivet remaining.Slight damage at one side.
L22,W3.5,T1mm.
Not accessioned.
Curle notebook,NMRS ms.28a (SAS 461),46.
Found in upper occupation level.
Figure 28F

4.4 Brooches.

NMAS

4.4.1 Complete plain annular brooch,circular in section with flat pin.Head of pin decorated by four small incisions,slightly swollen towards point.
D28.5,T3mm.Pin L25mm.
HR 908
Donations 1940,151 no.5(Purchase).
From North end of the Links.
Figure 29A

4.4.2 Complete plain annular brooch,circular in section with flat pin.Head of pin decorated by two incised dots, attached to the ring in a recess.
D21,T2mm.Pin 19mm.
HR 909.
Donations 1940,151 no.5(Purchase).
From North end of the Links.
Figure 29B

4.4.3 Elaborate brooch with star-like form,broken in two and tapering at one of breaks to where an iron tongue was attached Round in section.
D65,T3mm.
NGA 241.
Donations 1950,230,no38.(MC Bremner)
Figure 29C

4.4.4 Small circular cast brooch,lacking tongue.Empty stone setting in chamfered ring.
D19,T2mm.
NGA 252 FS 3.
Donations 1939,335, no 10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 46.
Found in upcast from exposing wall to east of Bath.
Figure 29D

4.5 Finger Rings.

NMAS

4.5.1 Simple ring,circular section and complete.Undecorated and join not visible.
D internal 15,external 21,T3mm.
HR 814.
Donations 1926,10 no.4(Edwards 1925).
From Middens.

4.5.2 Penannular ring of sheet metal,in two fragments.Corroded and bent,tapering towards join.
D15,W8.5mm.
IL 560 FS 84.
Donations 1939,335 no.10 (Alexander Sinclair).

Curle 1939,102,pl.L no.10.
From upcast from west end of Building III.

4.5.3 Incomplete penannular ring in sheet metal,simple incised criss-cross design on bezel.
D17.5,W2mm.
IL561 FR10.
Donations 1939,335 no.10.(Alexander Sinclair).
Curle 1939,102, pl.L no.9.
Found in space on right of doorway to Building IV.
Figure 29E

4.5.4 Simple penannular ring in sheet metal,undecorated and slightly overlapping at the join.
D23,T7mm.
IL679.
Donations 1948,322, no.5 (Purchase anon).
Figure 29F

4.5.5 Finger ring of narrow wire loop, circular section widening to oval bezel in shape of truncated cone.Stone missing but traces of white substance remaining.
D internal 19mm,T1mm,bezel H 3mm.
NJ 112
Donor unknown
Midden area.

Rosie Collection.

4.5.6 Badly misshapen curving metal offcut. One of the sides is cut cleanly, the other more torn.
D13,T1mm.

Other Collections.
Not Located.

4.5.7 Simple annular alloy ring.
No dimensions available.
MacCallum,Thurso.
Plate 26

4.6 Bracelets.

NMAS

4.6.1 Simple ring of round- sectioned metal, decorated with incisions.Joint originally covered by a small sleeve of metal,now broken away at this point,one side slightly tapers to the joint.
D47,T2mm.
IL 562 FS9.
Donations 1939,335 no.10.(Alexander Sinclair).
Curle 1939, 102,pl L no.6.
From upcast of deep wall to east of Bath.
Figure 30A

4.7 Tweezers

NMAS

4.7.1 Flat strip of decorated metal,top broken, possibly originally part of a pair of tweezers.Decorated in pairs of ring and dot motif,also three incised triangles with the same motif, at top and bottom of these rows.Metal thinner at top end where broken.
L39.5,W4.6,T2mm max.
IL675
Donations 1948,319, no.32(Bremner).
Figure 30B

4.7.2 Irregularly bent strip of copper alloy originally forming tweezers.
L45,T3mm.
IL680
Donations 1948,322,no.5 (Purchase anon).

4.7.3 Regularly bent strip of copper alloy forming tweezers, undamaged.
L52,T5mm.
IL 697.
Donations 1948,322, no.5 (Purchase anon).
Figure 30C

Rosie Collection.

4.7.4 One complete pair of tweezers.
L37.5,Wmax.6,T5mm.
Plate 24C

4.8 Pins

NMAS.

4.8.1 Bent shank with round section,discoidal flat head ornamented on either side by three dots.
L95,D3mm.
FC 251.
Donations 1942,134 (Purchase anon).
Laing 1973,62 fig. 5 no. 32;Laing 1975,328, fig. 124 no.23a
Plate 25C

4.8.2 Shank with round section,point lacking and globular head,empty stone setting on top of head. Criss-cross incisions on head and mid-way down shank,where it is delimited by two pairs of horizontal incisions.
L53.5,D2mm.
FC 257.
Donations 1948,322, no.5 (Purchase anon).
Stevenson 1955, 284 no.22;Laing 1973,61, fig. 4 no.2.
Figure 30E

4.8.3 Complete pin with round head of twisted metal,straight shank with circular section.
L42,D1mm.
HR 824
Donations 1928,82 no.4(Bremner).
Found near the earth house.
Plate 25D

4.8.4 As above but with bent shank.
L47,D1mm.
HR 825
Donations 1928,82 no.4(Bremner).
Found near the earth house.
Plate 25D

4.8.5 Pin with swollen shank and disc-shaped spatulate head.Incision below head,round section.
L41,D2mm.
HR 994.
Donations 1950,230 no.38. (MC Bremner).
Laing 1973,70 no.26 (not illus)
Plate 25C

4.8.6 Pin with spatulate pointed head,slightly damaged.Incisions below head and mid way down the shank, round section.
L49.5,D1.5mm.
HR995.
Donations 1950,230 no.38 (MC Bremner).
Laing 1973,62,fig.5 no.27
Figure 30F

4.8.7 Pin with spatulate, chisel - shaped head,point missing.Shank has round section.
L30,D2mm.
HR996.
Donations 1950,230 no.38.(MC Bremner).
? Laing 1973,62,fig.5 no 29 (wrongly labelled HR 896)
Figure 30G

4.8.8 Pin with spatulate head and point missing,round section.
L50,D1.5mm.
HR 997.
Donations 1950,230 no 38.(MC Bremner).
Laing 1973,62,fig.5 no.28

4.8.9 Shank of needle/pin,no perforation,round section.
L75,D3mm.
HR 998.
Donations 1950,230 no.38 (MC Bremner).

4.8.10 Corroded pin with slightly bent shank.Seems to have been damaged at head since Laing 1973.
L79,D3mm.

ER 999.
Donations 1950,230 no.38 (MC Bremner).
Laing 1973,63 fig.6 no.39
Figure 30H

4.8.11 Crutch-headed pin,round sectioned and tip chipped,corroded.
L113,D5mm.
IL 564 FS 27.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 102,pl.L no.7.
Laing 1973,64 fig.7,no 65.
From west end of Building III, slightly above floor level.
Figure 30D.

4.8.12 Crutch-headed pin with slight depression at either end of the head which is slightly flattened. Point in tact and shank round sectioned.
L84,D3.5mm.
IL709.
Donations 1950,230 no 38 (MC Bremner).
Plate 25C

4.8.13 Very badly corroded pin, point missing and shank round sectioned,slightly bent. Head multifacetted (9faces) with main outer four decorated with two or three diagonal lines.
L80,D4mm.
IL710.
Donations 1950,230 no.38 (MC Bremner).
Laing 1973,64 fig.7 no.68
Figure 31A

4.8.14-16 not used.

4.8.17 8 pins with heads of twisted wire.
-24 Variable lengths,c24-30mm
RHL 20
Unknown donor
Kitchen midden.

Rosie Collection.
4.8.25 Squat nail like pin tooling on shank,point slightly damaged.
L21,W3,Dhead 7mm.

4.8.26 Complete pin with round head of twisted metal.
L58,W1,Dhead 3mm.
Figure 31B

4.8.27 Three examples as above.
-29 27) L60,W1,Dhead 3mm.
28) L62,W2,Dhead 3mm.
29) L60,W2,Dhead 3mm.

4.8.30 35 complete examples as above. Very little corrosion.
-64 a)10at L45,W1,Dhead3mm.

b) 7at L36,W1,Dhead3mm.
c) 8at L34,W1,,Dhead3mm.
d)10at L31,W1,Dhead3mm.

4.8.65 One complete example as above, enclosed by a lace tag of rounded metal (4.11.11).
L34,W1,Dhead3mm.

4.8.66 not used

4.8.67 Four shanks of pins or needles,lacking heads.
-70 67) L35,W1mm.
68) L30,W1mm.
69,70)2at L26,W1mm.

4.8.71 Nine simple pins with slightly flattened heads.
-79 a) 3at L36,W1mm.
b)6at L28,W1mm.
Figure 31C (one)

4.8.80 Ringed pin with incomplete shank. Horse - shoe shaped ring,flattened in section with six indentations as the only decoration.Polyhedral head,decorated with four indentations on two of the facets. High lead content in shank metal only.
Shank L37,W3mm.
Head L12,D11,Perf.D5mm.
Plate 25A,B

4.8.81 Complete pin with flattened spatulate head.Shank slightly swollen at mid point,decorated with simple incision at neck and at mid point of shank.
L39,W3,Dhead5mm.
Figure 31D

Other Collections.
4.8.82 Complete dress pin, lacking corrosion. Shank round sectioned. Rounded decorated head, spatulate.Decoration slightly different on each of faces. Comprising diamond with pelleted design around its edge, and unevenly spaced punctuations in arc around its top.
L90,W head9,W shank3,minT 1mm.
Mackay, Keiss.
Plate 27A,B

4.8.83-4 not used.

Other Collections.
Not Located.
4.8.85 Two pins with heads of twisted metal,complete.
-86 Not available for measurement.
MacCallum,Thurso.
Plate 26

Recent work.

4.8.87 Incomplete head of a ringed pin,uncorroded.Tapered at the complete end,slightly flattened circle.Three bands of line decoration in three lines.
L17,W14,T4mm.
FL8CUK,SFno.59.
Figure 31E

4.9 Needles.

NMAS.

4.9.1 Complete needle with round eyelet and bent shank.Round section.
L58,D15mm.
ER 823.
Donations 1928,82 no.4(Bremner).

4.9.2 Needle as ER 823 but thicker shank and straight,round section.Broken across the perforation.
L57,D2mm.
ER 826.
Donations 1928,82 no.4(Bremner).
Found near earth house.
Plate 25D

4.9.3 Complete needle with slightly rounded top around central perforation.Tip slightly chipped,shank round sectioned and slightly bent.
L74.5,D2.8,Perf.2mm.
ER 830.
Donations 1928,134 no.6(Bremner).
Figure 31F.

4.9.4 Needle with oval head and perforation,round section shank.
L64,D2,perforation L6.5mm.
ER 1010.
Donations 1950,230 no.38.(MC Bremner).
Plate 25D

4.9.5 Needle with bent shank and spatulate top with round hole.Constructed as ER 1012.Shank round section.
L56,D1.5,perforationL3mm.
ER 1011.
Donations 1950,230 no.38. (MC Bremner).
Plate 25D

4.9.6 As ER 1010,shank formed of rolled metal,round section.
L56,D2,perforation L3mm.
ER 1012.
Donations 1950,230 no.38 (MC Bremner).
Plate 25D

4.9.7 Highly corroded needle,round perforation and circular section,point broken.
L47,D15mm.

ER 1013.
Donations 1950,230, no.38. (MC Bremner).

4.9.8 Badly corroded needle,point lacking, head roughly spatulate with round perforation.Round section.
L47,D2,perforation L1.5mm.
ER 1013 (dup. no.).
Donations 1950,230,no.38. (MC Bremner).
Figure 31G.

4.9.9 Needle with head spatulate and rectangular perforation.Shank of rolled metal.
L55,D3mm,Head 4,1mm,Perforation 3,1mm.
RHA 12
Unknown donor
Kitchen midden.

4.9.10 Needle with tip bent and cut, head expanding to a circular eye.
L33,D2mm.Perforation D 2mm.
RHA 13.
Unknown donor.
Kitchen midden.

Rosie Collection.

4.9.11 One complete needle with round perforation.
L53,D3,perforation L1mm.

4.9.12 Two needles as above,shanks slightly thinner.
-13 12) L52,D1.5,perforationL1mm.
13) L53,D1.5,perforationL1mm.

4.9.14 Heavily encrusted needle,complete traces of perforation.
L47,D5,head D10,perforation Dc1mm.

4.9.15 Two tapering needles with heads broken across perforation.
-16 15) L52,D2,perforation L2mm.
16) L44,D2,perforation L2mm.

4.9.17 Needle with flattened tip and round perforation.
L32,D2,perforation L2mm.
Figure 31H.

Other Collections.
Not Located

4.9.18 Two needles/pins, one with damaged tip.
-19 Not available for measurement.
MacCallum,Thurso.
Plate 26

4.10 Sheet Metal.

NMAS.

4.10.1 Bent sheet fragment with three circular perforations along the bend.
L46,W17,T1mm.
GA 777.
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.

4.10.2 Sheet fragment with traces of cutting along one edge. Narrower at one end with metal overlapping.
L52,W7,T1mm.
HD 502.
Donations 1935,246 no.1(Bremner).

4.10.3 Small fragment of sheet metal,badly corroded.
L13,W11,T1mm.
HR 827.
Donations 1928,82 no.4(Bremner).
Found by Earth House.

4.10.4 As above,not corroded.
L12,W10,T1mm.
HR 828.
Donations 1928,82 no.4(Bremner).
Found by Earth House.

4.10.5 Seven fragments sheet metal,including five with 'paper -
-11 fastener'rivets,probably vessel fragments.
5)L30,W30,T1mm.?FS1 (Upper occupation level,south gulley)
6)L87,W32,T1mm.FR17 (Building IV)
7)L65,W37,T1mm.?FS47 (Building VI)
8)L30,W27,T1mm.?FS73 (Building VII)
9)L37,W20,T1mm.?FS60 (Building VI)
10)L32,W17,T1mm.?FR35 (Building I)
11)L23,W11,T1mm.?FR37 (Building V)
IL 563.
Donations 1939,335,no.10 (Alexander Sinclair).
Curle 1939, 102,Plate L,8.(4.10.6).
6)Figure 32H.

4.10.12 Four fragments of sheet metal,one with rivet.
-15 Less than L32,W30,T1mm.
NMAS not accessioned.
Donation Kirby 1979.

Rosie Collection.

4.10.16 Rectangular piece with cut edges,broken along perforation.No decoration visible on x-ray.
L24,W13,T1,perforation D3mm.
Plate 27C

4.10.17 Roughly rectangular piece with torn edges,damaged perforation at one end,possibly broken across perforation at the other. No decoration visible on x-ray.
L37,W15,T1,perforation D3mm.
Plate 27C

4.10.18 Roughly rectangular piece narrowing at one end with damaged perforation.At one end,a flattened rivet in one corner.No decoration visible on x-ray.Slight deposit on one face could represent textile traces.
L58,W24,T1,perforation D4mm.
Plate 27C

4.10.19 Four small fragments of sheet metal,slightly corroded.
-22 19)L30,W30,T1mm.
20)L17,W24,T1mm.
21)L32,W24,T1mm.
22)L15,W12,T1mm.

4.11. Lace Tags

4.11.1 Three lace tags.
-3 L20,L20,L23mm
NA 1181, possibly including FS 19.
Unknown donor.
Kitchen midden.

Rosie Collection.
4.11.4 One complete lace tag, associated with 4.8.65.
L31,W3mm.

4.11.5 One lace tag, complete.
L29,W3mm.

4.12 Miscellaneous.

NMAS.
4.12.1 Piece of sheet metal formed into a tube,breaking away at the join.Slightly bent and narrowing at one end.Both ends cut.
L82,D4.5-7.5,T1mm.
IL 566 FS4.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 46.
From upcast exposing wall to east of Bath.
Figure 32A.

4.12.2 Piece of highly worked metal,cross-shaped section with nicked edges.Unknown function.
L26,W10,T1mm.
NT 208 FS2
Donations 1939,355,no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 46
From surface of gulley.

Figure 32B.

4.12.3 Simple hook with point in tact and round in section.Possible fish hook?
L30,W1,T1mm.
Not accessioned.
Figure 32C.

Rosie Collection.

4.12.4 Small metal tack with blunt tip and head flattened at an angle.Large groove down shank indicating manufacture from sheet metal.
L21,W2,headD7mm.

4.12.5 Possible coin flan,with no visible design.
D20,T2mm.

Not located.

4.12.6 Small nodule of copper alloy.
No dimensions available.
FR 20
Curle notebook,ms 28a, (SAS 461),22
From platform at west end of Building 1V

4.12.7 Comb rivet.
L8,W1mm.
FR 27 (dup. no)
Curle notebook, ms 28a, (SAS 461),26
From Building 1

5. IRON

5.1 Strap Ends.

NMAS.

5.1.1 Small ferrule or strap end.Blunt end,hollow and top neatly cut.Two opposing attachment holes and slight indentations at the tip.
L21,W7,T1mm.
HR 1016
Donations 1950,230 no.38 (MC Bremner).
Figure 32D,

5.2 Buckles

Rosie Collection.

5.2.1 Complete buckle,squared at one end and rounded at the other.Slightly bent in section.
L24,W24,T2,tongue L16mm.
Plate 24A

5.2.2 Ring and shank of possible buckle/brooch,badly corroded and ring incomplete,most of shank lacking.Circular in section throughout.Shank attached to head by simple curving.
Ring D17,T2mm.
ShankL22,D2mm.
Figure 32E.

Not located.

5.2.3 Corroded buckle.
No dimensions.
FR 31
Curle notebook ms 28a (461 SAS),28
From midden along south wall of Building 1.

5.3 Knife Blades.

NMAS.

5.3.1 Blade with curving back,narrowing towards the hilt.Thicker along the back but badly corroded.
L96,W18,T1-3mm.
IL 569.FS 24
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,102-3.
Floor level Building III.

5.3.2 Small blade with curved back,thicker towards the hilt.Badly corroded.
L90,W20,T1-8.5mm.
IL 570
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,102-3,pl.L no.1

5.3.3 Blade,thicker along the straight back,narrowing towards the hilt,very worn.
L104,W5.5-12,T1-4mm.
IL 571 FS 54
Donations 1939,335,no.10 (Alexander Sinclair).
Curle 1939,102-3,pl.L no.2.
Between Building VI and IV at south end.
Figure 32F.

5.3.4 Badly corroded blade ,slightly thinner and narrowing at one end,possibly the hilt.
L70,W16.5,T5mm.
IL 572 FS 71.
Donations 1939,335 no 10 (Alexander Sinclair).
Curle 1939,102-3.
From west end Building IV, near hearth.

5.3.5 Fragment of knife of unusual form,of single piece of metal bent in a loop.Circular section except at head of loop where it is flattened. Tip broken.
L107,D5mm.

IL 575
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,103.
Plate 28A

5.3.6 -7 Group of fragments probably representing blades of two knives. 6) traces of copper alloy rivet and wooden handle,possible copper alloy ring around handle and blade junction.
Less than L110,W16,T20mm.
IL 674
Donations 1948,319 no.32(Bremner).

Recent Work.

5.3.8 -9 Two pieces of possible knife blade,8)traces of wooden handle,9)traces of square sectioned projection and ?cladding with wood covering remaining,flattened at pointed end.
8) L40,W15,T11mm.
9) L62,W11,T14mm.
FL79 UD.SF 4.

Not located.

5.3.10 Point of knife.
No dimensions.
FR 42
Curle notebook ms 28a (SAS 461),37
Found in doorway of Building 1

5.3.11 Possible knife handle with blade traces.
L82,W18mm.
FR 45
Curle notebook ms 28a (SAS 461),39
From drain in Building 1

5.4 Padlock and Keys.

NMAS.

5.4.1 Hook from barrel lock in single piece of metal with clear filing marks.Hooked form with double prong on one side.
L50,W26mm.
HR 1014
Donations 1950,230 no.38 (MC Bremner).
Plate 28B.

5.4.2 Rod with loop at one end and bent at other,square in section.Possible key.
L 121,W4,T5mm.
IL 573 FS 42.
Donations 1939,335 no.10. (Alexander Sinclair).
Curle 1939,103 pl.L no.3.
From Building VI above floor level at east end.
Figure 32G.

5.5 Nails and Rivets.

NMAS.

5.5.1 Nail and square clench plate with slight damage on two sides.Nail placed eccentrically and lacking point.Square section with round head.
Plate L27,W27,T3mm.
Nail L30,,D5,head D17mm.
IL576 FR 13
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461), 19.
Found clearing to floor level, Building IV.

Other Museum Collections.

5.5.2 -3 Two small fragments of corroded metal, possibly nails.
2)L29,W21,T15mm.
3)L25,W18,T12mm.
ARC 62.
Thurso Museum.

Other Collections.

5.5.4 -6 Three short nails, one with slightly domed head, highly corroded.Available only as x-ray.
4)L32,W4mm max.
5)L20,W6mm max.
6)L22,W5mm max.
R.S. Murray,Blackburn.
From southern part of the Links,by 'naust'(Zone K)

5.5.7 Long bent nail with flattened head and damaged tip.Highly corroded, available only as x-ray.
L80,W4mm max.
R.S.Murray,Blackburn.
From southern part of the Links,by 'naust'(Zone K)

5.5.8 Thick shanked nail,lacking tip with slightly domed head.Highly corroded. Available only as x-ray.
L53,W9mm max.
R.S.Murray,Blackburn.
From southern part of the Links,by 'naust'(Zone K)

5.5.9 Roughly circular nail or rivet head with traces of shank on under side. Flat section and slightly domed.
L23,D20,T6,shank D9mm.
Corcoran via Omand.

5.5.10 not used

Recent Work.

5.5.11 Single piece of metal curved into a hook shape,broken and corroded probably a nail shank.Square section.
L50,D5mm.
FL79 UC,SF no.1

5.5.12 Two nail shanks with circular section.
-13 12)L49,D5mm.
13)L30,D4mm.
FL79 UD,SF no.3

5.5.14 Three fragments of linear metal,section unclear.
-16 14)L15,W4,T3mm.
15)L15,W10,T2mm.
16)L32,W10,T5mm.
FL79 UF,SF no.7

5.5.17 Six metal fragments,one small nail others amorphous.
-22 Nail L30,W20,T11mm.
Others less than L39,W26,T10mm.
FL79 UQ,SF no.11

5.5.23 Highly corroded plate with rounded projection.Possible nail on rivet plate.
L40,W30,T11mm.
FL80 UD, SF no.26.

5.5.24 Highly corroded fragment,expanded at one end,possibly nail.
L27,W12,T13mm.
FL80 UF,SF no.30.

5.5.25 Highly corroded fragment, possible rivet head or plate. Roughly circular head.
L24,W24,T19mm.
FL80 UL,SF.no.34.

5.5.26 Square rivet plate,with small part of shank.Highly corroded.
L19,W15,T5mm.
FL80 UF,SF no.64.

5.5.27 Highly corroded piece of metal, hollow, possibly a shank.Rounded at one end.
L40,W16,T11mm.
FL80 UG.SF no.72.

5.5.28 Highly corroded iron fragment, possible nail shank.
L27,W9,T8mm.
FL80UG,SF no.74

5.5.29 Bent possible nail shank,slightly corroded,circular in section.Possibly modern.
L45,W6,T5mm.
FL80 UQ,SF no.78.

5.5.30 Small amorphous piece of metal,possible nail head.
L16,W10,T7mm.
FL80 UQ,SF no. 79.

5.5.31 Five fragments possibly nails.
-35 Less than L17,W9,T5mm.

FL80 UM,SF.no.82.

5.5.36 Piece of curved rectangular iron,corroded.One end slightly rounded,the other broken.
L41,W22,T2mm.
FL81 UD,SF.no.357.

5.5.37 Highly corroded fragment,probably rivet and plate.Traces of wood in the corrosion products.
L25,W20,T11mm.
FL81 UE,SF no.359.

5.5.38 Rivet plate and incomplete shank,corroded.Plate now roughly triangular but flat in section.
L29,W20,T20mm.
FL81 UK,SF no.367.

5.5.39 Rivet plate with traces of central shank,damaged around the edges,flat section.
L18,W21,T2mm.
FL81 UK,SF no.368.

5.5.40 Two conjoining fragments of metal, nail head.Corroded.
a)L17,W14,T10mm.
b)L20,W11,T9mm.
FL81 UK, SF.no.369.

5.5.41 Four small fragments of metal,possibly originally a nail.
Less than L14,W10,T15mm.
FL81 UK,SF.no.372.

5.5.42 Two conjoining fragments,part of nail with square section.
a)L50,W8,T5mm.
b)L9,W7,T4mm.
FL81 UD,SF.no.379.

5.5.43 Corroded fragment,part of nail shank.
L33,W5,T4mm.
FL81 UE SF. no. 394.

5.5.44 Corroded fragment, possible part of nail shank.
L34,W7,T7mm.
FL81 UH,SF no.406.

Other Collections.
Not Located.

5.5.45 Large number of iron 'nails or roves' from a disturbed boat at the southern part of the Links.
Not available for measurement.
J. Saxon, Thurso.

5.5.46 Very corroded nail /rivet.
cL27, W 3-12mm max.
not numbered.

Curle notebook ms 28a (SAS 461), 13.
Found at east, at edge of slope.

5.5.47 Rivet head or plate, square with possible perforation.
CL31, W35mm.
FS 61
Curle notebook ms 28a (SAS 461), 65.
From lower level of Building VI.

5.6 Miscellaneous.

NMAS.

5.6.1 Cylindrical corroded object of unknown use.Slightly wider at one end.
L55,D12-15mm.
IL 574. (Unnumbered in notebook)
Donations 1939,335 no.10. (Alexander Sinclair).
Curle 1939,103,pl L no.4.
From South side of Building III.

Recent Work.

5.6.2 Three conjoining fragments of horseshoe,two perforations visible.
a) L70,W15,T2mm.
b) L45,W14,T1mm.
c) L17,W10,T1mm.
FL80 UQ,SF no.37.

Not Located

5.6.3 Possible hook.
L50,W12mm
FR 21b
Curle notebook ms 28a (SAS 461) ,23
From platform at west end Building 1

5.6.4 Roughly domical iron fragment.
L40,W14mm max.
FR 47
Curle notebook ms 28a (SAS 461),40
From base of early wall outside Building 11

5.6.5 Iron hook.
No dimensions available.
FS 72
Curle notebook ms 28a (SAS 461),69
From upper level Building V1.

5.6.6 Corroded fragment wider at one end than other.
L48,W12mm.
FS 64.
Curle notebook ms 28a (SAS 461),66.
From north west corner of Building V1 above floor level.

5.6.7 Iron spike.
L77,W24mm.
FS 78
Curle notebook ms 28a (SAS 461),69
From south wall Building V1 to east of original entrance.

5.6.8 'Piece of hopelessly rusted iron'.
No dimensions.
Childe 1943,13
Found between uprights and wv, Phase O.

Discussion

There is a large variety of object types represented in this assemblage of metal artefacts;they will be discussed here in roughly the same order as they appear in the catalogue. Variations in the order of the items discussed occur only where an item seems to be most logically considered with another example which may be of a different metal.

Brooches.

The star-like brooch, 4.4.3, is very similar to an example published by the National Museum of Scotland (1966 no.22.NG 339).Although the published example is more elaborate in that it has an inscription, it is generally of the same form.It is dated to the 16th century, but is unfortunately unprovenanced. It is interesting to note, however,that a similar example has been recorded from Lund,Sweden (Blomqvist 1947, 137 fig.24 no.1) where it is dated to the 13th-14th centuries.The brooch, 4.4.4, has very obvious similarities with a ring brooch in gold with a ruby in the setting from the British Museum; the stone is missing on the Freswick example.The British Museum example has clearly worked hands at one end, which in the Freswick example are only distinguished as slashes.Hinton has dated the published example to the 13th-14th centuries (1982,30 pl.12). The

cruder Freswick example is obviously a cheaper copy of this one. An example in the NMAS is of a slightly different form, lacking the stone setting but being generally of the same form, from an unknown locality; it is dated to the 14th century as well (NMAS 1966,no.17a NG 62).

There are three examples of the annular brooch from Freswick, which are all undecorated. They were worn at a variety of points on the costume,at the throat or for fastening boots.They can be dated by analogy to the 13th-14th centuries (Wheeler A1940,274-5, pl.LXXVIII,1-7). There are many parallels to be cited for this class of artefact;from excavations in Kings Lynn they are dated to the 13th-14th centuries (Geddes and Carter 1977,288 fig.130 no.4 and 5).An example from the recent excavations in Orphir,Orkney (Batey 1981;SF no.10) probably from a 12th-13th century context has been recorded, as has a similar one from recent work at Freswick Links (Area 8,SF no.315) probably of a similar dating. An example from Glenluce Sands, Wigtownshire has been dated to the 14th century and has been interpreted there as being of the type used in the wearing of hose (Jope and Jope 1959,269 fig.95). It is therefore a very common type, of a strictly functional form.Examples have also been recorded from Lund, Sweden (Blomqvist 1947,133 fig.15 no.344),where it is stressed that they are very ordinary everyday objects.

There are two examples of penannular brooches in the Freswick assemblage, 2.2.1 and 2.2.1. Both appear to be silver gilt.Similar examples have been published extensively by Wilson with Scandinavian parallels also (for example Small et al 1973, pl.XL,b and c) . The close similarities with one of the St. Ninian's Isle examples (Small

et al 1973,pl.XXXII,no.19,a) has been noted.This example still has the remains of a stone in the setting, although it is damaged, it could still be recognised as being of amber or brown glass. The elaborate 'dragon headed' type, illustrated by Small in the work cited has very close similarities with the St. Ninian's Isle example (op cit, pl.XXXIV no 28) and it is likely to be from the same cultural context, probably Pictish (Close-Brooks 1981). This is the only parallel which Wilson can cite for this 'dragon head' example although it may have a similar surface treatment to the Croy brooch which is the example selected by Curle (1939,101) and a date perhaps in the mid-9th century is conceivable on these grounds, but Wilson argues for a dating in the later part of the 8th century (Small et al 1973,103). Laing would see this type of terminal as being of a later more developed form of the penannular type (Laing 1973,59).

Coins

The single identifiable coin in the collection,2.3.1,has been examined by Mrs Yvonne Harvey and the type is illustrated by Stewart (1955,plate VI).The coin in the Freswick group, of James II is very similar to a James I Edinburgh mint penny of Group A (no 83) and also to an example of James II also of Group A (no 87).The close similarities between the coins of James I and James II have also been discussed by Stewart (op cit 139-40).Harvey suggests a dating of the coin to the period c 1480-90 on the basis of use and prolonged circulation of the type.

Lead Whorls

Whilst not a particularly common medium for simple spindle whorls, despite its apparent advantages, lead whorls are not a

particularly common artefact. However, a limited number have been recovered from various excavations.Three whorls of varying forms, including one conical one, are recorded from the Lower and Middle Norse horizons from the Brough of Birsay excavations (Curle 1982,ill.53 nos. 504-6).There are also further examples from the recent excavations at Birsay (for example BB76 KO,SF no.897). A grave at Gigha, in the Western Isles, which produced a pair of copper alloy scales and various elaborate lead weights, also produced a damaged simple lead whorl (Bryce 1913 ,440).Further examples have been recovered from Culbin Sands, Elginshire (Black 1891,494) and York, Clifford Street, where it is described as being of 'a common Viking form' (Waterman 1959,fig.20 no.13,93). In Scandinavia, various examples have been recorded. At Aggersborg,Denmark, such an item was recovered from the topsoil of the exacavations and thus cannot be securely dated to the Viking period (A3-532B-B. Pers. comm. E. Roesdahl). There are also many examples of other unstratified examples, for example MS 72 (Medieval Museum, Moesgård, Århus) from a field in Skåne, Southern Sweden. The small lead object (3.1.2) may possibly represent the hanging end of a lead weight, having similarities with a group of steel yard weights published from the London Museum (Wheeler ed. 1940,pl.XXXVll) which has been ascribed a possible dating in the 13th century. Such an identification however, cannot be proved because of the fragmentary nature of the Freswick example, recognised only in a drawing in the site book, and not located for identification.

Strap Ends.

There are two fine strap ends from Freswick Links,although unfortunately their contexts prevent any further comment about the relationships with the structural sequence.4.1.2 has been published by Curle as being of Urnes style (1954,56,footnote 39,fig.24). As can be seen from the photograph, the decoration is far from clear to the untrained eye. I am therefore most grateful to Ms. O.A. Owen (Department of Archaeology, Durham) for the following comments on this piece which formed a small element in her thesis on the English Urnes style ornament.'This strap end is the only Urnes style object from Scotland presently known. The ornamentation consists of a single animal. Its head is seen from above, and it has a long, tapering snout, which seems to bite the ring beyond it. The body is serpentine, and forms a loop from which the limbs emerge. The width of the ornament lines is fairly constant, so there is minimal contrast between the broad and thin elements.The subtriangular shape of the decorated area on which the animal ornament occurs is similar to that of a group of English Urnes style bronze mounts; but the design has a more linear aspect, with the limbs proceeding straight across the object in various directions and not forming interpenetrating loop schemes of the more usual Urnes kind...Generally, the ornament lines cannot be related to parts of the animal's anatomy with any certainty, but the model of the English Urnes style bronze mounts enables the ornament to be interpreted thus far. Thus, the Freswick strap end derives from the English Urnes style, but the dating and art-historical position of the object, isolated as it is in a north Scottish context, do not allow for further deductions' (Owen

1979,255).

The second strap end,4.1.1, illustrated by Curle, is a double sided piece. Curle describes it as a belt chape, but it can equally be termed a strap end. The design is obscure but conceivably zoomorphic with the slightly pointed and narrow end represening the head.It is therefore conceivably derived from earlier animal forms, but it is possible that its function is not quite so clear-cut as at first thought. I am grateful to J.T. Lang for pointing out its similarities of form with items published as reliquary mounts, particularly the side fitting from 'Soiscel Molaise' (Mahr 1976, pl.58 no.1) or the unprovenanced book clasp illustrated (op cit, 141 no.3) or the shrine fitting from the Loch Erne Shrine (op cit pl.10 no.1a). Such a function could equally well account for the double-sided form of the object, which may have been designed to swivel on its hinge and fasten into a 'ball and socket joint' at the narrow end.Otherwise, it is difficult to locate precise parallels for this piece.The earlier types of strap ends have been discussed by Wilson (1964,62-3 and references therein) and it clearly does not conform to any of these types discussed, except in as much as there is animal ornament visible.The method of attachment to the belt end or hinge, depending on the function can be clearly seen in the illustrations cited, and in the case of the Urnes strap end, has similarities with one published from Southampton (Harvey 1975,256 fig.240 no 1712) in a pre-1250 context.

Buckles

Nine buckles have been recovered, including 2 of iron. A variety of shapes and sizes are represented, presumably in part reflecting the

variations in function, ranging from dress attachments to horse harness fittings.The rectangular form is represented by two examples,4.2.6 and 4.2.9,although 4.2.6 is damaged and lacking a tongue.A simpler example has been recorded from Southampton of the 14th century (Harvey 1975,259 fig. 241 no.1753) although it is not quite square in section. Likewise,two similar ones from Glenluce Abbey can be dated to the 14th-15th centuries (Cruden 1952,185,pl.lV no.4). In addition, in Sweden, Blomqvist cites a series of similar examples, dating to the 1400s (1947,148,fig 39 no.3).

The simple D-shaped form of buckle is represented in this assemblage .Although 4.2.7 is deeper than 4.2.10, they are of a very similar form. Parallels can be cited from Helgö,Sweden (Holmqvist and Arrhenius ed. 1964,133, fig 47 no.1) and many sites in Britain including Southampton which has a circular sectioned example probably indicate a 14th century dating (Harvey 1975, 25a fig. 241 no. 1758). Northampton, Marefair site has an example of late Saxon dating (I.H.Goodall 1979,70 fig.17 no.3) but at Goltho there is an unstratified example and another dating to the 13th-14th centuries (Beresford 1975,88 fig.41 nos. 115 and 116). A further example is illustrated by Goodall in a general article on metalwork and comments that the iron ones were plated to prevent corrosion and also to possibly make them look more noble (I.H. Goodall 1981, 60 fig. 59 no.2).

The so-called spectacle form of buckle, 4.2.8, appears to be a very common type.An example from Northampton has been dated to the 15th century (Oakley and Webster 1979,251 fig.108 no.29)and examples from the London Museum Catalogue are termed 'Medieval' (illustrated

Wheeler ed.1940,pl.LXXVll no.8). Similarly,an example from Goltho probably dates to the 14th-15th century (Beresford 1975,88 fig.41 no.118).

The large fragment of belt buckle, which has thickening where the tongue would have touched, is part of a rather larger buckle and could conceivably be from a horse harness.It is very similar to an example from Kings Lynn (Geddes and Carter 1977,288, fig.130 no.14) in a context dated to the pre-1300s.A complete example is illustrated by Blomqvist from Sweden (1947,143, fig.33 no.2). 4.2.1 is very similar to an example from Wharram Percy, although the Freswick example is less elaborate (Illustrated A.R. Goodall 1981,fig.66 no.6).It is apparently a common Medieval type (Blomqvist 1947,144 fig.34 nos.7-8).The part of an iron buckle, 5.2.2, has similarities noted from Goltho (Beresford 1975,88 fig. 41 no.111) where it is dated to the 14th-15th centuries.

Mounts

A variety of items which have been termed mounts have been recorded from Freswick.The enamelled stud, 4.3.1, is considered to be a pre-Norse artefact, and has so far only one parallel from an unstratified context at Kirkhill, St. Andrews (pers. comm. Wordsworth).A series of similar tanged studs have been published by Hencken, although they are not of exactly the same form (Hencken 1951,83 fig.21) and a date of 7th-9th centuries is suggested, based on stratigraphical evidence from other Irish sites, such as Cahercommaun and CreevyKeel (op cit 83).Although the precise function is unknown, it is very likely that they were applied to belts or horse-harness. A similar example is also recorded from the Viking grave at Balladoole

(Bersu and Wilson 1966,26-7).The remaining mounts are made of sheet metal and have varying forms . 4.3.2 is roughly hexagonal with small copper alloy rivets, as 4.35. 4.3.3, is possibly a button cover and lacks obvious means of attachment.An example of a possible circular mount with small rivet attachments has been recorded from Hadleigh Castle,Essex, of unsure dating (Goodall 1975,143 fig.29 no. 401, and 145). A flat undecorated example from Southampton dated c 1375-1425 (Harvey 1975,259 fig.241 no.1762) has been suggested as a belt mount. A very elaborate version, termed a bridle boss, has been recovered at Goltho (Beresford 1975,94, fig.44 no.38). 4.3.5 could possibly be suggested as a belt reinforcer, as noted in Goodall (A.R.Goodall, 1981, 68 fig.66 nos. 19 and 20).

Finger Rings

The finger rings in the assemblage represent activity at a variety of periods. The gold examples are interpreted as being relatively modern, both on the grounds of style and finish and because of the presence of hallmarks which are unfortunately too indistinct to identify. The copper alloy examples are rather difficult to date because they are very crudely made,often from roughly cut off-cuts of sheet metal.The most elaborate in this assemblage (4.5.3)has a decorated bezel, with criss-cross design formed by simple incisions.Similar finger rings of very simple form have been recorded from Lund, at the site of PK-Banken, where a date of c 1020-1050 AD has been suggested (Lindström,1976,fig.276, 302).Slightly nearer home,similar examples have been noted by Curle from the Brough of Birsay (1982,ill.39,63 no.442 and 443)simply made from bent copper alloy sheeting. Likewise, the excavations at Northampton, have

produced similar types in a Late Saxon residual context, and in other,unstratified contexts (Oakley and Webster 1979, fig.107,249 nos.11 and 14).

Bracelets.

The simple bracelet,4.6.1, from Freswick is difficult to find a precise parallel for. It is interesting to note that it now has a rather different appearance than when illustrated by Curle (1939,Pl.L no.6), with a small part having been broken off and lost. Curle notes that one of the terminal rings is missing, but it may possibly never have had one, the one end fitting into the collar on the terminal. The bracelet is of solid construction and crudely decorated with simple incised lines, not unlike those found on the copper alloy piece 4.8.87.A series of very simple bracelets have been recovered from the graves at Birka, Sweden, where they are dated to the 9th-10th centuries (Arbman 1940 fig.110, nos. 1,2 and 4).However, the Freswick example is of such simple form that it is very difficult to ascribe any date range to it with confidence.

Tweezers

A number of pairs of tweezers have been recorded, varying in size possibly according to function ie. the smaller ones as in this assemblage, may be for toiletry purposes, but larger ones may have been for metalworking. A pair of relatively large tweezers, of slightly thicker metal have been recorded for this purpose in Lund (Bergman and Billberg 1976, fig.142, 201) dated to the 13th century, and others of simple forms also have been found in contexts dated there to the 11th-12th centuries (Mårtensson 1972,130 fig.3).In Britain there are a number of examples from a variety of contexts.A

plain pair were found in excavations at Kings Lynn in a context dated to the 13th century (Geddes and Carter 1977,fig.130 no.30,288) and decorated fragments, probably of a Medieval date have been recovered from Northampton (Oakley and Webster 1979,fig.110, nos. 75-6,255).An interesting pair in iron, with a constraining loop has been found in York,at the Pavement site (Waterman 1959,fig.25,no.7) and more elaborate, cruciform types have been found at Birsay (Curle 1982,no.431,114, ill 39) in a Lower Norse horizon and at Reay, Caithness (Grieg 1940,22 fig.6).Tweezers made of flat strips of copper alloy with a simple loop at the top, are noted also as being common in Pagan Anglo-Saxon graves, and an example is illustrated from Whitby (Peers and Radford 1943,61 fig.13 no.12).

Pins

One of the finest pins recovered from the site is the silver hand pin 2.2.1.It is complete, with traces of red and green enamel and the shank is slightly bent.This type of pin is rather uncommon and there are very few parallels.One from Pabbay, Barra in copper alloy is unusual in that it is made of such a base metal, it is likely to have been gilded but there is no further in formation on the find (Donations 1901,278,279 fig. 2).From the site of Norries Law, Largo in Fifeshire, three examples have been recorded, all very similar to the Freswick example,and made of silver. This group is important because is is associated with a silver tally which has Pictish symbols on it and this provides the only dating evidence for the type.The other examples are lacking datable contexts (Anderson 1884).A single example from Urquhart, Elginshire (Donations 1874,359) and part of one from Culbin Sands, Elginshire (Black 1891,507) are other examples of the type.The

type is particularly common in Ireland, but Kilbride-Jones has suggested that the three fingered type originated at Traprain Law (1980,193); the context has recently been re-examined by Close-Brooks (1983) and she suggests a dating of the late 4th to 5th centuries. Kilbride-Jones suggests that the type was exported to Ireland where there was relatively little development, although more elaborate five fingered examples have been noted (op cit 217, fig.71).In his consideration of a hand pin from Gaulcross, Stevenson suggests a 7th century dating for that pin (Stevenson and Emery 1964,206-8), and this would seem to be more in line with the Freswick example, although without secure stratigraphy it is difficult to be sure.

There is a large collection of copper alloy pins which can be divided into a number of groups and which are ascribable to a large range of periods.4.8.1 is a relatively common type, Laing illustrates 6 of these altogether including this one from Freswick, one from Midtown (see Appendix B), Carn nan Bharraich, Oronsay, Avielochan, Inverness, Berneray, Harris and Sliganach,Kildonan S. Uist (Laing 1973,fig.5,62 nos. 30-35). A further unstratified example is recorded by Hencken at Lagore Crannog (1951,74 fig. 16 no.678) and 'is hard to parallel' (op cit,75).Although it is difficult to tell from the illustration in the report on the Whitby excacavations,a similar type of pin may be represented (Peers and Radford 1943,63 fig.14).Laing suggests a dating in the 9th century, noting a close correlation between the distribution of the pin type and the settlement of the Norse and consequently suggests a derivation for this type in the Norse milieu. It is interesting that examples from stratified contexts in Dublin have been dated to the 12th and 13th centuries (O'Rahilly,

1973, 78 fig.22).

Stevenson discusses a similar type, lacking the 'filet' below the spatulate head (Stevenson 1955,283-5) and suggests a date for this type in the 5th-8th centuries.The type is not found in Scandinavia.The small spatulate headed copper alloy pins in the Freswick assemblage can be paralleled at Burrian (MacGregor 1974,73 fig.6 no.32)in bone. There are extensive numbers of these bone spatulate headed pins at Burrian,and it has been suggested that they may have been used to form the moulds from which the metal pins were made (for example Stevenson 1955,285). The same type of small spatulate copper alloy pins can be seen in the assemblage at Birsay also (Curle 1982,ill. 39, 63 no.418) in a Pictish context. It would therefore seem to be a safe assumption to say that this form of spatulate headed pin is an early type, although its precise context at Freswick cannot be confirmed.

Another group of pins in this group are those with chisel shaped heads. Bone examples have been recorded at the Broch of Burrian (MacGregor 1974,73,fig 6)and variant forms at the Broch of Burray (illustrated Stevenson 1955,284,fig.A no.15), and also at the site of Buckquoy (Ritchie 1977,193 fig.4, 7 and 8). Metal examples from a Pictish context have been recorded at the Brough of Birsay (Curle 1982,62 and 63, ill.39 no. 418).The pin with the fan shaped head in the Rosie collection is complete and in very good condition with two small incisions mid way down the shank (no.45).Small disc headed pins have also been recorded from the site of Meols, Wirral (Bu'lock 1960,9).

The finely decorated pin with shaped spatulate head,4.8.82, seems to be without close parallel. The decoration is slightly different on

each face and there are no remaining incisions down the shank.It is possible that this is a pre-Norse piece because it has a spatulate splaying head already noted in the pre-Norse pins and no parallels can be supplied from Scandinavian assemblages examined.

There are two examples of crutch-headed pins, 4.8.11 and 4.8.12. There is a variety of pins similar to 4.8.12 with hollow sides which may originally have had a ring attached (eg. Close-Brooks and Maxwell 1974,289 fig.2 nos. 973,974 and 976).The type may conceivably have been part of a stirrup ringed pin as defined by Fanning (cf. Fanning 1983,328, fig. 141 no.7)possibly dating to the 11th-12th centuries and not to the 9th as suggested at Jarlshof (see discussion of this problem Graham-Campbell 1974,20-1), see above p71-2.

There are possibly three items in the catalogue which fall into the category of ringed pin, although it is considered that the iron example (5.2.2) is more likely to be a badly corroded buckle rather than part of a pin head.Fanning has defined the ringed pin as ..'a pin with a loose swivel ring inserted in a looped or perforated head. Both ring and pin are separate components individually cast and brought together to form the simple dress fastener to which the term ringed pin has been applied..' (Fanning 1983,324). The obvious statement concerning individual casting is of particular significance in examining the complete example in this assemblage (4.8.80).After extensive consideration of this piece, I was grateful for the assistance of Mr. Fanning in the identification here presented. There are obvious variations represented in this example, which are not to be found in other pins of the type. The pin-head type can be commonly paralleled eg. Ballateare, Isle of Man (Bersu and Wilson 1966,62

pl.XIID) dated to the 9th-10th centuries and an unprovenanced example from Limerick Museum (Fanning 1969,7 fig.1 no.5). Examples in Scotland noted by Fanning include Loch Bornich, S. Uist (NMAS GS 223.Fanning 1983,no.26,337) and a slightly more elaborate one from N. Uist (NMAS GT 971. Close-Brooks and Maxwell 1974,288, fig. 1;Fanning 1983,no.30, 338). The shortness of the round-sectioned shank is explained as a breakage followed by an attempt to repoint the shank.

The head of this pin however, is a considerable problem and must have been a later addition to the pin head. This is consistent with the identification of a different copper alloy being used and helps to explain why precise parallels for the pin cannot be located. It is particularly interesting that such a ringed attachment should have been applied because it could indicate a local repair,possibly at Freswick or in the area, to extend the life of the pin.It is not possible to be sure when the shank was broken or if it was coincidental with the remodelling of the head. It is also difficult to date the find in the form in which it now is found; a date post 10th century is probable, but how much later is not known.The only similarity located to date for the form of the head is noted by Petersen (1940,204 fig.167) from a 10th century grave and this is by no means a very convincing parallel.

The single fragment of copper alloy which could represent part of the ring of a ringed pin, 4.8.87, may be paralleled in many of the examples already cited (eg. unprovenanced Limerick Museum,Fanning 1969,7 fig.1, no.5).However, it could also conceivably be part of a buckle of the type illustrated by Grieg from a grave at Ardskinich,Colonsay, which he terms a strap-buckle (Grieg 1940,61

fig.34).

One of the largest groups of like material in this assemblage is the fifty wire-headed pins. The type is very common and many sites have produced such finds. They were commonly used in dress and seem to have a range of dates between the mid 14th and 18th centuries, with very little apparent variation in form.This is a good example of a functional item not needing to change form and consequently these are generally poor chronological indicators.Early examples have been recorded from Southampton (Harvey 1975,259 fig.241,no.176,266,fig 244 no.1823-41) and Kings Lynn (Geddes and Carter 1977,fig.130,288 no.19) where they are dated to the period 1350-1500).Examples from the Baile Hill excavations York can be dated up to the 18th century (Addyman and Priestley 1978,fig11,141 and 142) and slightly earlier at Bollingbroke Castle, Lincolnshire (Goodall 1976,32 fig. 16 no.73,76).Examples in an unstratified context have come from Culbin Sands,Elginshire (Black 1891,508).

Needles

For the purposes of this catalogue, needles are distinguished from pins by the presence of a perforation at the head and a relatively streamlined profile. There are fifteen needles of copper alloy in the assemblage, all with circular sections but generally with flattened heads. Three have pointed heads and rectangular/oval perforations, eight have circular perforations and heads and four are indeterminate because of corrosion or other damage.There does not appear to be a great variation in the lengths of each type.Examples of needles with pointed heads have been recorded at Southampton in 16th -

17th century contexts and one very long example has been distinguished there as a bodkin (Harvey 1975,266 fig. 244 nos.1844 and 1842). 14th century examples have also been noted (op cit 261,fig 242 no. 1767). Both types of pin have been recovered at Kings Lynn (Geddes and Carter 1977, fig. 130 nos. 17 and 18,20 and 21) with a date range of 1150-1380.A. Goodall discusses these types of needle and notes the problems of dating them through the lack of securly stratified examples (Goodall A. 1981,fig.65 nos. 1 and 2,67).From the site of PK-Banken in Lund, Sweden, both forms of head are represented, those with the pointed head are dated to the mid 1200s, those with the circular heads and perforations to the 1100s (Lindström 1976,278 fig.242).

Sheet Copper Alloy

There are nineteen fragments of sheet copper alloy in the assemblage, of which fifteen are likely to be from large vessels. The distinctive 'paper-fastener' rivets have been noted in six pieces, but otherwise the remaining pieces in this category are lacking distinctive features.Many parallels can be cited for copper alloy vessels, generally used for cooking purposes. According to Wheeler,(1940,202) such vessels widely replaced earthenware ones in the late 13th-14th centuries. It is not possible to be conclusive in the dating of the Freswick examples, but there is obviously no lack of crude pottery at this site and it is conceivable that here the copper alloy vessels may have supplemented the vessel sizes available, rather than replaced the pottery ones.The precise forms the vessels would have taken cannot be guaged in this instance, although a variety of examples illustrated by Wheeler probably includes that represented at Freswick (Wheeler 1940, fig.68,206).It is likely that the vessels

represented at Freswick may have been of the round bottomed cauldron type or smaller vessel (illustrated Wheeler ed.1940,fig.65,203). Le Patourel illustrates a vessel of more angular form, dated to the late 14th century from East Haddlesey, Yorkshire (1973, fig.35 no.16, 90). Various types of copper alloy vessels are discussed by A. Goodall,indicating bowl fragments with patches (1981,64-5,fig.63).

The 'paper-fastener' rivets are interesting and have been noted at a number of sites which have produced such fragments of sheet metal.Harvey notes 16th century examples from Southampton (1975,263 fig 243,no.1795,1803 and 1810), likewise from Northampton (Oakley and Webster 1979,259 fig 112 no.99)and Glenluce Sands (Jope and Jope 1959,270, fig 96 no.5) as well as Culbin Sands (Black 1891,507-8). There are very many other examples which could be quoted here, but the point is made. At Northampton, various fragments of sheet metal awaiting reworking have been noted (Oakley and Webster 1979,264), possibly in the way described by Le Patourel (1973,91).One thing which is of particular interest is that copper alloy bowls are an artefact very commonly found in Norwegian graves, although they are not often repaired in the way in which these cooking vessels have been (Petersen 1940,83-111).

Lace Tags

Only five examples of lace tags have been recorded in copper alloy, although there is possibly a slightly more elaborate one in iron (5.1.1).These are usually a very common artefact and once again seem to have a relatively wide date range. Work at Northampton has suggested a series of groups based on length, with the longer ones

generally falling into the period 15th-17th centuries and the shorter ones pre 15th century (Oakley and Webster 1979,fig.114,262). There are examples of lace tags with the laces or leather remaining in situ, as at Northampton (Oakley and Webster 1979,262) and Culbin Sands (Black 1891,508). Goodall has discussed the various types and uses, noting the type which does not taper at the end, like the Freswick examples (Goodall 1975,144-5).The suggestion that some lace tags were intended to be pin protectors, sewn to garments to protect the wearer from the sharp points is also discussed (op cit) .An interesting comment to add to this suggestion, although it is refuted, is that 4.11.4 in the Rosie Collection is such an example, with the tag surrounding the pin.This association is perhaps circumstantial, and still cannot support the suggestion, because the pin tip actually extends beyond the end of the tag.Many sites have produced examples of this type of tag, such as Glenluce Abbey (Cruden 1952b,185, pl.V no.2) dated to the 14th-15th centuries and likewise at Southampton (Harvey 1975,fig. 241 no. 1761, 259).

Hooks

Only one hook shaped object of copper alloy has been noted in the assemblage, 4.12.3 and this is tentatively suggested as a fishing hook. There are a few further examples in iron which may conceivably fall within the category of hooks, but very few indeed.This lack of hooks at a site so significant in fishing terms could indicate that nets were used most commonly and that line fishing was less popular;stone line sinkers are rather more prolific in the assemblage.An interesting comparison can be drawn here with Jarlshof, where only one fish hook was identified (Hamilton 1956,153). They are

not likely to have been using nails per se for fishing, but it is quite possible that pieces of iron which appear to be nail shanks could in fact have been parts of hooks. Badly preserved examples of such hooks have been recorded from Culbin Sands also (Black 1891,511).It cannot at present be judged whether or not the occupants of Freswick fished with nets throughout the year, or if they actually took to line fishing in the winter, as they did in the 18th century(Carter 1973,200-201).But once again the lack of hooks remains a problem.Hurum has noted the use of wooden fish hooks in Scandinavia (1977,17-18) and this could account for the lack of surviving examples in this assemblage. Any small fragment of wood or thorny thicket could apparently have been employed.Hurum also illustrates examples of metal hooks used for fishing at Oslo in the Medieval period and also from the ship burial at Gokstad (op cit, 38). All the examples are clearly barbed and made of iron as are two from Århus, Denmark in an 11th-12th century context (Andersen et al 1971,118).

Knives

Five knives are clearly discernable in the assemblage from the earlier excavations (5.3.1-4), they are of varying forms and in different states of preservation. Other fragments noted are potentially interesting, but the precise forms are elusive eg. 5.3.6.-7 which has traces of wooden handle , as has 5.3.8.-9, and binding at the haft possibly indicating addition of an organic element, conceivably leather. Where the sections of the blades are clear enough to examine, it is clearly triangular, with the narrower part forming the blade. The actual back profiles of the knife blades are of variable forms; 5.3.3 is straight backed and practically complete,

whereas 5.3.1 and 5.3.2 seem to have the same curving backs, as possibly 5.3.4 although this is much less clear.Knives are a very common artefact, serving a variety of uses ranging from tools for working wood or leather, to eating utensiles; often the forms are very similar and it is not possible to define the precise use of each knife, particularly since a simple knife could easily have been used for a variety of jobs.

The straight backed variety of knife, has been termed a whittle tang knife by Goodall (1979,70 fig. no. 5) in a discussion of the type from the Marefair excavations,Northamptonshire; this example is in a context dated to the Late Saxon period.Most other examples considered seem to be consistently dated to the 13th-14th centuries, for example,at Writtle (Rahtz 1969,88, fig.47 no.61), Bramber Castle (Barton and Holden 1978, 65, fig. 20, no. 7) or Southampton (Harvey 1975,284 fig.254 no.2056).The type with the curving back is rather more problemmatical. There are two possibilities of use to explain the form.It is possible that the examples in the assemblage, which are conceivably incomplete, may represent parts of sickles, which, as Wheeler has noted are strictly utilitarian in function and therefore difficult to date precisely between the 12th and 20th centuries (1940,124).Examples have been recorded at Writtle, dated to the 14th and 15th centuries (Rahtz 1969, fig. 48 no. 81 and 82), but also at Jarlshof in a 9th century context (Hamilton 1956, pl.XXlll).It is therefore difficult to ascribe a particular date to this form, if it does in fact represent a part of a sickle, but in this case, the fact that the pieces in the assemblage may be sickles is more significant,given the environmental evidence for cereals at the site

(noted above page 219).There is however, a second possible interpretation for the knife form which is of importance. A knife of a very similar form to this type has been recorded from the excavations in Kings Lynn, where it is described as a leather worker's knife (Goodall and Carter 1977, 294 fig. 133 no. 37). The tang of the published example is slightly thinner and it has a damaged V-shaped section. It has been dated to the period c1150-1250.

There is a further type of knife noted in the assemblage which was not initially recognised as such. IL 575 was originally thought to be part of a pair of shears, and although the arms of the shears are of an uncommon form, being generally round in section rather than squared, this feature could be paralleled (eg.Hedeby, Müller-Wille 1973, 30 fig.5 no.1).However, if this item in the assemblage is seen as being a complete object rather than a part of one, there is an even closer parallel to be noted. This type of object is termed a 'hulkniv' in Scandinavia, and may be translated as a gouge used in wood working.Examples can be cited from Scandinavia, but as yet, none from Britain,from Århus excavations such an example is illustrated (Andersen, et al 1971,133) in a possible 12th century context.Others have been noted from Trelleborg (E. Roesdahl pers. comm).

Padlocks and Keys.

There are two pieces in the assemblage which may be considered as parts of a locking system. 5.4.1 is part of a hook from a barrel lock, formed by a hooked piece of metal with two parallel extensions at one end.The rod (5.4.2) with a loop at one end seems likely to be a key.The padlock hasp has similarities with one from Hadleigh Castle (Goodall 1975,140 fig. 28 no. 340) probably from the 16th or 17th

centuries.However, a closer parallel can be cited from Northampton exacavations in a 12th to 13th century context (Goodall,Ellis and Oakley 1979,269 fig. 116 no .4).There are many variations in form of this part of the locking mechanism and it clearly has a long history of development (MacDonald and Laing 1975,148 nos.21 and 22).An example in the 14th century from Lochmaben Castle, Dumfriesshire, is cited by MacDonald and Laing (op cit) and other early examples are noted from Kings Lynn (Goodall and Carter 1977,291, 292 fig.132 no.1-3) in a post 13th century context.

The key is difficult to closely parallel. A similar form is recorded from Tollard Royal (Wheeler 1940, 145 fig.43 no.2) in a late 12th century context, but it is still not precisely the same as the Freswick example.The closest parallel seen is from Goltho (Beresford 1975, 83 fig.39 no.49) which is unfortunately unstratified,but there are similarities with Viking examples (Petersen 1951,477,533 fig.267) with hooked terminals.

Nails and Rivets

Of the nails and rivets recorded from the site, only one has been from the NMAS collection (5.5.1). This is a very good example, with a clear clench plate visible,which could possibly indicate that only the better examples ever reached the Museum.Disregarding the entry for an indeterminate number of roves found as part of a wooden boat in the southern part of the Links,the following percentages have been noted:nails with traces of rivet or clench plate, 6/42=14.29%:nail shanks only,8/42=19.05%: nail heads only,4/42= 9.52%: nails with complete heads,13/42=30.95%: indeterminate fragments,11/42= 26.19%.

Of those nails with clench plates represented, there appears to

be a variety in the forms, some are clearly square, for example 5.5.1 and 5.5.26. 5.5.25 appears to be round but this could be the head rather than the plate, it is not possible to be conclusive in the identification.5.5.38 is now triangular but appears to have been broken and could therefore have been either square or diamond shaped.Only one has traces of the original wood preserved in the corrosion products,5.5.37, but they would all have originally have been attached to wooden items.Many are probably from ship timbers, but it is also likely that some door or box fittings are represented, because the techniques of wood working would not be altered simply because of the varying functions of the finished products necessarily.The varying types of rivet plates are discussed more fully elsewhere (Batey in Morris forth. b).

Complete examples with heads intact are limited in number, there is one example which has a round head and a square sectioned shank and many fragments in the assemblage conform to this form. The larger heads in the assemblage are possibly from rivets or for larger structural items, but the smaller heads in the assemblage are usually less clear because of the problems of identification amongst the corrosion products.The variety of nail types recovered from sites has been outlined by Hope-Taylor in his consideration of the Yeavering material (Hope-Taylor 1977,190-93), where he distinguishes small heads of nails, those with large flat heads, probably from doors and the clench nail with a small head for plankwork and thicker ones for larger timbers.Examples of round headed nails with square shanks have been discussed by Batey elsewhere (Freswick Castle, Batey et al forth) although in that assemblage, some of the uncorroded examples of this

form are considered to be modern, possibly for affixing roofing tiles and therefore, as such, may not be directly comparable.

The problem of the nails and rivets in this assemblage is that most are stray finds and very badly corroded. Only a limited number of the finds from the recent work have been cleaned to date and the x-rays cannot always provide the finer detail needed to ascribe some kind of general category to each item.Some of the items which have been distinguished as heads only, could in fact be rivet plates, but the corrosion products at present prevent identification.

Horse-Shoe

The fragments of horse-shoe recovered in the recent work (5.6.2) are very likely to be modern, although many finds are recorded from archaeological contexts .Goodall notes the irregular form of the 'pre Conquest' examples, which are supplanted in the 13th century by more regular ones, and cites examples from Ellington and Somerby to support his arguement (1981,61 fig. 60 nos. 1 and 2).Examples are also illustrated from Southampton dated to the period 1300-1350 and to the 16th-17th centuries (Harvey 1975, 284 fig. 254 no. 2048 and 290, fig. 257 nos. 2100, 2104 and 2108-9).

Overall Considerations

There appears to be a large period range represented in the metal assemblage, although there are many problems involved in the dating of objects, as some, for example, may be heirlooms.Most are lacking precise contexts and are therefore of limited use for the dating of individual contexts.There is a lack of gold, silver or lead in the assemblage but copper alloy is particularly well represented, with a

very wide range of pins being recorded.A large number of personal ornaments are represented and rather fewer tools and, in general, with the exception of the needles, iron seems to have been the most favoured medium for tools.There are many fragments of rivets and nails in the assemblage and it is of particular interest that only one has survived from the excavations of Curle, although many more must have been found. It is quite likely that Curle only submitted to the Museum complete examples of the type.

There is a wide range of personal items in the assemblage, strap ends, pins with decorated heads, tweezers,and bracelets amongst others. These are generally of copper alloy and many finely decorated examples have been recorded, such as the two strap ends.The forms are generally purely functional with decoration added without altering the function of the item.

The locations of individual items from the site is particularly difficult to discuss because of the lack of stratigraphical information available. Those items which were recovered from the excavations often lack precise relationships and are usually only indicated as being from a particular structure rather than in an individual layer.It is of particular interest that many of these items cannot be closely paralleled in Scandinavia, unlike other media such as bone or stone. There appears to be a general date range of between the 7th and 14th centuries, with a concentration after the 10th-11th centuries.There is however,a noticeably significant group of pins which indicates a possible concentration in the earlier part of the date range suggested.

Chapter 10

Stone and Glass

6. Stone

6.1 Sinkers and Weights.

NMAS.

6.1.1 Sandstone weight,roughly oval.Longitudinal groove pecked around side.
L78,W49,T38,groove W17,Depth 3mm.
GA 775.
Donations 1909,16 (Tress Barry, 1908)
Freswick Sands Broch.
Plate 29

6.1.2 Sandstone weight,roughly circular,broken at incomplete pecked perforation.
L69,W32,T35,perforation D17mm.
GA 776.
Donations 1909,16 (Tress Barry, 1908)
Freswick Sands Broch.

6.1.3 Complete sandstone pebble,flattened base and lateral groove.
L89,W54,T54mm max.Groove W18,T3mm.
ED 278.
Donations 1925,154,no.3 (Edwards).
From Hut Circle.
Figure 33A

6.1.4 Splinter of pink and white calcite with possible traces of drilled hole on one side,possibly natural.
L30,W33,T19.5mm.
HR 815.
Donations 1926,10 no.4 (Edwards 1925).
From middens.

6.1.5 Rough sandstone block with groove around narrower end.
L95,W60,T55,groove Depth20mm.
HR 820.
Donations 1928,82 no.4 (Bremner).

6.1.6 Rounded sandstone block,damaged end with slight groove around girth.
L103,W66,T53mm.
HR 821.
Donations 1928,82 no.4(Bremner).

6.1.7 Grooved sandstone sinker,possibly refashioned from a larger example.Complete.
L83,W80,T54mm;groove W24-30,D3-4mm.
HR 822.
Donations 1928,82 no.4(Bremner).
Plate 29

6.1.8 Small quartz block,perforated near one end,probably a weight.
L45,W62,T23mm.
IL 584 not listed by Curle.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 106,plate XLIX no.5.

6.1.9 -11 Three small blocks of quartzite with incomplete perforations started from opposing sides at narrower parts of the stone.10)broken at perforation.
9)L92,W70,T42mm.
10)L39,W54,T32mm.
11)L60,W50,T37mm.
9)IL 585 FS 66. 10)IL 586 Not numbered by Curle.11)IL 587 Not numbered by Curle.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
From near front of south hollow.

6.1.12 Sandstone pebble with lateral groove and slightly ground edges.
L98,W70,T60mm.
Groove W14,Depth2mm.
IL 595 ?FS 31.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),53.
Found by south wall Building 111
Figure 33B

6.1.13 Half sandstone pebble sinker with lateral and horizontal grooves.Eliptical depression in remaining top edge.
L88,W92,T81mm.Grooves W20,Depth10,W6,Depth 10mm.
IL 596 FS69.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),68.
From lowest level Building V
Plate 29

6.1.14 Oval sandstone pebble,lateral groove and one long side hammered.
L135,W90,T62mm.
IL 597 FS 83.
Donations 1939,335,no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),75.
From ash in wall of kiln, Building V1

6.1.15 Pointed oval weight of reused steatite vessel sherd with perforation at each end.Flat underside and upper surface scratched.
L95,W47,T23mm.
IL 598 FS22
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 107,pl.XLIX no.6
Just below wall top on south side, almost at floor level,

Building III.
Figure 34.A

6.1.16 Beach pebble with incomplete perforation near narrower tip of the stone.
L100,W55,T18-52mm.
IL 660 Childe no. 20.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe 1943,14.
From floor of East room.

6.1.17 Pyramidal stone with complete perforation near top.Not obviously trimmed.
L73,W31-42,T34,Perforation D4mm.
IL 661 Childe no.13.
Donations 1943,196,no17 (Alexander Sinclair).
Childe 1943,14.
From base of fire pit.
Figure 34.B

6.1.18 Sandstone pebble with vertical groove.Horizontal depression at top in gap of vertical groove.
L65,W55,T55,groove W8,Depth 2mm.
IL 662 Childe no.?17.
Donations 1943,196,no.17 (Alexander Sinclair).
Childe 1943, 14,pl.lV no.6
Immediately north of kerbstone in East room,just below floor level.
Figure 33C

6.1.19 Sandstone pebble,broken in half with one incomplete perforation starting at each side,failing to meet in the middle.Rounded outer surface has shallow groove possibly indicating subsequent use as a weight.
L43,W25,T30,groove L12,W2mm.
Not accessioned.

Rosie Collection
6.1.20 Damaged steatite line weight , worn perforation at top, surface generally abraded. Roughly oval.
L66,W30,T14,perforation D4mm.
Figure 34C

Other Collections.
6.1.21 Large centrally perforated beach pebble.
L150,W125,T100,perforation D20mm.
Manson,John O'Groats.

Not Located.
6.1.22 Roughly shaped stone, possible weight.
L140,W33mm.
Not numbered.
Curle notebook ms 28a (SAS 461),20.

6.1.23 Half oblong sandstone pebble, broken at perforation.
L40,W20mm.
FR 48.
Curle notebook ms 28a (SAS 461),41.
Surface find.

6.1.24 Lump of quartz with transverse hole drilled at one end.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461),48.
Found in front of south hollow.

6.1.25 Ovoid pebble with longitudinal groove around centre, millstone grit.
L180,W80mm
Not numbered.
Curle notebook ms 28a (SAS 461),48.
Found in front of south hollow.

6.1.26 Block of quartz, sides near central groove are chipped.
L57,W50mm.
FS52
Curle notebook ms 28a (SAS 461), 63.
From South East corner Building VI.

6.2 Whorls.

NMAS.

6.2.1 Damaged sandstone whorl,roughly circular with large slightly eccentric perforation. Lower face damaged,upper face decorated with four circles and eight around the edge.
D40,T13,Perforation D 8mm.
GA 773.
Donations 1909,16 (Tress Barry, 1908)
Freswick Sands Broch.
Figure 35A

6.2.2 Decorated sandstone whorl,roughly circular with large perforation.Six to seven circular impressions on upper and lower faces.
D35,T10,Perforation D 12mm.
GA 774
Donations 1909, 16 (Tress Barry, 1908)
Freswick Sands Broch.
Figure 35B

6.2.3 Whorl of reused vessel sherd,fine grained stone with traces of tooling and burning on one side.Irregular perforation and uneven flattened cross-section.
D28,T10-14,Perforation D10mm.
ED 510
Donations 1935,247 no.1 (Bremner).

Found with fragments of steatite urn at the base of a ruined cairn on Freswick Links.
Figure 35C

6.2.4 Highly abraded circular whorl of flat section, possibly of reused steatite sherd, irregular central perforation.
D25,T11,perforation D7mm.
HR 808
Donations 1925,154 no.3 (Edwards).
From Middens.

6.2.5 Flat sandstone whorl with central perforation and smoothed edges.Incised grafitti on upper surface.
D48,T12.5mm.
IL 602 FR 16.
Donations 1939,335 no.10. (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),20
Found cleaning floor of Building 1V
Plate 30A.

6.2.6 Reused steatite vessel sherd with irregular burning on one face and tooling on other.Whorl with cylindrical perforation and slightly chipped.
D34,T8,Perforation D7mm.
IL 659 ?Childe no.15
Donations 1943,196 no.17 (Alexander Sinclair).
?Childe 1943,13.
?From loose material over North wall to the east.
Plate 30B.

6.2.7 Truncated cone whorl with concave sides,complete in two conjoining fragments, tooling visible along the sides, circular perforation.
H25,D31-17,Perforation D10mm.
IL 678.
Donations 1948,322,no.5(Purchase anon).
Plate 30B.

Rosie Collection.

6.2.8 Roughly circular whorl of reused steatite sherd, burnt exterior and tooling on interior face.Eccentric perforation.
D33,T16,perfoartion D9mm.
Plate 30C.

6.2.9 Complete sandstone whorl with central perforation.
D40,T16,Perforation D 12mm.
Plate 30C.

6.2.10 Half whorl of reused steatite sherd, burnt exterior and eccentric perforation.Uniform thickness.
D36,T9,perforation D3-13mm.
Figure 35D

6.2.11 Complete flagstone whorl with chamfered perforation.
D26,T9,Perforation D2-10mm.
Figure 35 E

Recent Work.

6.2.12 Spindle whorl,possibly originally steatite vessel fragment, slight traces of burning. Even thickness throughout with central perforation,of poor quality steatite.
L44,W45,T14mm.
FL80UD,SF no. 23.

6.3 Vessels and Vessel Sherds.

NMAS.

6.3.1 Rim fragment of steatite vessel with flattened rim. Perforation 20mm below rim, and broken along a second incomplete one. External burning and slight internal and along one edge. No tool marks visible.
L50,W70,T17-19mm.Perforation D 6mm.
HR 1502.
Donations 1980,535 no.4 (Murray)
Plate 32A.

6.3.2 Fragment of worked steatite,probably part of a vessel,tooled on internal surface, which has burnt deposit adhering. Irregular thickness.
L55,W50,T17mm max.
HR 1503.
Donations 1980,535 no.4 (Murray)

Other Museum Collections.

6.3.3 Roughly square sandstone vessel, damaged at one corner. Exterior base rounded. Made from a split beach boulder. Interior roughly pecked out.
Exterior L330,W330,T125mm max.
Interior L235,W250,Depth 80mm.
978.287
Inverness Museum.
Plate 33A.

Rosie Collection.

6.3.4 Small steatite vessel sherd,burnt exterior and interior faces.Uneven working on inner face possibly suggesting reuse of sherd.
L115,W52,T17mm.
Figure 37A

6.3.5 Large steatite rim and wall sherd ,single perforation 22mm below rim.Tooling on exterior and interior faces,externally burnt.
L123,W110,T28mm Perforation D8mm.Vessel diameter c 32 cm.
Plate 32C, Figure 36.A

6.3.6 Steatite sherd with perforation and interior and exterior tooling.Burning on external face, and slight internal ridge.

L112,W43,T15mm.Perforation D 5mm.
Figure 37B

6.3.7 Large rim sherd of steatite with two perforations,one near rim in very thin part of vessel and other further down vessel side.Tooling on exterior face with smooth interior and traces of scratching. Extensive burning on external face and slightly on internal.Rim of variable thickness,possibly shaven on the exterior.Vessel diameter approx. 19cm.
L125,W105,T5-12mm.
Perforations D8-7mm,75mm apart.
Plate 32B, Figure 36 B

Other Collections.

6.3.8 Abraded steatite wall sherd, tooled internally and externally.
L90,W45,T10mm.
Mrs. Dunnet,John O'Groats.

6.3.9 not used.

Recent Work.

6.3.10 Large steatite vessel sherd,interior burning and tooling. Signs of original perforation,abraded.
L124,W64,T20mm.
FL 79 UG,SF no.9.

6.3.11 -14 Four small fragments of steatite,three with burning and two with tooling.
Less than L20,W12,T6mm.
FL 79UG,SF. no.9 as above.

6.3.15 -20 Six amorphous pieces of steatite,one has traces of burning and tooling.
Less than L55,W35,T14mm.
FL79 UG,SF no.10.

6.3.21 -22 Two small conjoining weathered fragments of steatite,vessel sherd with traces of interior burning.
L35,W14,T10mm.
FL80 UQ SF. no. 70.

6.3.23 Fragment of steatite,burnt on one face,worn on other.Full thickness of vessel represented.Two other faces also possibly burnt,presumably after breakage.
L46,W23,T19mm.
FL82 UH,SF.no.363.

6.3.24 Small chip of steatite,amorphous.
L17,W14,T5mm.
FL81 UH,SF no.364.

6.3.25 Small chip of steatite,vessel fragment with burning on one side,possibly representing the full vessel thickness.

L19,W12,T11mm.
FL81 UM,SF.no 420.

Not Located.

6.3.26 Possible steatite vessel fragment.
Not available for examination.
Saxon, Thurso.

6.3.27 Part of a steatite vessel.
No dimensions.
Donations 1935,247 no.1 (Bremner)
Found near a cairn with whorl 6.2.3.

6.3.28 Piece of large steatite vessel.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461), 57.
Found outside south wall of Building VI,to east of entrance.

6.3.29 Portion of rim of very large curved steatite vessel.
c 350mm long.
FS 67
Curle notebook ms 28a (SAS 461),68.
Found north of Building IV.

6.4 Stone Discs.

NMAS.

6.4.1 Flagstone disc,chipped around edges,roughly circular.
L99,W84,T8mm.
HR 1055
Donations 1935,[illegible],no.3a(MC Bremner)

6.4.2 Three roughly chipped circular discs,flagstone.
-4 2) D80,T10mm.
3) D96,T9mm.
4) D102,T10mm.
2)IL 592 FS 49 3)IL 593 FS 48 4) IL 594 FS 74.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 107,pl.XLIX 9 and 10.
FS 48,49, Building VI above floor level;FS 74 Building VI site of cross wall.

Other Collections.

6.4.5 Flagstone disc,roughly chipped edges,smooth upper and lower surfaces.
D210,T10mm.
R.S. Murray,Blackburn.
Plate 31A.

6.4.6 As above.
D175,T8-10mm.
R.S. Murray,Blackburn.

6.5 Quernstones.

NMAS.

6.5.1 Lower stone of quern, partly made, of sandstone, roughly rounded. Top dressed by pecking, as are sides. Very roughly circular. Not perforated.
L415,W360,T110mm.
BB 101
Donations 1927,166, no.10 (Bremner)
Found near Earth House.

6.5.2 Part of the upper stone of a rotary quern of garnetiferous mica schist.Countersunk circular area around the central hole and a hollow for the vertical handle.Estimated diameter c350mm.
L310,W170,T10mm.
IL 606 FS 30./FR 38
Donations 1939 335 no.10 (Alexander Sinclair).
Curle 1939,107.
Found outside north wall of Building III

6.5.3 Slightly oval sandstone quernstone with large central perforation and smaller one for handle.Slightly damaged at one edge,lower side very smooth and edges slightly rounded.
L440,W320,T70.central perforation D70mm, D 50mm.
IL 607.FS 55
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107,Plate XLVI,1 and 2.
From Building VI
Plate 31B.

Not Located.

6.5.4 Approximately 1/4 upper stone of garnetiferous schist quern.
No dimensions.
FR 38.
Curle notebook ms 28a (SAS 461), 32.
Found in rubbish on top of Building II.

6.5.5 Part of a garnetiferous schist quernstone.
No dimensions.
Curle notebook ms 28a (SAS 461),36.
Found tidying up Building IV.

6.5.6 Segment of flat rotary quern with beginnings of boring for handle.
Childe no.4
Childe notebook,12.
Found as stone of kerb of hearth.

6.6.Hones.

NMAS.

6.6.1 Ovoid beach pebble with traces on each broad side of a narrow groove ,possibly caused by sharpening a pointed implement.
L67,W53,T26mm.Grooves a)Depth 2,L30mm.b)Depth 3,L25mm.
HD 1180.
Donations 1952,211 no.22 (Bremner).
Figure 38 A

6.6.2 Small perforated schist hone,complete and with irregular quadrilateral section.
L69,W10,T6mm.
HR 1017.
Donations 1950,230,no.38 (MC Bremner).
Figure 38 B

6.6.3 As above,damaged at perforation.
L70,W14,T6mm.
HR 1017 (Dup no.).
Donations 1950,230,no.38(MC Bremner).

6.6.4 Haunched hone of schist,worn particularly at one end.Broken in two places and mended. Flattened section,rectangular.
L145,W10-29,T11mm.
IL 577 FS 26.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106, pl.XLIX no.8
From Building III
Plate 31C.

6.6.5 Haunched hone of schist,narrowing towards break.Used on all four sides and rectangular in section.
L129,W20-31,T11mm.
IL 578. FS 25.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
Found near South wall Building III

6.6.6 Almost complete hone of schist narrowing towards the middle.Extensively used on the broad flattened end. Flattened section.
L110,W23,T9mm.
IL 579 ?FS 26.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
From Building III
Plate 31C.

6.6.7 Broken haunched hone of schist,narrowing towards centre where it is broken.Rectangular section.
L71,W32,T10mm max.

IL 580 FR 11.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
From floor level Building IV

6.6.8 Broken haunched hone of schist,narrowing towards centre where it is broken.Rectangular section.
L56,W20,T10mm.
IL 581 ?FS 43.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
Near south wall Building VI
Figure 38 C

6.6.9 Chipped hone of black phyllite,worn on top and tapering towards one end.Rectangular section.
L146,W25,T6-13mm.
IL 582 FS 70.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,106.
From west end Building III

6.6.10 Lump of flagstone with groove on each side ,possibly a sharpening stone.Scratched on both sides. Rectangular section.
L112,W33,T26mm.
IL 583 FR 49.
Donations 1939 335,no.10 (Alexander Sinclair).
Curle 1939,106.
From floor level Building IV on west side between fire and wall.

Rosie Collection.

6.6.11 White fine-grained hone with square section,worn on all four faces.
L134,W17,T18mm.
Plate 31D.

Recent Work.

6.6.12 Part of a schist hone,worn on all four faces.Six small slash marks on one edge.
L45,W14,T7mm.
FL80 UG/H,SF.no.365.

Not Located.

6.6.13 Part of a hone of grey stone, broken.
L70,W20mm approximately.
FR 32.
Curle notebook ms 28a (SAS 461), 29.
Found in midden at side of south wall of Building I.

6.6.14 Hone tapering towards one end, possibly incomplete.
Lc 85,W20-30mm.
FS 26.

Curle notebook ms 20a (SAS 461), 51.
From forge along south side of Building

6.6.15 Haunched hone, imperfect and tapering towards broken end.
Lc75,W15mm.
FS 37
Curle notebook ms 20a (SAS 461), 57.
From Building VI

6.6.16 Hone tapering towards damaged end.
L68,W13mm
FS 50
Curle notebook ms 20a (SAS 461), 62.
Found c 7.2m from east end of Building VI, c1m from south wall at floor level.

6.6.17 Incomplete hone.
No dimensions.
FS 57.
Curle notebook ms 20a (SAS 461), 64.
Found in top of peat ash in forge.

6.7 Beads.

NMAS.

6.7.1 Slightly chipped spherical crystal bead with perforation.
D14.5,perforation D.3mm
ER 911
Donations 1940,151 no.5(Purchase ?Bremner).
From northern end of the Links.

Rosie Collection.

6.7.2 Roughly circular amber bead with central perforation , slightly damaged or water worn.
D17,Perforation D 7mm.

6.8 Chipped Pebbles.

NMAS.

6.8.1 Possible quartz hammer stone,rounded beach pebble with traces of battering at each narrow end.
L45,W38,T22mm.
HD 488.
Donations 1935,246 no.1 (Bremner).
From Flint Workers Site.
Figure 38D

6.8.2 Small axe-shaped sandstone beach pebble,chipped at one edge,possibly natural.
L75,W40,T16mm.
HD 500.
Donations 1935,246 no.1 (Bremner).
From Flint Workers Site.

6.8.3 Split quartz pebble,two small indentations at opposing ends,possibly natural.
L41,W34,T8mm.
ED 1181.
Donations 1952,211,no.22 (Bremner).

6.8.4 Beach pebble with one possibly smoothed face,possibly natural.
L62,W51,T16mm max.
ED 1182.
Donations 1952,211 no.22(Bremner).

6.8.5 Four split pebbles,not obviously worked.
-8 5)L105,W92,T15mm max.
6)L115,W95,T10mm max.
7)L122,W105,T11mm max.
8)L100,W60,T28mm max.
5)HR 1056 6)HR 1057 7)HR 1058 8) HR 1059.
Donations 1950,227 no.2(Bremner)

6.8.9 Oval flat-sided beach pebble,with small semi-circular chip at one edge,possibly an incomplete perforation.
L98,W73,T32mm.
IL 588 FS 21.
Donations 1939,335,no.10 (Alexander Sinclair).
Curle 1939, 107,pl.XLIX no.7
From surface near red ash heap
Figure 38 E

6.8.10 Squared block of quartz,suggested as smoother.
L80,W80,T52mm.
IL 589.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107

6.8.11 Oval pebble of porphyry with two sides rubbed.
L67,W38,T35mm.
IL 590 FS 23.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107
Near south wall slightly above floor level Building III

6.8.12 Large quartzite pebble,possibly with two sides rubbed.
L100,W47,T45mm.
IL 591
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107.

6.8.13 Sandstone pebble,damaged around all edges.
L95,W48,T32mm max.
IL 591 (dup.no) ? FR 41
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107.

From top level Building II

6.8.14 Flat sided beach pebble,wider at one end.Chipped at opposing points on the long side,possibly natural or roughly shaped as a weight.
L179,W94-44,T42mm.
IL 599 FR 39.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107
From lowest level, in peat ash of flue, Building III

6.8.15 Flat sided oval beach pebble,slightly wider at one end,possibly not worked.
L154,W71,T26mm.
IL 600.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107.

6.8.16 Oval beach pebble with slight chipping,possibly natural.
L124,W64,T24mm.
IL 601 FR 36.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,107.
Possibly Building I

6.8.17 Flat almost circular pebble with ground edges.
L44,W47,T18.5mm.
IL 663 ?Childe no.15.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe notebook,12.
From loose material over north wall to the east.

Not Located.

6.8.18 Two abraded pebbles, with damaged short edge.
-19 18) L120,W8mm.
19) L240,W9mm.
Not numbered.
Found near doorway of Building IV.
Curle notebook ms 28a (SAS 461), 22.

6.8.20 Large ovoid pebble with pecking in centre of one side.
L120,W110mm.
Not numbered.
From top level Building II.
Curle notebook ms 28a (SAS 461), 36.

6.8.21 Broken rubber.
No dimensions.
Childe no.2.
Childe notebook,12.

6.8.22 Pounder scratched on one face, possibly used also for sharpening.
No dimensions.

Childe no.3
Childe notebook,12.

6.8.23 Possible stone tool/knife, of chipped pebble.
L70,W100,T30mm.
Lacaille 1954,268 fig.118 no.1
Figure 13,no.1

6.9 Arrowheads.

Other Museum Collections.

6.9.1 Finely worked barbed and tanged arrowhead,complete.Grey flint.
L29,W14,T2mm.
Thurso Museum.ARC 795
Donation Bremner 1931.
Freswick Mid Ridge.

6.9.2 Finely worked barbed and tanged arrowhead,lacking tip,in reddy brown flint.
L27,W18,T2mm.
Thurso Museum.ARC 795
Donation Bremner 1931.
Freswick Mid Ridge.

Rosie Collection.

6.9.3 Leaf shaped arrowhead in white flint,complete and extensively retouched on each surface.
L24,W21,T4mm.
Figure 39 A

6.9.4 Leaf shaped arrowhead of reddish brown flint,damaged.
L23,W17,T4mm.

6.10 Scrapers.

NMAS.

6.10.1 Honey coloured flint scraper,made from retouched piece.
L20,W20,T5mm.
AB 2287.
Donations 1935, 246 no.1 (Bremner)

6.10.2 Honey-coloured flint scraper with traces of brown cortex,made from retouched chip.
L16,W13,T5mm.
AB 2289.
Donations 1935, 246 no.1 (Bremner)

6.10.3 Scraper of honey coloured flint,one edge retouched.
L30,W29,T7mm.
AB 2616.
Donations 1950,227 no.2 (Bremner)

6.10.4 Scraper of grey flint,one retouched edge.

L18,W28,T7mm.
AB 2617.
Donations 1950,227 no.2 (Bremner)

6.10.5 Scraper of mottled grey flint,extensive retouch around two of the edges.
L37,W19,T7.5mm.
HR 804.
Donations 1925,154,no.3 (Edwards).
From midden.
Figure 39 B

6.10.6 Scraper of dark grey flint with traces of white cortex.
L26,W27,T5mm.
HR 1040.
Donations 1950,227,no.2 (Bremner)

6.10.7 Scraper of black flint with traces of white cortex, discoidal.
L27,W27,T5mm.
HR 1040 as above.
Donations 1950,227,no.2 (Bremner)
Lacaille 1954,267 ,fig.117,no.3
Figure 14, no.3

6.10.8 -11 Four small yellow and orange flint thumb scrapers,retouched along one edge.
8) L19,W22,T7mm.
9) L20,W18,T8mm.
10) L20,W18,T5mm.
11) L17,W15,T4mm.
8) HR 1041 9) HR 1042 10)HR 1043 11) HR 1044.
Donations 1950,227,no 2 (Bremner)
Lacaille 1954,267 ,fig.117,no.4 (HR 1044)
Figure 14,no.4

6.10.12 Brown flint scraper with traces of pale brown cortex, extensively retouched.
L29,W24,T15mm.
HR 1045.
Donations 1950,227,no.2 (Bremner)
Lacaille 1954,267,fig.117, no.5
Figure 14, no.5.

6.10.13 Possible scraper of honey coloured flint with brown cortex.Extensive retouch along edges.
L25,W15,T10mm.
HR 1046.
Donations 1950,227,no2 (Bremner)

6.10.14 not used

6.10.15 Scraper of grey flint,roughly oval in shape.
L28,W18,T7mm.

IL 604 FS6.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),46.
Found near Edward's site.
Figure 39C

Rosie Collection.

6.10.16 Two scrapers of dark brown chert ,one slightly damaged and
-17 both extensively retouched.
16)L31,W27 T10-5mm.
17)L30,W20,T8mm.
Figure 39D

6.10.18 One scraper of dark grey chert,flat upper surface and sides extensively worked.
L17,W15,T7mm.
Figure 39E

Not Located.

6.10.19 Scraper of flint.
No dimensions.
HR 1048.
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,267 fig 117 no.1.
Figure 14,no.1

6.10.20 Side scraper of blue grey flint, abrupt retouch on one side.
L24,W16,T7mm.
HR 1505
Recent accession RS Murray 1978.
No reference.

6.11 Retouched Flakes and Fragments.

NMAS.

6.11.1 Chip of honey coloured chert,possible retouch along one edge.
L21,W16,T5mm.
AB 2288.
Donations 1935,246 no.1 (Bremner)

6.11.2 Lump of grey flint with extensive dark grey cortex remaining,posssibly worked along one edge.
L43,W37,T15mm.
AB 2611.
Donations 1950,227 no.2 (Bremner)
Lacaille 1954,fig.72,186 no.7
Figure 15 no.7

6.11.3 Possible blade of grey flint,edges slightly serrated.
L33,W15,T4mm.
AB 2613.
Donations 1950, 227 no.2 (Bremner)

Lacaille 1954, fig.72,186 no.3
Figure 15,no.3

6.11.4 Small flake of grey flint with serration at edges.
L23,W13,T4mm.
AB 2614
Donations 1950,227 no.2 (Bremner)
Lacaille 1954,fig.72, 186 no.1.
Figure 15,no.1

6.11.5 Highly retouched flake.
L40,W28,T6mm.
AB 2615
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,fig.117,267 no.6
Figure 14,no.6

6.11.6 Retouched flake of pink chert,retouched along one edge,roughly triangular in shape.
L28,W20,T6mm.
HD 492.
?Donations 1936,358 no.3 (Bremner).

6.11.7 Lump of fawn chert with retouching.
L23,W18,T7mm.
HD 554.
?Donations 1936,358 no.3 (Bremner).

6.11.8 Lump of grey/fawn flint with retouching.
L27,W29,T11mm.
HD 555.
?Donations 1936,358 no.3 (Bremner).

6.11.9 Retouched flake of honey-coloured flint.
L25,W18,T4mm.
HD 557.
?Donations 1936,358 no.3 (Bremner)

6.11.10 Chip of honey coloured flint with retouching.
L22,W21,T6mm.
HD 559.
?Donations 1936,358 no.3 (Bremner)

6.11.11 Retouched flake of honey-coloured flint.
L30,W20,T7mm.
HR 1047.
Donations 1950,230 no.38 (MC Bremner)

6.11.12 Retouched notched flake of reddish flint, with traces of brown cortex.
L28,W16,T8mm.
HR 1047 As above.
Donations 1950, 230 no.38 (MC Bremner)

6.11.13 Retouched dark brown flint flake,traces of pale brown cortex.
L27,W18,T9mm.
HR 1049.
Donations 1950,230 no.38 (MC Bremner)
Lacaille 1954,267 no.2
Figure 14,no.2

6.11.14 Retouched flake of mottled grey/brown flint.
L21,W14,T6mm.
HR 1050.
Donations 1950, 230 no.38 (MC Bremner)

6.11.15 Retouched flake of grey flint.
L18,W20,T3mm.
HR 1051.
Donations 1950,230, no.38 (MC Bremner)

6.11.16 Retouched blade of honey-coloured flint.
L24,W10,T2mm.
HR 1051,as above.
Donations 1950,230 no.38 (MC Bremner)

6.11.17 Lump of beige/brown flint of poor quality and with retouching.
L30,W21,T16mm.
HR 1052.
Donations 1950,227, no.2 (Bremner)

6.11.18 Blade of grey flint with traces of brown cortex,retouched edges.
L38,W25,T7mm.
HR 1054.
Donations 1950, 230 no.38 (MC Bremner)
Figure 39F

6.11.19 Blade of grey mottled flint with extensive retouching.
L33,W16,T4mm.
IL 603. FS7.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),46.
Found near Edward's site.
Figure 39G

Other Museum Collections.
6.11.20 Six retouched flakes of grey flint.
-25 Less than L34,W16,T7mm.
Thurso Museum.
Donation Bremner 1931.
From Freswick Mid Ridge.

6.11.26 Two flakes of honey-coloured flint, traces of retouching.
-27 26)L43,W21,T20mm.

27)L30,W21,T15mm.
Thurso Museum.
Donation Bremner 1931.
From Freswick Mid Ridge.

6.11.28 Eight retouched flakes of reddy brown flint.
-35 Less than L40,W29,T5mm.
Thurso Museum.
Donation Bremner 1931.
From Freswick Mid Ridge.

Rosie Collection.

6.11.36 Flake of black flint with dark grey cortex,traces of concoidal fracture and a single retouched edge.
L39,W30,T12-6mm.

6.11.37 One flake of reddish brown flint, retouched .
L22,W13,T4mm.

6.11.38 Two flakes of white/grey flint, retouched.
-39 38)L20,W15,T6mm.
39)L24,W12,T5mm.

6.11.40 Two pieces of reddish-brown chert with possible retouch.
-41 40)L17,W10,T6mm.
41)L18,W12,T8mm.

6.11.42 Apex of grey-brown flint pebble with white cortex,possibly retouched.
L20,W22,T10mm.

6.11.43 Honey-coloured flint lump with traces of pale brown cortex and slight patination .
L23,W20,T10mm.
FL 79 UQ,SF.no.21.

6.11.44 One piece of honey-coloured flint with a small patch of pale brown cortex.Possibly retouched.
L29,W14,T7mm.
FL 80 UQ,SF no.77.

6.11.45 One small lump of honey-coloured flint, possibly retouched, pronounced bulb of percussion.
L23,W8,T4mm.
FL 81 UK,SF no.371.

Not Located.

6.11.46 Two pieces of burnt flint, possibly slightly retouched.
-47 No dimensions.
FS 8.
Curle notebook ms 28a (SAS 461),47.
Found at red ash site along with many other pieces of unworked flint.

6.11.48 Yellow nodule.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461),28.
Found in Building I, in association with a number of sherds of brown unglazed pottery (10.4.10).

6.11.49 Possible flint blade, patinated cream and slightly stained red-brown.
L35,and L21mm
AA260
Donor Unknown.

6.11.50 Blade with battered back in chert.
L19mm.
AB 2284.
Donations 1935,438 (Purchase anon)

6.11.51 Blade as above of quartzite.
L16mm
AB 2285
Donations 1935,438 (Purchase anon)

6.11.52 Retouched flint fragment.
No dimensions.
HD 553
Donations 1936,358 no.3 (Bremner).

6.12 Cores.
NMAS.
6.12.1 Possible core of heavily weathered grey flint,with traces of darker cortex.
L34,W39,T8mm.
AB 2612.
Donations 1950,227 no.2 (Bremner)
Lacaille 1954, fig 72,186 no.5.
Figure 15 no.5.

Rosie Collection.
6.12.2 Core of fawn chert with traces of pale brown cortex.Six main flakes removed and several subsidiary ones.
L27,W31,T25mm.

Not Located.
6.12.3 Core of brown flint.
L27,W13,T15mm.
HR 1504.
Recent accession Murray 1978.

7. Glass.

7.1 Fragments.

Rosie Collection.

7.1.1 Heavily patinated sherd,possibly water worn,green. Possibly modern.
L53,W30,T7mm

Recent Work.

7.1.2 Roughly triangular piece of heavily patinated pale green glass.
L22,W21,T2mm.
FL80 UJ, SF no. 62.

7.2 Beads.

NMAS

7.2.1 Small flat bead of yellow opaque glassy paste.
D6,T4mm.
FJ 141.
Donations 1948,?322 no.5 (Purchase anon.)
Found inside the broch at Freswick.

7.2.2 Small round bead in blue translucent material, possibly glassy paste.
HR 912.
D12,T10mm.
Donations 1940,151,no.5 (Purchase ?Bremner).
From the north end of the Links.

7.2.3 Small oval green glass bead with uneven perforation. Opaque through weathering.
L5,W4,T2mm.
IL568 FS18.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,102.

Rosie Collection.

7.2.4 Black glass or jet circular bead with central perforation.
D9,Hole D4mm.

Discussion.

Sinkers and Weights.

The sinkers and weights in the catalogue can in fact be catalogued into three main groups.There is a group of those which are grooved and not perforated and may be described as sinkers or weights for purposes other than fishing.Another type has perforations in conjunction with grooving and seem to be line weights,as possibly the

third type which is only perforated.This last group also includes what may be described as loomweights,of which there are many variable forms.

Many sites have produced evidence of the grooved sinker, but they are all apparently in the Norse milieu.The type has been extensively discussed by Curle (1982,81 and ill. 54 no.582), citing parallels by Petersen (1951,263-4,fig.143-49) from Scandinavia.A common form is generally oval with grooving around the outer edge, although variations include crossing horizontal and vertical grooves.From the older excavations at the Brough of Birsay, three of the type in sandstone were recorded and one in steatite. From the more recent work, a fine example in sandstone has been noted (BB76 KNa, SF no. 947) in a Norse context also.A large number are illustrated from Jarlshof, and termed 'bismar weights' (Hamilton 1956, plate XXXIV, nos. 10-13).In relation to the possible uses of this type of weight, the observations of George Low in 1773 can be of assistance.He noted that 'In buying and selling they use no measures of capacity as in Scotland, but all their grain whither underground, or made into meal, is weighed. For this end they are provided with balances of a peculiar structure which they first received from Norway then their Mother Country, and which still retain their Norse, or Norn names, but very probably have undergone several alterations since their being introduced into the Orkneys' (Low 1889,57).

Examples from Scandinavia have also been cited from recently produced exacavation reports,for example an example with two lots of grooving around the edges and one medial groove, described as a net sinker, has been recovered from Århus, made of limestone (Andersen et

al 1971,198). Likewise, a roughly pyramidal type from Hedeby has also been noted (Resi 1979,87, fig. 85 a/b).From these few examples it is possible to see that there are obviously two distinct types of grooved weights; one can be described as bismar weights, generally with a single groove around the outer edge of the stone, which is often a beach pebble,and the other type, which may have more than one groove, most commonly around the middle of the stone with another at right angles to it, thus providing additional support, seems to be more likely to be associated with fishing. There are possibly six bismar weights from the Freswick assemblage and four of the type distinguished as fishing weights.

The type of weight which is suggested as a 'line weight', with both groove and perforation,(often more than one of either) is also paralleled in a Norse context.The type which is roughly oval in form with a round or oval section, and roughly four to five times longer than its width, with possibly two perforations, has been noted to be of a later Norse date at the Brough of Birsay (Curle 1982,81).Here, examples are of steatite including a reused vessel sherd, such as nos.587-590.Similar examples have also been noted at Jarlshof (Hamilton 1956, plate XXXIV nos. 1-9) and Underhoull (Small 1966,240) in Shetland.This type seems to be generally made of steatite, as is the example from Freswick,6.1.15 from Curle's excavations.The type is recorded from Kaupang, Norway (Blindheim et al 1981,pl.74 g) and also from Hedeby (Resi 1979,86,fig. 84) although this example lacks the groove despite being of identical form to the others. It is possible that this example was never used.There is an interesting variant on the type from Clifford Street, York (Waterman 1959, 97 fig. 23 no.

14,99) which may conceivably have had a slightly different function. Only two or possibly three have been distinguished at Freswick (such as 6.1.15 and 6.1.19).

The final type of weight to be distinguished is that which has a single perforation and little or no traces of grooving caused by wear. There are twelve examples of this simple type at Freswick. Into this class fall the simple line or loomweights which are made of simple beach pebbles with a single perforation and some which are made of reused steatite vessel sherds.The pebble weights have been found at many sites, and are usually considered to be crude loomweights. This identification is assisted by the recovery of a large group together, especially if they are in a line.A large number have been recorded from Jarlshof (Hamilton 1956, plate XXXV nos. 1-3 for example) and also from Birsay (Curle 1982, ill.54 no.581) in lesser numbers.The site of Underhoull in Shetland has also produced this class of artefact (Small 1966,244).The site of Saevar Howe, Birsay has also produced examples and they are discussed more fully elsewhere (Batey and Morris in Hedges forth).Examples have been noted from Hedeby, including those of reused steatite sherds (Resi 1979,88 fig.86 no.3 and 6) and they are described in this context as loomweights. However, the very simple nature of the pebble type can be paralleled in other contexts which are considerably earlier and in a different social milieu, such as Hownam Rings, Roxburgh ,possibly 3rd Century (Piggott 1948,217, fig.11) and Midhowe Broch, Rousay, Orkney (early Iron Age) (Callander and Grant 1934,497).This is another example of a simple type of artefact which is purely functional and the raw material relatively easy to locate , which prevents any statement about this

being a Norse artefact. However, as there are examples in Norse contexts also,the universality of the type has to be accepted.

Whorls.

A number of categories of whorls can be distinguished in the twelve in this assemblage (6.2).There are variations in form, ranging from hemi-sperical,through conical to flat (it must be noted at this point that there are more bone femur head whorls in the assemblage than there are stone, they will be dealt with below).There are also variations in material, seven out of twelve for example are made of steatite,such as 6.2.3 and 6.2.4, four of sandstone such as 6.2.5 and 6.2.9, and the last one made of flagstone,6.2.11.

The sandstone whorls in the assemblage are all flat types, three of which have decoration on them. 6.2.1 and 6.2.2, were recovered from the excavations at the broch,but unfortunately close parallels cannot be located at present.6.2.5 is interesting because it has crudely incised graffiti on its upper face very similar to the example from Buckquoy (Ritchie 1977,197,fig.8,84) and less so to examples from Jarlshof (Hamilton 1956,144 fig.66 no. 6 and 7).The non-decorated flat type is paralleled at Saevar Howe, such as SH 77.120 and SH 77.116 (Batey and Morris forth.) The type is very simple and extremely difficult to date.

The example made of flagstone with an hour glass perforation, 6.2.11 can be paralleled in form at Burrian (MacGregor 1974,91, fig.18 no.230)The type of stone is of very little significance because the easiest available and workable stone would be employed. At Freswick both Sandstone and Flagstone are readily available.However, the type of whorl which is most common in this assemblage is made of steatite.

This commodity is not common at Freswick, but the most significant point here is that out of the seven examples recorded, six of them are clearly made from reused vessel sherds. This feature is common to many sites and has even been recorded at Jarlshof where steatite is very easily accessible (Hamilton 1956,135 no.11). From the recent reappraisal of the finds at the Brough of Birsay,Curle has noted fourteen steatite spindle whorls, of which five are clearly of reused sherds, indicated by the traces of burning on tooled faces reused for the whorl (Curle 1982,118).The non-steatite whorls from Birsay, which number twelve in all, are generally from the Lower Norse/Pictish contexts. It is not possible to be sure that this division is occurring at Freswick because of the unstratified nature of the finds.The reuse of steatite has been noted in Scandinavia also, at Lund for example (Blomqvist and Mårtensson 1963,204) and at Hedeby (Resi 1979, 79, fig. 76 no.2),for spindle whorls.

Stone Vessels.

There is just one example of a non-steatite vessel in this assemblage,6.3.3, it is made from a roughly worked sandstone boulder, probably from the beach, and is roughly square in form, although now damaged at the corner. It is difficult to date such an item, but it was apparently found on the track at Freswick and has its most obvious parallel from a deserted croft near Dunnet Head, where a similar vessel lies amongst the ruins (DUN 006, Batey forth.Plate 33B).It is a vessel which would have been useful for storage, but precisely of what cannot be distinguished.The making of roughly square vessel in steatite is noted from Jarlshof in late phases (Hamilton 1956,166,

fig.77,no.5) and it is therefore conceivable that this piece is a copy of the type, made in sandstone because that was more readily available than steatite at this site.

The use of steatite or soapstone, a very soft and easily worked stone, greatly increased in the Viking period in Scandinavia. Skjolsvold has noted that more than 80% of Scandinavian steatite vessels are from the Viking period (1961,15). Extensive quarries in south and west Norway supplied the towns of Viking Scandinavia, probably Kaupang, Hedeby (Resi 1979) for example. However, for the Scottish material quarries in Shetland are more likely to have been exploited. The problems of identifying the provenance of individual steatite pieces are mainly exacerbated by a large variety within a single outcrop. However, it is hoped that more recent scientific analysis will reduce these problems (eg.Allen et al 1978; Rogers et al 1983). Work on the steatite from Lloyds Bank, York for example has also indicated a provenance in Shetland (MacGregor 1982,74).

Although examples of steatite vessels have been recorded from Bronze Age contexts, as at Jarlshof (Hamilton 1956,20 fig.11), they are generally of a crudely worked square mouthed form. It was however in the Viking period that skill in working the medium is really demonstrated. Three distinct vessel forms have been identified at Jarlshof, where the local steatite outcrop is at Cunningsburgh 15 miles to the North, favoured the use of steatite rather than pottery in many cases. The hemispherical bowl with a diameter ranging between 25-30 cm is a particularly common type. Considerably larger diameters have been located for example,a large vessel illustrated from Norway of a diameter 57.5cm (Graham-Campbell 1980, no.40, 16 and 198). Others

of a possible similar size are noted in Orkney at Birsay (pers. comm. John Hunter) and Tuquoy, Westray (pers. comm. Olwyn Owen). Such large vessels must have been intended as permanent fixtures because of the impracticality of moving them and their friabilty.They are usually found in small fragments and it is unusual to find them in a single piece as the Norwegian example already quoted. This large size is also unlikely to have been suspended over a fire, as were the smaller examples,because the support needed would be impractical for the vessel size.On the smaller examples, there are clear traces of small iron fixtures ressembling rivets, some even remain in position and may be associated with suspension or with repairing the vessel (as for example at Hedeby, Resi 1979,50 fig.42). An illustration of the type of handle employed is from the excavations at Kaupang, Norway (Blindheim et al 1981, plate 19 no.11a). The hemispherical bowl is the most common type with variations on the rim treatment noted. The rims are generally rounded or flattened, sometimes with grooving below on the outer side (eg. Blindheim et al 1981,plate 3 no.5 from Kaupang or plate 49 no.6). This feature is also seen in an example from the recent exacavations on the Brough of Birsay(BB77 OX, SF no.2112). Most of the vessels have a smooth surface, and it has been suggested that sand and water were used to achieve this finish (Hamilton 1956,206) to remove the chisel marks on the manufacturing process.Sometimes, the interior of the vessel is apparently deliberately roughened or rifled, possibly to assist in the grinding of food (Graham-Campbell 1980,16 no.41).

Other vessel forms have been noted, possibly of a slightly later date; the heavier oval ones, dated by Hamilton to the 10-11th

centuries and small four-sided examples of the 12-13th centuries with prominent chiselling (1956,206).The later type has also been recovered from Sandwick, Unst (Bigelow pers. comm) and Papa Stour, Shetland (Crawford pers. comm). These two forms are apparently not represented at Freswick however. Other forms distinguished, such as those with handles or the less common trough-like ones distinguished in Scandinavia by Skølsjvold (1961,17 fig.4 a-c) have not been recorded from Freswick at all.

The Freswick assemblage is restricted to variations on the hemispherical type of bowl. There is an interesting lack of steatite at the site,for the size of the overall assemblage,possibly because of the difficulty in getting the raw material or finished product in Caithness and probably because of the large amount of pottery vessels recorded from the site. It is certainly interesting to note that there are many reused sherds in the group, particularly for whorls, indicating a conservation of the medium.It is conceivable that some of the steatite may have arrived on the site with the initial settlers, possibly from Norway or the Northern Isles and that reuse took place because of the scarcity of the resource.

This is a class of artefact which seems to be largely restricted to sites with some Scandinavian influence, and does not seem to be found on contemporary sites further south: it is a distinctly Norse element.There are many examples recorded from Norse sites, such as Birsay (Curle 1982,71 ill. 46), Deerness (DS76 BN, SF no. 73, see Batey in Morris forth b.) and Saevar Howe, Birsay (SH77 41 see Batey and Morris forth).

In the Freswick assemblage, there are twenty nine examples noted,

of which thirteen are describable as chips or very small fragments.They are generally too small to be diagnostic but usually show signs of burning, sometimes along the breaks which could indicate that they broke while in use.Only three rims have been distinguished, 6.3.1, 6.3.5 and 6.3.7, indicating both flattening and tapering. There is a variety of tooling visible also.One example has an angled profile with extensive burning and a generally flattened rim. There is a perforation below the rim for suspension and very clear vertical tooling down the sides,6.3.5. Apparently this form is closely paralleled in Oslo in 11-12th century contexts (pers comm. Roesdahl). One sherd has a very smooth interior surface and a rough exterior, its rim form is very irregular and it seems to have been shaven; this may be a locally adapted vessel, 6.3.7.There are no other outstanding pieces in the Freswick collection, vessels diameters are limited to up to 32cm and therefore there are none of the very large vessels at the site represented in this assemblage.Some of the sherds show clear burnt deposits, both externally from the fire but also internally from the contents of the vessel.It is hoped that this could be analysed for the food content in the near future.

Stone Discs.

These are commonly described as 'pot lids' and are suggested to have been covers for vessels, presumably in the case of Freswick, made of grass-tempered pottery. There is an interesting range of sizes represented in the small group of six from Freswick, ranging up to 21cm across, but with an average size of c 10cm.This is an artefact which is common to many sites, often made of roughly chipped flagstone. They have been recovered from a variety of contexts,

including Norse, such as Robertshaven, near John O'Groats (Batey forth. SF 56) and Jarlshof (Hamilton 1956,118 fig.55 nos.8-11).Pottery vessels with rims which would accommodate such a lid, have been recorded from Freswick and Jarlshof (Hamilton 1956,53 fig.30 no.7).The class of artefact has been noted in contexts of other periods, such as the Wheelhouse at Clickhimin, Shetland (Hamilton 1968,141 nos. 103-108) and from the broch site there (op cit, 115 fig.47 no.3).

Quernstones.

Three quernstones have been recorded from the site in the National Museum in Edinburgh, 6.5.2, 6.5.3 and 6.5.1. A further two have been recorded from Curle's excavations, but have not been located in the Museum (6.5.4 and 6.5.5) and 6.5.6 from Childe's excavations. Of this group, three are made of garnetiferous schist, two being specifically noted as rotary querns but 6.5.4 lacks detail.Two examples made of garnetiferous schist are illustrated from the site of Jarlshof, one is damaged but the other has one complete perforation and two damaged ones (Hamilton 1956, Plate XXXV nos. 10 and 11).Of these examples from Jarlshof, no. 10 has a collared central perforation, a feature not found in the remaining Freswick examples. It is interesting to note that Hamilton suggests that quernstones of this material were imported from Caithness (op cit ,182,no.23); presumably on the grounds that garnetiferous schist forms part of the basement rock of the north mainland (D. Reed pers. comm).The date of the Jarlshof context is relatively late in the sequence of that site, being attributed to the 13th century (op cit ,182 and 185).

The introduction of the rotary quern has recently been discussed by Caulfield (1978) in relation to the dating of broch development. In his paper, he illustrates some examples which are very similar in form to the Freswick ones from Dunadd (op cit, Plate 8,b).However, the form may not assist in dating of these examples,because Fenton has noted the use of similar rotary querns into the 20th century (Fenton 1978a,389).The examples from Freswick of this type are apparently in a Norse context, from the Buildings excavated by Curle although, as with the Jarlshof examples,it is possible that they may have been reused from earlier phases of the site. Rotary querns however,have been recorded from other Norse contexts such as Lloyds Bank, York (MacGregor 1982,74, fig. 37 and 75) also Århus, Denmark (Andersen et al 1971,164).

Two other quernstones noted are made of sandstone. One is an oval upper stone of a rotary quern with two perforations including one for the handle and was found blocking a post hole in Building VI (Curle 1939, plate XLVI,land 2).The other example,6.5.3 is a lower stone, lacking a perforation and possibly incomplete. It is very roughly shaped by pecking into a circular shape and may conceivably be a grind stone of the sort illustrated by MacGregor from York (1982,76 fig.38).However, in his discussion of the type he states that these stones are usually broken along a bedding plane naturally and not dressed.Presumably,if a good grinding surface was required,the flagstone at Freswick which would indeed break easily along a bedding plane, would not provided such an abrasive surface as the sandstone.

Hones.

It is interesting to note the concentration of this artefact type

in Building III; six out of seventeen examples recorded are from the so-called forge, such as 6.6.4, 6.6.5 and 6.6.6.The suggestion that leather working may have taken place in that structure has an interesting reflection at York, where at the Lloyds Bank site, extensive leatherworking deposits have been noted.The need for sharp tools in this craft has been noted, for both awl points and needles and knives (MacGregor 1982,79). However, at Underhoull in Shetland,a concentration of haunched hones has been taken as being associated with fishing activities (Small 1966,241).

Three small perforated hones , of the small pocket type, have been recorded from the site, such as 6.6.2.This is a common type, with many sites producing similar types.Lloyds Bank, York has an example with traces of wear around the perforation (MacGregor 1982,78, fig.40 no. 604),a small example has been recorded from Deerness in Orkney (see Batey in Morris forth.) also from Jarlshof in a 10th century context (Hamilton 1956,142 fig 65 no.17).A fine example from a female Viking grave in the Western Isles,at Traigh na Berie, Kneep, Lewis (Welander 1980, 15; Cowie et al, forth) will shortly be published.Similarly an example from Northampton (Moore and Oakley in Williams 1979,281 fig.123 no.3) in a context dated to pre 13th century layers. A number of larger perforated hones have been found from the earlier excavations on the Brough of Birsay, Orkney (Curle 1982,69 ill.44 nos. 547-552) three of which are from the Middle Norse horizon of the site.In Scandinavia, at the site of Birka, near Stockholm, a series of similar sized examples have been recorded from 9th-10th century contexts (Danielsson and Werner in Ambrosiani et al ed. 1973 fig.63 no.e)

The probable use of this type of perforated hones is for sharpening needles or small implements rather than knives.Some have been found in the female graves at Birka and are likely to have been originally attached to a belt with a pair of shears and perhaps a needle case (Svarta Jorden unpub. cat. Excavations 1876-1931 no. 2395 and 2396).

Eight possible ' haunched hones' have been identified in the assemblage and it is possible that there are others to be found in the remaining broken fragments of the group. They are likely to have been used for the sharpening of knives.The fact that they are of such uneven thickness after use,being particularly thin in the centre, means that they are very liable to breakage. However,the discarded broken examples are the ones which would be most likely to be located in the midden deposits of the site, and the more complete ones on the floor deposits.A number of examples of the type have been illustrated from Jarlshof (Hamilton 1956, 142 fig.65 nos. 12-16) in a 10th century context. Likewise,they have been recovered from the Brough of Birsay (Curle 1982,69 ill. 44 nos. 557 and 558). It has not been possible to have petrological analysis of the examples in this group from Freswick, and so the provenance of the stone represented is unknown.Similar types from York have been analysed and found to have a Scandinavian origin (MacGregor 1982,78). Such a derivation would be very important to establish if possible for the Freswick ones.It is conceivable that the Freswick examples are made of Norwegian ragstone (Ellis 1969, type 1A), but local stones would no doubt have been employed.These have been discussed by Moore and Oakley (1979, 282)in relation to examples from Northampton.Makeshift hones of local

stone seem to be represented, such as 6.6.1 a pebble,6.6.10 of flagstone or an example in the Rosie collection 6.6.11 which is of white stone, possibly a kind of sandstone.

The differential wear therefore represented in this group of hones, depends on the type of stone used and in particular the use to which it has been put .The small pebble sharpening stone has been apparently used for sharpening a small implement such as a needle, or it may have been a strike-a light ,6.6.1(cf. Dun Mor Vaul, Mackie 1974, plate XIV,F).

Stone Beads.

The spherical bead of rock crystal 6.7.1 has parallels at Jarlshof in a possible 9-10th century context (Hamilton 1956,134) and similar types have been illustrated by Callmer (1977, plate 21 eg S001.4 and S001.5).A roughly circular crystal bead is illustrated on a necklace from Hon in Norway (Graham-Campbell and Kidd 1980, plate 92) and examples of different forms have been noted from Birka (illustrated Graham-Campbell 1980, no.154, 45 and 225).The use of crystal for beads then is well attested in Norse contexts, although the simple form does not necessarily mean that the example from Freswick is of the same period as these examples cited.

Examples of amber beads have been recorded from many Norse contexts.Recent excavations on the Brough of Birsay have produced amber beads (eg BB77 NO, SF no. 2030) of slightly different form.A similar roughly circular form with central perforation noted as Freswick,6.7.2 has been illustrated by Graham-Campbell in a necklace from Norland, Norway of glass and four amber beads (1980,no.152, 44 and 225).Examples from York have also been noted (MacGregor 1982,158

no.393 and 394 and Waterman 1959,95-6) and various Viking graves noted by Grieg have examples of the type (eg.Sanday,Grieg 1940,88 fig.50).

It is very likely that these two beads are imports to the site as completed pieces because there is no evidence as yet recovered to suggest that manufacturing of such products was taking place.

Chipped Pebbles.

It is very difficult to discern with this class of find, which have been used by Man as a tool, such as a pounder or rubber, and which have been battered by natural causes. For example 6.8.2 might be natural, despite having been found at the Flint Workers Site on the Links; 6.8.4 or 6.8.3 might also be natural, as might 6.8.15 or 6.8.16. However, items which show battering at one or both ends, such as 6.8.1, 6.8.14 or 6.8.17, may conceivably have been used as tools. Examples have been found at Jarlshof (Hamilton 1956,53 fig.30 no. 4 and 6) in the content of the Aisled House occupation, or in an Early Viking context (Hamilton 1956, 118 fig.55 nos. 1-4).It is not a diagnostic find, being common to most periods.An interesting group has been discussed by Close-Brooks et al from the Western Isles at Sorrisdale, Coll (in Ritchie et al 1978,90), includes pounders, Mesolithic flint and also Beaker pottery.This connection may be of particular significance in relation to the Freswick assemblage, as discussed below with the flint and then the Beaker pottery.The use of bevelled pebbles has been noted in relation to sites in other parts of Britain in early contexts. For example,in South West England, such items have been suggested as being used for the removal of limpets from their shells (Jacobi,1979,77), although it seems very unlikely

that the examples from Freswick have this function because they seem to be too large.

A series of stones which have very smooth surfaces may be smoothers or rubbers, possibly for grain or leather preparation.These have been found at Clickhimin for example (Hamilton 1968,32 fig.13,1;or 81, fig.33 nos. 8-11) although they seem to be nearer to pounders than smoothers.

A series of four worked pebbles which appear to have a roughly sharpened edge, may conceivably be interpreted as knives, possibly of the type distinguished recently as 'Skaill knives',6.8.5-6.8.8. They have also been recorded from Jarlshof (Hamilton 1956, 12 fig.5 no.1).

Flint and Chert.

The fact that there are no flint or chert deposits in situ in Caithness, or in fact in Mainland Scotland, is significant when considering the nature of this aspect of the assemblage. A recent consideration (Wickham-Jones and Collins 1978) on the sources of flint and chert in North Britain indicates that in the Caithness area, flint is likely to be derived from the shelly till which covers large parts of the county and outcrops in Wick Bay for example (op cit, 11 no.22). Chert is not found in the immediate area, but is available from deposits in Orkney and Sutherland (op cit, 17,51-3 and 65-69). As with flint, chert can be collected from beach deposits, and it is this fact which has largely influenced the form of the Freswick assemblage.

The Freswick material has been cited as potentially Mesolithic (discussed above page 151) but this cannot be supported. Clarke has noted that the microlithic technique is useful for the utilisation of small flint nodules, as perhaps found in beach pebbles.It therefore

does not necessarily need to be mesolithic at all (Clarke 1976,457). The fact that small tools enable the maximum use of available flint and is not necessarily a cultural indicator,is noted elsewhere.

The scattered nature of the recovered flint and chert pieces, generally lacking a precise context, restricts the nature of inferences that can be made concerning the site or sites where flint working may have taken place on the Links. That it was being worked is supported by the large proportion of apparently struck flakes in the assemblage (Appendix A).A concentration has been discerned at the flint workers site,possibly at the northern end of the Links, but no structural remains have been located. Curle noted the recovery of flint from the Red Ash site and many unworked pieces (Curle notebook,ms 28a (SAS 461),47)but it cannot be identified in relation to the flint workers site.

In the assemblage itself, only three possible cores have been recovered, thirty two retouched flakes including one notched example (6.11.12) and three blades (6.11.3,6.11.16 and 6.11.19), the others are miscellaneous and not of the usual typological forms. There are eighteen scrapers in the assemblage,generally of small forms, but ranging with a single example up to the size of 6.10.5 (37,19,7.5mm).There are twelve pieces of flint and chert with possible retouch which are not flakes and two barbed and tanged arrowheads (6.9.1 and 6.9.2)and two leaf shaped arrowheads (6.9.3 and 6.9.4) both of Type 3a (Green 1980,fig.28,71).

This is a small assemblage with all elements which have been totally dictated by the poor quality of the flint and the small pieces available for working. The mesolithic identification cannot be upheld,

however there is nothing in the assemblage which is not consistent with a Bronze Age date, in particular when considered in relation to the Beaker pottery from the site.Small scrapers in a Bronze Age context have been noted at Windmill Hill (Smith 1965,107) and Belle Tout for example (Smith 1965,107).

It is not possible to be completely sure that some of this flint assemblage is not from the Norse period of site use.This context may be original,where it may have been used as a pot boiling stone (suggested by the burnt fragments from Curle 's excavation) or possibly as tools, although often not worked at all.It may also be residual in this context, and the stratigraphical information available cannot help in this problem.

Glass.

There are very few items of glass recorded in the assemblage. The two fragments, which are worn and patinated, are very probably modern,although at present this cannot be confirmed without specialist examination. Four beads have been recorded in glass or glass paste. As they are of very simple forms it would be difficult to ascribe these to a particular period. It is also dangerous to ascribe them to a date bracket on the grounds of context, as these are shown to be somewhat unreliable elsewhere in the artefact assemblage. The bead 7.2.1, from the passage of the broch, could for example be contemporary with the occupation of the broch or with the later Norse presence on the site, or indeed it may conceivably be even later.

Overall Considerations.

A total of twenty six sinkers and various weights have been

recorded and although this forms a reasonable proportion of the total lithic assemblage, it is perhaps smaller than would have been expected. Although it is significant that only approximately twenty seven were recorded from Norse levels at Jarlshof, despite fishing activity having been recorded there (Hamilton 1956). The potential of the fishing industry at the site has been discussed in Chapter 8 and it is this aspect of the economy which ought perhaps to be better represented in this part of the artefact assemblage. It is possible to speculate as to the reasons behind this dearth and virtually impossible to prove anything: the parts of the site where fishing activities were most concentrated may not yet have been examined, but it is more likely that the area will have long since been lost to the sea. Another possibility is that another medium was used, such as bone, although whether that would have been dense enough to be a substitute for stone is questionable.

The whorls or stone represent a further facet of activity on the site, that of spinning, and it is appropriate that a site of the size of Freswick would have this aspect in its economy. Only part of the population perhaps at Freswick were involved full time in fishing and there would have been a need for spinning to produce even very basic clothing. A number of loomweights have also been recorded at the site, although they are generally few in number. This is a direct contrast to the assemblage from Jarlshof where in excess of 150 were recorded in the Norse levels (Hamilton 1956).

There is also an interesting range of hones from the site, indicating a further aspect of the economy. There is a large number of 'haunched hones' indicating the sharpening of tools, but it is

interesting that only a limited number of tools have been noted in the metal assemblage (Chapter 9). There is perhaps a need for detailed scientific work on the surfaces of the hones to confirm that iron tools, probably knives,were used on them.

There are a number of aspects in the assemblage which appear to be from considerably earlier contexts than others. The flint and chert, for example, is discussed above and serves to indicate the extensive prehistoric activity already documented from the site in Chapter 7. Other items, such as the quernstones and discs or chipped pebbles, also reinforce this. It is possible that some of these pieces may be from either prehistoric or Norse contexts, but, as seen in so many artefacts, the form may not have altered at all over a considerable period.Flint and chert, could have been easily gathered from the beach and may therefore be rather better represented in the assemblage than, for example, steatite.

The steatite element of the assemblage, both as vessels or weights of varying types, is a particularly Norse element and one which readily has parallels in Scandinavia or Scandinavian contexts. Of particular significance in the Freswick assemblage is the amount of reused steatite which probably indicates that the medium was at a premium. It is perhaps the only item, apart from most of the combs, to be unequivocally Norse.

Chapter 11

Bone and Antler

8.1Pins.

NMAS.

8.1.1 Spherical headed pin with incised decoration,criss-cross design in three zones,two on shank and one on head.Slightly flared mid shank.Circular section.
L50,D9mm.
FC 258.
Donations 1948,322,no.5(Purchase anon).
Stevenson 1955,284 fig.A no.23.
Figure 40 A

8.1.2 Complete small ball headed pin, swollen shank, incised cross decoration at swelling and ridge below head. Circular section.
L42,D3mm.
FC259.
Donations 1948,322,no.5(Purchase anon).
Figure 40 B

8.1.3 Roughly worked pin with slight irregular swelling shank,head roughly shaped into partial globular form,circular section.
L65,D3mm.
FC 260.
Donations 1948,322,no.5 (Purchase anon).

8.1.4 Long pin with damaged tip,head distinguished by rough incisions.Slightly polished.
L85,D4mm.
FC 261.
Donations 1948,322,no.5 (Purchase anon).
Figure 40 C

8.1.5 Complete pin with decorated shank and spherical head,shank round sectioned.
L75,D4,Head L6,D6mm.
GA 756
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.
Figure 40 D

8.1.6 Small pin with decorated shank,spherical head and lacking point.Shank slightly round in section and slightly swollen at mid point.
L41,D3.5,Head L14,D6mm.
GA 757
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.
Figure 40 E

8.1.7 Headless pin ,point in tact, and head cut straight. Undecorated and polished.
L102,D5mm.
ED 504
Donations 1935,247 no.1 (Bremner).

Figure 40 F

8.1.8 Head and part of shank of pin with hemispherical head, lacking tip. Shank undecorated and polished, round section.
L30, D2mm.
HD 511.
Donations 1935,438 (Purchase anon.)

8.1.9 Complete oval sectioned pin with flattened top.
L74, D6mm.
HR 939
Donations 1948,319, no.32 (Bremner).
From Bronze Age strata thrown up by Black Watch trenches in 1945.

8.1.10 As HR 939, but top damaged and point lacking.
L75, D6mm.
HR 940.
Donations 1948,319 no.32 (Bremner).
From Bronze Age strata thrown up by Black Watch trenches in 1945.

8.1.11 Damaged pin with globular head, top slightly flattened. Point missing and shank swollen and encircled by three incised horizontal lines.
L34, D4mm.
HR 1001.
Donations 1950,230 no.38 (MC Bremner).
Stevenson 1955,284 fig. A no.24
Figure 40G

8.1.12 Damaged thistle-headed pin, point and one side of head missing. Top of head flattened and shank encircled by zone of cross-hatching. Circular section.
L42, D3mm.
HR 1002.
Donations 1950,230 no.38 (MC Bremner).

8.1.13 Shank of bone pin, lacking head and point. Encircled by zone of cross-hatching. Circular section.
L41, D4mm.
HR 1003.
Donations 1950,230 no.38 (MC Bremner).

8.1.14 Stout pin with roughly worked round head. Top part of shank damaged at rear, signs of wear on tip, round in section.
L63, W5, T4mm.
HR 1004.
Donations 1950,230 no.38 (MC Bremner).

8.1.15 Complete small pin with flattened globular head, circular section.
L40, D3.5mm.

IL 529 ?FS12
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.8.
Found in red ash heap.

8.1.16 Complete small pin with flattened head and broad shank,circular section.
L34,D4mm.
IL 530 FS 59.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.9.
From surface of bunker near excavation hut.

8.1.17 Complete small pin with roughly cut head and swollen shank,circular section.
L42,D5mm.
IL 531 FS 11.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.7.
From red ash heap.
Figure 40H

8.1.18 Top only of baluster headed pin,slightly broken.
L15,D8.5mm.
IL 532 FS 17.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.10.
From surface of gulley at south.
Figure 40I

8.1.19 Headless slender bone pin,worn with tip lacking,circular section.
L33,D3mm.
IL 533.?FS16
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),48.
From surface of south gulley.

8.1.20 Tapered long bone with perforated spatulate head.Shank round in section.
L82,W10,T4mm.
IL 543 FS 10.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,99, plate XLVIII no.2.
From surface near red ash heap.
Figure 40J

8.1.21 Pin with swollen shank and globular head which is slightly damaged.Lightly incised decoration of horizontal and criss-cross lines around head,swelling of shank and small zone between them.
L51,D5mm.
IL 685
Donations 1948,322 no.5 (Purchase anon)

8.1.22 Crudely made thistle headed pin with slightly flattened top, criss- cross incision part way down the shank, incomplete. Circular section.
L46,D3mm.
IL 686.
Donations 1948,322 no.5 (Purchase anon).
Stevenson 1955,284 fig.A no.25.

8.1.23 Incomplete crutch headed pin,head and shank broken,circular section.
L52,D3mm.
IL 687.
Donations 1948,322 no.5 (Purchase anon).
Figure 41 A

8.1.24 Complete small ball headed pin with swollen shank,slightly fibrous around head ,circular in section.
L37.2,D3mm.
IL 688.
Donations 1948,322 no.5 (Purchase anon)

8.1.25 Headless pin,point in tact.No trace of perforation,slight ridge at one side of the flattened head.Polished,circular section.
L80,D5mm.
IL 689.
Donations 1948,322 no.5 (Purchase anon).

8.1.26 Top of crutch pin,very roughly made.Shank circular in section and slightly polished but surface damaged.
L37,D5.2,HeadW14.5mm.
IL690.
Donations 1948,322 no.5 (Purchase anon)

8.1.27 Trimmed fibula pin,head roughly spatulate,flat sectioned.
L62,W4,T2,WHead 10mm.
IL 691.
Donations 1948,322 no.5 (Purchase anon).

8.1.28 Head only of simple pin,slightly flared with eccentric perforation.Flat sectioned.
L30,W10,T3mm.
IL 692
Donations 1948,322 (Purchase anon).

8.1.29 Head only of pin as above,central perforation.Flat section.
L49,W15,T2mm.
IL 693.
Donations 1948,322 no.5 (Purchase anon).

8.1.30 Simple pin with flared head and perforation.Oval shank,polished and broken spatulate head.
L39,D8,Head D24mm.

IL 714
Donations 1943,196 no.17 (Alexander Sinclair).

8.1.31 Long pin with baluster head.Polished,complete and with round section.
L86,D7mm.
IL 747
Donations 1974,327 (Purchase ?Murray).
Figure 41 B

8.1.32 Simple pin, complete. Blunt end almost rounded, no perforation. Round section, worn and point in tact.
L82,W6,T4mm.
NMAS not accessioned.
Figure 41 C

Rosie Collection.

8.1.33 Roughly tooled pin,smooth outer face but traces of fibrous part of bone,facetted towards the point.
L89,D11mm.

8.1.34 Roughly tooled pin with head little worked,body slightly facetted.
L74,D9.5-4mm.

8.1.35 Pin with swollen shank and tripartite head,point and head slightly damaged.
L49,HeadD4.5,3mm.
Figure 41 D

8.1.36 Pin with swollen shank and facetted spherical head,polished.
L46,D3-4mm.
Figure 41 E

8.1.37 Pin, damaged with point lacking but flat top complete, polished.
L50,D5-20mm.
Figure 41F

8.1.38 Thistle headed pin with incision approximately midway along shank, complete and polished.
L54,D4,Head D6mm.
Figure 41G

8.1.39 Top of pin with round shank and ball head,projection on the head and collar around the neck.
L18,D2,HeadD5mm.
Figure 41H

8.1.40 Complete pin,slightly bowed with flat top.
L116,D5,Head D7mm.
Figure 41I

Not Located.

8.1.41 Bone pin with large globular head with nicked central ridge, top of disc has a central hollow and a single moulding at the neck. Slightly swollen shank.
Lc30mm.
HR 1000.
Donations 1950, 230 no.38 (MC Bremner).

8.1.42 Nail headed pin.
No dimensions.
FR1.
Curle notebook ms 28a (SAS 461),8.
Found cleaning wall to north west of Building I.

8.1.43 Bone pin.
No dimensions.
?IL 664/5. Childe no. 22.
Childe notebook,12.
Found between paving slabs.

8.2 Needles.

NMAS.

8.2.1 Damaged needle,lacking tip,pointed head with ovoid perforation.Slightly flattened section,rest oval.Fibre of bone visible around perforation.
L70.5,W3,T2mm.
HD 503.
Donations 1935,246 no.1 (Bremner).
Figure 42A

8.2.2 Simple needle,fibula cut across the top in an arc,perforated.Point in tact and shank of round section.
L64,W10,T4mm.
HR 1008.
Donations 1950,230 no.38 (MC Bremner).
Figure 42B

8.2.3 Worked long bone,perforated at broad end where it is broken,point in tact. Flattened section, round near point. Broken but repaired.
L116,W10,T9mm.
IL 542 FS 13.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,99, plate XLVIII no.1.
Found on occupation surface of mound midden north of south gulley.
Figure 42C

8.2.4 Bodkin in highly polished bone,complete with circular perforation at roughly triangular head.Oval section.
L120,W11,T8mm.
IL 683
Donations 1948,322 no.5 (Purchase anon).

8.2.5 Slender needle with pointed head and oval perforation, slightly curving shank.
L89,W2,T1.5mm.
IL 684
Donations 1948,322 no.5 (Purchase anon).
Figure 42 D

Rosie Collection.

8.2.6 Shank broken at head,possibly at a perforation,point in tact.Shank smooth and facetted at back.
L53,D5mm.

8.2.7 Shank broken at point,head slightly pointed with round perforation,shank slightly facetted.
L49,D6mm.

8.3 Roughouts.

NMAS.

8.3.1 Possible pin roughout,incomplete,broken but repaired.
L106,W18,T7mm.
IL 541 FS 86b.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),77
Floor level of Building VII at north end near centre.
Figure 42 E

8.4 Points.

NMAS.

8.4.1 Mammal bone,tapering to a point with joint remaining.
L105,W21,T max.7mm.
GA 759
Donations 1909 (Tress Barry 1908) not listed.
Freswick Sands Broch.

8.4.2 Large bone,possibly Auk,tapering to a point and slightly broken.
L169,W30,T max.10mm.
GA 768
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.

8.4.3 Large bone tapering to a point.
L55,W45,T max. 10mm.
GA 769
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.

8.4.4 Roughly worked long bone,complete, fibrous at head end crudely facetted elsewhere.
L82,W18,T5mm.

HR 803
Donations 1925,154 no.3 (Edwards).
From middens.

8.4.5 Roughly worked long bone,borer with oblique facet at the point.Polished and cut off at the broad end.
L44.5,W12,T5mm.
HR 807.
Donations 1925,154 no.3 (Edwards).
From middens.

8.4.6 Mammal bone,tapering to a point as GA 759.
L110,W20,T15mm.
HR 937
Donations 1948,319 no.32 (Bremner)
From Bronze Age strata thrown up by Black Watch trenches in 1945.

8.4.7 Roughly worked knuckle bone,pointed and complete.
L100.5,W29,T24mm.
HR 1023
Donations 1950,227 no.2 (Bremner).
Illus. Lacaille 1954, 267,fig.117 no.9.
In and below midden at north end of Links.
Figure 14,no.9.

8.4.8 -11 Four pieces of very roughly worked mammal bone,pointed.
8)L102,W21,T8mm.
9)L135,W16,T6mm.
10)L136,W16,T6mm.
11)L135,W41,T7mm.
8)HR 1032 9)HR 1030 10)HR 1031 11)HR 1029.
Donations 1950,227 no.2 (Bremner).
HR 1031 illus Lacaille 1954,267,fig 117 no.8.
In and below midden at north end of Links.
Figure 14.no.8.

8.4.12 Cut and shaped rib bone,roughly pointed,slightly damaged at point.
L83,W13,T3.5mm.
HR 1033.
Donations 1950,227 no.2 (Bremner).
Illus. Lacaille 1954,267,fig.117 no.7.
In and below midden at north end of Links.
Figure 14,no.7.

8.4.13 Simple bone point,broad end broken.Round in section near the point and flattened towards the head.Made from brachiostegel ray of cod.
L55,W5,T3mm av.
HR 1034.
Donations 1950,227 no.2 (Bremner).
Illus. Lacaille 1954,267,fig.117 no.11.
In and below midden at north end of the Links.

Figure 14 no.11.

8.4.14 Crudely cut long bone,point chipped and upper part of surface only smoothed.Sawn at joint.
L142,W16,T20mm.
IL 534. FR22.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.4.
Found in filling west of closed doorway at east end of north side of Building IV.

8.4.15 Cut long bone,smoothed to a point,head unworked,surface missing on lower side.
L109,W12,T18mm.
IL 535 FR 46.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVIII no.3.
From level of wall top to north of Building II.

8.4.16 Roughly worked picker or goudge.Complete shank smoothed but head unworked.
L72.5,W17,T14mm.
IL 536 FS 56.
Donations 1939 ,335 no.10 (Alexander Sinclair).
Curle 1939,98,plate XLVIII no.5.
Found c3.3m from east end of Building VI near centre at floor level.
Figure 42 F

8.4.17 Tip and part of shank with fibrous surface and roughly oval section.
L82,W9,T6mm.
IL 538 FS 29
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),52.
From Building III, at west end slightly above floor level.

8.4.18 Crudely worked bone point,cut straight at head,slightly bent or warped.
L79,W45,T4mm.
IL 664
Donations 1943,196,no.17 (Alexander Sinclair).
?Childe 1943,14, plate IV no.4.

8.4.19 Polished sliver of bone,point intact,head very rough.
L52,W7,T4mm.
NMAS not accessioned.

Rosie Collection.

8.4.20 Roughly tooled bone with smoothed joint and carefully worked head.
L126,Head D 18,Shaft D10mm.
Figure 42G

8.4.21 Worked long bone,shaved to a point at one end,broader less worked end has smaller point.
L112,W8-20 mm.

8.4.22 Point,roughly tooled with a single oval perforation at the head.Fibrous core visible on under side,twisted form with crack at perforation.
L57,D9-11mm.

8.5Pin Beaters.

NMAS.

8.5.1 Highly polished bone pin beater,broken and repaired.Surface of bone lacking on underside.Section flattened.
L116,W51,T8mm.
IL 537 FR 43.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,98, plate XLVII no.6.
From midden in front of Building IV.

8.5.2 Possible portion of bone pin beater,blunt end and shank.Fibrous surface but smoothed,oval section.
L73,W9.5,T4mm.
IL 539 FR23.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),26.
From west end Building I.

8.5.3 Highly polished pin beater,point intact, other end blunt.Roughly oval-sub rectangular in section.
L105,W10,T6mm.
IL 665 Childe no.22.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe 1943, plate IV no.5.
Figure 42 H

8.6Spindles.

NMAS.

8.6.1 Rod of bone,circular in section,flat headed and shank tapering to each extremity.
L104,D6mm.
HR 938.
Donations 1948,319 no.32 (Bremner)
From Bronze Age strata thrown up by Black Watch trenches in 1945.

8.6.2 Rod of bone,circular in section.Both ends blunt but intact,one end possibly slightly sharpened.
L159,D8mm.
HR 1026.
Donations 1950,227 no.2 (Bremner).
Illus. Lacaille 1954,267,fig.117 no.12.

In and below kitchen midden at northern end of the Links.
Figure 14 no.12.

8.7 Whorls.
NMAS.

8.7.1 Flat spindle whorl of whalebone with chamfering around the circular central perforation, uniform thickness. Slight chip at one edge, and two score marks at right angles by the perforation could indicate guidelines in manufacture.
D45, T10, Perforation D8mm.
BE 445.
Donations 1927,166 no.10 (Bremner).
Figure 43 A

8.7.2 One, described incorrectly in NMAS catalogue as of whalebone. Eccentric perforation.
H25, D42, perforation D8mm.
BE 457.
Donations 1930,14 no.26 (Bremner 1929).
Figure 43 B

8.7.3 Approximately half whorl of whalebone, broken at perforation, eliptical in section. Top surface decorated with three surviving ring and dot motifs, one edge slightly chipped.
T18, D30mm.
GA 761.
Donations 1909,16 (Tress Barry 1908)
Freswick Sands Broch.
Figure 43 C

8.7.4 Whorl, complete with eccentric perforation.
H18, D37, perforation D9mm.
HR 802
Donations 1925,154 no.3 (Edwards).
From midden.

8.7.5 Very badly damaged example, small and lacking outer surface, small perforation.
H11, D25, perforation D4mm.
HR 813.
Donations 1927,166, no 10 (Bremner).
From middens.

8.7.6 Whorl with exterior slightly damaged. Central round perforation.
H28, D34, perforation D7mm.
IL 548 FR 44.
Donations 1939,335 no. 10 (Alexander Sinclair).
Curle 1939,100.
From midden in front of Building IV.

8.7.7 Whorl,slightly damaged,hole slightly squared at the top.
H29,D38,perforation D10mm.
IL 549 FR6
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939,100, plate XLIX no.4.
From floor level Building IV, midden.

8.7.8 Whorl complete with eccentric perforation.
H22,D38,perforation D8mm.
IL 550 ?FS33
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100.
From NE corner Building III, east chamber.

8.7.9 Roughly made whorl,central perforation.
H25,D36,perforation D7mm.
IL 551. FR10
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100.
From upcast of trench dug at east wall projecting north from north side of Building IV

8.7.10 Whorl,slightly damaged with central perforation.
H27,D35,perforation D7mm.
IL 552 FS 79.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100.
From flue in peat ash hearth of Building III.

8.7.11 Whorl,slightly hollow based,eccentric perforation slightly squared.
H25,D44,perforation D 8mm.
IL 553 ?FR19
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100.
From middle of passage way at exterior Building IV.

8.7.12 Whorl with central perforation.
H21,D34,perforation D 7mm.
IL 554. ?FR5.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939,100, plate XLIX no.3.
Found at base of wall of Building IV c 6.5m on south side to west of entrance in midden.

8.7.13 As above.
H18,D38,perforation D 8mm.
IL555 ?FS38
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,100.
Building VI, at side of n-s wall close to wall 4.5m from east.

8.7.14 As above.
H16,D37,perforation D8mm.
IL 556 FS 62
Donations 1939,335 ,no.10 (Alexander Sinclair).
Curle 1939,100
From sand below floor level in se corner Building VI.
Figure 43 D

8.7.15 As above,badly damaged.
H25,D38,perforation D 8mm.
IL 657 Childe no. 12 or 18.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe 1943,13.
Found just east of north kerbstone in east room below floor level.

8.7.16 Whorl with central perforation.
H19,D35,perforation D 8mm.
IL 658 Childe no. 12 or 18.
Donations 1943,196 no. 17 (Alexander Sinclair).
?Childe 1943,13, plate IV no.2.
From upper floor level close to T.

Rosie Collection.

8.7.17 Imperfect,sawn flat at the base,round perforation.
H27,D40,H9mm.

8.7.18 Slightly damaged,round perforation.
H30,D44,H9mm.
Plate 34C.

8.7.19 Slightly damaged,base sawn and part of joint visible.Traces of abortive saw marks,round perforation.
H31,D35,H10mm.

8.7.20 Slightly damaged,narrow with round perforation.
H32.D35,H6mm.

8.7.21 Fragment only of apex.
H20,D20,H5mm.

8.7.22 Fragment only of one side.
H30,D20,H10mm.

8.7.23 Slightly damaged,joint visible on one side.
H28,D40,H10mm.

8.7.24 Damaged,with round perforation.
H23,D43,H10mm.

8.7.25 As above.
H26,D44,H10mm.

8.7.26 As above.
H25,D41,H10mm.

8.7.27 Damaged with round perforation and additional square hole at side,5mm from apex.Worn on under side.
H36,D42,H8mm
Plate 34C.

8.7.28 Incomplete with slight indentation at crown,possibly natural.
H24,D42,H7,indentation 6mm.

8.7.29 Damaged,squat with round perforation.
H16,D38,H5mm.
Figure 43 E

8.7.30 Complete,squat with round perforation.
H26,D44,H9mm.

8.7.31 Complete,round perforation.
H28,D36,H7mm.
Figure 43 F

8.7.32 Complete,round perforation.
H32,D38,H7mm.

Not Located.

8.7.33 Complete whorl with central perforation, badly damaged.
No dimensions.
FR9
Curle notebook ms 28a (SAS 461),26.
From kitchen midden outside ne external structure,? Building IV.

8.7.34 Whorl slightly damaged at base.
No dimensions.
FR 24.
Curle notebook ms 28a (SAS 461),26.
Found beside south wall of Building I, c2.6m from west end.

8.7.35 As above.
No dimensions.
FR 25.
Curle notebook ms 28a (SAS 461),26.
From North box Building I.

8.7.36 Imperfect example as above.
D 47mm.
FR 28.
Curle notebook ms 28a (SAS 461),27.
From Building I.

8.7.37 Whorl with damaged base.
No dimensions.
FR 30.
Curle notebook ms 28a (SAS 461),28.
From near south wall near centre,digging to trace wall c20cm below floor surface of Building I.

8.7.38 Complete whorl.
No dimensions.
FS 32.
Curle notebook ms 28a (SAS 461),54.
From floor level ne corner Building III, east compartment.

8.7.39 As above.
No dimensions.
FS 34.
Curle notebook ms 28a (SAS 461),55.
From ne corner Building III, east chamber.

8.8 Antler Combs.Single-sided Composite.

NMAS.

8.8.1 Complete comb,with high curving back and upturned ends.19 copper alloy rivets in a line on a slight ridge above the teeth,5 set off centre and 15 out-lining the back of the connecting plate.Most of the teeth are present and slightly graduated,the left hand end is badly damaged.4 tooth segments with the teeth slightly shorter in the middle of the comb.
L81,W22,T4mm max.
[illegible] 460
Donations 1930,14 no.26 (Bremner 1929).
Plate 35A.

8.8.2 Comb,possibly remodelled from a double sided one.Teeth coarse with approximately 1/3 missing.The ends are straight and the teeth graduated.The connecting plate has 16 copper alloy rivets and 1 missing, they are placed irregularly along the horizontally incised decoration. Comprising 4 tooth segments in all.
L73,W29,T6mm max.
HR 811.
Donations 1926,10 no.4 (Edwards 1925).
From middens.

8.8.3 Fragment with 5 complete teeth,traces of 6th, broken across rivet hole, iron stained.
L21,W10,T1mm.
HR 1465.
Donations 1980,535,no2 (actually not listed but donated at the same time as this entry) (Kirby 1979).

8.8.4 Incomplete comb,left hand side only remaining,approximately 2/3 teeth missing.Comprising 5 tooth segments and very

slightly graduated teeth.The connecting plate is badly damaged on the rear but the front is decorated by two horizontal incised lines and a single row of copper alloy rivets,12 in all, evenly spaced.
L77,W20,T5mm max.
IL 652 FS28
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,96,plateXLVII no.2
From Building III, west end slightly above floor level.

8.8.5 Half comb,of tooth segments and graduated teeth,of which only half remain. Plain straight connecting plate, slightly chipped, with 8 copper alloy rivets remaining,evenly spaced.
L60,W27,T8mm max.
IL 653 FS41.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,96,plate XLVII no.4.
Found along wall of 'long house' to east,on top of wall opposite end of Building IV.

8.8.6 Comb with two rows of 21 copper alloy rivets,most of the teeth are missing.5 tooth segments with graduated teeth.In left hand end plate, two round perforations, in right hand one.Straight connecting plate ridged by four horizontal incisions,concave ends.
L95,W21,T7mm max.
IL 677
Donations 1948,322 no.5 (Purchase anon).

8.8.7 Comb with 19 copper alloy rivets in a single row.Most of the teeth are now missing.6 tooth segments with graduated teeth and in left hand end plate there is a single perforation.The straight connecting plate is ridged by 4 incisions,and the ends are also straight.
L113,W23,T15mm max.
IL 681.
Donations 1948,322 no.5 (Purchase anon).
Plate 35B

Rosie Collection.

8.8.8 Approximately 2/3 undecorated comb,with 4 copper alloy rivets remaining.6 tooth segments.All the teeth are missing.
L105,W16,T8mm max.
Figure 44A

8.8.9 Three conjoining fragments of connecting plate with traces of copper alloy rivets,undecorated and possibly from a single comb.
a)L26,W16,T2.5mm max.
b)L27,W14,T3mm max.
c)L12,W9,T2mm max.

8.8.10 Fragment of connecting plate,undecorated, with lower part cut during the cutting of the teeth.One iron rivet remaining

and at right hand side,hole for another.Badly worn.
L39,W16,T3mm max.

8.8.11 End plate with all teeth missing,but graduated.Connecting plate decorated with slightly oblique lines,slightly chipped.Single copper alloy rivet remaining with break across a second.Possibly a high backed comb.
L25,W30,T6mm max.

8.8.12 Two abraded connecting plate fragments,decorated with offset pairs of vertical incisions,in a) in threes,in b)in twos.A single iron rivet remains in b).No teeth segments or complementary connecting plates remaining.a) cut at the bottom during the teeth cutting.
a)L20,W15,T3mm.
b)L20,W14,T4mm.

8.8.13 Fragment of[1] connecting plate and tooth segment with two copper alloy rivets.Tooth cutting traces on lower edge.Decorated by horizontal lines.
L23,W9,T7mm.max

8.8.14 Two conjoining fragments of connecting plates and 3 tooth segments,teeth broken.Connecting plates decorated with crossed lines.2 iron rivets remaining.
L110,W13,T10mm max.
Plate 36A.

8.8.15 Tooth segment fragment,with fine teeth,and half rivet hole remaining.
L42,W13,T3mm max.

8.8.16 Tooth segment fragment with all teeth broken.Iron staining by a single rivet hole.
L22,W20,T2mm max.

8.8.17 End part of comb,teeth badly damaged and originally graduated.End broken,but a single dot in circle motif remaining.Back unevenly cut,suggesting possible modification from a double sided example.Now decorated with a line of six ring and dot motifs.Connecting plate broad with horizontal incised lines and two rows of copper alloy rivets.
L51,W18,T5mm max.
Plate 36B

Other Collections.

8.8.18 Convex end plate with two copper alloy rivets remaining,a third missing and the segment is cut across the fourth.No connecting plate remaining.Single dot in double ring motif at end,graduated coarse teeth remaining.
L24.5,W21.5,T2mm max.
Mr. Mackay,Keiss.
Figure 44 B

Not Located.

8.8.19 Approximately 3/4 comb,all teeth damaged and extreme tip of connecting plate removed.Decorated with a running design of dot in double ring motif,and 4 copper alloy rivets remaining.
Not available for measurement.
R.MacCallum,Thurso.
Plate 36C

8.9 Antler Combs.Double-sided Composite.

NMAS.

8.9.1 Almost complete example,straight ended and decorated with ring and dot motif.Connecting plate ridged with pairs of copper alloy rivets,26 in all,slightly swollen at mid point.Lower teeth coarser and all graduated at ends.One perforation complete,other damaged.Four teeth segments.
L70,W37,T5mm.
GA 762
Donations 1909,16 (Tress Barry 1908).
Freswick Sands broch.
Plate 37A

8.9.2 Seven conjoining fragments of connecting plate (GA 763) and two others (GA 764),probably from the same comb.Iron rivets.Decoration of two parallel lines dividing into fields decorated by a cross.GA 767 end plate with two ring and dot motifs.
Conjoining fragments L80,W18,T17mm.
GA 763-5,767.
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.
Figure 44 C

8.9.3 Tooth segment with seven intact teeth ,trace of iron rivet.
L53,W16,T2mm.
GA 766
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.

8.9.4 14 fragments,3 actually conjoining but others likely to be of the same comb.Double convex end and connecting plate on one side only,with 3 copper alloy rivets remaining and incised horizontal line decoration.2missing rivets.Teeth graduated and finer at one side,very damaged.
Overall L33,W42 ,T3mm conjoining.
HR 812 and HR 806.
Donations 1926,10,no.4 (Edwards 1925).
From middens.
Figure 44 D

8.9.5 Incomplete comb,right hand side only remaining.Convex

ends,upper teeth which are finer than the lower,start part way along the back of the lower range,the teeth are graduated.Both ends are decorated with a single double ring and dot motif, and there is a row of these along the back of the comb.The connecting plate is decorated by two horizontal incised lines and two parallel rows of copper alloy rivets.There are two teeth segments in all.
L52,W37,T7mm max.
IL 523 FS 87.
Donations 1939,335 no. 10 (Alexander Sinclair).
Curle 1939,96,plate XLVII no.3
Found in hearth of Building VI near kerb on south side.

8.9.6 Comb with upper teeth positioned part way along the back of the coarser ones,but of the same length.6 tooth segments in all.Most of the teeth are present but shaped,particularly near the ends ,indicating a possible remodelling. Perforation on the right hand terminal of the upper row,possible traces of one on the left hand end on the lower row where it is most damaged.The connecting plate has a single row of 14 copper alloy rivets set in a ridged decoration of horizontal incised lines.
L80,W38,T6mm max.
IL 656
Donations 1942,134 (Purchase anon).

Plate 38A

8.9.7 Comb with single row of 8 copper alloy rivets and most of teeth remaining.They are slightly graduated , with the upper teeth finer.4 teeth segments in all.The connecting plate is undecorated and the ends straight and undecorated with two perforations on the right hand side.
L73,W42,T6mm max.
IL 676.
Donations 1948,322 no.5 (Purchase anon).

8.9.8 Badly damaged comb with most of teeth lacking, although they were originally coarse.7 iron rivets remain and possible traces of an eighth.Comprises 4-8 broken teeth segments ,with teeth not graduated. Upper part incomplete, suggesting possible remodelling in antiquity. The connecting plate is decorated by irregular ring and dot motifs,some with double rings,also simple dots and incomplete rings.
L130,W33,T6mm max.
IL 708.
Donations 1950,230 no.38 (MC Bremner).
Figure 45D

8.9.9 Complete comb in excellent condition.Upper teeth positioned part way along the back of the lower ones,but of the same length.The ends are convex and decorated by double dot and ring motif, one on the left hand lower edge has a

perforation in the centre.The upper teeth are finer and less complete in numbers than the lower,both sets are graduated.The connecting plate is decorated by horizontal lines forming ridges and there are two rows of 19 copper alloy rivets.Comprising 5 tooth segments.
L82,W40,T6mm.max.
IL 748.
Donations 1974,327 (Purchase ?Murray).
Plate 38B.

Rosie Collection.

8.9.10 End fragment and adjacent tooth segment of comb,connecting plate decorated with horizontal incised lines,most of the teeth are lacking.4 copper alloy rivets remaining,including two close together,possibly indicating a repair.Traces of two suspension holes at the break.
L30,,W25,T5mm max.

8.9.11 Fragment of connecting plate ,6 rivet holes with copper alloy staining,in a line along the horizontally incised plate.Evidence of tooth cutting on each side of the connecting plate.
L36,W6,T2mm max.

8.9.12 Fragment of tooth segment,coarse teeth and traces of possible suspension hole.
L45,W16,T2mm max.

8.9.13 Complete comb,lower teeth finer than upper ones ,some broken and graduated.Two suspension holes at left hand side. Connecting plate decorated with horizontal incised lines forming ridges,with copper alloy rivets.Cut marks along both sides of the connecting plate.
L91,W42,T8mm max.
Figure 45 A

8.9.14 Left hand end plate with graduated teeth on upper side,upper teeth coarser than lower ,two suspension holes and two ring and dot motifs on the upper part.Two small rivet holes along the solid zone,for copper alloy rivets.
L15,W40,TT2mm max.

8.9.15 End plate with graduated teeth reaching the actual end of the comb.Teeth of roughly equal texture on each side.Suspension hole flanked by 2 single ring and dot motifs.Single iron rivet with extensive staining.
L23,W55,T3mm max.

Other Collections.

8.9.16 Approximately half comb including end plate and one tooth plate with undecorated connecting bar.Two uneven rows of copper alloy rivets,9 in total.The teeth are of the same

texture at each side.Two suspension holes in the vertical end plate.
L51,W35,T7mm max.
Mrs. Dunnet,John O'Groats.
Figure 45B

8.9.17 Approximately half comb, comprising left hand end plate, further tooth segment and part of the connecting plate.The teeth are slightly finer in the upper part and graduated, unlike in the lower group.Smaller ?suspension perforation at the mid point,added after the connecting plate,which has two iron rivets in place and staining around the third where it is broken.Complicated decoration on the connecting plate comprising diagonal crossed lines and horizontal,with half of the triangular fields infilled with pecking.
L43,W47,T4mm max.
Mr.Mackay,Keiss.
Figure 45C

8.9.18 Approximately two thirds of comb,comprising damaged right hand end plate and two tooth segments and incomplete connecting plates.Upper teeth totally lacking,remaining only as stubs and possibly indicating a shorter set than the lower ones,which are slightly graduated.The narrow connecting plate is divided by horizontal incisions and with 4 copper alloy rivets remaining,4 further ones missing.
L47,W27,T6mm max.
Mr. Mackay,Keiss.

Recent Work.

8.9.19 End plate of comb with double convex form,6 copper alloy rivets remaining in the two surviving plates.Two perforations with wear in the end plate.The connecting plate is ridged with traces of cut marks on each side.The teeth are of different thicknesses on each side.
L33,W37,T3mm.
FL80 UD,SF no.351.

Not Located.

8.9.20 Complete comb with seven copper alloy rivets and two suspension holes on left hand side.Upper teeth finer than lower.Straight ends and connecting bar decorated with horizontal incisions.
Not available for measurement.
Mr. MacCallum,Thurso.
Plate 37B

8.9.21 Another as above,incomplete.Copper alloy rivets positioned in pairs.
Not available for measurement.
Mr. MacCallum,Thurso.
Plate 37B

8.10Comb Case.

NMAS.

8.10.1 Reconstructed example,made of highly polished bone of 4 main plates decorated with ring and dot motif and incised lines.One end only remaining,perforation through left hand side of upper plates.2iron rivets in position, traces of two further perforations,1 with extensive wear.
L144,W19,T7mm,Perforation D 5mm.
IL 524 FS 75.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,96-7,plate XLVII no.1
Found together in midden over primary floor level to north west of Building III, c 70cm below 'present' surface.
Plate 39A

8.11Handles.

NMAS

8.11.1 Hollowed bone,one side split and notched,possibly a perforation.
L51,W20,T2mm.
HR 1065.
No reference available,Donation Childe 1950.
From Bronze Age site, sandpit 1941.

8.11.2 Hollow tube of bone,decorated in relief rings around the sides.
L59,D10mm.
IL 682
Donations 1948,322 no.5 (Purchase anon) .
Plate 34A

Rosie Collection.

8.11.3 Irregular cylinder,slightly damaged at broader end,other end champhered.Narrow perforation throughout length,slashing on front and back faces.
L49,W17,D19,Perforation D10mm.
Figure 48 A

8.11.4 Smoothed long bone,circular in section,broken in centre.
L95,W11-21.

8.11.5 Hollow tube of bone with cut ends.Smoothed externally.
L52,W6,D4mm.

8.11.6 As above, slightly damaged at one end with two small notches.Constant diameter.
L97,W14,Int.D7mm.

8.11.7 Tine with base hollowed,possibly for use as a handle.
L145,W26,Hole D12,Depth 38mm.

8.12 Snecks.

NMAS.

8.12.1 Roughly rectangular piece of whalebone, broken across worn perforation. Reverse smooth and obverse badly eroded.
L111, W35, T15mm.
IL 544 FS 35.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,99, plate XLIX no.1.
Found clearing off sand on south side of Building V.

8.12.2 Rectangular piece of flattened whalebone, slightly narrowing to one end, circular perforation 26mm from other end.
L105, W27.5, T9mm.
IL 545 FR 29.
Donations 1939,225 no.10 (Alexander Sinclair).
Curle 1939,99, plate XLIX no.2.
Building I floor level, c1m from south wall on drain cover.
Figure 47A

8.12.3 Roughly rectangular piece of whalebone, flat on under side and slightly convex on upper, broken across circular perforation. Four cut marks on the upper surface parallel to each other.
L90, W31.5, T17mm.max,
IL 546 FR 15.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,99.
Found clearing floor at south side towards west end of Building IV.
Figure 47B

8.12.4 Roughly rectangular piece of whalebone, flat on under side, roughly square perforation 1/3 along, with iron staining around it. Complete object, smooth area on top possibly caused by wear.
L129, W36, T14mm max.
IL 547 FR 21a
Donations 1939,335 no .10 (Alexander Sinclair).
Curle 1939,99 fig.5.
Found on south side at west end of Building IV.

Rosie Collection.

8.12.5 Approximately half whalebone sneck, irregularly planed on lower surface, broken across the drilled hole. Two parallel score marks on upper surface.
L60, W25, T11, perforation D8mm.
Plate 34D

Not Located.

8.12.6 ?Incomplete sneck, shaped piece of whalebone.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461), 56.

Found at east end of south wall Building VI.

8.12.7 As above.
Approximate L260mm.
FS 80.
Curle notebook ms 28a (SAS 461),74.
From top of wall of Building VI, at west end.

8.13 Gaming Pieces.

NMAS.

8.13.1 Block of worked whalebone of almost uniform thickness with compass drawn circle on upper surface.Deep groove on one side could indicate attempts to cut out the circle.
L94,W59,T15-18mm.
Diameter of circle 60mm.
HR 913.
Donations 1946,153 no.18 (Bremner).
Figure 47C

8.13.2 Decorated circular disc of whalebone with incised dot and ring motif around a central undecorated area.
D47,T7mm.
IL 666 Childe no 25.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe 1943,12,15-16, plate IV no.1.
North east corner of structure LMNO.
Figure 47D

8.14 Perforated Metapodials.

NMAS.

8.14.1 One,slightly damaged at the round perforation which passes through the centre of the bone.
L57,D12mm.
IL 525 FS 58.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939,97-8, plate XLVIII no.13.
Found c3m from east end near wall Building VI.

8.14.2 One complete,as above.
L52,D8mm.
IL 526 not recorded by Curle.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939, 97-8, plate XLVIII no.14

8.14.3 As above.
L 51,D9mm.
IL 527 ?FS 77.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939, 97-8, plate XLVIII no.11.
Floor level Building VII, ? se corner
Figure 48 B

8.14.4 As above.
L49,D12mm.
IL 528 FS51.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 97-8, plate XLVIII no.12.
Found c5.2m from east end near south wall Building VI floor level.

8.14.5 As above.
L45,D10mm.
IL 694.
Donations 1948,322 no. 5 (Purchase anon).
Figure 48 C

8.14.6 2 perforated metapodial bones.
-7 6)L55,W11,T10mm.
7) L56,W12,T10mm.
NMAS not accessioned.

Rosie Collection.
8.14.8 Metapodial bone as above with central perforation.
L52,W29,perforation D9mm.

8.14.9 Metapodial bone with two holes,one midway along one side,the other mid way along the adjacent side.
L33,W28,Perforation D 8,6mm.

8.14.10 Metapodial bone with central perforation.
L55,W12,perforation D5mm.

8.14.11 As above.
L45,W10,perforation D4mm.

8.14.12 As above with broken perforation and damaged epiphyses.
L56,W13,perforation D 5mm.

8.15<u>Miscellaneous Bone.</u>
NMAS.
8.15.1 Roughly rectangular piece of bone ,two notches at each end.Possibly a toggle or hair ornament.
L51,W8,T2mm.
GA 755.
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.
Plate 34B

8.15.2 Long bone fragment with forking at one end,seems to be worked.
L77,W21,T2mm.
GA 760.

Donations 1909,(Tress Barry 1908), not listed.
Freswick Sands Broch.
Figure 48.D

8.15.3 Small bone ring,half lacking.Chamfered at top and bottom edges.
L25,D26,T5mm.
GA 770.
Donations 1909 (Tress Barry 1908) not listed.
Freswick Sands Broch.

8.15.4 Roughly spherical ball of bone,incomplete circular perforation in upper surface.Possible bead.
D24,T15,perforation D4mm.
GA 772.
Donations 1909 (Tress Barry 1908) not listed.
Freswick Sands Broch.

8.15.5 Worked peg of smoothed tine with outer surface remaining at medial end,circular perforation below this.Top sawn cleanly.
L90,W5-19mm.
HD 1176.
Donations 1952,211 no.22(Bremner).

8.15.6 Flat bone disc with small central perforation.Upper side smooth,lower much rougher.
D11,T1mm.
HR 1009.
Donations 1950,230 no.38 (M.C.Bremner).

8.15.7 Bone disc made from scapula,rounded corners and eccentric perforation now damaged.Slightly warped.
L101,W83,T3mm.
HR 1027,
Donations 1950,227 no.2 (Bremner).
Lacaille 1954, 267,fig.117 no.13.
In and below kitchen middens at north end of the Links.
Figure 14 no.13.

8.15.8 Small piece of worn and polished mammal bone,both ends rounded.Unknown function.
L45,W14,T5mm.
HR 1035.
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,267,fig.117 no.10
From in and below kitchen midden at the northern end of the Links.
Figure 14 no.10.

8.15.9 Small bone cylinder,highly worked with traces of seven cut marks on one side.Both ends worked,one to a point,but broken,the other blunt.Oval /circular in section.
L43,D8mm.

IL 557 FS20
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),48.
Found at occupation level of south hollow.

8.15.10 Piece of ivory? tusk,cut one end with four slash marks visible at each end.Small perforation through one side near edge,possibly for suspension.
L39,D14mm.
IL 696
Donations 1948,322 no.5 (Purchase anon).

Rosie Collection.

8.15.11 Tapered piece of bone/antler with two small perforations and broken across the larger one.Slightly warped and undecorated.
L58,W13,T2mm.
Figure 48 E

8.15.12 Smoothed long bone,chamfered slightly at the hollowed end.
L96,W20,perforation D15mnm.

8.15.13 Piece of worked whalebone, wedgiform.Edges carefully rounded.
L65,W25,T8-19mm.
Plate 34D.

8.15.14 Large piece of worked whalebone,roughly rectangular with squared section.Slight indentation on one of the short sides.
L90,W40-50,T35mm,indentation D13mm.

8.15.15 Cylindrical piece of worked whalebone, hollowed at each end.Shallow groove on one long face,opposing face damaged.Highly smoothed.
L100,W13,hollow D10mm.

8.15.16 Hollowed and polished bone cylinder with copper alloy suspension ring around centre.Flattened at one end,broken at other,possibly the end of a smoking pipe,modern.
L40,W9,perforation D3-9mm.

Not Located.
Other Collections.

8.15.17 Fragment of decorated bone.
Not avaliable for examination.
Saxon,Thurso.

Discussion.

The suitability of bone and antler as a medium for working a variety of objects can be clearly seen from this varied catalogue.The extensive range within a specific artefact type is particularly seen in the combs and pins in the asssemblage and may reflect the fact that bone, as it wears in use,becomes smooth.The sandy midden deposits from which most of this assemblage has been recovered, has resulted in the fine preservation of most of these objects.

Pins.

There is a very large collection of pins from Freswick, forty in all of varying forms. MacGregor has recently noted that bone pins are likely to have been used in loose fitting clothing, and thus suggests a demise in the production and /or use of bone pins when tighter fitting clothing appeared c 1200 (MacGregor 1980,180-1).Some pins may have been used in the hair in addition to clothing, but recent work has demonstrated the important use of simple undecorated pins, generally of the nail-headed variety, in the making of clay moulds for metal pins (Curle 1982,94 ill 57).This inter-relationship had already been noted by Curle (A.O) from his work at the Mote of Mark (Curle 1914,148 fig.15 no.1).

There is a large variety of pin types in the Freswick assemblage which can be subdivided roughly by form. For subdivision,the form of the head is most significant, however, the actual form the shank and any decoration in that area must also be taken into consideration. A group of nine pins have simple incisions or cross-hatching midway down the shank,for example,8.1.2 or 8.1.11 in some cases combined with a slight swelling. These are simple devices to prevent the slipping of

the pin when it is position. In his discussion of the type with incised decoration down the shank and with 'hips', Stevenson states that they...'are fairly common at Freswick Links, Caithness, but whether they belong to the Viking settlement or to an earlier occupation is uncertain' (Stevenson 1955,285). The feature of decorated shanks is discussed by Stevenson with further reference to examples from Lagore and Buston Crannog (op cit ,285) and the similarities can be seen on his published figure A (op cit, 284) although there are closer parallels in the Freswick assemblage to that example illustrated from Buston (fig.A no.4), possibly 8.1.12 for example. In the large range of pins published from the Broch of Burrian, only a few could be described as having swollen shanks and only four or five have traces of hatching across the shank, and they are generally without swelling (MacGregor 1974,72-3, fig.5 and 6). The type is also illustrated by Ritchie from Buckquoy (1977,193 fig.4 no.16).

The pins 8.1.1 with a decorated shank and swollen hips, 8.1.11 with decorated shank and swollen hips and 8.1.22 with a thistle head have been dated by Stevenson to not later than the 7th century (op cit, 286) although there are many problems involved in the study of pins and the consequent dating of them. The study of the pin head types can be used to divide up the assemblage into groups of like-types.The majority in the Freswick assemblage can be described as ball-headed pins. Two are decorated, nine undecorated and two have collars. A number of ball-headed pins have been recorded from the Broch of Burrian, they have slightly swollen shanks and have been distinguished by MacGregor as pre-Viking (1974,70) and in this point,

it is perhaps encouraging that two were found in the broch excavations at Freswick (nos. 8.1.1 and 8.1.2). A simple undecorated example has been recorded from Buckquoy (Ritchie 1977,193 fig.4 no.10) in a Middle Norse context. The collared example 8.1.1 with a slightly swollen shank is paralleled at Birsay in examples illustrated by Curle (1982,94 ill 57) and possibly also at Buckquoy although the parallel is not so close (Ritchie 1977, fig.4 no.21) There is however, a problem concerning the chronological position of the pins with ball heads and no swelling on the shank.Ball headed pins have been recorded with the Cuerdale hoard (Kendrick 1941,163). Although they are longer with slim shanks and little or no trace of swelling on the shanks they serve to indicate that head form alone cannot provide chronological information.

The thistle headed pins in this assemblage are of a different form to those thus termed from Jarlshof (Hamilton 1956 pl.XXIIc, second right), but they all have cross-hatching around a roughly globular head (see Stevenson 1955,284 fig.A no. 25 (FL 8.1.22)) and have been given a pre-Viking date by Stevenson. The pin 8.1.12 with a flattened head seems to be a possible cheaper imitation of 4.8.2 in copper alloy (op cit 284, fig. A no.22) and no precise parallels have been noted from Birsay despite the very large range from that site (Curle 1982, 20 ill7).

There are nine flat headed or headless examples in the assemblage which appear to be complete. These include the nail-headed type (particularly 8.1.42) as illustrated from Burrian (MacGregor 1974,72 fig.5 no.10) and similarly from Buckquoy (Ritchie 1977, 193 fig. 4 no.9) from a Middle Norse context.

There are two roughly crutch-headed examples in the assemblage 8.1.23 and 8.1.26 and it is possible that these are bone copies of metal examples, although there are no traces of impressions at the sides for the insertion of a ring as in the example from Beachview Birsay (BV80 KO SF no.489). No further parallels have as yet been located.

The tripartite form of pin head is interesting and the crude attempt at decoration by simple cutting is also closely paralleled at Birsay (BY78 DP SF no. 33) and illustrated from Lagore Crannog (Hencken 1951, 192 fig. 104 no.1362).The carefully executed example remains only as a head but is also paralleled at Lagore (op cit 193, fig. 105 no. 532) although it is unfortunately from an unstratified context. The example from the Rosie collection (8.1.35) indicates the same form with a swollen shank and could indicate a pre-Viking type.

Pig fibula pins are very common on many sites chiefly because of the ideal shape of the raw pig bone for working. Some examples have small perforations in the broad head, possibly for the attachment of thread to hold the pin in place, rather as suggested for ringed pins in metal.The type of pin has been discussed by Hencken in relation to Lagore, noting 131 examples from the site (Hencken 1951,194) and other examples have been noted from Burrian (MacGregor 1974, fig.8 94-100). Other examples lack a perforation, for example 8.1.27.

There is therefore a large variety of pin forms in the Freswick assemblage but where examples can be closely paralleled they seem to be generally of the pre-Viking period. It is not possible to closely date some types such as ball headed or pig fibula examples because of the fact that they are simple and not indicative of a particular

period. It would seem therefore that there is an important pre-Viking group of pins at Freswick, possibly representing either Pictish or early Viking activities. It is conceivable that there is an overlap in pin types between pre-Viking and Viking at the site, as suggested by Ritchie at Buckquoy (Ritchie 1977,192) but there is as yet no proof of this suggestion at this site.

Needles.

The needles in the assemblage have been distinguished from the pins by the presence of a perforation and the fact they are usually lacking in decoration because of their functional nature. The only variant in this is the perforated pig fibula pin which will be discussed below. In a needle there is a general need for the head to be resonably streamlined to enable it to pass through the cloth and it is not practical to have a broad head unless something as open-worked as a fishing net is being repaired.A series of seven needles have been distinguished in the Freswick assemblage, of which three seem to be definitely of the type with a broader head, such as 8.2.2, although not as broad as the fibula head pins. A further three have pointed heads and are streamlined in appearance, such as 8.2.4.

The type with the broader head has been distinguished at a number of other sites and , for example, a fine group with thread wrapped around a small bundle of needles has been illustrated from Hedeby (Schwarz-Mackensen 1976,70 abb 38). A similar example from Southampton in a context dated 1250-1350 has been described by Harvey as a 'bodkin' (1975,272 fig.247 no.1929).A needle with a broad but roughly circular head from Jarlshof has been noted as a 'basket needle'(Hamilton 1956,147 fig.69 no.1).

The type of needle with a roughly pointed head has been identified at rather more sites and from a number of periods.Examples in a Viking context has been recorded from Hedeby (Schwarz-Mackensen 1976,43 abb 16 nos.9-14) and also from Oslo, Gamlebyen excavations (Wiberg 1977,211 tab V and fig. 31,212). Graham-Campbell has noted the recovery of a wooden example from Hedeby (1980,22 no.86) also.From Birsay Curle has noted a number of this type (1982,21 ill8 nos. 138-143) and from an unstratified context Hencken has noted a very similar one from Lagore Crannog (1951,193 fig.105 no.604). From Flaxengate Mann has recorded an example from a 10th century context and notes that the type could also be found in Roman contexts (Mann 1982, fig.24 no.214).This confirms the fact that this type of artefact can be found on a number of sites with a large period range.

Roughout.

The most important fact about the single roughout, 8.3.1, from the site is that it indicates a certain degree of manufacture on the site. It is very simple, rather similar to an example from Beachview Birsay (BV79 EO SF no. 212) and may only represent the whittling of an individual rather than any commercial aspect of the site.

Points.

A large number of simple bone points with the knuckle joint still visible are recorded in the assemblage, they are very crudely worked and not diagnostic of any particular period. A series of similar pieces have been noted from the Iron Age fort at Clickhimin, Shetland (Hamilton 1968,88 fig.38 nos.1-6) and also from the broch at the site (op cit 118, fig.49 no.3). Similarly crude examples have been recorded from the Round House at Jarlshof (Hamilton 1956,51 fig.28). Examples

from contexts which are likely to be later in date include Birsay (Curle 1982,57 ill35). The precise function of these pieces is somewhat obscure, but they could have served for picking out shell fish to eat or for bait. Similar crude pieces have been discussed by MacGregor recently refuting suggestions made earlier that they were for use in the end of poles to assist in ice skating (MacGregor 1982a,96-7). Such a suggestion would seem to be out of place in the Freswick assemblage and perhaps the suggestion of an association with shell fish or even fishing may perhaps be possible.

Pin Beaters.

A variety of forms of pin beaters have been identified, those with a point at each end, or only at one end with the opposite part being chisel shaped, for example 8.5.3. They are thought to have been used in the process of weaving , in addition to weaving swords (MacGregor 1980,101-2) in conjunction with the warp weighted loom (Hoffman 1964,279). They are most commonly made of bone although wooden examples have been noted (Graham-Campbell 1980,21 nos. 78 and 79) from Birka and Hedeby.Many of the examples recorded have been worn smooth by use, and for this reason bone would appear to be particularly appropriate since it wears smooth.

Many sites which have been excavated have produced evidence of this class of artefact, for example from Northampton a variety have been published and discussed recently (Oakley 1979,312 fig.138 nos. 52-6). Other sites which have produced examples are Birsay (Curle 1982,57 ill 35 no.181)and Lloyds Bank, York (MacGregor 1982a,101 fig.54 no.510).From Flaxengate Lincoln, four examples have been recorded in contexts of the 10th-11th centuries, although it is noted that they

are common on Anglo-Saxon sites of all dates (Mann 1982,25) and she distingushes between the earlier double pointed examples and the later single pointed Anglo-Saxon examples.

Spindles.

There are two interesting rods of bone in the asssemblage which are likely to represent spindles, 8.6.1 and 8.6.2. They are particularly of significance because they are usually made of wood rather than bone, and , recently MacGregor has noted that bone examples are not found (1980,95); it is however, rather difficult to see these rods as performing any other function.More elaborate versions have been recorded from Lagore Crannog by Hencken (1951,162) and similar ,rather plainer ones have been recently illustrated by Diklev from the Faroes (1977,9). These are somewhat longer, being up to 330mm and blunt at one end with a hook attachment. Two wooden examples have been noted by Graham-Campbell from Hedeby and Ribe (Graham-Campbell 1980,nos.67 and 68,illus.205) and the Hedeby example is certainly clearly tapering at both ends with a slight central swelling.

Whorls.

The bone whorls in this assemblage fall into two categories, the femur head type which is represented by thirty eight examples and those made of whalebone, of which only two have been recorded in the assemblage.

Of the femur head whorls noted from Curle's exacavations, six have come from Building IV, three from Building I, four from Building III and two from Building VI. It is not possible to be sure if this is a

significant distribution because this only accounts for fifteen out of the total of thirty eight and the remainder are largely unstratified.There is a problem in the precise identification of individual examples noted from Curle's excavations because insufficient details were recorded.It has been attempted to identify positively as many as possible of these and where this has not been possible the entry has been marked with (?). The actual individual pieces are of only limited significance and the location of the find is considered to be more important.

This is a very common class of artefact, recorded from a variety of sites of varying periods. It is very easily made but the efficiency must have been impaired on some examples because of the eccentric perforations.Examples from a 12th-13th century context have been recorded from Stamford, Lincs. (Mahany et al 1982,52 no.6) and Aberdeen (MacGregor in Murray ed. 1982, 182 no.22). However, considerably earlier contexts have also been noted;from a possible wheelhouse context at Dun Cueir, Barra for example (Young 1956,317, nos. 11 and 13), and from a post-wheelhouse context at À Cheardach Mhòr, Drimore, South Uist (Young and Richardson 1960,155 no.42).From a native Pictish context they have been recorded from Burrian,Orkney (MacGregor 1974,88 fig.17), and at Jarlshof in a 10th century context (Hamilton 1956,140-1,144,165) and also from the Brough of Birsay in a Norse context (Curle 1982,ill 38 nos. 235-9).

This is a potentially interesting group of material but it is unfortunately limited by the fact that so many of the pieces are unstratified and that the group as a whole cannot be particularly dated with any accuracy.They are very easy to make and of purely functional

form which did not need to alter and so are effectively useless for dating purposes.

The whalebone whorls 8.7.1 and 8.7.3 noted would have been made from the bones of a whale probably stranded on the beach and the source of bone as such would have been as easily accessible as long bones for the femur heads. The eliptical whorl is of a form directly paralleled at Clickhimin, from the Iron Age fort, and is particularly interesting because it still has part of the spindle in place (Hamilton 1968,88 no.23).

Single Sided Composite Combs.

There is an interesting and varied collection of nineteen single sided combs in this assemblage.8.8.1 is a most distinctive example with copper alloy rivets of bent sheet metal; it is virtually complete. It has a very close parallel with an example from Birsay (Curle 1982,74 ill 49 no 230) from an Upper Norse context. It seems to be a widespread Late Viking type and can also be paralleled at Lund (Blomqvist 1941,153 fig.7) and also at Oslo, Type E5 of a 12th century date (Wiberg 1977,206 fig. 14 and 207). An example from the Tyskebryggen excavations in Bergen is dated to the mid 13th century (Grieg 1933,233 fig 196).

Another group of combs in the assemblage also seem to support a Late Viking dating. 8.8.2 is a particularly interesting example because it was originally double-sided and has been remodelled to a single sided one with straight terminals. It also has copper alloy rivets and a profiled connecting plate. Originally it would have been very similar to 8.9.13 which has a single row of rivets.As a single sided example, it is very similar to 8.8.4 and 8.8.7 although they are

somewhat longer. The form has similarities at Lund (Blomqvist 1941,153 fig.7) although these examples are different in that they have teeth of different coarseness on the same side of the comb. The type is also found at the Bryggen site in Norway (pers comm I. Kellmer Bergen) in a late Viking context.In Oslo the type is nearer to type E6 in a 13th century context (Wiberg 1977,206 fig 16 and 207).

8.8.5 is very similar to 8.8.2 but it has a simpler undecorated connecting plate with copper alloy rivets. This is very similar to an example from Oslo in a 13th century context (Wiberg 1977,205 fig.11b) and also at Ribe (Andersen 1968,28 no.9).

The type of composite comb with convex ends is both distinctive and relatively common. 8.8.6 is complete except for a few missing teeth and is of the same type as 8.8.18 with variations in the double-sided assemblage. This is once more seen also at Oslo, Type E6 (Wiberg 1977,206 fig.17 and 207) in a 13th century context.

The comb fragment 8.8.11 indicates a connecting plate with a full D-shaped profile and copper alloy rivets. There is a slashed form of decoration on it but no precise parallels can be located. It is likely to be of a 12th-13th century dating by analogy with the other items in the assemblage.

8.8.17, although badly damaged, is an interesting piece because of the broad connecting plate with horizontal line decoration and two rows of copper alloy rivets. It has ring and dot motif along the actual top of the comb and can be paralleled at Oslo for this feature (Wiberg 1977,206 fig.17) on a comb of different form. Otherwise, the comb represented is probably of the same form as 8.8.2 discussed above.

Another distinctive type of single sided combs found in this assemblage is the type termed 'hog backed' which has a slightly curving back .8.8.8 is a badly damaged example but with copper alloy rivets and an undecorated connecting plate with a shallow D-shaped section.8.8.9 and 8.8.10 are of the same type but 8.8.10 has a single iron rivet remaining. 8.8.12 is of the same form with iron rivets and may be from the same comb. The decoration on this piece is paralleled at Northampton (Oakley 1979,310 no.36) in a late Saxon context.8.8.14 is of the same form as 8.8.12 and 8.8.19 has decoration of running circle and dot motifs , similar to an example from Jarlshof (Hamilton 1956, 166 fig.77 no.9). The hog backed type of comb has been found on many sites; Hedeby (Tempel 1970,35 abb 1 and 38, abb2),the Frisian terpen (Roes 1963, pl.XIX no.3) for example. A recent study of the type by Ambrosiani, based on the collections from Birka in Sweden and Ribe in Denmark, indicates a 9th-10th century date for the type (1981,25 fig.9). The type has been recorded from many sites in North Scotland, including Birsay (Curle 1982,58 ill36, 224 and 225) in a Lower Norse context and at Jarlshof (Hamilton 1956,147 fig.69 no.11) in a 10th century context.This group therefore provides a distinct group from those previously noted in the single sided assemblage.

Double sided Composite Combs.

There are twenty one examples of double sided combs in this assemblage, which generally fall into three main groups.The first type represented can be seen in 8.9.1, which is a fine nearly complete example with straight terminals. It is decorated by ring and dot motifs and the teeth are thick on one side but thin on the other. The terminals are rather uneven, being slightly more curving on one side.

There are copper alloy rivets and the connecting plate is interesting because it is slightly tapering towards the ends.8.9.10 and 8.9.13 are of very similar form. 8.9.16 is similar also but the connecting plate is undecorated and the teeth are of even coarseness. 8.9.7, 8.9.17, 8.9.18 and 8.8.14 are all of the same type.This type can be seen from Oslo (Wiberg 1977,210, fig.24 a and b) in a 12th century context and at Lund (Persson 1976,329 fig.2994 no.580) and slightly later at Bergen (Grieg 1933, 237 fig.199) ,Århus (Andersen et al 1971,152) and Ribe (Theiltoft 1977,97) in 13th century contexts.

The second type of double sided comb is a variant on the convex single sided ones noted above.8.9.4 is badly damaged with double convex terminals, copper alloy rivets and a narrow ridged connecting plate.8.9.21 is a variation which is rather more interesting however, 8.9.6, 8.9.9 and 8.9.5 are double sided with the upper part offset. To date only one parallel can be located for this type of variation, from the excavations at Schleswig in a late 13th century context(pers comm I. Ulbricht,Schleswig Museum).The more straight forward double convex type is relatively common, having been recorded from Oslo in a 12th-13th century context (Wiberg 1977,210 fig.23 a-c), Århus (Andersen et al 1971,153), slightly later at the Bryggen (Grieg 1933,239 fig.206) and an example from Jarlshof which exhibits the same tapering connecting plate as noted above, in a 13th-14th century context (Hamilton 1956,179, fig.206).

However,there are three pieces in the assemblage which are of significance because they appear to represent pre-Viking forms. 8.9.2, fragments of a broad connecting plate is very similar to the very badly damaged 8.9.8 comb.The combination of iron rivets, the broad

shallow form of the connecting plate seem to indicate an earlier date. The type can be paralleled at Saevar Howe, Birsay (Batey and Morris in Hedges forth), Birsay (Curle 1982,109 no.224,58 ill.36), Buckquoy (Ritchie 1977,196 no.55), Burrian (MacGregor 1974, 80-4 no. 152) are very similar in form. All with the exception of Buckquoy appear to be from pre-Viking contexts. 8.9.15, a tooth plate, would seem to be from the same type of comb.

The variety of combs represented would seem to represent a concentration of examples from the Late Norse period,but also a small group of early Viking types and suggested pre-Viking types. The Late Norse and early Viking ones have good parallels in Scandinavia, although it must be recognised that the date brackets in Scandinavia must be treated with care in the context of Freswick.

Comb Case.

The single example 8.10.1,from Freswick is unfortunately unstratified and sadly lacks a matching comb.Most comb cases have a matching comb and the case would have protected the teeth. A pair of comb and matching comb case is illustrated by Arbman from Birka (1940, taf 163 no.5) but he also illustrates an example which is not a matching pair (op cit ,taf 163 no.3).After the conservation of the piece ,it appears to be virtually complete and can be closely paralleled from Sigtuna now in the Statens Historiska Museum, Stockholm.

Handles.

A series of hollowed-out bones in the assemblage may possibly have originally been knife handles or handles for other small tools. They are generally undecorated with the single exception of 8.11.2 which

may conceivably have had an entirely different function, possibly as an incomplete needle case. Many examples of simple bone handles have been recorded from a number of sites;from Flaxengate, Lincoln such a piece has been recorded from an early Medieval context (Mann 1982, fig.37 no.319, 320). Other examples have been recorded from Bramber Castle Sussex in a context dated c 1075-1180 (Barton and Holden 1977,58 fig. 18 no.36) and a simpler one, made from a hollowed antler tine was noted from a 13th century context at the same site (op cit, 58, fig 18 no.37). From the site of Jarlshof, Shetland a partially hollowed out shaft fragment could have served the same function (Hamilton 1956, 136 no.28) as could examples from Lagore Crannog in Ireland (Hencken 1951,111 fig.44, 1114 and B). A similar example in wood has been recorded by Graham-Campbell from Lund (1980,18 no.53).

Whalebone Snecks.

Five examples of whalebone snecks have been recorded in the assemblage, and they have been suggested as catches for doors or cupboards. Traces of iron staining on one example, 8.12.4, could indicate the method of attachment to the door stanchion. Examples have been recorded from Jarlshof (Hamilton 1956,123 and 186) although the example illustrated does not seem to be a very close parallel (op cit 122, fig. 57 no.12).A closer similarity can be seen with a piece from Flaxengate, Lincoln which is decorated, it also has traces of an iron rivet at the mid point and is from a context dated to the 10th-11th centuries (Mann 1982,19 and fig.17).

Gaming Pieces.

Although two are included in this category, only one can be

positively identified as such. 8.13.1, a compass drawn circle on a lump of whalebone, cannot be suggested as anything else. 8.13.2, is a very interesting example which a close parallel in Scandinavia from the Bryggen site is in a sealed deposit dated pre 1248 (Grieg 1933,260 fig.253). A similar gaming piece has been recorded from Northampton although it is decorated on both sides with ring and dot motif and traces of a central perforation (Oakley 1979, 318 and fig. 141 no.99).A more developed example has been recorded from Southampton (Harvey 1975,271 no.1930 and fig. 247) in a context dated 1200-25.The precise games involved with these pieces cannot be now discerned, although perhaps something on the lines of draughts may be suggested.

Perforated Metapodial Bones.

Twelve of these have been identified from the site, of which only four have come from the excavations.This is another common type of artefact, although its precise function is unknown. Some have been termed 'toggles' and suggested as used as buttons would be on modern garments. Other people, particularly in Scandinavia, suggest a use as part of a child's game with thread passed through the perforations. Which of these identifications is correct, if either,is unknown, but there are certainly very limited traces of wear around the perforations.

Examples in Scandinavia have been noted from Århus, Hedeby and Lund, and discussed together (Andersen et al 1971,196-7) dated to the 12th century, but no precise function is suggested.From York, Clifford Street,an example is cited (Waterman 1959,92 fig.19 no.18) and also from Jarlshof, probably in a 10th century context (Hamilton

1956, 146 nos. 61-3) and also in a slightly later context at the site (op cit 167,42-5); they are all termed toggles. A number of examples have been illustrated from the excavations at Northampton, where they are suggested as toggles for clothing or bobbins for the use of weaving. There is a lack of wear noted on the items and some slight trimming by a knife (Oakley 1979,313 fig. 139 nos. 65,67 and 69).Curle noted of the examples found at Freswick that they were unworn (1939,97-8) but cites as a parallel to the 'dress-fasteners' a bone needle case which is clearly a different kind of object, not least as it is hollowed throughout and made from a piece of long bone rather than a metapodial bone.

Miscellaneous Bone.

The single piece ,8.15.11, which is suggested as an instrument fragment , certainly seems to bear a strong resemblance to an item drawn by MacGregor from Abingdon and described as a wrest plank or part of the yoke from a lyre. The Abingdon example is dated to the 5th century (MacGregor 1980,248-9, fig.84A) and there would have been bone pegs in the perforations. This would seem to be the nearest and at the moment only located parallel.

The piece of bone 8.15.2 is interesting because it may be a 'lucette', used in the making of square sectioned cord (pers comm A. Lewis via T. Cowie, NMAS).Similar examples have recently been published by MacGregor which have signs of wear and have been suggested as thread twisters (1982,95 fig. 50 and 96).Any signs of wear on the Freswick example are very few, and it is possible that this piece may not have been used for this purpose.

There are a number of bones in the assemblage which seem to have

been amended but whose functions cannot be discerned. In this category are a couple of discs which may have perhaps served as gaming pieces or in the case of the larger one a pot lid for example.8.15.10 may be a piece of tusk which has been shaped, conceivably for an amulet.

The point of antler may have served the same use as examples illustrated from York and described as 'fids' .They are usually grooved and some are perforated and they are suggested as being used in the process of rope-splicing (Waterman 1959,93 and pl.XXI).

Overall Considerations

This is a very interesting group of bone and antler artefacts which indicate, where it is possible to provide any dating on a reliable basis, a range of periods. Many of the categories can be paralleled in Scandinavia, although dating cannot be directly related.Those categories of material which are of greatest assistance in the dating of the site are the pins and the combs. The pins generally indicate a pre-Viking concentration, although some forms are very simple and could be equally at home in a Norse context.However, the combs are perhaps of more distinctive forms which can be paralleled in Scandinavia more readily.

The combs are usually termed bone combs, although generally they are made of antler. Iron rivets are the most common at the earlier period but replaced by copper alloy in 'some late combs of Scandinavian type' (MacGregor 1980,204-5). 'As much as any other single category of artefact, composite combs of distinctive form may be regarded as the characteristic type-fossil of Scandinavian settlements in the British Isles'(op cit, 226) and this situation seems to be the case at Freswick.The mechanisms of manufacture have

been carefully examined recently, and the problems of itinerant workers or permanent craftsmen considered in connection with the presence of the same type of combs throughout the Viking world (Ambrosiani 1981,157-8).The lack of comb-making debris so far recovered from the site, seems to indicate that combs were actually being brought to the site as finished articles and at the present it is not possible to suggest itinerant craftsmen at work in Caithness.

The variety of sections represented in this comb assemblage (fig.46) is interesting. Generally the D-shaped profile increases in diameter from the 9th-10th century onwards, to the flattened ridged form of the 12th-13th centuries. Copper alloy rivets in two closely set lines have been noted at Trondheim as early 13th century (Long 1975,27) and it is hoped that the same situation can be seen at Freswick.The double- sided examples are of less variable forms than the single- sided assemblage and MacGregor has noted that different teeth sizes are common in the Roman period and then increase in the Scandinavian periods, presumably culminating in the examples with two sizes on one side.Therefore, there would seem to be a broad period represented by the combs in the assemblage, with the later examples indicating the characteristics of the types common in Scandinavia in the Viking and Late Norse periods.The combs, along with the steatite elements of this assemblage, certainly seem to indicate continuous Scandinavian influence up to the 13th century at the site, although not necessarily the presence of Scandinavian settlers.

Chapter 12

Pottery and Burnt Clay

9 Wheelturned Glazed Pottery.

9.1 Handles.

NMAS.

9.1.1 Circular sectioned rod handle in red/brown fabric,slight ridging on upper surface.Traces of green-yellow glaze.
L85,W26,T23mm.
IL 613 FR 14.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,103.
Found cleaning to floor level in Building IV.
Figure 49 A

9.2 Rims.

Other Museum Collections.

9.2.1 Grey fabric,pink interior and exterior faces.Slightly club formed and traces of yellow glaze.
L40,W29,T5mm max.
Thurso Museum.
Donation Bremner.
Freswick Mid Ridge 1931.

Rosie Collection.

9.2.2 Club rim,grey fabric,splashed over rim with pale green glaze.Steeply angled on interior face.Vessel diameter c9cm.
L45,W31,T5mm max.
Figure 49 B

9.3 Wall Sherds.

NMAS.

9.3.1 Wall sherd, coarse ware with profuse grits, light coloured with traces of green glaze.
L45,W35,T5mm.
HR1475
Donations 1980,535 no. 2(Kirby 1979)

9.3.2 Red/brown fabric of highly fired pottery,wheelturned with traces of green-yellow glaze.
L60,W51,T5mm.
IL 610 not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,103.
?Found at bottom of heap of clay in Bath, Building I.

Other Museum Collections.

9.3.3 Sherd of finely tempered dark fabric with pink exterior and interior faces.Traces of yellow-green glaze on exterior face.
L45,W44,T4mm.
Thurso Museum.
Donations Bremner.

9.3.4 As above, traces of pale green glaze and possible slight decoration formed by slashing.
L29, W23, T4mm.
Thurso Museum.
Donation Bremner.
Mid Ridge 1931.

Rosie Collection.

9.3.5 -6 Two sherds pottery with green glaze on grey fabric with beige slip.
5)L30, W47, T6mm.
6)L30, W35, T7mm.

9.3.7 As above, conjoining and clearly wheelturned.
a)L41, W34, T5mm.
b)L22, W17, T5mm.

9.3.8 Sherd of red fabric, ridged exterior and dark brown glaze.
L42 , W50, T2mm.

Other Collections.

9.3.9 Sherd of hard fired red fabric with traces of green-yellow glaze.
L25, W22, T6mm.
Mrs. Dunnet, John O'Groats.

Not Located

9.3.10 Piece of glazed yellow pottery.
No dimensions
Not numbered.
Curle notebook ms 28a (SAS 451), 30
Found in entrance to bath from the north, in the filling.

10 Wheelturned Non-Glazed Pottery.

10.1 Handles.

NMAS.

10.1.1 Strap handle with subrectangular section, two raised ridges in red/brown fabric. Deep finger impressions on either side of the junction with the wall. Vessel diameter c10cm.
Handle L62, W35, T20mm.
Vessel L90, W48, T5mm.
IL 611 FR 33.
Donations 1939, 335 no.10 (Alexander Sinclair).
Curle 1939, 103.
From Building I.
Figure 49 C

Not Located

10.1.2 Part of rod handle.
No dimensions.
Not numbered
Curle notebook ms 28a (SAS 451), 17

Found at top of midden to north east of north extension at east of Building IV.

10.2 Bases.
NMAS.

10.2.1 Wall/base sherd of hard fired red fabric.Internal grooving and traces of burning on the lower part of the sherd.Basal diameter,c15cm.
L166,W160,T4-8mm.
IL 609.? not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939,103.
Found cleaning south passage at south side of Bath.

10.2.2 Sagging base of brown cream fabric,comprising 4 conjoining sherds.Wheel - thrown. Part of attached wall seems complete,indicating a shallow bowl. External burning and internal burnt deposit.Vessel diameter c 14cm.
L140,W 5mm.
IL 612 FR 7 and 8.
Donations 1939,335 no.10 (Alexander Sinclair).
?Curle 1939,103.
From midden below entrance to Building IV.

10.2.3 Base sherd of creamy fabric, burnt exterior and interior, small part of wall remaining. Not sagging and seems to be of a straight sided vessel. Vessel diameter c29cm.
L64,W43,T5mm.
Not accessioned.
Donations 1980,540 no.4 (Close-Brooks).

Other Museum Collections.

10.2.4 Wall and base sherd of white grit tempered hard fired pottery.Slight traces of exterior burning.Straight sided vessel.
L37,W35,T6mm.
Thurso Museum.

Other Collections.

10.2.5 Approximately half circular base of a cooking pot or jug in pale cream fabric.Slightly sagging. Slight traces of vegetable marking on lower side.Wall and base of similar thickness.Base diameter c 10cm.
L87,W57,av.T4mm.
Martin,Keiss.
Plate 40A,B.

10.3 Rims.
NMAS.

10.3.1 Light coloured sherd,slightly everted rim.
L34,W25,6mm.
HD 507.
Donations 1935,247 no.1 (Bremner)

10.3.2 Slightly everted rim of buff fabric.
L31,W20,T3mm.
HD 508
Donations 1935,247 no.1(Bremner)

10.3.3 2 conjoining rim sherds of wheelmade cooking vessel. Gritted with pinkish surface.Vessel diameter c 15cm.
L25,W60,T6mm.
HR 1474
Donations 1980,535 no.2 (Kirby 1979).

10.3.4 Sherd of light red fabric,everted rim decorated by two bands of 5 horizontally incised lines on external face,and 3-4 on the everted rim.Vessel diameter c14cm.
L52,W65,T av 6mm.
IL 614 FS 68.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939, 103,86,pl.LI no.2
From north of Building IV, below 'sheep fold'.
Figure 49D

10.3.5 Flattened and everted rim sherd of square section of cream coloured fabric.Parallel lines along its outside face and below rim.Slight traces of burning.Vessel diameter c 18cm.
L80,W34,T5mm.
Not Accessioned.
Donations 1980,540 no.4 (Close-Brooks).
Figure 49E

Rosie Collection.
10.3.6 Sherd of grey fabric,hard fired and wheel turned.Deliberate thickening of the fabric in a slightly club form rim.Vessel diameter c9-10cm.
L39,W38,T5mm max.
Figure 49F

Other Collections.
10.3.7 Club shaped rim of cream fabric,light coloured and finely gritted.Undecorated.Vessel diameter c 24cm.
L38,W44,T3.8-13.5mm.
Gourlay,Highland Archaeologist.

Recent Work.
10.3.8 Simple rim sherd of finely gritted pottery. Slightly rounded rim, vessel diameter unknown.
L22,W24,T6mm.
FL80 UC.

10.3.9 Simple rounded rim sherd, finely gritted. Vessel diameter unknown.
L23,W21,T4mm.
FL81 UM.

Not Located.

10.3.10 Club rim fragment.
No dimensions
FS65
Curle notebook ms 28a (SAS 461),67.
From wall head Building IV.

10.3.11 Sherd of thin red ware with traces of simple rim.
No dimensions
Not numbered
Curle notebook ms 28a (SAS 461),67.
Surface find from red ash heap?

10.3.12 Club formed rim sherd, cream coloured fabric with' pinched up pie-crust' rim.Vessel diameter c 29cm.
No dimensions.
Not accessioned NMAS.
Laing 1973,fig.12,19A, 208 and 210.

10.4 Wall Sherds.
NMAS.

10.4.1 Small sherd of smooth faces, grey finely tempered wheelturned pottery.
L38,W25,T6mm.
HR 805.
Donations 1925,154, no.3(Edwards).
From Midden.

10.4.2 3 sherds red/brown pottery, 2)formerly slightly glazed.
-4 2)L41,W40,T5mm.
3)L52,W37,T6mm.
4)L36,W19,T4mm.
IL 615.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,103.
From floor level, north east corner Building VI, just above midden.

10.4.5 Sherd of finely tempered wheelturned pottery,brown fabric.Slightly ridged external surface ,smooth interior with traces of burning.
L47,W42,T3mm.
IL 616. ?not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),29.
From primary level Building I.

Rosie Collection.

10.4.6 2 conjoining sherds of wheelturned cream fabric.
a)L45,W32,T4mm.
b)L67,W47,T6mm.max.

10.4.7 Large wall sherd as above,of straight sided vessel.
L40,W64,T5mm.

Recent Work.

10.4.8 Sherd of pink-cream finely tempered pottery, internally ridged.
L39,W27,T3mm.
FL80 UC.

10.4.9 Wall sherd of cream coloured fabric, from straight sided vessel.
L52,W44,T5mm.
FL80 UC.

10.4.10 Wall sherd of finely gritted wheelturned cream fabric.
L24,W20,T3mm.
FL80 UQ.

10.4.11 Wall sherd of finely gritted wheelturned fabric.
L26,W10,T5mm.
FL79 UJ.

Not Located

10.4.12 A number of sherds of brown pottery lacking glaze.
No dimensions.
Not numbered
Curle notebook ms 28a (SAS 461),28
From Building I

10.4.13 2 sherds, no description but probably glazed.
-14 No dimensions.
GA 905-06.
Donations 1909,16 (Tress Barry, 1908).
Freswick Sands Broch.

11 Grass Tempered Pottery.

11.1 Complete Vessels.

NMAS.

11.1.1 Reconstructed spherical vessel ,extensively soot encrusted. Flat based and damaged everted rim,slightly shouldered vessel.Vessel diameter 13cm at rim,16cm maximum.
L129,BaseD100,T4-5mm.
IL 617
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,104, plate LI, no.4.
Found in sand in front of Building V
Plate 41A.

11.1.2 Reconstructed cup like vessel,flat bottomed with simple rim.Vessel diameter c 7.7cm.
H44,W77,T5mm.
IL 618. FS 81/82
Donations 1939,335 no.10 (Alexander Sinclair).
Curle 1939,104, plate LI, no.3.
Found near above vessel, from sand in front of Building V.
Plate 41B

Not Located

11.1.3 Complete vessel, highly fragmented, distinguished by fish-rich contents.
No dimensions
Edwards 1927, 202
Found near Earth House.

11.2Handles.
NMAS.
11.2.1 2 handle fragments,one irregular ridged(1) and (2) base of
-2 handle and wall junction.
1)L44,W38,T7mm.
2)L40,W26,T20mm.
HD 499.
Donations 1935,246,no.1 (Bremner)
From Flint Workers Site.

11.2.3 2 abraded sherds of carinated handles,triple ridged,dark
-4 fabric with pink wash.
Less than L37,W23,T7mm.
HD 505
Donations 1935,247,no.1 (Bremner).
From Flint Workers Site.

11.2.5 Strap handle with three ridges , slightly damaged, dark grass tempered fabric.
L55,W50,T17mm.
IL 711
Accessioned 1950,no reference.

11.2.6 3 sherds of handles,carinated as others above.All damaged.
-8 6)L45,W39,T7mm.
7)L30,W30,T10mm.
8)L34,W30,T10mm.
IL 711.
Accessioned 1950,no reference.

11.2.9 Sherd of pottery,possible base of handle.
L40,W38,T5mm.
IL 711
Accessioned 1950,no reference.

11.2.10 Strap handle fragment with three ridges,slightly damaged.
L55,W50,T9mm.
IL 711
Accessioned 1950, no reference
Plate 42A

Rosie Collection.
11.2.11 Irregularly shaped lump of pottery,possibly the junction between wall and handle.
L34,W25,T24mm max.

Other Museum Collections.
11.2.12 2 triple ridged strap handle fragments 12)with vessel wall
-13 traces.
12)L28,W20,T8mm.
13)L39,W29,T15mm.
Thurso Museum.
Donated Bremner.

Freswick Mid Ridge 1931

11.2.14 Fragment of strap handle undecorated ,round sectioned and curving.
L30,W16,T12mm.
Thurso Museum.
Donated Bremner.
Freswick Mid Ridge 1931.

Recent Work.
11.2.15 Lump of pottery,possibly the base of a handle.
L24,W20,T11mm.
FL81 UQ

11.3 Bases.
NMAS.
11.3.1 -3 4 sherds of wall/base junction,sagging base and in dark fabric.
Less than L43,W40,T4-5mm.
HD 499 and 3 unregistered.
Donations 1935,246 no.1 (Bremner)
From Flint Workers Site.

11.3.4 Base sherd of very coarse grass tempered pottery.
L40,W40,T9-10mm.
HR 1501 (dup)
Donations 1980,535, no.4 (Murray).

11.3.5 -7 3 wall/base sherds,two clearly pinched at the junction forming a small ledge.Vessel diameter c 15cm.
5)L55,W17,T4mm.
6)L45,W26,T6mm.
7)L45,W47,T7mm.
IL 711.
Accessioned 1950,no reference.

Other Museum Collections.
11.3.8 Large,roughly circular base sherd with slight traces of wall at one point.
L72,W70,T11mm.
Thurso Museum.

11.3.9 Coarse wall and base sherd of flat bottomed vessel.
L54,W46,T12mm.
Thurso Museum.
Donated Bremner.
From Freswick Mid Ridge 1931.

11.3.10 -12 3 wall and base sherds,10)finely made with flat base of similar thickness to the walls.All indicating slight flaring at the base.
10)L84,W56,T7mm.
11)L27,W40,T10mm.

12)L28,W24,T4mm.
Thurso Museum.
Donated Bremner.
Freswick Mid Ridge.1931.

Recent Work.

11.3.13 4 fragments of very coarse pottery,probably most of the base
-16 of a single vessel.Dark grey fabric with buff external faces.
13)L47,W51,T10mm.
14)L35,W39,T13mm.
15)L25,W25,T10mm.
16)L36,W30,T10mm.
FL81 UD,SF no.380.

11.3.17 Wall /base sherd of fine tempered pottery.Black/dark grey exterior marked and slightly burnt internally.Straight sided vessel,approximate basal diameter 15 cm,slightly sagging.
Base L43,W37,T4mm.
Wall L37,W42,T7mm.
FL81 UE

11.3.18 Wall/base sherd,slightly worn,with flared foot.
Base D10,T4,L25,W22 mm.
Wall L30,W8,T3mm.
FL80 UK

Not Located

11.3.19 Portion of vessel base, covered with black slip.? grass-tempered.Convex.
No dimensions
Not numbered.
Curle notebook ms 28a (SAS 461),27
From Building I.

11.3.20 2 pieces of base of 'black vessel'.
-21 No dimensions.
Childe no.5
Childe notebook,12.
Found in upper layer at broken down top of wall KP.

11.3.22 Part of vessel base.
No dimensions.
Childe no.7.
Childe notebook,12.
Found in passage c 42cm from D.

11.4 Rims.(Figure 50)

NMAS.

11.4.1 2 conjoining sherds,including rim of Type 1B fine grass-tempered pottery.
L61,W47,T6mm.
HD 497.
Donations 1935,247,no.1 (Bremner).

11.4.2 -5 4 rim sherds Type 2C.2 badly burnt externally.Vessel diameter c 16cm.
Less than L53,W40,T5-6mm.
HD 506 (3 unregistered).
Donations 1935,247,no.1 (Bremner).
From Flint Workers Site.

11.4.6 -7 2 Type 3A rim sherds.Vessel diameters unclear.
6)L34,W25,T6mm.
7)L31,W20,T3mm.
6)HD 507 7)HD 508.
Donations 1935,247,no 1 (Bremner).
From Flint Workers Site.

11.4.8 Type 1B rim sherd.Vessel diameter, c 14cm
L70,W45,T7mm.
HR 805.
Donations 1925,154,no.3 (Edwards).
From middens.

11.4.9 Type 1A rim sherd,burnt deposit on external face.Vessel diameter,c14cm
L46,W34,T7mm.
HR 805 (dup.)
Donations 1925,154,no.3 (Edwards).
From midden.

11.4.10 Type 3A rim sherd.Vessel diameter,c15cm.
L42,W27,T4mm.
HR 805 (dup.)
Donations 1925,154,no.3 (Edwards).
From midden.

11.4.11 -15 5 Type 1B rim sherds.Vessel diameters c 16-20cm.
Less than L75,W75,T7mm.
HR 809.
Donations 1925,154,no.3 (Edwards).
From midden.

11.4.16 10 conjoining wall and rim sherds,Type 3C. Dark discolouration towards rim. Vessel diameter,c 31 cm.
L125,W140,T8-10mm.
HR 829.
Donations 1928,82,no.4 (Bremner).
Found near Earth House.

11.4.17 Type 3A rim sherd.Vessel diameter c 24cm.
L82,W46,T9mm.
HR 1346.
Donations 1976,334 no.22 (Kirby).

11.4.18 As above.Burnt deposit on external face.Vessel diameter c 18-22cm

L50,W57,T9mm.
HR 1347.
Donations 1976,334 no.22 (Kirby).

11.4.19 Type 1B rim sherd in coarse grass tempered pottery.Burnt exterior.Vessel diameter unclear.
L40,W35,T8mm.
HR 1348.
Donations 1976,334 no.22 (Kirby).

11.4.20 3 rim sherds Type 1A of coarse pottery.Extensive burning on
-22 20.Too small for vessel diameter.
20)L35,W30,T6mm.
21)L39,W24,T8mm.
22)L32,W20,T8mm.
20)HR 1349. 21)HR 1350. 22)HR 1351.
Donations 1976,334 no.22 (Kirby).

11.4.23 Type 1B rim sherd.Too small for vessel diameter.
L38,W45,T8mm.
HR 1352.
Donations 1976,334 no 22 (Kirby).

11.4.24 3 rim sherds Type 2A, conjoining.Vessel diameter c15cm.
-26 24)L45,W85,T8mm.
25)L50,W45,T8mm.
26)L45,W35,T8mm.
HR 1466.
Donations 1980,535 no.2 (Kirby 1979).

11.4.27 Rim sherd Type 1C, very coarse.
L56,W62,T7mm.
HR 1467.
Donations 1980,535,no.2 (Kirby 1979).

11.4.28 Rim sherd Type 1C, very coarse.
L56,W76,T7mm.
HR 1468.
Donations 1980,535,no.2 (Kirby 1979).

11.4.29 Rim sherd Type 1A.
L40,W73,T7mm.
HR 1469.
Donations 1980,535,no.2 (Kirby 1979).

11.4.30 Rim sherd Type 2C.
L28,W40,T9mm.
HR 1470.
Donations 1980,535,no.2 (Kirby 1979).

11.4.31 Rim sherd Type 2A.
L22,W34,T7mm.
HR 1471.
Donations 1980,535,no.2 (Kirby 1979).

11.4.32 Rim sherd Type 1A.
L40,W20,T6mm.
HR 1472.
Donations 1980,535,no.2 (Kirby 1979).

11.4.33 Rim sherd Type 1B.
L25,W33,T6mm.
HR 1489
Donations 1980,535,no. 4 (Murray).

11.4.34 Rim sherd Type 1B.
L25,W30,T7mm.
HR 1490
Donations 1980,535,no.4 (Murray)

11.4.35 Rim sherd Type 1C.
L25,W35,T6mm.
HR 1491
Donations 1980,535,no.4 (Murray)

11.4.36 Abraded rim sherd Type 1C.
L40,W40,T5mm.
HR 1492
Donations 1980,535,no.4 (Murray)

11.4.37 Rim sherd Type 2A.
L12,W33,T8mm.
HR 1493
Donations 1980,535,no.4 (Murray)

11.4.38 Rim sherd Type 2A.
L20,W50,T8mm.
HR 1494
Donations 1980,535,no.4 (Murray)

11.4.39 Rim sherd Type 1C.
L30,W45,T7mm.
HR 1495.
Donations 1980,535,no.4 (Murray)

11.4.40 Rim sherd Type 1A.
L35,W25,T8mm.
HR 1496.
Donations 1980,535,no.4 (Murray).

11.4.41 Rim sherd Type 1C.
L35,W30,T6mm.
HR 1497.
Donations 1980,535,no.4 (Murray)

11.4.42 Rim sherd Type 2C.
L35,W30,T6mm.

HR 1498.
Donations 1980,535,no.4 (Murray)

11.4.43 2 rim sherds possibly from the same vessel Type 1A.
-44 43) L50,W40,T8mm.
44) L30,W50,T7mm.
HR 1499
Donations 1980,535,no.4 (Murray)

11.4.45 Rim sherd Type 3A.
L13,W35,T4mm.
HR 1500
Donations 1980,535,no.4 (Murray)

11.4.46 2 conjoining Type 1A rim sherds with external burning.Vessel diameter,c26cm.
L110,W46,T7mm.
IL 619.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.47 6 conjoining Type 1A rim sherds, possibly part of a large bowl.Burnt deposit below rim.Vessel diameter,c 26 cm.
L220,W87 max.,T5-8mm.
IL 620.?FR 34
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),29.
From corner below platform of Building I.

11.4.48 Type 1A rim sherd.Vessel diameter,too small to be clear.
L49,W40,T8mm.
IL 621.Not numbered
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook, ms28a (SAS 461),9.
One of group from return wall of Building IV, north side.

11.4.49 Type 1A rim sherd with external burning. Vessel diameter c20cm.
L90,W60,T6mm.
IL 622.Not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook, ms28a (SAS 461),15.
Found clearing sand to west of wall projection north of Building IV, possibly on top of the fireplace.

11.4.50 2 conjoining Type 1A rim sherds, possibly of a shallow vessel.Extensive external burning by the rim and traces of internal burnt deposit.Vessel diameter,c 18 cm.
L120,W95,T6-10mm.
IL 623.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.51 Type 1A rim sherd with external burning. Vessel diameter,c20cm.

L75,W60,T12mm.
IL 624.not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook,ms 28a (SAS 461),56.
From north side of Naust.

11.4.52 12 conjoining wall and rim sherds.160mm of Type 1B rim remaining.Extensive external burning.Vessel diameter,very irregular,c18cm.
L165,W130,T5-8mm.
IL 625. ?FS 53
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),63.
Parts of a single vessel found crushed at north east corner of BuildingVI.

11.4.53 3 conjoining Type 1A rim sherds with exterior burning.Vessel diameter c 24cm.
L73,W120,T4mm.
IL 626
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.54 Rim sherd Type 2C.Straight walled with slight external burning and round perforation 30 mm below rim.Vessel diameter, c 20cm.
L70,W47,T6mm.
IL 627.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.55 4 conjoining rim sherds,Type 2C .Slight external burning.Vessel diameter,c 26cm.
L160,W67,T6-7mm.
IL 628
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.56 Rim sherd Type 2C,burnt externally and burnt deposit on interior face.Vessel diameter,c22cm.
L57,W60,T5mm.
IL 629.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.57 -58 2 rim sherds Type 1B.57)perforation 20 mm below rim.Both have burnt deposits on the exterior face.Vessel diameters, c15cm.
56)L58,W37,T5mm.
57)L42,W33,T7mm.
56)IL 630 57)IL 631.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.59 -62 4 rim sherds,Type 2C.Vessel diameters,c14cm and c20cm. Less than L50,W47,T5mm.
58)IL 632 ?FR27 59)IL633 ?FR27 60)IL 634 ?FR27 61)IL 637 FS76
Donations 1939,335 no.10 (Alexander Sinclair).

Curle notebook,ms28a, (SAS 461),27 and 72.
FR27,from Building I ;FS75 found at low level in midden refuse Building VII .

11.4.63 Rim sherd Type 2C, with exterior burning. Vessel diameter,c20cm
L62,W50,T4mm.
IL 635.?FR27 (dup)
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),27.
From Building I .

11.4.64 2 Type 3A rim sherds.Vessel diameters,c18 and c20cm.
-65 64)L60,W53,T7mm.
65)L80,W65,T4mm.
64)IL 638 65)IL 641.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook,ms28a (SAS 461),56.
IL 638 found by North wall of Naust.

11.4.66 2 conjoining rim sherds Type 3C.Vessel diameter,22-24cm
L105,W84,T6mm.
IL 639.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.67 Type 3C rim sherd.Vessel diameter, c 22-24cm
L48,W30,T6mm.
IL 639.(dup no)
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.68 2 Type 3B rim sherds with exterior burning.Vessel
-69 diameters,c16cm
68)L48,W49,T6mm.
69)L65,W72,T5mm.
68)IL 640 69)IL 645.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.70 2 Type 3A rim sherds 70)has perforation 9mm below the rim
-71 and is of 2 conjoining sherds.Vessel diameters ,c12cm.
70)L50,W42,T5mm.
71)L54,W20,T5mm.
IL 642 (both).
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.72 Crude Type 3A rim sherd,probably grass tempered.
L68,W40,T8mm.
IL 643.Not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),56.
From above wall of earlier building to east of Bath.

11.4.73 2 non-conjoining Type 3A rim sherds.External burnt
-74 deposits.73)vessel diameter c 10cm 74) vessel diameter unknown.

73)L60,W60,T8mm.
74)L55,W50,T7mm.
73)IL 644 FR40 74)IL 636.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms28a (SAS 461),33
Floor level Building II .

11.4.75 2 conjoining rim /wall sherds, Type 3A, slightly damaged,external burning. Vessel diameter,c14cm but very irregular.
L95,W65,T7mm.
IL 646.
Donations 1939,335 no.10 (Alexander Sinclair).

11.4.76 Type 3A rim sherd with extensive external burning.Vessel diameter,c24cm.
L73,W58,T7mm.
IL 647.?not numbered.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),56.
Found following the north wall of Building V.

11.4.77 7 conjoining rim sherds of Type 3C .Extensive burning.Vessel diameter,c24cm.
L640,W450,Max T 7mm.
IL 667 ? Childe.no.23
Donations 1943,196 no.17 (Alexander Sinclair).
Childe 1943,15.
?From corner of Building LMNO,damaged by collapse.

11.4.78 2 small Type 3B rim sherds.Vessel diameters, unknown.
-79 78)L25,W20,T5mm.
79)L25,W23,T5mm.
IL 668 a and b Childe no. ?6 or 10.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe notebook,12.
Either from south west corner of OMNP or from floor deposit between C,S and OP wall.

11.4.80 2 rim sherds,not obviously conjoining,Type3C 81) burnt
-81 deposit on exterior.Diameter c 22cm.
80)L64,W55,T6mm.
81)L50,W58,T6mm.
IL 669 a and b. Childe no.?6 or 10.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe notebook,12.
Either from south west corner of OMNP or from floor deposit between C,S and OP wall.

11.4.82 Small Type 1B rim sherd.Vessel diameter unknown.
L30,W50,T6mm.
IL 670. Childe no. ?16.
Donations 1943,196 no.17 (Alexander Sinclair).
Childe notebook, 12.

From base of north wall at east end.

11.4.83 4 rim sherds, 2 Type 3A, 2 Type 3C. Vessel diameters, c20-
-86 22cm.
Less than L50, W45, T7mm.
IL 711
Accessioned 1950, no reference.

11.4.87 10 Type 1B rim sherds, including 2 conjoining pairs with
-94 traces of external burning. Vessel diameters, c22cm.
L56, W50, T6.5mm.
IL 711.
Accessioned 1950, no reference.

11.4.95 8 rim sherds of Type 1C, 7 with exterior burnt deposit, 1
-102 with burnt interior deposit. Vessel diameter, c24cm.
Less than L70, W70, T5-6mm.
IL 711.
Accessioned 1950, no reference.

11.4.103 Type 1A rim sherd. Vessel diameter, unknown.
L47, W42, T6mm.
NMAS not accessioned.

11.4.104 Type 1A rim sherd. Vessel diameter, unknown.
L63, W5, T7mm.
NMAS not accessioned.
Donations Wainwright c 1968, no reference.

11.4.105 Type 1B rim sherd, burnt exterior. Vessel diameter c 14cm.
L55, W30, T8mm.
Not accessioned.
Donations 1980, 540 no.4 (Close-Brooks).

Other Museum Collections.

11.4.106 4 Type 3A rim sherds.
-109 106) L32, W28, T6mm.
107) L30, W28, T6mm.
108) L30, W24, T7mm.
109) L28, W26, T7mm.
Thurso Museum.
Donation, Bremner.
Freswick Mid Ridge 1931.

11.4.110 Type 1A rim sherd.
L31, W30, T6mm.
Thurso Museum.
Donation, Bremner.

11.4.111 Type 3A rim sherd, exterior burning.
L55, W30, T8mm.
Thurso Museum.
Donation, Bremner.

11.4.112 Type 3A rim sherd.
L48,W60,T5mm.
Thurso Museum.
Donation, Bremner.

11.4.113 Type 3A rim sherd.
L49,W30,T4mm.
Thurso Museum.
Donation, Bremner.

11.4.114 3 Type 1B rim sherds.
-116 114)L45,W30,T7mm.Vessel diameter c 30cm.
115)L35,W36,T9mm.Vessel Diameter c 23cm.
116)L64,W39,T8mm.Vessel Diameter c 28cm.
Inverness Museum.
Not accessioned.

11.4.117 2 Type 3C rim sherds 117) Slightly flattened and everted
-118 118)simple incurving.
117)L21,W16,T5mm Vessel diameter c 13cm.
118)L35,W21,T7mm.Vessel diameter c 13cm.
978.254 O and U
Inverness Museum.

11.4.119 2 Type 2B rim sherds.
-120 119)L54,W15,T5mm Vessel diameter c 33cm.
120)L23,W30,T8mm.Vessel diameter c 20cm.
Inverness Museum.
Not accessioned.

11.4.121 2 Type 1C rim sherds.
-122 121)L36,W24,T7mm. Vessel diameter c 19cm.
122)L42,W46,T8mm.Vessel diameter c 25cm.
Inverness Museum.
Not accessioned.

11.4.123 Rim sherd of straight sided vessel.Type 2B.Vessel diameter c 26cm.
L57,W55,T9mm.
1975.352
Ashmolean Museum.

11.4.124 Abraded rim sherd,Type 1C.Vessel diameter c 18cm.
L53,W45,T5mm.
1975.352
Ashmolean Museum.

11.4.125 2 Type 3A rim sherds 125) has exetnsive burnt deposit on
-126 exterior face immediately below the rim.
125)L54,W32,T9mm Vessel diameter c 26cm.
126)L51,W39,T8mm Vessel diameter c 24cm.
1975.352
Ashmolean Museum.

11.4.127 4 conjoining Type 3A rim sherds,slightly uneven.Vessel diameter c 14cm.
L148,W43,T7mm overall.
1975.352
Ashmolean Museum.

Rosie Collection.

11.4.128 2 conjoining rim and wall sherds.Type 1C.2 round perforations,one 30mm below rim,other at the break 85mm below rim.External burning below rim.Vessel diameter c24cm.
L103,W115,T10mm.

11.4.129 Rim and wall sherd with burnt exterior.Rim Type 2A.Vessel diameter c 18cm.
L60,W50,T7mm.

11.4.130 Rim and wall sherd with burnt exterior.Rim Type 1B .Vessel diameter c 22cm.
L50,W60,T7mm.

11.4.131 Rim sherd Type 3B with external burning,relatively straight sided vessel.Vessel diameter c 20cm.
L45,W45,T6mm.

11.4.132 -133 2 non conjoining Type 1A rim sherds 132)Vessel diameter c 10cm.
132)L45,W23,T3mm.
133)L33,W32,T5mm.

Other Collections.

11.4.134 Type 1A rim sherd,slight exterior burning.Too small to estimate vessel diameter.
L26,W14,T6mm.
Corcoran via Omand,Halkirk.

11.4.135 Rim sherd,Type3A.Vessel diameter c 16-19cm.
L39,W28,T5mm.
Talbot/Gourlay,Glasgow.

11.4.136 Rim sherd Type 2A with thumb impressions.
L75,W46,T7mm.
R.S. Murray,Blackburn.

Recent Work.

11.4.137 -139 3 rim sherds.Type 2A.Vessel diameter c 26cm. (137),others too small for vessel diameters.
137)L74,W63,T6mm.
138)L20,W13,T8mm.
139)L20,W13,T5mm.
FL79 UF.

11.4.140 -142 3 rim sherds,Type 1B.Too small for vessel diameters.
140)L16,W9,T5mm.

141)L23,W23,T4mm.
142)L18,W25,T6mm.
FL79 UE.

11.4.143 Worn Type 1A rim sherd.Vessel diameter unknown.
L20,W19,T4mm.
FL79 UQ.

11.4.144 3 rim sherds Type 1B.
-146 144) L54,W34,T7mm.Vessel diameter c 19cm.
145) L25,W11,T5mm.Vessel diameter unknown.
146) L16,W19,T6mm.Vessel diameter unknown.
FL80 UG.

11.4.147 Damaged Type 1A rim sherd.Vessel diameter unknown.
L22,W20,T7mm.
FL80 UK.

11.4.148 Type 1C rim sherd with vertical raised band of decoration.Rim flattened.
L35,W30,T4mm.
FL80 UE

11.4.149 3 rim sherds.149)Type 3A.No vessel diameter.150)Type
-151 1C.Vessel diameter c29cm. 151) Type 3A.No vessel diameter.
149)L40,W32,T5mm
150)L59,W25,T8mm
151)L37,W45,T7mm.
FL80 UD

11.4.152 4 rim sherds. Type 3A,155)Type 3C.Vessel diameters
-155 unknown.
152)L22,W30,T6mm.
153)L13,W23,T4mm.
154)L20,W16,T5mm.
155)L25,W28,T4mm.
FL80 UQ .

11.4.156 Rim sherd,damaged,Type 3A.
L19,W13,T5mm.
FL81 UQ.

11.4.157 not used.

11.4.158 3 rim sherds 158)Type 3A 159)Type 1B.160)Type 2C.
-160 158)L36,W24,T5mm. Vessel diameter c 11cm.
159)L15,W14,T5mm.
160)L38,W14,T5mm.
FL81 UH.

11.4.161 Type 1A rim sherd,vessel diameter unknown.
L20,W20,T5mm.
FL81 UK.

11.4.162 Damaged rim sherd,Type 3A.Vessel diameter unknown.
L15,W11,T7mm.max.
FL81 US.

11.4.163 Rim sherd,Type 3A.Vessel diameter unknown.
L22,W21,T6mm.
FL81 UD.

11.4.164 Rim sherd,Type 3A.Vessel diameter unknown.
L27,W23,T4mm.
FL80 UQ.

11.4.165 -166 2 rim sherd 165)Type 1C, 166)Type 3A.Vessel diameters unknown.
165)L25,W15,T7mm.
166)L23,W13,T4mm.
FL81 UD.

11.4.167 2 conjoining rim sherds,Type 3A.Vessel diameter c 23cm.
Overall L65,W50,T10mm.
FL80 UF.

11.4.168 -169 2 rim sherds,vessel diameter unknown.168)Type 3A 169) Type 1B.
168)L31,W20,T8mm.
169)L17,W13,T9mm.
FL80 UF

11.4.170 Rim sherd,Type 3A.
L23,W10,T8mm.
FL80 UD.

11.4.171 -173 3 rim sherds, slightly flattened. Vessel diameters c 19cm.
171) L54,WW34,T7mm.
172) L25,W11,T5mm.
173) L16,W19,T6mm.
FL80 UG.

Not Located.

11.4.174 Sherd of pottery with chipped rim, form unclear.
No dimensions.
FR 2
Curle notebook ,ms28a (SAS 461),10
Found clearing wall of north chamber of Building IV.

11.4.175 Sherd with indistinct rim form.
No dimensions.
FR 26
Curle notebook,ms 28a (SAS 461),26
From north box Building I.

11.4.176 -177 2 rim sherds of different forms.
No dimensions.
Not numbered.

Curle notebook ms28a (SAS 461),62
Found at base of cross wall of Building VI at east side.

11.5 Wall Sherds.
NMAS.

11.5.1 Large vessel sherd,slightly damaged.
L62,W93,T5mm.
HR 809.
Donations 1925,154,no.3 (Edwards).
From middens.

11.5.2 5 wall sherds.
-6 Less than L47,W37,T6mm.
HR 1353
Donations 1976,334 no.22 (Kirby).

11.5.7 Nine wall sherds.
-15 Less than L80,W60,T8mm.
HR 1473
Donations 1980,535,no.2 (Kirby 1979).

11.5.16 17 wall sherds, coarse grass tempering.
-32 Less than L50,W40,T8mm.
HR 1501.
Donations 1980,535,no.2 (Kirby 1979).

11.5.33 Two crude conjoining wall sherds.
-34 L50,W75,T8mm.
IL 648 FR3.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),10.
From outside foundations of Building I, on North side.

11.5.35 7 wall sherds from the same vessel.
-41 Less than L45,W60,T7mm.
IL667 Childe no.?23
Donations 1943,196 no.17 (Alexander Sinclair).
Childe notebook,12.

11.5.42 Wall sherd with perforation and possible thong remaining.
L57,W55,T4mm.Perforation 5mm,12mm from remaining rim.
IL 712
Accessioned 1950,no reference.

11.5.43 19 wall sherds.
-61 Less than L92,W65,T7mm.
IL 713.
Accessioned 1950,no reference.

11.5.62 13 wall sherds.
-74 Less than L29,W20,T6mm.
Not accessioned.
Donations 1980,540,no.4 (Close-Brooks).

11.5.75 12 wall sherds.
-86 Less than L65,W50,T7mm.
Not accessioned.
Donation Wainwright,c1968,no reference.

Other Museum Collections.

11.5.87 Large wall sherd, heavy and dense, lightly grass tempered. Slight external burning.
L85,W64,T10mm.
1975.352
Ashmolean Museum.

11.5.88 3 wall sherds,88/89) conjoining.90) has internal burnt
- 90 deposit,others have damaged interior face.
88)and 89) L55,W60,T7mm.
90) L45,W60,T6mm.
1975.352
Ashmolean Museum.

11.5.91 not used.

11.5.92 3 thick and dense wall sherds.
-94 92)L42,W45,T10mm.
93)L65,W50,T9mm.
94)L71,W64,TT10mm.
1975.352
Ashmolean Museum.

11.5.95 3 wall sherds.
-97 95)L45,W36,T6mm.
96)L34,W29,T5mm.
97)L38,W34,T4mm.
Not accessioned.
Inverness Museum.

11.5.98 5 wall sherds,four are damaged.
-102 Less than L31,W29,T5mm.
Not accessioned.
Inverness Museum.

11.5.103 2 wall sherds,103)with external burning.Both marked FS
-104 76,possibly originally from the NMAS collections.
103)L51,W36,T8mm.
104)L44,W39,T7mm.
979.6
Inverness Museum.

11.5.105 2 coarse wall sherds.
-106 105)L58,W45,T7mm.
106)L62,W53,T10mm.
978.255 a and b.
Inverness Museum.

11.5.107 2 wall sherd with extensive grass marking,slightly damaged
-108 and 108) now broken into three pieces.
107)L27,W47,T10mm.
108)L42,W50,T8mm.
1976.178
Tankerness House Museum,Kirkwall.

11.5.109 Wall sherd with slightly abraded edge possibly representing a rim,too small to give vessel diameter.
L33,W39,T4-7mm.
1976.178
Tankerness House Museum,Kirkwall.

11.5.110 not used.

Rosie Collection.
11.5.111 7 wall sherds,grey fabric.
-116 Less than L35,W30,T7mm.

11.5.117 5 wall sherds as above.
-121 Less than L30,W25,T5mm.

11.5.122 3 wall sherds as above.
-124 Less than L30,W19,T5mm.

11.5.125 3 wall sherds,extensively burnt.
-127 Less than L29,W24,T8mm.

11.5.128 Wall sherd,black fabric,burnt exterior.
L72,W53,T8mm.

11.5.129 Wall sherd,grey fabric with small burnt patch.
L30,W45,T4mm

11.5.130 Wall sherd,grey fabric unusually thick,possibly indicating a low position on the vessel.
L35,W47,T14mm.

11.5.131 2 wall sherds,pink-grey fabric.
-132 131)L11,W13,T6mm.
132)L9,W10,T6mm.

11.5.133 5 wall sherds,grey fabric.
-137 Less than L12,W11,T5mm.

Other Collections.
11.5.138 Wall sherd of dark grey fabric.
L65,W50,T10mm.
R.S. Murray,Blackburn.

11.5.139 25 wall sherds.
-163 Less than L25,W35,T6mm.
Corcoran via Omand,Caithness.

11.5.164 15 wall sherds,4 conjoining (a) and a further 11
-178 conjoining (b).Probably from a single vessel.8 with slight traces of internal deposit,2 externally burnt.
Overall a)L89,W70,T6mm.b)L120,W100,T6mm.
Corcoran via Omand,Caithness.

11.5.179 6 wall sherds.
-184 Less than L40,W36,T8mm.
Mrs. Dunnet,John O'Groats

11.5.185 8 wall sherds,including 2 with interior burnt deposits.
-192 Less than L50,W35,T7mm.
Talbot/Gourlay,Glasgow.

11.5.193 78 small wall sherds of damaged pottery.
-274 Less than L20,W20,T3mm.
Talbot/Gourlay,Glasgow.

11.5.275 26 wall sherds.
-300 Less than L50,W35,T6-8mm.
Talbot/Gourlay,Glasgow.

Recent Work.

Entries 11.5.301-11.5.1205 are tabulated below because details are known of the zonal distribution.The detailed entries can be found in Appendix C.

Zone	1978	1979	1980	1981	Total	Mean Size
A	-	-	-	-	-	-
B	-	-	-	-	-	-
C	-	3	6	-	9	L12,W13.5,T3.5mm
D	4	146	216	84	450	L31,W22,T6mm
E	1	30	53	14	98	L34,W29,T6mm
F	-	51	53	6	110	L32,W30,T7mm
G	-	24	18	16	58	L31,W22,T5mm
H	-	-	1	11	12	L31,W22,T5mm
J	-	8	-	1	9	L24,W18,T4mm
K	-	1	1	7	9	L32,W24,T5mm
L	-	-	5	2	7	L39,W26,T8mm
M	-	-	7	-	7	L40,W31,T5mm
N	-	-	-	-	-	-
P	-	-	-	1	1	L24,W20,T5mm
Q	-	14	74	47	135	L28,W21,T5mm
R	-	-	-	-	-	-
S	-	-	-	1	1	L30,W27,T5mm
Totals	5	277	434	190	906	

Not Located.
11.5.1206 A few sherds of grass tempered pottery.
No dimensions.
Not numbered.

Curle notebook ms 28a (SAS 461),13.
Found immediately behind and to west at north of cross stones in a hole filled with clean sand.

11.5.1207 A number of sherds of black pottery.
No dimensions
Not numbered.
Curle notebook ms 28a(SAS 461),14
Found on paving in front of south entrance to Building IV,approximately 3.2m from south west corner.

11.5.1208 Sherd of pottery.
No dimensions.
Not numbered.
Curle notebook ms28a (SAS 461),15.
Found in midden refuse in foundations of south wall of Building IV, where crossing over an earlier wall.

11.5.1209 Sherd of pottery.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461),17.
Found in midden with FR 7 and 8.

11.5.1210 Sherds of pottery.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461),40
From top level of wall top north of Building II, associated with bone tool FR46.

11.5.1211 5 sherds with 'much grass tempering'.
-1215 No dimensions.
Childe no.1.
Childe notebook,12.
From corner near east of East Room.

11.5.1216 Vessel sherds.
No dimensions.
Childe no.8.
Childe notebook,12.
Found under gap in partition channel,bedded in floor.

11.5.1217 Vessel sherds.
No dimensions.
Childe no.9.
Childe notebook,12.
From floor deposit near BM.

11.5.1218 Vessel sherds.
No dimensions.
Childe no.11.
Childe notebook,12.
From upper floor between C and bp.

11.5.1219 Vessel sherds, 'one brushed with straw'.
No dimensions.
Childe no.19.
Childe notebook,12.
From top floor in East Room, east end near Y.

11.5.1220 'Numerous sherds.'
No dimensions.
Childe no.21.
Childe notebook,12.
From floor 1 in East room, east end.

11.5.1221 Sherd of pottery.
No dimensions.
Childe no.24.
Childe notebook,12.
From high midden c 2.75m west of MN.

11.6 Whorls.
Rosie Collection.
11.6.1 Half whorl of re-worked grass tempered sherd,slightly curved in section.
L46,D23,T8mm, perforation D8mm.
Figure 51 A

12 Hand-made Gritted Pottery

12.1 Bases.
NMAS.
12.1.1 Large lump of gritted pottery,probably the base of a large vessel.Flat on upper and lower sides.
L98,W96,T105mm.
GA 907.
Donations 1909, (Tress Barry 1908)not listed.
Freswick Sands Broch.

12.1.2 Very thick flat base of gritted pottery, dark fabric, buff on inner side and burnt on under side.
L95,W82,T15mm.
GA 907 (dup)
Donations 1909 (Tress Barry 1908) not listed
Freswick Sands broch.

12.1.3 Base sherd of very coarse pottery, deposit on internal face,circular.From flat bottomed vessel,probably a Beaker.
D84,T15mm.
HR 1061.
Donations Childe 1950 no reference.
Bronze Age level of sand pit, 1941.

12.1.4 Wall/base sherd of very coarse reddish fabric.
L46,W41,T12mm.
HR 1062.
Donations Childe 1950, no reference.
Bronze Age level of sand pit, 1941.

12.1.5 Sherd of pink grit tempered pottery,part of thick base.
L52,W43,T9.5mm.
IL 711
Accessioned 1950 ,no reference.

Not Located.
12.1.6 Base sherd of coarse fabric.
L44,T18mm.
Not numbered.
Gibson 1982,408 no.2.
Figure 52,no.2.

12.2 Rims.
NMAS.
12.2.1 Two conjoining sherds including simple rim of relatively fine gritted pottery.Vessel diameter c 16cm.
L61,W47,T6mm.
HD 497.
Donations 1936,358 no.3 (Bremner).
Gibson 1982, 408 no.14.
From flint workers site.
Figure 52,no.14.

12.2.2 Fine gritted rim sherd,very slightly everted.
L47,W37,T4mm.
HD 498.
Donations 1936, 358 no.3 (Bremner).
Gibson 1982, 408 no.9
Figure 52, no.9.

12.2.3 -5 3 rim sherds of gritted pottery,inward flattened form.Too small to assess vessel diameter.
Less than L25,W23,T11mm.
HR 936.
Donations 1948, 319, no.32 (Bremner).
Gibson 1982, 408 nos. 28 and 29.
From Bronze Age strata thrown up by Black Watch trenches 1948.
Figure 52, no.28 and 29.

12.2.6 Fine,slightly everting rim sherd of coarse gritted pottery,comb decoration below rim in 2 lines.Vessel diameter c 10-11cm.
L40,W20,T5mm.
HR 1019.
Donations 1950,319 no.32 (Bremner).
Lacaille 1954, figure 118, 268 no.2.
Gibson 1982, 408 no.3.

From in and below kitchen midden at north end of Links.
Figure 13 no.2: Figure 52 no.3.

12.2.7 -9 3 rim sherds in coarsely gritted fabric,simple and inward sloping.
Less than L19,W20,T10mm.
7)HR 1021 8) HR 1022 9)HR 1023.
Donations 1950,319 no.32 (Bremner).
Lacaille 1954, figure 118, 268 no.3, 4 and 7.
Gibson 1982, 408 nos. 4.5 and 6.
From in and below kitchen midden at north end of Links.
Figure 13 no. 3,4 and 7: Figure 52, no.4,5 and 6.

12.2.10 Simple rim sherds, 2 conjoining, with ?mica tempering. Decorated with string impressions.Vessel diameter c 10cm.
L40,W30,T7mm.
HR 1025.
Donations 1950,319 no.32 (Bremner).
Gibson 1982, 408 no.13.
From in and below kitchen midden at north end of Links.
Figure 52 no.13.

12.2.11 -22 12 rim and wall sherds of coarse gritted pottery with comb decoration (Beaker).
Less than L55,W45,T10mm.
HR 1060.
Childe donations 1950, no reference.
Gibson 1982,408 no.1
From Bronze Age level of sand pit, 1941.
Figure 52 no.1

12.2.23 -25 3 rim sherd,inward sloping and flattened surface,coarse gritted pottery.Vessel diameters, 24 cm.
Less than L55,W35,T8mm.
IL 711.
Accessioned 1950, no reference.

12.2.26 Inward sloping rim sherd with internal ridge,steatite tempered pottery.Burnt deposit on exterior face.Vessel diameter c10cm.
L21,W32,T10mm.
IL 711
Accessioned 1950,no reference.

12.2.27 Sherd of pink gritted pottery,inward sloping rim.Vessel diameter c 19cm.
L54,W43,T6mm.
IL 711
Accessioned 1950,no reference.

12.2.28 Rim sherd,flattened and inward sloping with small internal ridge.Very coarse fabric.Vessel diameter c17cm
L35,W41,T8-9mm.
IL 711

Accessioned 1950,no reference.

Rosie Collection.

12.2.29 3 non-conjoining rim sherds of hard fired pottery with
-31 possible grit tempering.Sharply everted.
29)L35,W42,T4mm.Vessel diameter c14cm.
30)L35,W17,T5mm.Vessel diameter c9cm.
31)L25,W24,T4mm.Vessel diameter c15cm.

Other Collections.

12.2.32 Slightly everting rim of coarse gritted pottery,grey fabric.
L80,W75,T5mm.
R.S.Murray,Blackburn.

12.3 Wall Sherds.

NMAS.

12.3.1 3 small sherds coarse gritted pottery with comb impressed
-3 decoration in a zig-zag pattern
1)L35,W32,T9mm.
2)L30,W22,T8mm.
3)L27,W20,T7mm.
1)HR 933 2)HR 934 3)HR 935
Donations 1948,319 no.32 (Bremner).
Gibson 1982,408, 25-7.
From Bronze Age strata thrown up by Black Watch trenches in 1945.
Figure 52 no.25-7.

12.3.4 4 very coarse sherds gritted pottery.
7 Less than L60,W30,T10mm.
HR 936
Donations 1948,319 no.32 (Bremner).
Gibson 1982,408, 22.
From Bronze Age Strata,as above.
Figure 52, no.22.

12.3.8 8 very coarse sherds gritted pottery,apparently with applied
-15 bosses.
Less than L31,W25,T8mm.
HR 1018
Donations 1950,319 no.32 (Bremner).
Lacaille 1954, figure 118, 268 no.8 and 9.
From in and below kitchen midden at north end of Links.
Figure 13, no.8 and 9.

12.3.16 2 conjoining wall sherd,very coarse with comb decoration.
L54,W50,T6mm.
HR 1020
Donations 1950,319 no.32 (Bremner).
Gibson 1982,408 no.7.
Lacaille 1954, figure 118, 268 no.5.
From in and below kitchen midden at north end of Links.
Figure 13 no.5: Figure 52 no.7.

12.3.17 21 wall sherd coarse gritted pottery,with comb decoration.
-37 Less than L29,W26,T10mm.
HR 1024.
Donations 1950,319 no.32 (Bremner).
Lacaille 1954, figure 118, 268 no.6.
Gibson 1982,408,nos. 8,10-12.
Figure 13 no.6: Figure 52 no.8, 10-12.

12.3.38 10 sherds of coarse gritted pottery with comb decoration.
-47 Less than L55,W45,T10mm.
HR 1060
Donations Childe 1950, no reference.
Bronze Age level of sand pit, 1941.

12.3.48 9 wall sherds very coarse reddish fabric,7 with zig-zag comb
-56 decoration.
Less than L30,W25,T9mm.
HR 1062.
Donations Childe 1950,no reference.
Gibson 1982,408, nos.15-20.
Bronze Age level of sand pit, 1941.
Figure 52, no.15-20.

12.3.57 6 wall sherds of very coarse undecorated gritted pottery.
-62 Less than L41,W39,T7mm.
HR 1063.
Donations Childe 1950,no reference.
Gibson 1982,408, nos. 21 and 23.
Bronze Age level of sand pit,1941.
Figure 52, 21 and 23.

12.3.63 Very coarse wall sherd with comb decoration.
L30,W32,T9mm.
HR 1064.
Donations Childe 1950, no reference.
Gibson 1982,408, no.24.
Bronze Age level of sand pit,1941.
Figure 52 no.24.

12.3.64 Sherd of ?steatite tempered pottery.
L58,W70,T8.5mm
IL 713.
Accessioned 1950,no reference.

12.3.65 Piece of red gritted clay?wall sherd or baked clay piece.
L50,W40,T8mm.
IL 713.
Accessioned 1950,no reference.

12.3.66 Worn wall sherd of gritted pottery,relatively finely tempered.
L34,W26,T5mm.
Not accessioned.

Donations Wainwright c 1968,no reference.

Rosie Collection

12.3.67 Wall sherd of lightly gritted pottery,dark grey.
L23,W28,T4mm.

12.3.68 Wall sherd of thick,coarse pottery.Light to dark brown fabric,possibly finely gritted.Outer face decorated with rouletted lines and slightly burnished.
L50,W49,T10-12mm.

12.3.69 Sherd,slightly abraded and steatite tempered.Dark grey fabric with pale brown interior face.
L45,W30,T11mm.

12.3.70 9 small wall sherds of coarse gritted pottery.
-78 Less than L30,W25,T9mm.

12.3.79 9 more as above.With traces of internal burning.
-87 Less than L43,W26,T10mm.

Recent work.

12.3.88 2 conjoining wall sherds of slightly gritted pottery.Dark grey exterior face.
L38,W39,T10mm.
FL81 UG

Burnt Clay.

13.1 Loomweights.

NMAS

13.1.1 Four conjoining fragments of baked clay loomweight, broken across central perforation and split laterally.
L53,W70,T12mm.
Not yet accessioned.
Donations 1980,540 no.4 (Close-Brooks).
Figure 51B

13.2 Whorls.

Rosie Collection.

13.2.1 Half whorl of baked clay, roughly uniform thickness.
D45,T8, perforation D13mm.

13.3 Daub.

NMAS

13.3.1 Large piece of daub with wattle impressions in one direction.
L90,W60,T60mm.
IL 650 FS 86a.
Donations 1939,335 no.10 (Alexander Sinclair)
?Curle 1939, plate XLVI, no.3.
Curle notebook ms 28a (SAS 461),76.
Building VII.

13.3.2 Two pieces of daub with impressions of wattles, 2 has small
-3 branch impressions in opposite direction.
2)L50,W85,T60mm.
3)L75,W50,T43mm.
2)IL 651 3) IL649 FS 85.
Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook, ms 28a (SAS 461),76.
Building VII.
Plate 45A.

13.3.4 Lump of daub, very friable with impressions of crossing wattles. Exterior face very rough.
L65,W50,T35mm max.
Not yet accessioned.

Rosie Collection.
13.3.5 Piece of daub with shallow depressions of parallel wattles, outer face flat.
L46,W30,T5-16mm.
Plate 45B.

Discussion.

Three distinct groups of pottery have been distinguished in the above catalogue. The finer wheelturned sherds, including glazed sherds, those which are grass tempered and form by far the largest element of the assemblage, and those which are heavily gritted and considerably coarser in appearance. These types will be considered in this order, as they are to be found in the catalogue.

Wheelturned Pottery

A large variety of glazed sherds are noted in the assemblage. Without thin-sectioning or even microscopic analysis it is not possible to be sure of the precise make-up of the sherd and thus of the closest parallels. Future specialist work is required to assist in this problem but here it is intended to point out some of the more obvious similarities between these sherds and others from different sites. The glazed sherds 9.1.1 and 9.3.2, a handle and a wall sherd, are likely on surface inspection to be from the same vessel. It is

possible that there are other pieces of the vessel in the assemblage which appear rather different because of differing reduction conditions.The wall sherd 9.3.9 for example, appears to be very similar in type also.No precise parallels are obvious for this fabric. However, a grey fabric with a beige slip and green glaze noted from the Rosie collection (9.3.5 and 9.3.6) seem to be similar to sherds described by Laing from Coldingham Priory, Berwickshire (Laing 1972,243) dated to the 13th century.It is possible that the two sherds from Thurso Museum ,9.3.3 and 9.3.4,which are of a dark fabric with traces of yellow-green glaze are of this same type.

Some sherds in the non-glazed section may be of the same fabrics as those in the glazed group. Some vessels are splash glazed and therefore not all the vessel is covered, so some glazed vessel may produce non-glazed sherds.This may be seen in the 'Colstoun' East Coast Gritty sherds noted below.

It is not known how many vessels are represented.A maximum of thirteen is possible but unlikely, because ,as indicated above, at least two sherds may be from the same vessel.The different forms of handles are perhaps more of a guideline to the number of vessels in the assemblage.The range includes those of rod-form such as 9.1.1 and those of a rather flatter, sub-rectangular type.They are both common Medieval types. The particularly interesting thing about the sub-rectangular form is that there are variants in the assemblage of grass-tempered pottery.This may indicate an imitation of possible imported types in the ware produced at the site itself and may assist in the dating of the cruder wares.Rod handles have been recorded from Aberdeen (Kenworthy 1982,no.652,161 ill 92) and seem to be common to

many other sites of the period.The strap handles have also been noted at Aberdeen (op cit,no.674,163 ill.93) and at Deer Abbey (Cruden 1956,78 no.29) and decorated examples have been recorded from Bothwell Castle (Cruden 1952a,163 fig.60).

In the non-glazed wheelthrown section, a number of sherds are described as being cream coloured and generally finely gritted and hard fired.They are generally broken into pieces which are larger than those of the grass tempered fabric because of the stronger nature of the fabric makeup.In the assemblage noted above,we are fortunate to have examples in apparently the same fabric, of rims and bases,and also walls.A closer look at two sherds in the group (10.3.6 and 10.2.5)indicates that there are in fact different fabric types within this same group although to the untrained eye, they appear to be the same.I am most grateful for the assistance of Ms. L.M. Thoms,Archaeology Field Officer,Dundee,for the identification of the sherd 10.3.7.It may be dated to the late 12th or early 13th centuries with a probable production centre in south east Scotland. It seems to be from a square-rimmed cooking vessel of 'east coast white gritty ware' and she would see this Freswick example as being an outlier from the known distribution pattern.Although Colstoun is as yet the only known kiln site for such wares there are no doubt other sites which will produce evidence of its production, quite probably nearer to Freswick than Colstoun in East Lothian. Subsequent analysis by Ms. S. Mills indicates that this fabric is not the same as that from Colstoun,resembling rather the fabric numbered 13 from Aberdeen (Kenworthy 1982,119). However, the rim form,described as club-form is very similar to types from Colstoun (Brooks 1980,no.129, fig.7,276 and

177 fig.10, 379).Similar fabrics have been noted from Kirkwall with slightly different rims (McGavin 1982,407) and a close parallel is illustrated by Hamilton from Jarlshof in a Late Norse/Medieval context (1956,192-3). If indeed these fabrics are very similar, it would seem likely that there ought to be a centre of production rather nearer than Colstoun.The problem of the derivations and centres of production of 'east coast white gritty fabrics' is one which is currently under reconsideration and future work should resolve many of the problems now restricting the study this material.

The base sherd (10.2.5) from a local collection indicates that it is from a straight sided jar and appears to be very similar in form to examples published recently from Aberdeen (Murray 1982,169 ill.97,no.769) and from the Colstoun kiln site (Brooks 1980,no.169 fig.9,278).

It is difficult to be sure of the number of vessels represented in this fabric, but it is likely to be small in number.The few sherds could represent a small number of vessels imported to the site as cooking vessels in the late 12th to early 13th century.Unfortunately the inter-relationship between this fabric and the plentiful grass tempered sherds cannot be conclusively distinguished.The sherd 10.3.7, for example, was found in the same context as grass tempered sherds and this could support the suggestion that grass tempered pottery was in use at the same time. Unfortunately all the other sherds of the type are from completely unstratified contexts.However, in the unlikely event that all 20 sherds are from different vessels, the number of individual vessels represented is still very few and its presence is difficult to explain in terms other than importation to

the site of a number of cooking vessels.Laing has made the interesting observation that 'The Norse pottery of Northern Scotland is probably too early to owe its origin to mainland Scottish influence, but it is quite possible that at a later stage,probably in the thirteenth century, imported cooking-pots influenced the choice of profiles' (1973,189).It may be possible to see support for this statement in the forms of the grass tempered sherds, which are perhaps rather more representative because of the number of pieces to consider, than the few wheelthrown sherds in this assemblage.

It is possible that a similar club-rim sherd from Thurso Museum 9.2.1,which has traces of yellow glaze on a pinkish fabric, could be of the same type as that discussed as east coast white gritty fabric.The variation could easily result from differing reducing conditions and this feature has been noted already at Colstoun (Brooks 1962,366-7).

Although there are only a few sherds of Medieval wares in this assemblage, most of which cannot be easily distinguished as providing parallels for published types,the actual find spots are more significant.Although this information is often rather limited, there seems to be sufficient data to assist in ascribing sherds to individual structures and in limited cases, more stratigraphical information is provided.The fact for example that wheelturned sherds were found in the infill of Buildings IV and VI is significant because it enables one to suggest that these buildings were possibly out of use at the time the bath was being filled with clay because glazed sherd was recovered from beneath the clay deposit there.The fact that the deposition of this clay may in itself indicate that the building

was going out of use, or at least changing in its function, is of vital importance because without the study of this element in the artefact assemblage, this information could not be known. The lack of stratigraphical relationship between the north and south ranges of the site has already been discussed above.Wheelthrown pottery was also recorded below the 'sheep fold' to the north of Building IV but pieces from the primary levels of Building I, apart from in the bath, cause confusion. There is also confusion in Building VI where such sherds are recorded just above the midden and it is not clear if they were found in the interface between the floor level and the infilling, which may make a subtle difference to the interpretaticn of the date bracket of the house occupation. However, one thing that is clear is that Curle's statement that all Medieval pottery with a single exception, came from above the floor level of Building I (1939,103), is not correct.Although care is needed in the use of pottery evidence, in particular when trying to date vessels at Freswick because of similarities with vessels further south,this element of the assemblage can serve to assist in confirming or otherwise, dating from other artefact groups.

Grass Tempered Pottery.

It has not proved possible from the available information in Curle's notebook, to precisely match all individual sherds. It is possible therefore that a small amount of overlap may have occurred between Curle's finds listed and those which are not located; this problem cannot be resolved. It is possible that two conjoining sherds now in the NMAS may have been a single sherd and this problem has not

been assisted by statements from Curle that a 'number of sherds' were found in particular locations. It is obvious that most of the wall sherds from Curle's excavations were not retained and he even notes that sherds were thrown away (Curle notebook ms 28a (SAS 461),67).

The majority of the sherds in this assemblage are of grass tempered pottery. Although there are varying degrees of such tempering, they have not been distinguished because of the problems of quantifying this element in a consistent way. However, it is generally the case that the larger sherds of pottery recovered are considerably less grass tempered than the smaller ones. The friable nature of the densely grass tempered sherds has mitigated against their survival.It is this factor which suggests more than anything else,that this ware must be a local product; it is too friable to travel and indeed has a very limited lifespan, so replacements must have been easily obtained. The possibility of Building VII being a potter's working area with kiln is noted above (Page 200) and Curle himself suggested that the 'bath house' in Building I was reused by a potter (Curle 1939,80).

The precise nature of the grass inclusions cannot, as yet be confirmed. It is conceivable that the inclusions are not simply grass pieces, they may be chaff or even the remains of animal dung. However,in the absence of detailed phosphate analysis such suggestions are inconclusive. (see Plate 44)

The fragmentary nature of the pottery greatly restricts any attempts to identify the precise vessel forms and also any minimum or maximum number of vessels represented. However, the two complete vessels do represent two different forms; a small cup like vessel with simple tapering rim and a larger one with everted rim are the only two

to survive.Both of these are flat bottomed vessels which could have been free standing, although more sagging bases have been noted eg. 11.3.1 . The flared bases with a small supporting 'ledge' are a more elaborate form for free standing vessels. In general, the bases are of thicker fabric than the walls, although those with a flared ledge do tend to be slightly thinner. The bagshaped vessels may have been intended to be suspended over a fire either by cord under an everted rim, or by a cord through perforations just below the rim (see for example 11.4.54), but the soot encrusted complete vessels recovered certainly suggest that they were placed actually in the top of the fire, in particular the larger vessels.The burnt deposits,on the inside of the sherds, represent food deposits and should be analysed for precise identification.

A relatively large number of handle fragments have been noted in the assemblage, fifteen in all.The simple rod handle type has already been discussed in relation to the Medieval wheelthrown examples, as has the type which has a more flattened cross-section. The point has already been made that the significance of the similarities between the rougher hand made fabrics and the wheelthrown types lies in the fact that the one seems to be copying the other. It is possible but at present unprovable, that the handled vessels were introduced at the site at a later date to the simpler vessels. Although the simple nature of many of the vessel forms of the assemblage does not necessarily indicate that they are of earlier date,the finer fabrics with grass tempering which have been used in some cases for the handles could indicate an advance in manufacturing methods. However, the handle illustrated from Bucholly Castle (Plate 43) indicates that

there is still a large amount of grass inclusion, even in the handles which have survived.The handle forms are still generally crude, with the possible exception of the triple ridged types, and the vessel attachment is clearly indicated by deep thumb impressions in some cases.

There is a large variety of rim sherds represented in this assemblage. Curle published the range of rims from his excavations (Curle 1939,105 fig.6) and it is possible to distinguish various groupings amongst those published, particularly considering the crude hand made vessels of which they are a part;slight variations are inevitable.Three main groups have been distinguished (see Fig. 50) according to morphological similarities.It is not always possible to recognise individual vessel forms, so in this case, the rim types have been considered as an independent group, with suggestions of vessel forms made where appropriate.

Rim Type 1:this group comprises rims of very simple, forms.Type 1A, is simple, tapering towards the top and generally straight.Type 1B is the same but with the top very slightly flattened. This distinction may have been simply caused by the stacking of vessels in a kiln, causing the flattening of the rim top.Type 1C, is again simple but slightly incurving and often flattened, as seen in the smaller of the complete vessels. These rim types are likely to be of vessels of beaker like form, or slightly globular.As with all grass tempered rim types, there are severe problems in estimating the diameter of vessels because of the irregularities in the hand made form which cannot easily fit to the concentric circle guidelines used for the estimation.

Rim Type 2:this group comprises rims which have been slightly treated and thus no longer simple.Type 2A has a flattened top with slight internal expansion, conceivably caused by stacking of vessels of globular form, with curving sides. Although this is likely to be a conscious variant, no variation in vessel function can be distinguished. Type 2B, is slightly internally flattened with a sloping effect and slight external eversion. Type 2C is similar to Type 2A but with an inward sloping form as Type 2B.It is possible that these variations are functional but this cannot be discerned.

Rim Type 3:this type is everted and possibly as such may have a functional aspect which is more obvious than with the other forms of rim. Type 3A is slightly externally everted and may be sufficient, as with Type 3B, to enable a cord to be attached beneath to rim to enable removal from a fire (?) or hot water.Type 3B is more sharply everted than Type 3A. Type 3C, is externally everted with an internal ridge, interpreted as a lid seating. This is an interesting feature which may conceivably indicate a development in production methods,or perhaps a different vessel form. Curle suggested that this was a 'sophisticated form' (1939,106) although it may simply reflect a different vessel function.

Work recently undertaken on the material from Freswick Castle, which includes a very large amount of pottery of this fabric, indicates that there are no clearly defined vessel sizes indicated by the different forms of rim (Batey, Morris and Rackham forth). In the assemblage from Freswick Links, it is not possible to be sure if the case is the same.Type 3C for example, certainly seems to from vessels of consistently larger diameters, c22-31cm; Type 1B is generally

smaller c14-22cm, but the others have very large ranges,Type 1A, 14-26, 3A, 10-24 and 2C, 14-28cm. It is possible that the vessel size is not at all represented in a meaningful manner in these sherds, and it must be remembered that a large percentage are too small to give an indication of rim diameter.

There is a very large number of wall sherds in the assemblage, 1221 in all. There is little comment to make because it cannot be judged how many vessels are represented and there is a general lack of vessel profile provided.The deposits on the inside or outside of the sherds, may perhaps assist in assigning a position on the vessel for the sherds.Internal deposits, may represent food debris and may be from the lower parts of the vessel, having been 'burnt on', but there will no doubt be exceptions to this rule.External sooty deposits could be from the upper or lower parts of the vessel.If the vessel was set in the fire itself, the sooty deposit would be near the top of the vessel and burnt sherds would be at the bottom.If the vessel was set over the fire,however, there could be soot over most of the external vessel surface.

It is very interesting to note that in the more recent work at the site, probably in the region of 90-95% of the sherds have been recovered from the central areas of the Links, in the area where Curle and Childe excavated.This large percentage is made up predominantly of wall sherds, because, of necessity each broken vessel is likely to produce more wall sherds than rim or base sherds. The information concerning the wall sherds from the recent work has been tabulated and the details are in Appendix C. In the recent work, a total of 906 wall sherds have been recorded, with by far the largest percentage (49.67%)

coming from Zone D alone. This area may represent the heart of the settlement as it now remains, or at least the heart of the pottery using areas.

The significance of the grass tempered pottery lies more in where it was found in the excavations and its associations with other fabric types than in its dating use.It is likely to be a locally produced ware, but the precise kiln site is not known, although suggestions have already been made. It is not possible to date it specifically, there is a hint from the strap handles in the assemblage that it might be associated with incoming Medieval vessels, but at present the precise relationship is not conclusive.

At Jarlshof it was found in Late Norse contexts (Hamilton 1956,157) but also in Prehistoric (op cit 12). However,there are distinctive forms in the later context include small square rimmed vessels, larger cooking vessels with everted rims and barrel shaped vessels with a simple incurving rim,probably as found at Freswick.Alan Lane , who has recently been studying this type of pottery as part of a PhD thesis, suggests that this grass tempered ware from Freswick and Jarlshof, is part of a tradition of Medieval date present in the North and not linked with the similar ware from the Western Isles which is earlier and of a different tradition (A. Lane pers. comm.).This earlier tradition with organic tempering has been noted at Dun Cul Bhuirg, Iona (Ritchie and Lane 1980,213) and also at Dun Mor Vaul (Mackie 1974,210-3). Lane has drawn attention to the fact that it is not a closely dated cultural trait but used 'to render coarse clays malleable and to aid firing'.He notes also the extensive time span represented by 'grass tempered' sherds and states that it is clear

that grass tempered pottery in itself can no longer be regarded as a diagnostic Norse culture trait in Scotland (Ritchie and Lane 1980,217 and references therein).

This point having been made, however, the association of grass tempered assemblages both at Jarlshof and Freswick with artefacts of Late Norse date should support a date later than seen in the Western Isles. The identification of the two sites on the North coast, Huna and Robertshaven (discussed above page 45-6) is perhaps more based on circumstantial evidence than fact: a possible Viking boat grave with nearby site and a 'bu' location and site may not necessarily indicate contemporenaity. However,without excavation this identification cannot be proven but the similarities in handle form between examples from Freswick and Robertshaven, seems to indicate a cultural link between the two if not actual direct contemporenaity.

The recent publication of excavations in Kirkwall, Orkney, indicate the presence there of grass tempered pottery. However the context in which it was found cannot assist us in this argument, because the dating of the context is based on the assumption that the fabric is the earliest on the site, although MacAskill also notes that 'similar material was being produced elsewhere as late as the 19th century' (in McGavin 1982,405), It is however, interesting to note there the occurrence of the triple ridged handle (op cit,405).

Reused Sherd.

The reuse of pottery sherds to make simple whorls is a relatively common feature and has been noted on many sites of varying periods. For example, Black noted from Culbin Sands, Elginshire, that several whorls were made of 'medieval earthenware sherds' (Black 1891,494).

Likewise at Skirling Castle, Peebleshire, Dunbar noted that a sherd of coarse grey fabric had been trimmed and perforated to form a spindle whorl, of which half remained (Dunbar 1964,244 no.22, fig.3).

Gritted Fabrics.

This group of sherds is very distinctive because of the heavy gritted appearance and crude hand-made forms represented.Within this group, three different types have been noted; sherds of Beaker pottery and related fabrics, also possible Grooved ware sherds;steatite tempered sherds; and very coarse gritted pottery as commonly associated with broch period occupation.

The sherds of pottery distinguished as Beaker period and Grooved Ware, have recently formed part of a published work by Gibson (1982,157-8,402) and it his identification which has been adopted here. Prior to Gibson, Clarke in his large work on Beaker pottery (1970)included some of the Freswick sherds (corpus numbers 1607F and 1608F).Fortunately Clarke did provide some of the NMAS numbers of the sherds he considered, unlike Gibson, which make it very difficult to distinguish individual sherds.These two sources however, seem to differ in that Clarke noted the presence at Freswick of All Over Cord (AOC) Beaker sherds whereas Gibson specifically notes the absence of AOC at Freswick (op cit 157).By analogy with other Beaker types published in Clarke which have been distinguished as AOC, it seems that his identification at Freswick may be correct.There are also slight discrepancies in the references given by Clarke because he notes that Beaker sherds were found in Edwards excavations and this does not seem to have been the case.The sherds which have a distinctive comb impressed decoration on them seem to be consistent

with the flint assemblage elements which have been ascribed to the Bronze Age above.The undecorated sherds have been suggested by Gibson as representing urns and the sherds illustrated which have impressed groove decoration may be Grooved Ware.68 AOC /comb impressed sherds have been distinguished in the assemblage, and 61 non-decorated.

This group of Beaker pottery is the most northerly example on Mainland Scotland (Gibson 1982,337 fig.22) and seems to be consistent with a domestic assemblage rather than funerary.Unfortunately no structures can be related to this period of occupation of the site.The Prehistoric pottery from Freswick Links has been often quoted. Scott (1951) notes early occupation at Creswick (sic) of the period of Skara Brae and Rinyo (op cit, 44) and further detail is added (op cit, 73) under its proper site name,as a Rinyo II jar with pellet decoration, Beaker sherds including a rim of fine B-ware and coarse sherds with comb and shallow groove decoration. More recently, Bamford includes the information that European Beaker/AOC sherds and Grooved Ware sherds have been recorded from Freswick (Bamford 1982,141 no.88).

Bronze Age activity at the site has been noted therefore in the pottery and in the flint assemblage discussed above (page 316). However, a bronze spearhead was recovered in the vicinity of Freswick Links at the beginning of the century (Nicholson 1911,15;Callander 1933,241 fig.9). This has been included by Coles in his summary of Bronze Age metalwork in Scotland, initially as of Late Bronze Age date (Coles 1960,77 no.2) and subsequently to the Middle Bronze age after reconsideration (Coles 1964,103 and 109 fig.11).

It is particularly interesting that initially the stone

assemblage at Freswick had been suggested as having elements which may be datable to the Mesolithic period. Having brought the dating of the stone assemblage forward to the Bronze Age,the Grooved Ware material adds a further dimension to the dating of the assemblage, in that it is usually ascribed to the Neolithic period.The importance of Grooved Ware sites in the north has been increased by the recent work at the Links of Noltland, Westray by Dr. David Clarke ,NMAS (Clarke, Hope and Wickham-Jones, 1978) which has produced evidence of Neolithic domestic occupation comparable to that from Skara Brae and Rinyo . No other elements in the Freswick assemblage catagorically support a date in the Neolithic period, but at this point perhaps one ought to recall the chambered cairn (Plate 11B) but possibly to be seen as an earth house .There is evidence of Neolithic activity in the area,such as a newly recorded horned long cairn to the south at Auckengill (Batey forth. CAN 086) and elsewhere in the county such as Camster cairns (Masters 1981,above) and Cnoc Frecadein (Henshall 1963,00). With such a wealth of Neolithic activity in the county there is no reason which there should not be similar activity at Freswick.

Two wall sherds in the assemblage have been noted with steatite tempering. This is not a common medium, but examples have been recorded from Jarlshof in a Bronze Age context (Hamilton 1956,16 fig.9,5) and also in a slightly later context in the Round House (op cit,56 fig.32, 57). Such a medium is more common where steatite is readily available, but it is not common in Caithness.In an Iron age context another example has been recorded from Clickhimin also in Shetland (Hamilton 1968,92).

The very coarse gritted pottery has been found elsewhere in broch

contexts, such as at Howe broch near Stromness, Orkney (pers. comm. B. Smith). Vessels appear to have had large everted rims in general and most commonly are undecorated as at Freswick. However,at Clickhimin there is a large range of decorated sherds (Hamilton 1968,120-4) although the fabric seemsto be finer there.The Freswick pieces are possibly similar to types distinguished by Mackie at Dun Mor Vaul as Dunagoil ware (1974,157) which is very dark in colour with a gravelly fill.Other sherds of a highly everted rim form were also recorded at Dun Mor Vaul (op cit 159). Less gritted sherds of pottery have been noted from Pictish levels at Howe (Hedges and Bell 1980a,50-1) also generally undecorated. It is difficult to be sure from the few sherds at Freswick which type of heavily gritted pottery has been recorded because there may be variations of the amounts of gritting within a single pot and it is difficult to be sure of vessel forms and fabrics from pieces which are so small and few in number.

Burnt Clay.

The burnt clay loomweight fragment is very interesting and seems to have been of a type which might be termed 'bun-shaped', although it is badly damaged and largely incomplete. Hedges discusses these in conjunction with a number of baked and unbaked clay loomweights from Saevar Howe, Birsay (Hedges forth) and notes that with the exception of this piece from Freswick, they are not generally recorded on Viking or 'Dark Age' sites in North Britain. He notes that they continued in use in Scandinavia into the Viking period but are most common in an Anglo-Saxon context in England. Parallels are noted from Jarlshof (Hamilton 1956, 183) in a Viking context in a cache. It is

unfortunately difficult to do other than speculate on the significance of this isolated Freswick piece.

The collection of daub fragments from the site is obviously incomplete because of the large amount noted by Curle from Building VII and discussed above in Chapters 7 and 8. It is obvious that Curle only gave a small sample of more diagnostic pieces to the NMAS , as in fact suggested for the pottery sherds. The examples in the NMAS clearly indicate the impressions of twigs and small branches in the clay.The recovery from other sites of daub has been extensively recorded (discussed above pages 206-08), for example at Lagore Crannog, Hencken notes that 145 fragments were recovered although only two were from a stratified context (1951,127). The importance of the pieces from Freswick is unfortunately obscured by the lack of detailed associated stratigraphical information.

Overall Considerations

The problem of the precise identification of the wheelturned fabrics has already been noted, and this is an aspect of the assemblage which will obviously need further work. However,in a study of the grass tempered fabrics, such perameters as have been prescribed by the work on the finer wares cannot be brought into play.The problem of the hand made wares is simply one of a lack of detailed and systematic work. Alan Lane, who has recently completed his thesis on such pottery, is the only person to tackle the problem by systematic analysis of these and related fabrics in the North and West of Scotland. The hand made vessels vary considerably within a limited area, with differing clays and conceivably with different

uses. The grass tempered pottery from Freswick is extremely fragmentary because of the extensive tempering; it cannot have travelled far from its origin and would seem possibly to have had a much more localised distribution than the wheelturned fabrics.However, this point having been made,the problem of the wheelturned wares is not so clear cut.There are obvious problems encountered in trying to compare similar fabrics and vessel forms in Caithness with those of Aberdeen or East Lothian. There is no obvious reason why these potteries should have ever served Freswick, and so it may be that a more northern kiln site should be suggested. However, as yet no precise location can be suggested.

Dating sherds on typological grounds is dangerous, particularly if no kiln is located which could enable an assessment of the period of production to be made. Caution needs to be exercised when terming such wares 12th-13th century on the grounds of type or form or even on the basis of parallels further south. This problem is one which has been encounted throughout the study of this assemblage as a whole , because of the lack of detailed contextual detail. The citation of parallels in both England and Scandinavia makes it difficult to be catagorical about the dating of the site. Curle's confident statement that late 13th century dating could be claimed for a single sherd paralleled at Rayleigh Castle, South England (Curle 1939,104), surely should be challenged.

A class of pottery whose study is not encumbered by precise dating is that of the gritted wares, dating from Bronze Age and Iron Age contexts.The heavily gritted reddish wares are distinctively Beaker in type and it is ironical that such a relatively small body of

material should have received so much detailed attention (as discussed above). However, these may appear more intrinsically rewarding for study,despite the fact that the bulk of the assemblage is grass tempered. The other heavily gritted fabrics, which are black and generally described as 'broch pottery', have been barely studied at all. It is hoped that with the forthcoming excavation reports on the excavations at the Howe in Orkney, where large quantities of such fabrics have been recorded, this pottery will be more carefully studied.

Examination of the pottery, therefore, has been hampered by a number of factors, particularly the lack of scientific examination of the wheelturned fabrics and an uneasy marriage between known fabrics elsewhere and those in the Freswick assemblage. The bulk of the material,the grass tempered material, is potentially more useful but local variations cause problems in its study. The problem with the grass tempered assemblage is that it is too fragmentary because of the weak fabric produced by excessive vegetal tempering, and consequently it produces very many more wall sherds than other diagnostic sherds such as rims, bases or handles. Finally, the gritted fabrics of prehistoric dates are only incompletely understood and very often only decorated or rim/base sherds have been examined.

Chapter 13

Conclusions

Freswick Links was noted in 1937 as 'the site of a considerable settlement of the Early Norse or Viking period over an area of several acres' (Curle notebook ms 28a (SAS 461), 6). Although the present view is that this part of the settlement dates to rather later in the Norse period, the extent of the site is significant. Curle's statement, however, refers only to the later episodes of activity on the site. The earliest material from the site is in the form of flint and pottery and indicates a Late Neolithic/Bronze Age presence at the site. Unfortunately, no conclusive structural evidence is available to supplement the artefact assemblage (see Chapter 6). Earlier excavations by Tress Barry and Edwards revealed traces of a broch with outbuilding(s) at the northern end of the Links and, probably in the same area, possible 'earthhouses' or souterrains were examined (Chapter 6). The brief published accounts of these structures formerly enabled the location of little more than a dot on a distribution map. It has not been the purpose of this thesis to attempt a detailed re-examination of either the broch or the souterrains. However, examination of the associated artefactual assemblages has indicated certain Norse activity at these structures. This is no revelation, when viewed in conjunction with the extensive Norse presence at the site, however, it is important to bear in mind.

The overall significance of the Norse activity at Freswick, as revealed by Curle in 1937 and 1938, and by Childe a few years later, has been considerably underestimated. There are many disparate sources of evidence for the activities of the Norse in Caithness, and, for the first time, they have been gathered together in this thesis (Chapters 2 and 3). Nicolaisen has shown the preponderance of Norse-derived place names in the north-east of the county, although the 'demarcation line' has long been appreciated. More recent detailed analysis by D. Waugh of the School of Scottish Studies, Edinburgh, reveals that all but a

small handful in Canisbay Parish are Norse (see Chapter 2, Figure 7). However, despite this obvious prodigious naming activity by the Norse, Freswick remained the only settlement site to be noted until the late 1970s.

References in the Sagas, discussed in Chapter 2, indicate a settled presence in Caithness, despite the obvious reservations which have to be voiced when considering such sources of information. The obvious bias towards the recording of the more important members of society nevertheless cannot be ignored, and it would seem probable that many other people, both important and otherwise, would have lived in Caithness, the southern half of the great Earldom of Orkney. The Sagas refer to activities in Caithness after the 10th century and seem to indicate an extensive presence of Norse settlers. However, what was happening in the 10th century or earlier? The placenames seem to indicate a 10th century dating, although reservations concerning the use of this medium for dating must be voiced. The problems of early Viking activity in Caithness cannot unfortunately be answered on the present settlement evidence - one partially excavated site and two suspected ones can hardly yield definitive answers.

The extensive early Viking evidence noted elsewhere, particularly in Orkney (discussed in Chapter 4), seems to suggest that Caithness was settled from across the Pentland Firth, a distance of only seven miles at its narrowest point. The archaeological evidence at present can neither support nor refute this suggestion. It is likely, given the proximity of the Orkney Isles, that Caithness was at least visited during the early Viking period, and the green fringes around a brown, peaty interior, which is the prospect of Caithness offered from the sea, may have seemed more than slightly attractive to the Norse. A possibility may be that Orkney may have been 'fully' settled, and

there was a need for further areas to be settled.

The archaeological evidence for Norse presence in Caithness (Chapter 3) comes from a variety of sources. A number of pagan graves has been recorded, from the mound at Westerseat, from the broch mound at Castletown and the group from Reay, west of Thurso, for example. The concentration at Reay is particularly interesting and ought to indicate traces of contemporary settlement in the vicinity. Recent excavations at Cnoc Stanger on the west side of Sandside Bay, Reay, may indicate Norse settlement, as may building traces further around the bay. Unfortunately, without excavation this association must remain conjectural at present. One site which may also have had a close association between a Norse settlement and burial lies on the north coast, at Huna. Here, Curle recorded a boat burial in 1935 and in the late 1970s a mound with extensive settlement traces has been quarried and pieces of pottery of the same type and form as from Freswick have been revealed. The boat burial seems likely to have been Viking, following the established tradition noted in Scandinavia, as at Oseberg and Gokstad, but is obviously more simple and probably more comparable to that from Westness, Rousay (see page 82).

The major problem concerning the identification of Late Norse graves arises from the presumed later settlement of Caithness, possibly in the late 10th or 11th centuries, and the adoption of Christianity. The problem of the identification of Christian Norse burials is vexing (see for example page 59). The fine runic cross from Thurso was a fortunate association, assisting in the dating of the graves lacking goods. It is conceivable, but cannot at present be substantiated, that the cists located towards the southern end of the Links at Freswick may also be Christian Norse (see page 126).

The settlement evidence for Caithness in the Late Norse period is,

therefore, limited to the two newly-recorded sites of Huna and Robertshaven on the north coast, and Freswick on the east coast. It is possible that all are noted in the Orkneyinga Saga, Freswick being equated with Þrasvik. The lack of archaeological investigation in the county could explain the lack of settlement located in the interior, which is now mostly peat covered. The suggested climatic optimum of c. 1000 - 1250 A. D. (see page 6) may have made these parts more habitable, and it is conceivable that peat growth is masking this evidence. Further fieldwork is currently being undertaken by the author to try to redress this balance. Another possibility is the likelihood that some of the present steadings may cover the sites of earlier settlements - a suggestion put forward for other parts of the British Isles. The settlements so far recovered are, to a certain extent, failed ones, and the successful ones are therefore likely to underlie modern buildings. This may perhaps be most clearly suggested for Thurso, where many Saga references suggest occupation but the only archaeological evidence remains the runic cross.

It is therefore conceivable that, for Caithness, the earliest Norse evidence may be under the Late Norse sites or even modern houses, or may perhaps have only been represented by occasional sorties to the north coast. There are a number of stray finds throughout the county, and the spread of graves, in conjunction with the presence of a single hoard of 'ring-money' at Kirk O'Banks on the north coast (Chapter 3), may not necessarily indicate permanent settlement.

The limited settlement evidence of Late Norse date is, however, not out of context in the 'Northern Situation'. There have been many excavations of Late Norse sites in Orkney and Shetland, and apparently more limited activity in the Western Isles (see Chapter 4). An increasingly large body of sites are being examined which are yielding evidence of Late Norse activity - the Udal in the

West and Sandwick, Unst, Shetland for example. Freswick Links is,therefore, of great importance in this context. It is easier to compare these sites,perhaps, than to compare Freswick with sites rather nearer, particularly in Caithness, because of the lack of excavation.

The excavations by Curle and Childe at Freswick yielded important information, but some elements may be reinterpreted (see Chapter 7). Curle excavated an extensive area of the site, revealing seven buildings or parts of buildings, in 1937 and 1938. He excavated in a systematic and methodical way, recording in his notebooks various details which were not always taken into consideration in the final report. It has been of considerable importance in this thesis to go back to these notebooks and offer alternative interpretations. However, in direct contrast, Childe excavating during the war, in response to the threat of sand removal and consequently in a rather hurried and incomplete manner, failed to note in detail his actions. Childe has recently been described as a

> 'bad excavator' ... a judgement which is in no way weakened when the standards of the time are taken into account ... Perhaps his two greatest weaknesses were failure to provenance accurately the bulk of the finds and lack of appreciation of the value of individual layers ... he showed the failure, common to all his excavations, of not feeling the need to document accurately his conclusions in terms of layers and structures at the site (Rinyo)
>
> (Clarke, 1983, 47-8)

This is a harsh criticism which, as is clear in the discussion above (Section 7.2), is only partially tempered at Freswick by the 'rescue' conditions of the excavations; it is a criticism which cannot be levelled at A. O. Curle.

There are inevitably many problems and unresolvable queries resulting from the re-examination of old excavation documentation. It is important to view this material in the context in which it was gathered, and all too easy to be hypercritical of the short-comings which are inevitable; excavation methods have, of necessity, developed since the 1930s!

The position concerning the published details of the excavations at Freswick prior to this thesis are outlined in Chapter 1 . By the careful and prolonged scrutiny of both the site notebooks and ascribable parts of the artefact assemblage, further information is now forthcoming. The complexity of the structural sequences at the site can be seen, for example, in Figure 21, a detail of the east end of Building 1. The ordering of a sequence at the site, suggested in Figures 23 and 26, has been plagued by the constant reuse of stones from earlier phases, and the apparent disregard for stratigraphical relationships within structures. Generally speaking, both Curle and Childe noted variations in wall construction and possible superimpositions, although incorrectly in the case of Curle's Building VI. However, layers and the understanding of sequences were not high on the list of priorities. Statements such as 'following the wall' are commonplace and have ensured, in most cases, the permanent divorce of walling and interior/exterior layer relationships.

Curle's publication plan, which was drawn at the end of the excavations by C. S. T. Calder, unfortunately did not include any structural elements which had been recognised as secondary and therefore removed, such as the cross wall of Building VI. Neither did it include pieces of walling which are known to have been revealed to the south of Building VI (see Plate 18), or alterations in wall lines as seen between Building III and the east extension there (see Figure 23). In short, the published overall plan can only serve as an indication of the number of structures located and cannot be viewed in any way as complete and accurate. The more detailed plans (Figures 20 and 21) are more helpful, as would be hoped, and may serve as a basis for detailed stratigraphical analysis.

In the publication of 1939, Curle divided the excavated structures into three groups, A, B and C, with Buildings I - V as Group A, Building VI as Group B

and Building VII as Group C. The results of his excavations are summarized above. It has been possible to establish a relative chronology on the basis of individual overlapping buildings, but it is still not possible to create an overall sequence to cover all the buildings examined. Re-examination of each of the structures has revealed further information. Building I, for example, is not as simple as Curle suggested; the drain in the centre of the building does not seem to be stratigraphically related to the subsequent amendment to the structure, the 'bath'. This is significant because the inter-relationship which may best have supported the interpretation as a bath, does not exist. Perhaps more significant is the fact that, stratigraphically, the 'bath' is very late in the sequence of the building. This late date is supported by the recovery of sherds of Medieval pottery, both in the upper layers of the building fill and under the clay pile in the corner of the 'bath'. This area seems, in fact, to have been just about the latest recognisable in the sequence.

Building II lacks further information, but certainly overlies the oldest walling in the group, that is, the walling which actually runs north-south and which predates Building VII also.

Building III is interesting because it is definitely offset from the small chamber to the east and presumably of a different phase, possibly earlier but this is not proven. The hearth in this Building appears to be disproportionately large for the building width, which is a further problem. It is described throughout as a smithy, and it is interesting to note that, in the artefact assemblage, a series of knives may conceivably have been associated with leather working (page 272 above).

Building IV is not clear because there are obvious traces of earlier walling, and possible vents underlying it, as well as traces of a north-south wall which ends at a possible entrance at its south end. None of this latter wall is

recorded on the final plan and serves to indicate the complexity of the structural sequence at the site.

Building V lacks detailed reference but it clearly cannot have been a 'naust' and is more likely to have been composed of a number of fragmentary buildings, the precise form of which cannot now be distinguished. It does, however, overlie Building VII which has been shown to be a late development on the site.

Building VI has been re-examined by more recent excavation and the sequence of building shown to be the reverse to that suggested by Curle. The long wall at the south end, for example, post-dates the walling on its north side and seems to be part of a structure which at present cannot be fully understood. Curle followed the south wall and cut through the midden at the south side, and only because of a fallen stone is the relationship preserved. The midden lapped up to, but not over, the south wall. On the north side of the south wall, black greasy midden continued over the low-lying walling and was cleared by Curle, and is only now visible in section. The published plan of this building appears to be composed of a number of phases, and probably Curle cut through the floor level onto another level which does not relate to all the revealed walling. This building was at one stage reduced in length, with the suggested 'byre' end at the west, by that stage possibly overcome by midden infill, and separated from the east end. The secondary wall was removed and only recorded in a photograph (Plate 17) and in his notebook.

Building VII, aligned north-south, seems to have also been relatively late in the sequence at the site, and the wattle and daub which was recorded as underlying the structure was deeply bedded. Unfortunately, the dating of the daub cannot be confirmed, but it underlay the structure termed Building VII. The use of this building is still obscure; it could have been a pottery or a kiln for parching grain.

These new pieces of information elucidate the published information and can be more clearly understood with reference to Figure 23.

Despite the problems in Curle's excavation strategy and results, his notebooks are full of copious detail, especially when compared to that of Childe. Childe's results were meagre and confused. The problem is that the notebook he left is not sufficient to reconstruct the building(s) he recovered. The confusion was not assisted by the fact that he illustrated all but one of the phases on a single plan (see Figure 25) without distinguishing internal features related to particular walls. It has since proved virtually impossible to reunite these two elements. The sections can assist in this reunion in a limited way, although there are details lacking at crucial junctures. Childe used a partially different sequence of numbers in his notebook and neglected, unfortunately, to note down the correlations. A reworking of the stratigraphical information, assisted by a very meagre group of finds, results in the plan (Figure 26) which can indicate only fragments of buildings. This is, of course, the direct result of a small area being excavated and expansion inland was prevented by the presence of dunes!

It had been hoped that detailed examination of the artefacts from the site, in particular the small percentage from the excavations (no more than 25 - 30 per cent in all), would assist in the relative phasing of the structures at Freswick. However, as indicated in the artefact catalogue (PartIII), it has only been possible to ascribe finds to particular buildings and seldom has sufficient information been available concerning the actual associated layers. The artefact assemblage includes a large percentage of stray finds (in excess of 50 per cent), particularly from the Rosie collection, held at Midtown, Freswick, and also from recent walking over a number of erosion areas which have been carefully monitored since

1978/9. From this recent study it would seem that a concentration of finds has come from the eroding central part of the Links, in fact in the immediate vicinity of the excavations of Curle and Childe (Chapter 5). The scatter is much less pronounced to the north and south ends of the Links, although the recent work at Freswick House is important in representing a new southerly extent of contemporary occupation (see Chapter 5).

The assemblage in general covers a broad period spectrum, from the Prehistoric period in the form of flints and pottery, through the earlier Iron Age in the form of different types of pottery into the Viking period. The pre-Viking period is represented by a fine collection of pins in both metal and bone and also by examples of antler combs. Unfortunately they all generally lack detailed contextual information. There are many items in the assemblage to which a particular period cannot be ascribed - chipped pebbles, stone discs, and bone points for example.

There are, however, two particular elements which seem to be particularly Scandinavian in character - antler combs and steatite vessels. This is important in view of the fact that the site is considered to be Late Norse. A higher percentage of directly ascribable Norse artefacts would have been expected, but may be explicable by the fact that the settlers were not coming directly from Scandinavia, so direct links may have been limited. This suggestion is not really supported by the presence of a large variety of distinctive combs in main-stream Scandinavian forms of the 12th to 13th centuries. There must have been some contact with Scandinavia, and, as would be expected, the situation in Greenland, of local adaptations of old-fashioned Scandinavian types being produced and found in 13th century contexts (pers. comm. Jette Arneborg Pedersen, Copenhagen) does not seem to be applicable. To one group of people at least, Caithness does not

seem to have been isolated. Indeed, Caithness apparently became increasingly Norwegian as a bastion against the Scots in the 12th to 13th centuries. This is a political fact, discussed above in Chapter 2, but could it be represented here in the artefactual assemblage?

Curle described the assemblage as meagre:

> The Freswick settlement discloses by its relics a class of occupants in poorer circumstances (than at Jarlshof), as the finds were fewer in proportion to the area uncovered, and as a rule, also, they were ruder in character ...
> (Curle, 1939, 107-8)

The finds from his excavations were indeed limited in number, but the catalogue here serves to indicate that from the site as a whole, that group formed a small percentage. It may also be pertinent to note here that not even all the finds recorded by Curle reached the N. M. A. S.-as indicated by the 'Not Located' sections in the catalogue.

The finds, in general, seem to cluster in dating between the 11th and 13th centuries and, ironically, seem to support the dating indicated by Curle as 'some date between 1250 and 1270 may be accepted (for the end of the occupation)' (Curle, 1939, 86). It is not possible, however, to know precisely when the settlement ended or indeed why it did so.

The most important aspect of the activity at Freswick to be revealed in the recent campaigns of excavation, is that of the colossal amount of environmental information which is available in the rapidly eroding midden deposits at the site. Prior to the late 1970s, this aspect of the site had only been mentioned in passing; however, it is of fundamental importance for the examination of the site (see Chapter 8). The evidence clearly indicates, even at a preliminary level, that large fish such as cod and saithe , were being landed at Freswick in vast numbers. The origin of these fish can only be suggested as the deep sea

or possibly the cross-currents of the Pentland Firth. Whatever the source, the fishing banks must have been more extensive than exist at the present day. Could these have been over-fished in the Late Norse period, resulting in the movement of the fishing settlement at Freswick? Unfortunately, at present this can only be a suggestion.

The different activities associated with the processing of the fish at varying parts of the site, such as beheading and gutting, indicated by the waste products in the midden deposits, may help us to understand the form of the settlement. It has already been indicated (see pages 202-3 above) that there are a large number of vents and possible drains remaining in the buildings at Freswick, and it is conceivable, although presently unproven, that these may have been related to the processing of fish. It is also possible that, given the severe erosion problem at the site, further structural traces linked to fish processing will have been reclaimed by the sea. However, that this activity was taking place is strongly suggested although difficult to detect in either the structural or artefactual assemblage. The artefact assemblage has indications in a limited way that fishing was taking place, in the form of sinkers and plummets. The number of items relatable to fishing, however, is very few and perhaps other more transient media may have been employed. This preponderance of fishing activity in the Late Norse period is one which has been detected at other sites, such as Jarlshof, Birsay, and more recently, Sandwick, Unst. At this last site (see Chapter 4), scientific analysis of the midden deposits is clearly revealing similar fish sizes to the Freswick fish, although not in the same numbers because the site is rather smaller.

If fishing on this scale is accepted, as it seems at present it must, there are other problems raised. Was the fish only for the inhabitants of Freswick?

If not, were there inland sites who perhaps exchanged for peat? Will the two sites in Canisbay on the north coast, Huna and Robertshaven, provide this same bias? These are questions raised by the environmental analysis at Freswick and they must be answered by future work. Likewise, it is hoped that further survey work at the site, in the form of contour surveying, will indicate other structural traces which may assist in assessing the actual population at the site at any one time. Small-scale work cannot help in this matter. With the aid of Thermoluminescent Dating, perhaps the crude pottery will prove more useful for dating, and it is hoped that a programme of pollen analysis will give an indication of other forms of environmental disruption associated with the site.

Curle noted that no-one else would be likely to look at the ruinous buildings and meagre finds in the future (Curle notebook ms 286 (SAS 451), 73). He did not know how wrong he was, for the story of activity at Freswick in the Late Norse period, and indeed in Caithness, the southern part of the Earldom of Orkney and Caithness, was just beginning.

APPENDICES

Appendix A. Non-Artefactual Material.

3.2 Industrial Waste (?Lead).
Rosie Collection.

3.2.1 Piece of ?lead waste.
L28,W37,T23mm.

5.7 Amorphous Iron.
Recent work.

5.7.1 Three pieces of iron.2 are flat.
-3 1)L38,W29,T6mm.
2)L19,W15,T4mm.
3)L22,W23,T14mm.
FL79 UQ,SF no.18.

5.7.4 Small amorphous lump.
L20,W20,T14mm.
FL80 UQ,SF no.36.

5.7.5 As above.
L12,W11,T4mm.
FL80 UQ,SF no.43.

5.7.6 As above.
L60,W30,T12mm.
FL80 UG,SF no.73.

5.7.7 As above.
L15,W10,T10mm.
FL81 UD,SF.no.356.

5.7.8 2 fragments of ironstone.
-9 7)L16,W15,T5mm.
8)L14,W12,T6mm.
FL81 UE,SF no.358.

5.7.10 6 amorphous iron lumps.
-15 Less than L17,W17,T8mm.
FL81 UQ,SF no.375.

5.7.16 Large heavy lump of amorphous iron.
L39,W29,T17mm.
FL81 UQ,SF no.376.

5.7.17 3 small iron lumps.
-19 Less than L24,W17,T2mm.
FL81 UQ,SF no.377.

5.7.20 Small piece of amorphous iron.
L20,W7,T4mm.
FL81 UL,SF no. 417.

5.7.21 3 amorphous pieces of corroded iron.
-23 Less than L25,W15,T7mm.
FL81 UQ,SF no.427.

Not Located.
5.7.24 Amorphous fragment, badly corroded.
L58,W15mm.
FS 36.
Curle notebook ms 28a (SAS 461), 55.
Found tracing north wall of Building II.

5.8 Waste (?Iron).
NMAS.
5.8.1 Rounded lump possibly slag from the bottom of a round bottomed furnace.
L120,W150,T50mm max.
IL 608.
Donations 1939,335 no 10 (Alexander Sinclair).

Other Museum Collections.
5.8.2 Heavy lump of grey cindery slag material.
L35,W30,T28mm.
ARC 62.
Thurso Museum.

Rosie Collection.
5.8.3 Piece of heavy,grey and bubbly material.
L40,W27,T25mm.

Recent Work.
5.8.4 Small quantity of bubbly grey material.
FL79 UC SF no. 2

5.8.5 As above.
FL79 UD SF no.5

5.8.6 One lump as above.
FL79 UE SF no.6

5.8.7 Small quantity as above.
FL79 UF SF no.8

5.8.8 As above.
FL79 UG SF no.12

5.8.9 One lump as above.
FL79 UH SF no.13

5.8.10 Small quantity as above.
FL79 UJ SF no.14

5.8.11 As above.
FL79 UJ SF no.15

5.8.12 As above.
FL79 UK SF no.17

5.8.13 One lump as above.
FL79 UQ SF no.19

5.8.14 One lump heavy waste.
FL80 UJ SF no.60

5.8.15 Small quantity of bubbly grey material.
FL80 UF SF no.63

5.8.16 As above.
FL80 UE SF no.66

5.8.17 One lump heavy waste.
FL80 UC SF no.71

5.8.18 Small quantity as above.
FL80 UG SF no.75

5.8.19 Small quantity of bubbly grey material.
FL80 UQ SF no.76

5.8.20 As above.
FL80 UQ SF no.80

5.8.21 As above.
FL80 UD SF no.81

5.8.22 One lump as above.
FL80 UD SF no.84

5.8.23 As above.
FL80 UF SF no.100

5.8.24 As above.
FL80 UH SF no.105

5.8.25 As above.
FL80 UL SF no.107

5.8.26 As above.
FL80 UQ SF no.112

5.8.27 As above.
FL81 UH SF no.145

5.8.28 As above.
FL81 UF SF no.151

5.8.29 As above.
FL81 UJ SF no.158.

5.8.30 Small quantity as above.
FL81 UK SF no.160

5.8.31 One lump as above.
FL81 UL SF no.161

5.8.32 As above.
FL81 UM SF no.166

5.8.33 As above.
FL81 UP SF no.169

5.8.34 Small quantity as above.
FL81 UQ SF no. 171

5.8.35 As above.
FL81 UG SF no.360

5.8.36 One lump as above.
FL81 UH SF no.362

5.8.37 Small quantity as above.
FL81 UK SF no.366

5.8.38 One lump as above.
FL81 UK SF no.370

5.8.39 Small quantity as above.
FL81 UQ SF no.373

5.8.40 As above.
FL81 US SF no.378

5.8.41 As above.
FL81 US SF no.435

5.8.42 As above.
FL81 US SF no.436

6.13 Non-artefactual Flint and Chert.
Struck Flakes.
NMAS.
6.13.1 Unworked flake of fawn flint.
L32,W17,T3mm.
AB 2286
Donations 1935,246 no.1 (Bremner).

6.13.2 Unworked nodule of honey coloured flint with brown cortex.
L40,W22,T10mm.
AB 2290.
Donations 1935,246 no.1 (Bremner).

6.13.3 As above, lacking cortex.
L33,W10,T5mm.
AB 2291.
Donations 1935,246 no.1 (Bremner).

6.13.4 As above.
L27,W21,T4mm.
AB 2292
Donations 1935,246 no.1 (Bremner).

6.13.5 Unworked nodule of fawn chert.
L18,W9,T2mm.
AB 2293.
Donations 1935,246 no.1 (Bremner).

6.13.6 As above.
L44,W31,T8mm.
AB 2294.
Donations 1935,246 no.1 (Bremner).

6.13.7 5 unworked pieces of grey chert.
-11 Less than L68,W48,T14mm.
AB 2614
Donations 1950,227 no.2 (Bremner).

6.13.12 Fragment of grey flint.
L31,W38,T12mm.
AB 2614 (dup.no).
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,186,figure 72,no.6.
Figure 15.no.6.

6.13.13 Unworked nodule of honey-coloured flint,with brown cortex.
L40,W20,T10mm.
AB 2614 (dup. no).
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,186,figure 72, no.4.
Figure 15,no.4.

6.13.14 Flake of grey flint.
L30,W13,T5mm.
AB 2614 (dup.no)
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,186, figure 72, no.2.
Figure 15,no.2.

6.13.15 20 flakes of orange,grey and black flint.
-34 Less than L40,W25,T15mm.
AB 2618.
Donations 1950,227 no.2 (Bremner).

6.13.35 Large struck flake of orange flint with black cortex.
L40,W37,T20mm.
AB 2618 (dup.no)

Donations 1950,227 no.2 (Bremner).

6.13.36 38 struck flakes of brown or fawn pebble chert.
-73 Less than L29,W28,T20mm.
AB 2618 (dup.no).
Donations 1950,227 no.2 (Bremner).

6.13.74 6 pieces of grey and orange chert.
-79 Less than L30,W27,T10mm.
HD 481,490,493-6.
?Donations 1936,358 no.3 (Bremner).

6.13.80 Flake of honey-coloured flint with traces of white cortex.
L33,W13,T4mm.
HD 491.
?Donations 1936,358 no.3 (Bremner).

6.13.81 Flake of honey-coloured flint with grey brown cortex.Slight bulb of percussion.
L41,W24,T9mm.
HD 556.
?Donations 1936,358 no.3 (Bremner).

6.13.82 As above.
L25,W16,T4mm.
HD 558.
?Donations 1936,358 no.3 (Bremner).

6.13.83 Chip of brown flint with yellowy cortex.
L22,W14,T5mm.
HR 942.
?Donations 1936,358 no.3 (Bremner).

6.13.84 Chip of poor quality rust coloured flint.
L36,W21,T11mm.
HR 1053
Donations 1950,227 no.2 (Bremner).

6.13.85 11 flakes in black,brown and grey flint.
-95 Less than L34,W30,T6mm.
HR 1054
Donations 1950,227 no 2 (Bremner).
From the midden separated by sand from flint artefacts in an underlying deposit on the beach.

6.13.96 31 struck flakes of cream,brown and grey chert.
-126 Less than L30,W32,T9mm.
HR 1054 (dup.no).
Donations 1950, 227 no 2 (Bremner).

6.13.127 Flake of grey flint.
L25,W36,T7mm max.
IL 605. FS 5.

Donations 1939,335 no.10 (Alexander Sinclair).
Curle notebook ms 28a (SAS 461),46.
Found near Edward's site.

Other Museum Collections.

6.13.128 Chip of pale grey chert.
L25,W20,T8mm.
Thurso Museum.
Donation Bremner, Freswick Mid Ridge 1931.

6.13.129 Chip of fawn chert.
L27,W20,T15mm.
Thurso Museum.

6.13.130 5 small pieces of unworked flint,pale brown.
-134 Less than L22,W13,T4mm.
Thurso Museum.
Donation Bremner, Freswick Mid Ridge 1931.

Rosie Collection.

6.13.135 Four flakes of grey flint.
-138 Less than L18,W16,T5mm.

6.13.139 As above,5 in brown flint.
-143 Less than L24,W12,T6mm.

6.13.144 Two lumps of fawn chert.
-145 144)L28,W29,T4mm.
145)L29,W23,T10mm.

6.13.146 One nodule of brown chert.
L25,W19,T13mm.

6.13.147 One lump honey coloured flint.
L27,W35,T10mm.

6.13.148 Two lumps of grey-green flint with milky patina.
-149 148)L34,W25,T11mm.
149)L31,W15,T5mm.

Recent Work.

6.13.150 Lump of weathered flint.Black cortex visible on one side.
L26,W20,T8mm.
FL80 UQ SF no.35.

6.13.151 Piece of grey flint pebble,broken at two points.Patinated exterior.
L33,W37,T22mm.
FL80 UE,SF no.69.

6.13.152 Two small pieces of flint.152)waterworn fragment,honey
-153 coloured and badly weathered,unworked.153)chip with traces of cortex and possible slight patination.Reddish brown flint.

152)L14,W10,T10mm.
153)L14,W14,T9mm.
FL81 UC,SF no.354.

6.13.154 Large piece of waterworn, honey coloured flint, unworked, pitted surface.
L40,W43,T22mm.
FL81 UH,SF no.361.

6.13.155 -156 Two pieces flint.150)waterworn pebble 151)large chip with traces of cortex at one point.Banded flint in orange,pale brown and black.
150)L32,W25,T12mm.
151)L48,W27,T14mm.
FL81 UQ,SF no.374.

8.16 Non- artefactual bone.
NMAS.

8.16.1 -2 Two bones of the Great Auk.
GA 753,GA754.
Donations 1909,16 (Tress Barry 1908).
Freswick Sands Broch.

8.16.3 Tapering fish bone with point in tact.
L81,W5,T5mm.
GA 758.
Donations 1909 (Tress Barry 1908) not listed.
Freswick Sands Broch.

8.16.4 Cut antler fragment including burr.
L90,W37,T24mm.
GA 771.
Donations 1909 (Tress Barry 1908)not listed.
Freswick Sands Broch.

8.16.5 Small unidentified tusk or tooth.
GA 772.
Donations 1909 (Tress Barry 1908) not listed.
Freswick Sands Broch.

8.16.6 Tine with cutting at medial end. Minor incisions visible on inner side throughout length of fragment,lacking point. Termed 'ogham inscribed'
L250,W79-13mm.
HD 1175.
Donations 1952,211, no.22 (Bremner).

8.16.7 Small tine with traces of butchering at medial end.
L95,W5-25mm.
HD 1178.
Donations 1952,211,no.22 (Bremner).

8.16.8 Butchered antler fragment,traces of cutting at medial end,small channel cut away around the thickest part.
L140,W21.5-4mm.Channel,W5,D3mm.
HD 1177.
Donations 1952,211,no.22 (Bremner).

8.16.9 Tine,point in tact and medial end chopped.
L190,W24mm max.
HR 941.
Donations 1948,?322 no.5 (Bremner).
From Bronze Age strata,thrown up by Black Watch Trenches in 1945.

8.16.10 Two pieces not obviously worked,but b)is cut,a)lacking tip.
-11 10)L220,D30mm max.
11)L145,D29mm max.
10)HR 1036 11)HR 1037.
Donations 1950,227 no.2 (Bremner).
From in and below kitchen midden at north end of Links

8.16.12 Large fragment with part of skull remaining.Possible traces of cutting.
L192,W100,T45mm max,
HR 1038.
Donations 1950,227 no 2 (Bremner).

8.16.13 Red deer brow tine, smoothed with extensive saw marks.
L101,D18mm max.
IL 540 (not numbered by Curle).
Donations 1939,385 no.20 (Alexander Sinclair)
Curle ms 28a (SAS 461),60.
Found above paving at east wall of Building VI.

Rosie Collection.
8.16.14 7 assorted fragments with traces of butchering.
-20 Less than L125,W16mm max.

Recent work.
8.16.21 Roe deer tine,tip smoothed but chipped and traces of 5 cut marks at base where it is broken.
L60,W19,T13mm.
FL80 UQ,SF.no.22.

Not Located.
8.16.22 Cut antler tine.
No dimensions.
Not numbered.
Curle notebook ms 28a (SAS 461), 57.
Found at east end of south wall Building VI.

8.16.23 Cut and polished deer horn.
No dimensions.

FS 45.
Curle notebook ms 28a (SAS 461), 60.
Above paving at east wall outside Building VI.

14.1 Shell.
NMAS.
14.1.1 Turritella communis Risso, lacking tip.
L22, W10, T9mm.
ER 1039.
Donations 1950,227 no.2 (Bremner).
Lacaille 1954,267, fig. 117, 14.
From in and below kitchen midden at north end of Links.
Figure 15, no.14.

Rosie Collection.
14.1.2 Limpet shell with three perforations around the apex.
H21, D55, perforation D5mm.

Appendix B. Finds held in NMAS from Midtown, Freswick.

Copper Alloy.

Pin.

NMAS.

1 Pin with oval discoidal head, incised cross decoration on back and front of head.
L100,D3mm.
FC 239.
Donations 1926, 20-21 (Purchase ?Bremner 1925).
Found in a field near a farm at Midtown, Freswick.

Grass Tempered Pottery.

Handles.

NMAS.

2-5 Four handle fragments of ridged form, of grass tempered pottery.
Less than L45,W35,T11mm.
HR 810.
Donations 1926, 20-21 (Purchase ?Bremner 1925).
Found near steading at Midtown, Frewick.

Appendix C. Wall sherds from Recent Work, with Locational Information.

Recent Work.

11.5.301 Wall sherd with possible indications of wheel turning on the inner face. Dark grey fabric.
L35,W31,T8mm.
FL81 UF,SF no.400.

11.5.302 4 wall sherds.
-304 Less than L39,W26,T7mm.
FL78 UD.

11.5.305 Thick solid wall sherd.
L48,W50,T10mm.
FL78 UE.

11.5.306 9 wall sherds.
-314 Less than L39,W35,W5mm.
FL80UE.

11.5.315 1 wall sherd.
L24,W20,T5mm.
FL81UP.

11.5.316 41 wall sherds, including 2 with burnt deposits.
-356 Less than L45,W31,T10mm.
FL80UD.

11.5.357 6 wall sherds.
-362 Less than L14,W15,T3mm.
FL80UC.

11.5.363 3 wall sherds.
-365 Less than L38,W27,T4mm.
FL80UG.

11.5.366 5 wall sherds.
-370 Less than L27,W19,T8mm.
FL80UF.

11.5.371 19 wall sherds.
-389 Less than L35,W22,T6mm.
FL80UQ.

11.5.390 7 wall sherds.
-396 Less than L27,W19,T5mm.
FL81UH.

11.5.397 41 wall sherds.
-437 Less than L32,W31,T8mm.
FL81UD.

11.5.438 Wall sherd.
L21,W25,T5mm.

FL81UJ

11.5.439 2 wall sherds.
-440 Less than L42,W22,T8mm.
FL81UL

11.5.441 5 wall sherds.
-445 Less than L27,W21,T5mm.
FL81UE

11.5.446 4 wall sherds.
-449 Less than L37,W38,T8mm
FL81UQ

11.5.450 30 wall sherds.
-479 Less than L20,W20,T5mm.
FL81UQ

11.5.480 41 wall sherds.
-520 Less than L32,W21,T5mm.
FL81UD

11.5.521 Wall sherd,slightly burnt deposit on interior.
L36,W30,T6mm
FL81UE

11.5.522 17 wall sherds,weathered.
-538 Less than L34,W21,T5mm.
FL81UQ

11.5.539 16 wall sherds,2 with burnt deposit on interior.
-554 Less than L38,W25,T7mm.
FL81UG

11.5.555 5 wall sherds,damaged.
-559 Less than L32,W21,T4mm.
FL81UK

11.5.560 2 wall sherds with internal burning.
-561 Less than L24,W17,T7mm.
FL81UD

11.5.562 8 wall sherds.
-569 Less than L38,W30,T7mm.
FL81UE

11.5.570 Wall sherd.
L30,W27,T5mm.
FL81US

11.5.571 2 wall sherds.
-572 Less than L38,W32,T5mm.
FL81UK

11.5.573 4 wall sherds.
-576 Less than L20,W10,T3mm.
FL81UH

11.5.577 Wall sherd.
L31,W30,T7mm.
FL81UF

11.5.570 15 wall sherds.
-592 Less than L20,W20,T4mm.
FL80UG

11.5.593 10 wall sherds.
-602 Less than L26,W17,T6mm.
FL80UQ

11.5.603 36 fragments of wall sherds.
-638 Less than L30,W25,T6mm.
FL80UE

11.5.639 170 wall sherds.
-808 Less than L37,W25,T4mm.
FL80UD

11.5.809 45 wall sherds.
-853 Less than L20,W14,T5mm.
FL80UQ

11.5.854 not used.

11.5.855 Highly carinated shoulder sherd.
L35,W28,T5mm.
FL80UK

11.5.856 48 wall sherds.
-901 Less than L20,W20,T6mm.
FL80UF

11.5.902 5 wall sherds,2 with burnt deposit.
-906 Less than L30,W25,T7mm.
FL80UD

11.5.907 5 wall sherds,1 with burnt deposit.
-911 Less than L35,W30,T7mm.
FL80UL.

11.5.912 7 wall sherds.
-918 Less than L40,W31,T5mm.
FL80UM.

11.5.919 8 wall sherds.
-926 Less than L30,W30,T8mm.
FL80UE

11.5.927 1 worn wall sherd.
L53,W32,T7mm.
FL80UE

11.5.928 29 wall sherds.
-956 Less than L34,W27,T8mm.
FL79UF

11.5.957 10 wall sherds.
-966 Less than L28,W28,T6mm.
FL79UE

11.5.967 20 wall sherds.
-986 Less than L23,W15,T3mm.
FL79UG

11.5.987 11 wall sherds.
-997 Less than L21,W15,T5mm.
FL79UD

11.5.998 16 wall sherds.
-1013 Less than L31,W35,T5mm.
FL79UF

11.5.1014 4 wall sherds.
-1017 Less than L34,W22,T7mm.
FL79UG

11.5.1018 20 wall sherds.
-1037 Less than L30,W16,T5mm.
FL79UE

11.5.1038 122 wall sherds.
-1159 Less than L30,W21,T7mm.
FL79UD

11.5.1160 5 wall sherds.
-1164 Less than L20,W11,T2mm.
FL79UJ

11.5.1165 Wall sherd.
L21,W13,T4mm.
FL79UK.

11.5.1166 2 wall sherds.
-67 Less than L27,W26,£mm.
FL79UJ

11.5.1168 6 wall sherds.
-73 Less than L41,W39,T5mm.
FL79UF

11.5.1174 7 wall sherds.
-80 Less than L20,W10,T3mm.

FL79UD.

11.5.1181 7 worn wall sherds.
-87 Less than L21,W16,T2mm.
FL79UQ

11.5.1188 6 wall sherds.
-1193 Less than L32 ,W18,T5mm.
FL79UD

11.5.1196 3 wall sherds.
-1198 Less than L10,W12,T4mm.
FL79UC.

11.5.1199 7 wall sherds.
-1205 Less than L40,W31,T5mm.
FL79UQ

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