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Abstract

The Archaeology of Pewter Vessels in England 1200-1700:

A Study of Form and Usage

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Thesis submitted for the degree of Doctor of Philosophy

Department of Archaeology

University of Durham

Aims of the Work

The first aim is to study the main types of pewter vessels surviving for the period, and to show how they were suited to their domestic purpose, especially the serving of food, and as eating and drinking implements.

The second aim is to attempt to further investigate the alloy α riflesq by having a sample of typical objects analysed by ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry). This alloy was introduced by the Pewterersq Company (WCP) by the 16th century for the purpose of providing an extended range of wares in a more durable metal than α ayq metal, but less expensive than α ineq metal, as specified by the Company.

The third aim is to explore the occupations of the differing types of α otterq who worked within the Company during the second half of the 17th century. The growth of this separate capitalist group of middle men α ottersq or retailers of ceramics and glassware has not previously been noted. The differing levels of wealth and work of other, mainstream, Pewterers is explored by comparison.

The majority of the finds came from anaerobic marine rather than traditional land sites and consisted chiefly of medieval to 17th century tablewares . dishes, saucers, plates, porringers, salts, beakers and other smaller drinking vessels, together with a few larger flagons. Such smaller drinking vessels were frequently listed as α riflesq from the early 17th century in the Company records.

Individuals described as potters were sometimes identified amongst the Company's membership. It was decided to try to determine their actual occupations by further examining the Court Minutes and wills and inventories of likely individuals.

It was found that the various dishes, saucers and platters were component parts of the garnish—the chief serving vessels used between the 14th to 18th century to serve food to the middling sort of people, and that this played a central role not only as utilitarian wares but as objects of decoration and status as well. The Pewterers' Company members were highly innovative and also produced the country's first plate (apart from in silver) by the mid-16th century and which remained in use unaltered until the 1670s. Linear dimensions were correlated with the more usual sizes by weight for the first time from the remains of the garnish on the *Mary Rose*, lost 1545.

Analysis of a sample of the smaller drinking vessels by Sheffield Assay Office detected an alloy of some 4-6% lead and this was likely to qualify as trifle alloy.

While some individuals did indeed make drinking wares, it was discovered that the term potter usually applied to retailers of glassware and ceramics . a new occupational label. A number of such individuals within the Pewterers' Company played formative roles in setting up a new Glass Sellers Company in 1664. The business activities of this group . typical of individualist ventures during the 17th century . had not previously been noted by historians of the Company and indicated the Pewterers' heterogeneous and commercial make up from this time.

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Rosemary Isabel Weinstein

PhD Thesis

Submitted to the University of Durham

Department of Archaeology

2011

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Glossary

Assize	determining size of wares by weight.
Baluster measure	pint, quart; for wine or beer of a curving bellied shape.
Booge	curved part of a plate between the rim and bottom.
Burnish	to polish pewter surface using a polished steel tool.
Cardinal's Hat	broad rimmed dish resembling this formal hat; for serving venison and ham.
Caudle	hot, spiced alcoholic drink.
Charger	dish over 18+(460mm) in diameter for serving food.
Chrismatory	vessel for consecrated oils.
Counterfeit	<i>contra facio</i> wrought, hand formed wares.
Cruet	lidded sacramental vessel, usually in pairs, marked A for <i>Aqua</i> (water), the other V for <i>Vinum</i> (wine).
Dish	receptacle for serving food, height/diameter ratio 1:5, (diameter 262-274mm) <i>Mary Rose</i> .
Export mark	crowned rose with reigning monarch's initials on other side.
Fillet	cast or hammered strip binding edge of flatware rim.
Fine metal	Standard pewter; alloy of tin with about 2% copper. Trade secret - no formula given.
Flatware/sadware	dense, solid chargers, platters, dishes, saucers and plates.
Florentine	dish for serving up meat with no crust.
Freeman	a pewterer on completing his seven year apprenticeship was made free of the Pewterers' Company and entitled to work as a journeyman to a master pewterer, or with the Company's permission set up business on his own.
Garnish	a complete set of 36 vessels; 12 platters; 12 dishes and 12 saucers.
Grain	a grain is a unit of weight where 1lb contains 16oz or 7,000 grains.
Guinea basin	wrought basin for export to Guinea and African trade.
Hallmark	small marks (4) applied by the maker or retailer in imitation of silver marks.

Hollow-ware (Holloware)	pots, measures, tankards and flagons, beakers, cups.
House-mark	an ownership mark, usually of a tavern.
Journeyman	a pewterer who has served his apprenticeship and works for a master pewter (originally men employed by the day - <i>ournée</i>).
laymetal	an inferior alloy of tin and lead (12-25%).
Planish	smooth or polish by hammering.
Plate	flat receptacle for eating food, usually circular, diameter 215-262mm.
Platter	flat receptacle for serving food. Height/diameter ratio 1:6, diameter 308-327mm (<i>Mary Rose</i>).
Porringer	small deep vessel with one or two ears or handles used for porridge or pottage (stew).
Pottage	stew of vegetables and meat sometimes thickened with oatmeal.
Pottle/Potle/Potel	half-gallon measure for either wine or beer.
Pyx	container for the consecrated bread or sacrament.
Reed	strengthening band cast on rim surface of flatware dish or plate.
Saucer	receptacle for serving food especially sauces. Height/diameter ratio 1:4, diameter 190mm.
Sepulchral Chalice	chalice of low grade alloy for burial with a priest.
Slush-cast	casting made by emptying the molten metal from the mould as soon as the outer skin had solidified.
Spanish trencher	flat receptacle for eating or serving food, circular, diameter 242mm.
Square(d)	vessel made of 6 or 8 strips of sheet pewter soldered together.
Strake	strip of tin weighting 7¼ ounces often joined together with others to form a griddle, as shown on Pewterers Company arms.
Temper	hardening agent, copper and bismuth (to mix with tin).
Thumbpiece	the lever by which a tankard lid is raised, subject to regular

	changes in fashion.
Tin-glass	bismuth, hardening agent used from the 16 th century in pewter.
Touch	private mark impressed on pewter by the maker.
Touchplates	five plates of pewter preserved at Pewterers Hall on which all the touches of pewterers were to be stamped, now dating from 1640.
Trencher	flat square wooden or pewter receptacle for eating food.
Trifle	trifling alloy . tin/lead pewter alloy containing 4-6% lead.
Verification mark	official stamp applied to certify that a vessel's capacity conformed to a standard measure.
Wrigglework	engraving made by rocking a small chisel-shaped tool from side to side to achieve a zig-zag pattern.

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The very ready response by museum curators, finds specialists, archaeological units and archivists to my queries regarding excavated pewter was greatly appreciated. During the course of my research, over a period of three years I visited:

The National Maritime Museum, Greenwich; Ulster Museum, Belfast; Ramsgate Maritime Museum; Chatham Historic Dockyard; The Royal Naval Museum, Portsmouth; Shipwreck Heritage Centre, Hastings; Poole Waterfront Museum; Barmouth Museum, Gwynedd; and Falmouth Maritime Museum.

Visits were also made to the following institutions:

Saffron Walden Museum; Chester City Museum; National Museum of Ireland, Dublin; Bristol Museum; Cuming Museum; Museum of London; Victoria and Albert Museum; Norwich Castle Museum; Guildford Museum; Duchy of Cornwall Archives; Hampton Court Palace; West Highland Museum, Fort William; Ashmolean Museum; City of Oxford Museum; Birmingham City Museum; The Collection, Lincoln; National Museum of Wales and St Fagans Folk Museum, Cardiff; National Museum of Scotland, Edinburgh; Passmore Edwards Museum (London Borough of Newham); Southampton City Museum; Colchester Castle Museum; Stirling Institute; Gloucester City Museum;

Somerset County Museum, Taunton; Neish Collection, Stratford-upon-Avon; Salisbury and South Wiltshire Museum; Colchester Castle Museum; Pewterersq Company, English Heritage's Helmsley Store; Tobermory Museum, Mull; Herbert Museum and Art Gallery, Coventry; Winchester City Museum; Museum of Archaeology and Anthropology, Cambridge; Canterbury City Museums; Beverley Art Gallery and Museum; Hull City Museums & Art Gallery.

And these archaeological units:

Museum of London Archaeology (MOLA); Norfolk Field Archaeology Division.

I would also like to thank those who sent information:

York Archaeological Trust; Northern Archaeological Associates; Pre-Construct Archaeology Ltd; Northamptonshire Archaeology; Oxford Archaeology; Thames Valley Archaeological Services; Sussex Archaeological Society; Worcestershire Archaeological Service; Colchester Archaeological Trust Ltd; Dyfed Archaeological Trust; Field Archaeology Unit, Essex County Council and The Humber Archaeology Partnership, Hull.

The following museums sent information:

Liverpool Museum; Reading Museum; Truro Museum; Penzance Museum; Plymouth City Museum; Scunthorpe Museum; Maidstone Museum; Barbican Museum, Lewes, Sussex; Aylesbury Museum; Ipswich Museum, Buxton Museum, Matlock Museum of Mining; Newcastle-upon-Tyne; Peterborough Museum; Bury St Edmunds Museum; Leicester City Museums; Oxfordshire County Museum Service and Hampshire County Museum Service.

Very detailed information from the following SMRs:

Lincolnshire; Cambridgeshire; Devon; Oxfordshire; Somerset and Cornwall.

I am most grateful to my daughter, Cassandra for typing up some of the early drafts of the thesis, and for putting up with pewter for quite a while.

List of Abbreviations

CSPD	Calendar of State Papers, Domestic
CSPV	Calendar of State Papers, Venetian
NA	The National Archives, London
LMA	London Metropolitan Archives
MoL	Museum of London
GL	Guildhall Library, London
SBT	Shakespeare Birthplace Trust
Proc Soc Antiqs	Proceedings of the Society of Antiquaries of London
Med Arch	Medieval Archaeology
PMA	Post Medieval Archaeology
MLA	Museums Libraries and Archives
JPS	Journal of the Pewter Society
Arch Jnl	Archaeological Journal
BL	British Library
ERO	Essex Record Office
CSB	Common Sergeants Books
Reps.	Repertories [of the Court of Aldermen]
Journals	Journals [of the Common Council]
RAC	Royal Africa Company
LB	Letter Books
WCP	Worshipful Company of Pewterers, Pewterers Company
Lond. IPM	London Inquisitiones post mortem

Dimensions are given in inches, pounds and ounces (as well as metric measurements) since they correspond to pewterers own sizings.

Chapter 1 - Aims of the Work

This study is exclusively a study of archaeologically retrieved pewter. Previous studies have examined collections of various provenance and origin, but the material here presented for analysis and synthesis is of known archaeological provenance. Decorative art collections exist from the 17th century, but everything prior to that is usually archaeologically found, and this highly important material has never been thorough examined and synthesised before now.

The first aim is to study the main types of pewter vessels surviving for the period, and to show how they were suited to their domestic purpose, especially the serving of food, and as eating and drinking implements.

The second aim is to attempt to further investigate the alloy by having a sample of typical objects analysed by ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry). This alloy was introduced by the Pewterers Company (WCP) by the 16th century for the purpose of providing an extended range of wares in a more durable metal than lead metal, but less expensive than fine metal, as specified by the Company.

The third aim is to explore the occupations of the different types of potters who worked within the Company during the second half of the 17th century. The growth of this separate capitalist group of middle men potters or retailers of ceramics and glassware has not previously been noted. The differing levels of wealth and work of other mainstream Pewterers is explored by comparison.

1.1 Previous Studies of Medieval and 16th Century Pewter

Literature Review

The literature of British Pewter has two main strands . a long standing antiquarian interest in archaeological artifacts and an early 20th century enthusiasm for collecting prestige pieces . lidded tankards, flagons, candlesticks, wriggle-engraved chargers and other wares of 17th century and later date . which latter interest dominated the study of pewter until the 1970s. Such items were acquired through sale rooms and dealers; antiquarian and archaeological medieval finds were few in number owing to pewter's poor survival rate in the soil unless in anaerobic conditions such as wells, garderobe pits and river mud. Building developments for Victorian basements and major roads, especially in the City of London during the 19th and 20th century, led to the discovery of a number of metalwork finds including pewter which were published along

with finds of other materials in the *Catalogue of the Collection of London Antiquities in the Guildhall Museum* in 1908. Porringers and measures of 16th and 17th century date form small groups of pewter vessels, along with larger numbers of spoons and pilgrim badges, but there is no discussion of these categories, the material being simply listed.

The British Museum and Victoria and Albert Museum were also adding to their collection of medieval pewter finds about this time, on a more selective and aesthetic basis than the Guildhall Museum's inclusive collecting strategy.

The London Museum, established in 1912, collected from the whole of the London area, but its well known *London Museum Medieval Catalogue* (1940) by J.B. Ward-Perkins, contained no pewter. This poor medieval situation was remedied in part by the gift of a spoon collection from F.G. Hilton Price, whose 1908 monograph, *Old Base Metal Spoons* (London: Batsford) with details of their makers, marks and knops and some analyses of alloys used, has remained the standard work on spoons until the present day. New finds of spoons were published by R.F. Homer (1975) in his *Five Centuries of Base Metal Spoons* (Wokingham: Homer) with analyses of the pewter spoons by XRF, by Winterthur Museum, Delaware, USA.

In 1902 an historical and documentary work of enduring value was published by Charles Welch. This was his compilation of the records of the Pewterers' Company entitled *History of the Worshipful Company of Pewterers of the City of London*, based mainly on their Audit Accounts for 1451-1896, and Court Minutes from 1551-1760. This is a lavish production, with folding end plates and facsimile charters. The detailed indexes provide access to a wealth of Company business. Welch's chronological selection of material from the original records is very thorough, but it is worth consulting the originals on specific topics, because interesting details are sometimes left out. Neither is there much discussion of the material selected.

H.J.L.J. Massé, a pioneer pewter collector and writer, mounted an exhibition of British and Continental pewter at Clifford's Inn, Fleet Street in 1904 and published his *Pewter Plate: a historical and descriptive handbook* in the same year. This volume includes photographs of several of the items in the exhibition. Massé followed this up with his *Chats on Old Pewter* in 1911, which is interesting for its inclusion of pewter in household inventories, and important for the identification of Pewterers from the descriptions of their touchmarks. Massé's *The Pewter Collector* appeared in 1921 with drawings of Pewterers' touchmarks from the Company's touch plate . generously provided by H.H. Cotterell, another authority, which was an invaluable tool for the

identification of makers. Massé commented that there was little pewter worth collecting at that date, and that the main interest in the field was archaeological and historical. To the latter he made considerable input, but the archaeological was little elaborated at the time.

H.H. Cotterell, a contemporary collector to Massé and with similar interests, had already published studies of regional pewterers by 1922, the year he produced *Pewter down the Ages*. Cotterell was vice-president of the newly formed (1918) Society of Pewter Collectors. In 1929 his *Old Pewter, its Markers and Marks* appeared and has remained the standard reference work for the identification of Pewterers by their touchmarks, the drawings of which he listed alphabetically. The photographs of pewter objects are of good standard and the coverage wide ranging and interesting, although including little of pre-1600 date.

Christopher Peal added to the corpus of marks with his *More Pewter Marks* (Norwich: Peal) in 1978, which has inspired present day collectors to devise an electronic database with this information, now available to researchers worldwide.

In 1949 Massé's *Chats* and *The Pewter Collector* were revised by Ronald F. Michaelis, Hon. Librarian of the Society of Pewter Collectors, and whose *Antique Pewter of the British Isles* (London: Bell) appeared in 1955. All these books were aimed at the collector, but Michaelis included archaeological discoveries such as the Guy's Hospital and Hampton Court plates of 16th century date. Some discoveries escaped the collector's notice at this time and were published by museum curators and antiquarians. These included the Romanesque pewter crucifix from Ludgvan Church, Cornwall published by Sir Eric Maclagan in 1940, the ecclesiastical cruet from White Castle, Llantilio Cressenny, Gwent found about 1927 and published by Lewis (1965, 127-39). Another cruet elaborately cast, and a collection of domestic saucers, were excavated at Weoley Castle near Birmingham between 1955-60 and were published by the excavator, Adrian Oswald in 1962, an important, although unstratified group.

Michaelis was the leading expert of the day and his knowledge proved useful to the Pewterers' Company who were building up their own collection, based on the recent bequest by R.G.B. Marsh in 1960. Michaelis edited the catalogue to this collection in 1968, the pieces grouped by type or usage, and which included the Elizabethan Woodeaton Flagon formerly belonging to the Church of the Holy Rood, Woodeaton, Oxfordshire, amongst a splendid range of collector's pieces.

To their *1979 Supplementary Catalogue of the Collection*, have been added, not only a Guy's Hospital (Southwark) featherplate believed to be Prince Arthur's badge (as eldest son of Henry VII and heir apparent) but one of the recently discovered and similarly marked from Hampton Court, a late 14th century saucer from Tong Caste, Shropshire found in 1977 and two 16th century porringers found at Finsbury Circus, a former marsh, north of London Wall.

Michaelis organised an exhibition in 1969 to mark the Golden Jubilee of the Pewter Society . formerly the Society of Pewter Collectors . which had been inaugurated in December 1918. This exhibition was held at Reading Museum, and consisted of a chronological display from Roman to 20th century, of collectors' pewter but with a number of important random finds of archaeological pewter in its earlier sections. The accompanying catalogue provided a useful summary of what was available at that time.

When a pewter saucer was recovered during excavations in Southampton between 1953 and 1969, Michaelis wrote the finds report for the publication by Platt and Coleman-Smith (1975). Dated to c. 1290 in association with other finds, this is the earliest complete piece of secular pewter flatware extant and generates considerable interest, with its distinctive rim form of edge fillet above the rim, and, in comparison with which, other flatwares have been dated . for example an unstratified saucer at Weoley Castle, Birmingham (Brownsword, Pitt and Symons 1983-4). However, Michaelis' description of the latter 'P' on the rim as punched has been misleading, with its suggestion of guild regulation, a mistake reiterated by Brownsword (1985, 152-5), Brownsword and Homer (1988, 83-7) and Campbell (1987, 280).

The 'P' is engraved in both cases and probably indicates ownership at some time.

Only little pewter was retrieved in Southampton, a similar situation to that in Norwich, Winchester and Chester among other urban centres where urban archaeology has been conducted. This lack of pewter finds must arise from poor preservation in the soil, and routine re-cycling by owners of old pewter, for new.

Christopher Peal's publications were contemporary with those of Michaelis. His survey of rim forms on Romano-British plates and dishes was published in the *Proceedings of the Cambridge Antiquarian Society* (1967, 23). Unfortunately the sample was small and the results inconclusive as noted by Hatcher and Barker (1974, 14). Peal's brisk chronological survey in his *British Pewter and Britannia Metal: for pleasure*

and investment (London: John Gifford, 1971) was revised in 1983 as *Pewter of Great Britain: for pleasure and investment*, to which several leading authorities contributed. Little was known of pewter before 1700, as the coverage of Romano-British to 18th century pewter in one chapter of eleven pages indicates! There are interesting chapters on provincial pewter, Scottish, Irish and Channel Isles pewter, and British pewter found in the USA (nearly always of 18th century date).

The seminal work *A History of British Pewter* by John Hatcher and T.C. Barker published in 1974 for the Pewterers Company is not only a history of the pewter industry and Company, but also a social and economic study of the consumption of pewter in England in a variety of roles. Their study of the use of pewter in English households is based on analyses of the contents of probate inventories, and provides the first social history of this important product and its main rivals in other materials. The authors provide some discussion of excavated Romano-British pewter, and the alloys used, and include an assessment of Chris Peal's work, as noted above. They also refer to the two decorative cruets from Ludlow and Weoley Castles (also discussed by Michaelis in his *British Pewter*, 1969, 12-13), but their work was published prior to the rise of urban archaeological units, rescue archaeology and metal detectorists. The present writer here takes a more detailed look at the use of tablewares for dining. The publication of a small number of pewter tablewares from urban sites during the 1970s began to provide evidence for medieval pewter outside London. Three saucers . two with raised hammer marks on the rim, and one fragment with edge fillet above the rim, were excavated from a drain on the Austin Friars site, Leicester, and published by J.E. Mellor and T. Pearce in 1981. A deep saucer from a c. 1340 context and with edge fillet, was excavated in Exeter and published by J. Allan in his *Medieval and Post-Medieval Finds from Exeter*, 1971-1980. An important paper by Dr. Roger Brownsword in 1984 gave the results of analyses of a wide range of medieval and post-medieval dishes including those from Austin Friars, Leicester, and showed how variable medieval alloys could be in composition, but that by the 16th century the composition was much more consistent with the Company's requirements for fine metal. The implications of this article are further discussed here in Chapter 4 on Scientific Analysis. Other analyses by Brownsword and Pitt appeared in 1985 and 1990, the latter being the important investigation of the pewter aboard the *Mary Rose* which established securely the composition of fine metal as used in the flatwares on the ship, that is an essentially lead-free copper hardened pewter which would certainly have satisfied the quality

criteria of the Pewterersq Company. The few exceptions to the standard are five saucers containing between 1.24% and 5.12% of lead, and marked with the crowned hammer mark. These are further discussed in Chapter 4 of this thesis. Brownsword's work has provided an important benchmark for the identification of English alloys . at least for flatwares.

The importance of medieval pewter is reflected in its inclusion in the major exhibition *Age of Chivalry. Art in Plantagenet England, 1200-1400* (1987) organised by J. Alexander and P. Binski, which drew on both museum and private collections to comment on its secular and ecclesiastical use. It included the 14th century White Castle and Ashby-de-la Zouch cruets, the Southampton saucer of c. 1290, a platter of c. 1400, and a spoon of c. 1300, amongst the earliest extant, all somewhat overshadowed by a mass of other materials.

The following year, 1988, saw celebratory exhibitions for the failure of the Spanish Armada in 1588. The pewter tablewares retrieved from the Spanish shipwrecks were the largest assemblage of pewter in UK waters, before the raising of the *Mary Rose* with its seventy-five pewter items. The material . thirty-two items, was made accessible through L. Flanagan's well illustrated 1988 publication *Ireland's Armada Legacy*, and displayed as aspects of shipboard life in the Armada exhibition at the National Maritime Museum. Only certain pieces of this assemblage are regarded as of English provenance, which includes the plate and dish both with the rose and crown device (nos. 9.8 and 9.15, pp.124, 125) as used for export pewter with the Monarch's initials ER (figs 89 and 90 in this thesis).

Even larger assemblages but of late 17th century flatwares, were recovered from the waters off Port Royal, Jamaica which had been hit by an earthquake in 1692, and from the wreck of a trader, *Henrietta Marie*, sunk off Florida Keys about 1700 and carrying some pieces of well marked and unusual English trade pewter. The Port Royal collection was published in the *Journal of the Pewter Society* Vol. 6, No. 2 Autumn by S. Gotelipe-Miller in 1987, with Dr. Ron Homer researching the identification of the English pewterers, and David Moore reporting on the pewter assemblage from the *Henrietta Marie* (1967).

By the 1980s, there was a growing quantity of information on archaeological pewter. The present writer, who as a curator at the Museum of London in the late 1970s, regularly identified material brought in by metal detectorists and discussed finds with museum archaeologists, organised the museum's first publication on pewter with

assistance from Pewter Society members, Dr. Ron Homer and Stanley Shemmell in 1983. This, titled *Pewter A Handbook of selected Tudor and Stuart pieces*, London: The Pewter Society, illustrated forty-eight of the most interesting random finds in the Museum's collection, including recent acquisitions of a 14th-15th century socket candlestick, 16th century porringers and measures.

Collectors were acquiring pieces through dealers, some suspected of passing off Dutch for English pewter, such was the interest in these early wares. As a rule of thumb, in the absence of a maker's mark, only the additional weight (through addition of lead) of pieces was a clue to its nationality. The crowned hammer mark, known to be used in Dutch pewter appeared on pieces purported to be of English origin. This author had a number of such pieces analysed to try to resolve this question.

In 1989 the Museum of London mounted the exhibition *Pewter: A Celebration of the Craft 1200-1700*, based on the collection of a private collector who had purchased several of the known early items displayed at Reading in 1969 and was acquiring finds from a dealer. Several recent Museum pewter acquisitions from the Thames foreshore were added to this core collection and others from further a field. The present writer was lead curator. Together with introductory essays, the catalogue by Hornsby, Weinstein and Homer 1989 included a range of supportive visual material showing pewter in use. Very little English visual evidence is available prior to 1700 and it is sometimes necessary to use a Low Countries equivalent where the coverage of daily scenes is frequently extensive.

The only book on pewter to occur since 1990 is A. North's *Pewter at the Victoria and Albert Museum*, London: V&A Publications 1999. This is a decorative art catalogue on more traditional lines and with a high proportion of continental items. There are a number of medieval finds which have been presented to the Museum in the early 20th century, like the cruet from Ashby-de-la Zouch (fig 56) and which are of considerable interest. They are discussed in Chapter 5 of this thesis. Unfortunately, interesting details in the introductory essays are not referenced so cannot be followed up; others are incorrect.

The 1990s saw the publication of important finds from the 1970s and early 1980s: a spoon from a sealed deposit of the 11th-12th century in Beverley, York, engraved on the back with three fishes was published in 1992 by B. Spencer in *Excavations at 33-35 Eastgate, Beverley* 1983-86, (eds.) D.H. Evans and D.G. Tomlinson (Sheffield Excavation Reports) University of Sheffield. This is the earliest

complete pewter item extant, but whether secular or ecclesiastical is uncertain. Other, unstratified small spoons have also been recovered in Beverley, as discussed in Chapter 5 of this thesis.

Fragmentary remains discovered during excavations in the City of London between 1972 and 1983 support this early use of pewter: the engraved foot rim of a cup (c. 1160) saucer fragments, lids and base fragments from river bank dumps along the Thames were published by G. Egan in *The Medieval Household c. 1150-c. 1450* (London, 1998, 180-195). The pewter is significant because of its early date and high tin content, indicating a probable English origin. This publication covers a wide range of types of finds, as its name suggests, frequently making the most of sometimes very unpromising fragmentary material. The relevant pewter items are discussed further in Chapter 5 of this thesis.

The tin, lead and pewter industries of the medieval period were usefully reviewed by R.F. Homer in *English Medieval Industries* eds. J. Blair and N. Ramsay (1991). Each chapter is said to be based on a new assessment of original sources and archaeological finds. The acquisition of the materials used, their working and sale as a finished product are discussed. Homer quotes the then earliest reference to pewter, that of 1006 by Aelfric for archbishop Wulfstan, and the earliest London pewterer as 1305. The present writer is now able to push back these dates to 897 and 1216 respectively as discussed in Chapter 2. In fact Exeter is documented as being famous for its pewter from the 13th rather than 14th century (Rothwell, 1975, 8) and our earliest known find . the Beverley spoon . to the 11th-12th century rather than the late 13th century (the Southampton saucer). A salt (Homer, 1991 fig 39) is mistakenly called a chrismatory. Although the space allocated for Homer's survey is limited, the information is very detailed.

The long awaited and highly important material from Martin Biddle's 1959 excavations at Nonsuch Palace, Cheam, Surrey was finally published in 2005 as *Nonsuch Palace: The Material Culture of a Noble Restoration Household* (Oxford: Oxbow Books, 2005). This author contributed to the report on the excavated pewter finds. Whilst the building materials excavated were of the Henrican palace of the 1530s, the contents consisted of the remains of goods used during the last years of George, Lord Berkeley's occupation as Keeper in the 1680s, the valuable goods being removed elsewhere by 1688 when final demolition began. The pewter, however, comprised a group dating to the late 16th century, some items bearing the arms of Lumley, Keeper of Nonsuch until his death in 1609. This group is important for its unusual forms (the first

flat plate (fig 85) and four unusual round-bottomed dishes (fig 17)). These are further discussed here in Chapter 5. The pewter assemblage was thrown away in a well in the kitchen area of the Palace, and was probably regarded as kitchen stuff rather than used by the nobility themselves at this date (c. 1600), silver being in more general usage by then for the élite. The publication contains a wealth of information about tablewares of various types and dates and is produced to a very high standard.

By contrast, the pewter aboard the *Mary Rose* was, like all the other artefacts, in daily use by officers and crew in 1545, not the clear out of obsolete wares. It is discussed by the present author in *Before the Mast: Life and Death Aboard the Mary Rose*, (ed.) J. Gardiner, Portsmouth: The Mary Rose Trust, 2005. This volume is devoted to objects illustrating the lives of the people on board and to the study of the human remains found in the wreck. It includes every type of artefact associated with the lives of the people, especially cooking and serving and storage vessels, eating and drinking implements in wood, copper alloys, leather and pewter in a study prepared by the present writer. It is this aspect of everyday usage, especially within its domestic context, which is the focus of the present work.

1.2 Methodology Section

Three different categories of data were required for this study:

- a) to build up a corpus of information on archaeologically retrieved pewter . either from controlled excavations or as random finds for researching form and usage;
- b) to identify a sample of pewter artefacts suitable for metallurgical analysis, in an attempt to identify the alloy referred to in documentary sources from at least 1566-7 (Welch I, 256);
- c) to research a range of documentary sources to 1700, in order to investigate the membership of the Company in terms of occupational structure and wealth during the latter half of the 17th century.

The scientific analyses b) and documentary evidence c) are referred to separately below.

1.2.1 Data Gathering

Artefact Data

For building up the corpus of archaeological pewter, as under a) above the author contacted eighty museums and archaeological units and SMRs (Sites and Monuments Record) throughout England, using the *Museums Yearbook* and *Institute of Field Archaeologists Yearbook and Directory* for contact details. Museums with archaeological and local history collections were selected where finds from the various localities would have been retrieved and documented. Some museums had excavation units attached, others had connections with separate archaeological units under local authority control. The author contacted the relevant curators and archaeologists to request information on pewter finds from controlled excavations or random finds of pre-1700 date. Particular interest was expressed in i) closely dated objects ii) any marks iii) important sites and, iv) completeness.

A request for information was also posted on the Council for British Archaeology's online newsletter. The Portable Antiquities Scheme (PAS) was interrogated on a regular basis. The PAS is a voluntary scheme for the recording of archaeological objects, and was set up in 1997 as a pilot scheme by the government, but by 2003 with a Finds Liaison Officer in all English and Welsh counties. English Heritage was contacted at their Northern Territory store at Helmsley, North Yorkshire where there are extensive finds and comprehensive records of pewter under their curation. The sites of particular relevance to the present study were monastic Fountains and Rievaulx Abbeys. This was a most useful source of information. The National Trust was also approached, but their regional structure made it difficult to identify the relevant people responsible and no information was obtained from this institution.

All maritime heritage centres and museums were contacted, and divers and diving teams, where known. Maritime museums are sometimes privately run or with differing funding arrangements and not under local authority control as the archaeological and local history museums cited above. The most relevant and important centre for this study is The Mary Rose Trust at the Royal Naval Dockyard, Portsmouth, set up to care for the extensive range of finds from the ship, and the remains of Henry VIII's warship of that name itself raised from the Solent in 1982. This time capsule (she sank in 1545) has some seventy-five pewter items of tableware and a whole range of wooden dishes which seldom survive except in anaerobic conditions such as these, and

which have been researched and published by this author (Weinstein in Gardiner, 2005, 422-460) and which are further discussed in this thesis. Other maritime museums visited were:

The National Maritime Museum, Greenwich; Ulster Museum, Belfast (Armada finds) and the marine archaeologist Dr. Colin Martin, formerly Dept. of Maritime Archaeology University of St Andrews and excavator of *La Trinidad Valencera* Armada Wreck; Shipwreck Heritage Centre, Hastings; Wessex Archaeology Maritime Section, Old Sarum Park, Salisbury; Ramsgate Maritime Museum; Poole Waterfront Museum; Charlestown Shipwreck and Heritage Centre; St Austell; Isles of Scilly Museum; Isle of Wight Archaeology Service; Falmouth Maritime Museum; Barmouth Museum, Gwyendd; Salcombe Maritime Museum; Chatham Historic Dockyard.

The specialist pewter museums and private collections with important artefacts dating prior to 1700 were:

The Pewterers Company Collection, Pewterers Hall, Oat Lane, City of London consisting of British pewter with an emphasis on London made pieces. It includes important medieval and 16th century finds and representative pieces of later periods. There are five touchplates on which the touchmarks of individual pewterers were recorded from 1667, earlier plates having been lost in the Great Fire of London. These are of the greatest historical importance. The earlier writers Massé and Cotterell published aspects of these marks as is referred to above under *Literature Review*. The Company also exhibits some rarely surviving early 18th century tools of the craft.

The Neish Collection, formerly at the Shakespeare Birthplace Trust, Stratford-upon-Avon was established by the retired lawyer Alex Neish of Edinburgh and Barcelona - this is the largest private collection in Britain today. Artefacts range in date from Roman to 18th century, and are rich in medieval, 16th and 17th century material, including the earliest known baluster measure c. 1500, extensive ranges of flatwares and many unusual and interesting pieces. It is, unfortunately, currently in storage. A good documentation system with photographs has been established and which the present author was able to use extensively.

Four other collections owned by members of the Pewterer Society were also investigated: those of David Little, Dr. Sandy Law, Stanley Shemmell and Dr. Ron Homer. All four have subsequently been catalogued and sold at auction.

The numbers of the respective types of collection contacted and their responses are shown below:

	Social History and Archaeology Museums	Archaeology Units	SMR's/Maritime		Specialist Pewter Collections
Numbers	40	19	6	13	6
Positive	25	6	2	13	6
Negative	15	13	4	-	-

Some two hundred objects were found relevant to the study, over half coming from marine sites, such as the *Mary Rose*, *Stirling Castle*, *Henrietta Marie* and Port Royal, Jamaica and of post-medieval date.

The other half were retrieved from élite ecclesiastical and secular sites, both as random finds (r) and from controlled excavations (e) and date to the medieval and post-medieval periods. The sites were:

Tong Castle (e); White Castle (r); Weoley Castle (e); Ashby-de-la-Zouch (r); Middleham Castle (r); Chertsey Abbey (r); Fountains and Rievaulx Abbeys (r); Guildford Priory (r); Baconsthorpe House, Norfolk (e); Nonsuch Palace, Cheam (e); Kennington Palace (r); Hampton Court Palace (r); Guy's Hospital (r); Austin Friary, Leicester (e); St Mary's Priory, Coventry (r); Bury St Edmunds (r); Ludlow Castle (r); Beeston Castle, Cheshire (e); St Brides Castle, Pems. (r). Urban sites: London Waterfront Dumps and City (r&e); Exeter (r); Southampton (merchant's house) (e); Cambridge (r); Oxford (All Souls College) (r); Salisbury (r); Stoke-on-Trent (e); Poole (e): medieval and post-medieval finds.

Visits were subsequently arranged to the following institutions holding the above finds in addition to the maritime museums mentioned above:

Saffron Walden Museum; Chester City Museum; National Museum of Ireland, Dublin; Bristol Museum; Cuming Museum; Museum of London; Victoria and Albert Museum; Norwich Castle Museum; Guildford Museum; Duchy of Cornwall Archives; Hampton Court Palace; West Highland Museum, Fort William; Ashmolean Museum; City of Oxford Museum; Birmingham City Museum; The Collection, Lincoln; National Museum of Wales and St Fagans Folk Museum, Cardiff; National Museum of Scotland; Edinburgh; Passmore Edwards Museum (London Borough of Newham); Southampton City Museum; Colchester Castle Museum; Stirling Institute; Gloucester City Museum; Somerset County Museum, Taunton; Neish Collection, Stratford-upon-Avon; Salisbury

and South Wiltshire Museum; Colchester Castle Museum; Pewterersq Company, English Heritage; Helmsley Store; Tobermory Museum, Mull; Herbert Museum and Art Gallery, Coventry; Winchester City Museum; Museum of Archaeology and Anthropology, Cambridge; Canterbury City Museums; Beverley Art Gallery and Museum; Hull City Museums & Art Gallery.

The following archaeological units were also visited:

Museum of London Archaeology (MOLA); Norfolk Field Archaeology Division.

Information was received from:

York Archaeological Trust; Northern Archaeological Associates; Pre-Construct Archaeology Ltd; Northamptonshire Archaeology; Oxford Archaeology; Thames Valley Archaeological Services; Sussex Archaeological Society; Worcestershire Archaeological Service; Colchester Archaeological Trust Ltd; Dyfed Archaeological Trust; Field Archaeology Unit, Essex County Council and The Humber Archaeology Partnership, Hull.

The following museums:

Liverpool Museum; Reading Museum; Truro Museum; Penzance Museum; Plymouth City Museum; Scunthorpe Museum; Maidstone Museum; Barbican Museum, Lewes, Sussex; Aylesbury Museum; Ipswich Museum, Buxton Museum, Matlock Museum of Mining; Newcastle-upon-Tyne; Peterborough Museum; Bury St Edmunds Museum; Leicester City Museums; Oxfordshire County Museum Service and Hampshire County Museum Service.

The following SMRs provided information:

Lincolnshire; Cambridgeshire; Devon; Oxfordshire; Somerset and Cornwall.

Artefacts were examined for evidence of marks, manufacture, usage; dimensions were recorded (metrical and imperial), including capacities for holloware items. For pewter, weights were important - pewter was sold by weight; these were recorded and compared with the Company's standard weights and measures.

Individual photographs were obtained, and details when available, from the Institutions concerned, otherwise the author took her own. Information on the relevant sites, contexts for dating, and assemblage details were obtained. For the major groups of material, such as the Neish Collection and PewterersqCompany documentation was available, together with good quality photographs; similarly at English Heritage, Helmsley Store excellent documentation was provided for the relevant monastic sites. At The Mary Rose Trust line drawings of every object retrieved were also on file.

In general the level of record keeping was good at all institutions contacted and information readily available.

1.2.2 Historical Data

All documents were read in the original apart from the published calendars as stated. This accounted for two years work.

Visits were made to the Guildhall Library, London Metropolitan Archive, British Library, National Archive and Duchy of Cornwall to obtain further information on (1) aspects of pewter production and consumption (2) aspects of membership of the Pewterers Company.

Specific queries, relating to Production were:

- (1) the use of the garnish and introduction of the plate; the introduction of the Spanish trencher and its characteristics; manufacturing regulations; the use of the rose and crown device on tin and pewter; the introduction of pseudo-hallmarks on flatwares; and
- (2) aspects of Company membership, especially the differing occupations of potter overseas traders; the related wealth groupings, from tax data, of members of the Company in 1693.

Regarding aspects of *Production*, the Company records at the Guildhall Library were consulted and all manuscripts read in the original: the Audit Accounts 1451-1896 (MS 7086/1-10) are simple entries of receipts, fines, quarterage (membership), regulations concerning standard alloys for various types of pewter vessel, costs of building the new Hall (1495), and similar entries.

The search revealed a number of references to trenchers, new style trenchers, trencher plates, Spanish trenchers, new styles introduced (broad rims) in addition to the references found in Welch (1902).

The Court Minutes of the Court of Assistants (MS 7090 Continuous Series) begin in 1551 and are a fuller account of the Company's proceedings on a wider range of topics, including attendance on the Sovereign to advance a suit, craft regulations, sizing of wares, striking of touches. The additional information comprised details of individual members and their relationship with the Company.

Significant new insights were provided by the Company's Record Books of Complaints and Defaults (MS 7104/1-10) which recorded inadequate wares and names of pewterers responsible. Volume 1 (1684-1691) provided the information that shall

flatwares were deemed unnecessary to be beaten in the booge (pitch) the curved area between the rim and the base for example:

f133r ~~Mr~~ Cleeves produced 3 trencher plates of shallow booges to this Court to see whether they may be sold without beating in the booge.q

Spanish trenchers are recorded as ~~not~~ beaten in the boogeq and are very shallow flatwares (fig 10) hence the excuse for exporting them in this state (beating or hammering of pewter strengthens it and was considered essential on all wares, more so when they were deeply curved and stressed, as in a bowl or basin.)

Rose and Crown Device – Search for Evidence

This is a device depicting the Tudor Rose surmounted by a crown which appears on tin bars and some pewter flatwares to indicate standard English tin and pewter. At the London Metropolitan Archives (LMA) the subject indexes of the Repertories of the Court of Alderman from 1495 and Journals of the Court of Common Council (1416-1811) MS COL/CC/01/02 were checked for trade regulations concerning the Company, also the original enrolments of ordinances in the City Letter Book: F, fol. clv. No additional information was retrieved on this point.

The Company's Ordinance Books of 1564 (and supplement of 1572) MS 7115 and of 1702 (MS 7116), which include these early ordinances, as enrolled in the City records from the 14th century, was consulted to determine whether the Company had ever been granted the use of this device; also the Charter and Ordinance Book (MS 7119). No additional information was obtained.

The published *Analytical Index to the Remembrancia 1579-1644* (London: Corporation of London 1878) was also checked. The *Remembrancia* consists of nine volumes of royal correspondence, Privy Council, Lord Mayors, Court of Aldermen and Common Council's correspondence relating to the City of London. Correspondence with the Privy Council includes references to five petitions and orders in 1629 regarding abuses to pewter and gold. smithsqwork, particularly the lack of an adequate marking system, and ~~underhand dealing~~q in pewter. This may link with the use of ~~pseudo~~ hallmarksq in the 1630s, as discussed in Chapter 6. Unfortunately the relevant Registers of the Privy Council for this date have not survived.

The *Remembrancia* also included a petition of 11th December 1619 from one Captain Henry Bell to the Lord Mayor requesting Letters Patent for assaying lead. Bell alleged corruption with other inclusions. He requested power (p.220):

to survey all lead made within the realm and to stamp the same to distinguish the good from the bad.

The wording is similar to the Letters Patent granted to Sir William Russell in 1631, to distinguish counterfeit from pure soap, using the stamp of the rose and crown device to do so.

Visits were made to the National Archives to check the printed calendars of the State Papers Domestic and Patent Rolls for references to grants or warrants to the Pewterers Company or members in its name. The State Papers contained the 1577 Petition of Pewterer, Nicholas Jordan for Letters Patent to produce pewter measuring pots to a common standard, and to mark them with the rose and crown device, so underlining its use for standard wares and monopolies (CSPD 1547-80, 556). This Petition was read in the original.

At the British Library Manuscript Department the calendars of the main manuscript collections, Harley, Lansdowne, Additional, Titus and Royal were checked for sources of pewter and tin. These collections are very wide ranging in content, from state papers to miscellaneous personal papers; relevant ones were read in the original. The computerised databases of the Library were also consulted for references to pewter and tin. MSS Lansdowne and Titus B provided information regarding the use of the rose and crown device on tin-bars to show their English origin, and was requested to be used by the Pewterers Company for this purpose, as discussed in Chapter 6. Whether the royal badge had the same meaning when applied to pewter remains unclear, but its use as an export mark (with the Monarch's initials) serves the same purpose and has been accepted as such since the 16th century.

Other Sources Consulted

Entertainment Books of Pewterers' Company GLMS 22, 191, 1637-51.

This volume provides lists of food purchased for formal meals eaten by the Company and its members during the period 1637-51. Menus show the order in which food was served, so providing a valuable insight into the eating habits of the time. It also records the prices of the large quantities required, together with the wine and beer. Unfortunately it tells us very little of the pewter used for the feasts, but there are occasional references to trenchers, glasses and earthenware cooking pots (pipkins) for sauces. The Company sometimes ate at their property the Mitre Tavern in Fenchurch Street, though usually at their Hall in Lime Street.

This volume was displayed at the Museum of London exhibition *Pewter: A Celebration of the Craft 1200-1700* in 1989, but has not been published. Its use in the present thesis is to underline the provision of boiled, roast and baked meats served in dishes and platters in that sequence, the separate feast of the banquet, and the variety of foods themselves, from venison to cucumber.

Household inventories consulted for their pewter contents were:

(a) The National Archives (NA)

Exchequer King's Remembrancia Sir Adrian Fortescue E101/519/17
Reference of c. 1540 to plates of the new shallow type in his Blackfriars, London home: one of the earliest references to pewter plates as such.

(b) Guildhall Library (GL)

Pewterers' Company Book of Inventories and Records 1490-1756. MS7110

(c) Essex Record Office Petre Family Inventories DDP F205 (ERO)

Extensive pewter possessions of the Petre family of Ingatestone Hall, Essex during the 16th and early 17th century, together with other goods

Company Structure

Research focused on the different types of potter within the company, and attempts to clarify their work. Identification of the non-pewterers was assisted by Carl Ricketts' *Pewterers of London 1600-1900*, Welshpool: Pewter Society, 2001, with its alphabetical listing of all pewterers and their particulars, as to whether they were practising pewterers or not. The present author checked a sample of fifty names so identified for extant Wills, in order to obtain further information on their actual occupations, for example, by seeing whether they had stock in their shops, tools or other goods which would identify their work.

The following Courts and administrative districts covered the City of London and surrounding areas of Middlesex and were checked for individual names, and collective occupational groupings, like coppersmith, founder, pewterer, potter, brazier, glass-seller. The jurisdiction of these Courts was as follows:

Court of Husting, 1258-1688: City of London and Liberties.

Archdeaconry Court of London, 1393-1807: City of London (part) St Andrew, Holborn with St George the Martyr, St James and St John Clerkenwell, St Leonard, Shoreditch.

Commissary Court of London, 1374-1857: City of London (part) and surrounding parishes. Microfilm copies of indexes 1374-1858 available, also published indexes by Marc Fitch for the Historical Manuscript Commission (1969) and British Record Society Index Library, 1985, 1992, 1996 and 1998.

Consistory Court of the Bishop of London 1362-1858. Jurisdiction over the whole diocese of London except the peculiars: that is the City of London and Middlesex, Essex and part of Hertfordshire (until 1846).

Peculiar Court of the Dean and Chapter of St Paul's Cathedral, 1535-1837. Jurisdiction: City of London (part) and Middlesex parishes. Indexes on microfilm of wills from 1535. An index to probate inventories available at LMA. A useful source for probate inventories.

Prerogative Court of Canterbury, 1383-1858 PROB 11. Jurisdiction: England and Wales. Usually relevant to deceased with property in more than one district. Available at The National Archives, Kew. The separate listing of Inventories PROB4 was also searched.

Court of Orphans created to supervise the division of deceased citizens' estates between their children. Post-mortem inventories drawn up by the Court and often very detailed . with lists of stock in shops. This Court was active between the 16th and early 18th centuries. This is a particularly rich source of information.

Whilst the Wills consulted of the pewterers provided no further information on the real occupation of the deceased, the inventories of four workers in the copper alloys and one in the ceramics and glass trade shed light on their actual employment: two described themselves as founders, one a coppersmith, and the fourth was selling new bells and a range of small cast copper alloy wares; a fifth's stock comprised solely ceramics and glass . some of the latter made by the Master George Ravenscroft himself. One of these probate inventories was in the Peculiar Court of the Dean and Chapter of St Pauls, the other three in the Court of Orphans.

Pewterers and Glass-Sellers

New light was shed on the occupation of potters by the admission of one Nathaniel Adams that he had joined a new company called Glass-Sellers. The Glass-Sellers records (MSS 5536-5560A) were subsequently read at Guildhall Library to ascertain when members of the Pewterers' Company joined it and in what capacity they served. Some fifteen members of the Pewterers' Company appear to have been active

members of the Glass-Sellers Company (incorporated in 1664) during the first two decades of its existence, but, with an average of five apprentices each, the number of men engaged in the trade is about seventy-five individuals during the late 17th century. Some were active in the early 17th century and obtained a Charter from Charles I in 1635 but which the City refused to sanction in part due to pressure from the Glaziers and Spectacle Makers Companies who sold glass windows and spectacle lenses. Pewterers names appear on Agreements with John Dwight, the Master stoneware producer of in 1676 and 1677, where the Glass-Sellers obtained a monopoly of sale of Dwight's stoneware. These are part of the Glass-Sellers archive proper, whereas a list of Glass-Sellers shops in 1689 was located by the present author in a miscellaneous collection of documents at the London Metropolitan Archive called 'Choice Scraps' MS 0366/3. Several Pewterers (as glass-sellers) are included in it . as discussed below in Chapter 6. Some indication of their individual financial standing is also referred to below.

Merchant Pewterers, Overseas Trade and Related Wealth

Names of London Pewterers were linked to artefacts recovered both from Port Royal, Jamaica and the wreck of the *Henrietta Marie* at Florida Keys. The records of the Royal Africa Company (RAC) established in 1674, trading to West Africa, were investigated to see what was the involvement of London Pewterers in this trade (NA MS T70), as recorded in the Company's Ledgers and Account Books. The RAC was a joint-stock company, trading with capital invested by its equity holders. This proved a rich source of information about wares made specially for this market, particularly the Guinea basin, tankards and the hitherto unidentified screw-top jugs (fig 96). John Shorey was a major pewterer of these jugs as both the RAC records and an inventory of his own stock reveal. Due to a quarrel with his son, their business partnership was terminated. Details of this are recorded in Chancery Master's Exhibits C104/105. These London family and business papers (C103-C114) are held at the National Archives. Masters in Chancery were appointed as trustees by creditors, and to whom the debtor would surrender his effects to be sold. They can provide a rich vein of information.

Wealth data LMA MS COL/CHD/LA/07/001

Taxation records for the City of London have been researched to provide information regarding the wealth of named pewterers. Two assessments for tax are of particular importance:

(a) the poll tax of 1692. This lists the names of all householders in the City wards, their occupations and their assessment for the poll tax (basic rate or surcharge)

(b) an aid of four shillings in the pound for one year for carrying on a vigorous War against Franceq[William & Mary c.1. 1692-3]. Heads of households for all the wards of the City of London were assessed in 1692-3 in respect of their property . real estate and personal property (mean rent and stocks on which they paid tax in the 4s aid).

The poll tax and 4s aid are important assessments as they give a relatively comprehensive coverage of City wards, and overlap in terms of date. James Alexander used these two sources of taxation to divide the various occupational groups in the City of London into wealth bands in his thesis *The Social and Economic Structure of the City of London* c. 1700 LSE 1989. The present writer extracted the data concerning Pewterers from his study, and also that of Glass-Sellers and Potters (the latter misinterpreted in part by him as pottery manufacturers, as well as retailers). Thus the relative wealth of the Pewterersq Company (and its individual members) can be compared with other City companies at this date. Dealersqof various types are shown to outstrip manufacturers in terms of wealth. Alexander classes the Pewterers as dealers (distributors of household goods) and their mean taxed stocks is shown to be above that of the manufacturing group as a whole. The export pewterers were the wealthiest of their group, as might be expected; but neither were they totally divorced from manufacturing since in some instances, their wares have survived and been identified from their touchmarks.

It is interesting to note with the Pottersqincluded in the assessments that there were twenty-one of those but another four specified as Glass-Sellers. The probable reasons for these divisions are discussed in Chapter 6.

1.2.3 Scientific Data

The composition of pewter is very variable, but during the period under consideration there were two main alloys - a harder one of tin and copper (fineqor plate metal) and the other of tin with lead called layqmetal, a softer, cheaper alloy for less valuable objects and those not subject to use with knives, as are dishes and plates.

The proportions of tin and lead are set out in the Crafts Ordinance of 1348 which state (Welch I, 1902, 3) the proportions of the alloy for lay metal were to be one

hundred-weight of tin to twenty-two lbs of lead. The proportions of fine metal, however, being a trade secret were not precisely stated, simply that the copper to tin proportions should be as much as the metal mixture would absorb.

The London Pewterers Company was incorporated in 1474 and claimed the right of search throughout England to maintain these standards.

By the 16th century, at least, pewterers were manufacturing a range of goods such as candlesticks, porringers, cups, beakers and the like in trifling metal (trifled) the proportions of which are not laid down but thought to be about 4% lead (Hull and Murrell, 1984, 14).

Scientific analysis is useful because it allows us to see whether pewterers complied with these regulations and consequently to what effect the London Company's control was effective. Analysis by x-ray diffraction spectroscopy techniques to show the main metals present in some two hundred and fifty pieces of British pewter from 1650-1850 was carried out by Mrs Janice Carlson of Winterthur Museum, Delaware, USA during the early 1970s.

The results (summarized in Homer, 1975, 3-4), showed that British flatware of this period contained 95± 2% tin, 1-1½% of copper and 1-3% of lead. Hollowares were more variable, especially baluster measures for alcohol with only 65-70% tin and 23-30% lead. Scottish measures were similar.

British scientists applied similar techniques to medieval and 16th century pewter alloys with comparable results (Brownsword and Pitt, 1984 and 1990). The latter publication was the analysis of all the pewter objects from the *Mary Rose*, the results of which have played a significant part in the evaluation, not only of this major assemblage, but all other contemporary pewterware so tested, as further discussed below in Chapter 4 Scientific Analysis.

In an attempt to further understand the alloy trifled this writer has had a sample of twenty-seven objects analysed of the types recorded in the 1612-13 list of trifled wares in the Company's Court Minutes (Welch II, 61-4). These are part of the Neish Collection, then at the Shakespeare Birthplace Trust, Stratford-upon-Avon, and the majority of the items unless otherwise stated, were archaeological finds (not sale room purchases) chosen because they had a more reliable provenance and are more likely to be of British origin. Given what is known of English pewter compositions, analysis of these items might prove them to be of British origin. Identification of the three saucers 652, 776 and 990 marked with the hammer device, as being of copper-hardened fine metal

indicates they are of English origin, also indicates the marks origin . much discussed . is English as well. By contrast, two cast decorated saucers nos. 1116 and 1149 contain 0.8% antimony, so cannot be of late 16th-17th century, as are English cast decorated wares, (c. 1590-1630), because antimony was added only in the later 17th century to English pewter. Particular attention was paid to those wares which might be in the third alloy (other than fine or lay trifle, introduced by the 16th century and believed to contain about 4% lead.

Process of Analysis by ICP-OES

The process selected for analysis of the twenty-seven objects was by ICP-OES (Inductively Coupled Plasma Optical Emission Spectrometry) by the Analytical Services Laboratory in Sheffield, a subsidiary of the Sheffield Assay Office.

The procedure was as follows: Dr. Roger Brownsword drilled 20mg samples from an inconspicuous place on each object, and two (from ear and body) in the case of the porringer no. 571 discarding any top most surface and collecting clean metal. These were sent to the Analytical Services Laboratory where the process of investigation by ICP-OES was as follows. The samples were weighed and dissolved using 6ml of hydrochloric acid and 3ml of nitric acid. An yttrium internal standard was added to the samples which provided a performance check for the analytical instruments followed by deionised water. The dissolved metal was then analysed using an Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES). The calibrated ICP-OES tests the solution and calculates a result for each selected element in the sample. The results are shown in Table 7 and further discussed in Chapter 4 on Scientific Analysis. A range of alloys was detected, as expected, and which included tin/copper fine metal, very leaded (50%) lay metals, alloys with antimony, and a selection of objects with 3-6% lead and considered to be of rifle alloy. For further scientific information on analytical techniques available see Pollard and Heron, 1996 and Caple, 2006.

Process of Analysis by X-Ray Fluorescence

An additional sample of six objects, four from London and two from the Neish Collection at Stratford-upon-Avon, were analysed by Scanning Electron Microscope and Energy Dispersive X-Ray Analysis by Dr. Duncan Hook of the British Museum's Research Laboratory. In this instance the objects had to be taken to the SEM . a 13th century saucer with fillet above the rim, and a 16th-17th century saucer with groove

decoration on the edge from the British Museum, two 15th-16th century dishes found at Kennington Place, Lambeth, South London and in the collection of the Duchy of Cornwall, and two recently acquired trenchers from the Neish Collection, Stratford-upon-Avon of unknown date but thought to be 16th-17th century.

X-rays were discovered by Wilhelm Conrad Röntgen in 1895 and their application to the study of archaeological objects is an accepted technique and used to study a diversity of artefacts. In the present study an x-ray was focused on the object to be tested, re-arranging the electrons, causing x-ray photons to be emitted which were then detected and measured by the x-ray instrument. Each different element within the object emits x-ray photons with a characteristic wavelength, and by counting these photons the laboratory calculated the concentration of each element within the object. It is a quick technique, an assay taking about thirty seconds, although of the object's surface only. The surface was carefully cleaned of dirt and corrosion prior to the investigation.

It was of particular interest to ascertain percentages of bismuth and antimony present, for the purpose of studying the date range of the objects (bismuth being used from the 16th century and antimony from the later 17th century). These results are discussed further in Chapter 4: Scientific Analysis, together with the other issues raised by the ICP-OES analysis.

1.2.4 Visual Evidence

Britain had no native school of still life artists in the 16th and 17th century and pewter was not sufficiently esteemed to be recorded in portraits of the aristocracy. In the Low Countries, by comparison the prosperous middle classes enjoyed recording their household goods and daily activities. Some styles of pewter (and silver) were Pan-European and so comparisons may be made with them up to about 1600 when British and Continental styles were diverging.

Some medieval manuscripts (for example, MS Royal fig 9) show Richard II feasting, and vessels of precious metal adorning his table, as well as individual trenchers. The important standardisation of weights and measures under Henry VII (1496) is recorded in a print of 1746 obtained of a drawing formerly in the Kings Exchequer at Westminster (B. Lib Harley MS). This shows pottle measures (½gal.) on standing feet, and is the only visual confirmation of the use of this type of vessel in England.

Wealthy families liked to record their own activities: the Beauchamp Pageant (c. 1480) records the life of Sir Richard Beauchamp, Earl of Warwick, and has interesting details of tablewares, and a christening in use at his christening. The Cobham family recorded their banquet in a tree house (fig 8) built by their father William Brooke, 10th Earl of Cobham; this was painted by Hans Eworth in 1567. Similarly the Unton family recorded the life of Sir Henry Unton in an oil of c. 1596, which shows feasting and a masque in progress (Hornsby *et al*, 1989, 36). Tablewares here and in the other illustrations referred to are probably of silver or gilt, but can be paralleled in pewter. Henry VII's liquid measures may well have been of pewter although dry measures were made of copper alloys.

Contemporaries criticised Charles I for wanting to dine in private, but the oil painting by G. Houckgeest of 1635 (HM the Queen) shows the King in splendour at some imaginary palace. For our purposes it usefully records the tableware covering the table, the cisterns cooling the wine and the ritual presentation of dishes. This ritual is similarly observed in the print of Charles II dining at the Feast of the Order of the Garter (fig 18) in 1672, showing the broad-rimmed platters to good advantage on display and covering the tables.

Woodcuts were used for recording daily scenes in England in the 17th century: the Roxburghe Ballads (fig 104) show porringers in use in the 1640s, usefully distinguishing between adult and children's vessels, with one or two ears or handles. The Thomason Tracts (Hornsby *et al*, 1989, 34) record a contemporary (1641) complaint about recent constraints to drinking on the Sabbath and show tankards and mugs in use at an Inn. These and other drinking vessels are portrayed in Thomas Heywood's play *Philocthonista* or *The Drunkard* (1635) (fig 3) which are goblets, a beaker, tankard and chamber pot all most probably of pewter. Hogarth portrayed similar scenes in the 18th century, with equal interest in alcohol abuse.

The interest in utilitarian ware was also shared by Randle Holme, the Chester Herald especially as the devices might be used in family coats of arms. His *An Academie of Armory* 1688 is a mine of fascinating detail and includes drawings of various tools used by Pewterers (Hornsby *et al*, 19), because, as he said, their variety and shape was the cause of much invention and diversity of shapes.

By the 18th century Pewterers' trade cards provide insights into this busy world of work, after some four centuries of semi-obscurity.

1.3 Conclusion

Over the past one hundred years a large body of excavated pewter has been assembled . both random finds and from controlled archaeological sites. Of unfamiliar form and difficult to date this highly important material required further investigation. This thesis constitutes that further investigation.

Chapter 2 - Pewter: its Development and Use 1200-1700

2.1 Metal Production: Cornish Tin

Pewter is an alloy of tin with additions of copper and lead in variable amounts. Tin was mined commercially in medieval Britain and was fundamental to the country's economy. Indeed, between c. 300 and 1300 England was the only significant European producer of this metal. By contrast, lead was mined throughout Europe, frequently to extract its silver content. Copper was sometimes mined in late medieval England in small quantities in Cumberland and Yorkshire.

Tin mining in Devon and Cornwall dates from about 500 BC and was used by the Romans, especially after the failure of the Spanish tin mines in the 3rd century AD. By the 9th and 10th century English tin was traded in Europe, when we also get the first reference to English pewter . by King Alfred himself. Strangely, there is no reference to the mines in the Domesday survey. The Crown's interest in tin mining caused all the tin produced in Devon and Cornwall to be subject to a tax called the *coinage* and for the levying of which it was brought to specified *coinage* towns at specified times. These towns were Chagford, Ashburton, Tavistock and, from 1328 Plympton in Devon, and Lostwithiel, Bodmin, Liskeard, Truro and Helston in Cornwall.

Levels of tin production can be calculated after 1156 from coinage and coinage farm returns. John Hatcher 1973, 62, calculated that the retail price of tin in Cornwall in the early 15th century was 1d-1½d between 1400 and 1460.

Tin miners could prospect anywhere except private gardens, orchards, churchyards and on the highway. This naturally led to local complaints about the destruction of good land.

Stream works . the working of the secondary alluvial deposits of oxide ore *cassiterite*, required only crushing and washing before smelting at simple open fires with peat or charcoal. As these surface workings became exhausted tin production dropped from a peak of some 800 tons p.a. in the early 16th century to 450-500 tons p.a. by the early 17th century. Deep open-cast and shaft mining of the main lodes was needed and started to be developed from around 1500, but investment was slow to materialise. This curtailed tin supplies and increased tin prices, making it difficult for poorer pewterers to work. The recycling of worn and damaged pieces became increasingly important.

Tin was cast into blocks in stone-moulds; at coinage it was stamped to show tax had been paid, and was then available for sale. By 1300 it has been estimated that there were some 2000 Cornish tin miners (Hatcher, 1973, 67). Tin was exported to

France and Flanders directly from Devon and Cornwall, then elsewhere in Europe. Hence interest waned after tin production commenced in Saxony and Bohemia by the early 14th century. The Italians then dominated tin exports after 1330. Southampton and London also became important for the export of tin by the later 14th century.

With the marked increase in consumption of tablewares during the 16th and 17th century, there was inevitably a far greater stock of old and damaged vessels being recycled . a routine part of the pewterersqcraft. The impact of this increased recycling and related demand for new and different wares is further discussed under Manufacturing (2.2), Pewter in Use: An Overview (2.3) and Scientific Analysis (4) below.

2.2 Manufacturing

The main technique for making pewter was casting, soldering, turning and hammering, using moulds of bronze by the 16th century (clay and stone prior to that), ladles, soldering irons, a lathe with the necessary turning tools, together with a range of hammers and mallets. Tin alone is too soft for normal casting so hardening with copper was necessary to produce a good working alloy. The differing metal mixtures for flatwares and hollowares were melted in iron vats over a forge fire, then ladled into the required moulds. Tin melts at a relatively low temperature, 232°C (450°F) but copper at 1,083°C (1,981°F). Copper is virtually insoluble in tin and forms a compound (Hull and Murrell, 27). This may help explain the high percentages (some 6%) found in early pewter ware. It has been found at the 1-4% level in flatwares and 0.5-2.5% in hollowares. Lead improved the durability and hardness of tin and was added to hollowares (maximum 25%). Bismuth was added as a hardener from at least the 16th century in the range of up to 0.5% in flatwares and 0.28% in hollowares, as noted below. The high cost of bronze moulds meant that these were often shared between pewterers, or owned by the Company who hired them out (Hatcher and Barker, 249).

Flatwares

In 1348 when the Ordinances were laid down, there were two main types of pewterer each specialising in a particular area of the craft and using two differing pewter alloys.

Firstly, there was the flatware or sadware (platters, dishes, saucers) cast by the hammermen, the elite of the craft, in a tin/copper alloy of unknown specification, which was called ~~fine~~ fine or plate metal, as referred to above. The resulting dishes or platters

were then hammered to strengthen the metal (the marks of which are still frequently seen) especially in the ~~boog~~the area between the rim and bottom of the dish, bowl, plate, etc. (The importance of the hammer was recognised as a trade or guild symbol in many metal working crafts including pewterers.) The surface was then skimmed, burnished and polished on a lathe (again taking care to retain the hammering marks). Some cheaper products for export like the shallow trenchers called ~~S~~Spanish trenchers~~s~~ were allowed to be made without this final hammering (so reducing costs).

The addition of bismuth by the 16th century, and antimony from the late 17th century, the latter following French practice, as additional hardeners, were advances in metal composition as they improved the metal's elasticity and strength. Orders that 2½ to 3lbs of bismuth should be added to each 1,000 weight of tin were made by the Pewterers Company at times during the late 16th century (Hatcher and Barker, 225).

Hollowares

The second main group of pewter manufacturers made hollowares (flagons, ewers, tankards) in a softer tin/lead alloy called ~~lay~~metal. These lead alloys were in common use throughout Europe. They were usually cast using more complex multi-part moulds then soldered together and finished off by hand and on the lathe. All moulds were treated with substances like ochre, pumice or egg white to improve the flow of the molten metal. Moulds needed to be heated to precisely the correct temperature to make sure the metal flowed into all parts of the casting. The development of the lathe from a simple pole-lathe powered by the pewterer to a more efficient cranked iron wheel with cord drive turned by another workman was a great advance by the 16th century. These ~~great~~wheels with their increased strength and speed considerably improved the finish on pewter (Hatcher and Barker, 222).

Some hollowares like the *Mary Rose* flagon on a standing foot (72A0031) are cast in fine tin/copper alloy (Table 4), presumably because the customer required a higher quality vessel. It appears that pewterers of hollowares were not restricted to manufacturing in tin/lead alloys (lay metal). It will be seen from the analyses in Chapter 4 that copper and bismuth were also added to hollowares (the latter from the 16th century) although this is not mentioned in the Ordinances in relation to hollowares specifically.

Those hollowares such as baluster measures and tavern pots, considered of least value were also probably more likely to be made of recycled scrap pewter. Their

lead content frequently exceeded the maximum 25% (4:1 tin to lead) ordered by the Company, as shown by the analyses in Table 7.

During the 16th century a range of over 100 new tablewares was being made in a tin/lead alloy of unknown specification. These hollowares were called *trifling* and the alloy *trifling alloy* and were similarly cast in multi-part moulds. Trifling is shown in Chapter 4 to be a high quality tin/lead alloy. Specified weights for wares in this alloy were drawn up in the Court Minutes of 1613 (see below) as they were for wares in constant use like dishes, platters and similar in 1438 (Welch I, 11, 12).

Slush Casting

Some wares, such as hollow cast pilgrim *ampullae*, knobs and handles were cast in a particular alloy because of their method of manufacture. With these hollowares, molten metal is poured into a metal mould and then the central volume of the metal quickly poured out before it has a chance to cool, so producing a thin-walled casting. An alloy which cools quickly (short pasty phase) is required, i.e. little difference between solid and liquid phases. *Ampullae* of virtually pure tin have been retrieved, tin being suitable for slush casting because of its sharp cooling point and resulting crisp casting, rather than any of the pewter alloys, all of which have a pasty phase of some duration. These alloys which have no pasty phase are called *eutectics*.

Lost Wax Casting

This is another old established method, like slush casting and which is well known from the description of the method left to us by Theophilus Presbyter, believed to be an early 12th century German monk who made a cruet this way. The process consists of forming a clay mould round a wax model, then melting out the wax. Molten pewter is poured into the mould, allowed to cool then the clay mould broken open to release the casting. Theophilus used tin with a very small quantity of mercury for this casting (Hatcher and Barker, 210-213). The technique is still used today in the jewellery industry for silver and gold and in pewter for very large or one-off castings (Hull and Murrell, 113-118).

Counterfeit

Some flatwares, especially large chargers and various sorts of basin were wrought by hand from flat discs of tin/copper alloy (no recycled pewter was allowed) for

counterfeit or hand formed wares. Hammering was especially important in this manufacture, and the products of this craft, the present writer argues, were probably what is described in the 1438 Ordinances as *counterfeit* (Welch I, 11-12) that is *contra facio*, beaten into shapes using a series of hollowed blocks of wood. An alternative name for *porringer* was *counterfeit* as these utensils can be made this way. Garnishes of counterfeit were sometimes made for the banquet course and were *pounded* or decorated in relief. Hollowwaremen similarly raised pots and other vessels by hand. The manufacture of counterfeit was more labour intensive than the usual casting, although the price appears the same (Hatcher and Barker, 239).

Square (squared) wares (6 or 8 sided) were wrought from strips of *fine* pewter sheets (of tin/copper alloy) then soldered together. A surviving example is the flagon excavated at Bristol (fig 29). These *squared* wares remained fashionable at least into the 16th century.

Soldering

This is a very important technique in pewter craftsmanship for assembling bodies and adding handles and feet. Standard solders are usually tin/lead alloys although pure tin and pewter can be used (Hull and Murrell, 47-52). Solder alloys are prepared in the same way as other alloys, by melting and mixing in iron melting pots.

Recycling

Pewterers routinely repaired damaged pewterware and traded in old wares for new in part exchange. Prices for buying and selling were strictly controlled, old pewter fetching about two-thirds the price of new (Homer, 1991, 78). The growing stock of pewterware in circulation during the 16th and 17th centuries meant more pewter being recycled. To ensure pewterers received wares of the appropriate quality, a compulsory marking system with the pewterers' touch or mark was introduced in 1504 for hollowares and 1522 for flatwares. With the reduction in tin supplies during the 16th century and the demand for new ranges of tablewares such as beakers, salts, flasks and other *round* or holloware vessels, the use of recycled pewter to sustain demand was most probable. The demand stimulated the introduction of a third approved alloy, *trifle* or *trifling* metal by the late 16th century. Hatcher and Barker (p.164) considered trifle to be an inferior alloy to lay, that is with lead in excess of 25%. Working pewterers, Hull and Murrell however suggest that it was a tin/lead alloy of some 4% lead (Hull and

Murrell, 14). The initial production of *trifling* may have been a result of accidental mixing of fine and lay metal during routine recycling and which was found to be suitable for casting these wares. There is a discussion on the impact of recycling in Chapter 4.

Trifling Alloy

This is the least understood of the alloys used for casting by pewterers because there is no statutory definition (which meant that no freeman of the Company could be made to follow it) although an internal standard seems to have been adhered to. In 1613 the Company recorded a specified list of weights for over 100 tablewares of both new and older types (Welch II, 61-4).

On 13th March 1613 the Court ordered that these new regulation weights be observed since standards had previously declined, with much making of *sleight* wares. All pewterers making them (known as *trifflers*) were not to make any other wares; they were to bring in their old touches to the Hall and exchange them for another one, which would be recorded there (Welch II, 64).

A later Court Minute (24th March 1791) makes it clear that this new alloy was particularly well suited to these new manufactures (Homer 1980, 27):

But from the great increase and variety of articles in the pewterers trade the third sort of metal called trifling was found useful in many articles of the said trade and appears to have been accordingly accepted by the Company.

How had this new alloy been devised? The final decision was obviously with experienced craftsmen, but the background situation has some bearing on the decision. The present writer argues that the unsatisfactory situation with poor quality wares, further noted by the Court in 1613, was probably a result of the extensive recycling which had been practised throughout the 16th century. The deliberate involvement of sadware men and of the inclusion of plate metal in the trifle mixture is indicative of how the quality of the wares was intended to be improved. For example, on 14th February 1615 (Welch II, 68):

The determination of *sales* and rate of *Tryffles* was referred to twelve members, six of them sadware men and six *Triffelers* and again on 22nd October 1668 (Welch II, 136):

The Committee appointed to regulate the metal of Trifles recommended that the shopkeeper should deliver unto ye workmen $\frac{1}{2}$ plate mettles or tynn and the other half good London trifles.

This was adopted by the Court on 17th December 1668. An undated note by a searcher (Inspector of pewter wares) probably in the 1740s again confirms this use of plate metal in the manufacturing of trifles (Homer 2006, 44):

Trifling mettles hath no standard. It is generally made into holloware as ordinary tankards, drinking potts and porringers and other vessels about which they use plate that debaseth it a little (sic). [Upon these considerations the Company allows 2 grains from ~~fine~~ by putting the 2 grain weight with the ~~fine~~ standard, into one of the scales and the assay of the mettles to be turned into the other. Stool pans, saucers and toys are made of the same.]

A further discussion of trifle and an analysis of a sample of typical wares made to this standard is included in Chapter 4 Scientific Analysis below, together with references to recycled materials.

2.3 Pewter in Use: An Overview

For over five centuries pewterers have manufactured a great variety of ecclesiastical and domestic pewter ware. In the 12th century this innovative alloy was used for domestic tableware and by the 16th century wood, horn and leather tablewares were being replaced by pewter utensils. During the 18th century pewter was itself outmoded by new and attractive types of ceramics although remaining popular for tavern and medical wares. The impact of this household product on the social and economic history of Britain has been discussed by Hatcher and Barker (1974) and is relevant to more recent studies of technological and social change (Johnson, 1996). Little of this enormous output survives today due to an efficient recycling system and poor survival in the ground.

The earliest reference to English pewter, hitherto unrecorded in pewter literature is by King Alfred, in an allegory concerning the tribulations of the Jews. In his celebrated *Preface* to the West Saxon version of St Gregory's *Pastoral Care* (Sweet, 1871-2, 359) which he sent to his clergy in 897, Alfred comments that tin, when made into pewter had a lustre deceptively like that of silver. Whoever behaved hypocritically under castigation resembled tin in the furnace. Evidently there was some general familiarity with pewter and tin among the clergy whom he was addressing.

Items of pewter jewellery, but no vessels, are known to survive from the 5th-11th centuries. These include an Early Saxon (5th-7th century) finger ring from Norfolk (FNF 15955) a 10th century brooch and pewter scrap from a metal workers' workshop at

Coppergate, York and the well known Cheapside Hoard of 10th-11th century from London (fig 1).

Fig 1



Cheapside Hoard jewellery 10th-11th century. (Museum of London).

About 1006, the cleric Aelfric wrote to Archbishop Wulfstan, stating that only fusible materials such as gold, silver, glass or tin (*tinen*) should be used for chalices, and not horn or wood, the reason being that organic materials might absorb the Host (*Councils and Synods...* Whitelock, Brett and Brooke, 1981, 292). In 1229 the Constitutions of William de Blois, Bishop of Winchester indicate that each church should have two chalices, a silver one for Mass, and one un-consecrated and fashioned from tin to be placed with its accompanying paten in a priest's coffin at his burial (Hatcher in Hatcher and Barker, 1974, 26). Many examples of these sepulchral chalices have been recovered, the earliest of which date to the late 11th century. Their compositions range from pewter to lead (Homer, 1986, 73-6).

The earliest detailed church inventory in the country is that of St. Augustine, Watling Street, City of London, between 1160 and 1181. This records that the church had a silver gilt chalice with silver paten, two pewter water pitchers, two candlesticks and two wooden, and two small bowls of unspecified material (*Visitations...* Simpson, 1897, 300). Some 9,000 churches were founded after the Norman conquest during the 12th and 13th centuries and demand for pewter as church and monastic utensils together with increased tin supplies probably boosted the pewter industry at this time. (Hatcher and Barker, 28, 29.)

To date, the earliest recorded London pewterer is one Richard Peuterierius of St Botolph, Aldersgate in 1216 (Fitch, 2003) nearly one hundred years prior to the previously cited date of 1305 (Homer, 1991, 67) and Ives Pewterer, in 1220, in St Botolph, Bishopsgate, both tenants of St Bartholomew's Hospital. Fitch points out that

12th century pewterers may have lived in lodgings, or rented property, hence they are not recorded in the property market with leases. A study (Homer, 1985, 137-63) has shown that the Craft was mainly established in the parish of St Martin Ludgate, west of St Paul's, from the 14th century.

Parish church inventories show some decline in pewter held by the 15th century, and an increase in those of precious metals, as their prosperity generally increased (Hatcher in Hatcher and Barker, 1974, 29). An Italian visitor to England at the end of the 15th century remarked (Sneyd, 1847, 29):

above all are their riches displayed in church
treasures, for there is not a parish church in the
Kingdom so mean as not to possess
crucifixes, candlesticks, censers, patens and cups of silver.

A much wider range of church fittings was becoming available and the prosperity with which to acquire them.

Pilgrimage

There was one area of mass popularity that continued throughout the thirteenth to fifteenth centuries: the pilgrimage. Lead and pewter signs and badges, cast in stone or metal moulds were sold at shrines such as Canterbury, Walsingham and elsewhere to pilgrims who sewed them to their hats and clothes as proof of their visits, and who probably regarded them as talismans, capable of protection and cure (Spencer, 1998). An *ampoller* - actually a local plumber, is recorded in 1200 (Robertson, 1875-85 ii, 134) working for the monastic community at Canterbury casting pilgrims' *ampullae* - miniature holy water containers which may have been either pewter or lead. Pure tin itself is preferable for the slush casting of *ampullae*, the sharp cooling point of tin producing a better cast than the alloy pewter which hardens more slowly (Justine Bayley, pers. comm.). Pilgrim badges are fully discussed in Spencer 1998.

The Crown, wealthier than the Church, could have afforded the relatively scarce pewter tablewares, but there are few known records to show its use in palace kitchens and sculleries, the cheaper *wood* and earthenware being no doubt the preferred alternatives. Surprisingly it is the refurbishment of King John's conduit in 1234 at the Palace of Westminster which has the earliest reference to tin utensils in royal and

domestic use: that year the conduit was decorated with fine gilded tin statues and tin cups for drinking. Although plumbers and specialist conduit makers were charged with this work overall, perhaps pewterers contributed the tin cups (Brown, Colvin, and Taylor, 1963, 549).

The second reference to pewter in royal domestic use is in the lists of stores in Berwick Castle between 1292 and 1298 (Stevenson, 1870, I, 342) which include two pewter *cruets* for use in the chapel, a pewter basin and pitchers of tin and pewter in the larder. Perhaps these were shipped up from London on boats coming to collect coal from Newcastle, the trade in which was starting up at this time (P. Graves pers. comm.). Large quantities of vessels were necessarily acquired but we do not know of what they were made.

In 1290 for example one hundred dishes, one hundred platters and one hundred and twenty-four salt cellars were purchased for Edward I at a cost of 7d, 14d and 4d respectively (Lyons, 1806). Pottery dishes and platters were uncommon, so the material was probably wood, and cheap when compared with the cost of a dozen pewter plates for three shillings in 1312, as bought by Finchale Priory, Durham (Rogers, 1866-1902 ii 569 and cited by Hatcher in Hatcher and Barker, 42).

The large number of salts indicates that diners may have had one each, or shared with a few other people, an early date for individual trencher salts. The same is true of the refectory tables at the collegiate church of Ottery St Mary, Devon, where, as the 1335 statutes for setting up the college order (Homer, 2001, 40) each Canon was to entertain his vicar, his servant and one or more members of the college daily. Each canon was to have two *trestle* tables, a wash basin and:

twelve dishes of pewter with the same number of
salts and a silver spoon, and a pot of pewter.

This entry is important in showing the early evolution of a personal place setting apparently with one's own salt cellar perhaps of the type shown in fig 2, this salt having previously been identified as a pyx. Salts from the Low Countries are close parallels (Egan, 1998, 191-3; North, 1999, 40). By comparison, the Reverend William Harrison observes there was only one salt per yeoman farmer's household in mid-16th century Essex (Edelen, 1968, 201).

Fig 2



Salt c. 1300, (M4474. 1858) formerly considered a pyx, ht. 64mm. (Victoria and Albert Museum).

The Canons each had a silver spoon, guests, presumably bringing their own to eat a spoon meat or pottage from their dishes. Pottage was the staple food for most of the population and contained meat, or not, according to their means. The Canons no doubt also enjoyed roast meats and their dishes could have held slices of meat, as well, during a further course.

By the early 14th century domestic ownership of pewter was becoming established amongst the prosperous mercantile community in London, as is reflected in the will of Richard de Blountesham of 1317, which includes twelve pewter platters, twelve dishes, eighteen salts and two flagons valued at 7 shillings. (Riley, 1868, 123-5 and cited in Homer, 1991, 77). There were also a number of salts on his table. This is the earliest known reference to a garnish or set of flatwares of pewter, although not named as such.

Demand for pewter must have been sufficiently strong for the Craft to devise its Ordinances in 1348; there must also have been great urgency because of the Black Death that year. The Ordinances stated (Welch I, 1902, 3) that two different alloys, fine metal and lay metal should be used. Fine metal was an alloy of tin with copper and lay metal of tin with lead. Flatware, such as platters, chargers, saucers and the like were to be made of the harder fine metal to withstand constant handling. Wares classed as square were also to be made of fine metal. These latter items were made of sheet metal in strips soldered together, which would have been difficult to repair if knocked and damaged. These alloys are further discussed in Chapter 4.

By the late 14th century the Craft was producing an extended range of domestic flatwares, pitchers, candlesticks, flagons and salts. In 1393, for example, Richard Toky a London grocer, had two chargers, twelve platters, ten dishes, eleven saucers, nine trenchers, two half-gallon pots, three quart pots, one pint pot, some salts, a holy water

stoup, a candlestick and two shallow bowls of pewter. (Hatcher in Hatcher and Barker, 55).

The inclusion of trenchers (*Fr. Tranchoirs, tranche*, a slice) is interesting since they were not included with flatware in Company regulations. Their form may have influenced the introduction of the flat plate in the 16th century, as discussed below, but they appear seldom in lists of goods produced, possibly because of their very basic form.

Pewter is easily scratched by knives and needs to be scraped and scoured with an abrasive dust or sand to polish out the scratches, followed by fine polishing with the horsetail rush, *pewter wort* (*equisetum hyemale*). A trencher scraper was a full time occupation in some larger households.

From the 15th century, household inventories, accounts and management treatise reveal that flatware i.e. chargers (of up to 7lb in weight) platters (2 to 2½lb) dishes (13oz to 1½lb) saucers (5 oz to 12oz) were still the more common pewter forms (London LMA Letter Book K f.176, Assay of 1439 cited in Welch I, 11-12). From the late 14th century at least, sets of such pewter items were known as garnishes as referred to by the Cellarers of Battle Abbey in 1384-5 . 12 pewter vessels garnys (Searle and Ross, 1967, 80) cited by Hatcher in Hatcher and Barker, 42 although it is not clear to which type of pewter this refers.

Garnishes of burnished pewter flatwares made impressive displays, as the Italian visitor to England observes in 1497 (Sneyd, 1847, 29) that English pewterers:

make vessels as brilliant as if they were fine silver
and these are held in great estimation.

Indeed London pewter was considered the finest in Europe. By the mid-16th century the evidence of inventories (Hatcher in Hatcher and Barker, 1974, 96) suggests that pewter was being used in at least half the households in England. The average number of pieces per household ranged from almost fifteen in mid-16th century Nottinghamshire to some six in mid-17th century Essex to quote only two examples, all being familiar types from the 15th century.

Pottery drinking vessels in many different types were being introduced at the beginning of the 16th century, such as cups, beakers, and pots in attractive glazes, and stone or stoneware jugs associated with the Rhenish wine trade were a popular import.

This flourishing trade may partly explain the lack of individual drinking vessels, in pewter at this period, although cost was a critical factor, as always. An unskilled labourer receiving 4d a day wages, could purchase one dozen earthenware pots for the price of one pewter pot at 6d in the 16th century (Hatcher in Hatcher and Barker, 62).

Many pewter lids have recently been recovered from the Thames foreshore, London (Kashden, 1988, 88-92). Whilst several are probably imports once attached to stoneware jugs imported by haberdashers, amongst others (Welch I, 119) to the annoyance of the Pewterers, some may be of English origin. Some Pewterers appear to have been connected with the ceramics trade (see Chapter 6) and this interest may have commenced with the necessary lidding of stoneware pots. London pewter lids were to be marked with a fleur-de-lys . the mark of the Hall in 1553 to confirm English workmanship on a composite product. (Welch I, 174-5). A stoneware jug of c. 1500 from Siegburg was excavated in Exeter from a stone lined pit in Goldsmiths Street (Allan, 1984, 160). It is rare in having its associated, probably German, pewter lid still attached.

In 1558 the Frenchman, Etienne Perlin wrote (Bowyer and Nicholas, 1775, XVI, XVII):

The English drink beer, not out of glasses, but from earthenware pots, the covers and handles being made of silver for the rich; the middle classes mount theirs in tin, the poorest sort use beer pots made of wood.

The tradition of drinking from earthen, stoneware, wood, leather and horn vessels continued through the 17th century.

Elizabethan Developments

Between 1580 and 1620 a housing revolution swept through the English countryside, although with varied results in different regions and following belatedly behind London and other urban centres (Schofield, 1984). Food prices and rents were high so yeoman farmers and landowners thrived. The parlour served increasingly as a display case for the production of material success. Here on the court cupboard was displayed the family's plate of its silver, pewter and glassware. This was a prosperous time for London's master pewterers, whose number rose from some 50 in 1500 to 350 by the 1640s (Hatcher in Hatcher and Barker, 116). It was also becoming plentiful in

ordinary rural homes; allusions are found in Shakespeare to the use of pewterware in the household and to drinking vessels of that material in public houses and inns (Shakespeare, 1596).

The Rev. William Harrison noted the change in domestic circumstances amongst his parishioners in Radwinter, north west Essex in his celebrated account published in 1587 (Edelen, 1968, 201-2) of the three things ~~un~~marvellously altered in England ~~q~~within the memory of the eldest of his parishioners. The first two things he commented on were the great increase in number of chimneys and the general improvement of furnishings. He goes on:

~~¶~~The third thing they tell of is the exchange of vessel, as of treen [wooden] platters into pewter, and wooden spoons into silver or tin. For so common were all sorts of treen stuff in old time that a man should hardly find four pieces of pewter (of which one was, peradventure a salt) in a good farmer's house. q

Evidently some Essex households were not so plentifully supplied as others of yeoman status in other counties and remained more poorly off into the 17th century (Hatcher in Hatcher and Barker, 96).

Harrison has valuable and specific comment regarding pewter tablewares (Edelen, 1968, 367):

~~¶~~Such furniture of household of this mettall (i.e. pewter) as we commonly call by the name of vessel is sold usually by the garnish, which doth contain twelve platters, twelve dishes, twelve saucers, and those are either of silver fashion or else with broad or narrow rims and bought by the pound, which is now valued at six or seven pence, or peradventure at eight pence. q

Harrison's comments about rim styles are interesting, especially that about silver fashion dish rims. This is taken to mean a cast-decorated edge resembling some contemporary silver gilt, such as the Armada service made for Sir Christopher Harris between 1581-1601 (Willmott, 2005, 125), which is distinguished by its decorated rim. It is now in the British Museum.

Harrison took for granted that the wealthy would have great store of rich furnishings as did Essex residents, the Petres of Ingatestone Hall near Chelmsford (Chelmsford, Essex Record Office D/DP F205). This Petre inventory included the following pewter pieces in 1565 . unfamiliar forms, such as square fruit dishes and square porringers, pewter cullenders (as found on the *Mary Rose*) and various types of pot:

Two fine Pottell pots of silver fashion

Two Pottell pots of another fashion somewhat more narrow

One quart pot with barres. [imitating wooden staved vessels]

For an example of the latter see Hornsby *et al*, 1989, 62.

Three of the Queen's dishes (whether Mary or Elizabeth is unknown), had got left at Ingatestone after a royal visit. These, in the 1565 inventory, had not been returned by 1571. This second inventory records also:

All sallat dyshes of ye sylver fashion

In 1600 salad dishes are shown to hold sliced beef. By then there were dishes for boiled meats of a lesser sort flat dishes, porringers with narrow brims, old saucers with broad brims, large old platters for serving oysters, and old and flat dishes to lay sliced beef in. Six old pewter candlesticks in the pantry are described as wrought work and may be similar to pewter and brass ware described as counterfeit the precise meaning of which remains obscure, but thought to indicate sheet metal work, not cast as usual.

The Petre family accounts show that some of this pewter was supplied by the pewterer Joseph Bromley between 1589-99. He was considered as one of a deputation from the Company to the Queen in 1601 (Welch II, 31 33). By 1615 Bromley was living at Whitecross Street, London.

Drinking Vessels, 17th century

The main growth area of pewter in the 17th century, other than plates was drinking vessels. Ale and beer were still the national drinks. Beer was cheap in London costing 2d and 3d a quart in the taverns and 4s to 8s a barrel (i.e. 36 gallons). Ale (with no hops for flavouring) was a little cheaper but less stable. Cheapest of all was small beer . a light brew popular with children and as a summer drink. Mumq a heavy ale made with wheat and matured for two years was the 17th century equivalent of porter or stout (Latham and Matthews, 1983 Vol. 10, 104-7) The general popularity of the drinks, together with a rapidly expanding population, may help explain the great increase in production of pewter tavern pots and measures from the 17th century, although wood and ceramic drinking vessels were in common use. In *Philocothonista* (1635) Thomas Heywood lists the types in use (fig 3):

Fig 3



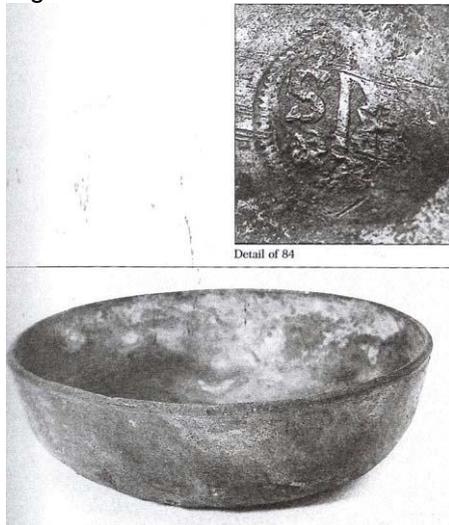
Philocothonista by Thomas Heywood 1635 showing flat lidded tankards. (British Library/Museum of London).

Of drinking cups, divers and sundry sorts we
haveõ Mazers, broad mouthed dishes, noggins,
whiskins, piggins, crinzes, alebowls, wassell-bowls,
court dishes, tankards, Kannes, from a pottle to a pint,
from a pint to a gill.q

Fig 4, a pewter bowl recovered from the Thames foreshore has the unrecorded touchmark S1q and the date 18q It weighs 12 oz and has a c 700ml capacity, and so

complies with the 1612 regulations for small beer bowls (Hornsby *et al*, 81-82). It appears the first of its type to be recognised.

Fig 4



Beer bowl c. 1638, diam. 6¼ inches (160mm). (Museum of London).

Pewter appears to have been the material associated with serving beer, and popular names for a tavern serving man were *pewter carrier* or *potman* (Marryat, 1834). The provision of standard measures for use in ale houses and taverns had been a major part of the pewterers' business from the 15th century. *Baluster* measures named from their shape remained little altered into the 19th century only the thumb piece varying to any great extent.

An investigation of the searches carried out by the Pewterers' Company for substandard ware in pewterers' shops (Shemmell, 1983, 7 and Homer, 1983, 61-45) reveals a number of unusual items: salmon porringers, small teapots and *aqua vitae* and strong water bottles. No licence was required for selling spirits and by 1621 there were two hundred strongwater houses in London (Latham and Mathews, Vol. 10 1983, 106). *Aqua vitae*, which was made from fermented grain, was the most common of spirits, and prompted the manufacture of specialist containers in the alloy *trifle* by 1612 (Welch II, 64). The composition of this is further discussed in Chapter 4.

Tea was first introduced into England from China about 1658. The introduction was detrimental to the pewter industry, hot beverages not tasting their best when drunk from such ware. The pottery trade seized the initiative with the production of teapots and the accompanying tea cups, saucers and plates. It was not until the late 18th century that the Britannia Metal trade attempted to compete once more with pottery and

porcelain in the manufacture of tea and coffee sets. This new alloy (90% tin and 10% antimony) was at first used simply as an improved pewter but in the 19th century was generally plated.

Gradually pewter fell before the advances of new technology. Just as silver had to compete with electroplating, so the pewter trade and then the Britannia Metal trade, lost ground to more fashionable materials, including stainless steel and plastic. The various object types mentioned here are more fully discussed in the Chapter, Survey of Forms.

Chapter 3 - Dining: Food and Related Tablewares to 1700

3.1 Introduction

This Chapter has two aims . firstly to investigate the types of food eaten in England during the medieval and early modern periods prior to 1700, with special reference to that enjoyed by members of the PewterersqCompany at various feasts and dinners, recorded in their Entertainment Books between 1637 and 1651 (GL MS 22191) and by the wider community including naval provisions as used on the *Mary Rose* warship, for comparison. The second aim is to show how the tablewares such as the garnishqmanufactured by the PewterersqCompany were suited to those particular types of food eaten during the period, being adapted as need required: this included significant new introductions such as the plate as an item of tableware. The Pewterersq Company clients were not a restricted group but consisted of the majority of the middlingq class of England by 1600. Both documentary and artefactual evidence illustrate the social practices discussed. Parallels are drawn with the use of tablewares in other materials, especially wooden utensils from the *Mary Rose* preserved by anaerobic conditions of the wreck site and seldom surviving in archaeological assemblages, like the pewter artefacts themselves from the same site.

There were two main types of food consumed in England during the period to 1700: spoon meats . pottages or stews cooked in cauldrons and eaten with a spoon . and lecheqmeats (Old English sliced) of domestic and wild animals and fowl, eaten with the fingers with the aid of a knife and spoon (the fork being only gradually adopted during the 17th century). The frequent provision of meat at meals was a status symbol and enjoyed by the middling members of English society, such as the Pewterersq Company at their feasts and dinners. This is compared with the restricted naval diet as provided for the crew of the *Mary Rose* which comprised mainly boiled meats, but not roast or baked foods, and the accompanying tablewares, especially wooden bowls and dishes for the crew and a garnishqpf pewter for the officers.

Insights into the food of children and their parents is revealed in the conversation manuals of the Huguenot refugees, Claudius Hollyband and Peter Erondell in *The Elizabethan Home* (M. St. Clare Byrne, 1949). These list in detail what was eaten at school and family meals and there are useful comments on the roll of the porringer and trencher.

The present writer summarises the accepted views on dining practices, which emphasise rules on hygiene, social status, as reflected in seating arrangements, good

manners, and the use of the trencher and knife during the meal. Feasts provided opportunities for conspicuous consumption, and to the splendid ceremonial salts and shared cups were added fragile and decorative glasses in the late 16th century, as discussed by Wilmott (2005) who also investigates the inter-relationship of static and moveable, shared and individual, tablewares in the continuing medieval tradition.

As well as emphasising the importance of display for the promotion of social standing, Johnson (1996) reflects on the growing importance of the individual's influence on aspects of daily life from the 16th century. This had a pronounced effect on the use of tablewares, and the movement from shared to individual utensils.

Whilst previous writers, including Wilmott (2005) have pointed out the spectacle of royal ceremonial dining, with its lavish display of food and dishes of precious metal as noted by contemporary commentators, there has been less investigation of 'middling' class meals and the tablewares in daily use nor their production. That is now provided by this author, who shows that the dominating impact of the meal was the 'garnish' set of serving dishes, usually pewter, since silver dishes were seldom used before the 17th century except by royalty and the aristocracy (Glanville, 1990). The impressive broad rimmed pewter styles were being popularised from at least the 1530s and when set rim to rim (fig 5) might cover most of the table, since all the food was put on the table at the same time for each course, according to medieval practice. The utilitarian trencher played a necessary role as a cutting board for each diner but was relatively inconspicuous amongst all the other dishes at a feast. Pewter bowls were sometimes substituted for trenchers on occasion as Thomas Platter, a German visitor in 1599, confirms (Williams, 1937). This was common practice with multi-purpose wooden dishes and bowls as shown by the numbers of such vessels surviving aboard the *Mary Rose*. The use of wooden bowls for eating was old fashioned by the end of the 16th century, supplanted by pottery dishes in attractive glazes when available.

Fig 5



Banquet of the Order of the Holy Spirit at Fontainebleau, engraving, by Abraham Bosse (1633). Louis XIII sits alone, eating his separate meal. The crowded tabletops are a strong contrast with the sparse medieval counterparts; the broad-rimmed plates add to the effect. Full visibility and ease of service are achieved by seating diners on one side of the tables only. (Courtesy of the Museum of Fine Arts, Boston).

Whilst it is commonly stated that the plate developed from the trencher there has been no explanations as to how this happened only that a change of diet from semi liquid spoon meats to more solid foods was the probable cause (Pennell, 1999). The present writer shows that food was not the cause of this development and traces the evolution of the pewter plate for the first time via the Spanish trencher, a previously unknown form as the missing link in the chain of development to the popular broad rimmed plate of the 17th century. Primitive wooden trenchers were also changing as a result of general improvement, as this author points out for the first time. Semi liquid foods were not abandoned during this change, as is sometimes alleged, but rather changed their nature . from pottage or stew of traditional type to *potage* (clear soup) in the French tradition. Porringers . handled bowls . for eating this, enjoyed a heyday in the 17th century, with a variety of handles or ears in different styles. They appear to have influenced the introduction of earthenware porringers which are known from the late 16th century (Pearce, 1992, 94). The wealthy used deep bowls of silver gilt to keep food warm.

Pewter drinking vessels also evolved during the period under review . from an emphasis on flagons and other serving vessels to include individual drinking cups, tankards and tavern pots by the 17th century. Wooden bowls and tankards from the *Mary Rose* were typical vessels for the less well off during the medieval and 16th century and English stonewares and delftwares (tin . glazed earthenwares) developed

during the 17th century, with which some members of the PewterersqCompany were themselves involved, as well as the retailing of both imported and London made glasswares.

3.2 Food

The author's purpose here is to provide an overview of the main types of food eaten during the period to 1700, to see whether particular kinds influenced the styles of tablewares produced by the PewterersqCompany, with special reference to the use of dishes, porringers and trenchers.

The evolution of English food has been thoroughly charted in such studies as Drummond and Wilbraham (1940) and C. Anne Wilson (1976).

English food varied between town and country dwellers, the former having the benefit of fast food outlets such as cook shops and taverns, whilst country dwellers might have access to common land and own a pig for bacon, and with occasional wild fowl and game. Coloppesq fried sliced bacon and eggs was a food speciality of medieval England.

There were also white meats (milk, cheese, eggs) recognised as the food of humbler folk, although considered dearqby the later 16th century as William Harrison comments in his *Description of England*. One potqmeals cooked in a cauldron and known as pottage were regarded as a national dish and usually comprised vegetables such as carrots, cabbage, and onions, boiled to render them tender enough to eat, together with oat meal as a thickener. Any available meat would have been a welcome addition. Such meals, still popular in Wales today (known as cawlq) were eaten from wooden bowls or porringers. During the 17th century, thinner broths or soups were popular, eaten with sopsqor sippetsqof bread in it, in the French fashion of *potage*. Semi liquid spoon meats were useful food for children as indicated by Hollyband and Erondell in their conversation manuals.

Bread was a staple and came in various types. It is sometimes depicted on small trenchers, covered with a napkin (fig 6). Harrison notes that in comparison with the diet of white meats by the poor, wealthier people eat

brown meat, fish and fowl, wild and tame, home bred and foreign.q

Artisans and husbandmen eat what can be cooked most quickly for them

except it be in London when the Companies of every trade do meet on their quarter days at which time they be nothing inferior to the nobilities.q

Fig 6



Still Life (detail), showing plates, a salt and square trenchers of pewter, Dutch, late 16th century. (Museum van Abbe Eindhoven. A. Frequin).

The food of the craftsmen was mainly beef as well as:

such meat as the butcher selleth, that is to say mutton, veal, lamb, pork etc where of he findeth great store in the markets adjoining beside sause [pickled] pork, brawn, bacon, fruit, pies of fruit, fowls of sundry sort, cheese, butter, eggs, etcq

Concerning the feasts of London merchants, Harrison continues, it is:

amazing to see the provisions including geliffes (jellies) marchpanes, tarts, conserves, marmalade of quinces, Florentines, and sugared confections not usually had previously, only in medicinesq

Marchpanes (marzipan confections of almond paste) were provided by the Masters at their feast for the Company, whose members themselves made special dishes for Florentines . first noted in 1438 (Welch I, 12); these were sweet and savoury tarts with very thin crusts. No such pewter dishes are known to survive, although the pastries are a regular part of bakery products today.

Sugar was increasingly available by the 16th century which led to a great increase in the consumption of expensive confections and which, like other food at the time had to be as decorative as possible:

Decrest food [was] the most desiredq

as Harrison noted. This desire extended to elaborate salads especially favoured by the Elizabethans. 17th century vegetables improved by new gardening techniques were sometimes served up boiled and swimming in butterq on their own, sometimes boiled and sugared, particularly spinach, rather than in a stew as earlier. These were

likely to have been served in a dish rather than on a trencher because of their accompanying sauce of liquid butter.

3.3 The Entertainment Books of the Pewterers' Company, 1637-1651 (GL MS 22191)

Traditional foods were eaten at the various dinners and feasts of the Company . butchers' meat . as Harrison described . and with no reference to any new highly sauced introductions like hashes, fricasees or ragouts that were being introduced from France, and as referred to by Hollyband as a likely food even for late 16th century London school children.

The Entertainment Books show that food was served in two courses: the first of boiled meats, such as mutton, capon, together with roast lamb, beef, veal or pork; the second course of roast and baked meats such as pigeons or larks, together with baked venison pasty and a dessert . marchpane (marzipan) custards or fruit tarts.

Haunches of venison supplied by the incoming Master for his feast appeared as venison pasty, half baked at a local cook shop then brought in for final cooking in the hall kitchen. Venison was regarded as food of the gentry, so being offered it showed some social cachet. It was served in the deep broad . rimmed dishes called a ~~Cardinal's~~ hat owing to its shape (fig 7).

Fig 7



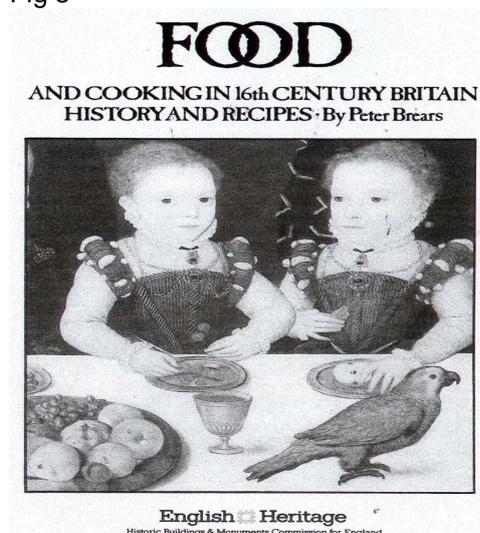
'Cardinal's Hat' broad-rim dish c. 1670, M. 884-1926. (Victoria and Albert Museum).

This function has been determined by the present writer by comparison with 17th century French dishes of a similar shape, used for that function and named *plat a venaison* or venison dish. The slices of venison pasty or roast venison were arranged round the broad rim for display and ease of serving. These specialist dishes were not part of the garnish but were made by Company members as part of their output from at least 1438, as recorded in their Ordinances of that year (Welch I, 12).

Although there were no exotic meats like swans or peacocks, foods to impress were the costly marchpanes and sugar confections provided by the *confetmaker* and whose bill in 1640 amounted to £4 17s compared with £3 16s 8d for the butcher, and £3 10s to the vintner but a larger £6 11s to the poulterer, out of a total bill of £33 13s (GL MS 22191 f 26 r).

During the 16th century, the banquet became the final and third course of a formal dinner, or might be offered as separate refreshments, as for example at the choice of the new Master and Wardens on 15th August 1638 (GL MS 22191 7r). It was a dessert course and saucers and spice plates were the appropriate utensils. The first reference to spice plates . that is small and flat plates (about 6 inches in diameter) is in 1553, so they may have been specially introduced for this new banquet course (Welch I, 179). On that occasion the Pewterers enjoyed plums, pears, apple tarts, wine, beer, bread and grated cheese with sugar . a favourite banquet dish. Plums and damsons were seen as appetizers and eaten at the beginning of a meal whilst apples, cherries, cheese, nuts and pears at the end were to *±close up the stomach* being *±hard or astringent* according to the understanding of the time. Pewter spice plates are discussed in Chapter 5. Some, probably of precious metal are shown in use by the Cobham family in 1567 (fig 8) to eat their pears and grapes. Fruit was still regarded with suspicion as causing diarrhoea so was frequently cooked in tarts (codlin tarts baked with cooking apples) as at the Masters feast of 15th August 1639 (GL MS 22191 f 8 r) or as roasted pippins. Banquets are further discussed below.

Fig 8



William Brooke 10th Lord Cobham's family using flat trencher plates 1567 for fruit. (Marquess of Bath/English Heritage).

The Yeomanry were not favoured with beef at their supper of 23rd November 1637 which was provided by the wardens (GL MS 22191 f 2 r) but enjoyed joints of mutton, capons, rabbits and larks (probably in pies) salting (salads) wine and beer. There are references to special ~~salat~~ dishes from at least 1571 in the Petre household accounts (ERO DDP F205) and it is clear that they follow the silver fashion and were flat. They were produced in silver by the garnish (Glanville, 1990, 201) so it is likely that the pewter ones were also sold by the dozen.

Salads were eaten on fish days, as mentioned above, with the meal beginning with butter and eggs, and ending with fruit and conceits of all sorts. Fish days were still mandatory after the Reformation, not for religious reasons but to promote the fishing industry and preserve English cattle.

In comparison with the three types of meat . boiled, roast and baked, provided for the Pewterers Company and which would have fully utilised a garnish of 12 dishes for boiled and 12 platters for roast and baked meats, together with accompanying 12 saucers of orange, mustard or other sauce, the officers and crew of the *Mary Rose* ate only boiled meats according to the reconstructed menu (Coy and Hamilton . Dyer in Gardiner (ed.) 2005, 63). These rations of pork and beef were soaked to get rid of the salt then boiled in the two large copper alloy cauldrons found on the ship. The amounts given below were portions per man, per week:

- 7 pounds of biscuit
- 7 gallons of beer
- 4 pounds of beef
- 2 pounds of pork
- 3 quarters of a salt fish
- 2 pints of peas
- 6 ounces of butter and
- 12 ounces of cheese.

This was allocated as follows (probably over two meals per day):

Sunday	1lb biscuit	1 gallon beer	1lb pork	1 pint peas		
Monday	%	%	2lb beef			
Tuesday	1lb biscuit	1 gallon beer	2 lb beef			
Wednesday	%	%	1 quarter fish	2oz butter	4oz cheese	
Thursday	%	%	1lb pork	1pint peas		
Friday	%	%	1 quarter fish	2oz butter	4oz cheese	
Saturday	%	%	1 quarter fish	2oz butter	4oz cheese	

It is probable that the amount of protein supplied to the sailors exceeded that available to a labourer on land at that period, but did not supply the calorific values required for such heavy work. This was made up by the beer available to a certain extent. Evidently the officers also drank wine, from the evidence of surviving pewter wine flagons and they may have enjoyed better quality grades of the same provisions.

Evidence of pottage as a food for children, together with extended lists of provisions (for teaching vocabulary) including the new and fashionable Gallimaufry (hash or ragout) is found in the conversation manual of Hollyband and Erondell. Whilst the adults' dinner food is ample enough for a wedding, as one of the guests remarks, it is particularly interesting for its local observations and comparisons. For example the merits of wild boar over domestic pig, the excellence of the taste of turnips from Caen over English turnips, of turkey as a dinner food and the strengths of Dijon and Tewkesbury mustard, together with the observation that hunting an animal tenderizes its meat. There are typical French jokes about poor English food including over cooked cabbage. One of the manual's most important contributions is the daily record of a child's school meals:

Our breakfast in the morning is a little piece of bread made of meal not bouted [sieved] but with all the bran in it, and a little butter, or some fruit, according to the season of the year. To dinner, we have herbs, or everyone a mess of porridge [pottage] a kind of delicate meat made of fine wheat flour and eggs. Upon fish days, fleeted [skimmed] milk in deep porringers (where out the butter is taken) with some bread put in it. Some fresh fish, if in Fish Street it can be had at a reasonable price. If not, salt fish well watered. After, peas, or fitches, or beans, or lupins.

(M. St. Clare Byrne, 1949, 8)

The account continues equally interestingly with a menu of food for supper time which consisted of a salad cut up small and dressed with olive oil, put forth of a vessel with a long neck (cruet) and vinegar a thing of evil taste and unhealthsome together with stewed mutton, dry prunes, or small roots, or chopped herbs [vegetables]. Occasionally there was a very good gallimaufry of minced meat. As with the adults in the household there was a little roast meat, especially veal or kid on meat days, or eggs, roasted, fried or poached, or after the fashion of a pancake in a frying pan with vinegar or vergis [verjuice] on fasting days. Sometimes a small amount of fish was added to this; the meal ended with cheese and nuts.

The children drank small beer and occasionally watered wine (often Claret, Graves or Orleans wine). Other refreshments were sometimes called *drinking* in the afternoon or evening:

Our drinking at after none is, a little bread and almonds, dry figs or rasins

There was fruit in summertime, pears apples and cherries, fresh milk or curded, fresh cheese, cream, lupins (peas, beans, lentils etc) and other farm produce.

In all a healthy and balanced diet which contradicts the usual impressions of a mainly meat but little vegetable fare and in keeping with the contents of 16th and 17th century middle class *receipt* books where much time and energy is expended on preparing salad vegetables of a great variety of plants. The Pewterers also ate salads and vegetables bought at the nearby Gracechurch Street market in the City, and which were wheeled round to the Hall by a porter for their feasts or bought from a *herb woman* but these were not considered worthy of much emphasis in their account books in comparison with other more expensive food. At least salad vegetables were sufficiently popular and decorative by the late 16th century to acquire their own set of *salat* dishes as the Petre accounts indicate (ERO DDP F205). The details of food obtained from these three accounts, those of the Pewterers at their feasts and dinners, the naval crew aboard the *Mary Rose* and the account relating to school children and their family in late 16th century London, show that varieties of meat . boiled, roast and baked, a much smaller amount of fish, together with white meats including eggs and cheese remained as in the medieval period, the primary foods eaten up to the 1650s when the Entertainment Books of the Company end. Neither did the pattern change very obviously after the Restoration as shown by excerpts from a French visitor's journal describing a typical English meal of the 1690s and quoted below although there was an increasing interest in improved varieties of fruits and vegetables, sometimes enjoyed on their own, or *swimming* in butter. The tableware requirement for serving up and eating these foods is further discussed below.

3.4 Social Practices

The accepted practice of dining during the medieval period, as shown in contemporary illustrations and by books of etiquette, is that following hand-washing in basins with scented water poured from a ewer held by a servant, and after Grace, diners sat at fairly sparsely covered tables set out with linen cloths and napkins, an elegant salt cellar and knives for communal use. Individuals sat at places according to

their social status, nearer or away from the host as appropriate, with the elaborate salt marking this boundary. Drinking vessels for communal use awaited on an adjacent cupboard to be fetched by a servant as required. Food was served in large dishes and platters from which two or more diners cut or pulled portions with their fingers and the aid of knives, putting them down on individual thick slices of bread known as trenchers (Fr. *tranche*, slice). Pieces of wood, pewter and sometimes silver might support the bread, minimising stains on the cloth and providing a cutting board, and which also became known as trenchers.

Manuscript illustrations of élite dining showing Richard II and his nobles (fig 9) show large rectangular trenchers, probably of precious metal set before each individual. Royalty and members of the aristocracy probably always had their own trenchers as was fitting, so the illustrations showing sole use of a trencher are making a point regarding social status since humbler folk would have shared theirs. There were no individual place settings in homes of more lowly status, so the medieval instruction manuals are also making this distinction regarding status. By the late 16th century it was less usual to have a trencher mate to share with as individual tablewares were expected by this date.

Fig 9



Trenchers in use. Richard II dining 15th century. (British Library/Museum of London).

Contemporary descriptions of the progress of a royal meal or Lord Mayor's feast sometimes provide a different emphasis . that of conspicuous consumption and a profusion of rich dishes and food to indicate supremacy even when the monarch is not present in person (Wilmott, 2005).

The present writer explores these two aspects of serving and eating and shows for the first time how the innovative products of the PewterersqCompany adapted to the change in customs of the time.

As long as buffet style dining remained the usual practice, sets of serving dishes were needed and the emphasis was on conspicuous consumption of both food and utensils used. This impact was gradually lost after the introduction of French style dining, where one dish was served at a time, per course from the later 17th century. Improvements to the basic wooden trencher, such as turning, produced the small, round, wooden plate of about 200mm (8inch) diameter by the 16th century (fig 22 below) although dishes and bowls were still the main form of eating utensils aboard the *Mary Rose*. The most usual way of conveying food to the mouth at this date would have been by hand and with the possible help of a spoon, although very few spoons survived from the ship. John Aubrey, the 17th century antiquary and historian also confirms the use of small wooden bowls for eating, along with wooden trenchers (Evan-Thomas, 1932, 53).

Prompted by the trade requirements of Spain, their biggest overseas customer in the early 16th century, the Pewterersq Company manufactured and exported the Spanish trencher ±. a flat broad rimmed, round vessel similar in form to maiolica plates, retrieved from the wreck of the Spanish Armada (fig 10).

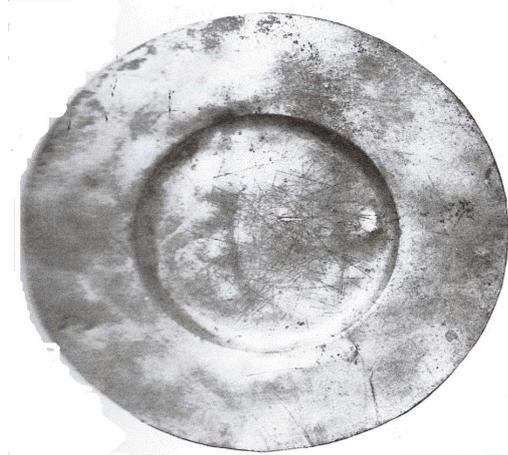
Fig 10



Spanish trencher 1550-1600 diam. 9½inches. (Museum Boymans-van Beuningen).

A novelty in the 1550s, the Spanish trencher appears to have influenced the production of the first plate for the English domestic market . a properly hammered, stripped and polished product with a fillet or binding and strengthening strip around the edge (fig 11) which became popular by the 1630s.

Fig 11



London Wall plate mid-17th century diam. 8½inches (215mm). (Museum of London/Neville Smith).

Although following the broad rimmed styles popular for serving dishes from the 1530s, this new form - the plate is unusual in having a very small well and broad rim, the latter would receive much stress if used for eating in the conventional way with fork and knife. As the fork had only recently (James I 1603. 1625) been introduced and was not generally popular until the later 17th century, it is most likely that the food was still picked up with the hands or anchored with the spoon for cutting with the knife, then conveyed to the mouth. Visiting Italians in 1669 considered English eating customs without a fork barbaric and quite unacceptable (Magalotti, 1821). The form of the broad rimmed plate even influenced the style of dishes and platters, with very broad rimmed flat examples of both being popular by the Restoration in 1660 (fig 12). This broad rimmed style was to remain in fashion until 1670 when narrow rimmed plates with broad flat bases came into fashion - these had cast reeds or ridges round the rims for strengthening purposes (fig 98).

Fig 12



Broad-rimmed charger (diam. 28ins (71mm) and pair of dishes (42mm) c. 1670. (PewterersqCompany).

Fig 13



Middleham Castle dish 15th century. (Christie's, May 2007, London).

These narrow rimmed plates would have been a more suitable and stronger receptacle for use with a fork and knife, forks now becoming more common. These two-tined forks were used to hold the meat while it was being cut up with the knife and were probably not used for carrying food to the mouth. In this instance it was less useful than the spoon, as still used by Americans today, that is curved end held down to anchor the food while it was being cut and then carry it to the mouth. About 1690 three-tined forks with shorter tines were introduced and used to lift food to the mouth. The Pewterers Company purchased a dozen forks and knives in 1702-3 probably of this new form (Welch II, 174).

In 1673 the Company's assize (Welch II, 145) included both dishes and plates . the latter for the first time as a production item. The plates were small, ranging in size from 1¼lb - ¾lb each in comparison with the fifteen sizes of dish from 20lbs - ½lb. This writer argues that the production of the plate was not food related but rather sprang from trade requirements and manufacturing improvements of the time as was the case with the wooden plate from the basic trencher. Neither was its introduction specifically related to the use of the fork, appearing some 60 years before the general acceptance of that. Interestingly the inferior trencher plates continued to be made at this time in 1673 as further discussed below. The porringer and bowl continued to be in popular use as much for the new French soup or *potage* as the traditional stew or pottage. Children's porringers had two handles, adults' one according to Randle Holme in 1682. Extant examples are discussed in Chapter 5. With the separation of the banquet as a separate course in the 16th century, a greater variety of fruit trenchers and spice plates were produced for this purpose. These are further discussed in the Survey of Forms in Chapter 5. The increased consumption of beer likewise influenced the production of

drinking wares, especially sealed measures, tankards and tavern pots, and goblets and cups for wine. Competition was offered by delftwares, stonewares, and glasswares, and some members of the Company played their part in developing these new products for the storage and consumption of wine and beer as discussed below.

3.5 The Garnish

A garnish is a set of pewter tablewares for serving food to the table, and comprised twelve platters, twelve dishes, and twelve saucers. These items were sold by weight but are here given linear dimensions and height ratios for the first time. The modern meaning of the word garnish implies decoration, so it did to the users of such vessels. Harrison referring to the gradual increase and wealth amongst his parishioners in Essex in the mid-16th century, refers to the yeoman farmers who had:

learned also to garnish their cupboard with plate

And the Pewterers Company themselves, who in 1535 bought new red velvet to refurbish one of the warden's ceremonial crowns or garlands (Welch I, 46):

for the new garnishing of the garlands which the wardens be chosen with... 7s 11d

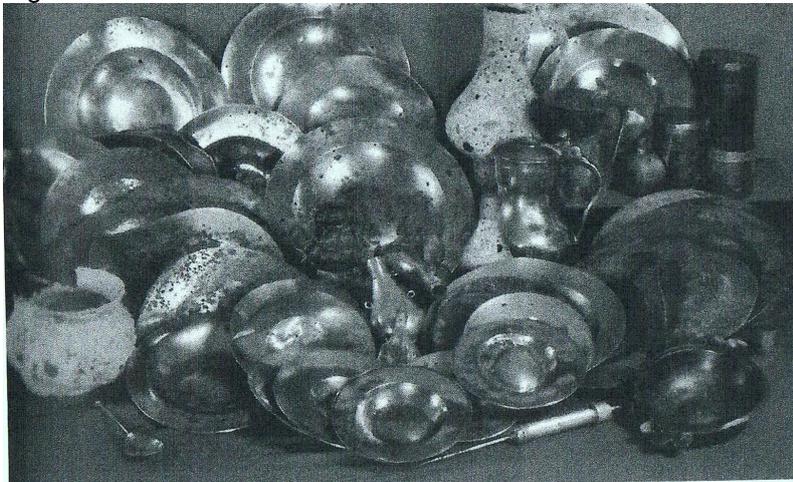
These sets of serving vessels were therefore seen both as utilitarian and decorative for ostentatious display, both on the table and around the hall. Purchased by the monks of Battle Abbey in 1384-5 who provide an early reference to . 12 pewter vessels garnish for 13s (Searle and Ross, 1967, 80) this use was still relevant in 1682 when Randle Holme, Chester Herald described the function of the garnish (Holme, 1682, 4)

both for necessary use (as, putting of meat into them), to serve up to tables; as also to adorn their country houses, and court cupboards: for they are not looked upon to be of any great worth in personalls that have not many dishes and much pewter, brass, copper and tin ware, set round about a hall, parlour and kitchen.

The larger the platter and broader the rim, the better for display, a point not lost on the Pewterers Company who were producing broad rimmed dishes from at least the 1530s to the 1660s when such rims were at their largest (fig 12 above). The surviving twenty-seven platters and dishes from the *Mary Rose* garnish (fig 14) provide something of the massed effect of these shining wares. The remains of three other garnishes have been recovered: that from Guy's Hospital (five platters, three dishes),

two dishes and a saucer (Witham-on-the-Hill, Lincs.) and two platters and two dishes from Nonsuch Palace.

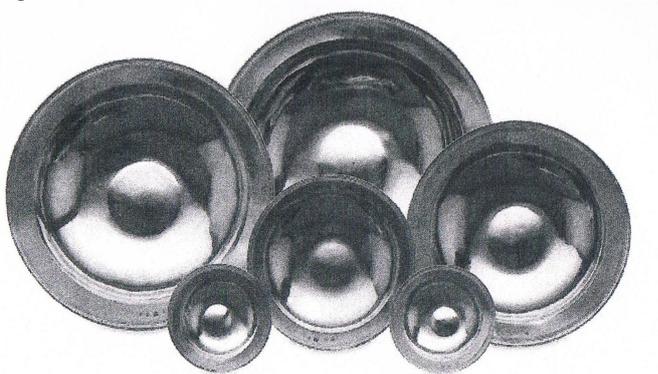
Fig 14



Selection of the many surviving pewter objects. (The Mary Rose Trust).

Not surprisingly the term *garnish* was also used to describe sets of silver tablewares and are recorded as such in the Inventory of Henry VIII (Starkey, 1998) although silver more seldom survives from the period prior to 1700 than pewter. One exception is the remains of a garnish of 26 pieces dated 1581-1601 in the collections of the British Museum (fig 15).

Fig 15



Part of the *Armada Service* parcel-gilt dishes 1581-1601. (British Museum).

It belonged to Sir Christopher Harris, a provincial Admiralty officer in the West Country. These deep dishes, some of which might be inverted to act as lids, are thought to have been used for eating Spanish *ollas* (oleos) or stews of mixed meats fashionable at the time. The depth of the dishes would help to keep the food warm, a point raised by William Harrison in his description of new types of deep pewter vessel introduced in his lifetime and which he compared with the usual flat garnish. Silver flatwares came in to

middling class use only by the 17th century, being before that, the possession only of royalty and the nobility (Glanville, 1990), Samuel Pepys tells us proudly that in December 1666 he had two and a half dozen silver plates, pewter being in general use until this time.

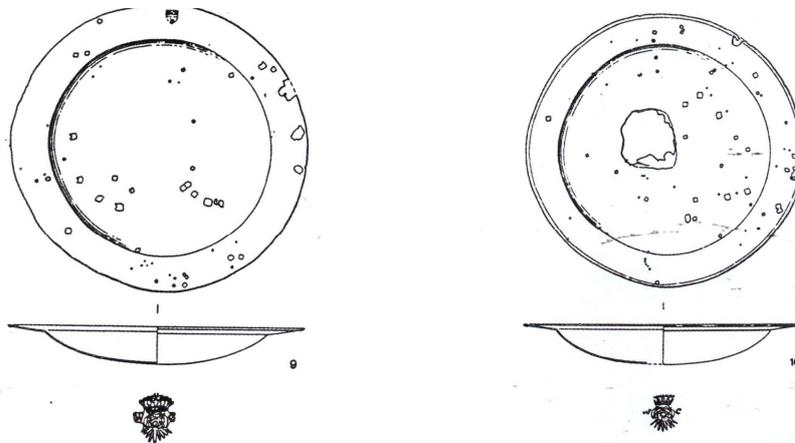
The three pewter dishes of similar style to the silver ones of Sir Christopher Harris and excavated at Witham-on-the-Hill (fig 16) of 16th century date were probably also for pottage or stew and for both serving and individual usage as Platter described. The narrow rims and deep curved bowls are a continuing medieval style which resemble the 14th century example in the PewterersqCompany collection (Hornsby *et al*, 52). Four dishes from Nonsuch Palace and dating to the late 16th century (fig 17) have rounded bases and appear to have been used near a source of heat, one having melted through contact with a kitchen range or fire place.

Fig 16



Witham-on-the-Hill dishes mid-16th century. (Museum of London).

Fig 17



Nonsuch bowls, late 16th century (M. Biddle/Oxbow). Maker Thomas Curtis TC

The term garnish does not appear to have been used to describe sets of wooden or pottery dishes which were made in similar sizes (Pearce 1992, 9-13). Harrison also tells us how pewter is replacing wooden tablewares in the homes of his middling class rural parishioners by 1577 (Edelen, 1966, 200). In poorer homes in London there was yet another possible replacement . pottery. One of the new forms to appear on the London market in the late 16th century was the yellow glazed, white bodied pottery, known as Border Wares made in Ash in the Surrey/Hampshire borders. Dishes for serving food to table first appeared in this ware at this time. Termed *flanged dishes*(i.e. rimmed) they are considered to be inspired by contemporary pewter (Pearce, 91). Such dishes would certainly have been bought by those wanting a change from wooden wares but not yet able to afford pewter, and were suitable for serving and eating most foods available. More attractive and hygienic than greasy wooden dishes, they were of course, less durable; pewter possessed both positive qualities. No flat plates appear in this ware although small (178mm +) examples in London delftware survive; the soft glaze makes them impractical for extensive use.

Most pewter tablewares, and other items, were cast, with the expensive moulds being shared amongst members of the craft. Whilst a certain conformity was to be expected as a result of this practice, the Ordnances of 1438 (Welch I, 11, 12) indicate the wide range of dish sizes available, although the terminology *Kings dishes, hollow dishes, small hollow dishes* for example, is unhelpful to modern readers, as there are no distinguishing factors, apart from weight per category of item to identify the vessels.

As well as checking the weights of flatwares from the *Mary Rose* to see whether they conformed to the standards set down by the Company, and therefore whether they were likely to be of English origin, the present writer has also correlated linear dimensions for the three forms . platter, dish and saucer . for the first time (Table 5). The remains of the garnish (twenty-seven items) from the ship, is valuable because the makers mark, *FC* confirms they were all made by the same individual so providing some consistency of manufacturing technique. The linear dimensions of similar wooden and pottery tablewares are also given for comparison below and the height ratio is provided for all three types of ware:

Pottery dish 1:3 to 1:7; Bowl 1:3

Pewter platter 1:6; Dish 1:5 and saucer 1:4

Wood platter 1:7; Dish 1:6 and bowl 1:3

Table 1**Pewter, Wood and Pottery: Some Comparative Linear Sizes**

Pewter (1545) Diameter	Wood (1545) Diameter	Pottery (16th-17th century) (Pearce 1992) Diameter
15 platters. 308-327mm	12 platters. 276-352mm	
10 dishes. 262-274mm	116 dishes. 170-385mm	90 dishes. 230-330mm
14 saucers. 190mm	Average 303 mm (265-381mm)	7 small dishes. 16-168mm
	Bowls. 150-459mm	Bowls. Wide, deep and handled. 130-320mm
	Most. 270-280mm	
	52 drinking bowls. 200-230mm	
Guys Hospital. 5 platters. 340mm		
15 dishes. 268mm		
Witham-on-the-Hill: 1 platter (312mm), 1 dish (242mm), 1 saucer (153mm)		
Nonsuch: 2 platters (320-370mm) 2 dishes (225-290mm)		

Dish diameters are broadly similar for pewter, wood, and pottery, but wooden and pottery dishes have greater size ranges, pewter being tightly restricted to the 262-274 range of diameters. Saucers of 190mm diameter common in 16th and 17th century pewter have a few parallels only in pottery small rimmed bowls. There is one small wooden bowl of 170mm diameter also. Pewter platters are counterparts for the pottery and wooden bowls. These latter came in two sizes: serving bowls of 270-280mm and larger at 443mm diameter grease stained with food residue. A group of 52 bowls with diameter less than 260mm (mostly 200-230mm) have tapered rims and were probably used for individual drinking and eating. Pottery bowls are of three types, wide, deep, and handled with diameters ranging from 130-320mm, but were probably used only for storage of food.

3.6 Function: the Garnish in Use

Contemporary accounts provide helpful insights into the progress of a meal: Harrison when describing the meals of merchants within the City of London, says that merchants and gentleman

keep much about one rank and have 4, 5 or 6 dishes with company but 2 or 3 if alone at their tables.q

He assures us that they did not over eat:

few men taste of every dish but eat from those he likes best, every dish being taken first to the most important person at table.q

This may explain manuscript illustrations which show the food placed before the monarch, or other important person as a sign of status but relatively sparse elsewhere on the table.

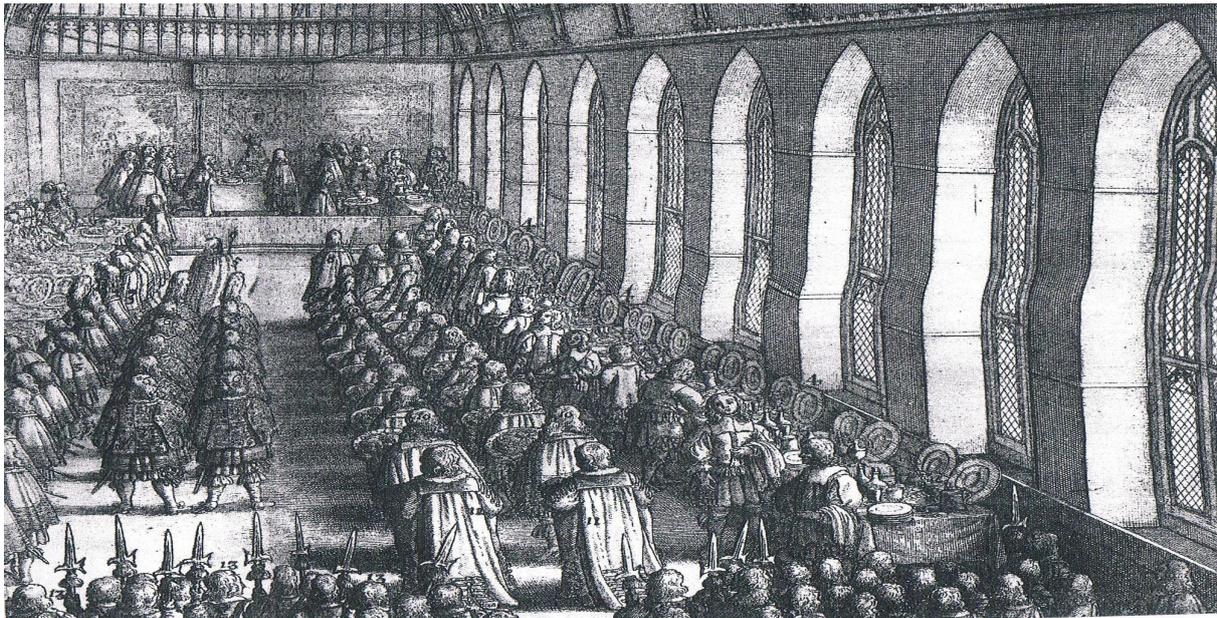
Status dictated the number of dishes served and the richness and variety of the food. At the Pewterers Company's own feasts, the numbers of dishes varied according to whether it was the Master's feast, the Court of Assistants or for the Yeomanry, and the latter did not appear to enjoy what the Court of Assistants received. The following details are taken from the Company's Entertainment Book (GL MS 22191).

Nine dishes of food, as served at some Master's feasts appeared to be the maximum number of dishes offered . 6 in the first course and 3 in the second for 11 or 12 messes (portions for 4 people) and 7 messes at a Quarter Day (with 5 dishes served). There were so many of the Yeomanry attending their supper on 23rd November 1637 that 21 messes were ordered although only 19 were served, and with 5 dishes offered. The relative numbers attending can be seen from the number of messes allocated, and the number of dishes at each course show the importance of the meal provided.

Hundreds of pewter dishes were required along with the ample provisions. Pewter was frequently hired out - some 9000 pewter platters were required for the Lord Mayor's banquet in 1505 and several Pewterers kept a stock of feast vessels to hire out on occasion, at considerable profit (Hatcher and Barker, 1974, 52).

Clearly the array of flatwares at a Master's feast, when six dishes were served all at once, to each of eleven or twelve messes at the table, along with accompanying sauces- perhaps an orange sauce for the capons and mustard sauce for the beef in saucers of similar style was an impressive sight. Broad rimmed dishes were popular from the 1530s and through the 17th century until about 1670, probably with a view to increase this dramatic effect (fig 5).

Fig 18

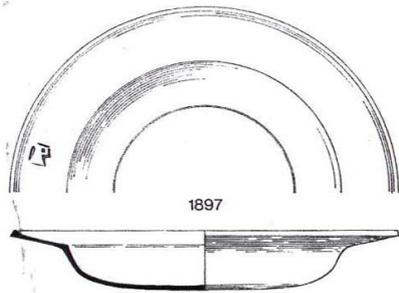


'Charles II at the Feast of the Order of the Garter' E. Ashmole, Institution, Laws and Ceremonies of the Order of the Garter 1672. (Society of Antiquaries).

The different components of a garnish: dish, platter, charger (if used) accommodated the meats in the appropriate order of service - firstly the dish for boiled meats, the platter for roast and baked, and the chargers, or largest platters, for whole roasted animals or large birds. Baked meats were regarded as of higher status than boiled or roast. A venison pasty would come into the baked category: it involved more work than roasting or boiling and was therefore more prestigious as an item in addition to the meat which it contained. In the medieval period there were restrictions on those eating roast or baked foods.

The oldest surviving piece of British flatware is the saucer from Southampton (fig 19) dating to around 1290 and which would have been used for a sauce or side dish, such as olives. Saucers were made in at least four sizes by weight, according to the 1438 specifications and the range expanded into ~~trif~~trif alloy in three sizes by 1612 (Welch II, 62-63). See also the Survey of Forms Chapter for discussion of surviving pieces. This may explain in part why the post-medieval ones are found in a variety of alloys (Brownsword and Pitt, 1984, 240-241).

Fig 19



Southampton saucer c. 1290. (C. Platt/Leicester University Press).

For the naval diet aboard the *Mary Rose* pewter dishes and platters accommodated the boiled meats and any superior fare that the officers may have received over and above the basic rations. Twenty-three items of Sir George Carew's garnish survive, all of which show his initials, G.C. and were for his and possibly his officers' use. No trenchers survived so officers may have eaten from dishes of the size found (262-274mm) or even saucers (190mm). This appears to have been what the crew did as their wooden dishes were of 260mm and above and in a wider range of sizes. They may have shared these larger dishes with one or more of their messmates or used the individual bowls (200-230mm) eating boiled pork, beef or fish according to the daily ration, together with boiled peas and naval biscuit. There was no space for tables so the simplest eating arrangements possible would have been necessary on the crowded decks. This food could be eaten with the fingers which may explain why there were so few spoons.

This eating pattern, whereby all the food was put on the table at the same time, usually in two courses remained largely unchanged into the 18th century and was commented upon by a French visitor to England in the 1690s, Henri Misson, who recorded his impressions of a typical English meal:

(cited in Earle, 1989, 273)

Among the middling sort of people they have ten or twelve sorts of common meats, which infallibly take their turns at their tables, and two dishes are their dinners: pudding, for instance, and a piece of roast beef; another time they will have a piece of boiled beef, and then they salt it some days beforehand, and besiege it with five or six heaps of cabbage, carrots, turnips or some other herbs or roots, well peppered and salted, and swimming in butter: a leg of roast or boiled mutton dished up with the same dainties, fowls, pigs, oxtripes, and tongues, rabbits, pigeons, all well moistened with

butter, without larding: two of these dishes, always served up one after the other, make the usual dinner of a substantial gentleman or wealthy citizen.

Whether it was this typical English meal pattern or the new style of serving dishes singly and one at a time which was coming in during the late 17th century period, the garnish remained the main tablewares required. Some bowls, especially in wood and pottery and also pewter may have had a multi-purpose role and also been used for eating solid foods as well as pottage, as Platter observed in 1599 and as was the practice in the navy for boiled foods. The usual emphasis was on the number of dishes and there was little reference to the individual trencher. Nevertheless, by the time of the 1673 assize of wares, the fully fashioned plate had become an established part of the Pewterers' output along with dishes in a range of sizes as before (Welch II, 147-8). An explanation of how the plate evolved is given below in the section on the trencher.

3.7 Trenchers and Plates: Form and Function

Whilst the garnish of pewter took the limelight at table, what was the role of the humble trencher? What exactly was this, now obsolete form of tableware? The present writer examines the surviving evidence and traces its influence on the development of the plate, with particular reference to the Spanish Trencher, a flat broad rimmed form previously unrecognised. The Court Minutes of the Pewterers' Company provide evidence for the distinction of the two products, plate and trencher, as discussed further below.

Originally the trencher was a flat slice of bread onto which food was served, and by extension the metal or wooden blocks on which the bread rested. The Luttrell Psalter (fig 20) shows Sir Geoffrey dining from an elaborate hinged metal trencher, but humbler people would have used simple blocks of wood. By the 16th century the trencher had developed into flat trencher plates with a rim, and subsequently into the well made plate of similar form by the 17th century. Medieval illustrations like the Luttrell Psalter show the high born eating from individual trenchers, whilst more lowly people shared theirs, sometimes even into the 17th century as in colonial America (Hawke, 1998, 56).

Fig 20



The Luttrell family at table. The trestle table is covered with a plain white cloth. On the table are metal trenchers, knives and spoons; bowls of wood and metal; covered bowls; loaves of bread, some already sliced. (British Library (Add. MS. 42, 130 f 208 r)).

Forms

No trencher of British pewter survives, although there are several examples in Dutch collections and a possible circular example comes from the Thames (fig 21).

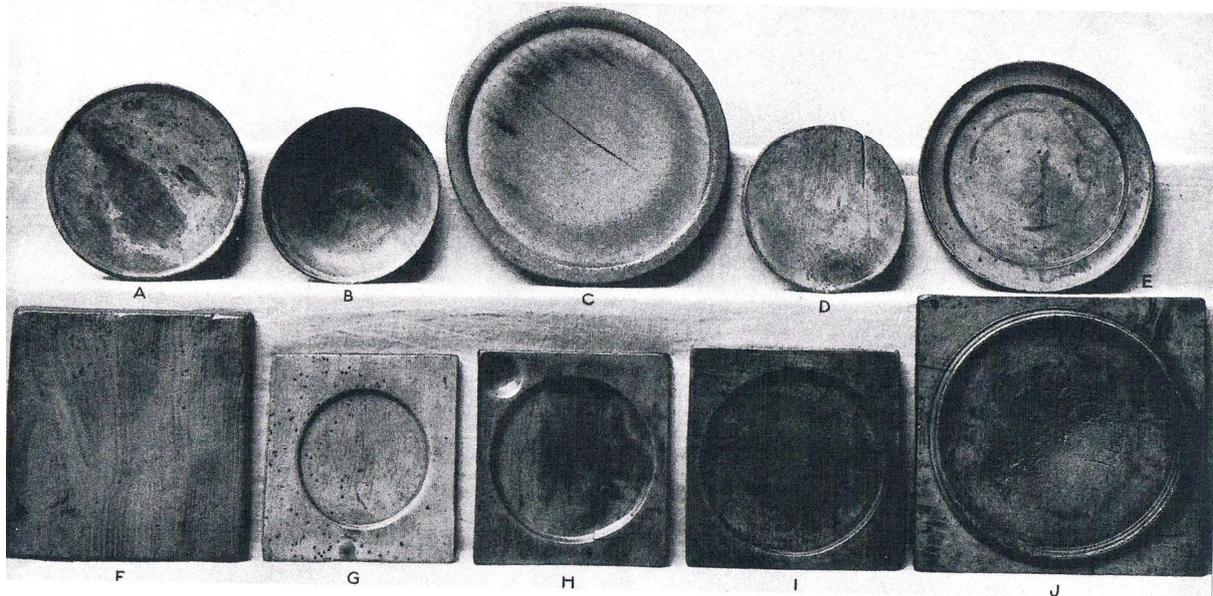
Fig 21



Trencher, unstratified. (R. Homer/Pewter Society).

Some British trenchers of wood do survive, however (fig 22) and were published by Owen Evan-Thomas in his *Domestic Utensils of Wood from the XVI – XIX century* in 1932, 24. They are of considerable importance in providing evidence of this illusive form of tableware in the 15th-17th century and the probable link with the more developed version, the round trencher plate (also illustrated in fig 22).

Fig 22



Trenchers and Platters 15th-17th century. (O. Ewan-Thomas).

There are three types: F - the primitive wooden trencher, H - trencher with hollow centre and cavity for salt and D - flat circular platter on foot respectively of 15th, 16th-17th and 16th century date. Ewan-Thomas does not explain the evolution from square trencher to round trencher plate. Some writers link this to the consumption of more solid foods by the 17th century. The present author shows that there is no particular link with food types, but rather considers it one of natural refinement and evolution. This argument is supported by documentary evidence from early colonial Connecticut, cited by Earle (1896, rev. 2006, 46) where a local deacon, who had a wood turning mill, turned a round trencher each for his children. For this his neighbours castigated him as:

deeply extravagant and putting on too many airs . both to quantity and quality, since square trenchers, one for use by two persons, were good enough for anyone, even a deacon.q

The round trencher plate thus amounts to a simple technical improvement . turning . of the primitive wooden block trencher.

What was the equivalent transition from block to round trencher plate in the pewter industry? Already by 1547 in the Inventory compiled on the death of Henry VIII (Starkey, 1998 (ed.)) there are references amongst a variety of trenchers in exotic materials probably for sweetmeats as discussed below, to two trencher plates of silver. It is likely that references to pewter plates of the new shallow type in the Blackfriars house, London of Sir Adrian Fortescue in 1540 (NA E 101/519/17) were of similar style, and surviving examples are further discussed in Chapter 5.

The fashion for pewter tableware with flatter bases instead of the older bossed centres was favoured in Europe in the 16th century and was spreading to Britain about this time as was the demand for broad rimmed dishes and platters. They are found aboard the *Mary Rose* and the Audit Accounts of the Pewterers Company (MS 7086/2 f 13 r) show they were in use by 1530 when moulds of this style were bought. The two styles merged by the end of the 16th century with the introduction of flat broad rimmed dishes and platters which were the dominant form through the 17th century until about 1670 when they were superseded by flat, broad based tablewares with narrow, sometimes cast rimmed rims.

The Pewterers Company had an important part to play in this evolution since they introduced a flat broad rimmed trencher already prior to 1551, some fifty years before the general acceptance of the style at the end of the 16th century.

This novelty was the Spanish trencher made especially for the Spanish export market . the Pewterers biggest client in the 16th century. The Spanish trencher was a flat circular broad rimmed article (240mms diameter), an example of which has been identified by the present author in the collections of the Boymans Museum in Rotterdam (fig 23).

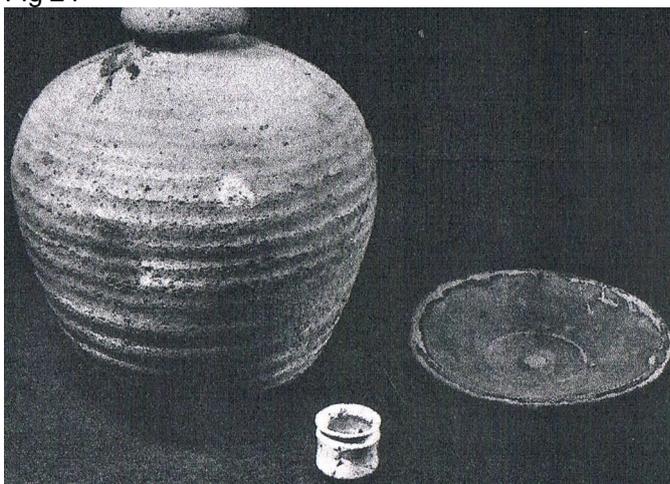
Fig 23



Spanish trencher 1550-1600. Diam. 9½ins (240mm). (Museum Boymans-van Beuningen).

A dozen were presented by the Company to the wife of Sir John Baker, Speaker of the House of Commons in 1551-2 (Welch I, 171) so were considered a worthy gift. This type of trencher appears to have been based on the type of flat maiolica plate with small centre popularly used in Spain in the 16th century, and provided in their thousands to the Spanish Armada, two examples of which survive from the wreck of *La Trinidad Valencera* (fig 24) the pewter Spanish trencher thus provided a more durable product for the Spanish market, one well suited to consumption of the national braised foods (Lister, 1981, 108). A further account of this type of trencher is in Chapter 5.

Fig 24



Andalusian ceramics recovered from *La Trinidad Valencera*, a vessel operating as part of the 1588 Spanish Armada lost off the coast of Donegal, N. Ireland. Left, *botija perulera*, or olive jar Middle Type B of half-*arroba* capacity; right, discolored white maiolica plate; lower center, small white maiolica drug or ointment jar, *albarello*. (Courtesy Colin Martin, Scottish Institute of Maritime Studies, St. Andrews).

The Pewterers refined the Spanish trencher with further hammering, stripping and polishing the surface, and adding a strengthening band or fillet to the rim for the domestic market, to produce the popular broad rimmed plate with small (approx 100mms) well or base, which remained the dominant style until the 1670s as mentioned above. Early 17th century plates of this type rarely survive, but one belonging to Henry Skerry, Cordwayner is illustrated (fig 25).

Fig 25



Henry Skerry's plate c. 1637. (Worcester Historical Society, Worcester, Massachusetts, USA).

This is well documented to the effect that Skerry took the plate to New England from Ipswich in June 1637 (Joy Cattanach in Fairbanks and Trent, 1982, 270). With a diameter of 245mms (like the Spanish trencher) this plate would have been used for food consumption by an individual, rather than used as a serving dish. An examination of the *Mary Rose* dishes shows these latter are in the range 260-275mms while

surviving 17th century plates measure 190-255mms diameter. The broad rim width of the Skerry plate is 59mms and its height 6mms. It is hammered in the boogie and of high tin content so likely to be of London manufacture. There are four hallmarks on the rim (see Chapter 6 for further discussion on this point). Plates of this type would have been used with a spoon, knife and fingers. Hollyband's conversation manual of 1570 shows us how they function when he instructs that for adults (Byrne, 9):

set at every trencher plate, a knife, a spoon, and a silver fork

the latter being used for sweet meats. Several examples of silver forks survive the Spanish Armada wrecks (fig 26). Children are told to pass bread on a trencher plate rather than by hand. Still in use at this time for adults was the bowl for eating with the fingers, but with the plates as well acting as a placemat, as Thomas Platter describes when dining with the Lord Mayor's Swordbearer in 1599: they laid the food in small pewter bowls placing these before each person upon plates one course after another the old and new style tablewares together. Extant examples of small wooden bowls for eating with the fingers are in Evan-Thomas (1932, rev. 1992, 123) and the fifty-two bowls with tapered rims of 200-230mms from the *Mary Rose*.

Fig 26



A selection of Silver Forks from the *Girona*. Note the terminals in the form of an animal hoof and of serpents, and at the top that of a club. (Ulster Museum).

At the Company's feast on 23rd March 1650 (MS 22191 f 31 r) however, where the counting of the house pewter is recorded, five trencher plates are listed as missing

but immediately below this ~~4~~ Received of ye trenchers possibly for the same items. There is no record of any plate of the Skerry standard at their feasts.

The two wares, trenchers and plates, were by this date (1640) different items, the former a rougher version of the latter and which continued in use certainly until the assize of 1772 (Ricketts, 2001 17, 23). The 1673 assize gives details of the different levels of work required for Spanish and ordinary trenchers (Welch II, 148): additional hammering of the booge to strengthen the trencher then shaping, cleaning up and finishing the surface. The new fashioned plates the Court considered required however,

~~much~~ more and better workmanship,

which included striking a fillet or binding strip on the rim edge. In ensuring this high quality for plates, the Company brought this new product up to the standard of their dishes, saucers, and platters. The assize of 1673 lists plates separately from dishes, but by the 18th century, the plate, made in matching styles to the dishes and platters, had become an integral part of the garnish (as for example the Company's own garnish by Thomas Chamberlain of c. 1750: WCP, 1979, 22 S1 | 113 | 1-34 with its matching plates, dishes and platters. The only distinction is that plates remained round, whereas the rest of the garnish was frequently oval.

Hollyband's dinner party guests enjoyed the use of silver forks to handle their sweetmeats, as mentioned above, as did the officers aboard and like those retrieved from the Armada wreck (fig 26). Iron serving forks had been used for handling roasts and other cooked meats since the medieval period, but a personal fork was known in Britain in ivory and silver as an accessory only. The steel two-tined variety was introduced to England from Italy during the reign of James 1st (1603. 1625) but was not in general use until the late 17th century when it was used (as was the medieval form) to anchor meat while it was being cut with the knife. The three-tined fork introduced about 1690. 1700 was also used to lift the food to the mouth on its shorter tines. The newly redesigned curved knife assisted by pushing the food up towards it, its old function of spearing food being taken over by the fork.

Hand washing

The elaborate hand washing rituals described in medieval books of manners, and in the 1570s by Hollyband (Byrne, 66) where young unmarried men were allowed to wash with the maidens, but adults usually washed four to a basin, appear to have

remained unchanged for 100 years. In 1669 when Grand Duke Cosmo of Tuscany toured England, his companion Count Magalotti considered table manners here lagged woefully behind those of Italy (Magalotti, 1821):

There is a great want of neatness and gentility... there are no forks or vessels to supply water for the hands, which are washed in a basin full of water that serves for all the company... at the conclusion of dinner they dip the end of the napkin into the beakers set before each of the guests, filled with water, and with this they clean their teeth and wash their hands.

Contrary to these Italian prejudices, ewers and rose water basins had long been part of the Pewterers' production. In 1612 the repertoire was extended (Welch II, 62) to include eight styles and sizes of ewer, including hawkbills, ravensbills, and French in this intermediate alloy for hollowares. These had been reduced to three types of laver (jug) by the 1673 assize: great 5lb, middle 4lb, and small 3lb. They presumably came with matching rosewater basins of fine metal although these are not listed in 1673. There were also spout-pots possibly for rosewater or wine. The description of the beaker's use on the table is interesting and a previously unknown function; rosewater vessels gradually became simplified to individual hand bowls, and the ewer and basin retreated to the bedroom for general washing purposes.

3.8 Drinking

Wine, ale and beer were the main drinks and serving vessels for these were one of the main production items of the Pewterers' Company since the 14th century. Ceremonial drinking was an essential part of Livery Company ritual. In 1488 the Company was ranked 14th in order of progression amongst companies in the City . just below the Great Twelve, so status and display of wealth would have been of particular significance. The Company completed the building of their new Hall on Lime Street in 1495 after twenty years work and they were newly incorporated (1474). Bequests of masers . with silver gilt mounts, standing cups and a salt, all of parcel gilt came from prominent members to decorate their cupboard and table, together with a whole range of silver spoons, each presented by a member on his admission to the Clothing (Livery). In addition there were six pint drinking pots with covers called stopes (stoups) which weighed 2lbs each, for individual drinking, together with three pots called drinking cruses small lidded vessels with two or more handles, also known in silver (Glanville, 1990, 260-1). To the silver items were added square pottle and elegant standing pots,

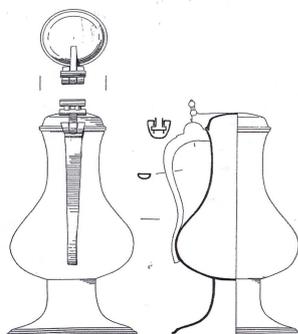
quart pots, tankards for wine, ale and beer of members own manufacture, several types of which survive today. These serving vessels for wine and ale were the Company's main hollowares. An insight into the use of such vessels is made by the invaluable Harrison (p.50) who tells us:

As for drink, it is usually filled in pots, goblets, jugs, bowls of silver in noble men's houses, also in fine Venice glasses of all forms: all which notwithstanding are seldom set on the table, but each one, as necessity urgeth, calleth for a cup of such drink as him listeth to have, so that, when he has tasted of it, he delivereth the cup again to some one of the standers by, who, making it clean by pouring out the drink that remaineth, restoreth it to the cup board from whence he fetched the same. By this device... some tippling is further more cut off.

Hollyband (p.66) provides additional information on the rinsing of the drinking vessels (in this case cups and glasses) in a wooden tub of water before replacing them on the cup board; a copper water tub kept wine bottles cool. Servers diluted wine to the taste of the diners.

Elegant covered standing cups of silver of late medieval and 17th century date were passed round the table for toasts, and remained in the Company's possession until 1802 when they were sold to buy an Elegant Spring Clock (Welch I, 238). Smaller two handled pewter toasting cups were also popular in the late 17th century and exist in the Company's collection (WCP, 1979, 63). Wassail ceremonies sometimes remain a tradition to the present day. Graceful pewter flagons on standing feet like those from the *Mary Rose* and the *Woodeaton* flagon (figs 27 and 28) and squared examples (fig 29) were displayed on the court cupboard or in a cooling cistern on the floor.

Fig 27



Pear shaped flagon mid-16th century. (The Mary Rose Trust).

Fig 28



Woodeaton flagon, 16th century, ht. 12½ inches (173mm). (Worshipful Company of Pewterers/Museum of London).

Fig 29



Bristol flagon octagonal or 'squared' 14th century, ht. 240mm. (Bristol Museum/The Pewter Society).

The perpetuation of the shared cup must be seen as important to furthering friendships and for cutting individual consumption of beer rather than simply lagging behind in terms of hygiene and individuality. Security of valued silver cups would also have been a consideration. Vessels for individual and perhaps less formal drinking have been in the Company's possession since their Inventories began in 1489-90, and probably long before. There are references to 'stope' or stoup pots; a type of tapered flagon according to silver examples (Glanville, 1990, 263) an early type of the popular and majestic 17th century flagons and to 'drinking cruses' small double (or more) handled covered pots. Extant examples of both types are known. Wine goblets of fine metal are recorded as a type in the Act of 1512 (Welch I, 101) and the newly revitalised pottery industry produced new cup forms in the attractive 'Tudor Green' glaze, along with drinking jugs and costrels (round flasks) and later in Border Wares made specially in Hampshire and Surrey (Pearce, 1992, 90) which supplied the London market. The import of German stone ware mugs was turned to advantage by the Pewterers' Company, when they bought up imports and distributed them to members to mount lids, rims and feet in pewter following contemporary fashion. Examples from Cologne were attractively decorated in relief with sprigs of flowers and others in mottled 'salt glaze'. All stoneware was very durable and able to contain any liquid. Pewter mounts had to be stamped with the 'mark of the Hall' to show they were of English manufacture and approved by the Company (Welch I, 157). Some members found stone wares such a lucrative trade that they sought to control it by obtaining Letters Patent for its manufacture (see Chapter 6).

Gradually these ventures into the ceramic trade were to overtake pewter manufacture but in the 16th century it was still a wooden world at least amongst humbler members of society. The finds from the *Mary Rose* are exceptional because they

revealed the largest assemblage of domestic wooden vessels yet recovered in the British Isles and show us the most familiar drinking vessels in use . staved wooden tankards and flagons together with turned wooden drinking bowls with tapered rims, such as have been in use since the medieval period. In rural areas these wares continued in use until the 19th century, and they influenced pewter manufacture especially in the production of hooped tankards by the 17th century (Welch II, 63) the hoops being imitations of the willow bindings put on wooden tankards. The *Mary Rose* tankards are of quart and gill (half pint) capacity (fig 30) and made of pinewood staves with oak D-shaped handles.

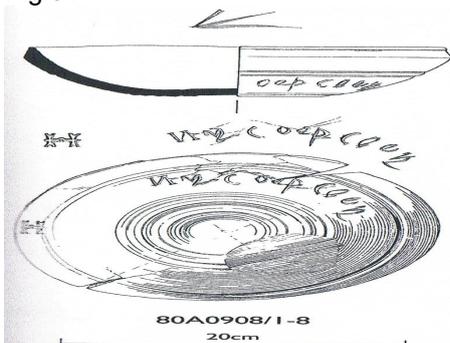
Fig 30



Tankard. (The Mary Rose Trust).

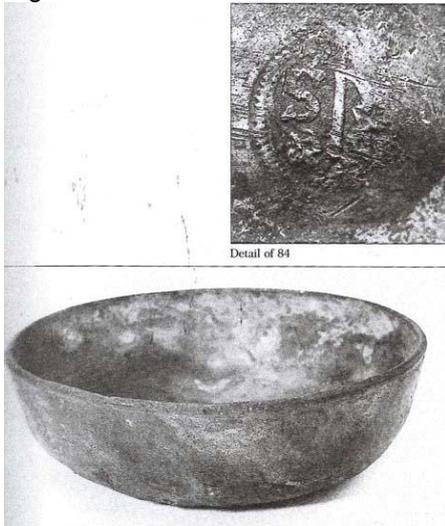
Most have some sort of personal mark indicating they were for individual use. The daily allowance was a gallon of beer; this would have provided about half the calories required for the hard physical work on the ship. The larger flagons of one and two gallons, in the same style, were used to bring the beer from the casks. The men sat and drank wherever there was room on the decks. They also used turned wooden bowls with tapered rims for drinking (fig 31) . a traditional style found also in pewter (fig 32).

Fig 31



Bowl for drinking belonging to NY Cooper. (The Mary Rose Trust).

Fig 32

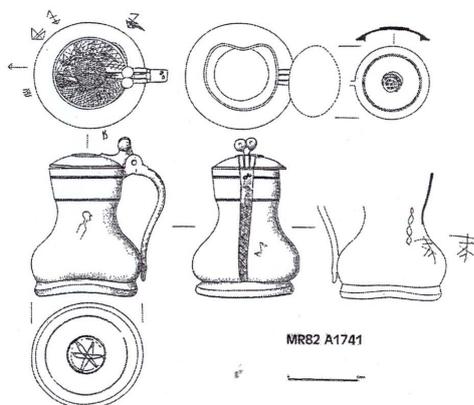


Beer bowl, c. 1638, diam. 6¼inches (160mm). (Museum of London).

The crew handling the rigging and moving about the ship would have drunk from the small leather bottles (capacity up to 4 pints) slung from a carrying thong seven of which survive along with smaller pear shaped flasks. There were no surviving blackjacks (one and two gallons) as leather equivalents of the staved flagons for serving beer.

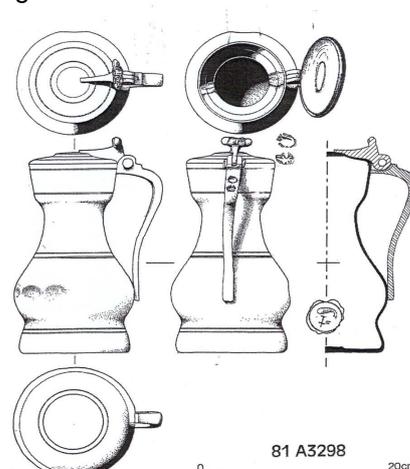
The officers drank wine served from an elegant pottle (half gallon) wine flagon on a standing foot (fig 27 above). Judging by the analysis of the metal (Brownsword and Pitt 1990, 123) this is of English manufacture (tin/copper alloy). Four other flagons and a pint measure also survived.

Fig 33



Flagon, twin ball thumbpiece c. 1545 (The Mary Rose Trust).

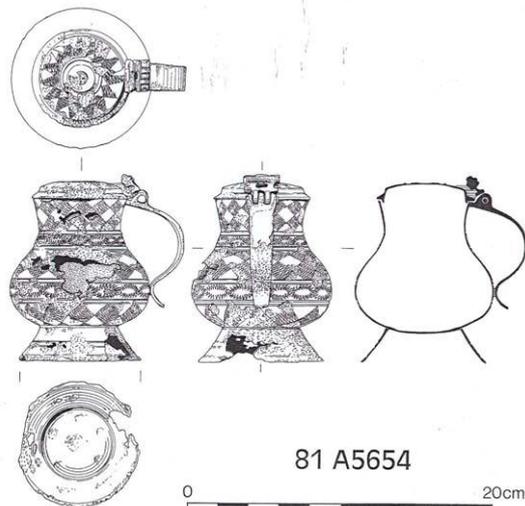
Fig 34



Flagon with twin acorn thumbpiece c. 1545 (The Mary Rose Trust).

An unrecorded form was the half pint pewter tankard engraved all over the surface (fig 35) found in a chest in the carpenter's cabin. Whilst this small size lent itself to individual drinking, the pottle and other flagons were serving vessels . the chief hollowares produced by the Company.

Fig 35



Wriggled tankard c. 1545. (The Mary Rose Trust).

By the later 16th century, Venetian glass was the new fashionable tableware for wine drinking as Harrison notes above and a crystal glass industry began in England in 1567, when Jean Carré planned to build a furnace in the hall of the former precinct at Crutched Friars in the eastern part of the City of London. By 1575 the famous glass maker Jacob Verzelini was working there. Some of his glasses were engraved for him by a Frenchman, Anthony de Lisle, who had settled in St Martins le Grand, north of St Pauls. As well as engraving glass he also engraved and gilded pewter without the Company's permission. The resulting law suit ran up a costly bill of £56 4s. It is intriguing that two glasses he engraved (figs 36 and 37) bore the motto of the Company *IN:GOD:IS:AL:MI:TRUST*. Robert Charleston (1984, 58) the late glass authority, considered there to be some association with the Company although this is not stressed by later writers (Wilmott, 2005, 138). The glasses are engraved with their owners' initials KY and a merchant's mark and the date 1583 (when the law suit was continuing) and GS and 1586 the year the Babington plot to murder Elizabeth I was foiled. Research on their provenance is continuing by the present writer, and it is interesting to note that there is a cast decorated pewter wine cup by one IK? reversed for KI or Y in the

collection of the Pewterersq Company and which is dated to the period 1590. 1610 (WCP, 1979, 37). Was this glass owned by the maker of this cup?

Fig 36



IN:GOD:IS:AL:MI:TRUST, ht. 145mm.
(British Museum and Hugh Willmott).

Fig 37



Engraved floral scene £Ygoblet 1583, ht. 225mm.
(Corning Museum of Glass, USA).

The Company used rather more utilitarian glass at its diverse festivities. On 7th November 1639 they paid 2s to hire glasses but broke a pottleqglass on the same occasion, which cost 6d.

The half gallon (pottle) glass or flask could have held rose water or other distilled water. Nearly 100 years earlier in 1555, Lady Petre of Ingatestone Hall had purchased from London (Emmison 1964, 68):

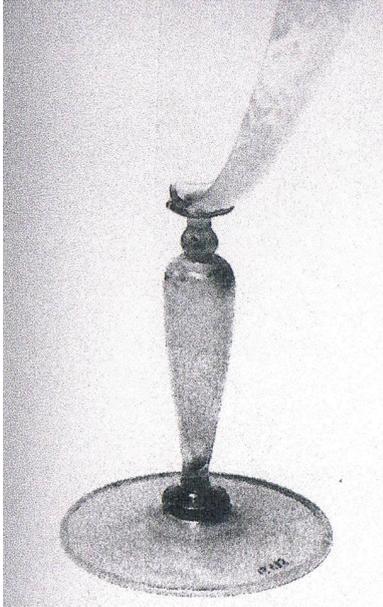
9 pottle glasses after 3d the piece for waters that were stilled this year.q

Prices doubled in the intervening years. In 1644-5 6 beer glasses±cost 2s and 3d and in 1659-60 the Company paid (GL MS 22191 f 21 r):

Mr Kempster for glasses ye whole yearō 15shillings.q

John Kempster was one of the original Assistants at the formation of the Glass Sellers Company in 1664 and may have been the Pewterersqchief supplier at this time. The supply of multiple drinking vessels implies individual use on the table. The Company may well have been using simple stemmed wine glasses with the elegant igrqstem like that found at Gracechurch Street, City of London (fig 38) and quite close to PewterersqHall in Lime Street and probably based on a pewter example (fig 39) or similar one of silver.

Fig 38



Wine-glass with cigar stem from Gracechurch Street, London. Probably made at Sir Robert Mansell's Broad Street glasshouse; first half of 17th century, ht. 21.5cm (8½inches). (Museum of London).

Fig 39



Pewter goblet, early 17th century, ht. 230mm. (Museum of London).

These inverted balusters, or cigar stems were fashionable at the time, and in glasses were made by Sir Robert Mansell's Broad Street glasshouse in the old monastic church precinct of the Austin Friars a premises familiar to the Company from their meetings there in the 15th century before they built their Hall in 1495. It is probably wine cups of this type which are itemised in the 1612 list of wares authorised to be made in a new alloy of trifle (Welch II, 62):

The high wine Cupps ha: doz: wrought & plain: both one size 00 03 00.q

Also available were the cut shortq the middle French cupqand the small French cupq. all of unknown form.

Even less familiar drinking vessels, also listed, are the *tunns*. In contrast to the high wine cups, these were small vessels for wine, and came as a stacking *nest* of three:

With salts and feet per nest	00	02di	00
With covers and feet per nest	00	02	0qr
The three cups with their covers only	00	02	00
The wrought nest tunns with salt and feet	00	02di	00

Wrought tunns appear to have been made from sheet pewter, hammered to shape, not cast. Of some 100mm in height and 75mm diameter and, they were made to stack one inside the other and so were useful for travelling, or when catering for large numbers of people. Their name is obviously something of a joke, since a tunn was an enormous cask the size of four hogsheads (54 gals each i.e. 216 gals)! Silver examples are known, though none in pewter survive. Covered vessels were regarded as of higher status than uncovered.

A number of beakers are included in the 1612 list . great, middle and small and a few survive (Shemmell and Homer, 1983, 20, 21) and three in the Neish collection. As beakers are a more common Dutch type of ware, it was decided to analyse a number of these to see whether they could be identified as English or not; that is whether they were made of English *triflegalloy*; the results are discussed below. Beakers are seldom mentioned in inventories or accounts, overshadowed by more important containers such as flagons, tankards, measures and tavern pots.

Other small, but interesting categories of vessel occur in the 1612 list of *trifleg* wares, several previously unexplained: *aqua vitae* (strong water) measures, caudle cups and table accessories.

The increasing use of *strong waters* was a new drinking habit introduced by soldiers returning from fighting in the Low Countries. This was made by members of the Distillers Company, from fermenting grain. Dutch gin, French brandy and Irish whisky were also imported in growing quantities. We do not know the form of these measures, but flasks such as those from the *Mary Rose* (Weinstein in Gardiner, 2005, 458) are probable examples.

Small handled cups (Hornsby *et al*, 1989, 83) are sometimes described as caudle cups (caudle was hot spice and wine or ale) but could have been used for other drinks in small quantities.

The openwork holder fragment with the bust of Charles I in the bottom, found in the mud of the Thames foreshore and recorded by the Portable Antiquities Scheme for 2008 (fig 40), shows that the Pewterers attempted to accommodate hot beverages. It may have held an earthenware tumbler or pewter *unnq*to contain hot alcohol for a secret toast to the King. A similar fragmentary holder in the Museum of London collection lacks the Kings bust in the bottom.

Fig 40



Openwork pewter holder with bust of Charles 1 in the base, probably for hot drinks. (City of London Museum, London)

The introduction of hot beverages such as tea, coffee and chocolate in the later 17th century was detrimental to pewter in so far as the metal was thought to taint these beverages, although pewter teapots were recorded in Searches in 1684. Lips could be burnt on contact with hot rims, so insulating materials like pottery were required. Nothing suitable was on the market at the time except porcelain which was still expensive and had to be imported. Some tea bowls and small dishes for coffee were made in English delftware, the latter with the logo of a Turk's head which denoted coffee (Britton, 1987, 134). At Fulham, John Dwight attempted to make porcelain but achieved a fine stoneware for tea bowls and coffee pots which date between 1673 and 1700 (Green, 1999, 92 (fig 73)). Even had hard metal, that is antimony containing pewter, been used for making cups to 1700, it would have been less popular than the North Staffordshire wares produced from the 1720s.

3.9 The Banquet

By the 16th century, the banquet had become a separate festivity from the main dinner with its dessert course, as an occasion for consuming fruit, sweetmeats, spiced wafers and wine. Amongst the wealthy it was taken in separate banqueting houses, specially erected in the garden for that purpose, as is being enjoyed by the Cobhan family in a tree house in 1567 (fig 8 above). The London Livery Companies enjoyed these separate banquets, as for example the Pewterers Company on the election of their new Master and Wardens on 15th August 1638. This is described in their Entertainment Books (MS 22, 191) when they ate fruit . damsons, pears, codlings (apples) with cheese, sugar, bread, beer and wine (Canary and Claret); shredded cheese and sugar was a popular banquet dish . probably eaten from spice plates and saucers (fig 41). Fruit was sometimes displayed on footed plates or tazzi - like that from St Mary's Great Shefford, Berks (Hornsby *et al*, 1989, 93) with its fine cast decoration (now on display at Christchurch Cathedral, Oxford). These raised vessels were considered the more noble on the table and useful for providing rich displays.

Fig 41



Spice plates from Farringdon Street, City of London, late 16th century. (Museum of London/Pewter Society).

Rosewater was still dispensed from ewers for hand washing in matching basins, like that in the collections of the Pewterers Company. The ewer (fig 42) found in the moat at Ludlow Castle is decorated with the arms of Charles I in enamel on the thumb piece, so presumably is dated between 1625 (his ascension) and his death in 1649. There is no known matching basin, but that in the collections of the Pewterers Company is approximately the same date (WCP, 1968, 26 no. 28) with its raised ring in the centre to hold the ewer.

Fig 42



Ewer, c. 1625 with enamelled boss (Royal Arms CR) on handle (Ludlow Museum/P. Hornsby). Ht. 9½ inches (240mm). Two other similar ewers in Dublin and Biggar Church, Scotland are also known, the former with enamelled Stuart arms on the body (Shemmell, 1982, 114).

Decorative wares were required for the banquet and the present writer shows that the fashion for these was apparent by the early 16th century, if not earlier, with wriggle-engraved wares such as the individual drinking tankard from the *Mary Rose* and the relief-cast decorated plate from Eresby, Lincolnshire dated c. 1520-50. Between 1590-1620 a range of cast decorated wine cups and saucers were made, together with dated royal commemorative wares which fitted in well with the desire for decorated food and furnishings of the time, and as was also fashionable in French and German pewter. The high point for wriggle-engraved pewter came later, after the Restoration, in tune with the nation's mood at the time, and when display pewter was once more appropriate.

One other type of pewter about which little is known is counterfeit. This is believed to be pewter wrought with a hammer as opposed to the usual cast wares, and lighter and thinner than cast. The term is probably derived from the Latin *contra facio* indicating its method of manufacture i.e. to make/beat against (as discussed in Chapter 2).

Counterfeit is usually compared with plain pewter in medieval accounts, but by the early 17th century some trifle wares like the high wine cups are described as wrought and plain that is of two types, giving its probable interpretation (Welch II, 62), not gilded pewter as Glanville, 1990, 201. Counterfeit was in demand for banqueting

garnishes, as an agent from Lord Lisle, Governor of Calais, and his employer, makes clear in 1535. The agent (John Husee) scours London for eight dozen of the counterfeit but only managed to track down one dozen in the house of Henry Clark (Master of the Company in 1555) and the Lisle's pewterer. Husee describes some of these banqueting dishes as *prounced*, probably embossed. These resembled the alms dishes from St Katherine Cree Church and elsewhere (fig 43) with a prominent pattern of *bosses* (Byrne, 1983, 105-6) and explains why *counterfeit* is sometimes defined as *all of one pattern* (OED).

Fig 43



Alms dish with central enamel boss with arms of Charles 1 and rows of embossed *prunts* and *pearles*. 1625-30 diam. 17³/₄ inches (450mm). (Christie's, May 2007).

Other decorated wares used in the 16th century were sets of painted beechwood trenchers or *roundels* usually considered being of late 16th century date from extant examples but which are also listed in the 1547 Inventory of King Henry VIII (Starkey, 1998). The custom was to eat sweetmeats from the plain side then amuse fellow guests by reading the pithy sayings painted on the reverse. These thin trenchers have also been described as useful lids for glasses – a necessary function in summer time with large insect populations in gardens.

The earliest known spice plate (178mm diam.) in English delftware dates to the 1630s (Britton, 1987, 109) and copies a Chinese *bird on the rock* pattern. Early 17th century spice plates of glass are also recorded from Nonsuch Palace (Charleston in Biddle, 2005, 248). No spice plates of *rifle* ware are listed, and those decorated examples found in Britain (Hornsby *et al*, 92, no. 110 and Neish Collection nos. 1116 and 1149) are questionable from their touchmarks and inclusion of antimony (0.5%) which was not added to English pewter until the later 17th century. It is possible that London pewterers concentrated on undecorated examples like those from Farringdon Street (fig 41 above) and resembling those used by the Cobham family (in silver) (fig 8

above). Small (116-168mm diam.) rimmed dishes were made in Border Ware (Pearce 1992, 11) and could have been similarly used.

3.10 Dining Table Accessories

Harrison in his famous passage regarding the changed tablewares from wood to pewter by the 1570s (p.201-2) makes it clear that the salt was one of the most important items at home:

For so common were all sorts of treen stuff in old time that a man should hardly find four pieces of pewter (of which one was peradventure a salt) in a good farmer's house.

The salt denoted social standing in seating arrangements at tables, and junior family members were seated at the bottom end of the table at some distance from the host and the salt. Ceremonial salts in precious metal like that given to the Company by William Sexteyn, Master in 1482, were highly prized and it is interesting that pewter salts were regarded as equally important to other ranks of society. The 1612 list of trifles includes various types of bell and acorn salts, sometimes adapted with a pepper-box at the top and standing some 300mm in height (Welch II, 61, 64). Individual trencher salts had been noted from the early 14th century in use at the Collegiate Church of Ottery St Mary, Devon but they appear in secular use mainly from around 1600. These small individual salts became more useful than the larger salt at the centre of the table, and with other newly introduced table accessories such as cruets and pepperboxes became regular table accessories. Condiment dishes even appeared in Border Ware from the late 16th century and were also known in the 14th century in Kingston-type ware (Pearce, 1992, 38 nos. 390-3); these probably contained mustard and salt. The pedestal cups (Pearce, nos. 394-402 p.38) resemble pedestal salts in pewter. Several attractive scroll-salts, standing salts and trencher salts survive in English delftware (Britton, 1987, 114, 115). Salts are also sometimes included at the corner of wooden trenchers (fig 22 above) a custom which seems to stem from the inclusion of salts on silver trenchers, as recorded in the Inventory of Henry VIII in 1547, although those also had covers.

3.11 Conclusions

The pewter garnish remained the dominant tableware until the 18th century, both for its utilitarian purpose of serving up a range of foods, and its display potential. It was an inspiration to local potters who introduced a range of dishes and platters by the end

of the 16th century, forms not previously known in Surrey-Hampshire pottery. Its success, along with the thriving pewter market, caused a decline in the use of wooden bowls, platters and dishes except in remote regions. Although there was a general trend away from medieval narrow rimmed rounded forms of the garnish towards flatter, broad rimmed dishes and platters in the 16th and 17th century, a variety of styles were available with pewterers manufacturing specialist garnishes for particular types of food: the garnish of flat salad dishes was known from the 1570s, following silver styles, and, conversely, the garnish of deep dishes for keeping food warm especially broths and sauces, as Harrison notes, was being made about the same time, some silver examples of which survive. Garnishes of wrought hammered wares (counterfeit, Latin *contra facio*) had been made since the medieval period, some of which were embossed for banqueting use. Counterfeit was not always in supply, judging from the difficulty of obtaining it at certain periods. By the mid-17th century, garnishes of flat, very broad rimmed platters and dishes were the most popular. Rims became smaller and bases broader from the 1670s, providing stronger wares to use with the fork. The plate became part of the garnish by the 18th century.

As the present writer points out, the prototype plate of the late 16th and early 17th century follows the style of the innovative Spanish trencher of the early 16th century, with its small base and broad rim, and which in turn was based on 16th century Spanish maiolica plates. These new forms were introduced one hundred years before the popular adoption of the fork in Britain, although that was in use in Italy from the 15th century. In Britain, more metal spoons (pewter, brass and latten) were available in the 16th century which could also be used to anchor food on the plate while cutting, as used in America still today. Bowls and porringers were popular for semi-liquid goods.

Trenchers of wood evolved by turning into round plates by the 16th century and continued in use into the 18th century, there being no counterpart made in pottery until the production of hard white plates from the Staffordshire potteries after 1720. Delftware plates were made in London during the 17th century, but mainly for decorative purposes with their soft white glaze and bright colourings. Harder white utilitarian delft plate fragments dating to about 1700 have also been retrieved (Britton, 1987, 118). Dutch potters however, successfully manufactured vast quantities of white utilitarian tin glazed plates from the 1660s. These resembled the cruder Spanish maiolica plates found in the Spanish Armada wrecks some one hundred years earlier, as well as late 16th century Italian examples. The Staffordshire potteries which used white firing clays from the West

Country and calcined crushed flints to provide a white stoneware after 1725, then developed a cream-coloured earthenware from the 1760s which came to be used worldwide. The ceramic stranglehold on pewter was tightening.

Chapter 4 - Scientific Analysis

This Chapter discusses the contribution of scientific analysis to our understanding of the alloys used by the Pewterers Company of London from the 14th century when they formulated their Ordinances for quality control in the production of flatwares and hollowares. These Ordinances of 1348 state (Welch I, 3):

and be it understood that all maner vessels of pewter as dishes saucers platters, chargers pots square cruets square chismatories and other things that they make square or cistils [cisterns] that they be made of fine pewter and the measure of brass to the tin as much as it will receive of its nature of the same and all other things of the said craft that be wrought as pots round that pertain to the craft to be wrought of tin with an alloy of lead to a reasonable measure and the measure of the alloy of an 100 [hundredweight] tin is 26lb lead +

Various products were thus to be made in particular alloys using tin, copper and lead in the required proportions, as outlined above in Chapter 2.2 Manufacturing. The Ordinances are quoted in full here to help understand the regulations curtailing the craftsman. No items in the sample are known to be made from sheet metal; all are cast in the usual way (no slush castings requiring high tin alloys).

Fine or Plate Metal

We note that regarding fine or plate metal, for example, the amount of copper is not precisely stated in the Ordinances which indicate that varying amounts could be absorbed. Copper does not dissolve easily in tin. Hull and Murrell (1984, 14) estimate the amount be some 2% copper. (The higher copper content 5-6% in some flatwares on the *Mary Rose* and at Weoley Castle might indicate this difficulty in dissolving it in the tin, see Tables 2 and 3 below.) The work of Brownsword and Pitt from the 1980s has shown that the presence of copper in the range 1-4% is an indicator of English 16th century high grade pewter. In hollowares the range is 0.5-2.5% copper, Brownsword and Pitt 1985(b), 45. Bismuth (tinglass) is thought to have been added to the metal mixture as a hardener from at least the 16th century, and Company regulations state the proportions in 1619 as 2½lb of bismuth per 1000wt (thousandweight) of tin (Welch II, 76). It is present in the *Mary Rose* flatwares in the range up to 0.5% and hollowares to 0.28% as noted by Brownsword and Pitt (1990). See Tables 3 and 4 below.

Lay Metal (Lay)

The Ordinances of 1348 state that the maximum amount of lead permitted was 26lbs to one hundredweight of tin as a reasonable proportion that is not more than 4:1 tin to lead. Higher quality alloys of 16lbs and 22lbs of lead to 112lbs of tin are also specified (Hatcher and Barker, 164) giving a range of 12-19% lead. Copper and bismuth are present in hollowares as noted above and in the relevant analyses below, although there is no specific regulation for their use in hollowares in the Company's records. The high bismuth content of the candlestick in Table 7.5 at 1.87% is very unusual and does not conform to the pattern of other contemporary wares.

Trifle Alloy (Trifle)

Hull and Murrell estimate that the lead contents of this new standard alloy was about 4% (1984, 14) which is confirmed by the analyses carried out on a sample of typical wares by the present writer (Table 7.5 below). Hull and Murrell also consider that the standard of the various alloys used in the craft was gradually being raised, i.e. requiring less lead until the end of the 18th century (1984, 14). The present writer suggests that the introduction of trifle was one such improvement.

Recycling

The dissatisfaction expressed by the Company to the standard of wares prior to 1613 is probably the result of the increase in recycling of old pewter, necessarily practised throughout the 16th century as the general stock of wares increased and tin supplies dwindled. See Manufacturing 2.2 above. At the same Court that agreed the new sizing of wares for trifle alloy in 1613, it was reported that (Welch II, 64):

The price of tin was so high that the poor of the Company could not live thereby.

Wares with disproportionate levels of lead due to recycling are noted in the analysis below, e.g. the two saucers from Weoley Castle each containing over 20% lead (Table 2 below) and levels exceeding 25% in baluster measures and flagons (Tables 4, 7.4), spoons could also comprise 50% lead, like that from the *Mary Rose* (Table 4) and trenchers from the Neish Collection (see below).

Recycling of English pewter by continental pewterers is also the probable cause of the untypically high copper content of the Dutch flagon (number 415) in the Neish Collection (Table 7.4). Individual cases of recycling are discussed in the relevant sections below.

Previous Analyses and Evidence of Alloy Composition

Very little survives of the early medieval craft for us to study except poor quality funerary, chalices and patens for priests, some spoons, saucers and a few church cruets. Analysis of a range of pewter and copper alloy spoons was carried out by Hilton Price (1908) and Homer (1975) as mentioned in Chapter 1. Those published by Homer were carried out by Mrs Janice Carlson of Winterthur Museum (Homer 1975, 3-4) by x-ray spectroscopy technique and showed the inclusion of some 3-4% lead, compared with 1.5-3.65% for the Hilton Price spoons (both of 16th-17th century date). Later investigations, for example Egan 1998, 181-3, have showed a wider range of alloys in use for spoons, from high tin/copper to high lead/tin alloys.

Mrs Carlson's analysis of some 250 pieces of British pewter of 17th-19th century date at Winterthur Museum, Delaware showed that the majority of the plates, chargers and dishes dating from 1650-1850 contained typically 95± 2% of tin, 1-3% of copper and 1-3% lead. Flagons averaged about 92% tin, 1% copper and 3-5% lead and tankards of similar composition. Balusters were of greatly inferior quality with 65-75% tin and 22-30% lead. The Scottish measures contained only about 60% tin and 35% or more of lead.

There had been insufficient medieval and 16th century pewter for investigation prior to the 1970s, when urban archaeologists and metal detectorists were beginning to produce a range of pewter finds some closely dated like the saucers from Southampton and Leicester in contexts of c. 1290 and the 14th century respectively. Brownsword and Pitt (1984) took advantage of this new information and analysed a range of medieval and 16th century wares to see whether the alloys used would have qualified for the Pewterers' Company's regulations for fine metal, known to be a tin/copper alloy. The achievement of this, further described below in Table 2, has provided sufficient data for all future such investigations. Their further study of the *Mary Rose* pewter (Brownsword and Pitt 1990, 109-125) showed that Company controls appeared to be effective and that alloys were meeting the standard required for flatwares. Analysis of the ship's hollowares, however, showed a considerable range of alloys in use for contemporary storage and drinking vessels, with up to 20% or 30% of lead.

Brownsword and Pitt were particularly interested in the amounts of lead used, and the hardeners bismuth and antimony. As noted above, bismuth was an approved

hardener from at least the 16th century (known as tingle) and that antimony was introduced following the French tradition only in the later 17th century (Hatcher and Barker 1974, 225).

Present Work and Evidence of Alloy Composition

This writer investigated a range of smaller drinking vessels, porringers and candlesticks, known to have been produced in the alloy called *trifle* for which there was no statutory definition. The results (Table 7.5 below) showed an alloy of some 4-6% lead and 0.5-1.38% copper in use with 11.5% lead and 0.35% copper for those items more likely to be of continental origin.

The uses of scientific analysis to provide evidence of date, by detecting the particular hardeners in use, such as bismuth and antimony are also discussed.

In addition to the investigation of *trifle* alloy the present writer analysed 18 items from the Neish Collection of British pewter. These analyses, carried out by Sheffield Analytical Services, examined a group of five measures and two flagons dating from 1500-1550 (Table 7.4) three saucers bearing the crowned hammer mark (16th century) in Table 7.1, five flatware items 15th-17th century (Table 7.2) and a further group of saucers of 16th and 17th century date (Table 7.3).

These results were compared with those obtained by Brownsword and Pitt as are set out below in Tables 2, 3 and 4.

Table 2: Medieval and 16th Century Flatware Analyses (Brownsword and Pitt, data 1984)

Lab No.	Museum	Accession No.	Provenance	Diam (mm)	Sn (%)	Pb (%)	Cu (%)	Other %* Sb > 0.50 Bi > 0.35	Rim form†	Marks	Date
D34	Birmingham	WC301	Weoley Castle	188	92.6	0.66	6.51		Angled-bead above		
D88	Southampton	SOU163.206	Southampton	127	96.7	0.39	2.93		Angled-bead above	P	c 1290
D87	Leicester	A389.1973.373113 3	Leicester	173	97.3	0.31	2.30		Angle-bead above		14c
D35	Birmingham	WC309	Weoley Castle	126	72.0	26.5	1.20		Groove above		
D29	Birmingham	WC306	Weoley Castle	123	77.5	22.3	0.46		Groove above		
D19	Cambridge	Z15115	Cambridge	102	81.0	14.5	1.51	2.28 Sb	Groove and bead above	T?C Portcullis	
D18	Cambridge	Z15114	Cambridge	100	89.9	7.65	1.73	0.56 Sb	Groove and bead above		
D9	Private	-	-	c. 275	92.3	4.94	1.89	0.54 Sb	Bead above		
D2	Coventry	49/227/93	Coventry	136	95.0	3.33	1.58		Bead below	Hammer	
D3	Coventry	49/227/6	Coventry	145	97.4	1.31	1.20		Bead below	Hammer	
D17	Cambridge	Z15113	Cambridge	164	97.9	1.03	0.92		Bead below		
D4	Coventry	49/227/94	Coventry	250	97.9	0.16	1.48	0.49 Bi	Bead below	Hammer	
D5	Coventry	49/227/95	Coventry	255	97.9	0.12	1.08	0.97 Bi	Bead below		
D85	Leicester	389.1943.1132.132	Leicester	135	98.2	0.12	1.33		Bead below	Hammer	early 16c
D86	Leicester	389.1973.1132.123	Leicester	130	98.0	0.43	1.24		Bead below		early 16c
D1	Coventry	49/227/92	Coventry	120	97.4	0.08	2.58		Bead below		
D30	Birmingham	WC304	Weoley Castle	144	96.2	0.74	2.63		Bead below	HB	
D31	Birmingham	WC303	Weoley Castle	160	97.2	0.24	2.52		Bead below	B	
D32	Birmingham	WC308	Weoley Castle	160	97.7	0.22	2.09		Bead below		

Table 2 (cont...)

Lab No.	Museum	Accession No.	Provenance	Diam (mm)	Sn (%)	Pb (%)	Cu (%)	Other %* Sb > 0.50 Bi > 0.35	Rim form†	Marks	Date
D10	Private	-	-	186	97.2	0.37	2.10		Bead below	WA?	
D46	London	8162	London	189	97.5	0.30	2.04		Bead below	Rose? R?	
D41	London	81.548/16	London	378	97.0	0.21	1.74		Bead below	E Rose & Crown R	
D43	London	S44/8119	London	178	96.7	0.82	1.64		Bead below	CM	
D44	London	A419	Westminster	183	98.2	0.05	1.81		Bead below	SI (I crowned)	
D45	London	A2711	London	177	98.0	0.33	1.55		Bead below	I (twice)	
D11	Private	-	-	258	97.3	0.98	1.46		Bead below	W Rowel spur M	
D33	Birmingham	WC302	Weoley Castle	160	98.4	0.22	1.40		Bead below		
D89	Peterborough	L138	Whittlesey Mere	275	98.0	.052	1.45		Bead below	Ramϕ head	
D90	Peterborough	L135	Whittlesey Mere	347	97.3	0.56	1.70		Bead below	Ramϕ head	
D8	Private	-	Southwark	267	97.8	0.58	1.08		Bead below	Bell Crowned plume	c. 1500
D20	London	24078	Southwark	270	98.4	0.49	0.55		Bead below	Bell Crowned plume	c. 1500
D47	London	41/56/1	Southwark	268	97.8	0.36	1.52		Bead below	Bell Crowned plume	c. 1500
D48	London	8166	Southwark	267	98.1	0.20	1.21		Bead below	Bell Crowned plume	c. 1500
D80	British	1900 (2-12)1	Southwark	340	98.8	0.14	0.88		Bead below	Bell Crowned plume	c. 1500
D81	British	1900 (2-12)3	Southwark	265	98.1	0.30	1.30		Bead below	Bell Crowned plume	c. 1500
D82	British	1900 (2-12)2	Southwark	267	98.3	0.17	0.66		Bead below	Bell Crowned plume	c.1500

* Full analytical data for the elements Sb, Sn, Pb, Zn, Cu and Fe are available from the authors on request.

Brownsword and Pitt (1984) divided their results into three groups: three 13th-14th century tin/copper alloys, and a similar of late 15th-16th century, with poor quality wares, represented by saucers from Weoley Castle and Cambridge in between (all unstratified). However those from Cambridge are not of medieval date, but 17th-18th century, as identified by the present writer on stylistic grounds (and as the presence of antimony reveals). This writer also suggests that the Weoley Castle saucers contain recycled lay metal - hence the high lead content.

The analysis of the *Mary Rose* flatwares (Table 3 below) shows that although a high tin, low lead alloy was used for the G.C. qgarnish, all made by the same pewterer T.C., five saucers marked with a crowned hammer contained up to 5% lead.

Table 3: *Mary Rose* Flatware Analyses (Brownsword and Pitt, data 1990)

Object	Accession No.	Lab No.	Diam. (mm)	Tin (%)	Copper (%)	Lead (%)	Bismuth (%)
<u>Dishes</u>	80A1501	2D65	320	97.6	1.55	0.46	0.30
(GC)							
T Crowned	81A2971	2D67	315	(97.9	1.20	0.37	0.26
C				(98.6	0.65	0.33	0.29
Rose							
	81A3260	2D69	316	96.4	2.53	0.33	0.27
	81A3261	2D23	308	98.1	1.28	0.30	0.16
	81A3262	2D113	312	97.6	1.85	0.35	0.15
	81A3740	2D117	320	97.7	1.68	0.50	0.18
	81A3761	2D22	320	97.2	1.63	0.49	0.38
	81A3796	2D21	355	97.6	1.26	0.56	0.28
	81A3916	2D112	314	97.1	1.84	0.56	0.27
	82A0074	2D109	315	(98.3	1.43	0.40	0.21
				(98.5	1.40	0.51	<0.03
	82A1664	2D115	327	98.6	0.84	0.46	0.16
<u>Plates</u>	81A2993	2D62	271	(96.4	2.49	0.55	0.39
				(97.2	1.81	0.30	0.37
	81A2994	2D59	274	94.6	3.98	0.71	0.25
	81A3263	2D150	270	97.8	1.39	0.32	0.27
	81A3301	2D58	262	96.7	1.97	0.55	0.30
	81A3314	2D63	270	97.4	1.85	0.36	0.33
	81A3716	2D153	274	97.7	1.43	0.68	0.19
	81A4541	2D60	274	(97.4	1.71	0.38	0.45
				(97.0	2.16	0.39	0.32
	82A0073	2D61	270	(97.5	1.54	0.58	0.23
				(97.7	1.04	0.57	0.24
	82A2710	2D111	270	99.1	0.32	0.52	0.17

Table 3 (cont...)

Object	Accession No.	Lab No.	Diam. (mm)	Tin (%)	Copper (%)	Lead (%)	Bismuth (%)
<u>Saucers</u>	81A3279	2D56	190	96.7	2.73	0.26	0.11
	81A3286	2D51	190	97.2	1.84	0.44	0.34
	81A3311	2D116	190	98.0	1.15	0.58	0.36
	82A0038	2D55	192	(95.1	3.97	0.44	0.19
				(97.3	2.28	0.20	0.11
	82A1747	2D53	190	95.5	3.43	0.48	0.23
	82A1906	2D54	189	93.6	5.50	0.47	0.10
	82A2314	2D52	190	95.5	3.34	0.53	0.29
	82A4508	2D152	190	98.8	0.54	0.52	0.22
	<u>Dishes</u>	81A3278	2D110	340	96.8	2.14	0.49
Lisle Arms	81A5781	2D24	267	93.4	3.48	0.41	1.56
	82A0072	2D66	332	95.3	3.76	0.20	0.53
<u>Saucers</u>	81A5827	2D122	168	97.6	0.81	1.43	0.04
Crowned	81A6849	2D123	170	98.4	0.10	1.24	0.04
Hammer	81A6850	2D124	168	98.2	0.38	1.36	<0.03
<u>Saucers</u>	80A1627	2D25	172	94.3	0.64	5.12	<0.03
Swan (x2)							
Crowned Hammer	80A1942	2D26	170	94.1	0.74	5.00	<0.03
<u>Porringer</u>	80A1625	2D118	160	97.9	1.12	0.38	0.35
(WE)							
<u>Plate</u>	80A1635	2D27	280	98.2	1.49	0.19	0.15
(WE)							
<u>Saucer</u>	81A0877	2D72	158	(98.2	0.25	1.36	0.11
(HB)				(98.4	0.64	1.02	<0.03
<u>Plate</u>	80A0919	2D50	250	93.5	2.47	3.62	0.13
(TI)							
I Hammer S							
<u>Bowl</u>	81A3310	2D64	360	97.8	0.55	0.49	0.26
(T?)							
<u>Plate</u>	80A0257	2D68	290	96.9	1.65	0.45	0.06
<u>Fragments</u>	81A1118	2D120		97.7	1.98	0.34	<0.03
	81A5658	2D119		97.6	1.64	0.72	0.07

(All accession numbers are prefixed by MR).

Bracketed values are derived from separate samples from the same object.

Brownsword and Pitt (1990) suggest the use of the crowned hammermark to indicate a second grade fine alloy, as was the case in the Low Countries (Dubbe, 1965, 65-7) following the introduction of the crowned rose for finer quality pewter by the 1520s. Recent analysis by the present author on similarly marked saucers from the Neish Collection, however, shows them to be essentially lead-free i.e. of fine metal as is further discussed below.

The high copper contents of some flatwares by T.C. e.g. saucer 82A1906 and 82A0072 (Lisle dishes) have copper in excess of 5.50 and 3.76 respectively, probably indicating difficulty in dissolving in tin.

Table 7.1: Saucers (Neish Collection) results by ICP-OES (Sheffield Assay Office)

No	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)	Antimony (%)	Marks	Date
652	98.2	0.02	1.48	0.25	0.02	Crowned Hammer	16c
776	97.6	1.5	0.67	0.20	0.02	Crowned Hammer	16c
990	98.4	0.02	1.31	0.30	0.02	Crowned Hammer	16c

The high tin, low lead copper-hardened alloys in Table 7.1 are compatible with the Pewterers Company regulations for fine metal. The use of bismuth indicates a 16th century date as recorded in use from the later 16th century (Hatcher and Barker, 1974, 225). The saucers are unprovenanced and there is debate about the use of the hammermark on English pewter, being seldom found on wares and not recorded in the Company's regulations whilst it is known to have been used in France and the Low Countries, as mentioned above. Nevertheless the alloys suggest an English provenance. Possibly the hammermark suggests membership of a particular hammersmen's guild, such as that of Coventry, known to be in existence from at least 1450, and which included pewterers (Hatcher and Barker, 73).

The results for other Neish flatwares analysed by ICP-OES are as follows:

Table 7.2: Flatwares (Neish Collection) results by ICP-OES (Sheffield Assay Office)

Type	No	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)	Antimony (%)	Marks	Date
Dish	826	96.8	1.4	1.3	0.18	0.17	-	?c. 1500
Platter	988	98.3	0.02	1.5	0.19	-	Chi-rho IGA	16/17c
Saucer	1101	99.6	0.02	0.84	0.17	-	r	?15c
Dish	1201	97.8	0.13	1.7	0.24	-	CRB	16c
Dish	466	98.1	0.02	1.4	0.03	-	Crowned Feather	16c

All are of high tin, low lead alloy, but dish 826 contains antimony so cannot be of c. 1500 date if English since antimony was not used prior to the 1650s. The Neish documentation states the dish was retrieved from the River Thames, but its origin and date remain in doubt.

Saucer 1101 is of very high tin content (99.6%) sometimes found during the Middle Ages (Hatcher in Hatcher and Barker, 224) but must be of late 15th century date

at the earliest since it contains bismuth (0.17%). Other known post-medieval wares of similar composition are the bowl and plates from Baconsthorpe Castle, Norfolk (fig 117) in Dallas and Sherlock 2002, 39.

The following three saucers from the Neish Collection have higher levels of lead than expected; also antimony is included in two instances:

Table 7.3: Saucers (Neish Collection) results by ICP-OES (Sheffield Assay Office)

Type	No	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)	Antimony (%)	Marks	Date
Saucer	841	92.9	6.3	0.43	0.27	0.02	Wide Rim	16c
Saucer	1116	94.3	4.7	0.5	0.5	0.5	Cast Decorated	17c
Saucer	1149	94	4.1	1.3	0.5	0.5	Cast Decorated	17c

Broad rim saucer 841 is interesting in having a high lead content, similar to *Mary Rose* hammermarked saucers nos. 80A, 1627, 1942 also with broad rims. With added bismuth it would appear to be of somewhat later date, and may be an example of ~~the~~ rifle alloy although the copper content is low (0.43%) for an English composition.

Saucers 1116 and 1149 are cast decorated, although do not appear stylistically quite in the English tradition of decorated wares of c. 1590-1630. The presence of antimony again indicates a later 17th century date. The alloys used for these saucers resemble the Cambridge examples Z15114 and Z15115, as analysed by Brownsword and Pitt (1984, 237-44) and above in Table 2, and may be of a type of alloy in use c. 1700. In the hard metal alloys of the 18th century antimony is present at only the one or two percent level (Hall and Richardson, 2004, 20-23), so this analysis of two pewter trenchers from the Neish Collection was surprising:

nos. 1996-44-1185: tin 56%, lead 38%, antimony 4.8% and a trace of copper.
1996-44-1245: tin 80%, lead 16%, antimony 3.4%; trace of copper.

The trenchers do not appear to be of English origin, although stated to be from the Thames waterfront at Billingsgate (which was covered by the Museum of London Watching Brief 1982, so would have been reported at the time).

4.1 Hollowares

Relatively few drinking vessels and measures survive for the period to 1600 in comparison with flatwares. Those of medieval date are individually discussed in Chapter 5, Survey of Forms, and analysis shows them to be of ~~the~~ fine metal tin/copper alloy and of lay metal, as previously cited. The largest assemblage was found on the *Mary Rose* and these were analysed by Brownsword and Pitt (1990, 109-125) as mentioned above. The

variation in composition must be attributed to the fact that the Company only stipulated the maximum amount of lead (variously 16lb to 26lb of lead to 112lb of tin) but vessels could be (and are) of very much higher quality. Above 25% lead will begin to leech out into the vessel contents, but these toxic effects were not known at the time, although the soft, inferior product would certainly have been unacceptable.

Table 4: Mary Rose Holloware Analyses (Brownsword and Pitt, data 1990)

Object	Accession No.	Lab No.	Tin (%)	Copper (%)	Lead (%)	Bismuth (%)		
<u>Flagons</u>	72A0031	2FL4	96.6	2.27	0.70	0.06		
	81A5654	2FLA26	(a lid	96.8	0.98	1.70	<0.03	
			(b body	98.0	0.17	1.47	<0.03	
	81A0651	2FL3	(a lid	60.1	2.58	37.1	0.08	
			(b body	(63.0	1.60	35.2	0.12	
				(61.7	1.25	36.9	0.12	
			(a lid	(73.2	0.58	25.9	0.07	
				(76.7	0.94	22.4	<0.03	
	82A1741	2FL14	(b body	67.9	0.66	30.8	0.20	
	81A3298	2FL27	(a lid	62.4	0.51	37.3	<0.02	
			(a body	61.7	0.78	37.7	<0.03	
	78A0118/1		(a lid	98.3	0.87	0.83	<0.03	
		/2	2FL30	(b body (low)	99.0	0.70	0.43	<0.03
		/3		(c body (rim)	99.2	0.56	0.36	<0.03
	78A0047/1	2FL29	(a lid	72.5	0.42	27.0	0.10	
	/2		(b body	75.9	0.43	23.6	0.15	
78A0125	2Z11		76.7	0.40	23.0	0.05		
<u>Spoons</u>								
Writhen	81A2601	2S38	95.4	3.17	0.85	0.14		
Knop								
‡	81A2602	2S49	98.5	0.67	0.79	0.11		
‡	82A4735	2S54	99.6	0.25	0.36	<0.03		
Bowl only	81A0684	2S48	47.0	5.01	48.0	<0.03		
<u>Flasks</u>								
Pear-Shaped								
(large)/(small)	80A1610	2CT7	94.8	2.77	1.67	<0.03		
	80A1406	2CT8	95.2	3.80	0.39	0.28		
	81A0421	2CT9	95.4	3.63	0.74	0.05		
	81A0906	2CT14	98.5	0.83	0.60	0.07		
Purse-Shaped	81A1455	2CT6	95.9	1.92	1.76	0.18		
Twin	81A0001	2CT10	(59.5	1.12	38.9	0.28		
			(54.7	1.57	43.7	<0.03		
	82A4725	2CT13	(57.9	0.11	31.8	2.61)*		

Table 4 (cont...)

Object	Accession No.	Lab No.		Tin (%)	Copper (%)	Lead (%)	Bismuth (%)
<u>Canisters</u>							
Large	80A1628	2CT15	(b body	98.8	0.53	0.19	0.10
	82A0750	2CT18	(b body	97.9	0.54	0.89	<0.03
	82A0976	2CT19	(a lid	(91.9	1.90	5.74	0.09)**
	82A0976	2CT19	(b body	(91.3	1.71	6.54	0.07)**
Small	80A1794	2CT17	(b body	98.5	1.00	0.04	0.20
Medium	80A1582	2CT16	(b body	98.7	0.89	0.11	0.15
Lids-separated	80A1619	2CT21	(a lid	97.7	1.93	0.12	0.17
	81A5981	2CT20	(b lid	(91.8	1.83	6.11	0.15)**
<u>Syringe</u>	80A1741	2Z1		97.5	1.42	0.65	0.09
<u>Colander</u>	80A1140	2D121		97.8	2.03	0.03	0.12
<u>Fragment</u>							
Chamberpot	78A0078	2CO2		72.5	0.43	23.6	0.15

* Suspect sample . contaminated with mercurial solder and containing 7.4% mercury.

** Suspect sample . probably contaminated with lead-based solder.

(All accession numbers are prefixed MR).

Bracket values are derived from separate samples from the same object.

General Note: Antimony, zinc and iron were also detected in most alloys but at a very low level, probably representing accidental impurities or contaminants.

It can be seen from the analytical results that two vessels had tin contents in excess of 95%: the flagon on a standing foot 72A00311 (fig 27) and the wriggle-engraved tankard 81A5654. These were display vessels so it is not surprising they are of high quality metal. Others are more leady and, presumably, utilitarian. Baluster measure 81A0651 is of a known English type, despite the 35% lead; a similar lead level (34%) was found on analysis of the Three Cranes measure of late 16th century date, Museum of London (Hornsby *et al*, 1989, no. 101). Similar high lead levels for baluster measures were also found by Mrs Janice Carlson of Winterthur Museum, Delaware (Homer, 1975, 3-4). It is probable that they were made using recycled pewter.

The *Mary Rose* analyses proved useful when comparing results from two flagons and six measures in the Neish Collection:

Table 7.4: Hollowares (Neish Collection) results by ICP-OES (Sheffield Assay Office)

Type	No	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)	Antimony (%)	Marks	Date
Flagon	381	49.3	50.1	0.39	0.09	0.10	-	c. 1550
Flagon	415	66.7	32.6	0.53	0.10	-	-	16c
Measure	428	71.4	25.7	2.69	0.13	-	-	? late 15c
Measure	420	69.0	26.4	2.33	0.13	-	-	16c
Measure	421	73.1	24.8	0.14	0.02	-	-	16c
Measure	422	75.1	23.6	1.1	0.10	-	-	c. 1550
Measure	423	68.7	29.6	1.5	0.16	-	-	IC with Lorraine Cross: John Curtis
Measure	1119	72.4	22.0	4.85	0.16	-	-	c. 1550

4.2 Observations

Flagon 381 has a very high lead level (50.1%) so is unlikely to be of English origin. Had it been English it would have been of great importance, one of only some half dozen extant. Flagon 415 resembles Dutch flagons in style, and its high lead content (32.6%) makes it unlikely to be of English origin, but the high copper content is less usual for continental flagons. This writer suggests it is made of recycled English pewter, so accounting for the copper content.

The remainder of the sample are baluster measures with high lead (maximum 29.6%) contents. The earliest of the group, no. 428 is said to have been found in the Thames. Its shape is reminiscent of contemporary stoneware pots. There is a medallion in the base, of a heart. The presence of bismuth indicates a date close to 1500, at the earliest. The composition is similar to measure 420. It is the earliest known measure (except for that from the *Mary Rose*) and is of considerable importance.

The standard of baluster measure composition deteriorated through the 17th century (probably as a result of reusing scrap metal) and in 1778, the Company stipulated that they must be made henceforth of trifling alloy (Homer, 2006, 43-5).

The particular interest of the present writer was to identify this alloy by analysing a sample of objects from the Neish Collection which corresponded with the types listed in the Court Minutes for 1612-13 (Welch II, 61-4) that is, beakers, porringers, candlesticks. The procedure was described in Chapter 1.

4.3 Trifle Identified

Table 7.5: Trifle (Neish Collection) results by ICP-OES (Sheffield Assay Office)

Object SBT	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)
554 Beaker	93.8	4.99	0.69	0.25
571 Porringer body	94.0	4.54	0.92	0.34
‰ ‰ ‰ ear	95.0	3.6	0.89	0.39
573 Beaker	87.2	11.6	0.4	0.45
611 Bell candlestick	94.3	4.2	1.38	0.12
612 Cup	87.3	11.6	0.36	0.61
840 Porringer (fleur-de-lys ear)	92.6	5.9	0.97	0.33
912a Candlestick (lay metal)	74.9	23.6	1.30	1.87

It will be seen that the extremes of lead are 3.6% and 11.6% and copper 0.36% and 1.38% the latter being the bell candlestick (which has correspondingly lower bismuth). The two items beaker no 573 and cup 612 both have 11.6% lead (and low copper of 0.36% and 0.4%). The beaker (573) also has a continental type crowned rose mark on the base. With the present state of knowledge it is possible to say that all the items, apart from candlestick 912a, appear to be of an intermediate alloy between fine and lay but English pewterers would usually add about 0.5% copper minimum (Charles Hull, pers. comm.) indicating anything lower would be continental in origin i.e. nos. 573 and 612. Further analysis would be helpful of a range of contemporary vessels of both English and continental origin.

The sample of four objects . beaker (554), porringer (571) bell candlestick (611) and porringer (840) show lead in the 4-6% range and copper contents of 0.5-1.38% which appears to qualify for a copper hardened intermediate alloy (between fine and lay metals). Neish saucer no. 841, as discussed above (Table 7.3), has lead at 6.5% but lower copper (0.43%) but is probably also English (The *Mary Rose* crowned hammermarked saucers have higher (0.64 and 0.74%) deliberately added copper so may qualify as English trifle (5% lead). See Table 3 above, nos. 80A 1627 and 80A 1942.

4.4 General Observations

Pewter made of English high tin/copper alloy (fine metal) can now be identified with some confidence thanks to the pioneering work of Mrs Janice Carlson and Dr. Roger Brownsword and EEH Pitt. English hollowares may also be tentatively identified by an inclusion of 1% copper, although lead levels are very variable. Excess lead levels however (50%) clearly indicate a non-English provenance.

More investigation is needed to confirm whether the hammermark on English pewter is a guild symbol.

The alloy trifle has been identified by the present writer as containing some 4-6% lead, and copper hardened (0.5%-1.3%). More work is needed to determine the overlap with lay metal especially usage by continental pewterers. The use of hardeners bismuth and antimony has proved useful for dating purposes: objects purporting to be of medieval origin like the candlestick (Neish, 912a) now being redated from the 14th-15th century to 16th century on the presence of bismuth. More work is needed to ascertain when bismuth first came to be used. Its presence in most of the *Mary Rose* pewter indicates an earlier usage than noted by Hatcher and Barker to the late 16th century (Hatcher and Barker, 225).

The presence of antimony is decisive evidence for a late 17th century date for English pewter (or its foreign origin).

Scientific analysis has thus been shown useful for checking the quality of alloys used in relation to those specified by the Pewterers Company, and thus the effective control of the Company; the introduction of a new alloy ~~trifle~~ in the 16th century shows innovation in adapting to demands for a range of new small wares; it has provided a useful means of checking dates and provenances, from an observation of lead and copper levels, and presence of the hardeners bismuth and antimony. Scientific analysis has also been shown to identify wares containing recycled pewter containing high levels of lead and occasionally of copper . the latter sometimes in probable continental pieces.

Chapter 5 - Survey of Forms

The aim of this chapter is to present a synthesis of the various ecclesiastical, domestic and tavern wares of medieval and 16th century date from archaeological contexts.

5.1 The Earliest Finds

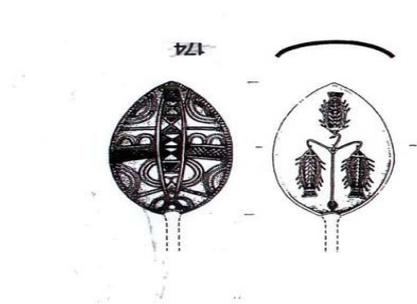
Items of pewter jewellery, but no vessels, are known to survive from the 5th-11th centuries. These include an Early Saxon (5th-7th century) finger ring from Norfolk (FNF 15955) a 10th century brooch and pewter scrap from a metal worker's workshop at Coppergate, York and the well known Cheapside Hoard of 10th-11th century from London (fig 1).

A spoon bowl (BE84/174) from Eastgate, Beverley found in a sealed deposit of the late 11th-early 12th century is cited as the earliest known item of domestic pewter yet recognised (Spencer, 1992, 143). The cast decoration on this outstanding fragment has not been fully interpreted (fig 44).

The three fish linked by a fishing line probably refer to the three fishermen disciples of Jesus, Simon-Peter, James and John, and are arranged in a Trinity configuration. Such depictions were popularly used as protective symbols on domestic artefacts . as seen on several items from the *Mary Rose*, Henry VIII's warship lost in 1545, for example. A pewter flagon (82A1741) has the three fish Trinity symbol engraved on its base (fig 33), (Weinstein, 2005b, 435).

The Beverley spoon . the size of a modern desert spoon (1.2¼inches; 55mm) . is fairly deep and may have been used as an incense spoon. Two smaller unstratified spoons from the Beverley County Hall site (CHB 2001/107 and 173) have simpler cross hatched and plain lozenges on the back. They may be the product of a local metal craftsman (fig 45).

Fig 44

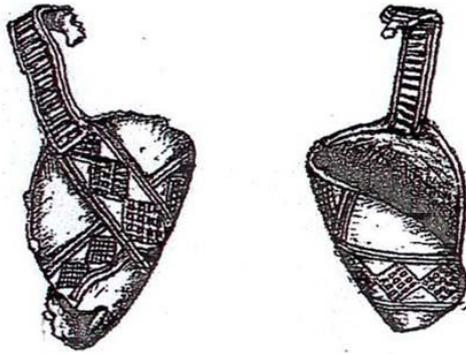


Spoon, cast decorated from Eastgate, Beverley 11th-12th Century.

Fig 45

Drawing

Scale x 1:1

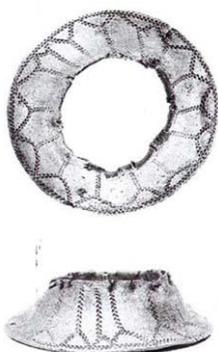


Spoons, unstratified Country Hall site, Beverley. (Humberside Archaeology Unit).

A group of small 13th century London spoons some with fish devices has been discussed (Egan, 1998, 244-8). There are several European parallels, but no explanation for their popularity. However, European traditions indicate that artefacts with fish decorations were often exchanged during Lent, in February, for which sign in the zodiac is Pisces (Peesch, 1982, 129, 130) an additional layer of symbolism to their Christian association.

The earliest pewter vessel fragments from London date to 1160 - and come from sites on the City waterfront (Egan, 1998 185-87, 193-5). A small (c. 55mm 2¼inches diam.) foot rim from a cup from Billingsgate (Egan, 1998, no. 539, 193-4) was probably attached to a body of horn, wood, or leather to which it had been nailed (fig 46).

Fig 46



Wriggled cup foot rim 1150-1200. (Museum of London).

It is likely to be of domestic origin, given the prohibition against using organic materials for chalices, and is decorated with wriggled engraved decoration in a non-religious style. This is the earliest known example of English pewter wriggled decoration. There is a similar but undecorated foot rim fragment (BUF90 acc. no. 152)

which still has a small copper alloy nail for attachment to the wooden or horn body of the cup (Egan, 1998, 193). Rim fragments, from saucers or patens from Swan Lane excavated in 1981 and Bull Wharf (1983) are also of late 12th-13th century date (Egan, 1998, 187). They indicate (with the Beverley spoon) that some domestic pewter was in use during the 12th century rather than 1290 as previously cited (Homer, 1991, 67). Such fragments are roughly contemporary with the earliest detailed church inventory in the country, that of St. Augustine, Watling Street, City of London, between 1160 and 1181.

Evidence from these new finds thus shows there was some specialist pewter craftsmanship from at least the 12th century. Neither were these skills confined to London: a 13th century list of the characteristics of English towns refers to the pewter of Exeter and tin of Cornwall (Rothwell, 1975-78). A bowl of c. 1340 from Goldsmiths Street, Exeter is the only known item of Exeter medieval pewter (Allan, 1984, 345) and the earliest pewterer is not recorded there until 1370 (Homer, 1996, 128).

A crucifix figure from Ludgvan Church, Cornwall (fig 47) was found in the Norman south wall of the chancel in 1912 (Maclagan, 1940, 509) and is the only pewter crucifix of Romanesque date surviving in Europe (Hornsby *et al*, 50).

Fig 47



Ludgvan crucifix c. 1160, ht. 5 inches (127mm). (British Museum/Museum of London).

Its composition (68% tin, 32% lead) is close to that of solder, and it may be the product of a local metal craftsman. It is significant both for being the earliest (c. 1160-70) religious pewter object in Britain (except the Beverley spoon) and for its sophisticated craftsmanship.

5.2 Ecclesiastical Pewterware

Chalices and patens of a high-lead pewter, such as the 13th century chalices from Lincoln cathedral (Homer 1986, 73-6) were often buried with priests, from the 11th to the 15th centuries. That from Westminster Abbey is the earliest known, and dates from 1087 (Anon. 1909, 394). As these were symbolical rather than functional objects, no further discussion of them is included here.

Fig 48

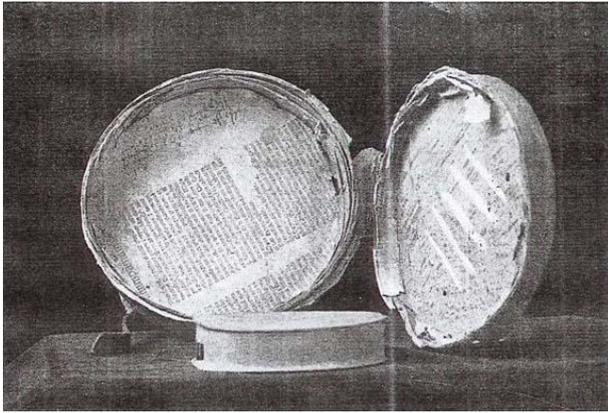


Tong Castle cruet late 14th century, ht. 4inches (102mm). (Earl of Bradford/Museum of London).

We do not know whether ecclesiastical pewterware was made by lay brothers within the monastic houses, following the example of Theophilus Presbyter in the early 12th century (Hawthorne and Smith, 1963, 181-3). If this was the case it is more likely to be in those monastic houses in the south west which were near the sources of tin. In his *Treatise* Theophilus (thought to be a German monk) demonstrated how to make a cruet, probably with good reason, for cruets, the small, covered vessels used to serve the wine and water for Mass, were the most numerous items in medieval churches and seem rarely to have been made of any other material. Surviving cruets are the well known examples from Tong Castle, Shropshire (fig 48) Ashby-de-la-Zouche, White Castle, (Gwent), Weoley Castle near Birmingham, Ludlow Castle and others recently discovered (Weinstein, 2005a, 2-6). They are attributed to the late 14th century.

Other extant church pewter includes a pyx (fig 49) believed to date to the mid-15th century from Cropredy Church, Oxon, (Evans, 1928, xi, xii).

Fig 49



Croppedy tinpyx mid-15th century (J. T. Evans 1928)

Of *tinpyx* was used to hold the Host especially when visiting the sick. There are also a *chrismatory* (container for holy oils) holy water bucket, (fig 59) and an only surviving 14th century pewter pax cast with the English arms (Oman, 1962, 201).

Before the Reformation all churches and private chapels in Britain would have owned at least one pair of *cruets* . the small jug . like vessels that held the wine and water for the priest's Mass (the laity being restricted to receiving the bread only).

Cruets were the most common church vessels to be made judging from their inclusion in ecclesiastical inventories, and although subject to confiscation and recycling, at least a dozen survive today. There are three main types: round, squared, and squared and elaborately cast.

In complete contrast to the elaborate tin *cruet* from Weoley Castle, (Fig 118) cast in almost pure tin (99.9% tin, 0.04% lead and less than 0.03% copper) is the lay metal *roundcruet* from White Castle, Gwent (Alexander and Binski 1987, 239, no. 116) now in the National Museum of Wales, and which was found in a well in 1927. Of probable 14th century date the *cruet* is 4³/₄inches (212mm) high and has an engraved Lombardic *Aq*(for *aqua*) on the lid. The *cruet* was made in four parts, the neck, body and foot being soldered together, then finished on the lathe. The lid is attached by a hinge. The *cruet* resembles pottery jugs of the period (Lewis. 1968 147-9) but probably had a spout.

Of low grade alloy (62% tin, 36.9% lead, 1% copper and 0.2% iron) the *cruet* has well above the maximum lead levels for *lay* metal (approximately 25%) but the presence of the 1% deliberately added copper implies that it is of English origin, although possibly of provincial work. A similar composition is found in some 16th century *baluster* measures. (See 5.14.1 below). Both *cruet* and *balusters* are probably made from recycled lay metals.

Another round cruet, of similar height (4 inches) comes from the Abbey River at Chertsey (fig 50) but now lacks the lid and probable spout (Hornsby *et al*, 1989, 105). It stands on lion feet, which is unusual in English pewter, although finds a parallel in the chrysmatory from Granborough Church, Bucks (Hornsby *et al*, 1989, no. 138; (fig 62 below)) and in medieval silver gilt (Campbell, 1991, 114). A fragmentary round cruet in Norwich Castle Museum collections is similar and still retains its spout. Both are probably of 14th century date.

Fig 50



The Chertsey cruet, 14th century, ht. 4 inches (100mm). (Chertsey Museum/Museum of London).

A third round cruet, of c. 1500, comes from the Thames mud at Dowgate, City of London, and is now in the Museum of London (Weinstein, 2005a 2-4). The form is previously unrecorded, being a small oval jug (fig 51).

Fig 51



The Dowgate cruet c. 1500. (Museum of London)

and marked on the lid with Δ/q for the *vinum* (wine), and under the lid with the maker's touch of a chalice or hanap (cup) also found on objects of early 16th century silver-gilt (Weinstein, 1987, 373-4) and possibly indicating manufacture by a chalice or specialist London pewterer. It appears to be one of the earliest maker's touches to be

yet recognised. Interestingly, the church of St Benet, Paul's Wharf near Dowgate wharf owned a cream pot of pewter (which may be a similar shaped vessel) for holding the mixture of olive oil and balm commemorated on Maunday Thursday, and used together with a basin for alms (Walters, 1939, 198).

In close proximity to the cruet was found the squared flask or bottle (fig 52).

Fig 52



Squared flask, 16th century. (Museum of London).

Fig 53



Round flask 16th century, ht. 4½ inches (115mm). (Museum of London A23216).

Its trefoil screw stopper or vice (representing the Trinity?), being known from other contemporary flasks on the *Mary Rose*.

This flask may have held the wine or water for the priest's Mass, and the octagonal form could have a religious significance, the number eight representing resurrection and new life, as found frequently on baptismal fonts for that reason. At least one other church inventory makes the association of bottle and cruet; in Bassingbourn, Cambridge in 1498 was recorded (Cox, 1913, 141):

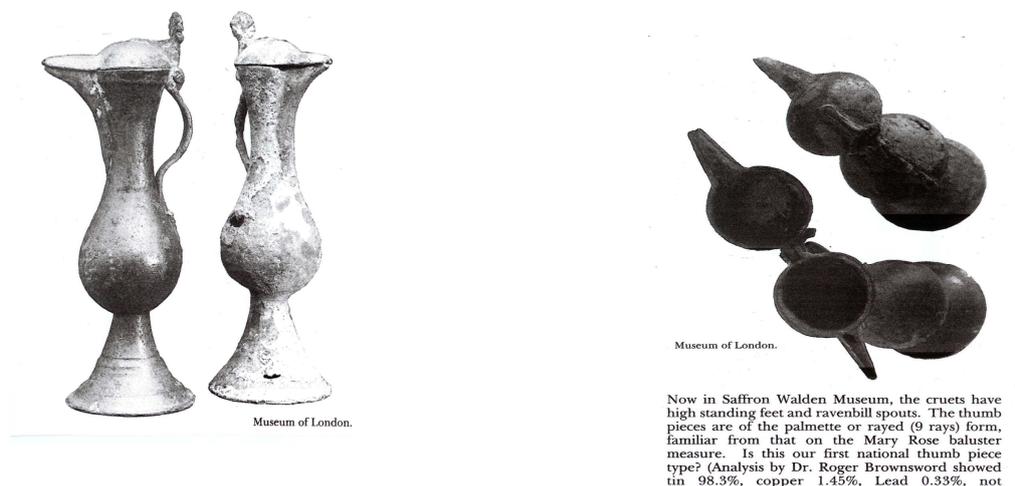
Item iii crewettes and a Wyne Bottell of pewter.

Item a pott for water of pewter.q

The Dowgate flask is the only squared example so far recorded. It is likely to be fine metal because of its shape, and therefore English in origin.

The most impressive round cruets, and the only surviving pair, were discovered when digging the foundations of a house in St Andrews Street, Cambridge. They may have been used in the church of that name there, or in the Dominican Priory, which preceded Emmanuel College half way down that street. They differ from other English round vessels in being cast vertically, rather than horizontally, and have a clear cast line running vertically down from the beak (fig 54).

Fig 54



The Cambridge cruets, 15th century. (Saffron Walden Museum/Museum of London).

They are seven inches tall (178mm) and have high standing feet, (like the cruet from White Castle) ravensbill spouts and plume or rayed (nine rays) thumb pieces, a similar type to that of the baluster measure from the *Mary Rose*. This type of thumb piece is also found on a fragmentary handle from a Raeren stoneware beer mug (fig 55) dated by pottery type to 1450-1550.

Fig 55



Museum of London.

Stoneware handle fragment (Raeren) and pewter mount. (Museum of London/Pewter Society).

The missing lid may have been put on in London, conforming with Company regulations in 1552/3 (Welch I, 174-5) when some imported stoneware pots were ordered to be mounted by members of the Company and marked with the hall mark of the fleur-de-lys. On the other hand, it may be an earlier German import. Other examples of the thumb piece are known (Munday, 1991; Museum Boymans van-Beuningen 2004 no. 289) on flagons dredged from the sea in Britain and the Scheldt and the latter believed to be French. Analyses by Brownsword in Weinstein 2005a showed the cruets to be of 98.3% tin, 1.45% copper and 0.33% lead, also antimony 0.02%; and for the second cruet 99.1% tin, 0.74% copper, 0.26% lead, suggesting these are English pieces, but with a pan-European style, plume, thumb piece. Round vessels may therefore be of fine metal, if so required.

The cruets, now in the Saffron Walden Museum, are unmarked and there are no visible medallions. They are probably of 15th century date. Cruets with ravensbill spouts are known in Dutch pewter collections - for example Museum Boymans van Beuningen (2004) no. 72.

A non-excavated round cruet, of c. 1500, with incised Lombardic script for aqua on the lid, zoomorphic spout in the form of a dog's head, twin ball thumb piece and raised reeded band round the body (as the Dowgate example, fig 51) was sold at Christie's on 1st May 2007 (lot no. 27). The form is similar to a copper alloy ewer of about 1500 from Strata Florida monastic site, Cardigan, and now in the National Museum of Wales, Cardiff. Analysis of this unprovenanced piece shows it is likely to be of English origin (89% tin, 9.5% lead, 1% copper: 1% copper indicates it is of English origin), so conforming to the standard for round pots as laid down by the Craft in 1348 or to trifle alloy: and at 16.6 fluid ounces capacity, it also conforms to the English standard pint. Such cruets were no doubt used to celebrate Mass at some monastic institution, rather

than to be used by an individual priest, when the smaller cruets would have been needed.

Unlike round vessels, which are usually cast (except canisters . see below 5.15.1) squared vessel may be either cast or made from separate strips of sheet metal soldered together.

The well known squared cruets from Ashby-de-la Zouche Castle (fig 56) now in the Victoria and Albert Museum (Alexander and Binski, 1987, 239) and Tong Castle Shropshire (fig 48) (Hornsby *et al*, 1989, 53 no. 15) are both cast in one piece, then the bases inserted.

Fig 56

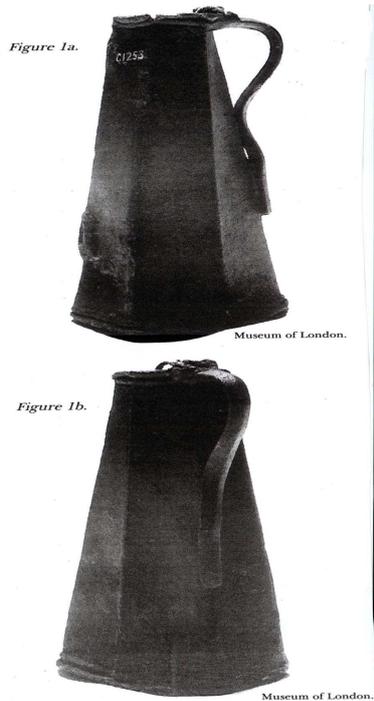


The Ashby-de-la-Zouche cruet 15th century. (Victoria and Albert Museum M. 26 - 1939).

The Ashby cruet is important for its contemporary inscriptions . the owner's name, $\text{†} \text{Thomas Hunteq}$ and $\text{†} \text{HONORIFICABILIUTq}$ an abbreviation for the medieval tongue-twister $\text{†} \text{HONORIFICABILITUDINITATIBUSq}$ It was found in 1937 in a well deposit of 15th century date. Like the Tong cruet from the Zouche family's other seat, Tong Castle, Shropshire, it is considered to date to c. 1400. The latter was also found in a well, in 1977 in close proximity to a saucer (the Tong saucer) see below; both cruets still have their spouts or $\text{†} \text{pipesq}$ and the Tong cruet lid is marked with $\text{†} \text{q}$ for *vinum*, and has an early hammerhead thumb piece, and pierced circular plate linking the spout with the body . a unique feature for pewter. It is of copper hardened $\text{†} \text{ineq}$ metal (96% tin, Brownsword pers. comm.).

This squared form of cruet appears the commonest type, judging from surviving examples; two others are known, one (fig 57) from the Steelyard in the City of London (site of the present Canon Street Station) and a second found in the roof timbers of Wimborne Minister, Dorset (fig 58).

Fig 57



The Steelyard cruet 14th century. (Cuming Museum/Museum of London/Pewter Society).

Fig 58



The Wimborne Minster cruet, 14th century. (Wimborne Minster).

The cruet from the Steelyard, found in the 19th century and now in the Cuming Museum, Southwark lacks its pipeqor spout and lid. It is more likely to be of English origin than a German import, given its similarity to others of known English provenance, but no analysis has been undertaken on these latter two vessels to date.

Patens, Chrismatories and Holy Water Buckets

Another, unrecorded item of pre-Reformation church pewter is the small (3½inches diam.) pewter paten (A 25829 Museum of London) bearing the *Agnes Dei* on the rim. This is an early 20th century find from Clerkenwell, City of London and is

probably from a coffin chalice. Emblems on rims of patens are thought to date them to the 16th century rather than earlier (Oman, 1957).

Whilst a number of ecclesiastical cruets have been recorded, holy water buckets are quite unfamiliar. An example is in the Victoria and Albert Museum, no. M.31-1921 (fig 59) reputedly found at Whitechapel, east London (North, 1999, 44).

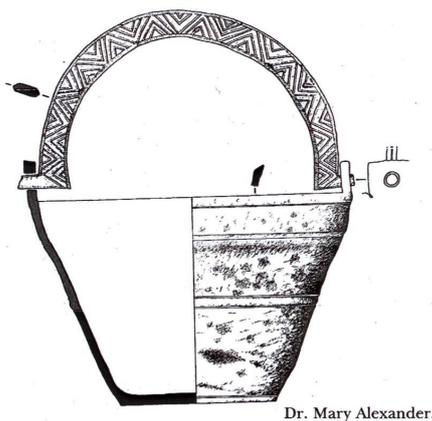
Fig 59



Holy water bucket, c. 1500, ht. 4¾inches (120mm). (Victoria and Albert Museum).

This closely resembles Flemish copper alloy examples with its curved handle. Another example, found in the River Wey at Newark Priory north east of Guildford, Surrey, has a quite different, flat handle, with moulded diagonal line decoration (fig 60).

Fig 60

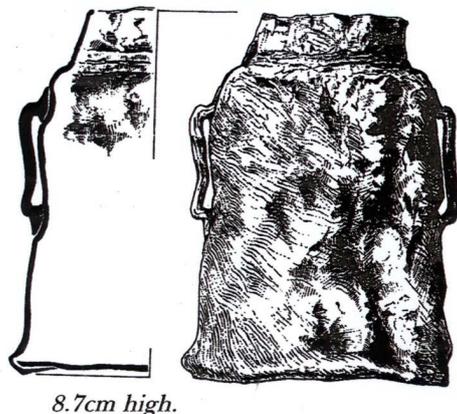


Holy water bucket, Newark Priory, ht 4inches (100mm). (Dr. Mary Alexander/Guildford Museum/Pewter Society).

It measures approximately 4inches in height by 2½inches internally at the base (Weinstein, 2005a, 5).

Holy water was probably also carried in costrels or *ampullae*, as that from Guildford Priory (fig 61). This, of 2¾inches height is of high lead pewter, as are other examples, in the Museum of London, Weoley Castle and elsewhere.

Fig 61



Ampulla from Guildford Priory, ht. 2¾inches (70mm). (Guildford Museum/Pewter Society).

The inventories of churches and religious houses prepared between 1548 and 1552 for the spoliation following the Reformation give us some idea of what was left there by that date. In addition to pewter cruets and alms basins there are *ampullae*, chrismatories and pints, pottles and quarts for water (Walters, 1939). Some churches like St Giles Cripplegate, City of London, had already acquired pewter cups for the Communion. Perhaps the most significant entry is one for St Benet Gracechurch St. (Walters, 1939, 189):

A quart wine pote of pewter sylver facsion
to put the wyne in used at the communion.

This wine flagon would appear to be superior to the water flagons already used in vestries, and is a particularly early example; the earliest known extant flagon, in silver, is dated 1576.

Remarkably a few pieces of pewter have survived from the pre-Reformation period *insitu* in their churches. The Ludgvan crucifix, Cropredy pyx and Granborough chrismatory are some examples, as noted above.

A chrismatory is a container for holy oils used in the sacraments: *oleum infirmorum*, *oleum catechumenorum* and *chrisma*. The Granborough chrismatory in fig 62 (Watson, 1879-81, 430-2; Hornsby *et al*, 1989, 106) was found in 1880 in the wall of

the church there; it was probably hidden before the destruction of Romish church goods in 1552.

Fig 62



The Granborough chrismatory, 14th century. (Granborough Church/Museum of London).

Of 14th century date 6½ inches long and standing on lion feet (one a replacement) this pewter chrismatory retains the three circular containers for the oils, and two lids with attached hooks to lift the tow on which the oil was administered. It has a fragmentary gabled roof lid. The form may be compared with a copper alloy chrismatory (with lead-pewter containers) now in the Treasury at Canterbury Cathedral (Alexander and Binski, 241 no. 123).

The prevalence of religious depictions in daily life has led to a misunderstanding of the use of some pewter receptacles of medieval date, especially some small vessels identified as a pyx (Alexander and Binski, 239 no. 118) and fig 2 above. Recent research suggests that these are in fact salts (Dufour *et al*, 1979, 290-1) some fragments of which have been found in London (Egan, 1998, 191-3). They may be of the type of trencher salts used by the Canons at Ottery St Mary (see Chapter 2). The Cropredy pyx (fig 49) is the only known pre-Reformation pewter pyx, and quite different in character from the elaborate salts surviving.

Ecclesiastical pewterware extended beyond the ritual religious items to include those used by the monastic communities themselves within their refectories, as shown by the reference to tableware in use at Ottery St Mary in 1335, above (Chapter 2).

Only a few items are known to survive with any monastic domestic associations. One, now flattened dish (fig 63) approximately 11 inches (276mm) in diameter found unstratified in the infirmary at Fountains Abbey, Yorkshire, bears the device of a horseshoe enclosing a dot stamped on the rim, a motif said to be associated with Abbot Marmaduke Huby (1495-1536) as noted by Coppack (1993, 73).

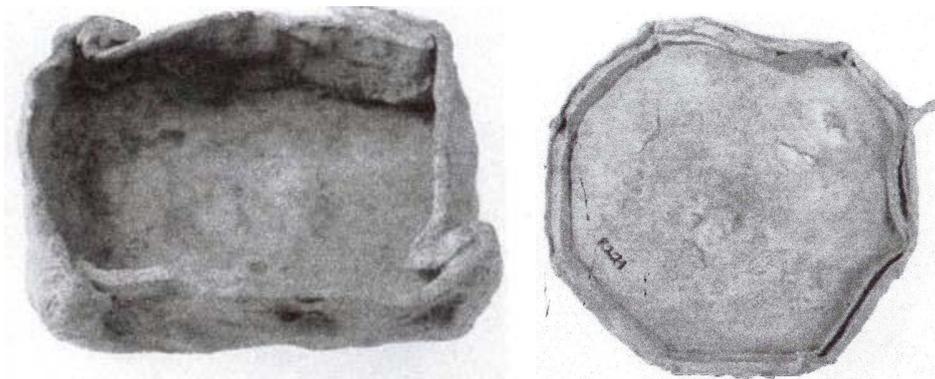
Fig 63



Fountains Abbey dish 15th-16th century. (English Heritage).

The dish has chatter marks all over the surface indicating a less carefully finished article attached too loosely to the lathe. A number of lead containers (fig 64) also found on the site are interesting in their squared forms, possible copies of the superior pewter squared vessels in use at the time, such as the pottle flagon from Abbots Leigh monastic site, Bristol (fig 29).

Fig 64



Fountains and Rievaulx Abbey lead containers unstratified. (English Heritage).

Fountains employed plumbers who may also have been general metal workers (Hatcher in Hatcher and Barker, 22). There is no evidence of specialist pewterers working on Cistercian sites at present.

Other ecclesiastical pewterware includes two dishes from Whittlesey Mere with a ram's head device on the rims, the motif of Ramsey Abbey. These of 11 and 13⁴/₅ inches diameter respectively, are of fine metal (Brownsword and Pitt, 1984, 241) and appear to be part of a garnish or set of platters and dishes. They belong to Peterborough Museum.

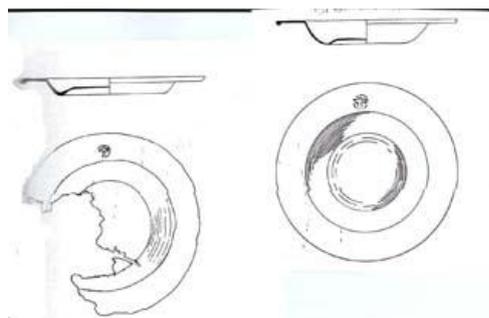
5.3 Medieval Flatwares

The most important category of pewter production was flatwares, made in a secret tin/copper alloy on which the Crafts reputation depended. A few saucers and larger dishes are all that remains of this enormous output. Marks of a crowned hammer on some are of particular interest for interpretation.

5.3.1 Hammermarks in Relief on Flatware

Two small saucers, or patens, of 5¹/₅ and 5²/₅ inches (130 and 135mm) diameter were excavated from an early 16th century context in the west end of a drain at the Austin Friars Leicester (Mellor and Pearce, 1981, 130, 131) near the friary living quarters. They are also of fine metal (Brownsword and Pitt, 1984, 240) and each bears a hammermark in relief on the rim in a depressed circle. The rims are of normal flat form with strengthening bead below the edge (fig 65).

Fig 65

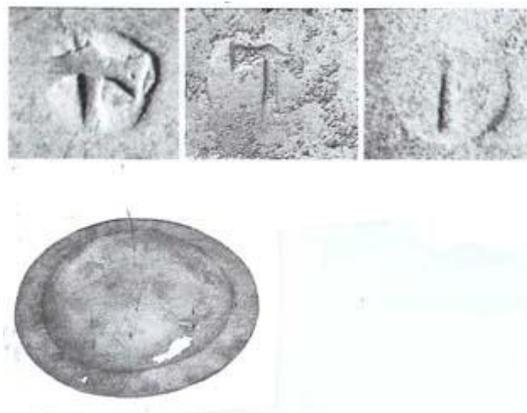


Austin Friars, Leicester saucers with hammer marks in circle, early 16th century. (Mellor and Pearce).

The one complete saucer (A 389. 1973. 133) weighs 4¹/₅oz which falls below the minimum weight (5¹/₃oz.) in the 1439 sizing (Welch I, 12). It is suggested that the saucers may be earlier than their context indicates (Mellor and Pearce, 130).

Two similar saucers (5 and 5³/₄ inches, 136 and 145mm diam.) (fig 66) were found at Smithford Street, Coventry, on the site of the Benedictine Priory of St Mary, together with a larger, 10 inch (250mm) dish.

Fig 66

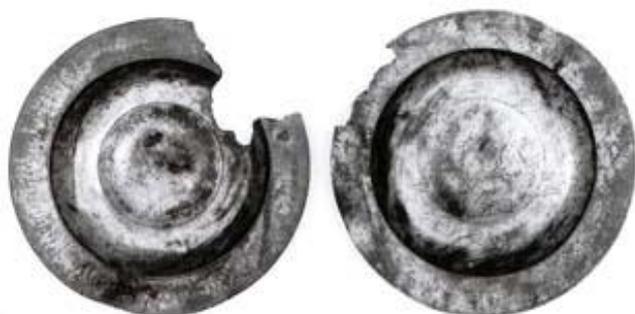


St Mary's Priory, Coventry, hammermarks on saucers and dish, 15th-16th century. (Moulson, Hayward and Pewter Society).

All three bear the same device of a raised hammermark in a depressed circle, similar to those from Leicester; all are unstratified; whilst the dish is of fine metal but with 0.49% bismuth, thus making it of probable 15th-16th century date, the saucers have between 1.3 and 3.33% lead (Brownsword and Pitt, 1984, 1240), and weigh 6¾ and 9oz and the dish 1lb 5oz respectively (Moulson, and Hayward, 2007, 21-3).

Two unstratified dishes each with a crowned R qdevice, from Kennington Palace, London, one dish with the same hammermark in relief also include bismuth, so are likely to be 15th-16th century, despite the crowned R qdevice believed to represent Richard II and Richard III. It is debatable whether this commonly occurring device relates to the kings, although the find spot gives some support to this idea. Bismuth was known to be used by the Pewterers Company from the 16th century (Hatcher in Hatcher in Barker, 225) but may be an earlier practice.

Fig 67



Kennington Palace, Surrey dishes, 15th-16th century. (Duchy of Cornwall).

Fig 68



Kennington Palace, Surrey dishes, (details) 15th-16th century (Duchy of Cornwall), hammermark left, crowned R right.

The mark of a hammer is the symbol of St Eloi (Eligius) patron saint of metal workers (North, 1999, 18) and its appearance may relate to guild usage. The Coventry guild was established in 1450 (Hatcher in Hatcher and Barker, 73) and used the device at least from the 17th century. The marks on medieval flatwares are reviewed (Brownsword and Homer, 1988, 837). Their findings showed that the Leicester, Coventry and Tong, Shropshire (S1/125 Pewterersq Company) flatwares were essentially lead-free copper-hardened fine metal, and therefore, also the mark, was of English origin. Some of the pieces so marked appear unfinished (not stripped and polished) so may have cost less. English pewter was generally unmarked by the Company and seldom touched by the pewterer himself prior to the 1522 regulations to mark all flatware (Welch I, 107) so the relief hammermark may have been applied by the pewterer to distinguish a particular type of product that was of standard alloy but less well finished. There is no reference to the mark in the records of the Pewterersq Company.

Fig 69



The Tong Castle saucer, late 14th century. (Worshipful Company of Pewterers).

The Tong saucer (fig 69) is the earliest stratified item (late 14th century) bearing the mark, so of particular importance for the secure dating of similarly marked pieces. Diam. 5 inches (137mm). Both it and the Tong cruet are of fine metal (96% tin) and copper hardened (but no bismuth).

In 1988 (83-87) Brownsword and Homer noted that the mark only occurred on English pieces and not on any from abroad, at that date. The recent discovery (1996-7) of seven saucers with the same relief hammermark within a depressed circle amongst other flatwares in the waters off Lisbon, Portugal, shows that this grade of pewter was also exported. Their sizes and weights are comparable to the Leicester and Coventry hammermarked pieces and so are considered of English origin; no metallurgical analysis is yet available. The team was lead by Philipe Vieira de Castro formerly of College Station, Texas (www.abc.se/npa/uwa).

The trade with Portugal in pewter from the late 14th century (Platt, 1978 ii, 31) and mid-15th century (Hatcher in Hatcher and Barker, 266) is well attested yet these are the first pieces to be recognised. Unfortunately the Lisbon pewter is not associated with any particular shipwreck. Other ports trading with Portugal were Bristol and Southampton. Given the geological spread of the finds to Portugal and within England, including one from Middleham Castle North Yorkshire (fig 70), a dish from Kennington Palace, Lambeth, London, Tong Castle, Shropshire and Salisbury it is likely that they are London products.

Fig 70



Middleham Castle dish 15th century. (Christie's, May 2007, London).

A variant of the mark is on dish no. 80A 0919 from the *Mary Rose* which has the touch of \pm either side of a hammer in relief within a shield outline (Weinstein 2005b, 491). At 14oz weight and 10 inches diameter this falls short of the standard weight (1 lb 8oz) for flatware of this size in the 1439 Assay (Welch I, 12) and Table 5 although its high tin (93.5%) and copper (2.47%) indicate its English origin (Brownsword and Pitt, 1990, 123). The mark appears to confirm the authenticity of a non-standard piece.

5.3.2 The Incuse Crowned Hammermark on Flatwares

This device (fig 71) is widely known on the continent where it is interpreted (Dubbe 1965, 65-7) as meaning hammered (and hence good quality) Dutch pewter.

Fig 71

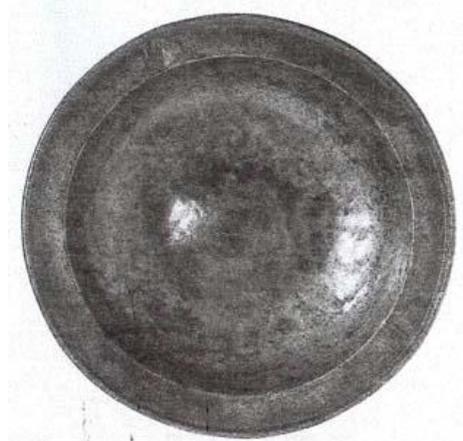


Incuse hammer mark detail.

This may be its meaning also in England from where it probably originated, given the Dutch custom of copying English quality marks like the rose and crown, the English emphasis on hammering, especially in the \pm (the area between the rim and base) (Hatcher in Hatcher and Barker, 169-170), and its use as a general metal workers' guild device, at least from the late 15th century.

Only seven pieces marked with the incuse hammermark have secure English provenance: five saucers from the *Mary Rose*, an unstratified small bowl or saucer from the Thames foreshore with angled fillet above the rim (fig 72) which is considered to be of 14th century date, by comparison with a similar example from a c.1340 context in Exeter (Allan, 1984, 345). An early 17th century porringer from Beeston Castle, Cheshire, appears to be the latest item known so marked.

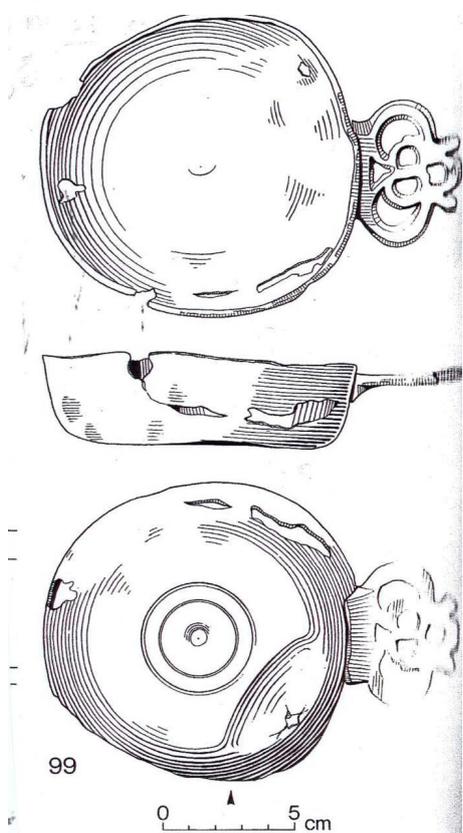
Fig 72



Bowl, 14th century, diam. 7 inches (180mm) wt. 290g. (Pewterers Company/Museum of London).

This London bowl (WCP, 1993, 154) and fig 72 above is in the collection of the Pewterers Company, no. SI/130/2. The early 17th century porringer from Beeston Castle, Cheshire (Keen and Hough, 1993, 152, 154) and fig 73 from a civil war context has an incuse hammer (crown missing) on the upper surface of the ear. Pewterers touched porringers with their own marks below the ear or under the base, indicating this is probably a guild mark (possibly from the Chester guild, established c. 1490). The ear is now cracked at the juncture with the body.

Fig 73

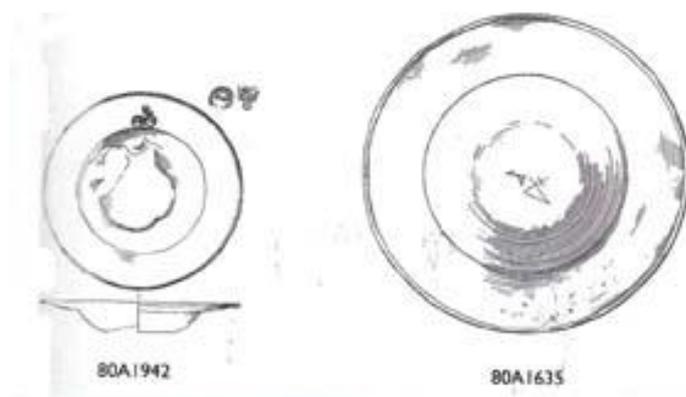


Beeston Castle porringer with hammermark on handle, early 17th century. (English Heritage/Keene and Hough).

At least one London pewterer used the crowned hammermark at this date as a personal touch (Welch I, 151 for 1565-6), so we must be cautious about its interpretation. In 1556-7 the Company decreed that porringers must be cast in one piece together with the ears, rather than have the latter soldered on (Welch I, 188). Perhaps the incuse hammermark on the Beeston porringer indicated an acceptable piece despite some such irregularity. Porringers are discussed further below.

The five hammermarked saucers from the *Mary Rose* are considered to be in fine metal (Brownsword and Pitt, 1990, 112, 123) although the two from the Barber-surgeon's cabin contained some 5% lead and have an endorsed hammermark with the maker's mark (a swan) struck either side of it on their reeded rims (fig 74). All five have only traces of bismuth, usually added in excess of 0.1% to 16th century London pewter and as found in the majority of flatware pieces from the *Mary Rose* (Brownsword and Pitt, 1990, 122, 3).

Fig 74



Saucer with doublestruck swan maker's mark, on a broad rim saucer c. 1545 (left) 80A1942.

This may indicate they are a further variation from a standard form, or simply of pre 16th century date.

The author has had analysed three unstratified and unprovenanced pieces from the Shakespeare Birthplace Trust. Two of these bowls /652 and /990 are of lead-free fine alloy and the third, a saucer, has 1.5% lead (no. /776) (see Appendix). All are copper-hardened English alloys. Despite the higher lead levels in some pieces, such as the Barber-surgeon's saucers, pewter marked with the incuse crowned hammermark appears to be well made, hammered pewter (as the crown implies) compared with the less finished examples with the relief-hammermark especially the Tong saucer for example. The respective hammermarks may represent these two different standards of

manufacture and finish. The question remains whether the Barber-surgeons' two saucers are examples of *trifle* rather than fine alloy.

Non standard saucers . higher lead contents and reeded rims . trifle alloy?

Not all medieval flatware is of fine metal, however. Two small, unstratified saucers from Weoley Castle near Birmingham (WC 306 and WC 309 with diameters of 5 and 5¹/₁₀ inches) have narrow reeded rims, and compositions of low tin (72 and 77.5%) and high lead (26.5 and 22.3%); the added copper (1.2 and 0.45%) indicates an English, though possibly provincial, origin, the high lead levels contravening Pewterers' Company regulations (Brownsword Pitt and Symons, 1983-4, 35) and being closer to lay metal specifications (i.e. 1 to 4 parts lead to tin) which was illegal for flatware. They were probably made from recycled pewter.

The anomalies of small saucers was a concern to the Company, who called in all *pettie saucers* in 1572 (Welch I, 247). They were not to be sold under four pounds weight the dozen or there about that is 5 oz each in weight or over. The Austin Friars saucers at about 4oz each would have been confiscated at a Company Search.

Some categories of small saucer were down graded to *trifle* alloy for which the composition was not stated, but is considered to be some 4-10% lead (see discussion below under *Trifle*). The new saucer categories (in *trifle* alloy) are listed in the Court Minutes for 1612-13 (Welch II, 62,3) the largest of which are equivalent to those from Austin Friars, Leicester, i.e. about 4oz each in weight; middle saucers weighed 3oz each and small 2oz.

It is possible that the narrow reeded rim may be a distinguishing feature on leaded flatware, the two reeded saucers from the Barber-surgeons' cabin on the *Mary Rose* contained some 5% lead (80 A1627 and 80 A1942) as noted above.

A 16th-17th century saucer from All Souls College, Oxford, and now in the British Museum (1900, 2-21, 1) also features a reeded rim, analyses of which by X. R. F. (X-ray fluorescence) indicates a slightly (3%) leaded alloy (Duncan Hook pers. comm.). so supporting this suggestion. See also Homer 1988, 122 for an illustration on this piece.

Two small early 18th century saucers from St John's College, Cambridge (Z15115 and Z15114) 4 inches (102mm and 100mm diam.) one bearing the distinctive portcullis badge and *St John's College* also have reeded rims. They are interesting for their alloy compositions where antimony has been added to harden and improve the pewter: tin 81 and 89.9%, lead 14.5 and 7.65%, copper 1.5 and 1.75%, antimony 2.28 and 0.56% (Brownsword and Pitt, 1984, 240). Further analyses may show this is a

typical alloy for flatware of late 17th and 18th century date in the P rifleq category. Compare also the composition of the cast-decorated saucers 1149 and 1116 (Table 7.3 and Appendix). If these are of continental origin, it appears 18th century English trifle was a similar alloy . and not simply a tin/antimony alloy as Massé (1911, 107) stated. The two SBT trenchers discussed above (General Observations on the Scientific Analysesō) have also antimony (3-4%) and lead 16-38%). This high lead proportion makes them less likely to be of English origin. There were several varieties of alloy combining tin, lead, antimony, copper and bismuth in use in the 18th century both in England and on the continent, but there appears to be some P familyq resemblance amongst the objects discussed here.

Conclusion: a reeded rim on certain flatware may indicate trifle, as opposed to fine alloy.

5.3.3 A Rim Form as Dating Evidence? The Triangular Fillet or Reed above the Rim

This feature has been observed on several saucers and bowls, some from dated deposits, the earliest of which is the saucer from a context of c. 1290 at Cuckoo Lane, Site A house 1, Southampton (Michaelis, 1975, 250, 1). This property was owned by wealthy burgess Richard of Southwick and the saucer was associated with other late 13th century material. It is the earliest dated piece of pewter tableware in Britain in the post-Roman period (excluding the Beverley spoon), and is incised (not struck) with the letter P q on the rim (fig 75).

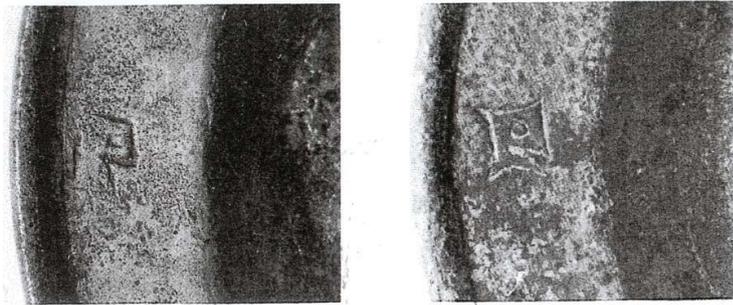
Fig 75



Southampton saucer c. 1290 with incised Gothic P q on rim. (Michaelis/Platt/Leicester University Press).

A close parallel comes from Weoley Castle near Birmingham (WC 305) discussed by Brownsword and Pitt (1984). Weoley Castle was the home of the de Sonery family and Lord Dudley amongst others between the 13th-16th centuries. Like the Southampton saucer, that from Weoley Castle is also incised (not struck) with a letter P q on the rim (John Cherry pers. comm.) and is of similar size and fine metal composition.

Fig 76



Weoley Castle saucer with incised Pq on rim, and on Southampton saucer. (Brownsword/Medieval/Archaeology).

The initial also probably represents a former owner. An important guild affirmation of the Pq meaning Pewterq on the saucers (Homer, 1999, 8) would indeed have been struck or stamped, but this is not the case.

The saucers share the distinguishing feature of a fillet or strengthening reed of triangular section above their narrow rims, as does a third saucer, also from Southampton (Dr. Andy, D. Russell pers. comm.) from a context of c. 1340 in the Lower High Street (no SOU266) as well as a bowl or deep saucer from a similar context of c. 1340 in Goldsmiths Street, Exeter with similar heart devices (merchants marks) incised on the bases. (Allan, 1984, 345 and fig 192) and a saucer rim fragment from Austin Friars, Leicester (Mellor and Pearce, 130). The small bowl with similar feature from the Thames foreshore is similarly dated by comparison with the above (PewterersqCo. no. S1/ 130/2 and Hornsby *et al*, 1989, 52) as is a 13th century saucer in the British Museum collections no. 1856, 7-1, 347) and fig 77 which is of fine metal (Duncan Hook pers. comm: Homer, 1988, 118-128).

Fig 77



Saucer with fillet or reed, late 13th century. (British Museum/Pewter Society).

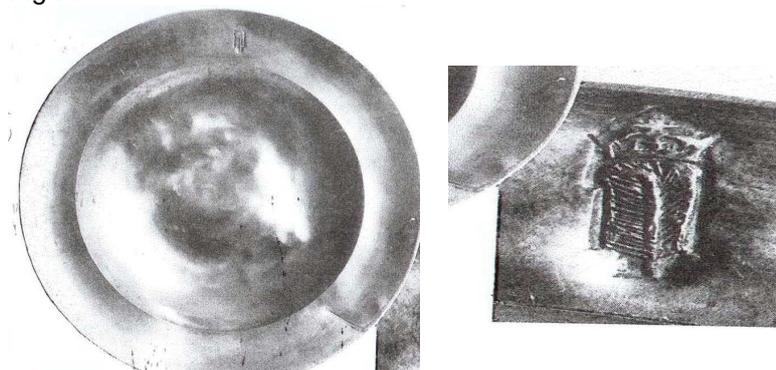
Two larger saucers from Weoley Castle (WC 301 and WC307) have similar reeds or fillets; both are also of fine metal and probably therefore of 14th century date (all Weoley Castle pewter items were otherwise unstratified). WC 301 is distinguished by its higher than usual copper contents (6.5%) so is comparable to the Southampton Pq saucer. High copper contents have been considered a feature of some early medieval pewter (Brownsword, Pitt and Symons, 1983-4, 35).

The fillet above the rim is thus considered a useful 14th century dating feature of pewter; but it is not clear if it remained in use into the 15th century. However its use ranges more widely: it is a characteristic rim form on many of the wooden bowls from the *Mary Rose*, on 16th century delftware side plates (Britton, 1987, 109) and English or Flemish pewter (North 1999, 60, no. 22) but is possibly simply a decorative or strengthening feature in these instances. Within the Company, flatware with fillets was sometimes considered as demonstrating superior workmanship, as in 1674 where one Daniel Mason had struck a fillet on Spanish trencher plates to pass them off as superior $\text{new fashioned plates}$ (Hatcher in Hatcher and Barker, 170) perhaps a reference to the new multi-reeded plates. Incidentally, fillets remained a feature of Spanish trenchers still in 1772 (Homer 1984, 87) at an Assay held that year.

5.4 The Guy's Hospital Dishes (Southwark, London)

It was noted in Chapter 1 that the term garnish was first used in 1384-5 at Battle Abbey, Sussex to describe a set of twelve pewter vessels. The hoard of twenty dishes from Guy's Hospital (fig 78) is the earliest equivalent to a medieval garnish, the most recent discussion of which (Hayward and Weinstein, 2007) clarifies the number of extant pieces (Hayward) and provides new details of provenance and makers (Weinstein).

Fig 78



Guy's Hospital dish and detail. (British Museum/Pewter Society).

to give him henceforth the crowned bell on such wares as he should make whereby to sell them again. Except it were for the vessel of the Queen's Majesty's house only.

The Husthwaite's also made bells, supplying a morning mass bell to the parish church of St Saviour, so they may well have chosen the device for their touch. Nicolas Jurdeine who was forbidden the use of the crowned bell touchmark had married Robert Husthwaite's widow and apparently laid claim to its use through his wife (Welch I, 278)

The Guys hoard was analysed in part by Brownsword and Pitt (1984, 241) and Sheffield Analytical Services and found to be fine metal, as might be expected for wares of this type by this date. All are marked with the badge of the crowned feather device which has been interpreted as belonging to Arthur Prince of Wales, elder son of Henry VII (d 1502) (Hayward and Weinstein 14) It is suggested that they were used at Kennington Palace, Lambeth SE11 the chief base of the Duchy of Cornwall (about a mile and a half away from Guy's Hospital) and where Catherine of Aragon stayed the night before her marriage to Prince Arthur in 1501.

The hoard provides important evidence of late medieval tablewares which is extended by the discovery of the largest group of British Post-Roman pewter ever recovered in UK waters . that from the wreck of the *Mary Rose* lost in 1545 discussed in the following section.

5.5 Post-Medieval Flatwares

Whilst the basic medieval flatware forms and weights continued to be made, finds from the *Mary Rose* have now provided correlated linear dimensions for the first time. The range of flatwares expanded for new types of food presentation with the evolution of the flat plate. Guild marking systems became compulsory from the sixteenth century, 1504 for the marking of hollowares and 1522 for flatwares.

5.6 The Evidence from the *Mary Rose*

Finds from the *Mary Rose* assemblage are discussed by Weinstein (2005b). Some seventy-five vessels were recovered, and whilst the holloware items are important for their information on new forms and discussed below, a study of the flatware provides clearer evidence of the platters, dishes, and saucers used as normal

tablewares at the time. Metallurgical analysis has previously established that the flatwares were mainly of English origin (Brownsword and Pitt, 1990).

5.6.1 Physical Features and Table 5: Weights and Linear Dimensions of Flatwares

Pewter, as is noted above was sold by weight, as set out in the 1438 Assay or Sizing (Welch I, 12) but this gives no linear dimensions, so it is unclear into which category of dish or saucer, for example, a particular piece should be assigned, given considerable variations in thickness of castings (and hence weight) resulting from badly fitting moulds as well as obsolete descriptive terms for vessel types.

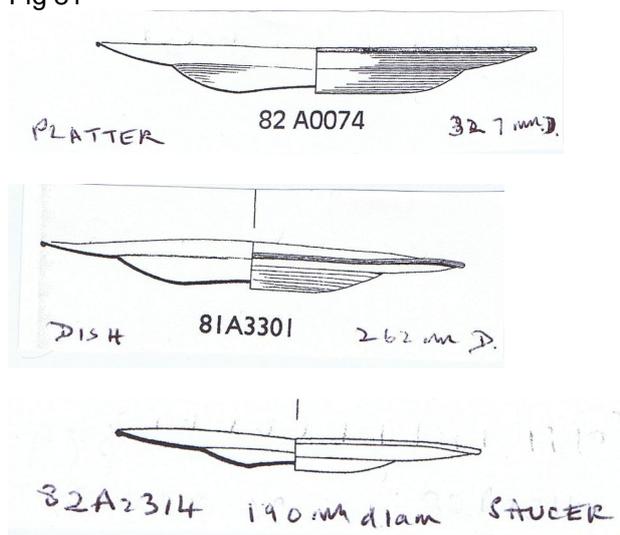
Table 5: Mary Rose flatwares: Weights and Linear Dimensions

Object	Weight (lb)	Weight (kg)	Dimensions (mm)
<i>Platters</i>			
standard = a) 2lb (c. 0.91kg); middle platter 24lb (10.89kg) per dozen; b) 2lb 8oz (1.13kg) of largest size 30lb (13.61kg) per dozen			
81A3278 Lisle Arms	2lb 7oz	1.11	340
81A2971 TC	2lb 4oz	1.02	315
81A3260 TC	2lb 4oz	1.02	316
80A1501 GC	2lb 2oz	0.96	320
81A3261 TC	2lb 2oz	0.96	308
81A3761 TC	2lb 2oz	0.96	320
81A3262 TC	2lb	0.91	312
81A3740 TC	2lb	0.91	320
81A3796 TC	2lb	0.91	335
81A3916 TC	2lb	0.91	314
82A0072 Lisle Arms	2lb	0.91	332
81A5781 Lisle Arms	1lb 9oz	0.71	267
<i>Saucers</i>			
standard: 8oz (0.23kg). 6lb (2.72kg) per dozen			
82A1747 TC	11oz	0.31	190
82A4508	10oz	0.28	190
81A3279 TC	9oz	0.26	190
81A3311 TC	9oz	0.26	190
81A6850 crowned hammer	9oz	0.26	148
82A1906 TC	9oz	0.26	189
81A0877 HB	8oz	0.23	158
80A1627 Swan crowned hammer	8oz	0.23	172
80A1942 Swan crowned hammer	8oz	0.23	170
81A3286 TC	8oz	0.23	190
81A5827 crowned hammer	8oz	0.23	168
81A6849 crowned hammer	8oz	0.23	170
82A0038	8oz	0.23	192

Dishes			
standard: 1lb 8oz (0.68 kg). largest assiceq18lb (8.17kg) per dozen			
81A3301* TC	3lb	1.36	262
82A2710 TC	1lb 12oz	0.82	270
80A1635 WE	1lb 11oz	0.77	260
81A4541 TC	1lb 11oz	0.77	274
82A0073 TC	1lb 10oz	0.74	270
81A3263 TC	1lb 10oz	0.74	270
81A2993 TC	1lb 9oz	0.71	271
81A0257 GC	1lb 8oz	0.68	290
81A2994 TC	1lb 8oz	0.68	274
81A3716 TC	1lb 8oz	0.68	274
81A3314 TC	1lb 7oz	0.65	270
* standard for chargersq(large serving dishes) were 2lb 12oz (1.25kg) and 3lb 4oz (1.47kg)			

It is now possible for the first time, to establish the weight/dimension correlation with some certainty, given that the flatware consists of twenty-three pieces made by the same pewterer FCq (Table 5). Platters range from 308-327mm (12 - 12 inches) in diameter (weight 2lb), dishes from 262 to 274mm ($10\frac{3}{8}$ - $10\frac{3}{4}$ inches) (weight 1lb. 8oz) and saucers 190mm ($7\frac{1}{2}$ inches) (weight 8-9oz). The five saucers marked with a hammer mark range from 168-172mm ($6\frac{3}{4}$. 6 inches) but weigh the standard weight (8oz), like the larger, TC. saucers of 190mm ($7\frac{1}{2}$ inches). Heights are 50mm (2 inches) so ratios for platters are 1:6, dishes 1:5 and saucers 1:4, whilst a 17th cent. flat plate is 1:40.

Fig 81



There are some anomalies, for example dish no. 80A 0919 (not listed) which weighs 14oz but is 10 inches in diameter (standard weight for a dish of this size is 1lb

8oz) 10oz lighter than standard; it is endorsed with a maker's mark I S either side of a hammer mark in relief and is of fine metal (Brownsword and Pitt, 1990, 123). Cheaper pewter could be made by adding larger quantities of lead to the metal mixture than specified in the regulations, but this made them heavier and which could be detected at a Search. Most of the *Mary Rose* pewter conforms more-or-less to the standards (Table 5) and tending to be heavier rather than lighter. Even the same pewterer (T.C.) making the same wares (saucers) could produce work varying by 3oz in weight . for example the T.C. saucers of 7½inches (190mm) in Table 5 weigh variously 8oz (81A 3286) 9oz (81A 3279) and 11oz (82 A 1747).

The uses of both pewter and wooden tablewares from the ship is discussed in Chapter 3 on Dining above.

5.7 The Development of the Flat Plate

By the 1640s the garnish of flat broad-rimmed plates (as opposed to dishes) was in common use, such as that found at London Wall (fig 82) no. A13786. (Homer and Shemmel, 1983, 15).

Fig 82



London Wall plate mid-17th century, diam. 8½inches (215mm). (Museum of London/Neville Smith).

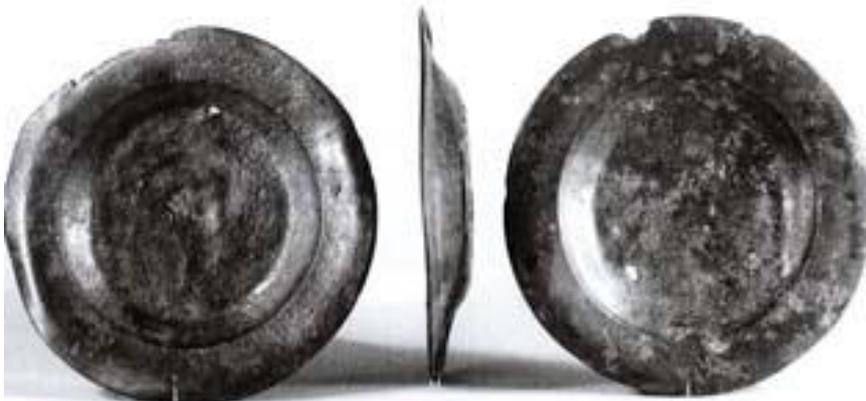
They remained popular until about the 1680s when other styles of narrower rims, sometimes decorated with single or multiple castings known as reeds came fully into fashion. What inspired this completely new form and how did it evolve?

It is not clear when the change of style to flat plates occurred. Hornsby (1983, 124) notes that flat pewter plates were already used on the continent by the 16th century and were then probably introduced to England. Brears (1991, 92-3) emphasises the growing interest in the presentation of food, especially large and complex salads

beloved by the Elizabethans. Garnishes of salad platters were noted above. Such displays necessarily required large flat platters and it is likely that English pewterers produced them as required. Two other trends probably influenced its evolution: the need for a good surface to cut up food with knife and newly introduced (in Italy) fork; an impermeable surface for food and sauces.

Already by about 1540, Sir Adrian Fortescue's inventory (NA E101/519/17) refers to plates of the new shallow type in his Blackfriars house London and shallow saucers were used at Weoley Castle in the late 15th century (fig 83). These appear to be different artefacts than ordinary flat trenchers. The term trencher plates as well as trencher now begins to be used.

Fig 83



Weoley Castle shallow saucers 15th-16th century, WC 308 (left) 303 (right) (Birmingham Museum and Art Gallery) diam. 160mm (6 3/5 inches). The new trencher plate?

A small flat plate (7 inches (185mm) diameter) with shallow well and dating to the period 1520-1550 (fig 84) was excavated from the moat at Eresby Hall, Spilsby, Lincolnshire in 1966 (WCP, 1968, 15-16) SMR 44149 . L182229 and deposited at Lincoln Museum (LCNCC 131.70) but is now unavailable for study.

Eresby Hall is the remains of a post medieval house and gardens overlying a medieval manor house, home of the Willoughby family and the Earl of Ancaster.

Fig 84

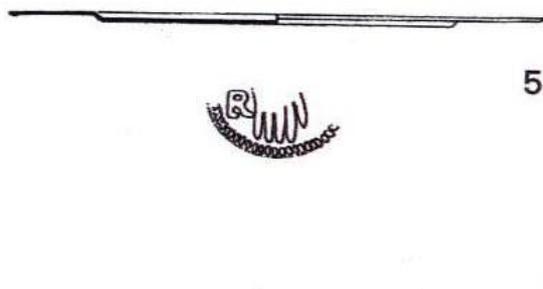


Eresby plate 1520-1550. (Lincoln Museum).

The rim is decorated with a strip of cast relief ornamentation applied around the edge, a feature seen also on English silver of the period, for example the alms dish of 1520 from the church of St Magnus Martyr, City of London together with a paten with similar ornamentation in the same church and of similar date, the latter now on display in the Museum of London. Bishop Fox's ablutions basin (1514) also shares this feature (Campbell, 2008, 25). The Eresby plate could be the earliest flat pewter plate to be recognised in England, but its origin was considered uncertain, largely owing to its rim decoration and classical style mark. Its present location is unknown. The parallels in silver for the rim decoration may make an English attribution more likely. Indeed, they may help interpret Harrison's comment about pewter plates with rims of silver style (Edelen, 367).

An undecorated flat plate of similar size (7¾ inches diam.) from Nonsuch Palace dated to the late 16th century is of fine metal, (fig 85) and can claim the distinction (Weinstein, 2005c, 332-4) of being the first flat plate of pewter recognised.

Fig 85



Nonsuch Palace flat plate late 16th century (M.Biddle/Oxbow) showing touchmark (diam. 7¾ inches (195mm)).

5.7.1 The Influence of the 'Spanish Trencher'

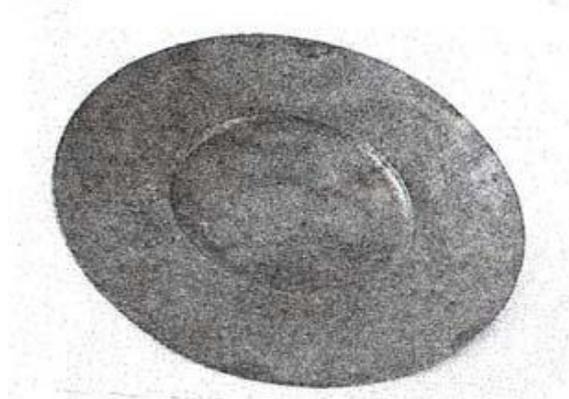
This is further discussed here in conjunction with other flat plates.

Spanish cultural traditions obviously influenced the Dutch heavily during the 16th century, including methods of presenting food. Brightly coloured Spanish maiolica (and/or local delftware) dishes were sometimes displayed on larger broad rimmed flat pewter plates as a foil. These broad rimmed pewter plates became known as Spanish trenchers by association. Baart (1987, 101) shows how they were used when the Dutch

eten van Spaanse tinnen teljoren (borden)
de boter presenteren op Spaanse platelen
(majolica borden)

that is the Dutch ate from Spanish trenchers of pewter and butter was displayed on plates of Spanish maiolica. One such Spanish trencher for holding a side dish survives in the Museum Boymans van-Beuningen, Rotterdam (1989, 129). Of 9½ inches diameter (240mm) and with a broad rim and flat profile it has no visible marks (fig 86) but may have been specially made in London for the Spanish market. Dubbe (1965, 17) notes that Spanish trenchers were imported to Leiden from England in 1592.

Fig 86



Spanish trencher 1550-1600, diam. 9½ inches. (Museum Boymans-van Beuningen).

Spain imported most of England's export pewter by the mid-16th century as the Venetian ambassador in England reported (CSP Venetian 1534-54, 543 and cited by Hatcher in Hatcher and Barker, 267). This was exported via Antwerp or the Spanish Netherlands.

With so much pewter heading for Spain it is likely that several different types and even qualities were involved. We know that pewterware called Spanish trenchers was made by London pewterers because in 1551 the Company gave a dozen of them as a present to the wife of the Speaker, Sir John Baker (Welch I, 171). Presumably they were fashionable and of good quality to make them a worthy gift. It was previously suggested that any dish unhammered in the bouge would be considered possible export ware to Spain and especially dishes of the type found at Witham on the Hill, (fig 87) Lincolnshire (Reading Catalogue 1969, 13, nos 23-25), that is narrow rimmed, bossed dishes.

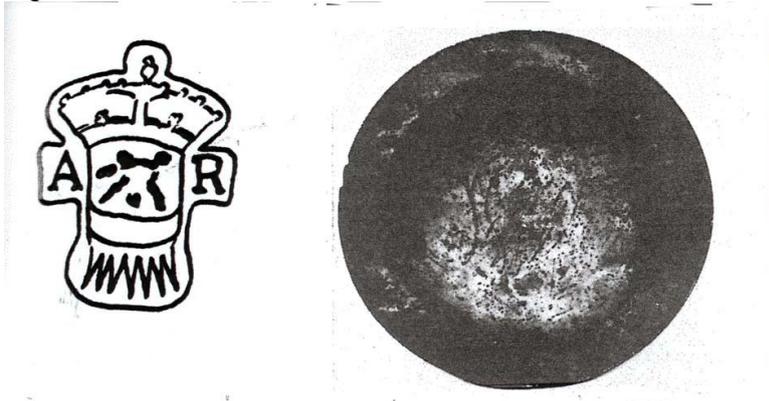
Fig 87



Witham-on-the-Hill dishes mid-16th century. (Museum of London).

Although in fact these three dishes were earlier described by Cotterell as *fineq* pieces (1929, 119d) more recent writers thought they resembled the *Florencion* dish below (fig 88) and hence were *Spanish trenchersq*

Fig 88



Florencion Armada dish 1588. (Duke of Argyll/Pewter Society).

This confusion stems from two differing sources of information-documentary and object-related. In 1674 a pewterer, Daniel Mason claimed his plates could be exported to Spain although *unbeaten in the boogeq* as similar ones so unhammered were customarily allowed (Welch II, 149). Further light is shed on this subject by an entry in the Company's Book of Complaints and Defaults for 1690 (G.L. MS7104. It appears pewterers considered that shallow booges were of adequate strength without further hammering . supporting the view that *Spanish trenchersq*were shallow dishes). When an unhammered dish was retrieved from the Armada wreck *Florencion* (which blew up in Tobermory Bay in 1588), in 1976 it was speculated whether this might be an English *Spanish trencherq*of Mason's description (SD 1976, 7-8) although it was admitted that the term was obscure and only known from the Company records.

As far as the development of the broad rimmed flat plate is concerned the Spanish trencher of the Boymans Museum type appears to be the major stylistic influence, but overlooked hitherto and is discussed in Chapter 3 above. Broad rimmed saucers and bowls were standard ware, as shown by the examples on the *Mary Rose*.

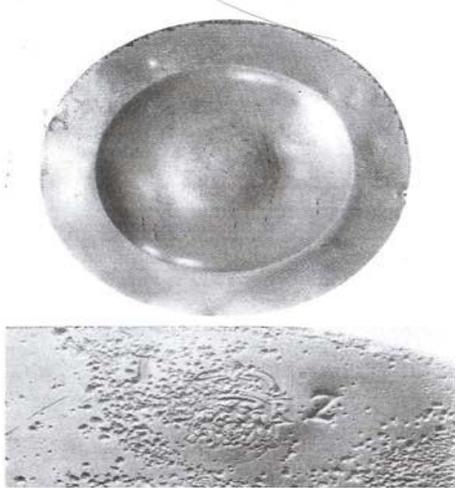
Wooden trenchers with a circular depression to hold the meat, vegetables and gravy are known from the late 16th century, possibly influenced by the shape of the new flat pewter plate and different from their traditional uniform flat form (Evan Thomas, 1992, 58-9; Bears, 1985, 22-3). They continued to be used for institutional meals when large numbers and thrift were required, as shown by the square meal oak trenchers which survive from the *Invincible* (lost 1758) and now in the Royal Naval Museum, Portsmouth (Fenwick and Gale, 1998, 114).

The thinner broth now popular, called soup in the French fashion was probably spooned from porringers, the soup bowl being an 18th century introduction (Pennell, 1999). Dishes remained in use throughout the 17th century as those recovered from a pond at St Brides, Pembrokeshire demonstrate and which once belonged to the Civil War leader Roland Laugharne of that parish (Hall, 1985, 52-3). They were probably serving dishes.

Instrumental to the success of eating from a flat plate was the introduction of the fork for general, as opposed to desert usage, for which they had been known (along with forks for carving meat) since the medieval period. The Cutlers Company of London were manufacturing knife and fork sets from at least 1620 (Brown, 2001, 88-9) but it appears the English were slow in adopting the fork until after the Restoration. This implies they continued to spear their meat with their knives and scoop up the vegetables with their spoons. Spoons were probably used American fashion to hold food down while it was being cut (see Chapter 3 above).

Better known than the 16th century Spanish trencher proper (because there are no examples of the latter surviving in England) are the English pewter dishes actually recovered from Armada wrecks such as *La Trinidad Valencera*, which sank off the coast of Northern Ireland. One is of conventional booged form (10¼ inches (250mm) in diameter, fig 89) and both are marked with rose and crown export marks flanked by Elizabeth's initials ER and owners initials JZ for Juan Zapota, whose son Sebastien, was on board (Flanagan, 1988, 124-5).

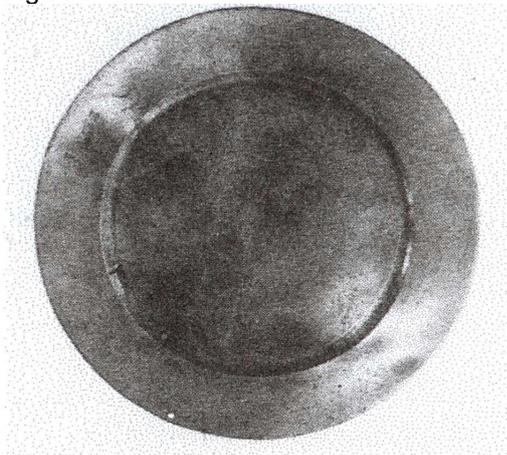
Fig 89



Trinidad Valencera dish, (1573-1588). (Ulster Museum/Flangan).

The second (fig 90) is smaller (8 inches diameter (203mm)) and rather flat; the Tudor rose has been defaced (Flanagan 1988, 124-5). This semi broad rim is the first flat English dining plate (8 inches diam.) identified, those from Nonsuch, Eresby and Farringdon being slightly smaller (7 inches). Interestingly Juan Zapota had tableware for both semi liquid and solid foods (dish and trencher plate). They can be closely dated to the period 1573-1588, from when the maker Nicholas Collier became free of the Pewterers Company to the time of their loss.

Fig 90



Trinidad Valencera dish 1573-1588. (Ulster Museum/Pewter Society).

They are both of fine metal (Brownsword pers. comm.) amongst a hoard of non-English pewter artefacts. The *Trinidad* plates are probably made by Nicholas Collier the remains of whose touch is seen on the reverse (identified by the late Ron Homer). Possibly they reached Spain via Antwerp, or via Leiden, like the Spanish trenchers. A pair of continental pewter plates, from the *Santa Maria de la Rosa* (lost off SW Ireland)

was inscribed under the rims M atuteqfor Francisco Ruis Matute, a Captain of infantry on board, from which information the wreck was positively identified (Flanagan, 1988, 124).

A similar, although unprovenanced crowned rose ER qdish in the Museum of London (A702; Homer and Shemmell, 1983, 17) also appears to be by Nicholas Collier, having a crowned N qtouch mark associated with him, and was identified by the writer. Nicholas Collier was active from 1573-1611, a contemporary of Richard Glover the probable pewterer of the flat Nonsuch plate.

A further ER crowned rose dish: (306mm diam.) with the probable touch of Richard Glover (active 1582-1615): a gloved hand and RG q like that on the flat Nonsuch plate discussed above was found on the shore near Margam, South Wales and was originally believed to come from the *Ann Francis* (lost 1583) Redknap, 1997, 198 (fig 91).

Fig 91



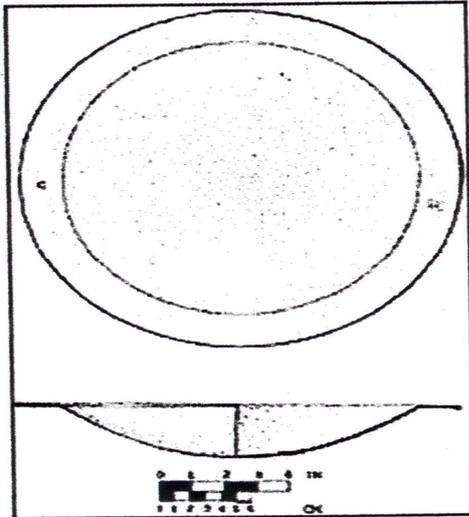
Margam dish with M.N. qinitials, late 16th century. (Redknap/Oxbow).

Perhaps this too is from an Armada wreck. Either side of the crowned rose are the owner's initials MN q as yet unidentified, but reminiscent of the JZ qJuan Zapota., above.

5.8 New forms

That exports to Spain included fine q pewter is further confirmed by the recovery of a bowl (fig 92) also marked with rose and crown device, from the wreck of the *Atocha* one of the Spanish treasure fleet sunk off Florida Keys, USA in 1622 (Corey Malcom, Mel Fisher Maritime Heritage Society).

Fig 92



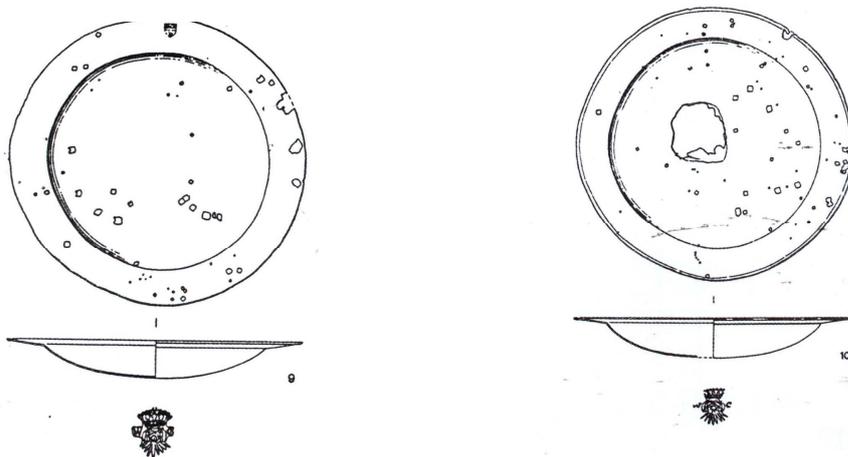
Atocha bowl, 1622. (Corey Malcolm/Mel Fisher Maritime Heritage Society).

The bowl is $13\frac{7}{10}$ inches (347mm) diameter and $2\frac{1}{10}$ inches deep. It is unusual in having a round, not flat bottom, which would help it right itself at sea. All other tablewares on the ship were silver as far as is known, so this pewter bowl must have had a special function, perhaps to serve broth, or keep food warm on a chafer. Harrison (1587) notes the introduction of deep pewter bowls for that purpose during his lifetime (Edelen, 1968, 367).

The *Atocha* bowl has an owners mark in the form of a capital H which also appears on other items in the ship, but this has not been identified. No touchmark is visible. Three pewter lion sejant spoons by maker A^{A} with fleur-de-lys above, in a circular beaded touch were also recovered. See Homer (1975) for the mark.

A slightly larger $14\frac{1}{2}$ inches (370mm diam.) bowl of similar round bottomed form was excavated from a late 16th century context in a well at Nonsuch Palace, Surrey (fig 93) (Weinstein, 2005c, 332-4).

Fig 93



Nonsuch bowls, late 16th century (M. Biddle/Oxbow). Maker Thomas Curtis TCq

There are three other similar bowls of smaller (225-320mm diam.) size. The largest has a hole where the metal has melted from being too close to a heat source, perhaps suggesting the same function of keeping food warm. The shape is also known in continental pewter of the mid-16th century. A small bowl of this type was recovered from the Yarmouth Roads wreck, thought to be the *Santa Lucia* bound for Flanders and lost 1567 (Fenwich and Gale, 46-7). Pewter plates and a flagon recovered from her appear to be of continental origin (Paul Simpson pers. comm.).

5.9 Later 17th Century Flatwares

The archaeological contribution to our knowledge of later 17th century pewter flatwares is largely concerned with exported wares found in Scandinavia, America and Jamaica, reflecting the expanding trade patterns of the period. Whilst exports to Europe are distinguished by the use of the rose and crown export mark as late as the 1670s in the usual way, the device is relegated to a secondary mark accompanying the maker's touch or incorporated within the touch itself, being on flatware found at Port Royal, Jamaica, reflecting the Company's concerns at this usage at the time (Welch II, 144 Court Order of 15th August 1671); discussed by Gadd, 1999, 42-55.

Finds in Scandinavia include a wedding plate dated 1639 dredged from the river Göta Älv near Trollhättan, thirty miles upstream from Gothenburg. This semi broad-rim plate bears the crowned rose badge flanked by CRq for Charles I and an unidentified maker's touch of CW and portcullis within an oval (Gadd, 1999, 44). Two plates by Nicholas Kelk (active 1638 . 1687) recovered from the wreck of the *Kronan* (sank 1676) are important as being possessions of the Admiral Lorentz Creutz and his wife Elsa Duvall, whose initials they show along with the crowned rose and CRq export mark, and pewterers' hallmarks (Einarsson, 1997, 214-215). The Scandinavian finds generally appear to be special commissions or highly selective purchases at the time, not ordinary trade goods.

5.10 Overseas Sites: Port Royal, Jamaica

Two of the more important marine sites which yielded some four hundred and fifty pewter artefacts of the late 17th and early 18th century are those of Port Royal, Jamaica, where part of that city was submerged in the harbour following an earthquake in 1692, and the slave ship *Henrietta Marie* c. 1700 wrecked off Florida Keys, USA.

These represent the world's largest archaeological groups of 17th century English pewter to date.

Of the one hundred and fifty pewter items retrieved from Port Royal, plates, caudle cups, tankards, baluster measures, kitchen utensils, candle holders, porringers, medical syringes, together with an unusual pewter sundial are represented. Very few of the holloware items have identifiable marks. A tankard owned by William Deaven (Noel Hume, 1974, 116) is being further investigated by the author.

Of the marked flatware, Thomas Cropp of Winchester's touch appears on several broad-rimmed plates, together with hallmarks (a four-part mark resembling silver hallmarks) which includes the initial *HL* for John Luke (a Winchester family). John Luke is one of three identifiable Port Royal pewterers, but here he appears as a retailer and merchant importer. The hallmarks representing his involvement with Thomas Cropp's pewter rather than as craftsman himself (Homer in Gotelipe-Miller, 1987, 52-54).

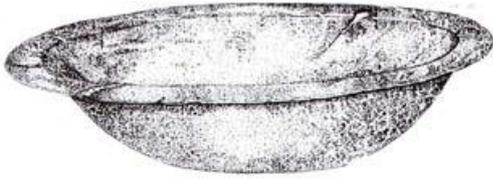
Two narrow-rimmed plates bear the touch of another Port Royal pewterer. Simon Benning (*SB* flanking the Caribbean pineapple). A third known Port Royal pewterer, John Childerman's work is not represented. A triple reeded plate by the London pewterer Jonathon Hamlin was also found together with plates by Thomas Shackle. In addition there were portrait bust spoons of William and Mary, two medical syringes and a threaded bottle cap bearing the device of a castle on a rock, from a square glass case bottle which probably held whisky (Homer, 1994, 116-118).

Of the sixty-four items of flatware retrieved, twenty-seven were narrow-rimmed plates, twenty multiple reeded, and seventeen broadrimmed.

5.11 The *Henrietta Marie*, c. 1700

The finds from the *Henrietta Marie* were of a different character, being mainly trade goods: one hundred 3lb and 4lb Guinea basins, (fig 94) some fifty intact, also fragmentary tankards, seventy-two royal portrait spoons, unusual bottles (fig 95) twelve intact and a unique two gallon double handed screw top spouted jug; together with many fragments. The screw-top jug (fig 96) was probably by Dyer or Moulin (see Chapter 6 *Some Pewterers of the Survey* below) and not previously identified.

Fig 94



Guinea basin c. 1700. (Mel Fisher/Maritime Heritage Society).

Fig 95



1. Pewter bottle by John Emes 1673Y.

Henrietta Marie bottles by John Emes c. 1700. (Mel Fisher Maritime Heritage Society).

Fig 96



3. Pewter 'Guinea jug'.

(Mel Fisher Maritime Heritage Society/Pewter Society).

Seven London pewterers were identified from their marks; John Emes, Stephen Bridges, George Hammond, Thomas Winchcombe, Joseph Hodges and possibly Thomas Eddon. The significance of these merchant pewterers is discussed below in Chapter 6. Basins were made by Hammond, Winchcombe and Hodges.

Although pewter is often referred to in ship manifests, this is the first from a slaver to be studied (Moore [nd], unpaginated).

5.12 Pewter and the Identification of Ships

The retrieval of pewter plates from the wreck of the *Stirling Castle* (sank 1703) had a twofold importance:- it provided the first precise dating for the most important rim

form of the 18th century, the plain narrow rimmed plate, thought to have commenced manufacture about 1690 (fig 97).

Fig 97



Stirling Castle plain, narrow rimmed plate c. 1703 no known maker. (East Kent Maritime Museum).

Of even greater significance for the identification of the wreck were the clues given by the initials \perp stamped on the rims (fig 98) interpreted as those of her captain, John Johnson (Fenwick and Gale, 100).

Fig 98



Stirling Castle plate with Captain John Johnson's initials \perp (JJ) c. 1703 (East Kent Maritime Museum/ Fenwick and Gale).

In 1977 a diver, Peter McBride, retrieved a folded plate from the site of the *Coronation*, lost 1691, which bore the family crest of her captain, Charles Skelton, thus identifying the wreck. (Fenwick and Gale, 104). Other pewter with identifying symbols have also been recovered from the *Hanover* (sank 1763) and the *Northumberland* (lost 1703) (Fenwick and Gale, 99) whilst a Queen Anne porringer recovered from the site of

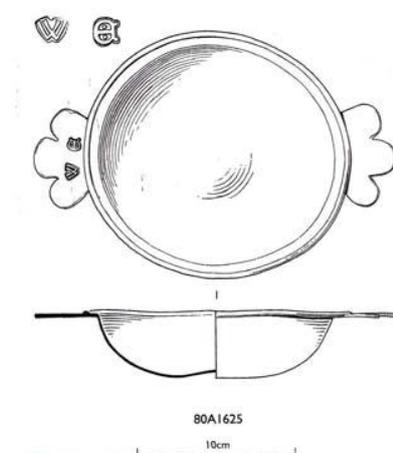
the *Hazardous* (lost 1703) gave a date range which helped identify that ship (Fenwick and Gale 134-5, Homer 1988, 115). Pewter from the *Hazardous* included plates and spoons, one with the portrait bust of William III.

5.13 Porringers

These small bowl-shaped utensils with a single or double ear or handle were also classed as flatware that is for eating as opposed to hollowware for drinking. They are recorded from 1348 (Riley *Memorials* 1868 241-4) as esquelles but are not part of a normal garnish and appear neither in the archaeological record nor Company regulations until the 16th century, when the construction of their handles was improved in 1556-7 (Welch I, 188). Porringers were useful for keeping food warmer than dishes owing to their shape.

The double handed tri-lobed porringer from the *Mary Rose* (fig 99) is important in being securely dated and of fine metal (Brownsword and Pitt, 1990, 123) and is therefore considered to be English.

Fig 99



Porringer, tri-lobed handle, c. 1545. (The Mary Rose Trust).

Several unstratified porringers of similar type can thus be dated to the first half of the 16th century by comparison (Homer and Shemmel, 1983, 11-12; Hess, 2001, 9-14) and are probably also of English origin. Also found are a number of fleur-de-lys handled porringers and these and the multi-lobed type sometimes have support rings cast on to their bases (Hess, 16). Over 85% of the porringers in Hess's sample comply with the Company regulations in having ears cast on with the body and not soldered to it (Welch I, 188 for 1556-7). Only one example (fig 100) of this double handled fleur-de-lys type

has been analysed (SBT/1996-44/840) and appears to be of zrifleq alloy as discussed below.

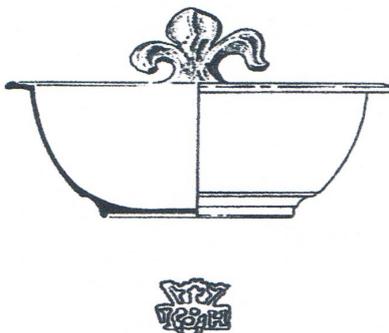
Fig 100



Porringer, fleur-de-lys handle 16th-17th century. (S. Toothill/ Pewter Society/Shakespeare Birthplace Trust).

This fleur-de-lys type porringer is found both in London and in the Low Countries (Museum Boymans-van Beuningen, *Domestic Utensils* 1989, 128) and the style continued to be popular into the 17th century being included in a list of zrifleq wares in 1613 (Welch II, 63). Variants of the form came from London (Homer and Shemmel, 12) and Nonsuch Palace, Surrey (Weinstein, 2005c, 332-3). The Nonsuch porringer (fig 101) is dated to the late 16th . early 17th century and has a unique cast single fleur-de-lys ear, in relief above and flat below and with the deep bowl which became common in the 17th century.

Fig 101



Nonsuch Palace porringer, fleur-de-lys handle, late 16th century. (M. Biddle/Oxbow).

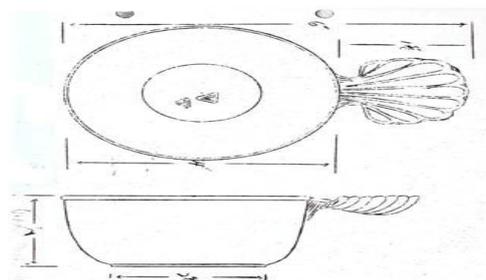
It is of zrifleq metal (Weinstein, 2005c, 331) and has the maker's mark of a crowned rose between the initials IH, both of which features point to an English origin. Continental marking practice uses the initials within the crown itself. A further porringer

with trefoil handles (MoL 8130) is also by pewterer IH (Hornsby *et al*, p.58) incorporated with a merchant's mark.

5.13.1 Porringers: 17th Century Developments

Shell eared porringers of the early 17th century are rarely found - of the three known surviving examples are that from the Pewterers Company collections (WCP, 1979, 55/501/6) of c. 1620, from an unknown site; and a second fig 102 was retrieved from the sunken buildings of Port Royal, Jamaica, devastated by an earthquake in 1692 (Marx 1971 unpaginated no. 93).

Fig 102



Port Royal porringer with shell ear, early 17th century. (Caribbean Research Institute/R. Marx).

The narrow attachment area between ear and body probably made for a weak fixture and short working life of this style. The style is known in Holland where they are used for brandy (Museum Boymans 155, no. OM94).

Four single eared porringers have variations of the open trefoil type, which was possibly an allusion to the Trinity, whilst the fleur-de-lys is associated with purity and the Virgin Mary. The porringer, from a 1630s pre-Civil War context at Beeston Castle, Cheshire (fig 73) (Keen and Hough, 1993, 152 and 154) has a hammer mark struck incuse on the upper surface of the now broken trefoil ear handle (the crown having presumably been broken off). This appears to be a quality mark perhaps relating to a local Chester guild, since individual pewterers would usually touch or mark their wares under the ear or base rather than on the ear. This is one of the latest known uses of the hammer mark as a quality or guild mark on pewter. Two porringers with similar handles were found in the river bank at St Benet's Abbey, Norfolk (Peal, 1983, 87) now in the collections of the Pewterers Company of London (WCP, 1979 No. S5/501/8). Another of similar style was found in the Thames at Hampton Court (Hornsby *et al*, 58 no. 31) and has the initials IFC on the bowl.

Fig 103

Principal private collection

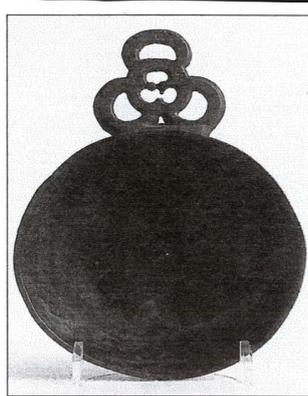
Found in the Thames, near Hampton Court.

32 PORRINGER, 16th century

A deep porringer with two fleur-de-lys shaped ears. The touchmark incorporates 'IH' with a merchant's mark.

7¼in diam (185mm)

Museum of London, 8130



Trefoil handle porringer from near Hampton Court, early 17th century. (Museum of London).

Porringers with this ear also appear in London silver, which provides a useful additional dating (Roe, 1982, 490) with hallmarks for 1637-8, although it is noted that the style continued until the 1680s. A similar pewter example was found at London Wall (Homer and Shemmel, 1983, 12 (MoL no. 8129).

The wide variety of porringer handles and body shapes is discussed by Michaelis (1949). A woodcut (fig 104) of about 1640 (Hornsby *et al*, 91, 33) shows children eating from double-eared porringers—adults from single ones, which may be the distinction between them. Randle Holme Chester Herald notes the ears were for carrying them.

Fig 104



Woodcut Roxburghe Ballads, 17th century. (British Library/Museum of London).

Writing in 1688 Randle Holme confirms that there were both types of porringer still in common use (Holme, 1688, 5).

There is a half round vessel in the belly without a brim, some having two ears, but most only one ear or handle or *stookeqas* the country term is, by which it is carried from place to place: It hath its name from its bearing or holding of potage, a porringer being of much use for that liquor or Broth.

He also shows us how a porringer was made (Shemmell, 1979, 15) but does not comment on his illustrations, unfortunately. Poringers were sometimes called *counterfeits* possibly because they were sometimes hammered out by hand, that is wrought (*contra factum*), not cast.

Poringers were often treasured possessions and handed down in families; yet others were useful trade goods. In 1643 Roger Williams noted in his book *A Key Into the Language of America* (Willoughby, 1973, 183) that the Indians:

have excellent Art to cast our Pewter and Brass into
very neat and artificial pipes.

the presence of which has intrigued several archaeologists!

At least two English porringers survived this threat. The dolphin handled porringer by Joseph Collier (Cattanach, 1982, 245) who was active between 1669 and 1712, was buried, probably with Princess Weunquesh of the Niantics tribe. She died about 1686 and was buried in the Royal Amerind Cemetery near Charlestown, southern Rhode Island. A second porringer from the same grave is of similar type and thought to be by Timothy Blackwell, who was working in London between 1640 and 1676. The marks are I C in a beaded circle with crowned head (Cotterell, 1929 no. 1036) and TB in a bell (no. 5470). Dolphin eared porringers have the handles attached to the bowls with thick wedge supports, a variant of which is seen on the example by \pm Pqflanking a pick, believed to be Joseph Pickard of London who struck his mark in 1691. It was found in a well by the present post office in Williamsburg, Virginia (Noel. Hume, 1969, 34).

Fuller attention is given by the Pewterers Company to porringers in 1674 when thirteen sizes are listed, the smallest ones being equivalent to surgical porringers (Homer and Shemmell, 1983, 18) used for blood letting minimum weight 4oz each (Welch II, 147 for 1673-4). Yet others were wine tasters. Fig 122 below shows the exceptional cast decorated lidded porringer by John Waite commemorating William and Mary.

An 18th century porringer and plate were amongst the possessions of cook John Nicholson recovered from excavation in Quaker Street, Spitalfields in 1995 (MOLAS). The simpler soup bowl appears to have gradually supplanted the eared porringer in the 18th century, although they continued to be made for medical purposes into the 19th century.

5.14 Medieval and 16th Century 'Holloware'

The third category of evidence provided by the *Mary Rose* pewter relates to 16th century hollow-wares (holloware). See Brownsword and Pitt, 1990, 109-125 and Appendix for comparison with other 16th century hollowares.

Whilst the majority of medieval and 16th century flatware items analysed has been shown to be of fine metal or a close approximation (93.4-98.8% tin) and copper hardened (1-3%) and thus considered to be of English origin the holloware was much more variable. Some drinking vessels being excessively leady, indicating either a possible continental source or sub-standard English examples. They appear to have a wider provenance than the flatware and despite the prohibition of 1534 against imported pewterware (25 Hen VIII, c. 9 (Hatcher in Hatcher and Barker, 152) some appear both stylistically and in terms of metal composition to have continental origins. It is possible that they were acquired prior to that date, or bought by the officers abroad. It is interesting to compare the pewter assemblage with the wooden platters, dishes, tankards and flagons used by the ordinary crew (Weinstein 2005b, 126, 7, 437-440, 443-8, 451-2).

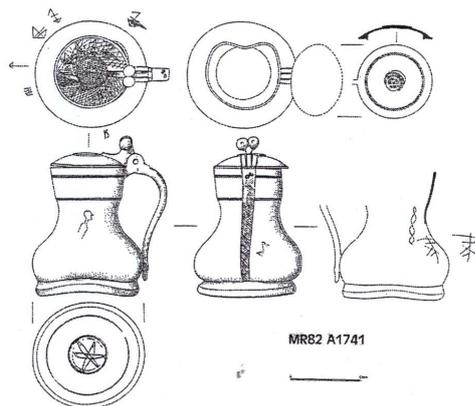
There is some variation in the quantity of lead per hundred weight of tin allowed by the Craft in the early 14th century, being specified as 22lb of lead to 112lb of tin in 1348 when the ordinances were enrolled in the City records in Latin and Norman French according to custom (LMA Letter Book F f155) but increased to 26lb of lead to 112lb of tin by the time the Craft copied them into their own records in the late 15th century (Welch I, 3). In 1350, however, when a member John de Hiltone was accused of making leaden vessels, they specified the ratio was 16lb of lead to 112lb of tin (Riley, 1868, 259-60; Hatcher in Hatcher and Barker 146-7, 164). At the lowest standard, therefore, holloware or objects circular in shape. pots, candlesticks and bowls for example. could not exceed the 1 to 4 ratio (one part of lead to every four parts of tin). The round shape of such vessels would give them strength, but by the 16th century an intermediate alloy called *trifle* was introduced (between *fine* and *lay*) which included smaller quantities of lead, about 4-6% and so produced stronger articles. The proportions are not cited in the Company records. The subject of *trifle* is further discussed above (4.3).

The hollowares are divided into serving vessels (flagons) drinking vessels (tankards) measures, and containers (flasks and canisters). The round canisters were

made of sheet metal soldered together, as is the earlier squared Bristol flagon (fig 29). The remainder of the wares are cast.

Of the five flagons recovered only two 82A1741 and 81A3298 came from secure contexts, the others, 72A0031, 78A0018 and 78A0047 came from the starboard scourpit. Flagon 82A1741 (fig 105) has a bulbous body, domed lid with a twin-ball thumbpiece attached to a solid strap handle.

Fig 105



Flagon, twin ball thumbpiece c. 1545. (The Mary Rose Trust).

It is 8½ inches (203mm) in height by 5 9/10 inches (148mm) maximum diameter and is of pottle or half gallon capacity (1.8 litres). Its weight is 5 lb (2.27kg). Although some hollowware weights are specified in 1439 these apply to squared pottles, quarts and pints only (Welch I, 12). A copper alloy jetton, apparently late 15th century and of French origin (Barnard, 1916; Rouger and Hatcher, 1858; E. Besly pers. comm.) is inside the lid. The jetton is struck with nine fleur-de-lys within the legend AVE MARIA and is thought to represent Lille, Northern France (P. Boucaud, pers. comm.). Such jettons and certain coins, may represent a town mark on otherwise unmarked continental pewter (Verster 1957, 52; Nadolski 1987, 33).

A radiating lattice design is engraved all over the flagon lid, within which are several arrow type merchant marks and A5q or ASq A tonsured monk in profile and the date 1545 are engraved on the body; the Wq stamps on the handle may refer either to an owner or maker. There is a Trinity symbol of three intertwined fish under the base. The flagon contains 67.9% tin, 30.8% lead and 0.66% copper (Brownsword and Pitt, 1990, 123). Similar flagons have been found on the Yarmouth Roads wreck sunk off the Isle of Wight in 1567 (P. Simpson pers. comm.) and at Poole. See also Hornsby *et al*, 41 (unprovenanced) which contained 29.7% lead and had a similar stamped fleur-de-lys

jetton. Another, possibly French flagon with twin acorn thumbpiece in the National Museum of Ireland, Dublin also has a similar fleur-de-lys jetton in the lid.

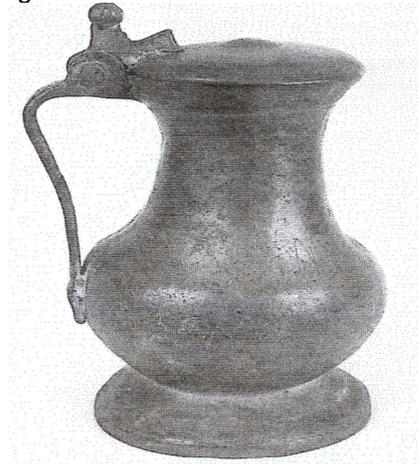
Two 15th-16th century flagons (figs 106 and 107), one from Stamford Street, Blackfriars, London, (SBT 1996 . 44/381, and the other from the Thames at Deptford have raised bosses in the centre of their lids, as though intended for jettons.

Fig 106



Flagon, c. 1500 Blackfriars, London (S. Toothill/Pewter Society/SBT). (Left) ht. 8inches (203mm).

Fig 107

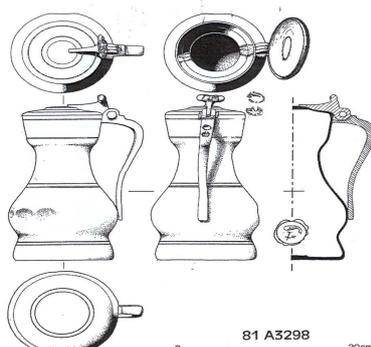


Flagon, c. 1500 Deptford, London (Museum of London). (Right) sold at Christie's May 2007 ht. 8inches (203mm).

These early flagons on hollow skirted bases and with twin ball thumb pieces and strap handles have long been considered of possibly English origin (Peal, 1971, fig 21, Hornsby *et al*, 63, fig 40). Unfortunately metallurgical analysis of both flagons now shows this is unlikely to be the case, both having low tin, high lead (49.3%, 44.9% tin, 50.1%, 54.5% lead and 0.39%, 0.46% copper respectively: Sheffield Analytical Services in Appendix).

Flagon 81A3298 from the *Mary Rose* is a more elegant bulbous shape than 82A1741, with a domed lid attached by a twin-acorn thumbpiece to a solid strap handle (fig 108).

Fig 108

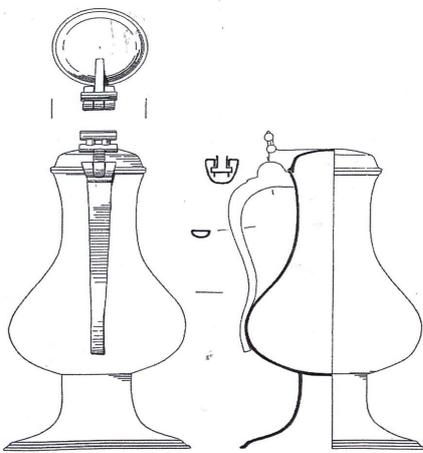


Flagon with twin acorn thumbpiece c. 1545. (The Mary Rose Trust).

It is 8¾inches, 220mm in height with a maximum body diameter of 4½inches (111mm), a capacity of 1.3 litres and weighs 1.53kg (3lb 8oz). It is decorated with engraved rings round the body. There is a medallion with a dolphin and cross inside the base. The handle is struck with a swan mark and an unidentified mark .The flagon (c. 1617 . 62% tin, 37.7/38% lead; Brownsword and Pitt, 1990, 123: Northover 2002) is probably of French origin; other examples of this type were made in north west France (P. Boucaud, pers. comm.).

Of the three flagons found in the scourpit only 72A0031 is complete (fig 109).

Fig 109

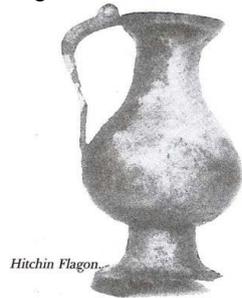


Pear shaped flagon mid-16th century. (The Mary Rose Trust).

This example, though badly corroded, is an elegant pear shaped wine flagon on a hollow trumpet foot. It stands 15½inches (390mm) tall, has a capacity of about 2 litres and weighs 2.44kg (5lb 6oz). The slightly domed stepped lid with rectangular thumbpiece is attached to a solid, curved handle by a three-lug hinge. There are no visible marks or medallions. A similar flagon, with identical thumbpiece, has been recorded in a Somerset church (Homer, 1995, 19-22). The *Mary Rose* flagon is fine metal, 96% tin, 0.70% lead, 2.27% copper, 0.06% bismuth (Brownsword and Pitt, 1990, 123) and therefore of English origin.

This type of wine flagon (1.9 litres/half gallon known as a pottle or potel, was familiar on the continent from the 14th century. A similar flagon, (fig 110) attributed to the

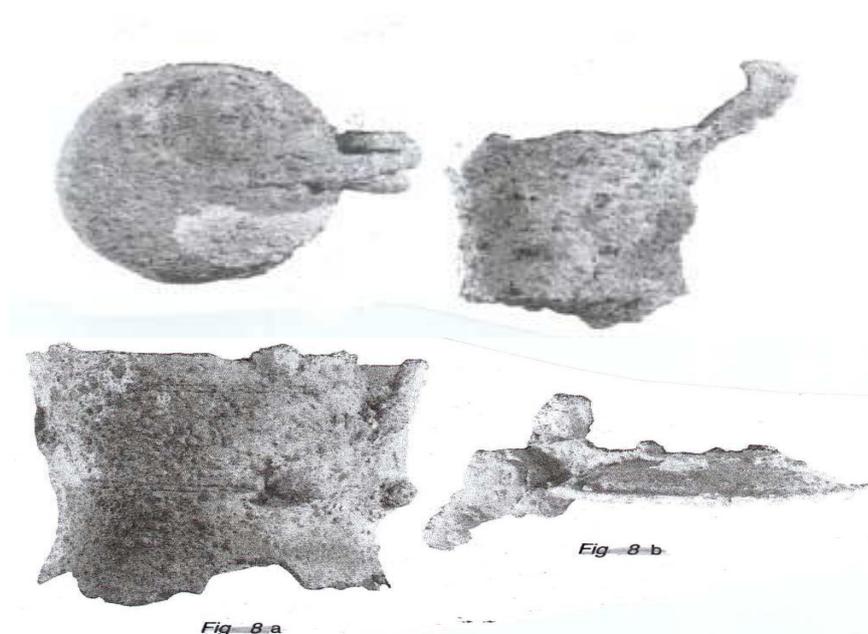
Fig 110



The Hitchin flagon mid-16th century. (Letchworth Museum).

mid-16th century is recorded from the Hitchin area (Letchworth Museum no. 1995.98). Pottle measures of this form appear in the Exchequer Standard of 1496. This is the earliest known dated English representation of such vessels (Hornsby *et al*, 1989, 37) and is found in BL Harley MS 698 ff 64, 5.

Fig 111



Flagon fragments, English (78A0118 top) and continental (78A0047) c. 1545. (The Mary Rose Trust/Roger Brownsword).

Flagon 78A0118 is represented by a lid with a double-lug hinge attached, part of the curved and narrow base fragment (62mm width) and is presumably missing its flanged foot (fig 111).

This piece may be English as it has a high tin/low lead content (99% tin). Another (78A0047) has a twin-acorn thumbpiece with a fragment of strap handle attached, that fits on the under-body portion. The body fragment is engraved with two double rings near the lip and round the neck. There are barely visible medallion outlines on top and underneath the lid which also has a scratched lozenge decoration. This example is

probably from France or the Netherlands, and resembles 82A1741 in profile (fig 105). It has a low tin content (75.9-77%; Brownsword and Pitt, 1990, 124; Northover 2002).

5.14.1 Wine Measures

A lidded pewter jug (81A0651) is a pint wine measure of baluster form. It is 5 inches (150mm) in height and weighs 1.11kg (2lb 7oz), with a solid strap handle attached to the body by a strut, a flat lid with a flat thumbpiece having nine rays, and a recessed base. It has the stamped initials *RQR* or *BWE* on the lid (two pieces from the Barber-surgeons' hall are marked *BWE*). There are single and two parallel lines engraved round the mouth. Although the composition of the metal indicates low tin/high lead (61.7%-38.3%), this is probably an English piece (the low tin pewter being allowable for holloware of this type); parallels for the thumbpiece are a pair of mid-15th century cruets, from Cambridgeshire, also believed to be English (Weinstein, 2005a).

The baluster measure is the earliest recognisable form of English pewter measure. A lidded hammerhead baluster measure of quart capacity recovered from the Thames foreshore and attributed to the second half of the 15th century is the earliest thus identified (SBT, 1996-44/428, see Appendix). It has a heart medallion in the base and a punched double eagle housemark on the lid. The shape of these measures resembles copper-alloy and pottery jugs of the period. It was followed by a slimline shape later in the sixteenth century and, subsequently, by a squat form from the mid-17th century (Hornsby *et al*, 1989, 87-9).

A third hammerhead pint baluster measure (SBT 1996 . 44/1119) of mid-16th century date, with flat cover with single reeded edge, wedge attachment and medallion in the base cast with a stag and trees (fig 112) has a similar composition to the late 15th century example above being 71.40 and 72.4% tin, 25.7% and 22% lead, 2.69% and 4.85% copper and 0.13% and 0.16% bismuth respectively, and indicative of English alloys (Sheffield Analytical Services).

Fig 112



Baluster measure with stag medallion mid-16th century. (S. Toothill/Pewter Society/SBT) no. SBT 1996 . 44/1119.

The mid-16th century stag medallion baluster was also recovered from the Thames, at Brooks Wharf, City of London. It is considered that such medallions, while useful as owners or house marks also plug the hole caused when the item is turned on the lathe. A similar stag medallion was found on a chamber pot from Baconsthorpe Castle, Norfolk (see fig 117 below) and the Somerset Church flagon (Homer, 1995, 19-22).

The slim line baluster measure of the later 16th century is frequently represented in collections. The well known Three Cranes baluster (MoL 80.227 fig 113) with the initials TPQ on the lid and in a medallion in the base, came from the Thames foreshore at Three Cranes Wharf (Homer and Shemmell, 1983, 9; Hornsby *et al*, 83 no. 101). It is also marked on the lip with an HRQ capacity verification mark (in this case a quart).

Fig 113



Baluster measure from Three Cranes Wharf, later 16th century. (Museum of London).

The TPQ has been identified by the writer as the initials of Thomas Prouse, Vintner a former owner of the tavern (Lond i.p.m (1580) III, 25). With 34% lead (Brownsword and Pitt, 1990, 121) it appears to have a metallurgical composition typical of its kind (see Appendix for other examples). This identification of the owner (and date 1580) is important as being the first precise dating of a verified (marked with HRQ capacity marks) measure, the date ranges of which are in dispute (Moulson, 2008).

Drinking Vessels

The pewter tankard (81A5654;) found in the Carpenter's cabin on the *Mary Rose* has a very small, squat, bulbous, body (fig 35) and a deep, hollow foot, and a stepped lid with a corroded thumbpiece possibly of the same form of chairback as flagon 72A0031 and attached to a solid handle by a two-lug hinge. It is 5 inches (124mm) tall with a maximum diameter of 90mm and a capacity of 270mm. It weighs 12oz (0.34kg) and is made from a probably English high-tin pewter (tin = 96 . 98%). The body is

remarkable for the *wriggled* decoration (made by rocking a narrow chisel while *walking* it over the surface in a zig-zag motion) since English pewter is usually plain rather than decorated at this date. The technique is known on pewter of the later 12th century (Egan, 1998, 193, fig 157, no. 539). This is the only known tankard of 16th century date to be so decorated and it may represent an example of *dessert* or banqueting pewter. Stoneware pots of similar size mounted in silver are known for drinking beer or ale and globular silver tankards are also extant.

A contemporary dish (14½ inches diameter, 306mm) covered with line engraved decoration in geometric patterns (Hornsby *et al*, 96) is the only other item with all-over engraving known to survive. This is not an excavated item.

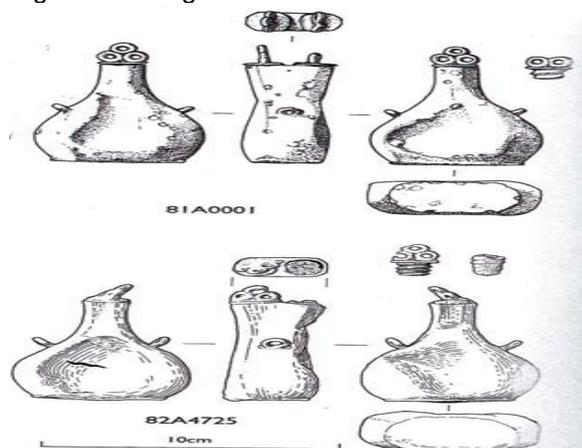
5.15 Flasks and Canisters (*Mary Rose*)

Two pear-shaped flasks with oval, flat bases have the body divided into two compartments probably to contain two different substances. Flask 81A0001 has two left handed screw stoppers . one in a trefoil design with three small rings and the other with just two rings. Flask 82A4725 has one pewter stopper in a similar trefoil design and one of cork. Each has two circular suspension loops on the shoulder (figs 114 and 115).

Both are in low tin, high lead pewter (tin 54.7% and 57.9% respectively). If not used for medicines, they could have been used for condiments such as oil and vinegar (or even for wine and holy water). A *squared*(angled) flask with similar trefoil screw top has been found on the Thames foreshore in conjunction with an early 16th century ecclesiastical cruet (Weinstein, 2005a, fig 52 and above fig 52).

Three other flasks (81A0906, 80A1721, 81A0421, (not illustrated)) are of closely similar design but have left-handed screw tops formed by winding a wire clockwise externally round the cast neck and soldering it in place.

Fig 114 and Fig 115



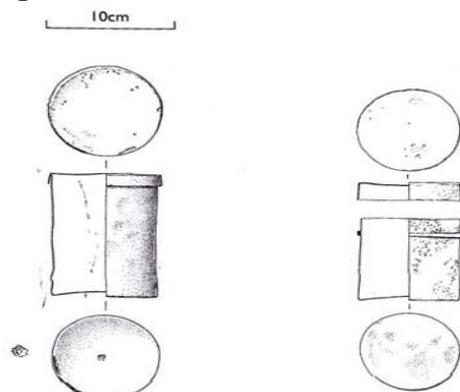
Double flasks c. 1545. (The *Mary Rose*).

Flask 81A0906 is 5¼inches (133mm) high with a maximum diameter of 80mm. It was found in bench-chest 81A0917 which contained, among other things, various items of clothing, three wooden boxes, a box for scales and weights, two books and a candle snuffer. It presumably belonged to an officer. Flask 81A0421 (143mm high x 82mm) and flask 81A1721 (165 x 107mm) was found crushed. Unlike the double flasks, these three are high tin/low lead and similar to the Barber-surgeonꝰ flasks, and each has a stamp on the base. That on 81A0906 appears to be a figure, similar to the one on flask 80A1610 in the Barber-surgeonꝰ cabin and on one from Cannon Street, City of London (MoL A23216) (Hornsby *et al*, 61) and fig 53 above. Flask 80A1455 is square based and flat on one side (Castle 2005, 200-201) a previously unrecorded form. It is of high tin copper hardened alloy, so probably of English origin and is 90mm high by 80mm diam, smaller than others cited.

5.15.1 Storage Containers (figs 116 and 117)

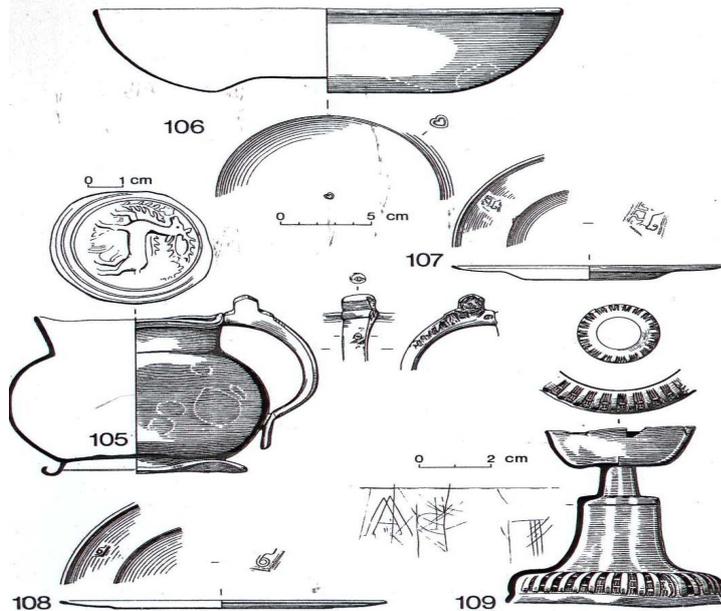
Three lidded pewter canisters of similar type to those from the Barber-surgeonꝰ cabin (fig 116), were found. Canister 81A5981 is rather bent and dented but would have been about 200mm in height. Canister 82A0976 is 195mm high with a diameter of 97mm. Both have score marks on the body and a lion stamp surrounded with bessants on the base tentatively identified as the Lion Rampant of the Duchy of Cornwall. Metal analysis showed a high tin (91.8%) but also high lead (6.1%) content, but the sample analysed was rather suspect as it probably included solder. The two seem to be a pair and, given that they were found in one of the main storage areas of the ship, they probably originated from one of the personal chests found here. The earliest canisters of this type are known in lead for funerary urns during the Middle Ages at Westminster Abbey.

Fig 116



Canisters c. 1545. (The Mary Rose Trust, Barber Surgeonꝰ).

Fig 117



Baconsthorpe Castle (*East Anglian Archaeology*, 2002).

Chamber pot (105) pedestal salt (109) and bowl (106)

These show a range of alloy compositions from almost pure tin for the flat plates and basin to trifle alloy for the pedestal salt.

5.16 Decorated pewter

Pewter for utilitarian purposes was usually manufactured undecorated, but cast decoration, line engraving, embossed prints and pearls (fig 43) and wrigglework could all be obtained at extra cost. Wrigglework and cast decorated pewter are features of the earliest items (figs 44-46). Cast decorated commemorative work was particularly popular and some followed continental style (Hornsby *et al*, 92-106). The wine taster (fig 121) appears to be a precursor to the more elaborate porringers of John Waite and other pewterers some fifty years later (fig 122). This latter type is unusual in being lidded, and by an identifiable pewterer, John Waite active from 1670. The following are some notable archaeological items of surviving decorated pewter:

Fig 118



Weoley Castle cruet cast decorated, 14th century. (Birmingham Museum and Art Gallery/Museum of London). Made in 13 separate parts: 12 body panels and separate base. (Hornsby *et al*, 1989, 105).

Fig 119



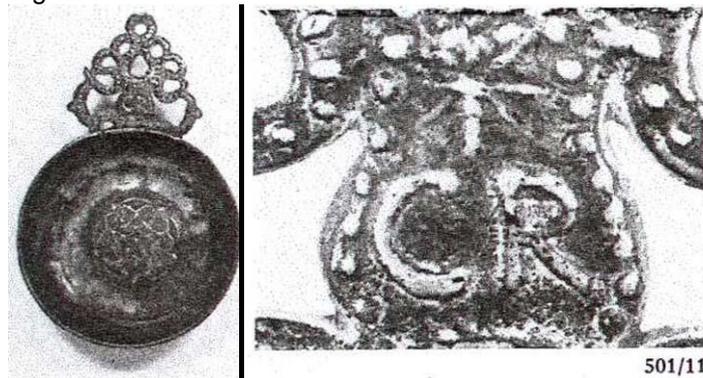
Beaker cast decorated c. 1610-12. (Shakespeare Birthplace Trust, found in a well at Hurstbourne Tarrant, Hants/ Christie's 2007). Shows the Prince of Wales feathers and motto ICH DIEN.

Fig 120



Ewer, c 1625 with enamelled boss (Royal Arms CR) on handle (Ludlow Museum/P. Hornsby). Ht 9½ inches (24mm). Two other similar ewers in Dublin and Biggar Church, Scotland are also known, the former with enamelled Stuart arms on the body (Shemmell 1982, 114).

Fig 121



Wine taster cast decorated and handle detail c. 1640. (Worshipful Company of Pewterers).

Fig 122



Lidded porringer, cast decorated by John Waite, late 17th century. (Victoria and Albert Museum M51 - 1945). Found in London.

Fig 123



Portrait spoons (William III) by Stephen Bridges c. 1700. (Moore (nd)/Mel Fisher Maritime Heritage Society).

Chapter 6 – Some Pewterers of the Survey

This chapter provides the documentary context for the identifiable pewterers whose work is included in the Survey of Forms of extant pewterware, and indicates their significance within the development of the Craft. It also includes a new interpretation of the unexplained occurrence of hallmarks on early 17th century sadware, and a discussion of the origin of the rose and crown mark . the Pewterers standard or quality mark . previously unexplained. This is followed by clarification of the work of the different types of potter within the Company.

Aspects of Company Control and Membership

This Chapter discusses aspects of the Company's regulations and control and the changes beginning to occur within its membership during the 17th century. As with other companies within the City of London, the Pewterers evolved from a craft association and religious fraternity to become an incorporated company with the monopoly, in their case, of manufacturing high quality tablewares in the relatively new alloy pewter in its various forms. Their country wide power of search granted by their Charter of 1474 helped them maintain the trade into the 18th century. Some business opportunities, like overseas trade in pewter to colonies, were traditional in nature, others, where the rise of a group of middlemen capitalists from within the Company to control profitable new lines in the import, manufacture and retailing of ceramics and glass, reflected the individualistic spirit of the age. The Chapter concludes with a discussion of the relative wealth bands of these men, and the main body of Pewterers proper, drawn from taxation records of 1692-3.

6.1 The Role and Evolution of Guilds

Although they no longer control the City's economy, many London Livery companies still flourish in the 21st century, with important charitable functions, fraternal gatherings, and some with an active interest in their former trade or craft.

From the beginning of the 13th century, men who practised the same craft usually lived near each other, like the pewterers just outside Ludgate (Homer, 1988, 137-62). Metalworking was the most distinctive industry of medieval London and increasingly specialised from the 14th century, with new groupings and associations appearing. The earliest evidence for pewterers is now by the early 13th century, as this writer demonstrates in Chapter 2. These craft associations worshiped a particular patron saint as a core aspect of their membership, such as the Virgin Assumption for the Pewterers.

Many such craft associations drew up Ordinances in the 14th century, that is rules for their self government, such as the election of master and wardens, the power of search of defective goods, regulations concerning the manufacture of their goods and the admittance and training of apprentices, the means by which to maintain their monopoly of the trade and exclude those who were not members (Barron, C.B. 2004, 194-234). Their approval by the mayor and aldermen acknowledged the right to regulate their craft members. It was mainly the artisan crafts, like the Pewterers, who sought ratification of their Ordinances not the mercantile classes, such as the grocers, mercers, drapers or vintners, who frequently comprised the ruling Court of Aldermen. This distinction between governed artisans and governing merchant elite was long standing, and only beginning to blur in the 17th century.

The Pewterers like some other crafts, such as the Skinners or Girdlers and Tailors, sought approval of the Crown. They obtained their Charter (costing over £100) in 1474, which granted them legal incorporation, a common livery, power to hold assemblies and elect officers, the right to hold land in mortmain (perpetuity) and most importantly, the right of assize or search throughout the whole of England. They were granted Arms, also, in 1473 with which to embellish their Charter, and which was further confirmed in 1533 (Welch I, 39, 126-9).

By the 15th century, the wearing of a livery to distinguish themselves from ordinary citizens became more frequent. These liverymen, or brothers, governed the craft. The master was helped by a group of senior members called assistants who became the Court of Assistants. It is considered that the livery companies were at the peak of their power between 1440 and 1540. Certainly, the Pewterers, with thirty-six other companies had built their Hall (by 1495), and were very numerous . some two hundred craftsmen (Barron 2004, 72), one of whom, Thomas Daunton, had the largest craft workshop yet known in medieval London. Henry VII confirmed their Charter in 1505 and during his reign an Act of Parliament was passed for the making, marking and selling of pewter and power given to the Company to search for bad wares (19 Henry VII, cap 6, 1503-4). The marking extended only to hollowares, not flatwares . the latter being introduced in its Ordinances of 1522 (Hatcher and Barker, 153-4).

Important new duties were now expected of livery companies . that of electing the mayor, and advising him when necessary, a right which had passed from the citizenry as a whole to the liverymen themselves by 1467 (Barron, 232). The mayor and aldermen used them to raise money, provide men, organise civic pageantry and other such administrative and civic duties.

Whilst the membership of the mercantile trades was becoming more heterogeneous during the 16th century, it was not until the 17th century that any divergence of trade has been observed amongst the Pewterers. A legal decision of 1614 whereby any one free of any London company could practice any other trade they wished, makes it difficult to tell actual occupations from anyone's livery company label (Earle, 1991, 251). A group of workers in the copper alloys was noted amongst the ranks of the Pewterers' Company in 1615 (Hatcher and Barker, 272). The publication of Pewterers working details by Carl Ricketts in 2001 has made the checking of actual occupations very straight forward, although these are usually suggestions rather than definitive membership details. A network of some seventy-five individuals retailing glassware and ceramics has been identified by the present writer through the course of the 17th century, especially in the period after the Fire of London (1666). Out of a total membership of some three hundred craftsmen, their presence does not appear to have troubled the Company, who probably benefited by their fining for office. Indeed, these individuals proved useful suppliers of glasses to the Company (Welch II, 127) and political influence; both John Kempster and John Steward were Common Councillors of their own Ward, (Lime St) and Queenhithe Wards respectively. This group of retailers is more fully discussed below, but is a prime example of individuals pursuing their own business within the Company structure, in this case even helping establish a new company, the Glass-Sellers (1664) to do so. Pewterers proper meanwhile enjoyed one of their most successful periods and several also enjoyed the riches of overseas trade well into the 18th century.

By the early 18th century the Pewterers' right of search, like that of other companies, was being called into question. The Pewterers last extensive country search was in 1702. Some pewterers questioned their power of search and the Company was conscious of possible legal problems regarding searchers' rights to enter private property against the owner's wishes. Nevertheless Company searches continued until at least 1818. After 1835, the Municipal Corporations Act allowed the freedom of the City of London to individuals by redemption, directly from the Corporation of London, so by-passing the companies.

6.2 Early Pewter and the Problem of Identification

Despite the presence of makers' marks on a number of 16th century and later items, identifications can rarely be made until after 1667, when the company touch plates survive (Welch II, 1902, 218). Medieval pewter is largely anonymous according to

the ethos of the time and bears only an occasional mark . usually of a hammer in different forms . believed to represent quality ware of particular types. These pieces have been shown by metallurgical analysis to be of English origin as discussed in the Survey, although the mark is not referred to in the records of the Pewterers Company of London (London, Guildhall Library). The hammermark was a well known device amongst continental pewterers, where it is believed to represent hammered (and hence quality) pewter (Dubbe, 1965, 65-68); some continental pewter is unhammered. In Britain it was used as the motif of general metal workers who included pewterers, for example the emblem of the Coventry Hammermen, established in 1494 (Harris, 1907-13) and those of Edinburgh in 1496 (Wood, 1905, 23).

All bad ware or metal was to be marked with the Broad Arrow mark, for which purpose there was in use in 1474 the puncheon of iron with broad arrow, for the forfeit mark (Welch I, 1902, 47).

By contrast, the devices of a strake of tin and a lily pot in 1451-2 (Welch I, 1902, 17) referring to the strips of raw material, tin, and the fraternity of the Virgin Mary (lily pot) probably indicated quality and purity. Both devices feature in the 1533 Grant of Arms (Welch I, 126-8). A strake, or strip, of tin was of fixed weight of 7¼ oz. By 1548 the lily had changed to the fleur-de-lys . its heraldic form, which was more compatible with post-Reformation preference. The fleur-de-lys appears to be the Company's mark of the Hall and used to authorise the English pewter mounts of German stoneware pots (Welch I, 157) in 1548.

Another type of medieval mark is the verification mark, also near the rims, of measures and tavern pots. This authorises the capacity of the vessel. Towns and cities sometimes had independent regulations concerning sizes of vessels and the sale of food and drink. In London, in 1423 the Mayor's precept (Herbert, 1834, 58) required that all ale sold retail should be served in pewter pots of stamped capacity, although it is not known what those marks were. In 1492 the Company bought four new marking irons for hollow ware measures (Welch I, 78)

These official punches probably related to capacities and were verification seals of the City arms or a mark for Henry VII. The king's reforms brought uniformity to copper alloy measures by 1497 and it is likely that pewter, beer and wine measures, and tavern pots conformed by this date, as shown in the Exchequer standard illustration of 12 Henry VII (Weinstein, 1989, 36-37).

The earliest extant measures with the a mark verification mark are of 16th century date, for example that shown in fig 124 below.

Fig 124



Ball and wedge measure with crowned hR verification mark on rim dug up 1903 in Parliament Street, Westminster. Unidentified touchmark £ between two stags, house mark of a bishop with mitre and NEq (V&A c. 1550-1600).

An indirect reference to this mark is given in the statute (Act 19 Henry VII, cap 6) of 1504 which was drafted by the Pewterers to suppress hawking and other abuses (Welch I, 94),

an that knowing thieves and other pikars that
steal as well pewter and brass belonging to your Highness
and under your mark (writer's emphasis).

This important statute includes the first compulsory enactment for marking all holloware with the maker's mark or touch and may be related also to the need for uniform sizes of tavern ware. The specified weights for some holloware (square pottles, quarts and pints), as set out in the 1439 sizing (Welch I, 12) evidently did not go far enough. A standard pottle, quart and pint of tavern ware were bought by the Company and kept at the Hall in 1562-3 (Welch I, 236) but doubtless there were earlier pre-Elizabethan examples in their possession. Individual pewterers would have been responsible for checking capacities and marking their own ware. Punishments were 40s a time for inaccurate wares. These regulations were included in the Ordinances of 1564 (Welch I, 246).

In the previous Ordinances, of 1522, the compulsory marking of flatware by individual makers was introduced (Welch I, 107-15). Much scrap and old pewter was recycled and it was necessary for the pewterers to purchase reputable materials from known makers.

In 1523 it was first recorded that pewter exported to Antwerp was marked with the rose of England (Dubbe, 1965, 68-9) and English tin was marked with the rose and crown in Middleburg in 1548. These marks of provenance and quality are discussed below, and its adoption by the Company as their principal symbol. The first known extant example on English pewter is not until 1545, with the recovery from the *Mary Rose* of most of the garnish belonging to Sir George Carew, Vice Admiral. Twenty-three pieces of flatware comprising the garnish (out of thirty-six . twelve each of platters, dishes and saucers) are struck with TC either side of a crowned rose and Carew's initials GC. It is here suggested that this may stand for Thomas Curtis, not Thomas Chamberlayn as previously indicated (Brownsword, 1990, 109). Curtis's importance is indicated below.

The survival of an hitherto unpublished Company Survey (London Guildhall Library MS 22179) of the numbers of apprentices and journeymen employed by each master in 1537 and 1545 provides a rare insight into the structure of the Company at the time the *Mary Rose* sank, and is paralleled only by similar surveys, previously in 1457 and 1459 (Hatcher in Hatcher and Barker 242; G.Lib. MS 7086/1.)

These latter, 15th century surveys show the dominance of Thomas Daunton, Pewterer and Mercer, with the largest workshop in medieval London with 18 men. The largest in the 16th century survey by comparison, is barely half the size: that of Thomas Curtis had nine men-five apprentices and four journeymen in 1537. In 1545 Curtis had none, and is recorded as *working alone*. The following year, 1546, Curtis was elected Sheriff, so his business may have been *on hold* at this busy time. (*Working alone* is sometimes interpreted as being active in some other trade, and with no apprentices and journeymen, but Curtis may be an exception here). Curtis was Lord Mayor in 1557-8, and also a patentee of the Merchant Adventurers Company. His merchant's mark is recorded in the Court Minutes for 1st January 1550 but not his touch (Welch, 1902 I, 164). Could he have produced the Carew garnish? Certainly, the size of his workshop indicated major quantities of pewter produced. The number of his apprentices drew criticism from members of the Company (as did his lack of quarterage payments!).

Thomas Chamberlain, on the other hand, was active prior to 1545, when he is presumed dead (Welch I, 127 and II, 205).

Although Curtis and Chamberlayn were the most significant figures with the initials TC in the 1537. 1545 period, there was also Thomas Clarke (Warden in 1543). He may be a relation of Henry Clark (Master 1555) who supplied pewter to the Lisle family (Lisle, St. Clare Byrne 1981).

A comparison of the 1457 and 1459 surveys with those of 1537 and 1545 shows that the total number of working masters rose from 43 (but 20 ~~w~~working alone*q*.i.e. non pewterers?) in 1457 and 1459 to 74 in 1537 (five working alone).

Whether or not Thomas Curtis exported pewter to Spain is as yet unknown but that country was the destination for the greater part of English pewter exports by the mid-16th century (C.S.P. Venetian 1534-5, 543 and Hatcher in Hatcher and Barker 267).

No English pewter is known to have survived in Spain (Alex Neish pers. comm.) except a dish and plate from the wreck of *La Trinidad Valencera* off Donegal, N. Ireland. These show the crowned rose flanked by E.R. (and the owner's initials (J.Z.) for Juan Zapota and the probable touch of Nicholas Collier a leading pewterer active between 1573 to 1611 (Gadd 2003, 15-30.) and discussed above (5.7.1). Relations with Spain had rapidly deteriorated by 1580, so such items were probably acquired in Antwerp, or the Low Countries, and were personal possessions of the officers. Four London pewterers were recorded as working in Antwerp in the 1537 survey (Christopher Hux, John Brown, Richard Wright and Nicholas Fycher) and others were active in Calais until the mid-16th century (G.Lib MS 22179).

It is considered that the crowned rose device with accompanying monarch's initials (ER) is an export mark. This is distinguished from the crowned rose with maker's initials, as a possible touch mark and the rose and crown as a quality mark ordered in 1564 (Welch I, 240) The mark's further implications are discussed below.

6.3 The Use of 'Pseudo-Hallmarks' on Pewter: a New Interpretation

By the early 17th century the range of pewterware had expanded enormously and was an important part of a household's equipment (Hatcher in Hatcher and Barker, 92, 93). A new metal mixture, ~~trifleg~~- described as ~~common pewter~~*q*.i.e. a leaded tin alloy, was introduced in the 16th century to cater for this demand for ~~commercial vessels~~*q* and smaller wares many of which are listed in 1612 (Hatcher in Hatcher and Barker). The constituents of ~~trifleg~~*q* at this date are not known but by the 18th century it is recorded as a tin/antimony metal (83% tin to 17% antimony) with the antimony replacing the lead (Massé 1911, 108). ~~Trifleg~~*q* and its constituents are discussed above in Chapter 4 (Scientific Analysis) and the Appendix records analysis of items sampled. The results show an alloy with some 3.6 . 11.6% of lead.

In addition, there was much recycling of pewter, as supplies of new tin from Cornwall dwindled to 450-550 tons p.a. in the early 17th century, from c. 800 tons p.a. in the early 16th century (Hatcher in Hatcher and Barker, 131).

In these circumstances it was essential that pewter was adequately marked. It is possible that flatware producers wished to identify their own superior wares, and English provenance more emphatically, and so introduced imitation silver hallmarks such as those of c. 1635-40 on a dish excavated in London (Reading catalogue, 1969, no. 59) and also seen for example on a reeded rim plate from the *Stirling Castle* lost 1703 (fig 125), probably as a form of advertising by this date, enhancing the pewterer's touchmark.

Fig 125.

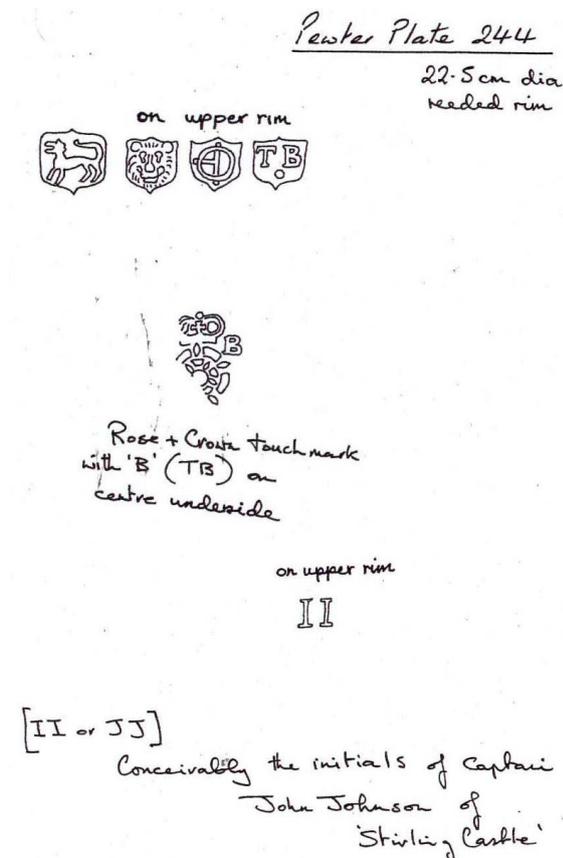


Plate. (East Kent Maritime Museum) hallmarks top left. *Stirling Castle*.

The origin of these hallmarks clearly copying English silversmith's marks has not been fully explained. Gadd (1998, 46-49) argues that they coincide with the rise of antimony bearing pewter. This was introduced by the Huguenot pewterer James Taudin (active c. 1657-1680) though none of his wares have hallmarks. When used without a pewterer's touch they may have been intended to deceive, and invoked the wrath of the Goldsmiths' Company (see Gadd, 1998 for instances where the Goldsmiths' Company intervened).

Were hallmarks just another example of the abuses rife at the time, or was there some other reason for their introduction?

It is argued here that they were in fact an attempt by pewterers to protect and identify their wares, at a time of changes in production, by applying something with known English provenance, and resembling an English guild mark. There was also a fine quality tin plate with a silverlike lustre being imported from Germany to contend with (CSPD1640, 508).

One of the Company's problems by 1620 was that merchants (brokers) regularly exported second hand, stolen and unmarked pewter abroad to the disrepute of the whole craft. In 1621 the Company attempted to prepare a Bill for Parliament to inhibit such underhand dealing . a constant cause of complaint in the Court Minutes (Welch II, 78).

The Goldsmiths Company were having similar problems, and in 1629 the Pewterers petitioned the Privy Council against such overt and underhand dealing, and asked to be included in the Goldsmiths petition for a proclamation (*Remembrancia* 1878, 107). No royal proclamation was forthcoming and the Privy Council referred the petition back to the Court of Aldermen who, finally, in 1639 ordered that one stamp was anciently should be applied, along with any owner's initials or coats of arms (*Repertories* 50 f. 137). It was from then on illegal to make unmarked pewter anywhere in the country. This was duly entered in the Company's Ordinances (1638-39) and included in their renewed charter of the same year, 1639 (Hatcher in Hatcher and Barker, 171; Welch II, 98, 99). This then, was the minimum requirement, nothing is stated to ban hallmarks in future, and they continued to be used

An earlier petition of the Company citing ways to avoid abuses (*Remembrancia* 1878, 107, Sept [nd] 1629) was unfortunately lost in the Westminster fire of 1834. It may have had useful details of what the Company proposed to do, as illustrated by a response to it by the officers of the Green Cloth (29th September 1629). This states that:

they found the King had usually sustained at all his extraordinary feasts a great loss of pewter, which they conceived would be much lessened if the course recommended in the petition [by the Pewterers] were sanctioned. (*Remembrancia*, 1878, 107).

What this course of action was remains unknown. Could it have been to use a system of marking similar to the Goldsmiths or some other guild mark? The pewterers relied on personal touch marks, and it appears that the rose and crown device was

being used as such, and not as a quality mark of the Hall at this date. Hazlitt (1892) interpreted it so, and suggests that the Pewterers were petitioning:

to be placed on the same footing as the Goldsmiths in regard to the proper marking of articles of pewter for the protection of buyers and owners, from whom it was frequently stolen in large quantities and transported by brokers beyond the sea in barrels.

Hazlitt indicated that:

the danger of the course recommended was illustrated however by cases where the Goldsmiths silver plate mark was fraudulently placed on vessels of the base metal by the neglect or oversight of the wardens.

Evidently the proper marking of pewter was something other than hallmarks. Was some other guild mark intended? What was the course recommended exactly? Did Hazlitt have an opportunity to read their petition?

Analyses of plates with hallmarks show that they cannot be satisfactorily linked with any type of metal other than the standard fine metal, although they often use quality symbols such as lions and fleur-de-lys, which were English heraldic devices of the time. Hallmarks as secondary marks continued to be used on pewter into the 18th century as shown in fig 125 from the *Stirling Castle*, together with the pewterer's touch, as forms of advertising. In a few rare instances, pewterers were allowed to export pewter marked only with their silver mark by special permission of the Company, and were possibly journeymen's work (Ricketts, 2001, 192 ref Col. Shorey). Presumably the hall marks sufficiently identified the pewter as of English origin and could be traced to the individual maker.

6.4 The Origin and Use of the Rose and Crown Quality Mark on English Pewter

This section discusses the origin of the Company's sign or badge of the rose and crown as an indicator of fine metal. Widely known as a Tudor royal badge, the device had numerous uses within Government and the Household. One of these was as an

indicator of materials of English identity, royal ownership and a standard quality Tin from Cornwall was such a material and was consequently marked with the royal device, as shown below. The privilege of using the badge could be granted by warrant or letters patent. This appears to be the origin of its association with the Worshipful Company of Pewterers of London. Although loss of Court Minutes prior to 1551 make this difficult to prove, it is here argued that the Company's monopoly of tin bar production allowed them to mark tin bars with the Tudor badge, and their warrant to manufacture fine metal or a standard pewter, a unique English alloy, allowed them to adopt this royal badge as a Company device.

6.4.1 The Rose and Crown as a Quality Mark on Pewter

Competition from Low Countries pewter marked with the rose and crown device begins to be felt.

The earliest recorded use of the rose and crown on pewter is in 1523 at Antwerp predating its first appearance (1545) on English pewter from the *Mary Rose* by twenty-two years. In 1523 Antwerp City Council imposed a ban on the use of the English rose as a quality mark. Antwerp pewterers had sought permission to use the device instead of their own city mark, in order to compete with imported English pewter. Some English pewterers were themselves established in Antwerp by 1537, so increasing the rivalry, as referred to above (6.2).

In 1527 Mechelen City Council had decided that good fine pewter similar to English work had to be marked with roses and the pewterers' touchmark, (Dubbe, 69). In fact there was no similarity as Low Countries pewter was a tin/lead alloy rather than a tin/copper alloy as in the English tradition, but purchasers would not be aware of this necessarily. The import of tin/lead pewter, so marked, caused considerable friction, if not actual economic loss, for the following one hundred years. Nuremberg and other continental pewterers also used the rose device but presumably posed less of a threat to the English home market, their ware not being regularly imported into England.

In 1534 the English government banned the import of all such pewter wares, the emigration of pewterers (and the possible loss of trade secrets) and the employment of aliens (25 Henry VIII, c. 9). In 1639 the importation of continental tin/lead pewter into Ireland and Scotland marked with the rose and crown, was seen as a major issue, leading the Company to protest to Charles I that year, demanding (Welch II, 100):

That all foreign ware from France, Holland etc.
be prohibited

and

That ye Company of Pewterers of London may
have power and authority to search and seize all false
metal and wares in Ireland and Scotland, according as
in England is provided by statute.

Proclamations were issued to that effect in 1638 and 1640 (B.L. 1851. 6.3. (26)
and C.21.f.i (9)).

Nothing appears to have happened, and in 1648 Henry Sweeting, Pewterer,
published the following pamphlet,

A declaration of Sundry Grievances concerning Tin and Pewter which
complained of the lack of Government protection for the pewterers' trade, presumably
referring to desired bans against those

bringing without control great quantities
[of pewter] into Scotland and Ireland, striking the
Kingdom's Rose and Crown upon it. A known mark
in foreign parts to testify the just goodness of pewter
according to the laws of this kingdom. By means
whereof the English nation is generally abused
and if not timely prevented, the manufacture will
come to nothing. (writer's emphasis).

English pewter Sweeting says is made to a perfect standard of goodness and
the honour of the nation.

Indeed, the Act of 19 Henry VII c. 9 stipulates that no pewterers:

within the said Cities of London and York or
without, either cast or work any pewter vessels or
brass at any place or places within this your realm
but that it may be as good fine metal as is the pewter
and brass cast and wrought after the perfect goodness

of the same within the city of London, and by the
Statute of the same ought to be upon pain of forfeiture.q

The Company's prerogative might be lost if standards were not maintained. This Act (1504) was made perpetual in 1512-13 at the same time as the Company's Letters Patent and Charter were confirmed by Henry VIII, including a nation-wide power of search. It is likely that the right to use the royal badge was acquired at this time, although no document confirming its use is extant. The crowned rose on pewter indicates a peculiarly English product, whose quality is specified by Act of Parliament; it represents standard pewter, as its use on soap represented the true or standard soap (see below).

6.4.2 Tin Bars and the Rose and Crown Device: Demonstrating English Origin

The Company's monopoly of the casting of tin into bars, whereby a royalty was charged and donated to the Company's poor probably dates at least from the mid-15th century, when a grant of right of assay of all tin in London was permitted the Company (LMA Letter Book K ff 219, 219b (1444)) and Welch I, 13). It was well known in 17th century London, so that when the Company lost this monopoly in the late 16th century, it was a point of note by John Strype, the continuator of John Stow's 1598 *Survey of London* in 1720. The strakes (strips of tin) appear as a cognisance of the Company in an inventory of 1451 which includes banners for trumpets with strakes and lily pots (the latter in honour of their patroness the Virgin Mary). They form part of the Company's arms, first granted in 1455.

In 1598 various members of the Company petitioned the Queen for leases of the tin mines, and the right of casting tin bars, their prerogative having been lost due to competition from strangers who were now granted these rights. They proposed to mark the bars with (B.L. MS Lansdowne 67 f 173) a:

special mark with the Rose and Crown
whereunto all the tin cast into bars should be marked.q

The bars were first to be coined and marked with the Queen's stamp or mark at the coinage. A lion mark (Duchy heraldic symbol) was the specified export mark in 1600, no bars being exported without such a mark (Rees, 1968, 438-9).

Evidence for the interpretation of the crowned rose on the tin bars comes from an anonymous manuscript of 6th October 1589, written by an enquirer into tin production, at the request of one Frances Miles of Westminster, secretary to Sir Francis Walsingham, Elizabeth¹, Secretary of State. (B.L. MS. Titus B III f 30, 31).

The anonymous writer dismisses the notion that tin bars might be contaminated with debased material as was sometimes claimed by pewterers, stating that the bars had to be marked with the maker's private touch, and could therefore be traced. In addition:

~~f~~or every melter thereof striketh on every
bar his own private mark and besides a rose crowned
to show that it is English tin.q

The writer remarks that it is preferable that knowledgeable craftsmen cast them, then there is some temper (hardness and elasticity) which makes them fit for manufacturing ~~m~~any small works~~q~~ ~~m~~ade by the hammer without any new meltingq

He praises English pewterers whose secret recipe adds tin glass (bismuth), copper and lead to the tin:

~~A~~nd that maketh the English melting of more reputation.q

~~I~~ think the said melting for the benefit and credit
of the realm can never be in better order than now it is.q

Other English materials also known to be marked with the rose and crown for identity are lead ingots made from Rievaulx Abbey roof lead (Dunning, G.C. 1952.) The mark probably indicated that the stripped lead was now Crown property. Lead was also an English staple but lead pigs do not appear to be ever stamped with the device when sold. Soap manufacture was of considerable importance in the early 17th century and in 1631 Letters Patent and the crowned rose device were granted to Sir Wm Russell in order to produce the best quality soap and to, (O.E.D Stamp 6)

~~d~~istinguish the said soap from the counterfeit soap.q

Here the use of the rose and crown marks the soap's quality and its use is granted to the patentees for this purpose. Further claims to assay Bristol soap against this standard explain its use (Matthews, 1940, 194-5). Another early example of Royal patronage, which used the device is in 1492, when it was granted to the Fellowship of Surgeons as a cognisance by Henry VII:

~~For~~ their warrant in the field but no authority by
warrant for the bearing of the same in shield of arms.q

It remains in use by the Surgeons to the present day (G. Lib. Surgeons MS 5248 cited in Bromley and Child 1960, 15).

Some further light is shed on its use by the case of Nicholas Jordan, a well known individual who had married into the family of royal pewterers the Husthwaites. In 1577 he tried to obtain Letters Patent to help him recoup losses of £1,500. He had departed from the Company in high dudgeon after an argument concerning his use of the royal touchmark, the crowned bell, and had subsequently suffered in trade (CSPD 1547-80, 556).

Petitioning Elizabeth I for a twenty-one year monopoly of the manufacture of ~~all~~ such sorts of potsq he argues that he will bring:

~~The~~ uncertain and variable measures
to a certaintie conformable to the standard.q

~~And~~ also that your highness would be pleased
to grant him a stamp with the rose and the crown to
mark them withq

~~And~~ that during the time of his patent which
he beseacheth your Majesty may be for XXI years all
others may be prohibited to make the like, your
said supplicant paying unto your Majesty for the
said stamp yearly during the years aforesaid six
pounds thirteen shillings four pence.q

Jordan's petition was not granted.

The rose and crown was a device used on the Seal of the Privy Council and which was documented as such from 1555 (Labaree and Moody, 1928, 191-202). This appears to have been the seal also used prior to that date by Secretary of State Sir William Petre, as is shown on his Secretary's signet ring (Emmison, 1964, IX, 20) in his portrait of c. 1545 at Ingatestone Hall, the Petre family seat, Essex.

In conclusion it can be stated that the rose and crown symbol shows English Identity on a product of standard quality, and indicates a royal grant or warrant for its use as such.

6.4.3 The Rose and Crown as an 'Export Mark'

The anonymous reviewer of English tin bar casting practice praised the expertise of English pewterers. It is thus not surprising that the Company nominated various master pewterers to undertake this work annually.

In 1603 they nominated Thomas Eliot, Warden, Nicholas Collier, Richard and Roger Glover (G. Lib. MS709; Court Minutes 18th January 1603; Welch II, 36):

to be casters of tin into bars for the space of one year.

They were to pay 4d per hundredweight of tin cast to the Master of the Company to help support the poor of the Craft.

Dishes bearing the probable touches of Nicholas Collier were found in Westminster (Homer and Shemmell 1983, 17) and on board the Armada wreck *La Trinidad Valencera* (Flanagan, 1897 iaf 10.8) and fig 90). They show Elizabeth's monogram ERQ and the crowned rose. A dish so marked, and with the probable touchmark of one of the Glovers (a gloved hand) was found in the sea off Port Talbot, South Wales, a casualty from another wreck, (Redknap, M, 1997, 196). Yet other dishes with the crowned rose and the monarch's initials were found in Sweden (Gadd, 1992, 42-55). These were made by Nicholas Kelke, William Hulls and John Shorey. These men, all master pewterers were likely to have been casters of tin bars at some stage in their careers. It is probable that they had been awarded the use of the device according to Company policy ordered in 1564 which shows that it was a special mark awarded to certain chosen individuals (Welch I, 240):

And that no man shall give for his proper
mark or touch the Rose and Crown with letters nor

otherwise but only to him to whom it is given by
the fellowship.

The distinction between this export badge and the Company's device representing standard pewter and tin are the monarch's initials.

6.4.4 Confusion with the Queen's Household Badge

Documentary evidence shows that Mrs Agnes Hassall, widow of Warden Thomas Hassall, used her husband's badge of the crowned rose. She is involved in legal issues regarding the illegal exporting of tin bars in 1575 (Welch I, 264) but had adjusted the size of her badge to avoid confusion with the Queen's own household badge (in comparison with Hugh Colyer whose badge was too large).

And it was agreed [16th March] 1596-70
that Hugh Colyer's rose and crown shall be
made lesser as Mrs Hassall's is by cause none
hath so great but the queen's majesty (Welch I, 204)

Hugh was probably a relative of Nicholas Collier whose mark appears on the Armada dish and plate mentioned above.

Indeed, a saucer recovered from Hampton Court moat shows this large ER badge covering the rim (Royal Palaces Collection). It is marked with the royal touchmark of the crowned bell, so presumably was made for the royal household and not for export.

6.5 Export Pewter – the later 17th Century

The later 17th century saw the rise in the demand for pewter overseas; in North America, traded by the Hudson's Bay Company (established 1670) and in Africa, by the Royal Africa Company (1674) hereafter RAC. Some pewterers whose work is referred to in the Survey achieved much prosperity, although the Company's aim of exporting £100,000 of pewter annually to Africa was never attained (Hatcher in Hatcher and Barker, 268). The contribution of these pewterers to our understanding of the African trade link has not previously been investigated.

John Shorey exported flatware to Sweden, spoons by the Hudson's Bay Company, in 1705-6, and other wares to Africa. An inventory of his stock in 1712

includes jugs and basins. The jugs and Guinea Jug (2/-), 5 3 pint Angola jugs and 5 quart Angola jugs for West Africa, were principal trade items, along with basins, and the possible inclusion of pipes - presumably for tobacco, and of pewter - is the first attributed to an English manufacturer (The National Archives C104/105 pts 1 and 2).

Shorey's apprentice John Doley/Doiley/Doyle sailed as the RAC's pewterer to Cape Coast Castle in 1703-4. He was then in his second year of apprenticeship, so the trip may have been some business arrangement. He was made free in 1708, and may have subsequently been a journeyman with Shorey in 1710-11 (Ricketts, 2001, 85).

The pewterers Lawrence and John Dyer and Robert Moulins II were also actively engaged with the RAC. In addition to the required trade goods of Guinea basins in assorted sizes, jugs and tankards, the Dyers and Robert Moulins exported the enigmatic screw-topped jugs, as found on the *Henrietta Marie* (fig 96). These puzzling vessels, hitherto unknown in British pewter were probably made specifically for the West Africa trade (National Archives, T70/127/f33 c. 1691):

~~£~~Bought of Lawrence and John Dyer for ye Castle Cargo

150 (1) Pint Basons
350 (4) Pint Basons
80 Large screw~~d~~ Juggs
Ditto for Gamb
1000 1lb Pewter Basons
Ditto for Sherborrow
1694

Bought of Mr Robt Mowlins
400 Pewter Basons (1, 2, 3, 4 lb)
20 three pint Pewter Tankards
20 large Screw Juggs at 9/-±

Other suppliers (juggs) included Thomas Booklan:

Mr Knight (great basons)
Mr Parker and Mr Raper (old pewter recycled)
Mr Frances King
Anthony Rolls . basons, along with many other unidentified cargoes
Alexander Cleeve . who dealt under a Portuguese alias, ~~£~~Frances Lopezq

By the 18th century Spackman and Company were major exporters. Some basins by him believed to be from the *Royal Anne* were found off the Lizard (Graham Scott, Wessex Archaeology pers. comm.).

Trade reversals were experienced by Richard Partridge (apprentice of Thomas Shakle, Hudson Bay exporter) who supplied the RAC with ~~u~~battery wareqin 1708-9, but whether the ubiquitous wrought guinea basons, or copperware, is unclear. Partridge was reported bankrupt in 1724 (London Gazette).

John Dyer had been in prison ~~u~~for a small debtqin 1702 and had basons returned to himself and Robert Moulins in 1706. There had been sharp falls in demand for pewter from 1703 (Hatcher in Hatcher and Barker, 268).

Another pewterer, whose wares have been retrieved and which add new information to the pewter ~~u~~corpusqis John Emes, the noted flagon maker. His bottles, as found on the *Henrietta Marie* (fig 95) were specialist trade goods, previously unidentified either in his usual work or among RAC cargo. This might be accounted for by the *Henrietta Marie's* operations as a separate trader, but sailing legally as a ~~u~~ten percentercq by 1699 (sank July 1700). John Emes, senior, died that year when Master, and when his son also John, became free (Delgado, 1997, 191, 2).

The work of Stephen Bridges, whose fine portrait spoons (fig 123) were also recovered from the *Henrietta Marie* is discussed below.

6.5.1 Triflers and spoon makers

One man practicing both trades was Stephen Bridges active 1692-1719, pewterer of the William III portrait spoons (fig 123) found on the *Henrietta Marie*. Although currently not analysed, these are high quality work, possibly containing antimony. Bridges also had stocks of wrought basins, either for export or the home market. He was starting his career at the time of the rents and stocks tax of 1692/3.

From his probate inventory (LMA Roll 3028 CSB6 27B, 8 June 1716, Court of Orphans) it is seen that Stephen Bridges apparently sold (and probably manufactured) a wide range of household goods, many classified as ~~u~~riflesqin the 1613 Company list (Welch II, 61-64). At that date ~~u~~rifleq was believed to be a leaded alloy of unknown composition, as mentioned above (Chapter 4) but by the 18th century may have included only tin, with antimony as a hardener: (83 parts tin to 17 parts of antimony) as mentioned above. Bridgesqinventory lists:

ordinary wrought basons, bedpans (hardwrought),
collanders, new trifling pots, porringers, large
syringes, new lay weights, round fine [metal] chamber
pots, barbers basons, stool pans, standishes,
castors and candlesticks, quart pots and ½ quart pots.

Some items of ~~lay~~ and ~~fine~~ metal are distinguished as such, as are the pots of ~~new~~ trifling metal. Bridges had both a holloware wheel and ten blocks for hand raised plates and dishes, with burnishers for plates and graters for spoons. Perhaps the ~~new~~ trifling pots were of the tin/antimony alloy mentioned above, a superior metal to its early 17th century tin/lead predecessor. Bridges held stocks of old plate metal and trifling metal, tinglass (bismuth) and ~~loose~~ copper. He worked in the alloy appropriate to the specific vessel.

6.6 Membership of the Company in 1692-3 (see Tables 6.1-3)

The City poll tax of 1692, listing names, residences and relative wealth (mean taxed rents and mean taxed stocks (1693) (LMA MS COL/CHD/AL/07/001) provides an important insight into the economic status of Company Livery members, including some of those represented in the Survey, at a time when the pewter trade was at its peak. Sixty-six out of one hundred and nine livery members that year, according to quarterage lists, are represented as active pewterers and householders within the City boundaries. Pewterers in Westminster, the West End and Surrey are excluded, as are the Yeomanry (on wealth grounds) together with other non-householders and those practicing other crafts, such as coppersmiths, delft potters and glass sellers.

City pewterers are spread throughout the various City parishes, but there is a concentration of twelve in St. Andrew Holborn, in the ward of Farringdon Without, to the west of the City, and where the craft developed in the 18th and 19th centuries.

The pewterers represented in the Survey are the better off known manufacturers and dealers, who produced extensive supplies for home and overseas markets. Their mean taxed rents and stocks reflect their dominant position within the Company. This group has been identified by Hatcher and Barker as that of merchant pewterers (Hatcher in Hatcher and Barker; 246) compared with retailer-producers, manufacturers, and journeymen.

This section draws on the work of James Alexander for his Ph.D thesis (London School of Economics University of London, 1981) who devised a social classification of City households based on their tax assessment for the 1692 poll tax and the 1693 stocks tax, ordered to assist William III in the war against France. Taken together they provide names, residences, occupations, tax assessments on their stocks and rental values. This provides an insight into the economic status of Livery Company members, including some of those represented in the Survey of Forms, at a time when the pewter industry was at its peak. Their relative wealth is seen in the Table 6.1 below where the present writer has assigned them to particular wealth bands following Alexander's data. The result shows the familiar pyramid of wealth with overseas traders and tin dealers at the top, and broader bands of the less well off, but still profitable businesses of manufacturing and retailing pewterers below.

Table 6.1: Pewterers' Company: relative wealth of members

	Class Characteristics	Inventoried Wealth	Number of households
1	£101 taxed stocks: John Dyer, John Frith, Thomas Hicks, Samuel Jackson, Thomas Shackle (6 individuals)	over £3,000	2,600
2	£26-£100 taxed stocks: Alex Cleeve, John Shorey, William Eddon, Henry Harford (15 individuals)	£400-£3,000	4,000
3	£1-£26 taxed stocks: John Emmes, John Waite (9 individuals)	£25-£500	3,800
4	Basic rate of poll tax only to £0-£1 (34 individuals)	£0-£50	7,000
5	Not assessed for poll tax	£0	4,000
	Total	64 individual pewterers	21,900

Alexander classified the Pewterers as dealers in household goods (Table 6.2) where their wealth can be compared with other dealers, like the textile dealers (mercers), drapers, vintners and so on, and is based on the level of their mean taxed stocks.

Table 6.2: Wealth Comparisons: Dealers, Manufacturers and Services

Occupational Group	Individuals	Householders	Mean Stocks (£)	Mean Rent
<u>Dealers</u>				
Overseas General	1014	704	258	51
Financial Services	255	229	110	32
Textiles	616	506	196	50
Apparel	704	634	98	35
Victualling	1201	1150	48	36
Medicine	215	198	111	35
Tobacco	96	78	99	30
Books etc	142	131	122	35
Household goods	385	353	69	20
Raw materials	78	71	71	31
Total	5445	4736	123	37

The wealth of the dealers can be compared with that of the manufacturers:

Occupational Group	Individuals	Householders	Mean Stocks (£)
<u>Manufacturers</u>			
Textiles	532	437	28
Apparel	1075	851	24
Fine metalwork	427	381	44
General metalwork	406	387	31
Investments	189	164	33
Woodworkers	536	502	33
Food	436	402	52
Drink & chemicals	166	153	147
Leather	80	77	34
Books	84	76	37
Total	3931	3480	38

and with the services:

Occupational Group	Individuals	Householders	Mean Stocks (£)
<u>Services</u>			
Clerical	161	66	45
Servants	361	279	18
Officials	165	128	31
Clergy	111	77	204
Law	345	280	122
Medical	195	122	88
Education	99	65	37
Arts/Entertainment	32	25	29
Total	1469	1242	70

The average mean taxed stocks of the Pewterers, as dealers in household goods is seen to be above the average for the manufacturers and that of the Fine Metalworkers in particular.

When compared with other companies within the household dealers category (Table 6.3) the Pewterers are shown to be between the Ironmongers and the Cutlers.

Table 6.3: Wealth Comparisons: Household Dealers

Occupational Group	Individuals	Householders	Mean Stocks (£)	Mean Rent
<u>Household Goods</u>				
Tallow/Wax Chandlers	94	92	21	45
Ironmongers	70	64	33	119
Pewterers	66	62	22	57
Cutlers	58	51	28	46
Tinmen	35	31	21	38
Perfumers	13	12	13	16
Colourmen	14	12	32	120
Misc. Household goods	35	29	-	-
Woodmongers	30	26	51	108
Coalmongers	26	23	18	56
Agric. produce	16	16	25	78
Others	6	6	-	-

Conclusions

Alexander noted that the overseas and general traders were the wealthiest in terms of taxed wealth and one of the larger categories. Textile dealers (mercers), drapers were shown to be of considerable wealth. The next highest were the drink manufacturers such as the brewers and distillers.

As a group, dealers in household wares (including the pewterers) were more abundant but less prosperous and some way below the mean level of wealth for the group as a whole. They were widely dispersed about the City and with a group westwards along Holborn. A small number were amongst the wealthier householders in the City but the low rents (not itemised) of others indicated their manufacturing businesses in the backstreets as well as smaller scale retailing, and resembles the hierarchy drawn by Hatcher and Barker, 246, with merchant pewterers at the top and smaller retailers, small manufacturers and journeymen below them. Thomas Shackle stands out as a wealthy wholesale pewterer (who specialised in flatwares), but John

Dyer, tin dealer of St Lawrence Jewry, the future Clerk of the Company was twice as prosperous, and the only one in this league worth in excess of £300 taxed stocks.

The tax data shows the considerable depth of wealth within the City at the end of the 17th century, but where the Dealing section clearly outstrips Manufacturers by that date.

6.7 Some Merchant Pewterers

By far the wealthiest individual is John Dyer, with his £300 of stock, yet his wealth was largely inherited from his late father, Lawrence. Made free in 1676 John Dyer had been Lawrence's partner since 1680 and presumably inherited his wealth on the latter's death in 1691. This profile, therefore, is also of Lawrence Dyer, Master in 1675. Lawrence had a civic career (Common Councillor for Cripplegate Wood Within 1675-80 and Deputy (for the Alderman) 1680-90). He was church warden of St Lawrence Jewry in 1670, and 1691, the year of his death (Woodhead, 1965, 63).

Lawrence Dyer and his son John supplied Lord Mayor Sir William Turner, the Bishop of St Asaph, the Hudson's Bay Company and Royal Africa Company (screw-top jugs and basins), amongst others, Lawrence's entrepreneurial flair to develop a new metal alloy . *silvorumq*. like that produced by Major Purling . was quickly quashed by the Company in 1652 (Welch II, 116). The composition of *silvorumq* is unknown, but it is believed to be high quality tinfoil, with added copper in the tin coating which gave it a silver like lustre (Hatcher in Hatcher and Barker, 137). This was a German trade secret, and indeed such wares were being imported from the continent at the time (CSPD 1640, 508). Despite his excellent start in business John Dyer appears to have fallen on hard times, and was described as a poor member in 1702 (G. Lib MS 7090/1, Court Minutes 15th August 1702) but whether from shipwreck or changing requirements by the RAC is not known.

Robert Moulins II (active 1650-1705) was also a Whig (like Lawrence Dyer) and had a civic career, being Common Councillor for Coleman Street Ward 1670-1 and 1674-83. There is a dish (not excavated) by him in the Pewterers' Company Collections (WCP Catalogue, 1968, no. 49). His son and partner, Robert III carried on the business after his father's death. He is not included in the 1692 poll tax presumably living outside the City. He traded with the RAC, his wares including screw topped jugs for that market (ref 6.5 above).

Thomas Shakle I (£150 stocks) active 1675-1703 and his son, Thomas II, were sadware exporters and the latter appears to have emigrated to the West Indies (Homer,

1993, 116-8). The Shakles are not recorded as trading with the Royal Africa Company, but probably traded independently, as did John Emes and Stephen Bridges on the *Henrietta Marie*.

In 1709 Thomas Shakle and his son bought the business of Lord Mayor John Fryer in Fenchurch Street and were very much embarrassed by their affairs (Moulson, 1995, 65).

Alexander Cleeve (£100 stocks) active 1688-1729 appears to have rapidly established his business by 1692 and was one of the most successful merchant pewterers of his time with contracts including the Hudson's Bay Company, the Royal African Company and independently as an Agent in Gambia where he worked under the alias Francis Lopez for the government factory transactions (Davies, 1957, 219) and supplying basins, spoons, tankards, and plates (National Archives T70/130 f 148) and independent ventures with his ship *Fly* to Arkangel, Russia. Cleeve's business was located next to Tom's Coffee House on the west side of Cornhill (Cotterell, 1929). He was pewterer to the Royal Hospital, Chelsea amongst other London concerns, but also extended his interests to the Derbyshire lead mines, owning shares in several of these (LMA Court of Orphans Roll 3368 161B). His grandson, Richard Cleeve (1743-1765) supplied pewter to George Washington, American president in 1759. Richard Cleeve may have owed his rapid start in business to the fact that he was Nicholas Kelke's last apprentice succeeding him in business and adopting his touch and hallmarks.

Col. John Shorey's career active 1683-1722 bears some similarities with that of Alexander Cleeve. With stocks valued at £50 and in partnership with his son John Shorey II from 1708, Col John Shorey traded spoons with the Hudson's Bay Company in 1705-6 and to Africa (possibly independently) with Angola Jugs and Guinea jugs (National Archives C104/105 pts. 1 and 2). New additions to our knowledge are his manufacture of small and large pipes at 6/8d. If they are pewter tobacco pipes they are the first attributed to an English pewterer, as mentioned above. Col Shorey also owned the Temple Mills Brassworks at Bisham, near Marlow, Berks and was in business with Alexander Cleeve II concerning shares in tin stored in the Tower of London. Col Shorey's shop was on the corner of Bassinghall and Catteanton Street in the City of London (Clifford, 1990, 130-132).

Christopher Raper active 1665-1703) with £10 stocks, also traded with the Royal Africa Company. Thomas Winchcombe was only made free in 1691 but had a profitable line in guinea basins as seen on the *Henrietta Marie* (fig 94) by 1700. Thomas Cropp is recorded as of Winchester in the Company Minutes in 1700 (Gotelipe-Miller, 1987, 52-

54). Whilst sadware exporters appear to have held the premier position as overseas exporters, and be acknowledged as the wealthiest pewterers in the home market, it is interesting to note that two well known holloware pewterers . John Emes and William Eddon (£25 and £50 mean taxed stocks respectively) had created as flourishing businesses as some sadware men. William Eddon was a major exporter to America (Robinson, I. 1979, 9-14).

John Emes (active 1673-1700) made flagons with a distinctive lid profile for which he is well known. His bottles, as found on the *Henrietta Marie* (fig 95) are new to our record of late 17th century pewter and may have been a more seaworthy counterpart to the ubiquitous wine bottle of the period (Moore, 1987, 199-209).

Both Eddon and Emes have well known marks so their work is relatively easy to distinguish. This is often not the case with the touch marks of tavern pot manufacturers, who did not enjoy a high status with the Company, as underlined in the Court Minutes of 2nd January 1671, when it was ordered that:

Those which are potters should be the last called+[to the livery].

(Welch II, 143)

Presumably this applies to pewter tavern pot makers rather than the pot makers of other materials, such as delftware, or to the retailers of glassware, but the term remains ambiguous. Indeed John Campion, a delftware pottery owner was elected Master in 1686 (for which he fined).

6.8 Potters

The term *potters* was originally used to describe a dealer in copper alloy and especially zinc-rich goods from Dinant, France (*dinanderie*), the term later including coppersmiths manufacturing such goods. By the 16th and 17th centuries, it also included pewterers making pots and selling pewter tavernware and dealers of ceramic and glassware.

A well known potter (maker of tavern pots) was Henry Harford who, with £75 mean taxed stocks appears better off than either Emes or Eddon, manufacturers of superior hollowares. Harford was master to Pewterer Lord Mayor Sir John Fryers, who wrote about the difficulties of his apprenticeship, revealing interesting details of Harford's business, including the taking in of work from other men, called *frucking*. Apparently he charged above the normal price for his wares and which John Fryers had

to carry about in baskets, sometimes from the workshop in Southwark to his shop in Bishopsgate, the next house to the corner house of Cornhill (Hatcher in Hatcher and Barker, 191-2).

The Company have reason to remember the potter John Bennett of Gracechurch Street (active 1641-1682) who inherited his father John's, moulds and property, since he bequeathed them a book for recording the names of the Livery and Yeomanry and the dates individuals were set up. This is now called the Bennett Book in his memory (G. Lib. MS 7095/2). He died prior to the 1692-3 poll and stock taxes. There is an account of his life and family in *The Essex Review* Vol XIII (1933, pp.169-175).

For all their prolific numbers, potters of pewter pots are seldom of high profile. One from the upper ranks of potters and described as pottmaker was John Donne, active 1683-1730 (Ricketts, 2001, 86).

Mr Donne, pewterer to their late Majesties Queen Anne and King George at the Pewter Dish in Great New Street near Fetter Lane.

(Daily Journal, 29th April 1730)

He is not included in the 1692 poll tax.

6.9 Coppersmiths

An earlier article (Homer, 2004, 2-6) considered that the small number of coppersmiths within the Company helped to maintain the Pewterers' moulds. The present writer argues that they were also specialist manufacturers and traders in hammered and cast latten and copper, initially using imported raw materials, and whose products would have been in increasing demand following the prohibition of *dinanderie* in 1464 (Rot. Parl. v [nd] 507a).

The various copper alloy manufacturing trades and their related terminology . potters, braziers, founders, coppersmiths, latteners, bellfounders, and battours have been discussed by Blair and Blair (1991, 93) who argue that the term potter changed to brazier by the 14th century possibly to avoid confusion with earthenware potters. Potters and braziers cast domestic pots and utensils in various copper alloys, and some may have dealt in imported high zinc latten objects from Dinant in the Low Countries (hence known as *dinanderie*) at least until the prohibition on such trade in 1464. Blair,

Blair and Brownsword (1986, 82-90) provide the first evidence of brass manufacture from its raw materials (copper and zinc bearing calamine ore) in 1384 by an Oxford brazier to produce latten bells, pots and faucets (taps). The brazier William Cnurlly used English antimonial grey copper and imported calamine ore (probably Stolberg calamine ore) to make a lower grade latten alloy.

Many provincial pewterers were also working braziers, so it is possible they were using a similar alloy. Four provincial braziers and a bell maker joined the Pewterers Company in 1474-5 (Welch I, 43) shortly after its incorporation in 1474. Other London braziers probably were also attracted to the Company in the absence of a Company of their own although Braziers Ordinances were approved in 1416 (Riley *Memorials* 624-7). Yet others joined the Armourers Company and were incorporated as late as 1708 as the Armourers and Braziers. In 1504 the Pewterers Company obtained search powers over all pewter and brass (copper alloys) some of which may have been high zinc true brass (Statutes ii (1816) 651, 19 Hen. VIII, cap vi).

Specialist latten manufacturers, like Nicholas Broker, who was described as a coppersmith in his will of 1425 (GL MS9171/3f157) was one of those who cast Richard II's latten effigy in Westminster Abbey. The latten casters had their Ordinances confirmed in 1417, but there are no technical details about the craft. Likewise the Coppersmiths had their Ordinances approved in 1423 which show (LMA Letter Book Kf 126) that they traded in small scale items, including rings, beads, purse-rings, chalices and powder boxes of copper and latten, and sort permission to search those who worked in gilt or silvered copper or latten. The 14th century latten ewer from Tong Castle, Shropshire made of high quality copper alloyed with zinc maybe such a product (Brownsword, 2008, 29-31). That the ewer is made in England is shown by its tin content (4.08%) used in part as a substitute for some of the expensive imported zinc required.

The Coppersmiths and Latteners were merged as the Coppersmiths or latten casters in 1547 (*Rembrancia*, 1543-7) but it is not clear how many of these were members of the Pewterers Company, or that they were producing the hammered sheet larger domestic utensils in demand, at least by the navy at this time. The hammered sheet cauldron 82A4095 from the *Mary Rose* is a slightly leaded (1.66%) high zinc brass (Weinstein 2005b, 425) one of a group of nine surviving copper alloy sheet vessels probably manufactured in London at the time.

Coppersmiths are first noted in the Pewterers Company in 1615 (Welch II, 68) when nine coppersmiths signed a petition to restrict the number of their apprentices.

Some were sufficiently affluent to join the Livery in 1655 (Welch II, 199). One John Biddle fined to be excused that honour in 1701 (Welch I, 171). He is there described as ~~F~~Founder and one of the ~~M~~Mystery of Coppersmiths

That coppersmiths employed dual skills in both hammering and casting (so distinguishing themselves from the Founders who cast only) is shown by the case of one Francis Caffee, who presented an apprentice to the Court of the Company in 1669. This aroused the opposition of other coppersmiths because he could not cast and so was ~~but~~ a journeyman (Welch II, 139-40). Since Caffee did not work for anyone else this implies he was producing sheet vessels for a living.

The case of Isaac Hadley in 1656 again illustrates this divergence of skills within the coppersmithing trade. Hadley, who had been apprenticed to a coppersmith within the Pewterers Company now sought his freedom in it. The Pewterers would not grant this because he refused to subscribe to ~~certain~~ orders hereto fore made for the better government of such members of the said Company as use the art of coppersmith. Hadley pleaded that he was not intending to use the trade of coppersmith, but merely that of founder (LMA Reps vol. 64 f114b). Hadley's inventory (LMA CSBR Roll 1904, 198, 5 July 1682) reveals that this was indeed his craft and that he had a range of copper alloy (bronze) and stone moulds for bells and other unspecified items (possibly for pewterware) from which he was casting or had himself manufactured:

~~ten~~ moulds with brass heads, fifteen stone moulds
16 pressors, two pairs of shears, six long pressors
five square moulds and boards fourteen long moulds and
bell moulds one square bell mould
two pairs of bellows with leaden pipes
the irons in the two furnaces the same
troughs boxes and other lumber.

together with a quantity of metal.

~~A~~ cast metal and shruff pot metal weight
shivers yellow metal ship nails for sheathing
bell metal copper new mortars file dust
spelter fine pewter coarse pewter old lead
wrought iron bushel iron cast iron.

Hadley was a working master of the Founders Company (admitted 4th May 1685, G.L.MS 6337) although retaining his membership of the Pewterers Company. By his own admission he was a founder not manufacturer of sheet vessels (coppersmith). His membership of the Pewterers Company should have ensured trade secrets if he was producing their moulds.

Wills of some other coppersmiths free of the Pewterers Company show them to be more general manufacturers and traders in both copper alloy and pewter.

Henry Burton's inventory of 3rd February 1674 (G. Lib. St Paul's inventories 19504/19/10) in St Giles Cripplegate, reveals his stores of new bells and retailing: small brass and bronze fittings for clocks, brass nails and rings.

Samuel Osborne (active 1669-1704) was a Founder and Pewterer. In 1686 he had pot brass and sand troughs for casting relatively large objects.

In the back and fore shop item pot brass
and yellow brass old kettle brass and brass made
up twenty four hundred one quarter twenty two pounds
Val. £65 10/-

Item pewter 252 lbs at 5d per pound	£7 2/
Item Beames and Scales and weights and pipes from the street to the yard	20/
Item iron moulds boards and one pair bellows	
Sand trough	
Vices and appurtanences at £5q	

Compared with the casters/founders, the smiths or makers of wrought copper are more difficult to identify. They worked with sheet copper alloy, or brass. One Frances Caffee (a yeoman in the 1693 quarterage lists) was judged by his fellow coppersmiths to be only a journeyman, since he could not cast objects, but merely hammer them as mentioned above. They deemed him unfit to take an apprentice. The Court of the Pewterers Company judged otherwise, particularly as he was a householder and paid all his parish dues.

If coppersmiths were profitably employed supplying the navy in the 16th century, the later 17th century was a boom period. The introduction of charcoal burning stoves or

ranges, provided more controlled cooking with the use of copper saucepans and more sophisticated utensils and food. Probate inventories show extensive holdings of this copper battery ware by the 17th century.

One such coppersmith was Lawrence Warren of St George the Martyr, Southwark, in 1682 (LMA Court of Orphans Inventory, no, 1846), who is recorded as possessing brass kettles, candlesticks, skillets, alchemy-spoons (latten) and brassware, and pot brass, as well as fine and lay pewter, and a copper still wormeq It is not clear whether he was selling the pewter, or going to use it in his metal mixtures, nor whether the two wheels in his cellar related to finishing his copper alloy wares or had some other use.

This small sample of coppersmiths within the Company shows them to be manufacturers and retailers of cast and hammered latten and copper and it is probable that this dual skill distinguished them from Founders. Some will have specialised in casting (the wealthiest skilled members) and the yeoman possibly in sheet vessel production, at least at the commencement of their careers. There may also have been specialisation in working with the best quality imported raw materials.

6.10 Ceramic Dealers and Glass-Sellers

The occupation of potterq ranged beyond the workers of copper alloys and pewterware to those of pots of other materials, namely white and stone potters, usually called delftware and stoneware. As in the metalwares, the occupation applied to both manufacturers and sellers of ceramic pots, although much delftware was sold from the potteries themselves, usually located south of the River Thames in Southwark and Lambeth at this date.

The dual occupation of pewterer and delftware manufacturer/potter has been recorded since at least 1650. Douch (1969) notes this combined occupation in Cornwall, the source of tin, and Edwards (1974) in her documentary research on the London pottery industry. In fact Pewterer John Campion opened shop in 1650 and founded a pottery at Hermitage Dock, Wapping, where he worked as a delftware potter. This successful pottery continued until about 1773 (Britton, 1987, 3-33).

Campion's best known apprentice was John Robins (May 1677). He was manager of the Pickleherring Pottery at Southwark between 1695 and 1699, when he appears to have died suddenly (he left no will), an extensive inventory of which survives (Britton, 1990, 61-92). His widow married his apprentice Cleophas Wood, Pewterer,

who carried on the business (1700-1708) as did his son James (free of the Pewterers in 1714).

The above delFTWARE potters, and a number of other less well known individuals, were made free of the Pewterers, not by redemption, but by servitude to other Pewterers, except that the latter . like John Champion and John Robins . were not active Pewterers. Hatcher and Barker (273) estimate the numbers of such freemen non-pewterers as approximately two to three annually, out of some twenty-three . thirty admissions based on numbers made free by patrimony and redemption, as opposed to servitude so their true numbers are obscured in the freedom registers. Most delFTWARE potters joined the IronmongersqCompany, rather than the Pewterersq(Edwards, 1974) perhaps for business contacts or ease of entry.

In comparison with the delFTWARE potters who were working outside the City of London, others, retailers of ceramics and glassware, were working within its limits. To do so . to open shop and sell any sort of goods they needed to be freemen of a City company. Several of these Pottersqwere members of the Pewterers Company, the earliest of whom were interested in embellishing stoneware pots of German origin with English pewter lids and handles. So intense was the feeling against these imports and their sale by Haberdashers that Pewterers bought up the stocks of German stoneware imports, lidded and sold them themselves from 1558 (Welch I, 202). Presumably this was deemed lucrative, because in 1614 Tobie Steward, together with Nicholas Burghley and Thomas Browne of the Tylers and Bricklayers Company obtained letters patent for twenty-one years to make all manner of stone pott[es], stone jugg[es] and stone bottles not heretofore usuallie madeõ within this Realmq(cited in Gaimster, 1997, 309).

The only evidence we have of stoneware at this date is an experimental kiln at Woolwich Ferry, South London, thought to have been operating in the 1640-50s (Pryor and Blockley, 1978, fig 10). Whether Steward, Browne or Burghley had any connection with this kiln has yet to be traced.

Another member of the Pewterer Steward family, John the Younger (free by patrimony 1607, of his father John Snr. (free 1566) and nephew of Tobie) was also involved with retailing ceramics. His name is included on the Charter obtained by a new company, that of the Glass-Sellers on 2nd September 1635, along with Thomas Browne (as a warden), fellow Pewterers and Assistants (of the Glass-Sellers) Thomas Cliffe and William Cooper. However, the City would not enrol this Charter, probably as a result of pressure from the Glaziers and Spectacle Makers companies, who had monopolies for the supply of window glass and lenses respectively (Charleston, 1984, 83).

A second attempt to have their Charter enrolled in 1664 under Charles II was successful and the Glass-Sellers Company was established, with several Pewterers playing leading roles. The part played by Pewterer members of the Company of Glass-Sellers has not previously been identified by the historians of either Company and is discussed here for the first time. John Steward, who was named in the 1635 Charter, became the first Upper Warden in 1664-67; John Kempster was elected Master in 1668-69.

A member of the Pewterers trading as Glass-Sellers was Benjamin Claridge (free of the Pewterers in 1638) who is described as a potter of the parish of St Botolph Bishopsgate Without in the Poll Tax of 1641 (National Archive E179/251/22). This manuscript is in a bundle of twenty-seven company tax returns for the City of London that year to raise money in an attempt to settle the dispute between the Scottish and English armies (Gadd, 2001, 17-28). Claridge is recorded as a Glass-Seller in 1661 (GL.MS 5536/1 Glass Seller Audit Book unpaginated).

Nathaniel Adams was one of Claridge's apprentices (in 1658). His comments throw some light on his activities. Summoned before the Lord Mayor to take up the Livery of the Pewterers Company (Court Minutes, 5th August 1672) he pleaded that he had joined a new company called Glass-Sellers. He was allowed to leave the Pewterers on paying a composition fine of £20 for all offices. On 16th June 1692 Adams was allowed to join the Pewterers Livery on payment of £10 having followed the trade of potter during intervening years. Indeed, he was to be Master of the Company of Glass-Sellers in 1695-6 and so was maintaining both interests. His last apprentice, Thomas Traherne, bound 1703, is not recorded as a member of the Pewterers Company.

The activities of John Kempster (apprentice to John Steward Jnr. in May 1629) were noted through the discovery of a trade token in his name, although his actual occupation was not identified (Hayward, 2005, 17-18). In 1660 he received 15/- from the Company for glasses the whole year. Although remaining only a Yeoman Pewterer, Kempster was an original Assistant of the Glass-Sellers Company in 1664 and Master in 1668-9. In addition, he had an active civic career, being Common Councillor for Lime Street Ward 1675-81. He owned the base of Flowers Leadenhall Street, next to the Kings Arms Inn in 1662 (Woodhead, 1965, 101). His token shows a lily pot with three sprays, which is the emblem of the Virgin and used by the Pewterers Company. It appears also to be an oblique reference to his shop name . the base of Flowers

Edward Osgood was an apprentice of John Steward I (Tobias Steward's son) and active 1653-1698. He was Master of the Glass-Sellers in 1683-84.

George Phillips however was apprenticed to William Cooper in 1650, who had himself been an apprentice of John Steward Snr. in October 1617, showing the close knit circles within which the potters/glass-sellers operated. George Phillips's inventory (LMA, Court of Orphans Roll 1071, 375 14 June 1675) lists various ceramics including glass from the master glass maker, George Ravenscroft.

Another apprentice of William Cooper was William Bennett in 1642. Free of the Pewterers in 1650 he was summoned to take up the Livery on 12th March 1673 but, being by trade a potter desired to compound for all offices by reason the Potters are a Corporation of themselves (Welch II, 146). Bennett was a Warden of the Glass-Sellers in 1675 and Master in 1680. A. Thomas Isard (Isott) apprentice of John Steward, supplied Sam Pepys (NA E179/252/32).

Customers intending to buy glassware, delftware and stoneware (the latter further discussed below) could have inspected them at a Glass-Sellers shop or warehouse, such as that of John Kempster. There was some fifty specialist shops of this type in the City in 1689, as a list of that date located by the present author makes clear (LMA MS - 366/3 *Choice Scraps*). Several on the list were also members of the Pewterers, but making a living as retailers of these ceramics wares, they include Ed Osgood, Nathaniel Adams, Robert Farer, Mrs (Widow) Claridge. Several of the names would also be debtors to the estate of John Robins, late manager of the Pickleherring Pothouse (and Pewterer) in 1699, so they were of reasonable standing. The little known Robert Farrar/Farer was free of the Pewterers in 1664 and became a Glass-Seller on 26th September 1673, leaving an indelible mark on the ceramics trade: he was the grandfather of C.J. Mason of ironstone china fame (Hazelgrove and Murray (eds.) 1979, 59).

Although some members of the Glass-Sellers Company only retailed wares for a living, the Company was developing in prestige and power. Its members took the lead in encouraging the master glassworker George Ravenscroft in his enterprise to improve his flint glasses and achieve clear lead crystal glass, which he did, by adding lead oxide to his batch. The Company had entered into an Indenture of Agreement, dated 5th September 1674 with him, for a proprietary supply of glass, which was signed by John Steward, and other Pewterers. Not only were the Glass-Sellers buying up Ravenscroft's new lead glass for resale, but it is clear from the letters between the two parties (Charleston, 1984, 111-116) they were also stipulating what they, as retailers, considered would sell. That is they were influencing manufacture.

It can also be seen, from the Agreement of 25th March 1676 with John Dwight, Stoneware Manufacturer of Fulham, that the Company was controlling design in the London pottery trade. In this Agreement (Hazelgrove and Murray, 1979, 55-8) Dwight and his business partner, Sandys, were contracted to observe the Company's requirements as to standards or patterns, comparable to metal stuff, size and workmanship. A freeman of the Glass-Sellers was to be inspector at their London warehouse to see these particulars were properly done and carried out. Witnesses to this Agreement include:

John Kempster, Edward Osgood, Nathaniel Adams, William Bendree, Robert Farrar, John Steward, Benjamin Claridge, Sara Phillips (Widow of George). By this Agreement Dwight's entire stock of brown bottles, brown jugs and other brown stonewares passed into their hands. The jugs were types of drinking jugs, but there are neither mugs nor tankards yet, also usually associated with this 1670s production at Fulham (Green, 1999, 109-118).

Since Dwight only pioneered English stoneware during the 1670s, starting production in 1675, the Glass-Sellers acted swiftly to obtain their retail monopoly in 1676. One family, the Stewards had family links with the German stoneware import trade and knew the value of this durable product. It would be interesting to know whether they controlled the trade in earthenwares (Border Wares) from Surrey and Hampshire. In John Steward's will of 1677 (NA PROB 11/354) he refers to his house at Ash Green, Hants. This was one of the centres of production of these earthenwares and in which he may have had more than a neighbourly interest.

Chapter 7 - Discussion and Conclusions

7.1 Discussion

There are two main parts to this thesis for discussion: the production and consumption of pewter between 1200 and 1700, especially the provision of tablewares, for a study of social practices relating to food and dining; and aspects of the changing membership of the Pewterers Company, away from traditional manufactures to the retailing of glasswares and stonewares. Comparisons with tablewares in wood and pottery are made, and the role of scientific analysis in the investigation of alloy compositions, especially ~~trifle~~ alloy is also evaluated.

Craftsmen in pewter have been working in London since at least the beginning of the 13th century, as recorded here for the first time (Chapter 2) some hundred years prior to previously given dates (Homer in Blair and Ramsay (eds.), 1991, 67). The view that pewter was first used by ecclesiastical as opposed to secular institutions remains unchallenged as the new, earliest finds, dated to the 11th-12th century in Beverley and London could have been used in either context. Tin was increasingly available and pewter utensils in demand.

The thesis discusses the central role of the ~~garnish~~ a set of a dozen each of platters, dishes and saucers for serving up food to table. These ~~flatwares~~ were the London Pewterers' finest manufacturer . made in a tin/copper alloy of secret proportions, hard and durable and shining, like silver. No other country manufactured in this alloy and the contemporary commentators emphasised the usefulness of the garnish . as exports abroad, and its utilitarian and display purposes at home . a status symbol of its owner when not in use, decorating his hall.

Whilst there were constraints on the numbers of dishes to two in each course at a meal in the 14th century, increasing to three in the 15th century (Woolgar, 1999, 159) by the post-medieval period, the number of dishes eaten depended on the status of those dining, and the means of the family. Gervase Markham, in his manual, *The English Housewife* of 1615 stresses:

~~Now~~ to these full dishes may be added in sallats, fricasses, *quelquechoses*, and devised paste, as many dishes more, which make the full service to no less than two and thirty dishes, which is as much as can conveniently stand on one table.

These were the finishing touches to the usual sequence of boiled, roasted and baked meats. ~~Sallats~~ will be simple boiled vegetables or elaborately cut up; fricasses and *quelquechoses* made in a frying pan like pancakes and fritters, whilst ~~devised~~ paste was almond icing made into fancy shapes. All the dishes for each course were

put on the table together, so enhancing the cumulative effect. Buffet style dining of this sort continued into the 18th century. Tables crammed with dishes were also favoured in France, where it was called *service à la française* (Wheaton, 1983, 141).

To enhance the visual appeal of the platters and dishes, the Pewterers Company introduced wares with broad-rims from the 1530s, the stunning effect of which when displayed edge to edge can be appreciated from the remains of the *Mary Rose* garnish and from contemporary illustrations. Surviving dishes show the differing styles . from narrow rimmed deep receptacles of medieval date . to flatter broader-rims of those of the 16th and 17th century. The *Mary Rose* garnish was especially important, since it allowed the author to correlate weights and linear dimensions for the first time (Table 5).

The Englishman's food was predominantly of meat for those of the middling status . the pewter owners . and did not change substantially in the period under review. The dishes for boiled and the platters for roast and baked meats were perfectly suited to presenting these foods (such as are included in the Company's Entertainment Books (GL MS 22, 191) and continued in use into the 19th century, even when buffet style dining was no longer the norm. By then they were used in kitchens and on dining room sideboards holding joints for carving and other contemporary fare.

Those not able to afford pewter used dishes and bowls of wood, although these, no doubt grease stained and unhygienic were being replaced by pewter whenever people could afford to do so. The most numerous dishes (116) on the *Mary Rose* averaged 300mm in diameter but in the absence of other wares, were probably the ones used for eating rather than serving, and may well have been shared between two men. There was little space for serving dishes as the men sat in cramped spaces on the decks. People continued to share receptacles into the 19th century in certain circumstances, like colonists in America (Hawke, 1988, 56).

By the time that pewter was supplanting wooden utensils, the newly revitalised pottery industry in the South East (Border Wares) was available for those who could not afford the metal. The pewter garnish had inspired local potters to produce a series of dishes and these are found in contexts dating from the late 16th century (Pearce, 1992, 19) and were a new form introduced at that time. Sizes are comparable (Table 1); sooting on sides and bases shows they were used to keep food warm, so they were used as serving dishes. Both wooden and pottery wares are accompanied by deep bowls for food storage, but are not present in pewter. The unit of food provision in Britain was the *mess* that is the amount of food prepared for (usually) four people, this is also the term for dish, so the garnish is related to the unit of food provision. In France

the unit of food provision was the *écuelle* (porringer) shared by two people so indicating a difference in the type of national food (Wheaton, 1983, 5), although soups and semi-liquid foods were common in Britain too. Shallow dishes appeared in continental wares: in *sgraffito* ware and German Duisburg wares, probably as a result of the influence of English pewter dishes and plates (Pearce, 1982, 91).

For all the dominance on the table of the garnish, the needs of other types of food were also provided for. The most important of these were the semi-liquid spoon meats and soups. Porringers and bowls were made by London pewterers from at least 1438, as is recorded in Ordinances of that date (Welch I, 12) and were in common use both for milk for children and the soups which began high class meals by the 14th century (Woolgar, 1999, 159, 160). From at least the early 16th century they would also be made in trifle metal (Welch II, 63) indicating greater demand and related cheaper pricing, in this new alloy. For some bowl forms there is as yet no clear interpretation as to their use . for example those from Nonsuch Palace (fig 17) or that found on the *Atocha* wreck of 1622 (fig 92) but this author suggests their possible use as a chafing dish to keep food warm. Clearly, the provision of a separate receptacle for soup at the table is not an introduction of the 17th or 18th century as is sometimes claimed, but a custom dating from at least the 14th century in English cuisine. The retrieval of a porringer from the *Mary Rose* (fig 99) provides dating evidence for the type for the first time for the number of similar finds which exist in collections. Analysis of this (Table 3) by Brownsword and Pitt (1990) indicates a high tin/copper alloy of English origin, whilst analyses of those in the Neish Collection (Table 7) reveal them to be of English trifle alloy. This is a helpful guide when distinguishing them from similar Dutch examples.

The provision of serving dishes for table was well organised in the pewter trade, but what of eating utensils for the individual diner? This aspect has been recently explored by writers such as Willmott in Carroll, Hadley and Willmott, 2005, 121-142. Whilst it is generally accepted that the plate replaced the trencher by the 17th century, it is nowhere stated as to how this came about. In this provision, of the prototype plate in the 16th and early 17th century, the pewterers of London were highly innovative. Manufacturing exports for their chief overseas client, Spain, London pewterers devised the Spanish trencherq flat plate of 240mm diam., with little bougeqor centre which resembled maiolica plates in use in Spain, and as excavated from the wreck of the Armada vessel *La Trinidad Valencera*. What started as a trade venture proved successful at home and when further finishedqby shaping, turning and polishing, and with the addition of a fillet or edge binding, produced the earliest flat plates in Britain. Its

characteristic shape of small centre and wide flanged rim proved safe for eating with fingers and spoon, but was not adapted to the stresses of eating with a fork in the later 17th century as new forms show (fig 97).

Turners were improving their wooden ~~block~~trenchers as well during the 16th century, simply by turning, and small (200mm) plates were coming into use (fig 22). Potters of earthenware made small flanged dishes (Pearce, 1992, 11) with diameters of 116-168mm but no plates, as such.

In Spain and Italy, however, the maiolica industry was far advanced. A French nobleman, Michael de Montaigne travelling in Rome about 1580 was greatly impressed with the glazed earthenware plates, which were (Montaigne, *Travel Journal in Works*, 892):

so white and neat that they seem like porcelain, and are so cheap, they really seemed to me more pleasant for eating than the pewter of France, especially when it is dirty, as you find it in the hostelryes.

The Italian potters took these techniques to the Low Countries and by the 1660s white tin glazed hard fired plates were changing Dutch eating habits. English tin glazed plates were unsuitable for daily eating with their softer glaze. It was not until the 1720s that potteries in Stoke took up the challenge.

7.2 The Investigation of Trifle Alloy

Demand for certain categories of object like porringers, tankards and other small drinking vessels, saucers, candlesticks and table accessories such as pepperboxes, salts and sugar boxes led to the introduction of a tin/lead alloy, trifle, from the 16th century but for which there was no known definition. Analysis of a sample of such objects undertaken by ICP-OES at Sheffield Assay Office, identified the alloy trifle four times as of some 4-6% lead and copper hardened (0.5% *cu* minimum). This helps establish a database for these smaller items which frequently cause confusion as to their provenance, since similar styles were used by pewterers of the Low Countries.

The exercise of scientific analysis on flatwares, hollowares and these smaller ~~in~~ between~~q~~artefacts has proved of very considerable value, both in distinguishing the characteristically English tin/copper alloy called ~~fine~~metal, and as showing the more typical composition of a range of hollowares. Other countries also worked in tin/lead alloys so the challenge of establishing national characteristics remains. However, hollowares with lead levels of 12-25% and copper hardened (0.5%+) are likely to be of English origin. Some deductions have already been made with hollowares so tested.

Extant examples, particularly of medieval and 16th century date are few, however, and marked examples from the Low Countries and France would repay further investigation and may be a key to identifying national working practices.

7.3 Documentary Research on Aspects of Company Membership

This part of the thesis investigated the wealth of Company members from tax data of 1692-4: a poll tax of 1692 which gave names and occupations of pewterers in wards of the City of London, and a tax on stocks and rental values which can be linked to the individual's inventoried wealth. It was expected that pewterers who traded overseas as part of their wholesale business, like Thomas Shakle, would be well off, although part of his wealth came from dealing in tin (Ricketts, 2001, 190). See also Table 6.1 for his wealth band. A number of other pewterers were also placed in the same, top, wealth band, of those who were assessed on stocks worth £101 or more and related, inventoried wealth estimated at over £3,000. These men were John Frith, Thomas Hicks (exporter to the Hudson's Bay Company 1691-6) John Dyer, the future Clerk of the Company, and tin dealer, and Samuel Jackson.

Some exporters like Alexander Cleeve were in the £26-£100 assessment for their stocks tax and with estimated inventoried wealth of £400-£3,000. He, like John Shorey, also of comparable wealth at that time, were noted exporters with the Royal Africa Company, the Hudson's Bay Company and as independent traders (Cleeve's activities) to Russia. William Eddon was a prolific holloware manufacturer as was Henry Harford who made tavern pots (and the Master of future Pewterer Lord Mayor John Fryers).

In the third wealth band of £1-£25 assessed stocks were the famous flagon maker John Emmes, and John Waite, maker of the fine cast-decorated porringer (fig 122). These individuals are highlighted here since their wares have been excavated and are included in the Survey of Forms, or are known from supporting documentary evidence linking them to overseas trade. Tin dealers were a wealthy mercantile group who supplied the Company and also traded individually. Flatware manufacturers, like Thomas Shackle, were usually more wealthy than makers of hollowares, but these latter could have as profitable a business, as shown here.

Rents paid also reveal what the pewterers' occupation was in so far as high rents on prominent streets indicated retail shops, but low rent in back streets usually indicated a manufacturer. These distinctions conform to the hierarchy established by Hatcher and Barker 246, of merchant-pewterers trading overseas; retailer-producers of more modest

scale; master pewterers with income from manufacture rather than retailing and journeymen pewterers.

7.3.1 Ceramic Dealers and Glass-Sellers

The tax data for 1692-3 includes twenty-one individuals described as potter but of whom only four were pewterers, and those of comparable wealth to some of the mainstream pewterers (stocks assessed at £50 and £100). By far the wealthier were four men who identified themselves as Glass-Sellers, like John Greene, the importer of Venetian glassware.

To the modern student of the Pewterers Company, the interest lies in the fact that these members of the Company sought collectively to control design and standards in two emerging industries: the London glass industry, especially that of lead crystal, and the more utilitarian trade in brown stonewares made by John Dwight of Fulham. This they appeared to do.

By the 18th century the numbers of glasshouses and potteries had grown to such an extent, the Glass-Sellers were only one of a number of interested parties in these ventures.

7.4 Conclusions

The exploration of pewter vessel types used for serving and eating food in the period 1200-1700 revealed the dominance of the garnish, the set of platters, dishes and saucers used for bringing food to table.

In addition to this utilitarian role, the garnish was also regarded as a status symbol, being displayed round the hall when not in use. Contemporary commentators, like the Rev. William Harrison emphasize its importance, but that seems to have been lost sight of by more recent writers.

Ideally suited to serving up the boiled, roast and baked meats required in traditional meals, to the end of the period under review, pewterers further enhanced its stylistic features by broadening rim widths for dramatic effect from the 1530s, a style which was still in vogue in the 17th century, as seen in contemporary illustrations. Made in the best quality alloy, a tin/copper mixture of secret proportions, it was the pewterers' primary item of manufacture and on the quality of which the Company's reputation depended.

Comparisons were made with similarly sized vessels in wood, used by the crew of the *Mary Rose*. It was suggested that these were used for eating, being the most

numerous survivors, and in the absence of any other receptacles. Given their size (on average 300mm) they were probably shared with a mess mate, in an older tradition. The pewter garnish, however, cast in moulds and to specific sizes . of dish (255-305mm), platter (305-335mm) and saucer (150-200mm) appears to have more specific uses. The wooden bowls (200-230mm) with tapered rims were identified as personal drinking equipment.

As wooden vessels declined in use their place was taken by the new pottery dish, newly introduced, in Border Ware . of white fabric and green or yellow glaze. Identified by sooting on bases and sides as serving vessels, they are the pottery counterpart of the pewter platter or dish; small flanged dishes (116-168mm) were probably used, like saucers, on the table.

Trenchers were being replaced with plates by the 17th century, and the thesis shows how this evolution came about both in wood and pewter. An innovative form produced by the PewterersqCompany for its main overseas market . Spain . was a shallow receptacle with small centre and flared rim . the pewter counterpart of the native maiolica plate. This was a trade venture rather than for domestic improvement, but the influence of the Spanish trencherqwas profound. As a properly finished plateq the form lasted over a hundred years until adapted for use with the newly introduced fork, a transition also previously unexplained.

Pewter tablewares developed through changes in alloy composition as well as stylistically in the 16th century. In order to accommodate the growing demand for vessels such as porringers, candlesticks, beakers, salts, cups, goblets and the like the Company introduced a new alloy . rifleq but for which there is no statutory definition. The thesis shows how a sample of such artefacts was selected and analysed by ICP-OES. The results showed certain items with a composition of 4-6% lead, and copper in excess of 0.5%, which was considered to be the alloy in question. This is the first time rifleq has been so identified. Other artefacts in the sample were of fineq metal (tin/copper alloy) and others of lay metal (tin/lead alloy).

The third aim of this thesis was to investigate aspects of Company control and membership, especially the precise occupations of those described as potterq who worked within the Company.

Evidence was provided, for example, that the rose and crown device associated with the Company indicated English tin when used on tin bars, as shown by a contemporary report; on pewterware it was an export mark, denoting English origin in the same way. Its occasional use as a qualityqmark is unproven, since all pewter had to

be made to the Company's standard, so it was unnecessary to apply a special mark to any piece. The rose and crown device was, however, used to indicate standard wares in other media against which others would be measured. The Company maintained its own standards, with Crown approval, so its use as a badge or symbol may have been adopted in the past.

The Pewterers Company obtained search powers over all pewter and brass in 1504, so it is not surprising to find some men working in the copper alloys within its ranks. These composed some of the potters identified within the Company. The wealthiest were founders, usually of bells, but there was at least one coppersmith working in sheet metals. It is not clear whether they assisted the pewterers in any way. Yet other potters made tavern pots, regarded as being of inferior workmanship and alloy, which can sometimes be detected in alloy compositions with their high lead contents. The most interesting discovery however was a group of retailers of ceramics and glass who worked together to establish the Glass-Sellers Company in 1664. No such group had been identified by the historians of the Company (J. Hatcher and T.C. Barker), and their business as retailers indicated the current trend for shops and shopping in the 17th century and the move away from manufacturing to commerce.

The import of Venetian glass was a profitable business but the Glass-Sellers also had the monopoly of Ravenscroft's lead crystal and John Dwight's Fulham stoneware. The Livery companies were becoming more heterogeneous in composition, but this is the first indication of a group movement towards commerce by members of the Pewterers Company. The identification of these retailers as potters provided a hitherto unknown occupational label.

The thesis has explored the use of the Pewterers' chief products . flatwares in their high standard tin/copper alloy and re-established the garnish as a most important item in the household . both on and off the table. The Pewterers also lead in the production of the country's first plate, at least as used by the middling classes (little is known of medieval or 16th century silver plates, and there are none extant). These discoveries have provided a balance between serving and eating for the first time and extended comparisons into other media such as wood and pottery with examples drawn from large assemblages such as the *Mary Rose* and urban archaeology in the City of London.

The uses of scientific analysis to identify the third, and last remaining major alloy, used by the Pewterers Company from the 16th century is beyond question. Building on the foundation laid by Dr. Roger Brownsword of the composition of fine metal as a

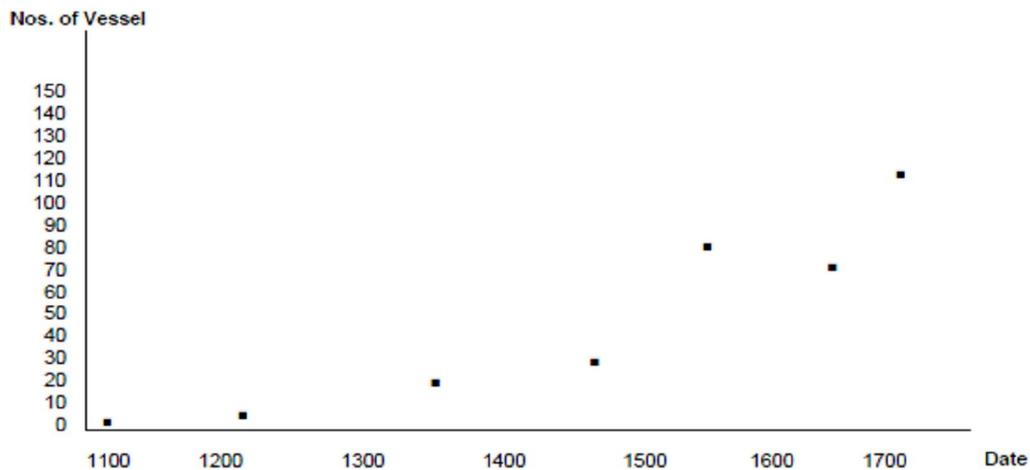
tin/copper alloy with negligible lead, the thesis provided a clear indication of what constituted ~~the~~trifle alloy, which will prove invaluable if trying to distinguish Dutch from English pewter in a range of small objects of similar styles since the analyses included an item with a Dutch mark of the crowned rose. There is also now an indication of what alloy was in use in the Low Countries about 1600. The presence of hardeners such as bismuth and antimony also provided a useful indication of date and provenance when faced with unfamiliar, undated pewter artefacts. Further analyses would be valuable to help build a database of trifle wares. More evidence is also needed on the very variable alloys used for the manufacture of hollowares, especially of medieval and 16th century date, but the high percentages of lead in at least one instance (50%+) was a clear indication of a non-English origin.

The identification of a group of middlemen retailers of ceramics and glassware in the ranks of the Pewterersq Company shows how even one of the more controlled manufacturing companies, could include such a group with very different interests from the parent company. Whilst the ~~the~~custom of Londonq whereby any one free of a London company could pursue any other trade or craft, was in operation from the medieval period, the discovery of this network of retailers within the Pewterers indicates the speed of change happening within the traditional companies. Indeed the Mercers, Grocers, Haberdashers and Drapers had comprised important merchants and businessmen in a variety of occupations since at least the 15th century as Earle (1991) 250-260 points out, but this is the first indication of a breakup of the more coherent company structure of the Pewterers. The Company records do not indicate any disquiet about these movements, so presumably the membership still had a common sense of purpose in its own trade. Indeed, judging by the wealth levels indicated by the 1692 poll tax and 1693 stocks tax, mainstream pewtering was still more lucrative than ceramics retailing. The wealthier Pewterers were certainly those with mercantile interests . overseas trading and tin dealing, but skilled and prolific workers in hollowares, like Eddon, Emmes, Waite and even the tavern pot maker Henry Harford were highly successful business men making leading designs.

Documentary evidence of these various types provides some identity to the actual people who made the objects in the study, and provides insight into their circumstances and activities at this time.

Fig 126

Survival of Pewter Vessels based on recorded finds



The graph shows the impact of wreck sites on the retrieval of pewter utensils.

The peaks in the mid-1550s are due to recovery of pewter finds from the *Mary Rose* and Armada wrecks; that about 1700 represents pewter retrieved from the submerged City of Port Royal, Jamaica, and the wreck of the Slaver *Henrietta Marie* off Florida Keys, USA.

7.5 Future Research Implications

1) Future programmes of scientific analysis to extend databases relating to artefacts of Pb-Sn alloy and Pb-Sn-Cu metals (tin/lead alloys) would be helpful, both in understanding working developments within the Company and for the purpose of distinguishing English from continental artefacts.

2) Research on 18th century export markets especially to the USA, Russia and Scandinavia would be of interest. Most of the pewter found in the USA of English origin is of 18th century date, the 17th century material tending to be personal possessions.

3) Documentary research on the Steward dynasty of Pewterers to see whether they have links with the local, south east, industry of Border Wares.

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CSB Common Sergeants Books

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Appendix

Objects from the Neish Collection analysed by ICP-OES. See Table 7 for full analyses.
Images by S. Toothill/Pewter Society/SBT.



1996-44/381 Flagon early 16th century

Tin 49.3%, lead 50.11%, copper 0.39%
Continental 0.07% bismuth, 0.02% antimony



1996-44/428 Baluster measure early 16th century

Tin 71.4%, lead 25.7%, copper 2.69%
English lay metal 0.13% bismuth,
0.02% antimony



1996-44/466_1 A Guy's Hospital plate early 16th century

Tin 98.1%, lead 0.02%, copper 1.4%
English fine metal



1996-44/466_2 Detail

1996-44/466_3 Detail Crown Ostrich feather ownership badge



1996-44/466_3 Detail Guy's Hospital plate maker's mark



1996-44/554 Beaker 16th-17th century

Tin 93.8%, lead 4.99%, copper 0.69%
English rifle alloy 0.25% bismuth
0.02% antimony



1996-44/571 Porringer early 16th century

Tin 94.0%, lead 4.54%, copper 0.92%
English triflegalloy 0.34% bismuth



1996-44/573_1 Beaker mid-17th century

Tin 87.2%, lead 11.6%, copper 0.40%
Continental ? 0.48% bismuth



1996-44/573_2 Detail Crowned Rose (Dutch style)



1996-44/611 Bell candlestick late 16th century

Tin 94.3%, lead 4.2%, copper 1.38%
English rifle alloy 0.12% bismuth
0.02% antimony



1996-44/611_2 Detail Maker's mark Unknown



1996-44/611_3 Detail Base of stick



1996-44/612 Drinking cup early 16th century

Tin 87.3%, lead 11.6%, copper 0.36%
Continental 0.67% bismuth, 0.02% antimony



1996-44/652 Crowned hammermark saucer (on rim) early 16th century

Tin 98.2%, lead 0.02%,
copper 1.48%
English fine metal
bismuth 0.25%,
antimony 0.02%



1996-44/776_1 Saucer with crowned hammermark device on rim early 16th century

Tin 97.6%,
lead 1.5%,
copper 0.67%
English fine metal
bismuth 0.30%,
antimony 0.02%



1996-44/776_2 Detail Crowned Hammermark



1996-44/826 Bowl early 16th-17th century

Tin 96.8%, lead 1.4%,
copper 1.3%



1996-44/840 Porringer mid-16th century

Tin 92.6%, lead 5.93%,
copper 0.97%
English rifle alloy
bismuth 0.33%



1996-44/841 Semi-broad rimmed saucer with shallow well 16th century

Tin 92.9%, lead 6.3%,
copper 0.43% English
0.27% bismuth



1996-44/860/415_2 Flagon 16th century Dutch

Tin 66.7%, lead 32.6%,
copper 0.53% Dutch?
bismuth 0.10%



1996-44/860/415_1 Detail Medallion in base (unidentified)



1996-44/860/420_1 Baluster measure mid-16th century

Tin 69.0%, lead 26.4%,
copper 2.33% English
0.13% bismuth



1996-44/860/420_2 Detail

maker's mark at rim

unidentified



1996-44/860/421_4

Baluster measure mid-16th century

Tin 73.1%, lead 24.8%,
copper 0.14% English
bismuth 0.02%



1996-44/860/421_1 Detail

Cinquefoil maker's mark



1996-44/860/421_2 Detail ±House marksq



1996-44/860/421_3 Detail ±Touch(maker's mark)



1996-44/860/422_3

Baluster measure mid-16th century

Tin 75.1%, lead 23.6%,
copper 1.1% English
bismuth 0.10%



1996-44/860/422_1 Detail

Baluster lid with housemarks mid-16th century



1996-44/860/422_2 Detail

Maker's mark (touch)

unidentified



1996-44/860/423_1

Baluster measure mid-16th century

Tin 68.7%, lead 29.6%,
copper 1.5% English
bismuth 0.16%



1996-44/860/423_2 Detail

Owner's mark or touch?

Unidentified



1996-44/912a

Candlestick 16th-17th century

unidentified

Tin 74.9%, lead 23.6%,
copper 1.35% English
bismuth 1.87%



1996-44/988

Dish 16th-17th century

unidentified

Tin 98.3%, lead 0.82%,
copper 1.5% English
bismuth 0.19%,
antimony 0.02%



1996-44/990 Bowl crowned hammermark device on rim 15th-16th century

Tin 98.4%, lead 0.02%,
copper 1.31% English
fine metal



1996-44/990_2 Detail Crowned hammermark device



1996-44/1101_1

Saucer 15th century

Tin 99.0%, lead 0.02%, copper
0.84% English fine metal



1996-44/1101_2 Detail

Saucer 15th century with owner's mark or touch on rim

unidentified



1996-44/1116 Cast-decorated saucer late 17th century

Tin 94.3%, lead 4.7%, copper 0.5%, antimony 0.5% (probably continental)



1996-44/1119_1 Baluster measure mid-16th century

Tin 72.4%, lead 22.0%, copper 4.85% English



1996-44/1119_2 Detail

Baluster- housemark on lid

AFF maker



1996-44/1119_3 Detail Baluster . medallion in base



1996-44/1149 Cast decorated saucer 16th-17th century

Tin 94%, lead 4.1%, copper
1.3% Continental bismuth 0.5%,
antimony 0.05%



1996-44/1201 Dish 16th century

Tin 97.8%, lead 0.13%, copper
1.7% SRA English antimony 0.08%,
bismuth 0.24%

Table 7: Analysis of Neish Pewter by Sheffield Assay Office

Object No.	Type	Tin (%)	Lead (%)	Copper (%)	Bismuth (%)	Antimony (%)	Marks	Date
652	Saucer	98.2	0.02	1.48	0.25	0.02	Crowned Hammer	16c
776	Saucer	97.6	1.5	0.67	0.20	0.02	Crowned Hammer	16c
990	Saucer	98.4	0.02	1.31	0.30	0.02	Crowned Hammer	16c
826	Dish	96.8	1.4	1.3	0.18	0.17	-	?c. 1500
988	Platter	98.3	0.02	1.5	0.19	-	Chi-rho IGA	16/17c
1101	Saucer	99.6	0.02	0.84	0.17	-	r	?15c
1201	Dish	97.8	0.13	1.7	0.24	-	CRB	16c
466	Dish	98.1	0.02	1.4	0.03	-	Crowned Feather	16c
841	Saucer	92.9	6.3	0.43	0.27	0.02	Wide Rim	16c
1116	Saucer	94.3	4.7	0.5	0.5	0.5	Cast Decorated	17c
1149	Saucer	94	4.1	1.3	0.5	0.5	Cast Decorated	17c
554	Beaker	93.8	4.99	0.69	0.25			
571	Porringer body	94.0	4.54	0.92	0.34			
571	Porringer body ear	95.0	3.6	0.89	0.39		(Not illustrated)	
573	Beaker	87.2	11.6	0.4	0.45			
611	Bell candlestick	94.3	4.2	1.38	0.12			
612	Cup	87.3	11.6	0.36	0.61			
840	Porringer (fleur-de-lys ear)	92.6	5.9	0.97	0.33			
912a	Candlestick (lay metal)	74.9	23.6	1.30	1.87			
381	Flagon	49.3	50.1	0.39	0.09	0.10	-	c. 1550
415	Flagon	66.7	32.6	0.53	0.10	-	-	16c
428	Measure	71.4	25.7	2.69	0.13	-	-	? late 15c
420	Measure	69.0	26.4	2.33	0.13	-	-	16c
421	Measure	73.1	24.8	0.14	0.02	-	-	16c
422	Measure	75.1	23.6	1.1	0.10	-	-	c. 1550
423	Measure	68.7	29.6	1.5	0.16	-	-	IC with Lorraine Cross: John Curtis
1119	Measure	72.4	22.0	4.85	0.16	-	-	c. 1550