

Excavations at Carmarthen Greyfriars 1983-1990

TOPIC REPORT NUMBER 4 :: EDITOR TERRENCE JAMES



THE SMALL FINDS AND OTHER ARTIFACTS

DEE BRENNAN

DYFED ARCHAEOLOGICAL TRUST

2001

CONTENTS

1. **About this document** (READ THIS FIRST)—3

2. **Plan of Carmarthen Greyfriars**—4

3. **Introduction**—5

4. **The Finds Catalogue**—13

Coins by George Boon and Edward Besly—13

Non-Ferrous Metal Objects by Deirdre Brennan—21

Seal Matrixes by David Williams—33

Bronze Crucifix by Mark Redknap—35

Lead Objects by Deirdre Brennan—38

Iron Objects by Deirdre Brennan—40

Bone Objects by Deirdre Brennan—47

Miscellaneous Beads by Deirdre Brennan—49

Painted Pipeclay Statutes by Mark Redknap—50

Stone Objects by Deirdre Brennan—53

Vessel Glass and Glass Objects by Deirdre Brennan—56

Painted Wall Plaster by Deirdre Brennan & Anthony Parkinson—63

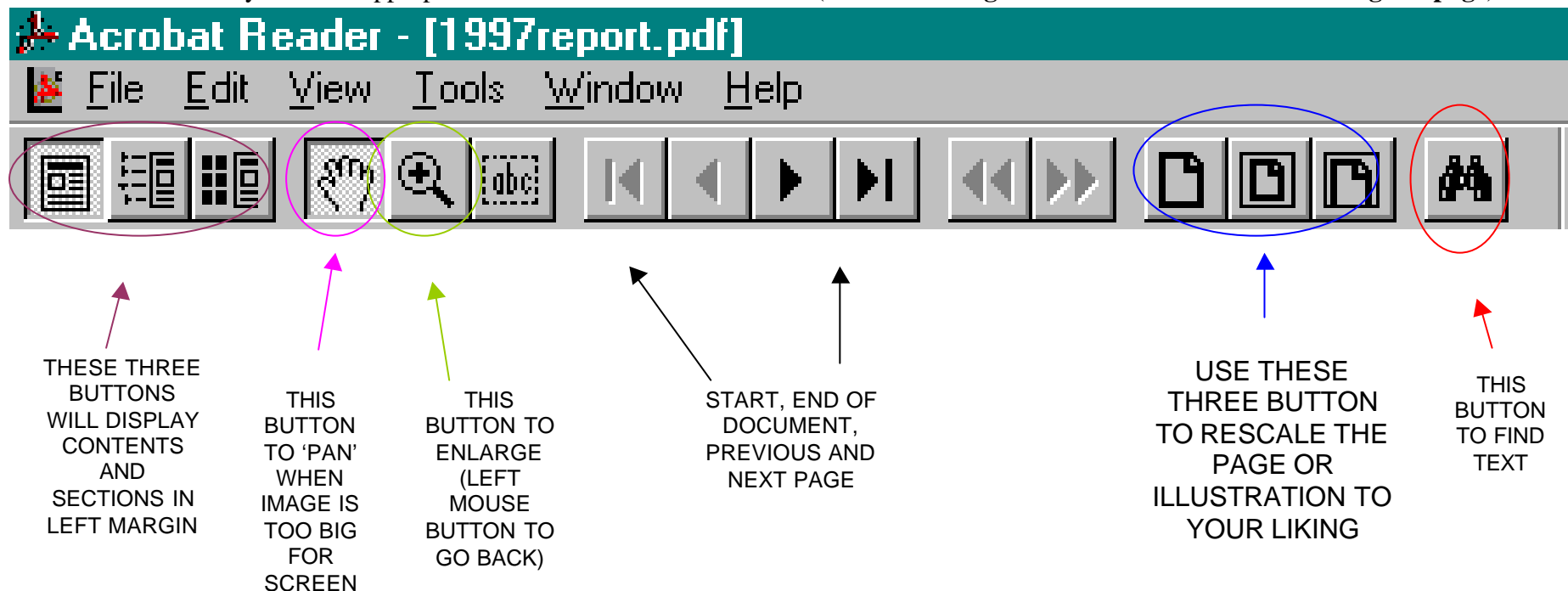
5. **The Finds Drawings**—65

6. **Bibliography**—92

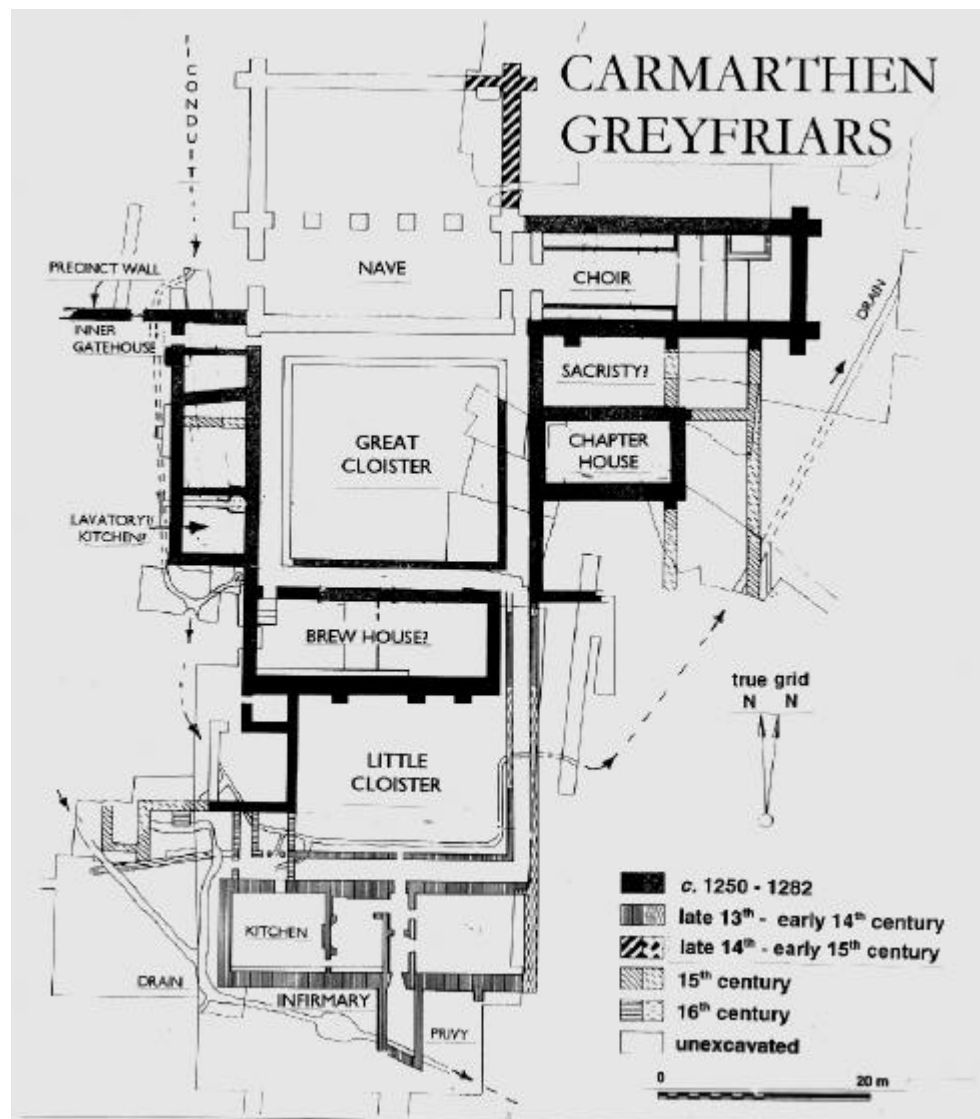
This publication on the finds from Carmarthen Greyfriars excavations covers the period 1983-1990. The subsequent 1997 excavation report ([1997report.pdf](#)) includes its own finds section. The electronic publications can be read using Adobe® Acrobat.™

Hints on using this document:

Take a moment to learn how Acrobat works. Time spent now will help you harness the power and ease of moving around this electronic document. Text Marked like **this is a 'hot link'** (see the cursor changes to a POINTING HAND when you hover over red words). Click on any red words and letters: these will take you to the appropriate cross reference or illustration (then use **the right mouse button to return to original page**)



Note you can rescale a page and move to another page number by clicking on the relevant part of the lower left of the



Phase plan of the friary.

Introduction

Methodology:

This report is a catalogue of small finds from the site of Carmarthen Greyfriars, excavated by the Dyfed Archaeological Trust between 1983 and 1990. Such was the volume of material recovered, a decision was made to publish the different categories of finds as separate volumes or 'Topic' reports in addition to the main structural report (James 1997). This publication reports on a selection of miscellaneous categories of material (see below under Catalogue). But the larger groups, viz., the pottery, ridge tile and water pipe (O'Mahoney 1998), floor tiles (James & Brennan 1995) and skeletal remains (Wilkinson 2001) are the subjects of separate reports. The large collection of clay pipes are published in a separate volume (Evans in Brennan et al., 1996).

By publishing in this form it was generally thought that the various categories of material would receive a more detailed study. The one drawback however is the lack of unity in the form of cross-referencing. In a recent paper on the use of pottery and glass found on monastic sites, Stephen Moorhouse (in: Gilchrist & Mytum 1993, 142-3) points out the need for a 'total approach' to the study of finds. He goes on to say that the study of separate categories of material by different specialists 'has tended to fragment rather than unify' the archaeological record, and favours instead reports which involve the expertise of all specialists. This method of publication is feasible in large Archaeological Units which employ a number of in-house finds specialists, but when material has to be dispatched far and wide there are obvious impracticalities which prevent working together as a 'team'. Therefore, in order to understand the site of Carmarthen Greyfriars in toto the reader is referred to the above forthcoming reports.

Discussion

The finds dealt with in this report include coins, all metalwork (copper-alloy, lead and iron) with the exception of the iron nails which are classified according to type in the main site report (James 1997, p. 186-7), worked bone, miscellaneous beads fashioned from jet and clay, portable stone

objects, ceramic statuettes, glass vessels and objects and one decorative plaster boss. Additionally there is a brief summary of the painted wall plaster.

The first part of the discussion deals with the survival and non-survival of different materials as not every type of workable material survived.

A vast number of finds were recovered but the completeness of the assemblage is not certain. The survival of an object depends very much on the material from which it was made. Due to the acidic nature of the local soil, objects made from organic material such as leather, wood, cane, hair, textile and bone did not survive (and when it did it was only fragmentary. The exceptions (recognised during conservation) are small fragments of leather preserved between belt strap-ends and book clasps and in lace tags. Impressions of a fine woven cloth are preserved on the surface of iron coffin fittings. The few worked bone objects would suggest a much wider use of this material that represented in the surviving assemblage.

Certain factors contribute to the survival of metal objects. Items made of copper alloy are either cast or made from sheet metal. The former are generally better preserved as they tend to be of a thicker metal although both types are equally vulnerable to damage. Metal objects were clearly valued and when partially damaged underwent repair. Evidence for this are the 'paperclip' patch rivets (Nos.67, 68) and the sheet-metal repairs (Nos.69-70). That items which could not be repaired were kept for recycling is suggested by the fragments of cast and sheet vessels nos.59-66. Small items of jewellery made of copper alloy were often copies of expensive pieces made of precious metals. Surfaces were gilded (No.11) or tinned in imitation of gold and silver and there is evidence for tinning on both copper alloy and iron objects. Inlays such as niello were used to enhance jewellery and personal accessories (No.43), and coloured glass settings were used as a cheap alternative to precious gem stones (No.183).

Lead was used widely for small objects (Nos.85-89), for roofing (No.91), as quarries for window glass and as other fixtures and fittings in buildings (Nos.79-84). A considerable quantity of scrap and molten lead was found as well as numerous fragments of window comes. With the dissolution of the friary in 1538 all retrievable lead was collected and melted down, some for the extraction of silver, as was evidenced from the cupellation hearth found on the site (see P. Courtney in James, 1997, 184-6).

Iron was the most prolific of the metals recovered. The assemblage mainly comprised nails (Brennan in James, 1997, 186-7). Types represented include general purpose nails used in building, coffin nails and specialised types such as tacks and clench rivets. Due to the corrosive nature of iron the number of identifiable objects are few. Many are fragmented and others are beyond recognition, even after x-radiography. Those objects which are identified are representative of the usual range of structural fittings and fixtures, as well as domestic and agricultural items, found on sites of a similar date.

Among the objects which arrived on the site as finished goods are two statuettes (Nos.155, 156) made from a fine-grained clay and provide evidence of the use of clay for objects other than pottery and tile. Beads made of jet are also likely to have arrived from elsewhere (Nos.152, 153).

Local and non-local stone was made into a variety of objects and here reflect the qualities of the different types of stone used. Sandstone and limestone were ideal stones for carving and were used, for example, to make moulds (Nos.157, 158). Local shale is not easily worked as it has a tendency to delaminate but its soft easily scratched surface was made good use of as the pieces of graffiti (Nos.164, 165) and gaming boards indicate (Nos.166-170). The gaming board designs are executed on large fragments of probable roofing tile and, with the exception of no.166 which was made for repeated use, all others were scratched quickly onto the surface on an ad hoc basis. One slate fragment of late post-medieval date is a probable sample piece having compass-incised concentric circles (No.171).

The survival rate of medieval vessel glass on the site is low in comparison with the large assemblage of contemporary ceramics. This is due partly to the fragile nature of glass and partly to its composition. Vessels made from common green English (Nos.172-174, & 176) and north European (No.179) forest glass rarely survive intact and most recovered fragments are very poorly preserved. In contrast are the few fragments of Venetian glass (Nos.180-182 A-D), which although rare, are better preserved due to their chemical composition.

Although the traditional division of separating categories of material is adopted here, it is hoped that the following discussion will bring together the various materials based on function and shed some light on the people who owned and used the objects.

The objects comprise personal possessions, communal objects used in everyday religious and domestic life as well as a range of household fittings and fixtures .

The earliest dateable finds are of 13th to 14th century date while the majority are likely to have been in use during the last years of monastic occupation, being typologically of late 15th to mid 16th century date. The remainder belong to later phases of occupation including one, possibly two Civil War period items (Nos.9, 22).

Personal Possessions:

The range of personal possessions from the friary include dress fittings, jewellery and accessories. However, there are relatively few personal items dating to the earlier phase of the friary and none are certainly attributable to the friars. All are fairly mundane objects reflecting a broad date range.

Dress fittings comprise mainly buckles (Nos.1-10) and a range of belt fittings (Nos.11-22). A collection of small mounts (Nos.23, 24) and bosses (Nos.28, 29) may be belt or book fittings. Drawn wire pins (No.37) and lace-tags (No.38) both used as dress fasteners are well represented. Two iron spurs (Nos.122, 123) are evidence for equestrian activities of the guests rather than the friars. The few items of jewellery include an annular brooch (No.30), finger rings (No.31, 34, 35), large plain rings serving as buckle or brooch frames (No. 32, 33), and a dress-pin (No.36). This type of material was often associated with burials. Two seal matrices (No.39-40), a pair of tweezers used as page holders, (No.41), part of a possible 'toilet' implement (No.42) and a purse frame (No.43), used with a leather or cloth purse, are all accessories carried on or about the person. A 'rumbler' bell (No.44) and clay-pipe tamper (No.45) are both late items.

In 1538 the remaining 12 friars were ordered to leave the house. Each was given twelve pence and 'their own stuffe" (Lodwick 1972, 36.). The context of their being asked to leave may to some extent explain the small sample of personal possessions.

Religious objects, church fittings and funerary items:

The few religious objects were almost certainly the property of the monastic community. They are a 13th century bronze crucifix (No.46) and two ceramic statuettes (Nos.155, 156). Beads of jet (Nos.152, 153), fired-clay (No.154) and bone (Nos.149-151) are probably parts of rosaries which could have belonged to either the lay or religious community. There is evidence that musical instruments were used in daily prayer; as a bone tuning peg (No.145), for use with a small harp, and associated iron ?tuning key (No.112) came from within the church. Religious associated objects are two stone moulds for ampullae (Nos.157, 158), the small lead or pewter pilgrim flasks used for carrying holy water or oil. A bronze hand-bell (No.47) is a communal object and may have served a spiritual or domestic function.

Among the fragments of glass are parts of vessels recovered from an area of the site that suggests use in a liturgical context (Nos.180-182). Other more valuable pieces were confiscated by the Crown at the Dissolution. An inventory 'of all the stuffe of the Grey Freeris of Karmardein' compiled at that time, suggests something of the spiritual wealth of the Community. The list included vestments and an assortment of church valuables. Of the church fittings there is part of a glass lamp (No.176), found beneath the choir-stalls and probably just one of several lamps used to light the church.

Funerary objects comprise a large collection of coffin nails with traces of wood preserved on their shanks (Brennan in James 1997, p. 186-7) iron strap fittings (Nos.137, 138) and a lead mortuary cross (No.85).

Domestic objects and household fittings:

Household objects reflect the everyday activities of the people who lived on the site over its almost continuous occupation. Cast and sheet metal cooking vessels (Nos.59-66), and iron knives (Nos.113-121) are the few surviving pieces of kitchen equipment. Drink-related vessels include glass bottles (No.172-5) and a goblet (No.179). A glass linen smoother (No.178) and copper alloy needle (No.51) are objects associated with daily domestic tasks. Also found were fragments from glass urinals (No.177), vessels used probably in a domestic context for medical diagnosis.

There are very few objects which provide information on the occupations of those who lived on the site. A single iron chisel (No.129) and lead carpenter's pencil (No.88) are the only surviving identifiable tools, both probably employed in the building trade. A portable copper alloy smelting hearth (in James 1991, page ?), slag debris, offcuts and small clippings are indicative of non-ferrous metalworking on the site, though probably on a small scale. No metalworking tools are identified, nor tools associated with leather working and textile manufacture. A small fragment of bone with simple ring-and-dot decoration (No.147) may be evidence for bone-working during the early years of occupation. Agricultural tools and garden implements are absent from the assemblage as are finds indicative of industrial processes such as distilling or fermentation, all likely activities. The coins and two stamped copper-alloy weights (No.64, 65) are evidence for commercial dealings.

Objects associated with intellectual pursuits are well represented. A collection of copper-alloy book clasps (Nos.48-56), book fittings (Nos.41, 42) and page holders (No.41) reflect a degree of literacy and suggest the presence of a scriptorium within the friary precinct. Of the nine book clasps found, seven came from beneath the choir-stalls in the church. Possible medieval writing implements are the carpenter's pencil (No.88) already mentioned, and another lead example (No.89). One possible writing implement is a length of phyllite which tapers to a blunted point (No.157). An unstratified slate pencil was is probably 18th century (No.156). The two seal matrices (Nos.39, 40), used either to seal letters or attest deeds (see below) may have belonged to a member of the local community or to a visitor.

Leisure related finds include samples of graffiti (Nos.164, 165), gaming-boards (Nos.166-170) and probable gaming-pieces (Nos.161-163). Music was clearly an important pastime as the tuning pieces (Nos.112, 145) would indicate. A direct representation of a musical instrument is depicted on a sherd of pottery, and forms an important item of graffiti (O'Mahoney 1998, 36, 56 and Plate p. 80). The few pieces of equine equipment reflect something of the use of horses in daily working life and as the main means of transport. The objects are made of iron and comprise harness buckles (Nos.124, 125), and spurs (Nos.122, 123). Surprisingly few horseshoe fragments were recovered and only one (No.126) is identifiably medieval. Two arrowheads (Nos.127, 128) were used for hunting, for sport or as items of weaponry in a military context.

Structural fixtures and fittings:

Demolition debris provides much information relating to the fabric of the friary buildings with stone and ceramic building materials forming a major part of the archaeological record. The more important buildings were furnished with ceramic roof tiles, painted windows and elaborately tiled floors. Lead, a highly valuable commodity, was used for 'flashing' (No.91), guttering and for other rain furniture as well as in windows and drainage systems.

Fixtures and fittings associated with the friary buildings also include decorative items such as lead window ventilators (Nos.79-83), a lead boss used as a window tie (No.84), and a plaster ceiling boss (No.184). The structural ironwork comprises a range of window, door and furniture fittings many of which are difficult to provenance as the same forms were used in medieval and post-medieval buildings. Objects include a variety of hinge pivots and hinges (Nos.92-99), joinery staples (Nos.100, 101), a wall hook (No.102), a possible pipe bracket (No.103) and door cladding (No.104). Iron keys (Nos.105-111) are the only surviving items of lock furniture.

Miscellaneous and Unclassified:

A number of objects would have served a variety of domestic functions. Those made of iron include a chain link (No.130), two rings (Nos.131, 132), small collars (Nos.133, 134) and a hook (No.135). Numerous binding strips and strap fittings (Nos. 136, 139) were used to strengthen pieces of furniture such as coffers and chests. Items in copper alloy include a small gilded stud (No.74), a handle (No.76), and a staple (No.77).

Certain objects are unclassified although possible uses are suggested. Those of copper alloy are a fitting of uncertain purpose (No.75) and twisted bands (No.78). Objects of lead are a decorative plug or weight (No.86), and a simple conical object, possibly a weight or gaming piece (No.87). The uncertain iron objects are a miscellany of variously complete tools and fittings (Nos.140-144). A broken bone object from an unstratified deposit is identified in the catalogue as a pin (No.146), though its use as a parchment pricker cannot be ruled out.

The Catalogue:

Due to the vast number of finds recovered only a select few are catalogued here but comprise a fair representation of the totality. Most entries are illustrated but where there are duplicate or very similar items these are not. The small find number, context and approximate date of the context is found at the end of each entry description.

The date of the context will normally indicate the date in which a find was lost or discarded, and certain items may have been quite old when lost or thrown away. These include unbroken objects, objects which had suffered partial damage but which had been repaired and those which were kept as heirlooms. A number of finds are residual or intrusive in their context due to the very disturbed nature of some deposits. Where dated parallels could be found those dates are applied here.

Archive:

Detailed archive lists of all the finds are housed with the main site archive. The archive along with all the finds is deposited at the County Museum in Abergwili, Carmarthen, Carmarthenshire.

Acknowledgements:

I should like to thank a number of people who have been involved in some way with this report over the years, in particular to present and former members of the Dyfed Archaeological Trust. Thanks are due especially to the Director of the site Terry James, who has provided help and encouragement throughout.

Thanks must go to past and present Conservators of University College Cardiff for their invaluable work: Kate Hunter, Maureen Williams and most recently Siobhan Stephenson. Their attention to detail is gratefully acknowledged.

Special thanks go to the illustrator Neil Ludlow who also acted as advisor and critic from the start of the project. His knowledge of the period added greatly to the final product.

I should like to thank the various specialists for their written contributions. They are the late George Boon, Edward Besly and Mark Redknap of the National Museum of Wales, The Reverend Dr David Williams, and Tony Parkinson. Thanks are also given to the late Robert Charleston for his help and advice with the glass and to Graeme Lawson for his comments on the music related objects.

I am grateful to Chris Delaney, Ann Dorsett and Gavin Evans, the curatorial staff of Carmarthen Museum for all their assistance.

Finally, I wish to thank Terry James for the final layout of the report and for editing the text.

The Catalogue

The Coins and related Finds

Edward Besly and George C. Boon

English coins

- | No. | Find no. | |
|-----|----------|--|
| 1. | 3754 | Short Cross cut halfpenny, London, moneyer Ilger, class 6, 1210 - 17 (John/Henry III). North ¹ 976/1. Unworn, 0.69g (10.6gr). |
| 2. | 3079 | Edward I. Durham penny, class 4a, 1282 - 9. North 1023. Worn, 1.05g (16.2gr). |
| 3. | 5140 | Edward I - II. Canterbury penny, class 10cf, crown l, 1302 - 10. North 1040. Slightly worn, corroded, 0.82g (12.6gr). |
| 4. | 3062 | Similar, but crown obscure. Worn, 1.34g (20.6gr). |
| 5. | 3743 | Henry V. London penny, 1413 - 22. North 1397. Clipped, worn, 0.62g (9.5gr). |
| 6. | 3003 | Henry VI. Calais groat, annulet issue, 1422-7. North 1424. Much worn, 2.50g (38.6gr), slightly clipped, with a small radial and larger squarish central piercing. A coin of poor appearance and low weight (the standard was 60 gr from 1412, 48gr from 1465), which has apparently been nailed through its centre to demonetise it. |

7. 3831 Edward IV. Light coinage groat, 1465-70, but contemporary base counterfeit, broken in half by bending (both halves present, so done on the spot). 0.94g (14.5gr), perhaps clipped. The legend reads WARD for EDWARD; there are an annulet and a quatrefoil by the neck.
8. 6624 Edward IV, first reign. York penny of Archbishop George Neville; light coinage, 1465-70, local dies, G and key by bust, initial mark uncertain. North 1594. Some wear, 0.65g (10.0gr).
9. 3683 York penny, 14th - 15th century. Very much worn, 0.44g (6.8gr).
10. 3709 York penny, 14th - 15th century. Very much worn and clipped, 0.42g (6.4gr).
11. 6077 York penny, 14th - 15th century. Very much worn and clipped, 0.41g (6.3gr).
12. 6623 Penny, 14th - 15th counterfeit. Rolled, with obverse visible only: crude portrait and apparently base metal, 0.60g (9.2gr).
13. 3517 Henry VII. York penny of Archbishop Rotherham, with T and + by neck, and h in centre of reverse, 1485 - 1500. North 1721. Clipped, worn, fragment missing, 0.49g (7.5gr).
14. 6076 Henry VIII. Canterbury halfgroat of Archbishop Thomas Cranmer, second coinage, c.1533-44, T and C beside reverse shield. North 1804. Little, if any wear, though weakly struck, 1.27g (19.6gr).
15. 3849 Charles I. Licensed farthing, 'Richmond' type, 1625 - 34. As Peck, BMC 149. Unworn.
16. 7070 Token halfpenny of Matthew Davies of Swansea: MATHEW. DAVIES. IN. / . SWANZEY . MERCER . 1666: | .HIS. | HALFE
| PENY . Boon² 106a. Copper alloy (the recorded specimens are brass). Corroded, 1.02g.

Likely to be a near-contemporary loss. With the advent in 1672 of official small change in copper, private tokens were banned and the vast majority seem to have been withdrawn by the middle of 1675. Circulation was generally local, though the

occasional specimen is found away from its issuer's locality; another Matthew Davies's token has been found at Llanmaes, Vale of Glamorgan.³

17. 3004 Charles II. Farthing, 1674. Much worn.
18. 3009 Charles II. Halfpenny, Irish, 1681. Worn.
19. 3025 William and Mary. Halfpenny, 1694. Much worn.
20. 5058 William III. Sixpence, 16(96?), but copper-alloy core of a counterfeit, probably intended to be foisted on to the public at the time of the Great Recoinage of 1696-7.⁴
21. 3249 William III. Halfpenny, 1696. Much worn.
22. 3846 George II. Halfpenny, young head, 1736?. Much worn.
23. 3499 George III. Halfpenny, 1774. Slightly worn.
24. 3529 George III. 'Cartwheel' penny, 1797. Worn.
25. 3856 George III. Halfpenny, 1806. Slightly worn.
26. 3523 George III. Halfpenny, Irish, 1805. Slightly worn.
27. 3006 George III. Halfcrown, 1817, Worn.
28. 3879 George III. Shilling, 1819, but copper-alloy core of a counterfeit. Common at this time when (as in 1696-7) a new style of coinage was being introduced.

29. 3010 Birmingham and South Wales Copper Token. Penny, 1812. cf. Davis, p. 153, no. 88. Unworn. The works in Swansea were between Hafod and Fforest, on the west side of the Tawe towards Morriston.⁵

Foreign coins

30. 3708 France, Charles VI. Blanc or guénar, first issue (without indication of mint), 1385 - 9. J. Lafaurie, *Les monnaies des Rois de France* Vol i (Paris-Bâle, 1951), 74, no, 381. Slightly worn, with traces of a plain-weave linen cloth adherent to the reverse.
31. 5119 Brittany, Duke Jean IV. Billon blanc of Nantes, second series, 1364-99. cf. F. Poey d'Avant, *Monnaies féodales de France* Vol i (Paris, 1858), 106, no.679. Worn, but well preserved, 1.33g. Probably counterfeit, since the weights quoted by Poey d'Avant for blancs lie between 2 and 3.3 grams.
32. 3874 Portugal, Dom Afonso V. Copper ceitil, type I, c.1449 (F. Mendes Magro, 'The metrology and dating of the *ceitis*' in *Problems of medieval coinage in the Iberian area*, edited by M.G. Marques (Santarem, 1984), pp.257 - 74). Slightly worn, 1.87g.
33. 3008 Castile and Leon, Juan II. Blanca nueva of Burgos, 1442 - 5. Cf. A. Heis, *Descripcion general de las monedas hispano-cristianas* (Madrid, 1865 - 9), pl. XII, 20, but reading IANNVS and RES; otherwise of good style. Slightly worn, 1.57g.

The four preceding coins illustrate the contacts between Carmarthen and the western shores of Europe - Brittany and Iberia - whence came chiefly salt and soap, as the Port-Books indicate.

34. 6080 Flanders, Charles the Bold (1467 - 77), silver double patard, Bruges, 1467 - 74. H. Enno van Gelder and M. Hoc, *Les Monnaies des Pays-Bas Bourguignons et Espagnols* 1434 - 1713 (Amsterdam, 1960), no.23 - 3. Worn, 2.90g (44.8gr).

The circulation of double patards in England and Wales was sanctioned by a monetary convention between Edward IV and Charles the Bold in 1469, whereby English silver was also allowed to pass current in the Burgundain Netherlands.⁶ Double patards were current at 4d sterling, their intrinsic value matching that of the English groat almost exactly; numerous hoard and single finds show that they formed a small but integral part of the currency until the 1520s, when their withdrawal from circulation was encouraged. However, several were included in a hoard from Maidstone, Kent as late as 1538, and they probably finally

disappeared from the currency during the debasements which started in 1544. In Wales, other specimens are recorded from Bodelwyddan, Clwyd (Brabant), Ewenny, Mid-Glamorgan, Llanbedrgoch, Anglesey Rudry, near Caerphilly; St. Donats, Vale of Glamorgan and Pembrokeshire (all Flanders).⁷

Jettons

- | | | |
|-----|-------|---|
| 35. | 5089] | English, anepigraphic, with the King's head as the regal coinage of 1302- 10. Berry pl.1, |
| 36. | 5090} | 6(obv.)/5(rev.) (four similar specimens). Early 14th century. 35 and 37 are |
| 37. | 5101 | die-duplicate, 21mm; 36: 19mm; |
| 38. | 3757] | 38 is fragmentary. ⁸ |
-
- | | | |
|-----|------|---|
| 39. | 3169 | English, anepigraphic, 21mm. Barnard, pl. II, 46. 14th century. |
| 40. | 3061 | English, anepigraphic. Berry, pl.1, 6/4, 4 (similar rev., but here the curved hexagon is linked to quatrefoils in the outer border. Early 14th century. Fragmentary. |
| 41. | 3168 | English, anepigraphic, 19mm. Berry, pl.3, 2 for obv., attributed to the reign of Edward II. cf. Barnard, pl.I,3 for rev., but this with cross cantoned by quatrefoils. |
| 42. | 3166 | English, anepigraphic, 21mm. Berry, pl.2, 1 / Barnard, pl.I, 18. Early 14th century. |
| 43. | 3096 | French, 26mm. Obv. 'chatel tournois' with coronet over (cf. Barnard, pl.V,28), AVE MARIA GRASIA PLE[NA] / rev. cross fleurdelysée, cantoned by fleurs de lys, with rosettes in centre and border. The chatel tournois with coronet is found on silver gros of Jean le Bon struck in 1355 and 1361: as Lafaurie, <i>Monnaies</i> , pls.XIII, 303 and XIV, 316. |
| 44. | 5092 | French, 'moor's head' or 'Roman emperor' type, 21mm. Barnard pl.IV,11. 14th or 15th century. |
| 45. | 3621 | Nuremberg, French designs, 30mm. Crowned arms of France modern, grape-bunch at either side / orb in trilobate tressure; nonsense legends. Pierced near edge. 15th-16th century. |

46. 6317 Nuremberg, 26mm. Ship type / French arms in lozenge; VIVE : BON : ROI[...]. Cf. Barnard pl.XXIX, 1-2. Early 16th century.
47. 3434 Nuremberg, 'ship' type (not examined, information from CGF database).
48. 3438 Nuremberg, 'ship' type (not examined, information from CGF database).
49. 6625 Nuremberg, 27mm. Orb / lion of St Mark; nonsense legends in 'lombardic' letters. First half (beginning?) of 16th century.
50. 6075 Nuremberg, 22mm. Stock type: Reichsapfel (orb), etc. / rose, crowns and fleurs de lys. First half of 16th century.
51. 3617 Nuremberg, 26mm. Stock type, nonsense legends. 16th century.
52. 3832 Nuremberg, 25mm. Stock type, nonsense legends. 16th century.
53. 3622 Nuremberg, 24mm. Stock type, nonsense legends. 16th century.
54. 3616 Nuremberg, 24mm. Stock type, nonsense legends. 16th century.
55. 3618 Nuremberg, 23mm. Stock type, nonsense legends, the obv. apparently dated 1540, if an annulet is interpreted as a zero. Dated jettons are rare.
56. 7047 Nuremberg, 24mm. Stock type, crudely executed. HANS . SCHVLTES . NOR / nonsense legend. Hans Schultes I, c. 1553 - 84.
57. 5148 Nuremberg, 24mm. Folded in half, the reverse visible: orb, GLVCK . BESCHERT IST VNGEWERT ('joy bestowed is unbounded'). Roman lettering, machine made. A similar specimen in the National Museum of Wales, from Flint Castle, is signed by Hanns Krauwinckel, probably the second of that name (c. 1586 - 1635).

Sets of jettons (typically, 100) were used for calculation on marked cloths, counters or table tops from the medieval period until the late 16th or early 17th century, by which time they were gradually superseded by 'modern' methods using arabic numerals. Three groupings from the site may form the fragmentary remains of individual sets:

- i. nos 35 - 37, probably from the first decade of the 14th century and linked by their production from a common obverse die. The fragmentary no. 38, from a separate context, may also derive from this set;
- ii. nos 38 - 41, probably made during the reign of Edward II (1307 - 27), from the last floors of the Infirmary;
- iii. nos 45, 47, 48, 51, 54, 55 (the last dated 154[0?]): not necessarily supplied together, these may have been used together during the grammar school period.⁹

Coin weight

58. 3742 Brass weight for an angelet or half-angel, 12.5mm, 2.38g (36.7gr), in fresh condition.

The angel and its half, introduced by Edward IV in 1465, were of fine gold, weighing 80 and 40 grains respectively, which standard was maintained throughout the 16th century. This weight is English and probably dates from the late 15th or early 16th centuries, the likely period of manufacture lying between 1496 and 1526.¹⁰

COIN BIBLIOGRAPHY

- 1 J. J. North, *English Hammered Coinage*, Vol. I (c. 600 - 1272), 2nd Edition (1980); Vol. II (1272 - 1660), 3rd Edition (1991).
- 2 C. Boon, *Welsh Tokens of the Seventeenth Century* (Cardiff, 1973).

- 3 E. Besly, 'Welsh 17th century tokens: some Tenby notes', *Seaby Coin and Medal Bulletin* No. 846 (December 1989), at pp. 296 - 7 lists 'non-local' finds of tokens in Wales, updating the list in Boon (note 2) pp.35 - 6. Llanmaes: near Llantwit Major, excavations by Glamorgan-Gwent Archaeological Trust; finds now in NMGW.
- 4 For which, in Wales, see G.C. Boon, 'A Great Recoinage hoard from Builth', *Archaeologia Cambrensis* 134 (1985), 210 -24.
- 5 W. J. Davis, *The Nineteenth Century Token Coinage of Great Britain* (1904); G. Grant Francis, *The Smelting of Copper in the Swansea District* (1881), at pp. 127 and 166.
- 6 P. Spufford, 'Burgundian double patards in late medieval England', *British Numismatic Journal* 33 (1964), 110 - 117.
- 7 Bodelwyddan: NMW 21.24/53, Wynne of Peniarth collection; Ewenny: S. Sell, pers. comm; Llanbedrgoch: P. Corbett, pers. comm.; Llantrithyd, Rudry, St. Donats and Pembrokeshire: shown at NMG, Cardiff. A Flanders double gros of the same ruler, similar in size but half the intrinsic value, has been reported from Margam, West Glamorgan (S. Sell).
- 8 Jetton references are: G. Berry, *Medieval English Jetons* (1974); F.P. Barnard, *The Casting-counter and the Counting-board* (Oxford, 1916).
- 9 See S. E. Rigold, 'Numismatica' in C. Woodfield, 'Finds from the Free Grammar School at the Whitefriars, Coventry, c. 1545 - c.1557/58', *Post-Med Arch* 15 (1981), at pp. 118 - 25, for the use of jettons and the number and range of the 16th century jettons from that site.
- 10 See N. Biggs, 'Coin weights in England - up to 1588', *British Numismatic Journal* 60(1990), 65 - 79 at pp. 74 - 6.

NON FERROUS METAL OBJECTS

COPPER ALLOY OBJECTS by DEIRDRE BRENNAN (No.10 is pewter)

(1) Buckle. Cast pointed strap-end buckle, pin missing. 14th century. A similar buckle from Trig Lane, London (Egan & Pritchard 1991, 70, fig.42, no.282), came from a ceramic phase of c.1350-c.1400.

SF.5006. C2 [977] Earliest mortar floor surface in Building 1324, mid 13th to mid 14th cent.

(2) Buckle. Simple 'D'-shaped with looped pin. Cast and finished with a rasp or file. Compare a 14th/15th century buckle from near Holywell, Clwyd (Manley & Lewis 1987, fig.3, no.1/11).

SF.3116. [111] Layer of collapsed and burnt roofing slate in room 80 of infirmary. Demolition, 16th cent.

(3) Buckle. Fragment of probable strap-end buckle, pin missing.

SF.5105. C2 [1073] Robber trench, representing east wall of building 1324. Latest pottery 17th cent.

(4) Buckle. Incomplete, pin missing. Cast oval loop with traces of adjoining rectangular shaped loop. Compare a complete example from the Dominican Friary, Guildford (Poulton & Woods 1984, fig.44, no.18).

SF.3572. [374] Oyster shell rich layer between walls [348] and structure [335]. 15th/16th cent, no later than mid 16th cent.

(5) Buckle. Small 'spectacle' or double-looped buckle, pin missing. A common type, first introduced in the 14th century. Compare similar buckles, one from London (L.M.M.C 1940, 278, pl.LXXVII, no.8), one from Bayham Abbey, Sussex (A.R Goodall in Streeten 1983, 109, fig.48, no.3) and one from Pleshey Castle, Essex (Williams 1977, 183, fig.41, no.5). 14th or 15th century but residual in this context.

SF.3443. [307] Layer of crushed mortar and stones banked over benching [308]/[226]. On south side of building 24. Represents piecemeal collapse when a standing ruin. Post Suppression.

(6) Buckle. Large 'spectacle' buckle, pin missing. Cast, with polished upper surface and grooved decoration on either edge of the frame. ? Probably a shoe buckle.

SF.3828. C1. [1] Unstratified.

(7) Buckle. Incomplete double-sided ? rectangular buckle with traces of indeterminate second loop. Cast with square chamfered section. SF.7121 [2001] Unstratified, topsoil.

(8) ? Folding strap clasp. Incomplete small square frame with non-revolving solid cylinder on front. SF.5003. C2. [977] Earliest mortar floor surface in building 1324, mid 13th to mid 14th cent.

(9) Buckle. Incomplete shoe buckle. Cast, double-sided. A roughly rectangular frame, ? pointed at both ends and with rounded terminals at each corner. Looped pin around central cross-bar. A buckle with similar terminals can be seen on a pair of Jack boots, dating to the second half of the 17th century (Halls 1970, pl.12, no.85). SF.3092. [1] Unstratified.

(10) Buckle. Shoe buckle of white metal, ? pewter. Cast rectangular frame with rotating forked cross-bar. This is the backpiece of a shoe buckle. Examples of this type which consist of a decorative front frame and forked backpiece were found in Colonial Williamsburg (Abbitt in Noel Hume 1973, figs.16-18). Large shoe buckles were apparently a fashion of the late 18th century (ibid, p.26). SF.3405. [1] Unstratified.

(11) Buckle-plate. Incomplete. Triangular plate formed from a single piece of sheet metal folded over. Remains of a leather strap between. Two projecting lugs (one broken) and cut recess to take a buckle frame and pin. Upper surface gilded. All three edges bordered with punched decoration. Three domed bronze rivets intact. A gilded buckle plate with similar decoration, but of rectangular form, was found at St. Aldates, Oxford (A.R Goodall in Durham 1977, fig.30, no.4), in phase II contexts, c.1400-1550. SF.6001. [1527] Unstratified, topsoil.

(12) Buckle-plate. Small rectangular plates formed from a single piece of sheet metal folded over double. Two projecting lugs and central recess with fragment of buckle frame and looped pin in situ. Single bronze rivet at open end with remains of leather strap enclosed between plates. SF.6619. [1873] Burnt layer below much of the east end of the choir. Probably the destruction layer of a timber building. 13th cent.

(13) Belt fitting: Plates possibly from folding clasp. Rectangular plate formed from a single piece of sheet metal folded over. Remains of leather strap between. One bronze rivet in situ and one large perforation ? for lost rivet or buckle pin. Front plate with notched edges, back plate plain. SF.3993. C2 [871] Post-medieval destruction layer in area C2, outside walling of Friars' Park. Post 16th cent, probably 18th cent.

(14) Belt fitting: Plates possibly from folding clasp. As no.13 but plain. Two bronze rivets in situ at open end and one central perforation. Remains of leather strap between plates.

SF.6634. [1951] Fill of an open space covered by a suspended floor on the north wall choir. Late 15th to first half of 16th cent (Dissolution).

(15) Belt fitting: Plates possibly from folding clasp. As nos.13 and 14. Two bronze rivets in situ. Remains of leather strap between plates. Possible re-use of a larger buckle-plate; the type with two projecting lugs and central recess.

SF.7046. [2045] Fill of pit [2046]. 16th cent ?.

(16) Strap fitting: Plates from folding clasp or strap-end. Single piece of sheet metal folded over double and fastened at open end with one iron rivet. Remains of leather strap enclosed between plates. Front plate decorated along open edge with small triangular notches.

SF.6310. [1765] ? Choir-stall void of former suspended floor. Late 15th to first half of 16th cent (Dissolution).

Nos.13-15 and possibly no.16 are plates, possibly from folding clasps. For the type see examples from London (Egan & Pritchard 1991, 116-120). They are known there from contexts from the late 13th/early 14th to early 15th century (op cit, 116). The folding strap clasp was designed to be used with a frame which had a folding end clasp and not a buckle pin. Nos.13 and 14 both have central perforations which may have taken a pin.

(17) Strap-end. Incomplete. Thin sheet metal plate soldered onto cast forked spacer plate, twin outer plate missing. Traces of solder on existing plates, both with file marks for keying. A leather strap would have been held between the three plates with three rivet holes on the outer plate for fixing. The forked central plate has an ornamental moulded terminal with incised lattice decoration. A very similar strap-end was found at the Swan Lane site, London (Egan & Pritchard 1991, 140, fig.92, no.648), from a ceramic phase dating c.1270-c.1350. The detached outer plate from a strap-end of the same shape, found at the Baynard House site (op cit, 140, fig.92, no.649), was from a ceramic phase dating c.1350-1400. Mid-late 14th century or early 15th century.

SF.5106. C2 [1074] Fill of stone-lined drain [1116], in building 1324. Latest pottery 16th cent.

(18) Strap-end. Of the same construction as no.17. A very badly corroded example. The original surface which may have been decorated is now lost. A mid 14th century effigy of a lady, at Clehonger, Hereford, is seen wearing a strap-end of this type (L.M.M.C 1940, 267, fig.84, no.11). A typology of Medieval belt fittings (Fingerlin 1971, 218) places this type in the second half of the 14th century. A similar but decorated example, from St. Aldates, Oxford (A.R and I.H Goodall in Durham 1977, 148, fig.30, no.20), came from a phase II layer, dated c.1400-1550.

SF.5125. [1155] Construction trench dug to receive benching [1149] and later benching [1130] in room 1100, building 1323. 14th to 16th cent.

(19) Belt fitting. Two rectangular plates held together by four bronze rivets, one at each corner. A central perforation pierced through both plates from behind. Remains of leather strap between. Front plate decorated with three semi-circular notches at either end, back plate plain. Plates of this type are not uncommon. Cf similar examples from the Dominican Friary at Guildford (Poulton & Woods 1984, fig.43, nos.14-16), where they are identified as belt ends. See also one from Bordesley Abbey, Redditch (Rahtz in Hirst, Walsh & Wright 1983, 177, fig.67, no.20), recognized as a book-strap binding, the perforation apparently fitting over a prong on the other end of the strap (ibid, 177).

SF.3789. [504] Post-suppression destruction layer in the Chapter house. 16th to early 17th cent.

(20) ? Strap-end. Sheet metal folded over and fastened at open end with two bronze rivets. Remains of leather strap between. Front plate decorated along open edge with semi-circular notches, back plate plain. Decoration similar to no.19. Both are from the same context and may possibly be the fittings from one belt.

SF.3799. Context [504] Post-suppression destruction layer in the Chapter house. 16th to early 17th cent.

(21) ? Strap-end. Similar to no.20 but plain. Remains of leather strap between plates.

SF.3944. C2 [799] Unstratified, uncertain context.

Nos.20 and 21 can be compared with examples from London (Egan & Pritchard 1991, 158-60 & fig.104), where they are thought to be strap-ends. The wide gap at the fold (see No.21) may, it is suggested, have taken a buckle frame. It is presumed that folded sheets of this form could be adapted for use either as strap-ends or cut and pierced for use as buckle plates (op cit, 158).

(22) Mount. Incomplete rectangular sheet plaque with hollow domed central boss. Openwork decoration at both ends and triangular notches cut out at the corners. Five rivet holes for attachment, possibly to a belt.

SF.3987. C2 [500] Civil war period ditch. Post 1783, pre 1786. Latest pottery 18th century.

(23) Mount. Square plate with a triangular notch cut out on each edge. Central rivet hole for attachment, probably to a book or belt. Similar plates have been found at the Dominican Friary, Guildford (Poulton & Woods 1984, fig.44, no.27), at Bordesley Abbey, Redditch (Rahtz in Hirst, Walsh & Wright 1983, 177, fig.67, no.28a), and from Coventry (Woodfield 1981, 95, fig.6, no.84).

SF.6082. [1610] Fill of void below choir-stall on south wall. Mid 15th cent to Dissolution.

(24) Mount. Incomplete rectangular plaque of thin sheet metal. Repousse crown and heart with foliage decoration at each corner. Two small rivet holes for attachment.

SF.3080. [92] Collapsed and burnt roofing material in room 84. Post-suppression period ?.

(25) Fragment of thin sheet metal with decoration of repousse line and dots.

SF.6314. [1783] Choir-stall void below former suspended floor on south wall. Mid 15th cent to Dissolution.

(26) Fragment of thin sheet metal, scalloped along one edge. Repousse cables, lines and chisel-engraved decoration. One small rivet hole ? for attachment. For decorative detail compare a buckle-plate from London, (A.R. Goodall in Crossley 1981, fig.61, no.4), dated to c.1500.

SF.6620. [1853] Dump to make new floors sealing a layer of tile impressions. 14th to 15th cent.

(27) Fragment of thin sheet metal with decoration of chisel-engraved zig-zag lines, bordered above and below with horizontal lines. Similar decoration can be seen on a buckle-plate from Oxford (A.R. & I.H. Goodall in Durham 1977, 148, fig.30, no.1).

SF.7098. [2168] Layer overlies upcast from digging of the foundation trenches of the Friary Church. Mid 13th to 15th cent.

(28) Boss. Incomplete circular domed boss of thin sheet metal, now crushed. Two rivet holes around circumference for attachment, probably to a book or belt.

SF.3718. [363]. An animal bone dominated layer in building 24. 16th century, no later than early Suppression period.

(29) Boss. Incomplete domed hemisphere. Decoration of one set of concentric circles around central punched dot. Traces of organic material on interior, possibly leather or cloth. Remains of a white metal, probably tin, on the rim. No rivet holes on surviving half though possibly mounted on a book or belt.

SF.6632. [1951] Fill of an open space covered by a suspended floor on the north wall choir. Late 15th to first half of 16th century.

(30) Stud. Small decorative stud with domed hollow head and short square sectioned shank. Upper surface gilded. For attachment to leather or wood. A common type throughout the Medieval period and later.

SF.3612. [382] A loam deposit confined between walls [333]/[335] and above [404]. 15th to 16th century.

(31) Fitting ?. Small rectangular plate with acentral perforation. Four protruding bronze rivets, all round-headed with circular sectioned shanks.

SF.3216. [149] Slate layer below midden [72], south of room 51. Late 14th century ?.

(32-38) Book clasps. Various complete. They all consist of a narrow rectangular plate, hooked over at the narrow end. The other end is splayed and decoratively cut with notches. Nos. 32, 33 and 36 have incised decoration. Nos. 36-38 retain their backing plates and Nos. 37 and 38 have fragments of leather preserved between the plates.

The Friary book clasps are all of late medieval to early post-medieval form. Similar clasps have been found at St. Frideswide's, Oxford (AR Goodall in Scull et al 1988, 39, fig.21, nos.1-3) and from Coventry (Woodfield 1981, 94, fig.5, nos.48-52). One from Basing House, Hampshire (Moorhouse 1971, 59, fig.25, no.162), is thought to pre-date the building of the house in c.1531. Clasps of this type were not only for use on books. Compare a clasp on a Chrismatory dating to the late 15th or early 16th century (Oman 1962, pl.XXVII B).

32. SF.3960. C2 [1] Unstratified; 33. SF.3152. T9 [1] Unstratified; 34. SF.6617. [1951] Fill of an open space covered by a suspended floor on the north wall choir, late 15th to first half of 16th cent; 35. SF.6087. [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution; 36. SF.6038. [1535] Demolition rubble; 37. SF.4012. C2 [901] Latest destruction layer of building 1324. Demolition; 38. SF.6315. [1783] Choir-stall void below former suspended floor on south wall, mid 15th cent to Dissolution.

(39) Book clasp ?. Incomplete. Small sheet fragment, hooked over at one end. Semi-circular notches along edges and incised decoration on the upper surface consisting of zig-zag and horizontal lines.

SF.6088. [1610] Fill of void below choir-stall on south wall. Mid 15th cent to Dissolution.

(40) Book clasp ?. Incomplete. Small rectangular plate with a narrow hook at both ends. Iron pin through hook at one end. Faint incised decoration on iron-stained surface.

SF.6311. [1765] ? Choir-stall void below former suspended floor. Late 15th to first half of 16th cent (Dissolution).

(41) Eye from book clasp ?. Small, cast rectangular plate, pointed at one end. Two projecting lugs hooked over at other end and central recess with pin in situ. Two perforations pierced through. Pointed hinges of this type were probably from books. Two such hinges were found from excavations at St. Frideswide's, Oxford (A.R Goodall in Scull et al 1988, 39, fig.21, nos.4-5). Another three examples were found in Coventry (Woodfield 1981, 97, fig.6, nos.101-3).

SF.6078. [1584] Fill of medieval pit. 15th to 16th cent.

(42) Eye from book clasp ?. Incomplete. Similar to No.42.

SF.4062. C2 [944] Earliest layer of post-suppression building debris of building 1324. 16th cent.

(43) Page-holders. Complete four-piece object. The handle is made from a single strip of sheet metal folded over and squeezed together below the fold, forming a suspension loop and allowing a small collar-ring to slide up and down the handle. The business end consists of twin rectangular plates which are soldered onto the handle. The sliding collar ring is designed to close and open the plates. Fine tooth-wheel or punched decoration along edge of handle.

It is thought that 'tweezers' of this type were used to open the pages of a book or possibly for handling gold-leaf (A.R Goodall in Crossley 1981, p.67). A similar pair but with decorated plates, was found at Winchester (Biddle & Hinton in Biddle 1990, 756, fig.215, no 2326A), identified as page-holders, clips for holding pages open or down. It is argued there that the large square plates would make them inefficient for use as a cosmetic item.

Page-holders of this type have a date range which covers the medieval period. The Winchester pair came from an early to mid 13th century context (op cit, 756). A pair from Bayham Abbey, Sussex (A.R Goodall in Streeten 1983, 109, fig.48, no.14), were from a medieval context. Further parallels are listed by F Williams, with reference to a pair from Pleshey Castle, Essex (1977, 185, fig.41, no.9), which was found in a late medieval context.

SF.3986. C2 [500] Civil war period ditch (found in spoil). Latest pottery 18th cent, post 1783, pre 1786.

(44) Brooch. Annular brooch with recess bar for swivel pin. Half the ring has a twisted cross-section. A common medieval type. Compare a similar brooch from St. Ebbe's, Oxford (A.R Goodall in Hassall, Halpin & Mellor 1989, fig.60, no.3). 14th century.

SF.3420. [270] Block of redeposited subsoil. Remnant benching. Late 13th to early 14th cent.

(45) Finger ring. Sheet metal ring with simple incised decoration bearing a floral motif.

SF.6618. [1941] Grave. Found on the finger of a female skeleton. Not well stratified. 16th cent or earlier.

(46-49) Rings. No. 46 is possibly an annular brooch or buckle frame, both of which would have had a looped pin. No. 47 maybe a brooch, buckle frame or belt-ring; the type used with two sliding plates. See one such belt-ring from Castell-y-Bere (Butler 1974, fig.6, no.6). No. 48 possible finger-ring. No. 49 Plain pennanular ring formed from strip of sheet metal, the ends overlapping.

46. SF.3946. C2 [776] Fill of large pit, latest pottery 14th to 15th cent; 47. [73] Midden outside south wall of room 51, late 14th cent ?;

48. SF.6312. [1783] Choir-stall void below former suspended floor on south wall, mid 15th cent to Dissolution; 49. SF.6086. [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

(50) Dress pin. Square-sectioned, circular head with 'D'-shaped perforation and simple incised decoration. SF.3071. [89] Layer overlying room 97 and features on west side of the southern little cloister alley. 18th cent.

(51) Needle. Made from rolled sheet metal, hammered to a point at the tip. Oval eye in countersunk groove. SF.3767. [481] Slot in room 84, 13th to 14th cent. The shafts of two similar needles were recovered. (i) SF.7041. [2005] Demolition rubble, Post-medieval; (ii) SF.7085. [2071] Fill of pit, Post-medieval.

(52-58) Fragments of cast cooking vessels. Nos. 52-56 are rim fragments. No. 57 is the leg and foot of a cauldron. No. 58 is the leg and foot from a skillet or tripod jug. It might be suggested that these vessel fragments represent miscasts which were discarded or set aside for re-melting. 52. SF.3363. [1] Unstratified; 53. SF.3365. [194] Post-medieval stone-lined drain, 18th cent; 54. SF.6079. [1603] ? Fill of a void below the choir-stall, mid 15th cent to Dissolution; 55. SF.6221. [1718] Post-hole group, possibly associated with late 19th/early 20th century building on the site; 56. SF.6309. [1765] Choir-stall void below former suspended floor, late 15th to first half of 16th cent (Dissolution); 57. SF.3472. [144] East-west robber trench forming south wall of building 198, 16th to 17th cent; 58. SF.3219. [151] Latest floor and the only clay floor, in room 52, late 15th to first half of 16th cent (Dissolution).

(59) Handle. Cast, heart-shaped drop-handle with loop attachment. A metal chafing dish in the National Museum of Wales of 16th-17th century date has an identical handle (Lewis 1978, 35, no.43). See also Type B in Lewis's type sequence of metal chafing dishes (1973, 63-64, fig.1. B1). For dateable parallels compare the same type from excavations at Oyster Street, Portsmouth (Fox & Barton 1986, 231, fig.145, no.4), found in a late 16th century level. Another, from 16th-17th century levels at Southampton (Harvey in Platt & Coleman-Smith 1975, 265, fig.245, no.1864), was identified as a door handle. Door handles of this shape are generally larger. SF.3234. [173] Dump of building rubble over building 198 and 177, 19th cent.

(60-61) Sheet vessel repairs ?. No. 62 Sheet metal patch with 'paperclip' rivet in situ. No. 63 Consists of three thicknesses of sheet metal. Two sheets of a similar thickness are riveted onto a rectangular reinforcing strip of slightly thicker metal. Five round-headed bronze rivets (one lost) and one 'paperclip' rivet secure the outer sheet. Soot blackened on interior.

60. SF.3821. B1 [504] Post-suppression destruction layer in the Chapter house, 16th to 17th cent; 61. SF.5141. DEG [1248] Fill of stone-lined drain in room 1325, building 1323, early 14th cent ?.

(62-63) Rivets. 'Paperclip' rivets made from folded sheet metal. These represent a common type of rivet, used to repair vessels (see nos. 62-63 above). They are frequently found on medieval sites, see for instance, two examples from Wharram, Yorkshire (A.R Goodall in Andrews & Milne 1979, 112, fig.57, nos.60-1).

62. SF.6085. [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

63. SF.6633. [1951] Fill of similar void on north choir wall, late 15th to first half of 16th cent.

(64) Weight. Flat circular 4oz weight. Cast. Stamped with the City of London and Guild Company hallmarks. The letters 'EL' (Elizabeth I) are just visible. Other marks include the City dagger and 'A' for avoirdupois. An avoirdupois weight is a 'weight scale based on a pound of 7000 grains' and was used for commercial weighing (Connor 1987, 362). Above top left is stamped the Founders' 'ewer'. The ewer is stamped on bronze weights up to 1826 (Graham 1979, 10-11).

SF.3151. T9 [1] Unstratified.

(65) Weight. Flat circular quarter oz weight. Cast with file marks on the reverse. Stamped with the crown and one other uncertain mark.

SF.4034. C2 [907] ? Post-suppression destruction layer of building 1324, 16th cent or later (seals destruction layers containing 16th cent pottery).

(66) Bell ?. Fragment of bell with suspension lug, but without internal clapper. Cast in one piece. Compare one similar example from St. Neots Priory (Tebbutt 1966, 53, fig.5, b), associated with late 15th century pottery and a late 15th or early 16th century coin. Another, from Basing House, Hampshire (Moorhouse 1971, 59, fig.25, no.158), might be slightly later in date.

SF.6156. [1572] Layer below and above building debris, 16th cent.

(67) 'Rumbler' bell. Upper half of small beaten bell. Cast in one piece with a circular suspension lug. Two irregular holes pierced on either side of lug. Internal iron pellet missing. Small bells of this type were in use throughout the middle ages and later. They were to be found on harnesses, on dog collars, on belts and as falconry bells (A.R Goodall in Crossley 1981, 70). Post-medieval.

SF.3823. [86] Post-medieval stone-lined trench in room 52, building 28. Post construction of Friars' Park boundary, late 18th to 19th cent.

(68) Purse frame. One of two pendant frames, incomplete. Cast and finished with a rasp or file. Loop at unbroken end for attachment to the main bar and perforated flange on frame for attachment to a cloth or leather bag. Decorated with incised lattice pattern, a ? niello infill surviving in part. Cf.

L.M.M.C types A1 and A2 (1940, pp.164-5), types dated from the late 15th to the mid 16th century. A purse frame from the Manor of the More, Rickmansworth (Biddle, Barfield & Millard 1959, 184, fig.19, no.22), has similar decoration and comes from an early to mid 17th century context. Another, from Southampton (Harvey in Platt & Coleman-Smith 1975, 262, fig.244, no.1811), is early 17th century.
SF.4067. C2 [922] Destruction layer. Post-suppression of building 1324, 16th cent.

(69) Handle ?. Small handle. Cast and finished with a rasp or file. One small perforation at each end for attachment.
SF.3075. [103] Post-medieval accumulation of soil in south cloister garth, 17th cent.

(70) Implement. Long narrow strip of sheet metal tapering to a point at one end. Pierced hole at top end for ? loop attachment. Small ? pivoting lug on inner surface. One part of a set of linked 'toilet' implements or one half of a two-part object.
SF.6445. [1838] Grave fill, 13th to 14th cent.

(71) Staple. Cut sheet metal strip with ends bent downwards.
SF.3766. [402] Drain, 14th to 15th cent.

(72) Twisted bands. Long narrow strip of sheet metal twisted through its length. Two small perforations, one at each end. 'S'-shaped link of circular section through one of the holes.
SF.3999. C2 [871] Post-medieval destruction layer, outside re-walling of Friars' Park, post 16th cent, probably 18th cent.

(73) Clay-pipe tamper. Cast ring with hollow screw terminal.
SF.3824. [86] Post-medieval stone-lined trench in room 52, building 28. Post construction of Friars' Park boundary, late 18th to 19th cent.

(74) Pins: Types A-E (The archive lists types with contexts)
138 pins were recovered from the Friary excavations. Of the total 77 are complete. The remainder are incomplete, 40 being headless shanks. The pin, a general purpose item, was used primarily in the making and fastening of clothes. Such a simple item changed very little over a long period of time. Tylecote (1970, 190) notes that the spiral-wound headed pin (Types A, B and C at the Friary), had a long life with a date range from the mid 16th to the late 18th century. Small numbers of the type have turned up in 14th century contexts, for instance, at Southampton (Harvey in Platt & Coleman-Smith 1975, 258, fig.241, no.1760). Tylecote (ibid) also notes that variation in the neatness of the head is not a useful guide to dating pins.

(74 continued...)

Type A. Shortest 20mm; longest 40mm.

Round, generally flat-topped heads formed from circular-sectioned wire, coiled once or twice around the shank. On a number of examples the shank protrudes slightly above the coil. 52 pins were recovered, these being the commonest type at the Friary.

It might be argued that Type A pins are earlier than Types B and C. These are the only types which produced meaningful concentrations. 27 of the 52 pins came from the fill of a void below the choir-stall on the south wall. As the fill of the void is thought to post-date 1450 and has a terminus ante quem of 1538, the pins must therefore pre-date the Dissolution.

Type B. Shortest 26mm; longest 53mm.

Large spherical heads. Spiralling of the coiled wire is usually obvious. A number of pins have a white metal (? tin) plating on the shank. 18 pins fall into this group.

Type C. Shortest 21mm; longest 42mm.

Small spherical heads formed from circular-sectioned wire coiled around the shank. Heads are neat and regular and the coiling is not always obvious. These are of the type whose heads were annealed and then squeezed or stamped onto the shank, a process which was in use during the mid 18th century (Tylecote *ibid*, 184). 23 pins were identified as being of this type.

Type D. Shortest 46mm; longest 52mm.

Pins formed by hammering flat the shank at one end. Only two examples of this type were found. It is possible that these represent unfinished pins. Compare an example from Southampton (Harvey in Platt & Coleman-Smith 1975, 268, fig.245, no.1883), dated to somewhere between the 16th and early 18th century.

Type E. Shortest 43mm; longest 44mm.

Large smooth spherical heads with no visible signs of coiling. The heads are socketed onto the shank. These are probably hair pins. Only two pins of this type were found, both are from the topsoil.

(75) Lace tags: Types 1 and 2 (The archive lists types with contexts)

103 lace tags were found on the site. These are small hollow tubes, open at the top end and tapering downwards to a closed point. Such tags are identified as pin point protectors in a study of the history of needlework tools and accessories (Groves 1973, pl.59). The two items are frequently found together. Sufficient organic material, however, is preserved within the tags from the Friary to suggest their use as points on the ends of leather or cord laces. Two different types were recognized. 69 are of Type 1 and 13 are of type 2. Another 21 incomplete or badly damaged examples are indeterminate.

Type 1. Shortest 19mm; longest 34mm.

Made from thin sheet metal which was rolled around the tip of the lace. Two small perforations are located at the top open end where a bronze rivet has been driven through to hold the lace in place. These are the most common and ? earliest type of tag found on the site. Stratified examples are from 15th and 16th century deposits. The most significant concentration came from the fill of a void below the south wall choir-stall which has a terminus ante quem of 1538.

Type 2. Shortest 24mm; longest 30mm.

Made from sheet metal, the edges of which are folded into the centre so that they overlap. The lace is secured without the use of a rivet. Type 2 tags came from 16th century and later deposits.

SEALS

DAVID H. WILLIAMS.

(76) Seal matrix. Circular (of die-face). Height: 20mm.
Dimension: 18mm.

Weight: 6.98 gms. Date: About 1300.

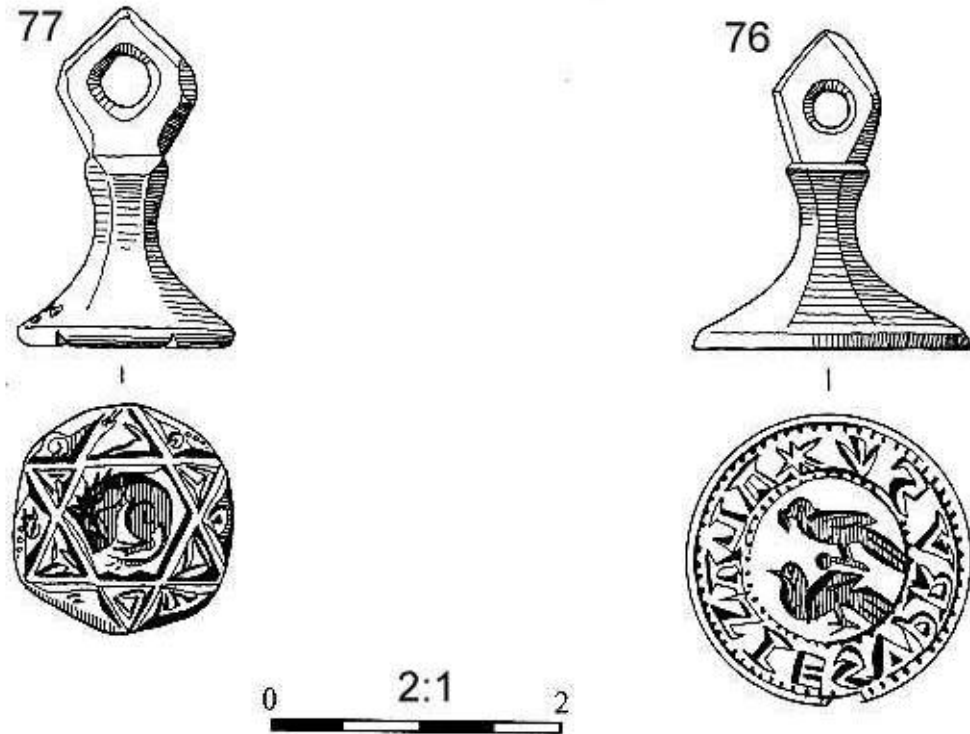
Image: Of quite fine workmanship, this matrix portrays two birds seemingly at rest. The upper (perhaps a crow or hawk) holds in its beak a portion of food (possibly a smaller bird or rodent); it appears to be perched, its claws gripping a twig or branch; the bird beneath is lifting up its head, expectantly may-be, but its beak is closed.

Legend: In Lombardic Capitals, within a double beaded border:

* ALAS IE SV PRVS * (for the more normal, 'Alas, je suis pris' : 'Alas, I am captured').

The late Stuart Rigold (in *Antiquaries Journal* LVII (1977) Part II, pp. 324-329) gives examples of similar image and legend, and suggests that such seal matrices were commonplace, of a wide distribution, and bought 'off the peg'. (I am grateful to Mr. J. M. Lewis of the National Museum of Wales for drawing my attention to this reference).

SF.3486. [340] Top of buried soil in South Cloister garth, north of drain [11]. Dating: 16th century pottery.



(77, illustrated previous page) Seal matrix. Hexagonal (of die-face). On upper surface of rim, three small holes arranged almost trefoil-wise. Height: 21mm. Dimension: 15 x 14mm. Weight: 4.99 gms. Date: Early 14th century.

Image: This matrix portrays a Star of David, otherwise called the Trinity Star, a frequent device on seals of the period, and in this instance lightly ornamented by tracery or foliage. Within the centre of the star is a crouching animal, facing front and possibly dormant; it has a furry coat or a mane, and a quite long tail; perhaps a squirrel or fox or even a lion. (No Legend).

SF.3452. [314] Remnant floor within building 198.

These two seal-matrices are both of non-armorial design, and such as were used by lesser folk who might need to employ a seal, but who did not have the right to portray heraldic devices thereon. They are both impersonal seals, bearing no proper name, and, therefore, affording no clue as to the identity of their owners. It has been suggested that they were seals used for closing letters, rather than for attesting deeds, but this is a debatable point. More importantly, they show the presence of their owners at the Grey Friars site, whether as employees, traders, pilgrims, or travellers taking a night's lodging, it is impossible to say.

Both matrices have upon their reverse a projection or terminal, primarily to allow of easy handling and usage. The projection is in both cases pierced for reasons of security - to allow the passage of a cord to attach the matrices safely to one's person or one's clothing (perhaps to one's belt) if journeying, to one's property if at home.

A CRUCIFIX FROM CARMARTHEN GREYFRIARS

by MARK REDKNAP

During the excavations at Carmarthen Greyfriars, a copper-alloy figure of Christ was found below a medieval floor. The figure, which measures 73 mm high, and has an arm span of 54.5 mm (originally c.70 mm) is inclined to the left, with eyes closed as Corpus Christi. The beard is depicted by incised lines on the chin. One nail fastens the feet, right foot overlapping left. A hole for a nail passes through the palm of the right hand, but the left arm below the elbow is missing. The arms are straight, perpendicular to the body, which shows a slight curvature, further emphasized by the folds of the loincloth, which is fastened by a rolled length of cloth around the waist, knotted on the left side of the body / left hip, and falls below the knee. The hair falls in front of the shoulders on both sides. The legs are cast as one, with knees bent, and with toes indicated by simple lines.

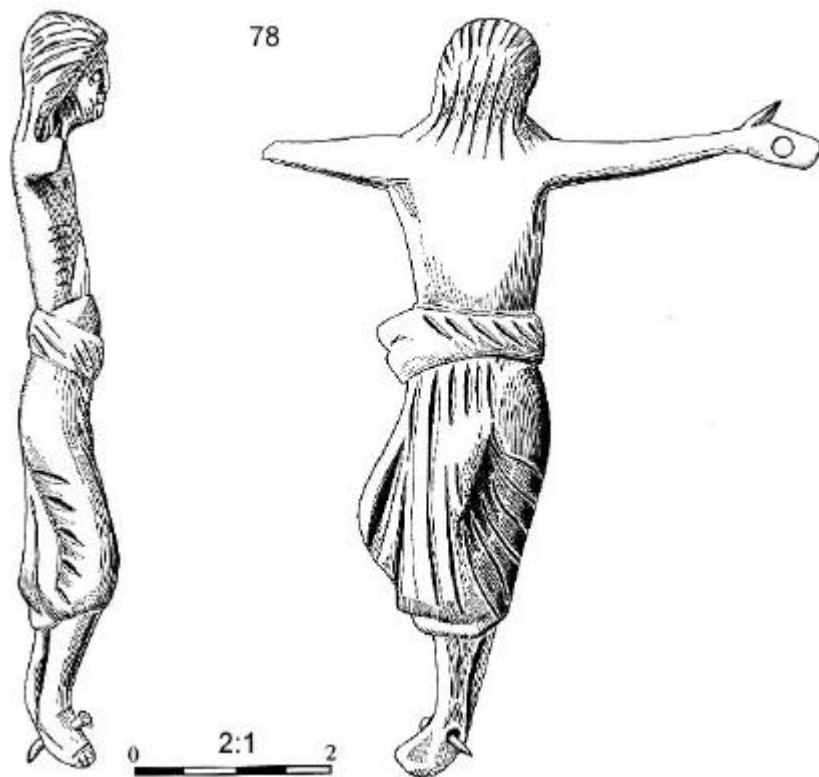
SF. 6447. [1868] Within Church. Probable dump to raise the floor levels to the west of altar step [1919].

Discussion.

Representations of the human figure in Romanesque or early Gothic art are not commonly found in metalwork in Wales, and the number of known examples is small (1).

Direct comparison with other examples would indicate a date in the first half of the 13th century. Earlier representations of Christ on the cross show feet separately nailed, but later fashion preferred the feet crossed and secured by a single nail (2). This development is well illustrated by an unprovenanced cross from the collections of the National Museum of Ireland, which had the left leg behind the right at a late date (P.1269; O'Floinn 1987, 175). The manner of depiction of the loincloth, with V-shaped folds, can be found in the early 14th century.





Similar Early Gothic posture can be seen in illuminated depictions of the crucifixion, such as that in the Psalter of Robert de Lindesey (before 1222; Soc. of Ant. of Lond. MS 59). Traces of rigid ornamental earlier Romanesque style are suggested in the linear depiction of the ribs and chest, and straight arms, also visible on wooden sculpture such as the polychrome Christ from the church of Fresvik-Leikanger, Sogn, Norway c.1230-45 (3). A similar pose but more realistic modelling of the body can be found on a bronze Christ from the Maas area dated c.1200 (V and A. No.1935-1955; Bloch 1973, 262 Nr.126), and similar hair modelling on one dated to the second half of the 12th century from the same area (Koln Schnutgen Museum Inv. Nr. H75; Bloch 1973, 260). Another parallel with similar pose and modelling of the loincloth, with crossed legs, appears on the processional cross of Henry of Flanders, dated post- 1206 (Vaterlein 1977, cat.568) (4).

The combination of stylised modelling and early Gothic features suggests a date in the mid 13th century or slightly later, which is in accordance with the terminus ante quem proposed for the tile floor, thought to date c.1300-1325 (James 1997, 118-9). The royal foundation of Carmarthen Greyfriars c.1250-80 suggests that the cross may have been presented at or shortly after its foundation.

FOOTNOTES

1. The Monmouth Crucifix c.1170-80 from the Church of St Mary, Monmouth is one of only two complete English altar crosses of Romanesque period to survive (Stratford 1984, 246). Hollow Romanesque Christ figures of early 13th century date are known from Criccieth Castle [as Christus

Rex: 35.289] and Strata Florida Abbey [27.319/3], and a 15th-century gilt copper-alloy processional cross, now at the National Museum of Wales, came from the Llangynllo area, Powys [59.386] (Trans Radn.Soc). A gilt brass processional cross was discovered in April 1873 'whilst a grave was being dug in the west side of the churchyard of the parish of Guilsfield' (now in Welshpool Museum; Mont.Coll. 1987, vi, 407 and RCHMW Montgomery, 41). Wooden rood figures of Christ survive from Mochdre [54.116] and Kemeys [35.289].

2. Such as on the 14th-century processional cross in the Victoria and Albert Museum, and an early Gothic cross from Spain in Antwerp Museum (V199, ca.1300).

3. Now in the Historical Museum, University of Bergen. It shows linear modelling of chest and arms. Another example with similar modelling of loincloth, hair and chest, comes from the church of Enebakk, Akerhus, Norway (Council of Europe 1968, cat 61).

4. The less stylised silver gilt Christ on the Irish Domnach Airgid, dated to the first half of the 14th century, has a similar posture and more naturalistic modelling.

LEAD OBJECTS

By DEIRDRE BRENNAN (other than window comes).

(79) Window ventilator. Incomplete square panel. Cast with openwork decoration of quatrefoil tracery. An identical panel of lead of approximately the same dimensions (4 in. square), was found at the 13th century Augustinian Priory at Haverfordwest (Clapham 1922, 334). The Haverfordwest piece has the remains of a fixing on the reverse. A small fragment of the same pattern was found at the Cistercian monastery of Stanley Abbey, Wiltshire (Brakspear 1907, 515, fig.8).

SF.3435. [205] Basal fill of robber trench [196]. South wall of building 24 on the west side, late 16th to early 17th cent.

(80) Window ventilator. Corner fragment. Pattern as no.78 but cast in a different mould.

SF.4061. C2 [944] Earliest layer of post-suppression building debris of building 1324, 16th cent.

(81) Window ventilator. Small fragment. Pattern similar to nos.78-79.

SF.3242. [173] Dump of building rubble over building 198 and 177, 19th cent.

(82) Window ventilator. Small fragment. Cast. Part of what appears to be a four centred arch pierced by three or more cinquefoil headed openings, which are separated by mullions. (see: reconstruction).

Several examples of this type with miniature architectural detail are known. Compare a 14th century panel from Clarendon Palace, near Salisbury (Borenus and Charlton 1936, 84, fig.10) and a 15th century panel from Stanley Abbey, Wiltshire (Brakspear 1907, 515, fig.8). Further 14th and 15th century examples have been recorded at Fountains Abbey, Yorkshire (Geddes 1986, 262-3, pl.130).

SF.3996. [1] Unstratified in Area C2.

(83) Window ventilator. Incomplete panel of approximately 4 in. square. Cast, with openwork decoration consisting of eight cinquefoil-headed openings around a central circle. At each corner of the square is a quatrefoil motif.

SF.3996. [1] Unstratified in Area C2.

Nos.79-83. There has been some discussion as to the function of these decorative lead panels with reference to similar finds recovered elsewhere. Another possible use, attributed for instance to an openwork strip found at Pleshey Castle, Essex (Williams 1977, 193-5, fig.44, LEAD 1), was as a mount for a book or casket, the plain flat back of which may suggest removal from a surface. The Clarendon panel, was without doubt used as a ventilator as lead binding from the window survived (ibid, 84). A stone mould for a ventilator from Neath Abbey, Glamorgan, has been studied by Rigold (1977, 334-6). He notes that the products of such moulds are very often found near the reredorter in a monastic context, where he indicates the necessity for ventilation. A lead panel from Bayham Abbey, Sussex, had such a findspot (A. R Goodall in Streeten 1983, 111-12, fig.49, no.6).

(84) Boss. Decorative finish to a tie for holding leaded window to metal glazing bar. Cast in the shape of a star or starfish and then sometime deliberately crumpled. Upper surface gilded. Decoration of beaded ribs along each of the six arms. Two similar gilded lead objects (not crumpled), described as stars or spangles, were found unstratified in the Chancel at Hulton Abbey, Staffordshire (Wise 1985, 51, fig.32, LD.4). Further examples are known from Henry III 's Palace, at Clarendon, near Salisbury, found during the 1936 excavations. It is thought that they were used there as wall decorations (see: Steane 1985, 14-15, fig.1.5).
SF.3962. [1] Unstratified in Area C2.

(85) Cross. Complete small cast cross. Although not found in a grave, this is probably a mortuary cross. Small crosses, very often of lead, were placed with the dead, a common practice from the 11th to the 13th centuries (see A. R Goodall and Christie 1980, 260, with reference to a possible mortuary object found at Denny Abbey, near Cambridge). A small iron cross of similar size was found at Sandal Castle, Yorkshire (I.H Goodall in Mayes Butler 1983, 248 & fig.9, no.205).
SF.3921. [530] Fill of stone-lined drain in areas A3 and F1. 14th cent ?.

(86) Weight ?. Complete. Cast circular disc with counter-bevelled edge. Raised floral motif with central loop for suspension. The object is hollow through half its section, with one small hole on the reverse and another smaller hole immediately above in section.
SF.3220. [165] Unstratified, disturbed layer in area 2.

(87) Weight or gaming piece ?. Cast lead cone of solid circular section. SF.3990. [837] Fill of drain [929] in area F1, late 13th to early 14th cent.

(88) Carpenter's pencil ?. Small bent rod of square section, with one end splayed and flattened, the other end ? broken. Similar lead objects, pointed at one end and flattened at the other, have been found at Winchester (Biddle & Brown in Biddle 1990, Class III, 744 & 746, fig.212, nos.2301-2307). It was suggested there that the flattened chisel-shaped end might be designed for ruling lines on a page or on a plank.
SF.3391. A1/3 [239] Stone drain, 16th cent.

(89) Writing lead ?. Sheet lead, rolled and then shaved to a roughly square section. Tapering to a sharpened point at one end. SF.6228. (a). [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

(90) Off-cut. Small piece of rolled sheet lead.

SF.6228. (b). [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

(91) Sheet lead. Three sheets of lead folded in on each other. The central sheet has four square rivet holes on its outer edge. Probable roofing lead. [2057]. Building debris in fill of drain [2059], 16th cent.

In addition to the above objects there were many fragments of scrap waste, mostly clippings and small off-cuts. These and other fragments of molten waste were most numerous in room 84 of the Infirmary, where there was evidence for Dissolution smelting activity, associated with a cupellation hearth, for the extraction of silver from lead (Courtney in James 1991, 86-7).

IRON OBJECTS

by DEIRDRE BRENNAN

The catalogue below includes only a fraction of the ironwork recovered from the site. Objects not included consist of numerous small fragments, of which very little can be usefully said and many are beyond recognition. All of the ironwork was X-rayed (UCC labs) and an archive list was completed. The iron nails, which comprise building and coffin types have been dealt with in the main structural report (James 1997, 186-7)

Objects selected for inclusion here are ones which are common to most sites at this period. It is notoriously difficult to date iron objects closely as many of them changed very little over a long period of time. For instance, certain tools and items of building ironwork were often simple shaped objects which reached their maximum efficiency at an early stage in their development. Dateable objects include those which changed as a result of fashion, for example spurs and some dress fittings. Certain other dateable objects, most notably keys, altered as a result of fashion but also developed due to the technological advances in their design.

Building ironwork.

(92-94) Hinge pivots. These were used to support doors and window shutters and came in a range of sizes. No.92 is a common type, it retains lead caulking which secured it in a rebate cut in the stonework. No.93 has down-turned ends for setting in masonry. No.94 is a small example with circular upright and square sectioned tapering shank, probably for use with a window shutter.

92. [237] General dump below [213] in building 24, 18th cent; 93. [2054] Fill of robber trench, representing robbed out east wall of Church. Post-Suppression, latest pottery 17th cent; 94. [121] ? Exhumation. One of a number of pits cutting into South cloister alley, coffin-shaped, proportioned and orientated, 15th to 16th cent.

(Not illustrated) Three large hinge pivots of the same type as no.92.

SF.3207. [64] Layer of collapsed and burnt roofing material within room 52 of the infirmary, building 28, 16th cent.

(95-99) Hinges. Nos.95-97 are strap hinges. No.95 is incomplete and retains two, possibly three round-headed rivets. No.96 is small with a single rivet hole, both ends are broken. No.97 has a U-shaped hanging loop and simple rounded terminals. It has two large round-headed rivets with square sectioned shanks. The rivets are inserted, one from either side and then clenched. For a similar but not identical example see one from St. Ebbe's, Oxford (I.H. Goodall in Hassall et al 1989, 228 & fig.64, no.57). The U-shaped loop or eye was for suspension on a hinge pivot (op cit. 228). Nos.98 and 99 are two-leaved hinges, both are pinned. Examples from Winchester (I.H. Goodall in Biddle 1990, 975 & fig.303, nos.3460-63) and from Basing House, Hampshire (Moorhouse & Goodall in Moorhouse 1971, 41 & figs.18-19, nos.40-49) display the wide range of shapes and size of pinned hinges. They were used on doors as well as on cupboards, chests and other items of furniture. The strap on No.98 has a simple fish-tail terminal. No.99 has one iron rivet in situ.

95. SF.3207. [64] Layer of collapsed and burnt roofing material within room 52 of the infirmary, building 28, 16th cent; 96. [1610] Fill of void [1633] under raised floor of south choir-stall, mid 15th cent to Dissolution;

97. SF.3267. [92] Collapsed and burnt roofing in room 84 of the infirmary, 16th cent, Post-Suppression period; 98. [392] Grave. Cutting mortar floor [377] of south cloister, south alley, 15th to 16th cent; 99. [60] Destruction debris in room 84 and passage to west, Infirmary, 16th cent.

(100-101) U-shaped staples. No.100 is square in section, the ends of the arms are bent in opposing directions. No.101, a large example, is of rectangular section, tapering to a point on the short arm. Staples like these were for use with timber and masonry joints.

100. [64] Layer of collapsed and burnt roofing material within room 52, 16th cent; 101. [126] Dump of building rubble, between side walls of robbed drain [58], 15th/16th cent.

(102) Wall hook. For driving into masonry joints or timber. Compare one from Sandal Castle (I. H. Goodall in Mayes & Butler 1983, 246 & fig.6, no.102), from a phase dated c.1450-1484.

[121] ? Exhumation. One of a number of pits cutting into south cloister alley, coffin-shaped, proportioned and orientated, 15th to 16th cent.

(103) Bracket. Part of angled strap with one expanded terminal extant. Retains two iron rivets for fixing. Possibly a bracket for a wall pipe. [513] Layer of destruction debris, 16th to 17th cent.

(104) Door furniture. One of three large triangular plates with riveted corners. One large round-headed rivet in situ. Further detail obscured by corrosion and roofing shale encrusted on the surfaces.

SF.3206. [64] Layer of collapsed and burnt roofing material within room 52, 16th cent.

Keys.

(105-111) Keys. Nos.105 and 106 are medieval keys. No.105 has a circular bow and asymmetrical bit. No.106 is incomplete, retaining part of a circular bow and broken stem. The x-ray (UCC labs) showed a hollow shaft with remains of the stem inside which was apparently riveted in place. Nos. 107-111 are door keys, all large heavy duty types. The kidney-shaped bow on Nos.107-109 is a feature on 15th century and later keys (LMMC 1940, 141). One other typical late feature is the projecting tip of the stem on no.110, which combined with a symmetrical bit, allowed the key to be used from either side of the door (ibid, 141-2). Nos. 107, 108 and 111 with asymmetrical bits, are types which could only be used from one side of the door; the hollow tip on the stem was designed to fit over a pin in the lock (ibid, 136). The heavy bit on No.111 is toothed on the fore edge. This key is tin plated with traces of copper alloy on the upper part of the stem.

105. SF.5043. [1023] Mixed layer of burning that covered whole of interior area of building 1324, latest pottery mid 13th to mid 14th cent; 106. [928] Deliberate backfilling and levelling up of top drain [929] in area F1. Taking place when building 28 was constructed and drain [703] and basal slabs [721] came into operation to flush the privy 80, latest pottery 13th cent; 107. SF.3370. [220] Deposit built up to west of wall [178] which contained evidence for a small-bore water pipe [226], latest pottery 18th cent; 108. SF.6635. [1582] In robber trench fill. North East corner of Chapter house, late 18th to 20th cent; 109. SF.3279. [195] A large ditch and soakaway running NW-SE across A3 into south Cloister, 18th cent; 110. SF.3485. [337] Upper soil profile of south Cloister garth, late 17th cent; 111. SF.6020. [1517] Upper fill of stakehole [1526] which had been created when stake was removed.

(112) Key. Complete socketed key with circular bow. Possibly a musical tuning key for use with bone or wooden tuning pegs (see: bone tuning-peg No.145 below, which was from the same context). Other alternative uses are as a simple lock key or as a winding key for a clockwork mechanism or similar.

The two or three possible tuning keys known from England and Wales are of non-ferrous metal. There has yet to be found any such key or possible key in direct association with pegs or other stringed instrument remains (Graeme Lawson pers. comm.).

[1631] A fill of robber trench which contained material removed from Church. Possibly the north wall of the nave near the NE corner, latest pottery late 18th to 20th cent.

Knives.

(113-121) Nos. 113-116 are incomplete whittle-tang knives where the tang was inserted into a handle. No.116 retains part of a wooden handle. Nos.117-119 are scale-tang knives where the handle was riveted to the tang. Nos.117 and 118 have wooden handles which are fixed to the tang with small iron rivets. No.117 has the remains of copper alloy shoulder and end plates. The tang with one rivet in situ, is all that survives of No.119. Nos.120 and 121 are blade fragments. No.121 has an iron buckle with looped pin, fused to the back of the blade.

Whittle-tang knives were in use throughout the medieval and later periods. Scale-tang knives are known from the 13th century onwards (I H Goodall in Crossley 1981, 56). For classified examples of whittle and scale-tang knives see the collection from Winchester (I H Goodall in Biddle 1990, 835-860).

113 and 114. [944] Earliest layer of post-suppression building debris, giving good dating evidence for destruction of building 1324 in area C2, 16th cent; 115. [1215] Fill of stone-lined tank [1217], room 1325, building 1323, latest pottery mid 13th to mid 14th cent; 116. [1610] Fill of void [1633] under raised floor of south choir-stall, mid 15th cent to Dissolution; 117. SF.3067. [16] Demolition level. Fill of robber trench [15] and dump over bench; 118. [1545] ? Destruction layer between Chapter house and Choir, 15th to 16th cent; 119. [64] Layer of collapsed and burnt roofing material within room 52, 16th cent; 120. [282] Dump of loam, sealed by collapsed roof [277] and confined between NS steps [280] and [283], 16th cent; 121. [1610] see No.115, mid 15th cent to Dissolution.

Horse equipment.

(122) Spur. Incomplete rowel spur. Deeply curved sides with missing ring terminals (for attachment of leathers). Pointed heel crest at junction of sides and neck. Down curved neck of medium length. Rowel box retains incomplete eight pointed rowel. Early 15th century.

SF.3065. [14] Dump of rubble to south of drain [11] below topsoil, 15th to 16th cent.

(123) Spur. Incomplete rowel spur. Gently curving sides of D-section with missing ring terminals. Heel crest slightly damaged. Straight neck of medium length. Rowel box retains incomplete six pointed rowel. Probably mid to late 15th century.

SF.3066. [23] Continuation of wall [21]: A NS robber trench of former wall running parallel with [18].

Rowel spurs were in use from the 13th century, replacing the prick-spur during the course of the 14th century. (Ellis in Biddle 1990, 1038). The spur is an item which appears to have altered with the changing fashions in footwear. Nos.122 and 123 are examples of 15th century spurs. During this period long necked spurs were the fashion. The increase in the length of the neck resulted from the growing use of horse armour (LMMC, 1940, 106). The body of No.122, with deeply curved sides and pointed heel crest are features found on early 15th century rowel spurs. A spur of similar shape and size, comes from London Wall (LMMC 1940, 110, fig.35, no.2), dated to c.1425. The form of No.123 is more typical of the mid to late 15th century.

(124) Buckle. Incomplete harness buckle. Consisting of a rectangular frame. The two shorter sides have looped terminals through which a cylinder of iron is inserted. The unbroken end of the revolving cylinder has a flat circular head to hold it in place. Remains of looped pin in situ. Conservation revealed traces of a non-ferrous plating, probably tin.

SF.3366. [60] Destruction debris in room 84 and passage to west, 16th cent.

(125) Buckle. Incomplete harness buckle, pin missing. Trapezoidal frame of square cross-section. The shortest side retains a sheet iron cylinder with traces of non-ferrous metal plating.

SF.3422. [216] Dump of building debris in building 177, the top of which may represent a very late re-use of the building. Latest pottery late 16th/17th cent.

Large buckles, nos.124 and 125 (see LMMC 1940, 277 & pl.LXXIX, nos.1, 2 & 3), are found elsewhere in early medieval contexts (op cit, 277), but these types lasted unaltered into the post-medieval period (Egan & Pritchard 1991, 95). A buckle of the same construction as No.124 came from the Billingsgate lorry park site, London (op cit, 95, fig.60, no.428), from a ceramic phase dated c.1270-c.1350. Another two from Winchester (I H Goodall in Biddle 1990, 530 & fig.138, nos.1303 & 1304), came from late 13th and 12th to 13th century phases respectively. The solid or sheet cylinders, were to prevent chafing from leather straps (ibid, 526).

(126) Horseshoe. Complete but with damaged calkins. One nail in situ. Probably late 15th or 16th century.

[32] Dump of building rubble, animal bone and shellfish in ditch [31], 16th cent.

Military objects.

(127) Arrowhead. Complete socketed arrowhead with two side flanges. Traces of copper alloy along the flanges and inside at the tip. For the type compare one from Worship street, London (LMMC 1940, 71 & pl.XV, no.20). A corroded example with traces of copper plating or brazing, was found at the Manor of the More, Rickmansworth, Hertfordshire; from a context dated to c.1550 (Biddle, Barfield & Millard 1959, 184 & fig.19, no.32). A number of bullet-shaped arrowheads of similar type were recovered from the Free Grammar school, Coventry (Woodfield 1981, 87 & fig.3, nos.1-9).

SF.4075. [930] Layer of destruction dating the demolition of building 1324 in the post-suppression period, 16th cent.

(128) Arrowhead. Barbed and socketed arrowhead with remains of mineralised wood in the socket. Used for hunting. A similar arrowhead from Dyserth Castle, Flint (see: LMMC 1940, fig.17, no.15), is dated 1241-63.

[1664] Layer of roofing debris that had been pushed off the roof in preparation for the demolition of the Church, late 16th to late 17th cent.

Miscellaneous objects and fittings.

(129) Chisel. Small wedge-shaped bar with burred head.

[73] Midden underlying collapsed roof [74], outside south wall of room 51, late 14th cent ?.

(130) Link.

[997] Fill of pit [998] in area C2, 14th to 15th cent.

(131-132) Rings. These could have served any number of different functions. Possible uses, considered for similar finds from Winchester (I H Goodall in Biddle 1990, 823), are as buckle frames, washers, links and strap-distributors. The large ring no.132 may have been a handle or could have been used for tethering (I H Goodall in Biddle 1990, 823).

131. SF.3247. [176] Featureless A/C horizon in area 2, 15th to 16th cent; 132. SF.3149. [122] Charred and burnt remains of a door in room 52, layer [64]. 16th cent, probably burnt in Suppression.

(133-134) Collars.

133. SF.3286. [200] Mortar floor surviving in SW side of south cloister alley forming the penultimate floor of the alley, 15th to 16th cent;

134. SF.3628. [382] Loam deposit confined between walls [333]/[335], above [404], 15th to 16th cent.

(135) Hook. Loop headed hook with bent shank, tapering to a point. Compare a similar object from Thrislington, County Durham, described there as a looped staple (I H Goodall in Austin 1989, 127 & fig.54, no.42).

[1545] ? Destruction layer between Chapter house and Choir, 15th to 16th cent.

(136) Binding strip. Small angled plate with two clenched rivets in situ.

[73] Midden underlying collapsed roof [74], outside south wall of room 51, late 14th cent ?.

(137-138) Coffin fittings ?. Incomplete straps with simple-shaped terminals. Both have a single rivet in situ. The rivets have a wedge shaped shank and narrow rectangular head. Laboratory analysis of these fragments (S Stephenson, UCC lab) revealed the remains of mineralised textiles, leaving an inprint of a fine plain woven cloth on the upper surface.

137. [1819] Fill of grave [1818] in South side of Choir, 16th cent ?; 138. [1870] Grave fill, 14th cent.

(139) Fitting. Incomplete strap with two round-headed rivets and one broken rivet. Part of a strap of the same thickness is fixed to the back at one end. Conservation revealed traces of non-ferrous metal plating.

[1226] Layer of clay that represented main substance of cob wall [1222], latest pottery 16th cent.

Objects of uncertain identification.

(140) Tool ?. Incomplete rod of solid circular section, spirally twisted through over half its length; the pitch of the twist increasing towards the end. Short tang or knob at top end.

[957] Uppermost fill of grave [974]. Uncertain date, badly disturbed.

(141) Socketed object. Incomplete with broken solid stem of square section. Possibly part of a flesh-hook, the socketed end of which would have taken a wooden handle. One other possible use was as a candle holder, the type with straight tang. Two such candle holders were found at Basing House, Hants (Moorhouse & I H Goodall 1971, 38 & fig.17, nos.18 and 19).

SF.3265. [92] Collapsed and burnt roofing material in room 84 of the infirmary, 16th cent.

(142) Socketed object. Complete. Band of metal bent to form a U-shaped loop. The ends are hammered flat and folded in on each other to give a slightly flattened oval-shaped socket.

[48] A stone-lined drain feeding a tank or sluice for privy building 80. Probably contemporary with construction of building 28, the infirmary. Pottery date range: 13th to 15th cent.

(143) Spike. Incomplete spike of solid circular section, tapering to a point at unbroken end.

SF.3148. [122] Charred and burnt remains of a door in room 52, layer [64]. 16th cent, probably burnt in Suppression.

(144) End plate or binding. Circular plate with two projecting lugs folded under.

[61] layer of crushed mortar immediately above collapsed roof in passage of the infirmary, 16th to 17th cent.

(Not illustrated) Identical plate object. [944] Earliest layer of post-suppression building debris, giving good dating evidence for the destruction of building 1324 in area C2, 16th cent.

BONE OBJECTS

by DEIRDRE BRENNAN

[I am grateful to Dr. Graeme Lawson for his comments on the tuning-peg (No.145).]

(145) Tuning-peg. Complete. Square, slightly faceted head for turning with a socketed key (see: possible tuning key No.111 above). Shaft of circular section, with slot at tip for string attachment. Diagonal scratch marks along length of shaft. Complete length 52mm.

Pegs of this type date from c.1300, continuing in use into the late medieval period (See Lawson in Biddle 1990, 711-718 for a recent discussion on pieces from stringed instruments found in Winchester). The Greyfriars peg can be compared with one from Whitby, N. Yorkshire (Lawson 1978,

140, fig.7, D), which with three other pegs, was found unstratified (Fry 1976, 139). The earliest known English parallel for this type is one from Waltham Abbey, Essex, thought to date from c.1300 (Huggins 1976, 119, fig.42).

Wear marks on the shaft are a characteristic feature of tuning-pegs; compare for example an incomplete peg from Gloucester (Lawson in Heighway 1983, 192, fig.109, no.24) where scratch marks are thought to result from twisting the peg in a socket. There is no evidence other than variation in length to associate these pegs with specific instruments; it is thought that they were for use with harps, lutes and fiddles (Lawson 1978, 141).

Dr Lawson writes 'At 52 mm this is amongst the shortest so far recovered and is probably too short to be from a harp'. He suggests the possibility that it 'could be from a *crwth* (the Welsh survival of the earlier Germanic/Celtic lyre), or perhaps from a primitive fiddle' (Lawson, pers. comm).

SF.6224. [1631] Fill of robber trench, possibly the north wall of the Church nave, near the north-east corner, latest pottery 18th to 20th cent.

(146) Pin ?. Incomplete, point missing.

SF.6015. [1507] Second fill of Post-medieval trench [1510], running east-west across TP.4.

(147) Decorated fragment. Small fragment with ring-and-dot motif.

SF.3756. Sealed by [402]. Drain running down east cloister alley of south cloister. 13th cent.

(148-151) Beads. A total of sixty two bone beads were recovered. No.148 is a small annular bead. The rest are polished spherical beads of varying size. Nos.149 and 150, both typical examples, are from a set of fifty, consisting of five large (no.149) and forty five small (no.150) beads. These and another set of eight smaller beads (no.151), are probably from Rosaries.

148. SF.4000 (a) [871] Post-medieval destruction layer outside re-walling of Friars' Park. Post 16th cent, probably 18th cent; 149 & 150. SF.3068. [92] Collapsed and burnt roofing material in room 84. ? Post-suppression period, 16th cent; 151. SF.5103. [1099] Layer of slate from destruction of building 1324, 16th cent.

Another three spherical beads (not illustrated). SF.4000 (b). Found with No.148; SF.6246. [1603] Void under raised floor of south wall choir, mid 15th cent to Dissolution; SF.6084. [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

MISCELLANEOUS BEADS

by DEIRDRE BRENNAN

(152) Jet. Complete large globular bead.

SF.3408. [266] Makeup for benching on north side of robber trench [196]. South wall of building 24 on west side.

(153) Jet. Near complete oval bead, chipped at both ends around the perforation. Compare a jet bead from Wharram, Yorkshire (Andrews in Andrews & Milne 1979, 128, fig.68, no.19), found in a late 15th to early 16th century context (Area 6, period VI).

SF.6083. [1610] Fill of void below choir-stall on south wall, mid 15th cent to Dissolution.

(154) Ceramic. Complete spherical bead. Clear surface glaze with green copper staining.

SF.6626. [1783] Choir-stall void below former suspended floor on south wall. Mid 15th cent to Dissolution.

PAINTED PIPECLAY STATUETTES

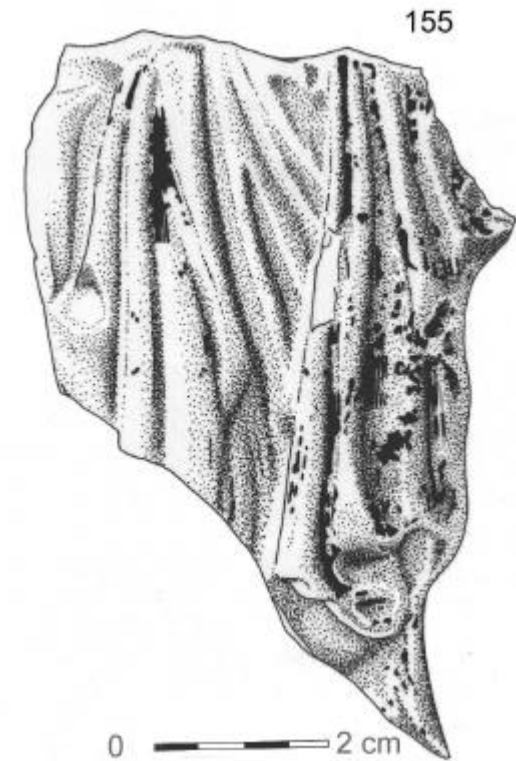
by MARK REDKNAP.

The excavations produced fragments of two ceramic figurines, both of a light-coloured off-white pipeclay containing few inclusions: very sparse sub-rounded clear/red quartz, black flecks, and some grog/pink lumps of clay with black specks.

(155) The larger fragment depicts the folded garment of a figure, and measures 80 mm high. Traces of crimson pigment remain within the folds of the garment, in particular on the figure's left hand side. This pigment is likely to be cinnabar (1). The moulded body has a flat back, which displays some evidence for being trimmed with a blade (maximum thickness 26 mm). The lower fracture reveals a narrow tubular hollow with a diameter of 4.5mm, which runs vertically inside the clay body and stops short of the upper fracture (i.e. below the waistline of the figure). This was probably made by a wooden tool placed within the body and used to release the pressed figure from its mould. The tool was then removed, and the space assisted drying and reduced the possibility of bursting during firing. On the basis of the clothing, and analogy with examples from the Netherlands dated to the late 15th-century (Voskuilen 1985), it formed part of a pipeclay statuette depicting a saint, but the absence of any attributes makes any closer identification impossible. Male saints are rarer than females (2), and it is more likely therefore that the Carmarthen figure was female.

SF.3826. C1.[521]. Slate layer probably representing collapsed material from a possible pentice roof over the eastern Cloister alley, 16th cent.

(156) The smaller but more complete fragment depicts one of the thieves crucified either side of Christ. Both of the thief's arms are bent backwards over the top of a T-shaped (tau) cross, the left arm of which is incomplete. As in the case with the other statuette, this figure has a flat back, which has been trimmed, with a maximum depth of 28.5 mm. The right leg is broken at the top of the thigh, but the left leg was trimmed before firing below the groin, suggesting that the figure may have formed part of a more complex, composite Crucifixion scene possibly for a retable, in imitation



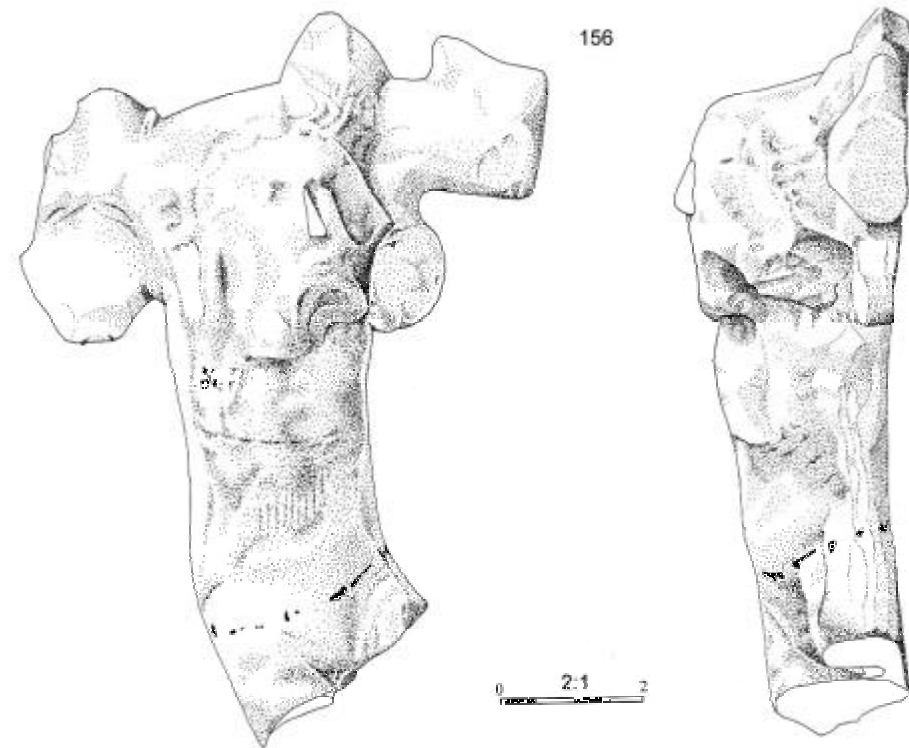
of alabaster work. The head is turned up towards Christ and crudely modelled, with a damaged nose, long hair down to the shoulders, and forked beard.

The figure is unusual in retaining evidence that it was originally completely painted. Traces of white ?gesso cover much of the front and sides over trimmed surfaces, confirming its application after firing to prepare the surface for painting. The body bears the impressions of textile in places beneath the paint, possibly the result of cleaning after release from the mould. Much of this surface was then painted a pink colour, with traces of darker brown on the hair, beard and a line for mouth blow nose. A splash of crimson remains on the right breast, and traces of two crimson lines running horizontally across the waist and on the right leg just above the fracture, delineate a loincloth.

This manner of crucifixion and late Gothic style of portraiture can be found in illuminated manuscripts from the 14th and 15th century (3). SF.4051. C2.[930]. layer of destruction dating the demolition of building 1324 in the post-suppression period, 16th cent.

Discussion.

Both of these pipeclay figures were probably manufactured in one-piece moulds. Similar statuettes have been found at Strosteege / Putsteeg and Oude Gracht 245 in Utrecht, in the Netherlands (Voskuilen 1985, afb.31-2), and a kiln for the production of small figurines dated to the last quarter of the 15th century was excavated in 1978 in Breslauer Platz, Koln (Neu-Kock 1988, 2). Examples of painted figurines are known on the Continent in Koln Museum and Schlos Holtrop (Isenburg 1977; Piepers 1960). There is at least one depiction of a woman painting a Madonna and child (wood, clay or stone) statuette in a manuscript from the Bibliotheque Nationale, Paris (Ms.fr.12420, fol.92v., 1402; Uitz 1990, plate 31). The real significance of the Welsh finds is in their occurrence as objects of religious meditation at an ecclesiastical site at Carmarthen, and their early date (4). Hitherto post-medieval examples have appeared occasionally in Britain, such as Aldgate and Queen Street in the City of London (Weinstein



1984), but medieval examples with painted decoration are rare (5). During recent excavations in Hadon St, London on the site of the nunnery of St Mary Clare, a pipeclay figurine of a crucifixion was also found (L. Blackmore, pers.comm.). Other small examples are illustrated in the Museum of London catalogue include S.Barbara and S.Catherine (1967, 293). The possibility of their production in England as copies of continental examples, or from imported moulds, is unproven. No evidence yet exists for late medieval production in England, and while the ceramic imports into south-west Wales for the 15th century are dominated by Spanish and French wares rather than Rhenish products (6), importation from the Continent via developing trade and contact with London and southern ports, associated with the growth of the re-export of wares in the last quarter of the 15th century, appears likely.

FOOTNOTES

1. Spot tested by K Hunter using drithizone gave a positive test for mercury. Cinnabar is a mercury sulphide, crystals of which were found in the base of a Merida vessel from Carmarthen Greyfriars (C.O'Mahoney, 1998, 74). As a probable import from the Gardiana river/Merida area, the cinnabar has been taken to indicate the presence of an active scriptorium at Carmarthen, though its use for painting seems as likely. The site has also produced an oyster shell pallet containing red paint, identified as madder (James and James 1987, 232). Oyster shell colour dishes are also known from Boynton church, Wilts. (Binski 1991, fig.64).

2. Exceptions being a few apostle statuettes, the eremite Antonius, and S.Quirinus.

3. Such as the Litlington Missal (f. 157 v., Westminster Abbey, 1383-4; Freeman Sandler 1986, cat 150), the Hours of Margaret, Duchess of Clarence (London, c.1430; De Hamel 1986, fig.165), the Bedford Hours (f.240, c.1423; Backhouse 1990, fig.40), the Sforza Hours (f.161 r, c.1490; Evans 1992, fig.36), and in larger works such as Robert Campin's early 15th-century Seilern Triptych.

4. A small portable pipeclay figurine of S. Catherine was discovered in Newtown in 1936, and was probably one of the cheap Andachtsbilder or devotional images intended for private worship, and produced in the Netherlands and the Rhineland in the 15th century (Hughes 1936, 134).

5. Gessoed painted pewter crucifix figures are known, but rare, such as the example from Ludgvan Parish Church, Cornwall (Stratford 1984, 245). Fragments of even larger pipeclay figures are known from excavations in Koln, where they probably adorned church interiors (Dr S.Schutte, pers.comm.).

6. Stonewares from Germany are rarely found in contexts before the end of the 15th century in Wales and south-west England.

STONE OBJECTS

by DEIRDRE BRENNAN. No.164 by Neil Ludlow.

The architectural stonework from the site is to be dealt with in a separate topic report (A. Parkinson).

(157) Mould. One half of a sandstone mould for casting a lead or pewter ampulla. A similar mould, but of chalk was found at Southampton (Platt & Coleman Smith 1975, 311 & fig.270, no.2237). Ampullae or small flasks carried holy water or consecrated oil and were taken to places of pilgrimage.

SF.3710. [248] Fill including structure of redirected drain [11]. late 13th to 14th cent ?.

(158) Mould. One half of a limestone mould for ? an ampulla.

SF.3197. [125] Intermediate layer, probably primary destruction period. Between drain [11] and wall [119]. South Cloister. 16th cent.

(159) Writing implement. Complete slate pencil of circular section with one end sharpened and blunted through use. Post medieval.

[1] Unstratified.

(160) Writing Implement ?. Length of phyllite with narrow rectangular section tapering to a blunted point at one end.

SF.6230 [1610] Fill of void below Choir-stalls on south wall. Mid 15th cent to Dissolution.

(161-162) Discs. No.161 micaceous sandstone, No. 162 Phyllite. These are perhaps counters or gaming-pieces.

161. SF.3866. [1] Unstratified in Area E1; 162. SF.6229. [1610] Fill of void below choir-stall on south wall. Mid 15th cent to Dissolution.

(163) Triangle. Shale. Purpose unknown but possibly a gaming-piece.

SF.3995. [1] Unstratified in Area C2.

(164) Graffiti. Roughly circular piece of phyllite with a figure incised on one side. On the reverse side there are a mass of intersecting lines.

The figure, probably male, has outstretched arms, is wearing a short tunic and may represent a knight or soldier. Incisions leading from both hands may depict a lance and perhaps a knife. A further diagonal incision from the waist might be an attempt to show a sword hanging from a belt.

Projections at knee height may suggest leg armour such as poleyns. One other possibility is that the figure is a religious depiction, the projections at the knees representing nail piercings. Father Kenneth Campbell O.F.M (pers. comm.) suggests that the figure could be the crucified Christ with a lance piercing his side, it being not certainly known where exactly the nails were driven.

SF.3195. [96] Robber trench defining east wall of building 198, Area 3. 16th cent.

(165) Graffiti. Fragment of phyllite with figure crudely and faintly incised onto one side. The figure may represent a celestial being. Both arms are outstretched, the ends of which appear to be feathered, depicting what may be the wings of an angel. Faint lines on the lower torso might indicate folds of cloth, suggesting perhaps the wearing of a loin cloth or shroud.

SF.6615. [1783]. Choir-stall void below former suspended floor on south wall. Mid 15th cent to Dissolution.

Gaming Boards and other incised stonework

The following interim note is by the editor because of the non arrival of a specialist report:

(166) A reused piece of roofing slate (local shale) incised crudely on both sides: 1. (left illustration) a probable gaming board consisting of squares (16) and with diagonals making 32 triangles the whole 12.2 x 12.2 cm. It bears comparison with 171 but is not the same. 2. On the other face (right illustration) the incisions consist of two columns of 11 rows (12 lines) 12.5 x 12.0 cm with an obliquely-set heraldic shield adjoining the central vertical line. There are freeform scratches down one side that could be interpreted at Roman numerals (L, X and possibly V). The left illustration is very likely a gaming board. If the latter was not present, the right illustration could be considered as a tally board given the numbers of jettons recovered from the site (see Boon and Besly elsewhere in this report). The use of *inter alia* a two column reckoning system is described by Recorde¹ (who is of course buried in Tenby), although no convincing parallel for this piece has been noted. The find comes from a midden outside the Infirmary kitchen which could place it in the 16th century.

SF.3115 - GB.

(167) Fragment of roofing slate 13.5 x 13.3 x 0.5cm with incised circles and a cross. Possibly a mason's practice piece.

SF.6225 - compass design.

(168) Fragment of reused roofing slate (Pembrokeshire phyllite) 14.0 x 12.1 x 0,6cm with a peg/nail hole with shallow linear in incisions. (incomplete and the incisions are truncated).
SF.6614 - GB.

(169) Fragment of reused roofing slate (Pembrokeshire phyllite) with a peg/nail hole with faint criss-crossed lines (incomplete and the incisions are truncated).
SF.6544 - GB.

(170) Fragment of roofing slate 11.1 x 10.3 x 0.5cm with faint incised lines forming in part a very crude grid. Doubtful gaming board. From destruction layers between choir and chapter house.
SF.6678 - GB.

(171) Fragment of roofing tile (shale) 27.2 x 21.0 x 0.6 cm. with faint incised lines on both faces. Left drawing consists of 16 squares, set in a cross pattern of 5 squares, with diagonals to each corner of the 5 squares. (cf. 166 above, but not the same). Probable gaming board. On the opposite face faintly incised, 4 vertical or horizontal lines. Possible gaming board. Discovered in an interesting location – beneath the void under the choir stalls.
SF.6613 – GB.

1. Barnard, F. P. *The Casting-Counter and the Counting Board* (1981) pp. 256-266.

VESSEL GLASS AND GLASS OBJECTS

by DEIRDRE BRENNAN

I wish to express my thanks to Mr. R.J. Charleston for his comments during the preparation of this report. The glass under discussion is of late medieval and early post-medieval date. A detailed description of later material (18th, 19th century and modern) is available as an archive report.

The glass assemblage from the Friary is small. It was found mainly within and in the immediate vicinity of the church. In content it compares well with other assemblages found in similar monastic contexts; there being a mixture of late medieval and post-dissolution material.

Amongst the group there are utilitarian vessels and one household object. These comprise fragments from bottles, urinals, a lamp and one linen smoother. All are made from unpurified common green 'forest' glass and are of probable English manufacture. Glass was produced in areas where timber was plentiful for firing. The largest known medieval glass production centre in Britain is in the Weald of Sussex/Surrey (Kenyon 1967). The Greyfriars fragments probably came from a glass making site closer to home, although there is no conclusive evidence to support this theory. Vessels made from this glass have suffered considerable decay. Originally green, most are now opaque and some are totally denatured. One other fragmentary vessel (no), in the same green glass, is distinct from the others, and is probably from a drinking vessel of North European manufacture, of late 13th or 14th century date (Charleston, pers comm).

The group includes fragments from three, possibly four ? vessels of late 15th/early 16th century Venetian glass. These vessels may have been used in the church for liturgical use, as fragments were found in the south Choir-stalls and from the area immediately south of the Choir; the conjectured site of the Sacristy (James 1997, 140-1). The finding of these precious vessels in this area is interesting. Mr R J Charleston writes: 'This provokes thoughts of the use of glass for religious purposes. There was considerable debate in the Church about the propriety of using glass for sacramental purposes (ie. for chalices).'

Of uncertain date, is a small bun-shaped disc, possibly a 'jewel' stone, [a setting] from an item of jewellery.

Green glass. English.

(172) Bottle. Rim and neck of bottle. Translucent pale green with all over surface iridescence and patches of enamel-like weathering. Out-turned rim, lip fire-rounded and slightly thickened. Neck expanding outwards towards body of bottle. Late 16th or early 17th century. Associated with

pottery of the same date. Bottles of this type occur in 16th-17th century contexts elsewhere. Cf similar rims from Southampton (Charleston in Platt & Coleman Smith 1975, 213, fig.225, nos.1573-75)

SF.3236. [164] Soakaway underlying drain [86] & [98]. 16th to early 17th cent.

(173) Bottle. Rim and neck of bottle. Pale green with patches of enamel-like weathering. Of the same type as no.1 but of a thicker metal. Late 16th or early 17th century.

SF.3277. [194] A Post-medieval stone-sided drain running into soakaway [164]. 16th to early 17th cent.

(174) Bottle. Base of bottle. Appearing black, originally green, now heavily decomposed. Small base with shallow kick. Rough pontil scar on exterior. Not closely dateable.

SF.6643. [1765] Choir-stalls on South wall Choir. Late 15th to first half of 16th cent.

Also (Not illustrated) Fragment from base of bottle. Appearing black, originally green, now heavily decomposed. Base with slight kick. Pontil scar on underside. SF.6090. [1610] Fill of void under raised floor of south Choir-stall. Mid 15th cent to Dissolution.

Nos.172-174 are from bottles. Green glass bottles were extremely common from the medieval period right through to the 17th century (see Charleston in Hare 1985, 142. with reference to fragments from Battle Abbey). Some types changed very little and for this reason it is very difficult to date fragments precisely (Charleston, pers comm).

(175) Wine bottle seal. Olive green. Stamped Terracoyd 16 V 75 ('V' for Vaughan). Tor y Coed (var. Torcoed) in Llangyndeirn parish, Carms. is recorded as 'Terracoed Fawr' in 1670 in the ownership of Lady Anne Vaughan, when it was assessed at twelve hearths (Jones 1987, 182). Last quarter of 17th century.

SF.6013. [1501] Fill of Post-medieval rubbish-pit.

(176) Hanging lamp. Base of lamp. Appearing black, originally green. Narrow rounded base with pontil-mark on underside.

The medieval glass lamp was cup shaped with a drawn-out hollow stem which was long and narrow. These lamps contained oil and a floating wick. The rim was hung by chains or chords. Alternatively it might have been placed in a suspended metal ring (polycandelon) which had a series of holes to support several lamps. (Charleston in Biddle 1990, 935-6). Most recorded examples from British sites are of pale green glass. The main body of the vessel was blown quite thin, probably to achieve the maximum light efficiency and for this reason complete lamps rarely survive. Glass lamps of

this type are mainly 13th and 14th century. A complete lamp was found in Winchester, associated with early 13th century pottery (illustrated in Harden 1969, fig.4). A development of the form was in use during the 16th century and probably later; see for example a 16th century lamp from Northampton (Oakley & Hunter in Williams 1979, 298, fig.131, GL.53). For similar base fragments compare examples from Battle Abbey (Charleston in Hare 1985, 139, & fig.42, nos.1-7), nearly all of which were found amongst Dissolution debris. Further fragments, again from a monastic context, were found at Denny Abbey, near Cambridge (Charleston in Christie & Coad 1980, 208, & fig.23, nos.1-5). SF.6089. [1610] Fill of void under raised floor of south Choir-stall. Mid 15th cent to Dissolution.

(177) Urinal. Rim of urinal. Appearing black, originally green, now with patches of enamel-like weathering. Horizontal rim, lip turned up at the edge.

This belongs to a vessel which was used mainly for uroscopy, the inspection of urine for medical diagnosis. Glass urinals were in use from the 13th century (Harden 1969, 105), right through to the 17th century (Charleston in Platt & Coleman Smith 1975, 214). These flasks, mostly of green glass, were blown very thin to enable inspection. The rim and base fragments are all that usually survive. A type series has not yet been established because of the lack of complete vessels, but there are certainly two, possibly three different shapes of urinal. Charleston discusses the different forms with reference to fragments from Battle Abbey (Charleston in Hare 1985, 139-142, fig.42, nos.10-21).

The Greyfriars fragment has close parallels with rim fragments found in 16th and 17th century contexts elsewhere. The most common type in use during that period has a spherical body with cylindrical neck and a wide horizontal rim, which is often upturned at the lip (Charleston in Platt & Coleman Smith 1975, 214). Compare one from Southampton (ibid, 221, fig.224, no.1555) found in a context dating to c.1550. Another from Winchester (Charleston in Cunliffe 1964, 150-51, fig.50, no.14), came from a context dated 1550-1600.

SF.6064. [1571] Layer under ? south Choir-stall. 16th cent.

Also (Not illustrated) Small fragment from base of urinal. Appearing black, originally green, now heavily decomposed. Possibly from the same vessel as No.177 Late medieval to 16th/17th century.

SF.6071. [1588] Fill of void under raised floor of south Choir-stall. Mid 15th cent to Dissolution.

(178) Linen smoother. Incomplete. Opaque with enamel-like weathering. Part of a solid cylindrical handle with a roughly formed collar at one end. The mushroom-shaped base is missing. Post mid 16th century, probably 17th century. Compare 16th century examples from Hutton, Yorkshire (Charleston in Crossley & Aberg 1972, fig.67, nos. 108-10).

[1587] Fill of Post-medieval rubbish-pit. Late post-med.

Green glass. North European.

(179) Goblet. Handle and body fragment. Also ten non-joining body sherds (not illustrated). Opaque with enamel-like weathering, now heavily decomposed. From vessel with lightly ribbed and wrythen body. Small handle, possibly to take a suspended ring. Handle applied from top and pulled, getting thinner to the base, the surplus glass is then trailed down the back of the handle. Not enough of this vessel survived to reconstruct a profile.

Probably from a late 13th or 14th century drinking-glass of North European manufacture (France, Belgium or possibly England), judging by the curvature of the body and the wrythen moulding. The goblets of this period stood on very tall stems and had large open bowls, the ribbing at the base of the bowl was usually quite pronounced (see: Foy 1988, form B2, 205-209 & figs.52 & 54). A number of examples are illustrated by Foy (1989, 204 - 210, nos.146-157 & Pl.XI, no.149). The small loop handle is a decorative feature (Charleston, pers comm). Similar handle fragments and 'decorative devices', from tall stemmed goblets of 14th century date, were found at Exeter (Charleston in Allan 1984, 265 & fig.146, nos.5-8). SF.6112; SF.6113. [1642] Demolition debris outside north of the Choir, east of Nave. Late 15th to late 16th cent.

Coloured glass. Venetian.

(180 A & B) Footed Bowl. Body fragments. Translucent emerald green of good quality glass with a slight dulling of exterior surfaces.

Fragment A is from ? near the lip of the bowl, of a type with out-curved rim (Charleston, pers comm). Decorated with a horizontal band of opaque white enamelled dots over gold leaf. Another band of white dots, now lost, is visible below. Fragment B is from the body of the vessel which has a curved body wall. Decoration consists of gilt bands and bands of white dots, the dots laid on top of gold leaf. A curved horizontal band of hatched lines is etched through gold leaf. Further linear decoration in red enamel is visible. Late 15th/early 16th century, Venetian.

Strongly coloured glass of Venetian manufacture was used to make vessels in the late 15th century. Deep blue, manganese and emerald green are typical colours, but green is particularly rare (Charleston, pers comm). Excavated pieces in the same coloured glass include one small fragment from Exeter, associated with pottery dating to c. 1500 (Charleston in Allan 1984, 259 & 268. PP 1583, not illustrated). Complete pieces include a vase with enamelled decoration, showing a portrait of Edward IV on one side and the royal arms of England on the other (Hartshorne 1897, 141). An emerald green goblet of late 15th century date combines enamelled portraiture and gilt decoration (Tait in Harden et al 1968, 153, no.207), and has the motto 'Amor. Vol. Fee' (love requires faith).

SF.6642. [1765] Choir-stalls. Area 3. Late 15th to first half of 16th cent.

Colourless glass. Venetian.

(181) Footed bowl. Fragment from body of ? ogee shaped bowl. Almost colourless 'cristallo' glass with incipient iridescent weathering. Fine curved glass with mould-blown vertical rib, rib tapering towards the base. Opaque white 'broken threading' in the form of dashes along length of rib. Retains part of unbroken spiral of white thread above the rib. Venetian. Late 15th or early 16th cent.

The technique of 'broken threading' was achieved by applying a continuous trail of white thread around a glass which had been in a vertically ribbed mould. The thread was then broken with further inflation, leaving dots or dashes on the ribs only (Charleston in Platt & Coleman Smith 1975, 207). An example of a bowl with this type of decoration but in blue glass is in the Museo Vetrario, Murano (see: Mentasti, Dorigato, Gasparetto & Toninato 1982, 102, no.111). Fragments from different shaped vessels but using the same decorative technique have been found on a number of English sites. A fragment found at Winchester (Charleston in Cunliffe 1964, 149, fig.50, no.7), came from a context dated c. 1550-1625. Fragments from Southampton (Charleston in Platt & Coleman Smith 1975, 207, fig.224, no.1552) and Chichester (Charleston in Down 1981, 222, fig.8.54, no.2) are thought to belong to the first half of the 16th century.

SF.6046. [1545] Destruction layer between Chapter house and Choir. Late 15th to late 16th cent.

(182 A-D) Bowls. Rim fragments. Almost colourless with bluish-grey tinge and incipient iridescent weathering.

These are probably from large footed bowls with folded rims. Rim A has a wider fold to the rim than fragments B-D. Not enough of these vessels survived to reconstruct profiles and no joins were found. Eighteen small body fragments (not illustrated) of the same colour and quality of glass were found in association. These have faint mould-blown wrythen ribs. Early 16th. Venetian.

SF.6396. [1803] South of the south wall of the Choir. Inactivity when Church remained an open ruin. 16th cent; SF.6640. [1797] East end, south of the south wall of Choir, outside Church. Late 16th cent; SF.6641 [1738] Fill of robber trench of south wall of Choir. 16th to 18th cent.

Object. Coloured glass.

(183) ? Jewel stone. Opaque light blue. Small bun-shaped disc. Plano-convex in section with flat bottom and rounded polished top.

A similar blue disc from Winchester (Biddle & Hinton in Biddle 1990, fig.179, no.2106), was found in a mid-late 13th century context and is identified as a jewel stone (ibid, 656).

SF.6100. [1580] Fill of post-medieval rubbish-pit. 17th to 18th cent.

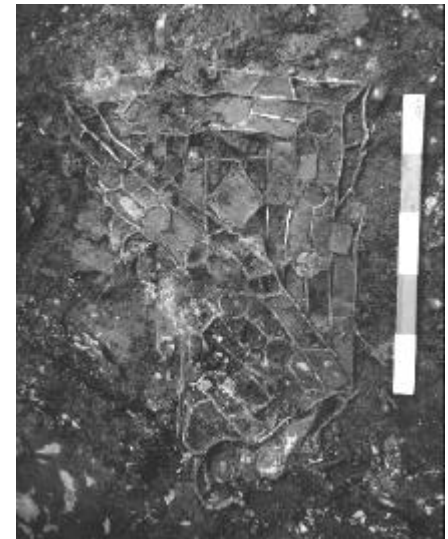
Windows Glass – a note

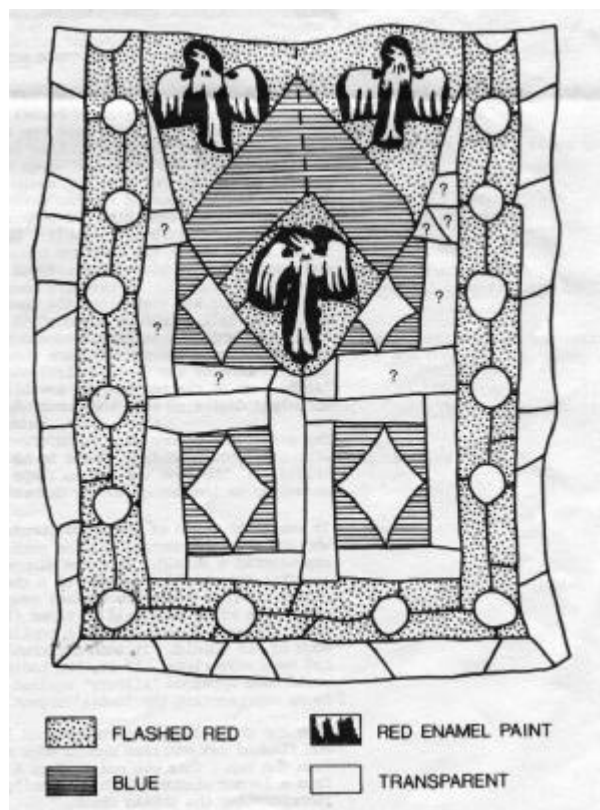
by TERRENCE JAMES

The following interim note on window glass has been provided in the absence the specialist report on window glass—which, it is hoped, may yet appear..

Numerous fragments of painted window glass, mainly individual comes, but some grouped in lead, were discovered throughout the excavations. Most came from south range of the Great Cloister (south and east walls), the choir (south wall) and the Infirmary. Ivy-leaf decoration was dominant. In addition a window panel (illustrated right, and next page) approximately 60 x 80 cms was discovered within room 84 of the Infirmary and another very crumpled one of probably similar size was recorded from the same context.

The panel was discovered in a Dissolution context amongst burnt roof timbers and collapsed roofing slate, face down apart from one portion which was folded over (plate, right). The leading was thought to be predominantly medieval type C according to Knight's typology, and was in fairly good condition (Hunter, 1987; Knight, 1983-4). The window glass was however in poor condition, largely opaque and blackened. Some colour and painting survived. The main design is geometric and consists of an outer border of colourless rectangles within which is a double row of red quarries with roundels on three sides. The lack of a fourth side at the top indicates that another panel (at least) would be needed to complete the design. Within the red border are panels of 4 lozenges in blue glass, the upper two 'overlaid' by an heraldic shield. The shield, recognised by Sarah Brown of RCHME (now English Heritage NMRC) during conservation, is made up of a ?blue chevron between 3 eagles displayed. The colours that could be recognised do not appear to follow heraldic convention—the eagles are red enamel but may have appeared silvery against clear glass (a tincture on tincture).





Dating and Heraldry Superficially the geometric design is similar to windows dated to c. 1250-1280—e.g. Salisbury Cathedral Chapter House (Sarah Brown, pers. comm, citing Westlake, 1831, i, 136-145). It also parallels to some extent the undated windows at Marston (Oxon) and those from Canterbury Cathedral (Ibid). Placing the heraldry within an historical context of the mid-late thirteenth century has proved unproductive. However Dr. Michael Siddons, Wales Herald of Arms Extraordinary has kindly provided a print-out of all heraldry with chevron between three birds. The most likely fit is the Bluet family who had Monmouthshire links (chevron between 3 eagles displayed). Walter Bluet has strong Carmarthen connections: in 1380 he was Deputy Justiciar at the Castle, and about the same time as the Friary church was substantially enlarged, in 1391-3 he was overseeing works at Carmarthen castle (Griffiths, 179). If the heraldic device is indeed Walter Bluet's (which on the above grounds seems probable), then the window would be dated some 100 years later than its design seems to suggest.

Left: Reconstruction drawing (after Hunter, 1987) of the window during conservation. The left looking of all three birds is conjectural based on the evidence of only one bird. This is the best likelihood if heraldic convention was followed.

References:

Griffiths, R. 1972, *The Principality of Wales in the Later Middle Ages* 1277-1536.

Hunter, K. 1987. 'The Friars Park Window: Excavation, Conservation and Reconstruction of the 13th century window' *Glass, Ceramics and Related Materials*, Proceedings of ICOM Committee for Conservation conference, Australia, 1987.

Knight, B. 1983-4 'Researches on medieval window lead', *The Journal of Stained Glass*, xviii, no. 1, 49-51.

Westlake, N. H. J., 1831 *A History of Design in Painted Glass* (Lond.)

PAINTED WALL PLASTER and DECORATED FREESTONE

by DEIRDRE BRENNAN and TONY PARKINSON

(A list by context is housed with the site archive)

Fragments of wall plaster were recovered from all areas of the site. The majority of these came from Post-medieval robber trenches and demolition layers. Very few pieces of painted plaster were found and most of these were from destruction layers associated with the Chapter house and the Church. Red paint was the only colour that was recorded and very little can be said about decorative detail. One fragment from within the Chapter house had a straight red line painted on a cream background. This might be evidence for painted masonry lines, a decorative scheme in use from the 13th century (Munby in Hassall et al 1989, 247-8). Similar fragments were found at St. Ebbes', the Greyfriars site, Oxford (ibid). One other fragment, which was unstratified, had a curved red line with three red spots forming part of a pattern.

PLASTER BOSS (TONY PARKINSON)

(184) Preformed plaster boss from ornate ceiling. The most likely provenance would be the Friars' or Guests' lodging, not the Church. Date: Tudor. SF.3026. Unstratified in Area 2.

DECORATED FREESTONE (TONY PARKINSON)

No decorated freestone was discovered *in situ*; all the fragments were recovered from layers which had accumulated during demolition or after abandonment. Although these layers can usually be associated with particular buildings, the fact that they are residual layers means that material within them may have originated elsewhere.

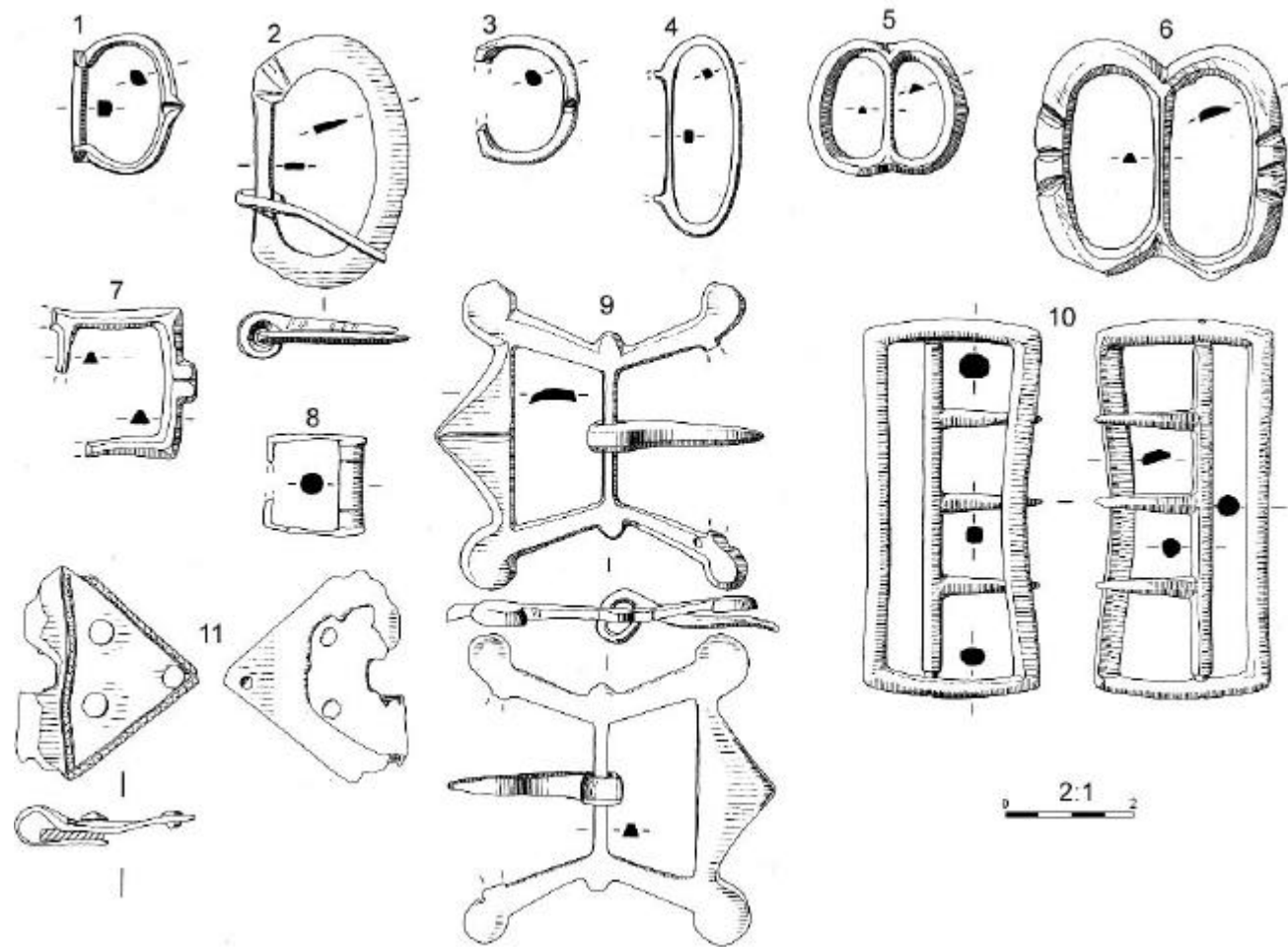
A range of mouldings has been recovered, of several kinds of stone. In general it appears that the largest mouldings were executed in sandstone, while the smaller details were in limestone. Since the fragments identified as hood-moulds and window-surrounds were of Pennant or green sandstone, in contrast to the more delicate mouldings in Oolite and other fine limestones, it is possible that the harder sandstones were used for external details, while the softer limestones were used for internal or relatively well-protected mouldings.

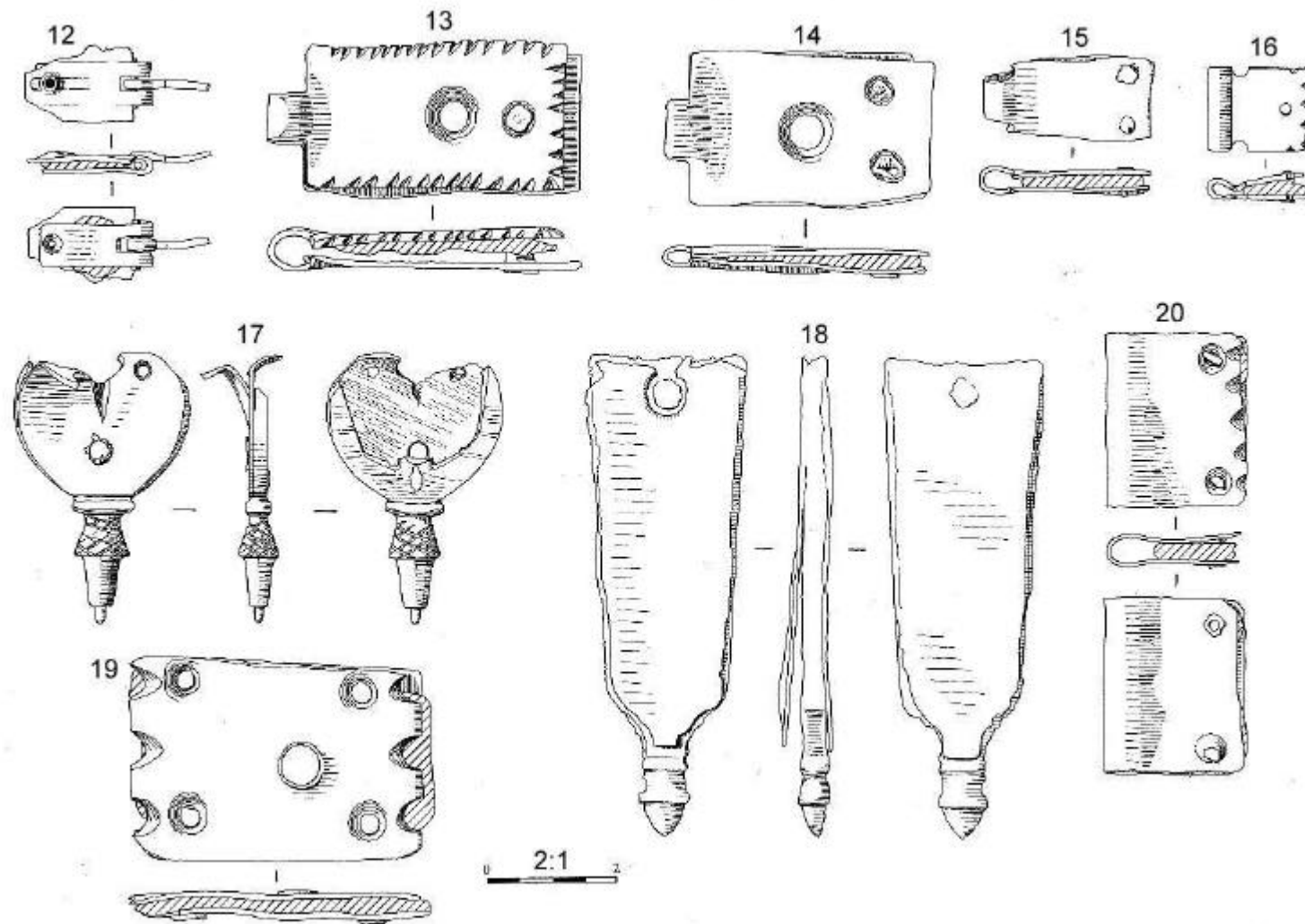
Mouldings

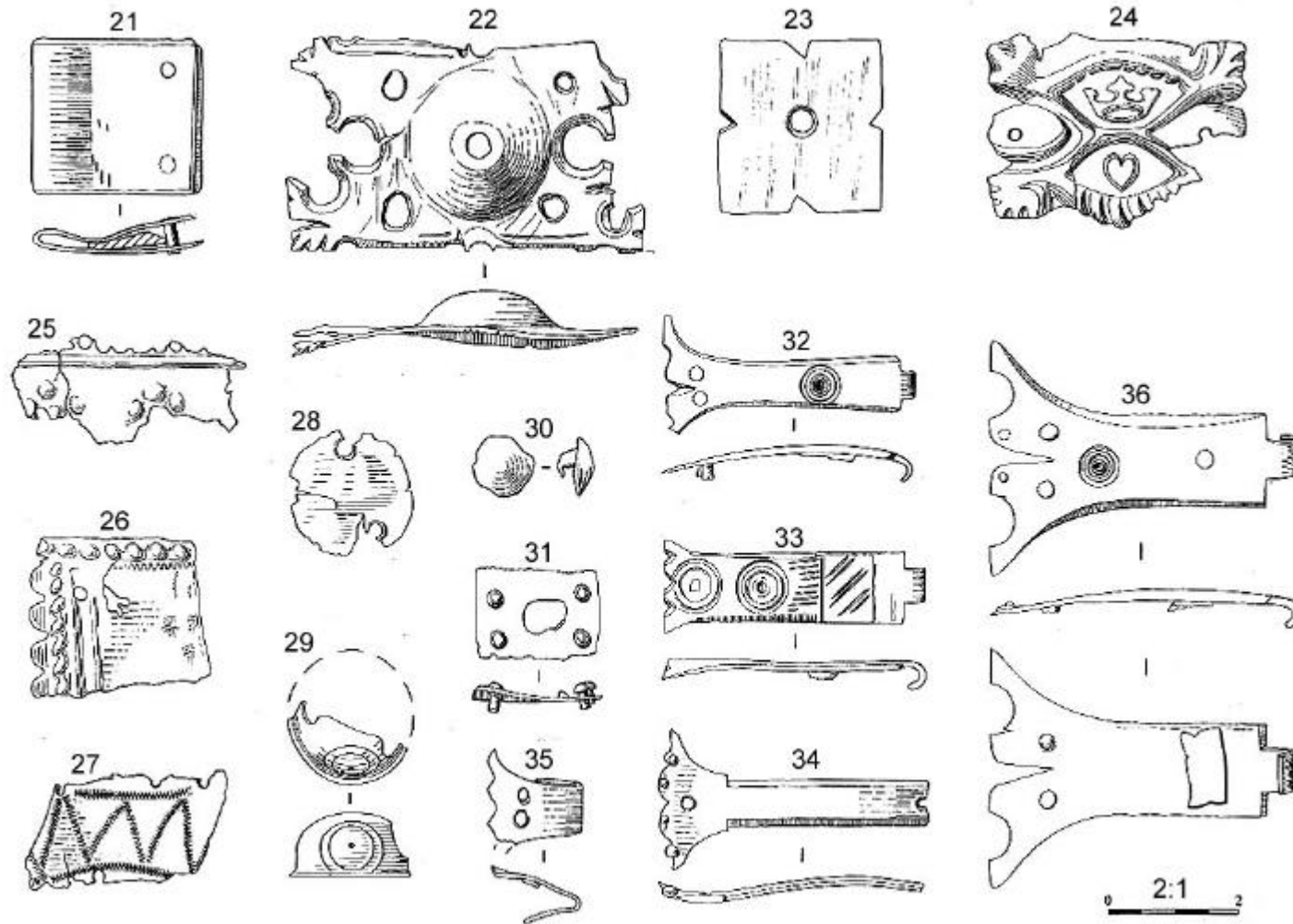
- (1) Pointed rolls (c. 60cm diameter), with deep hollows to either side; Oolite and other limestone; from compound piers, door-jambs or window-surrounds. Most came from the area of the Chapter House (with one from the Infirmary). They probably date from c. 1200-20 (cf. Llanbadarn Fawr, S doorway, *Arch. Cambrensis*, 1897, 154).
- (2) Plain rolls or small columns, varying from 50mm to 119mm in diameter; limestone (not Oolite) and sandstone; from compound piers, door jambs or window surrounds. These were found in the areas of the choir and the north cloister. They probably date from c. 1160-1240 (cf. Strata Florida Abbey, *Arch. Cambrensis*, 1889, between pages 188-9).
- (3) Various forms of scroll moulding, some with deep hollows to the outside; sandstone; probably from hood-moulds around windows. They were found in the area of the choir, and probably represent the external mouldings of the choir windows. They may date from c. 1270-1340.
- (4) Ogee or wave moulding (one only); Pennant sandstone; perhaps from the jamb of an opening. This came from the area of the Chapter House. It may date from c. 1325 onwards, so is perhaps residual.
- (5) Rolls with frontal fillets. c. 70mm diameter; Pennant and green sandstone; from the jambs of compound piers or elaborated openings. They come from the area of the choir, and may be from window surrounds. They date from the 13th-14th century (cf. Strata Florida Abbey Chapter House, *Arch. Cambrensis*, 1889, between pages 188-9).
- (6) Casement mouldings; sandstone; from the jambs of openings. These came from various locations, and probably date from the late 14th century onwards.
- (7) Facetted (semi-octagonal) mouldings of various sizes; smaller ones are in limestone (not Oolite), larger ones in sandstone; probably the sills and jambs of windows. They came from the south range of the Great Cloister and the Chapter House, and are not closely datable.

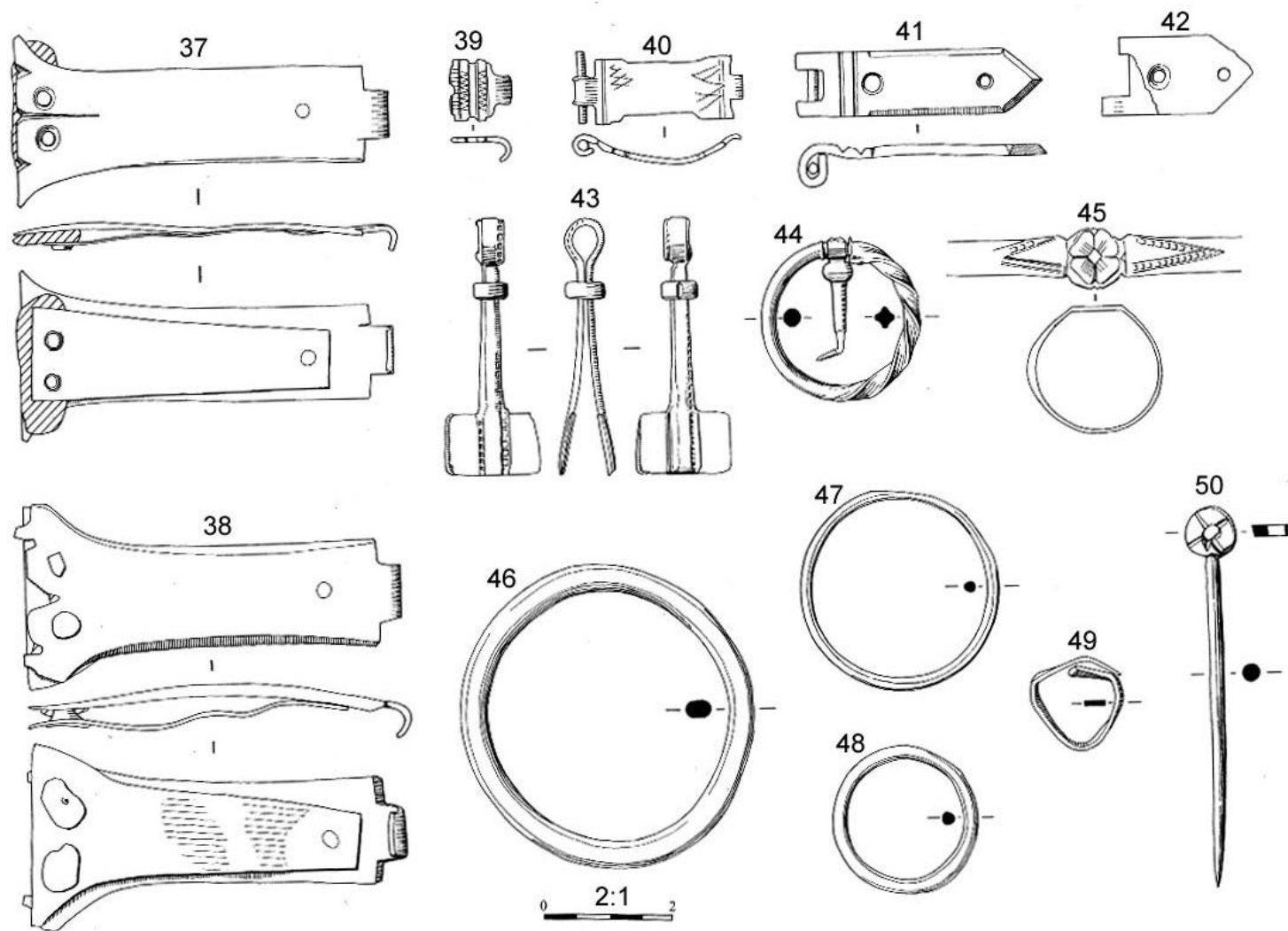
The quantity of fragments of small piers of early 13th century date suggests that the Chapter House and Choir may have been decorated with fairly elaborate compound openings of transitional Romanesque or Early English style. These may have been single main doorways (cf. Llanbadarn Fawr church) or continuous arcades of windows (cf. Brecon Cathedral choir). The relative elaboration of a chapter house needs no comment.

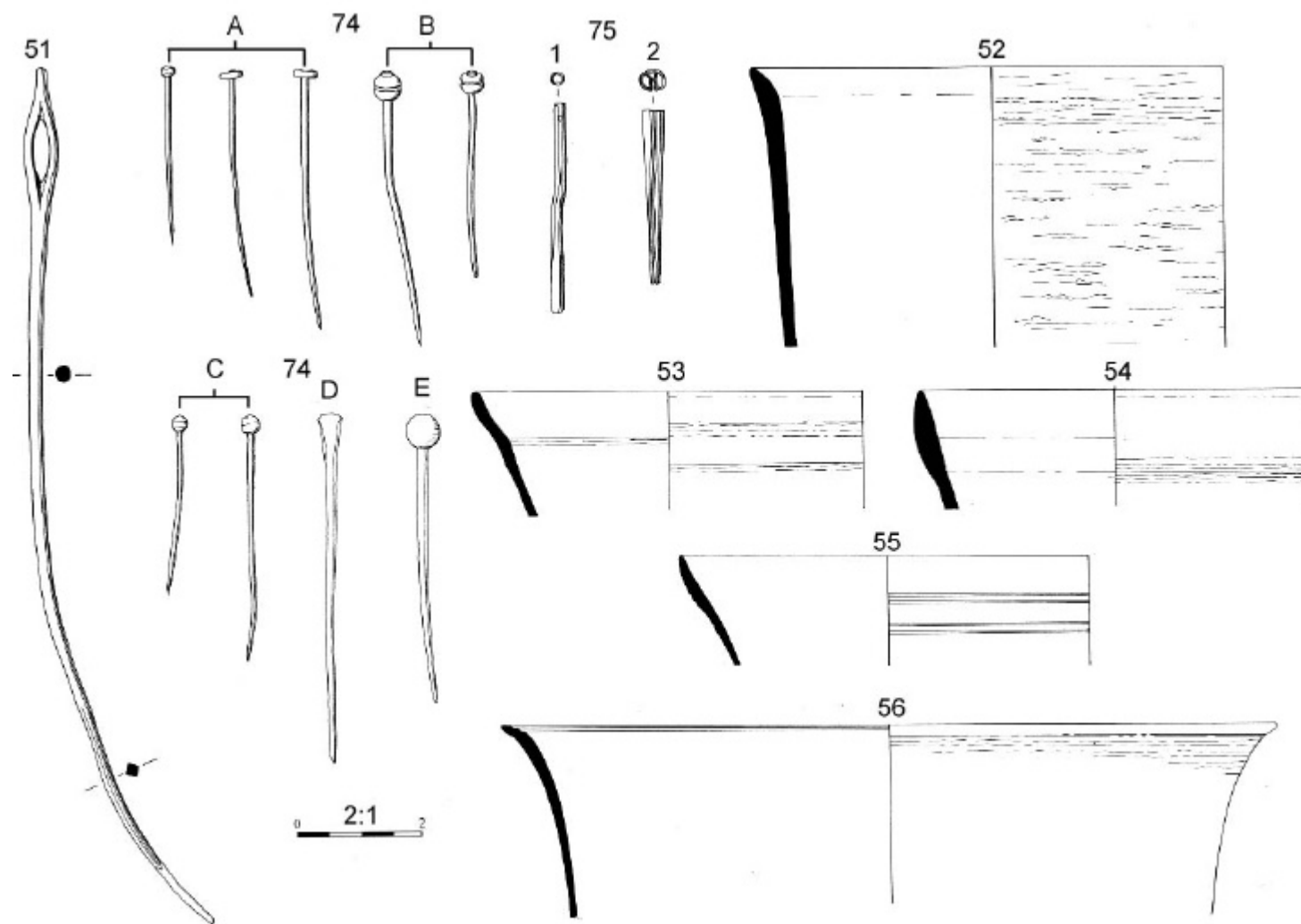
The Drawings

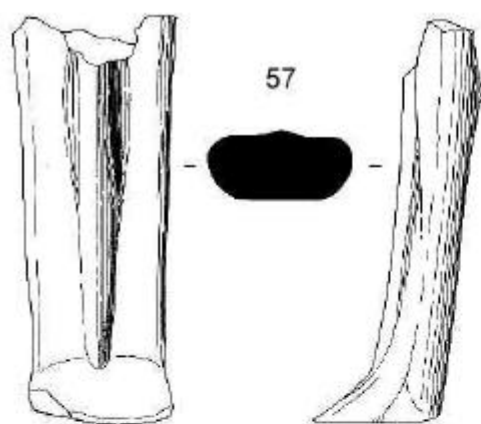




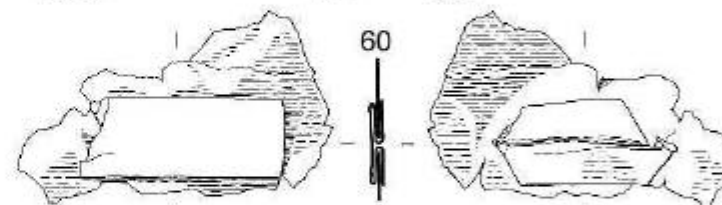
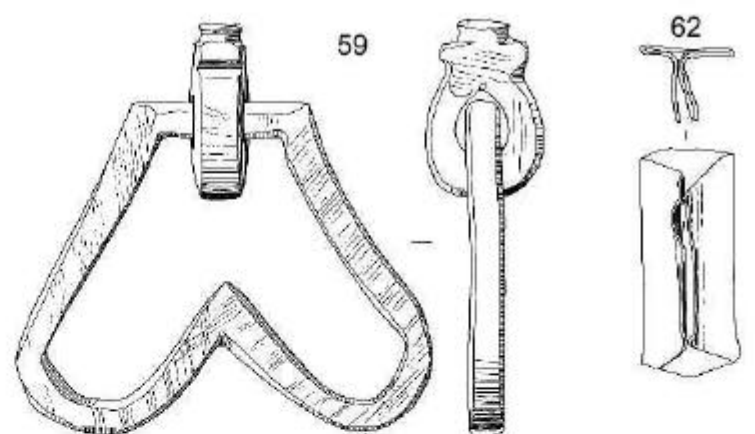
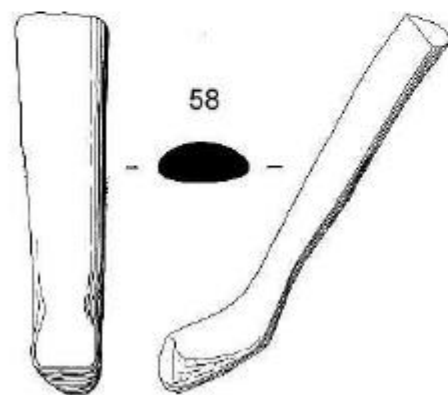




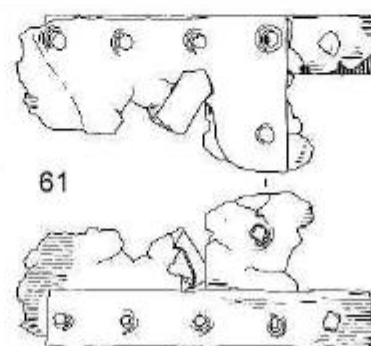


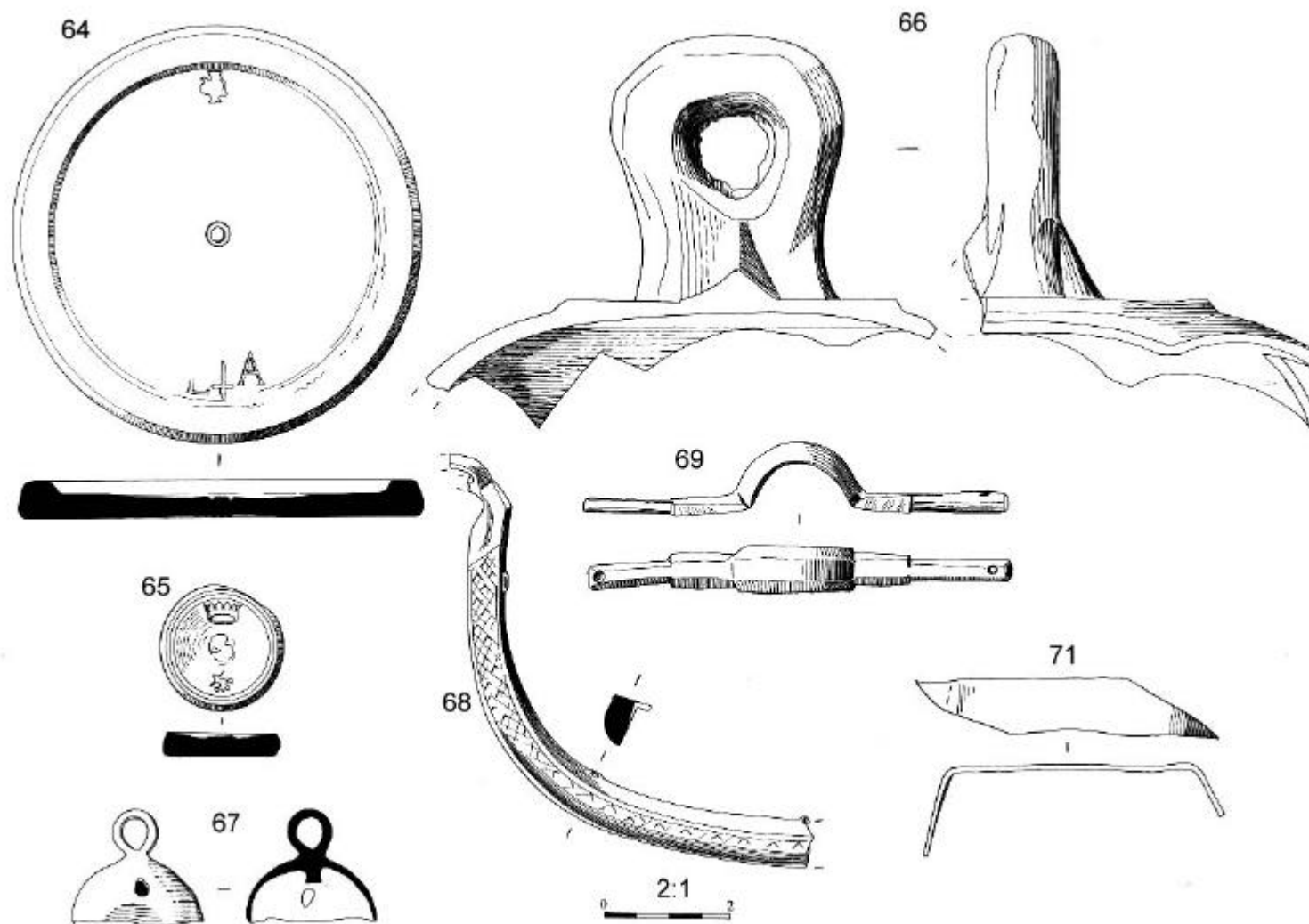


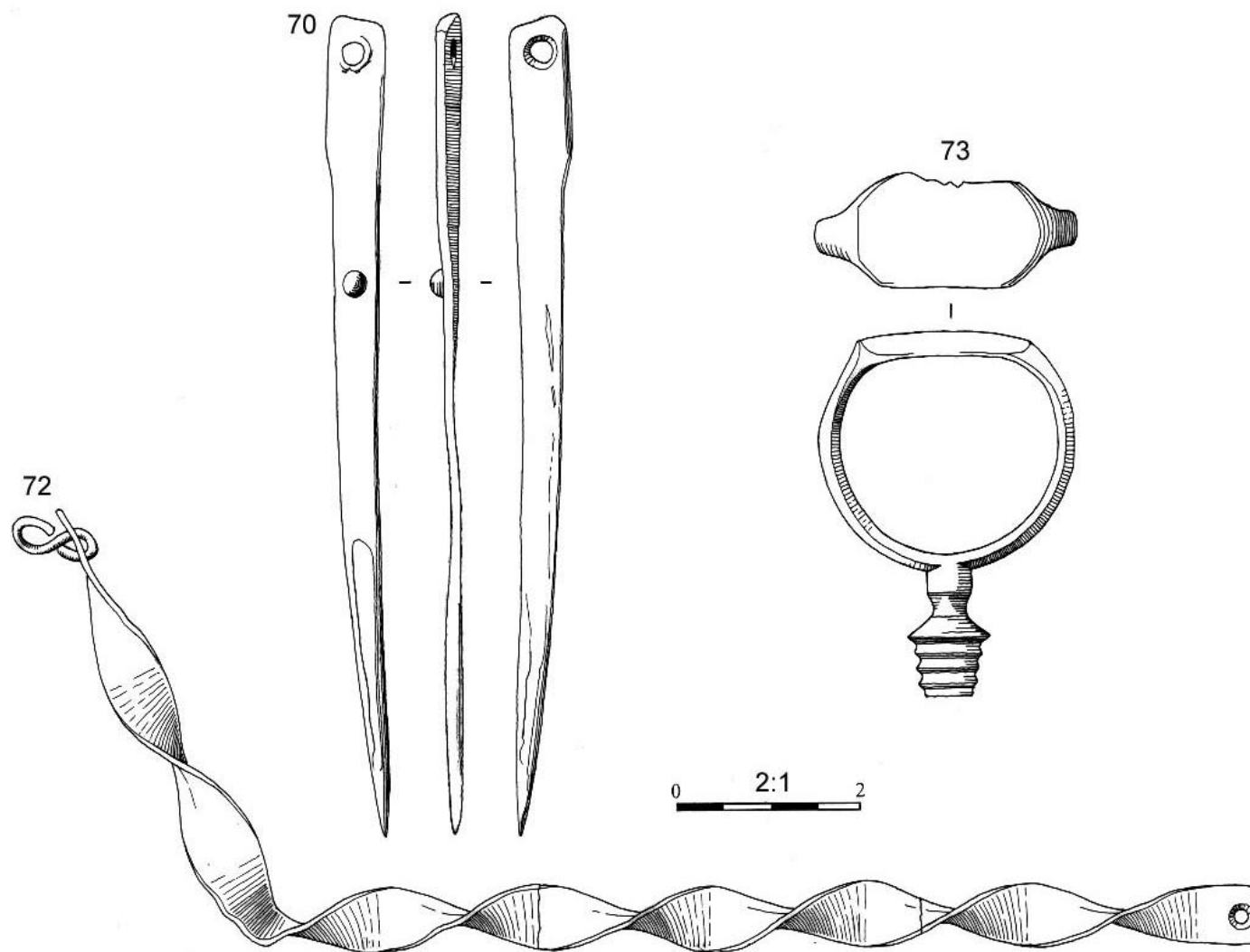
1:1

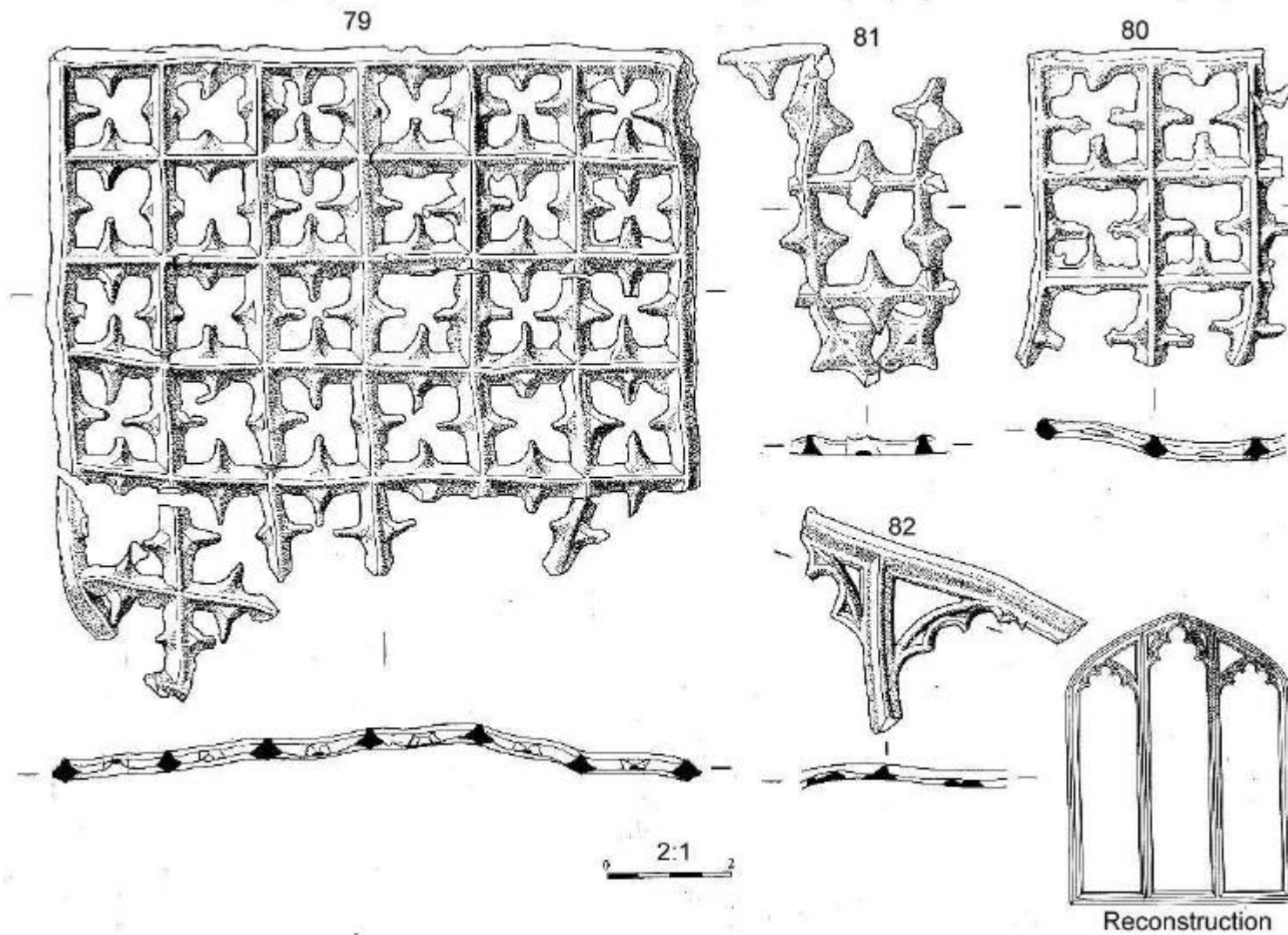


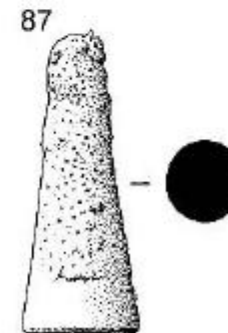
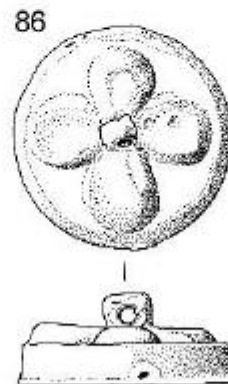
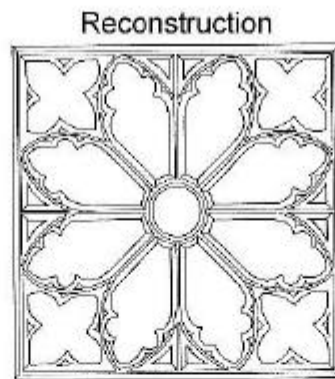
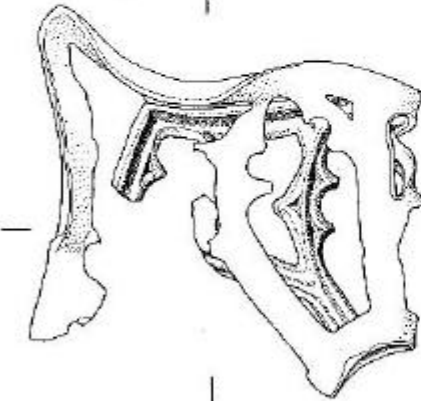
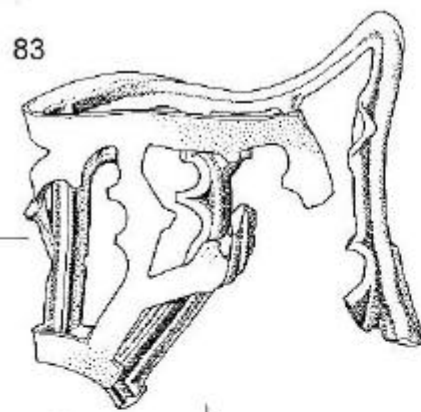
2:1

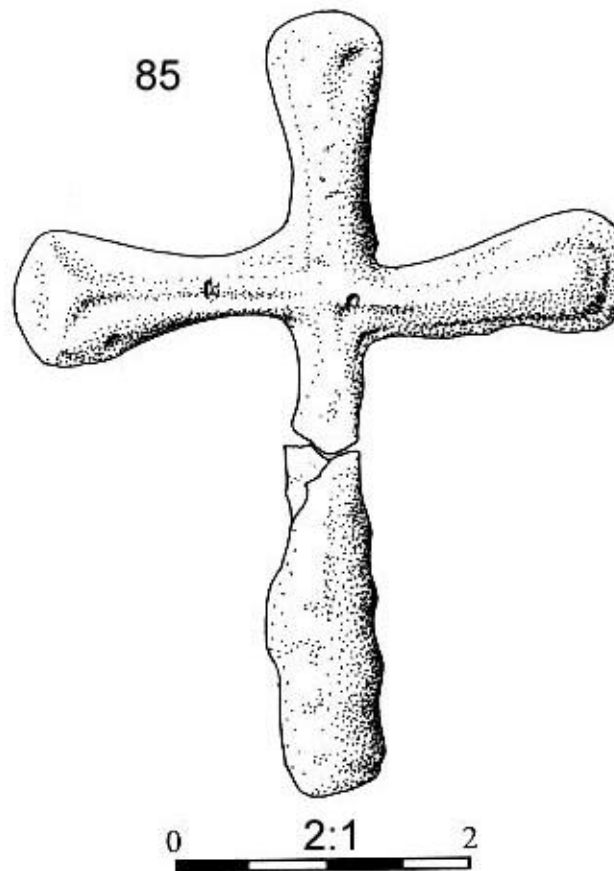


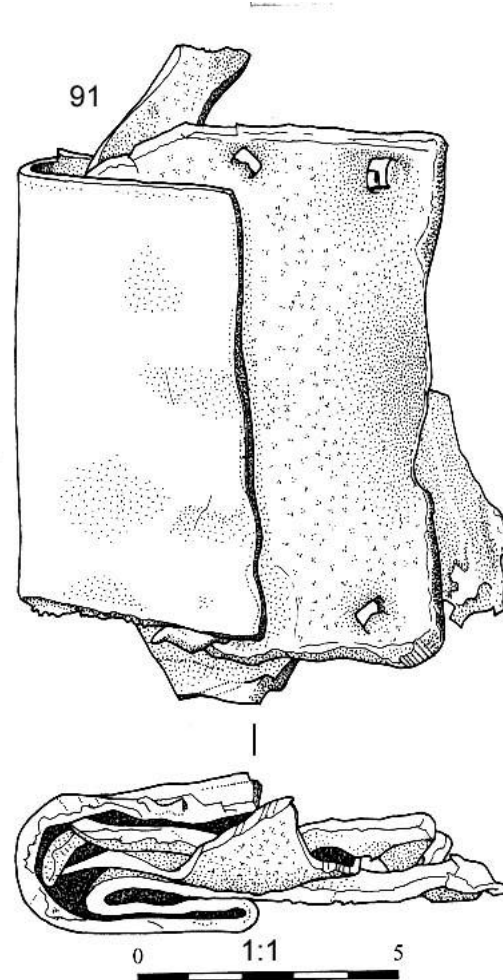
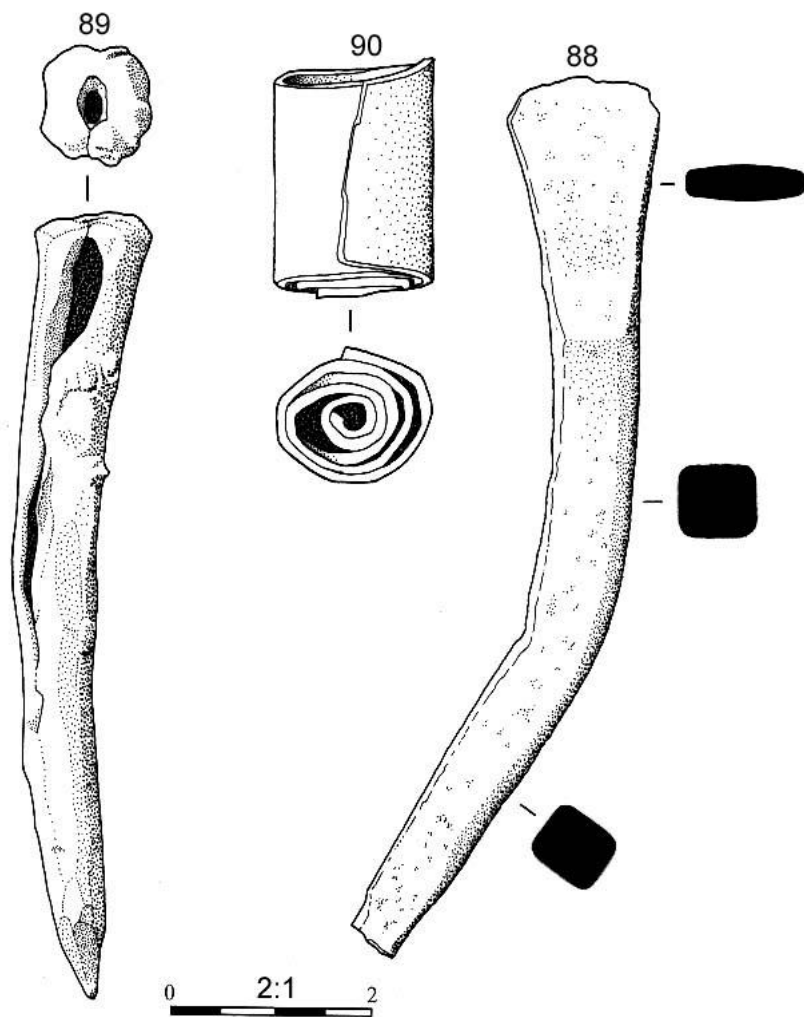


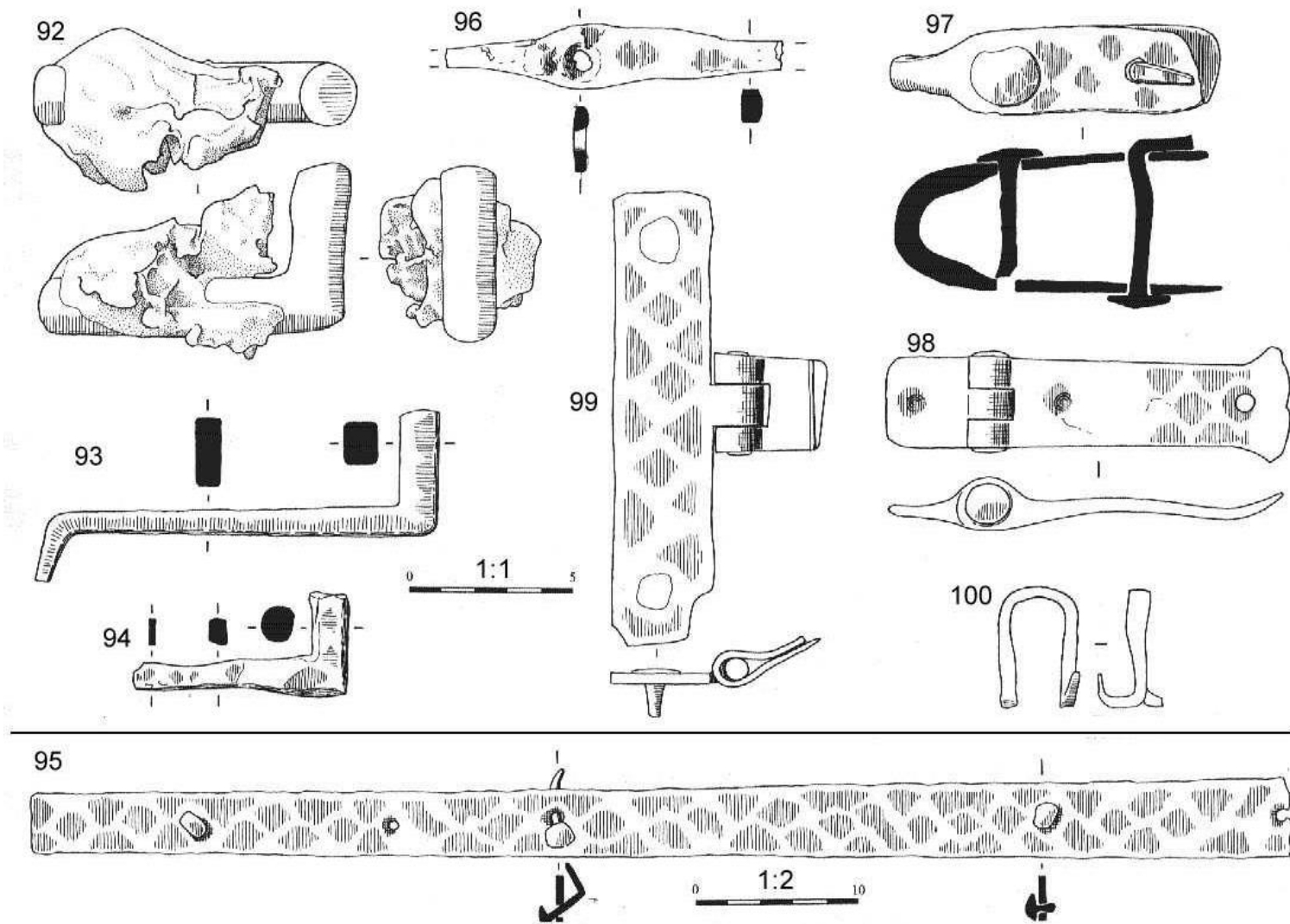


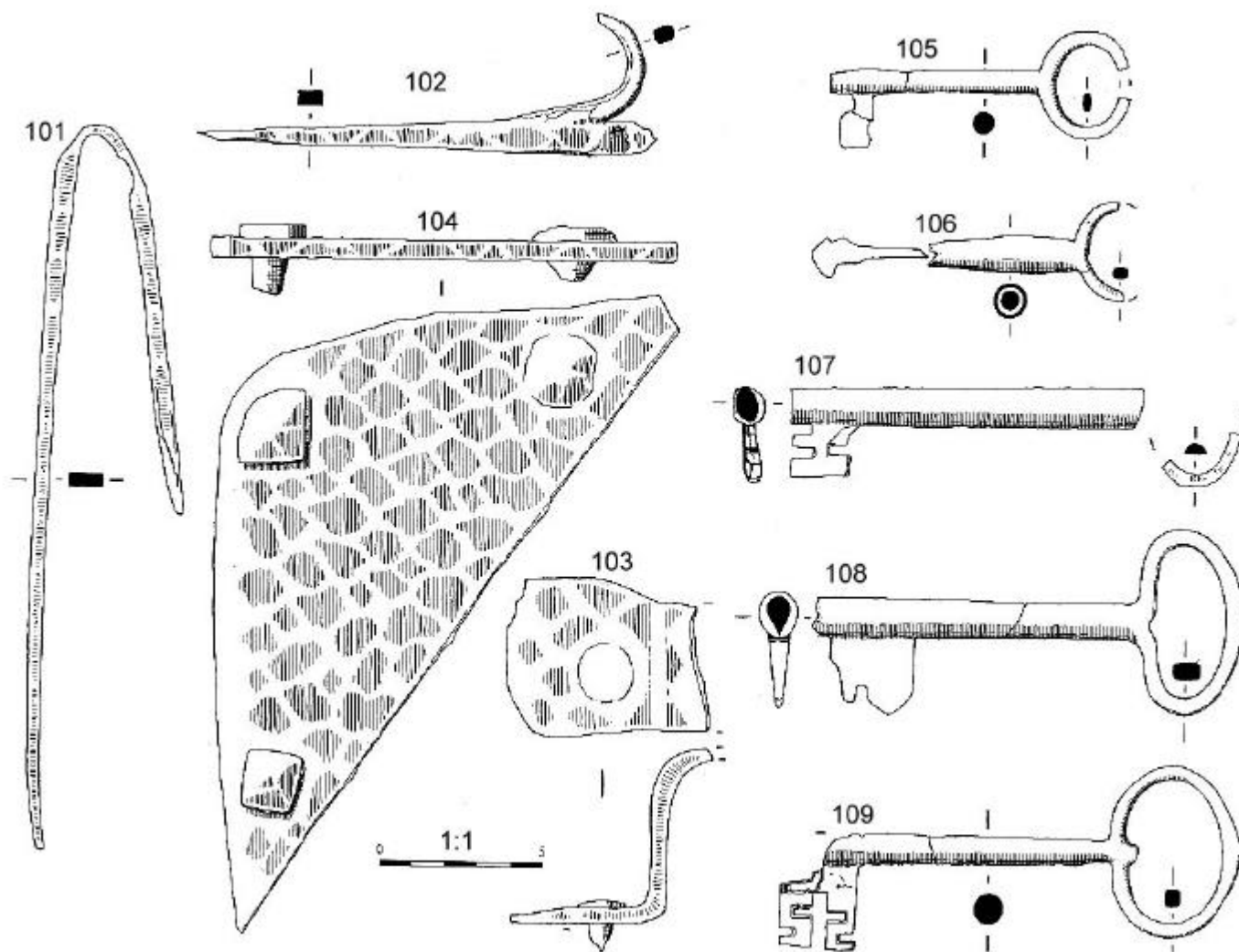


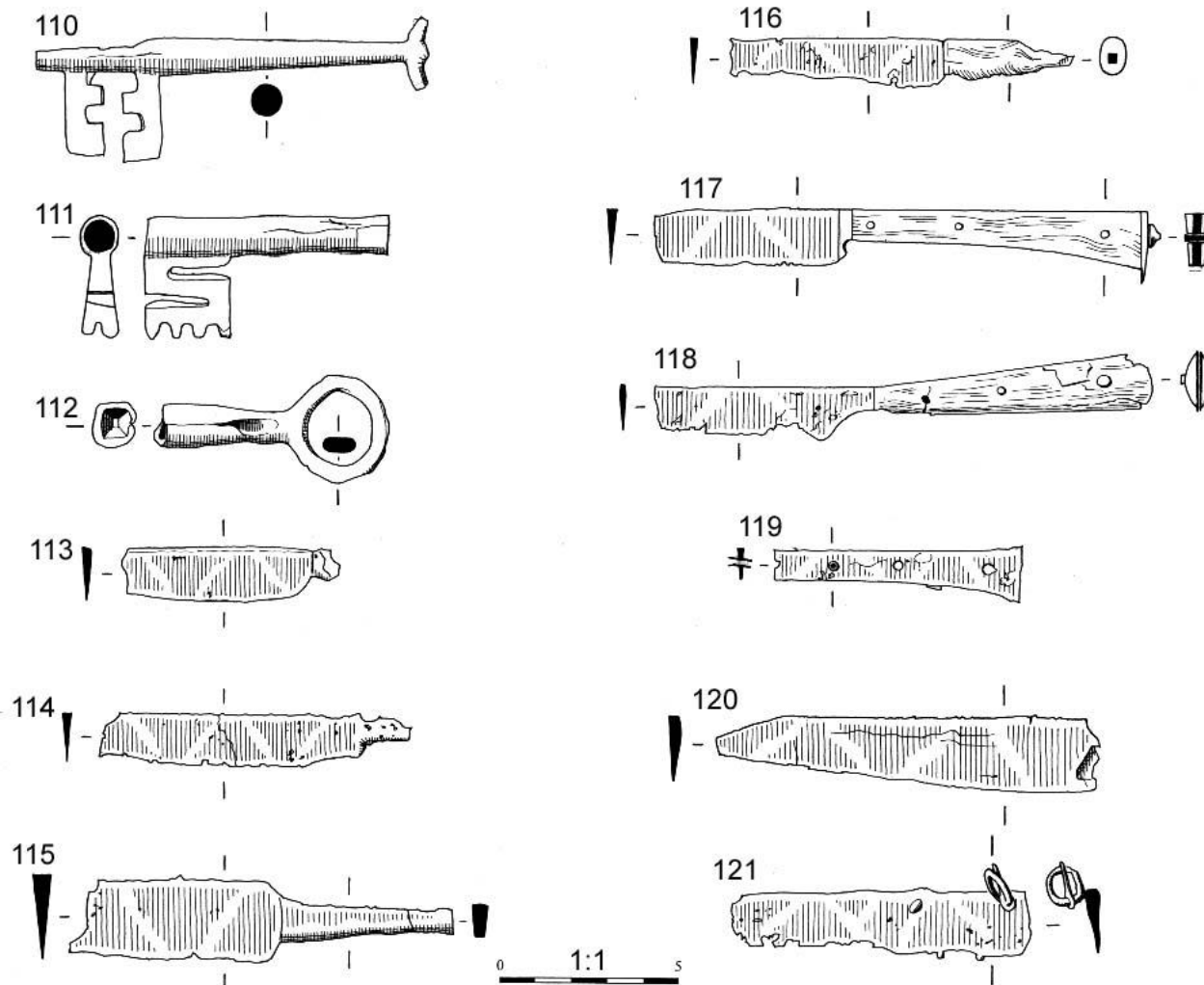


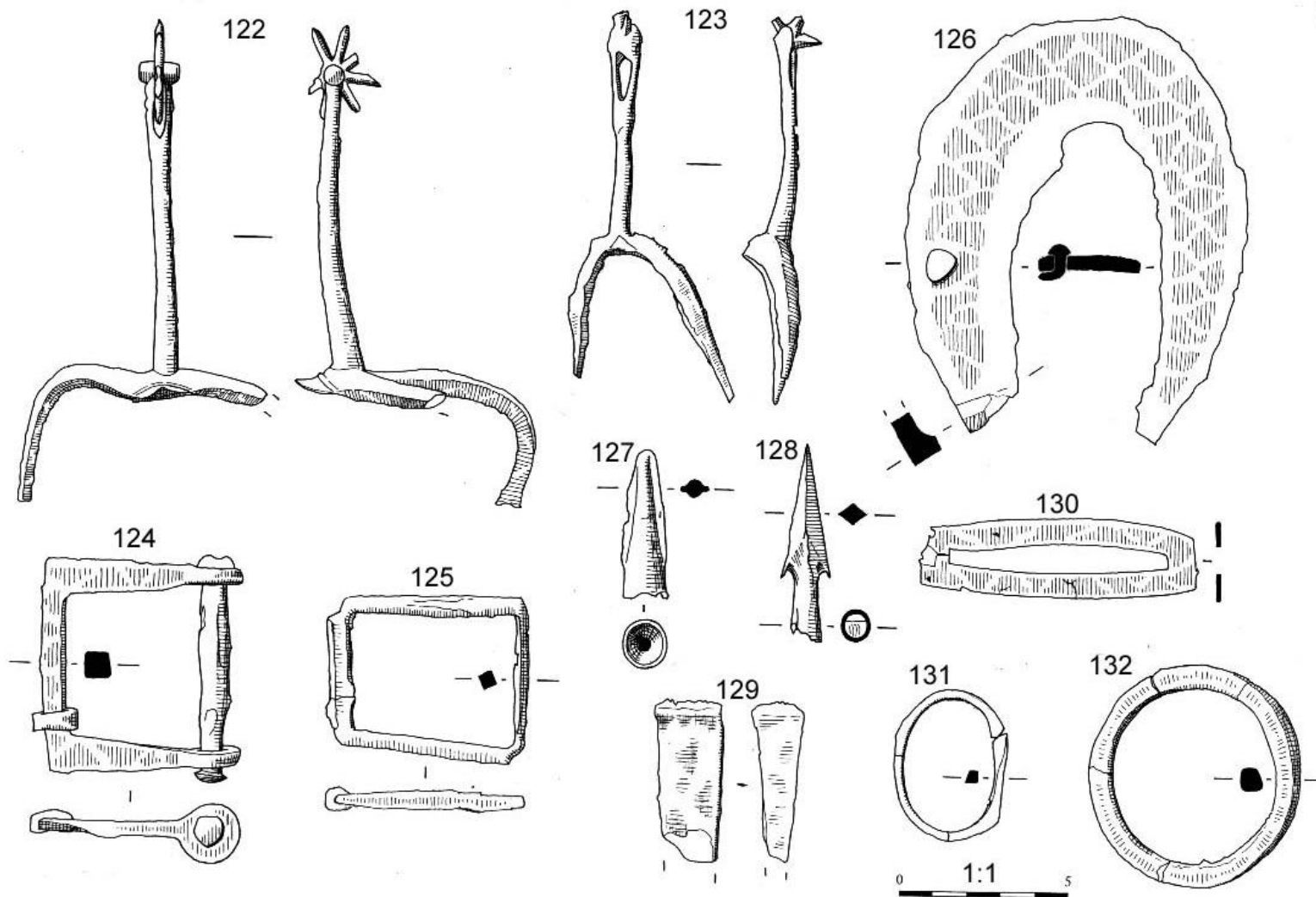


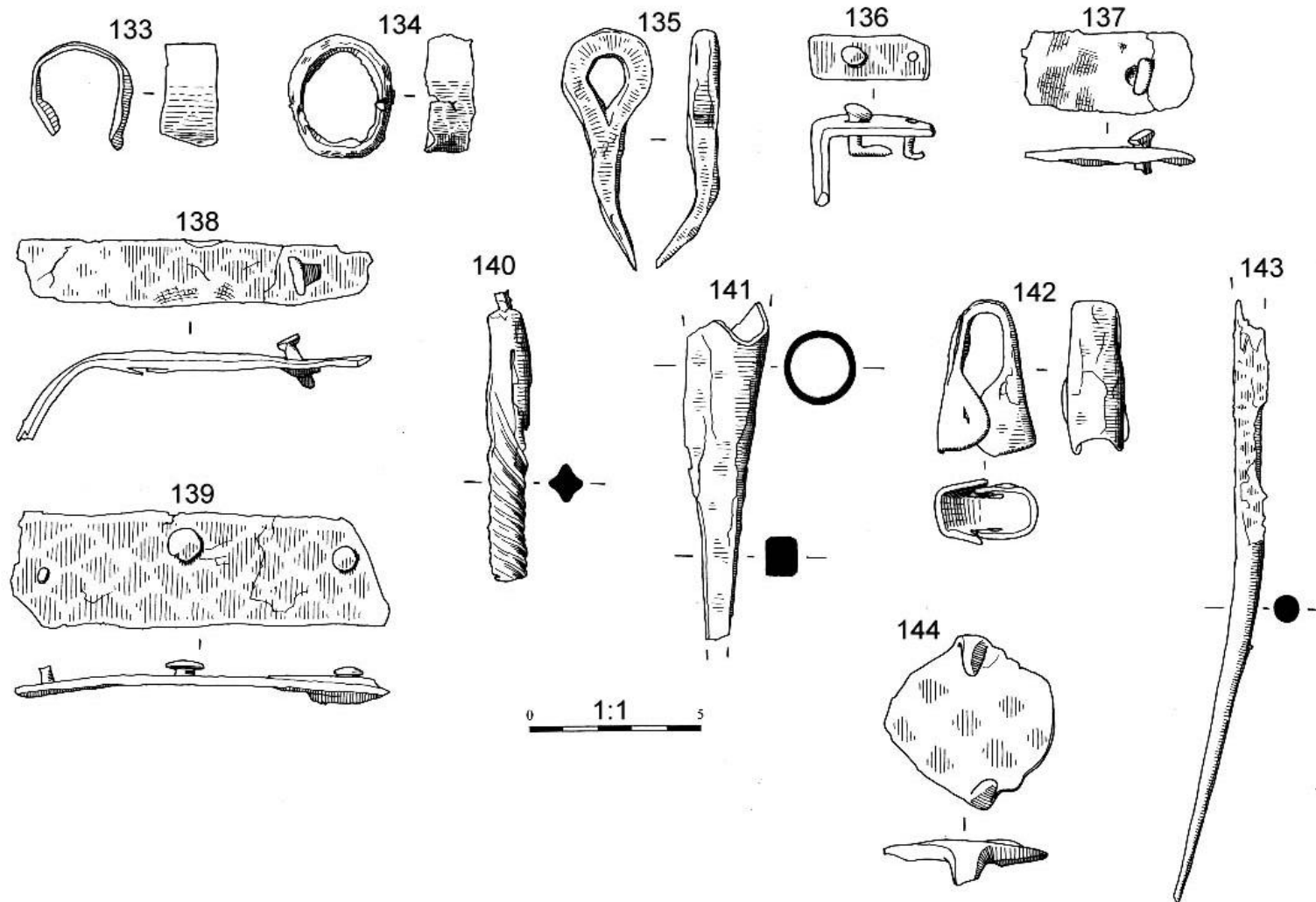


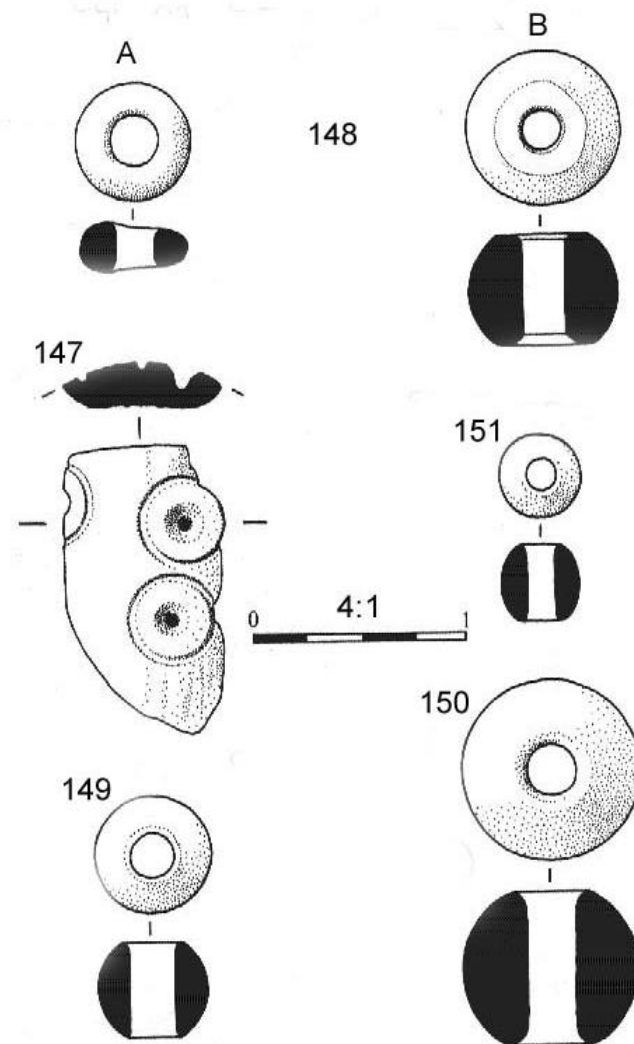
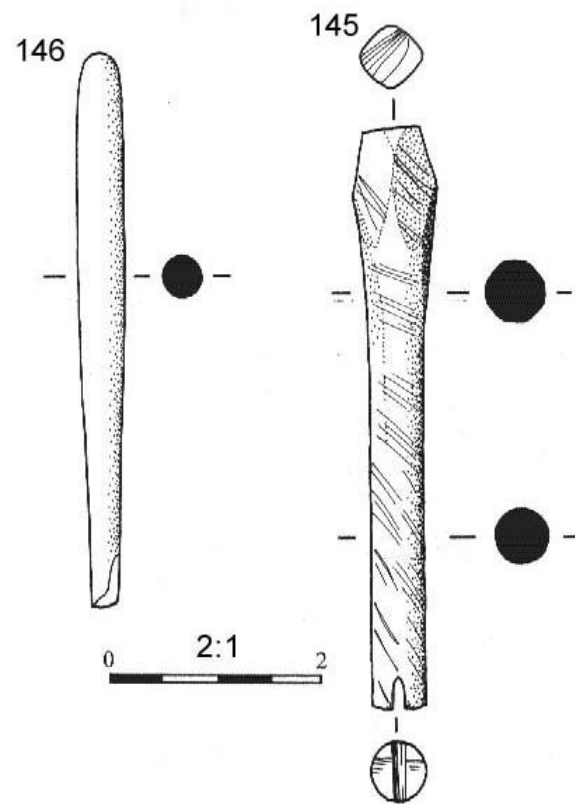


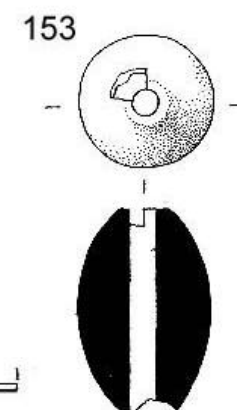
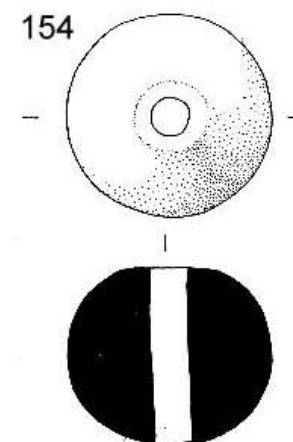
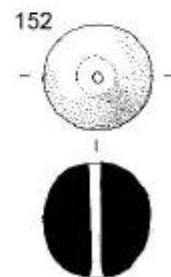
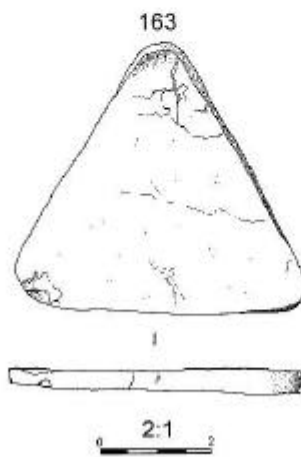
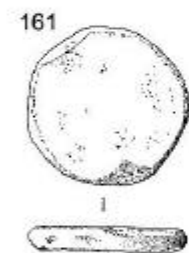
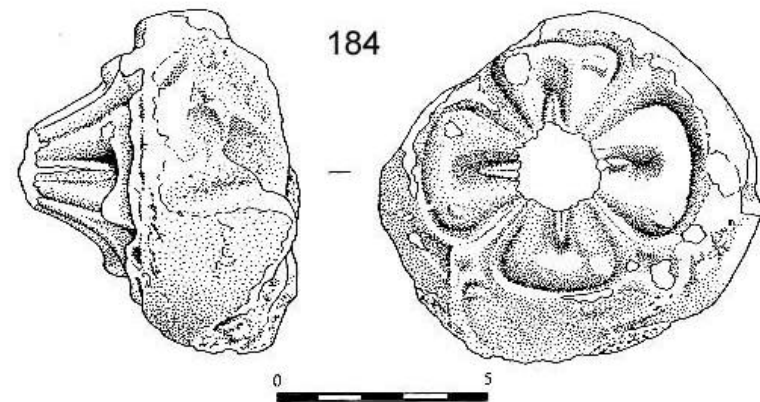
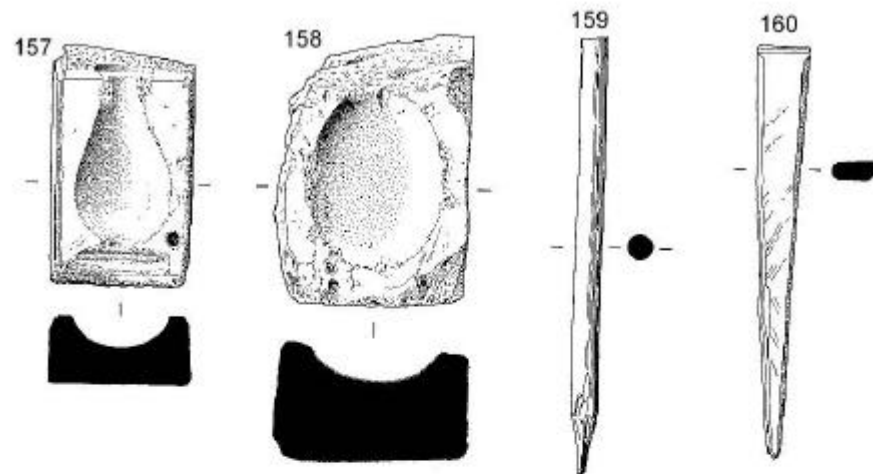




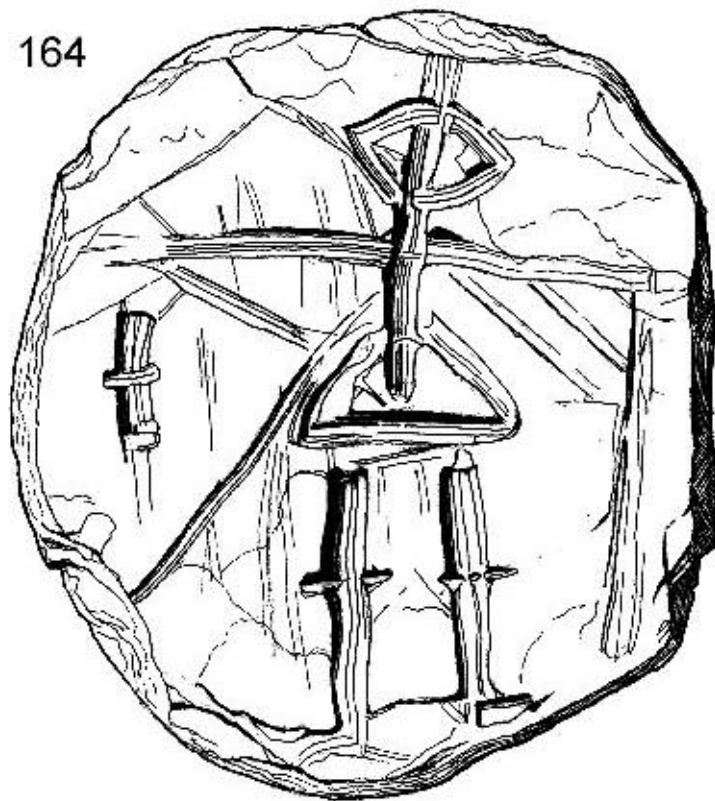






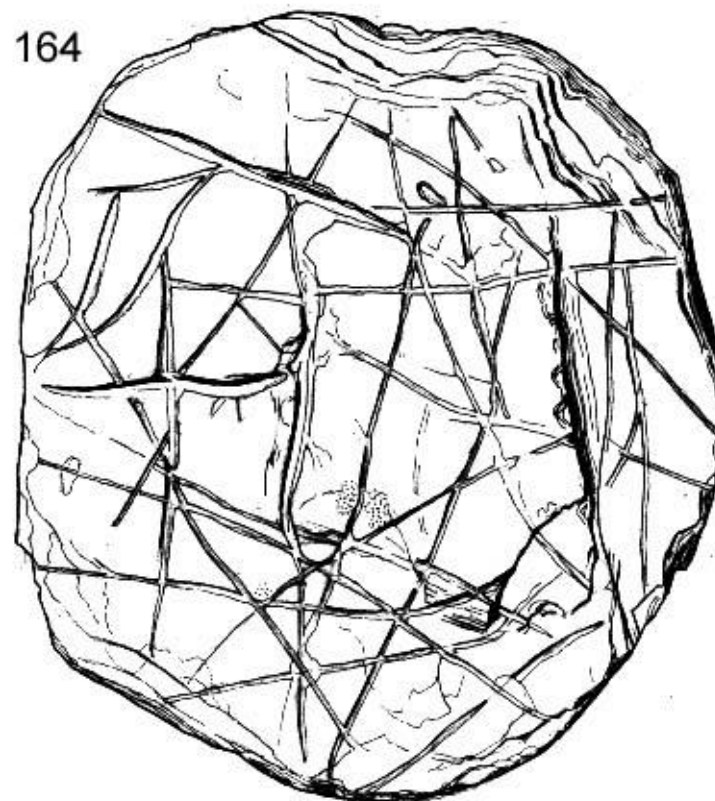


164



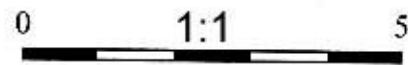
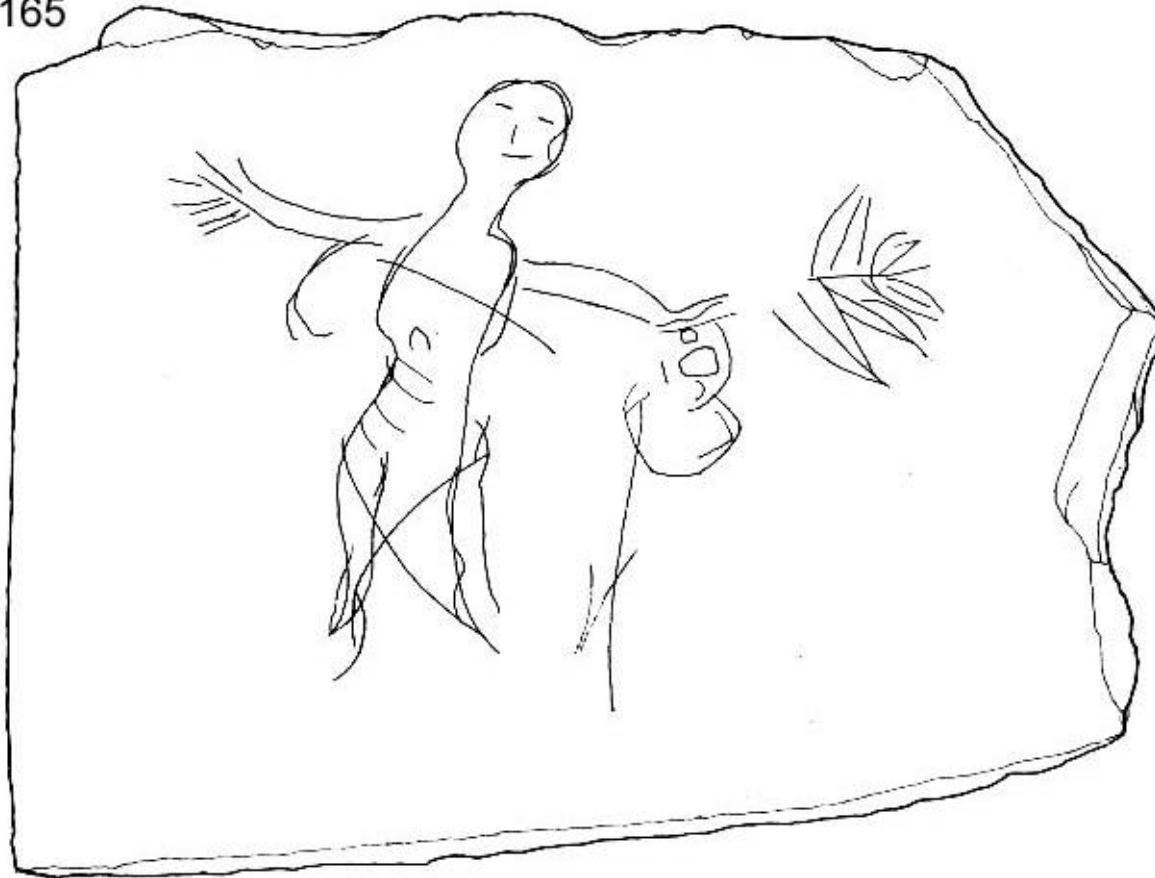
0 1:1 5

164

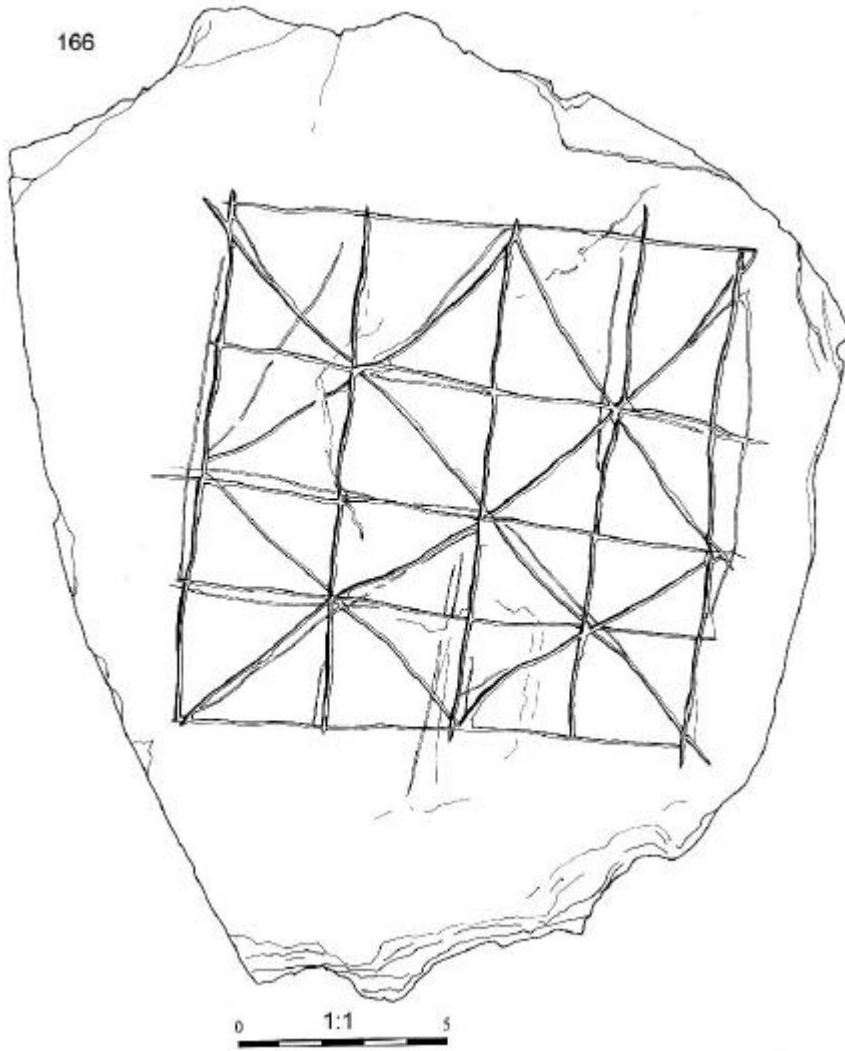


0 1:1 5

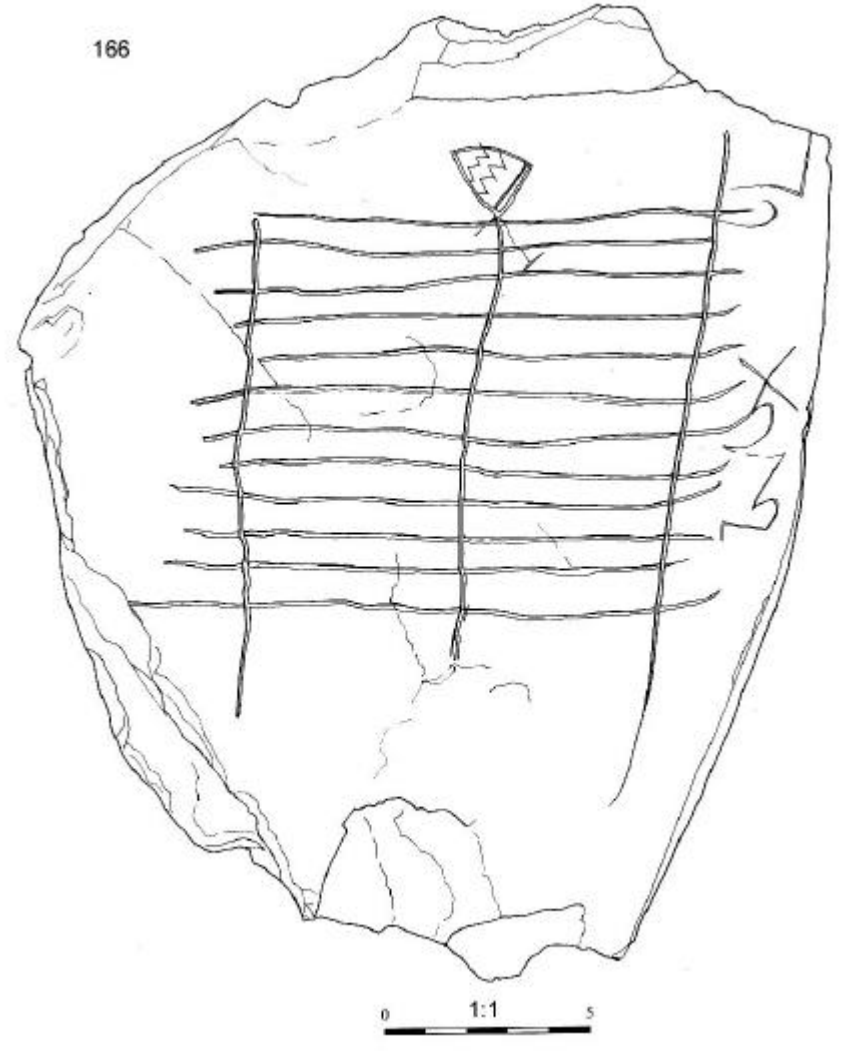
165



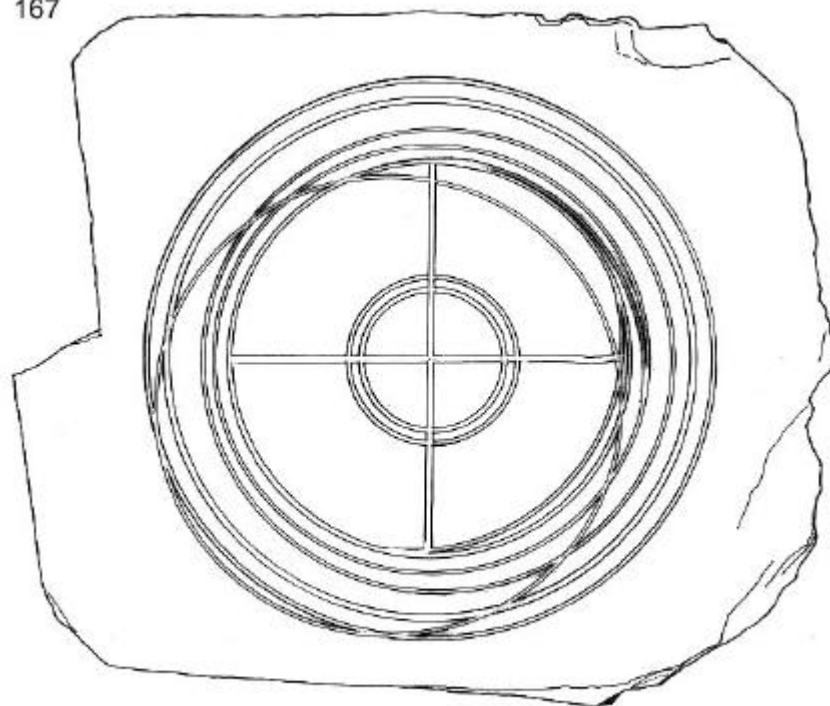
166



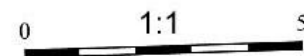
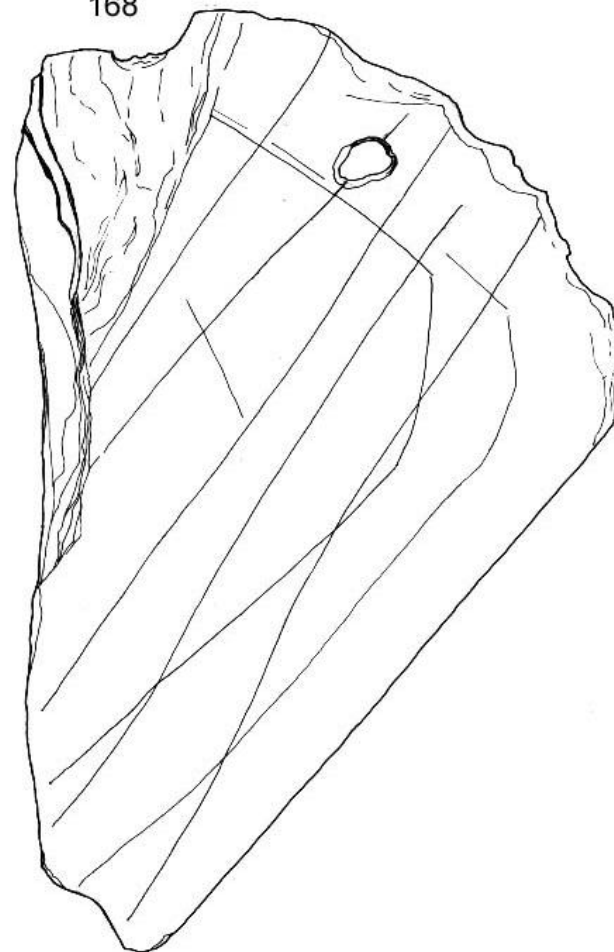
166

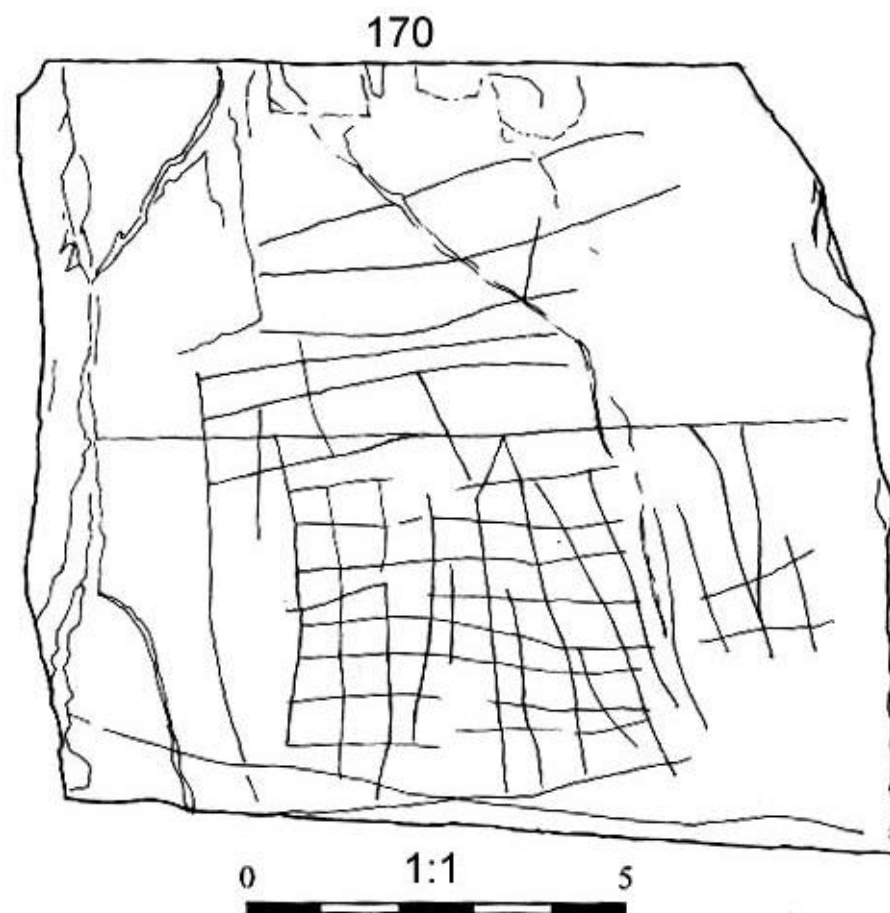
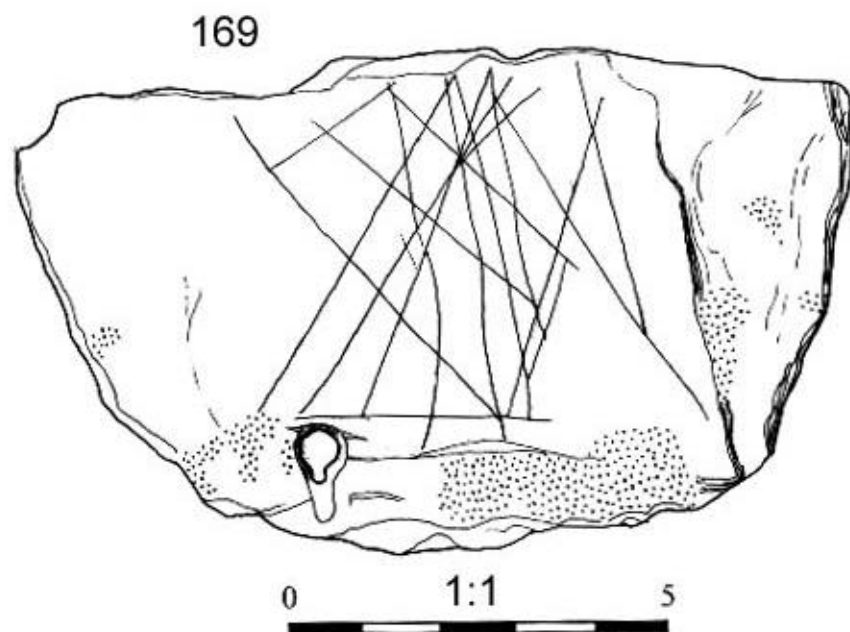


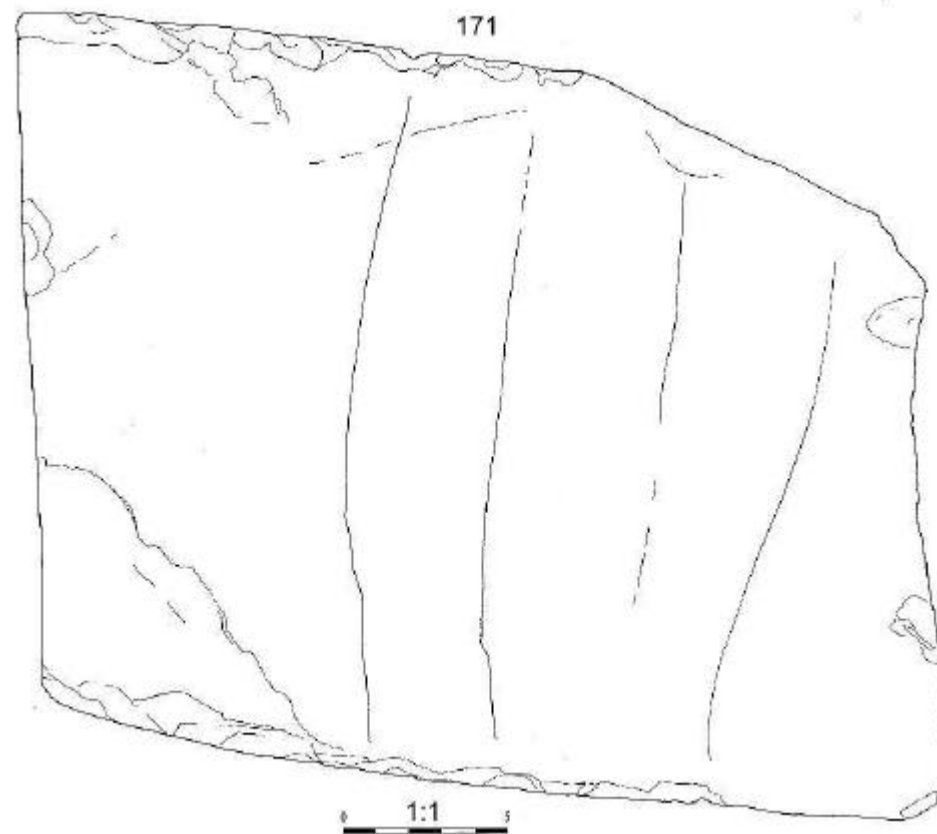
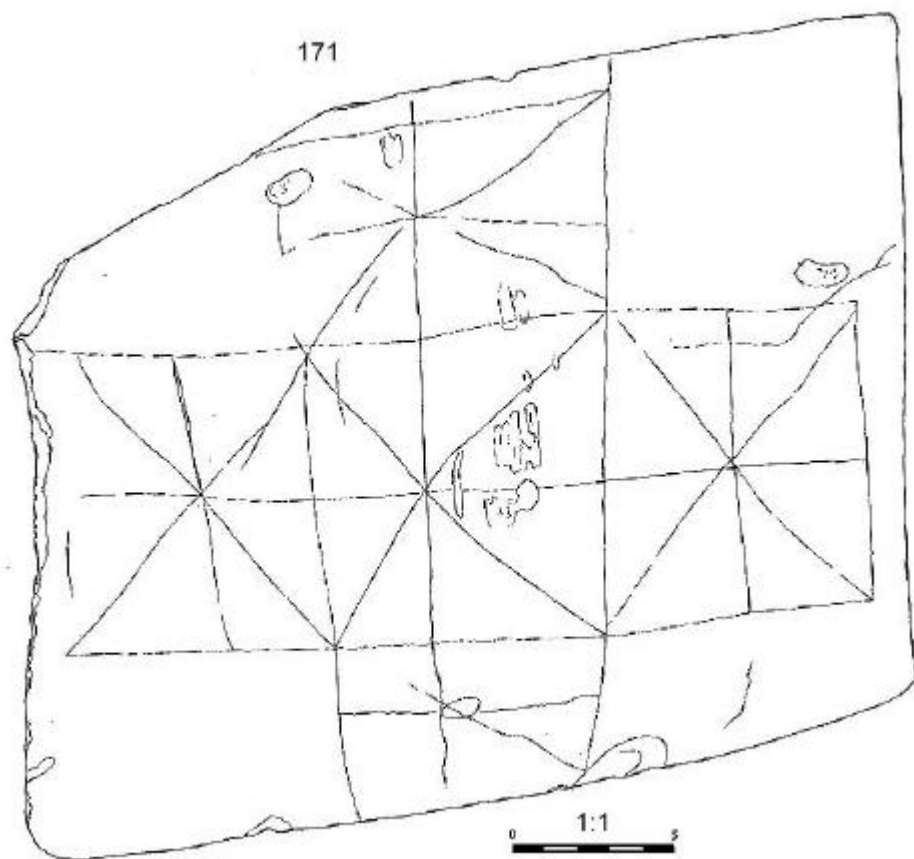
167

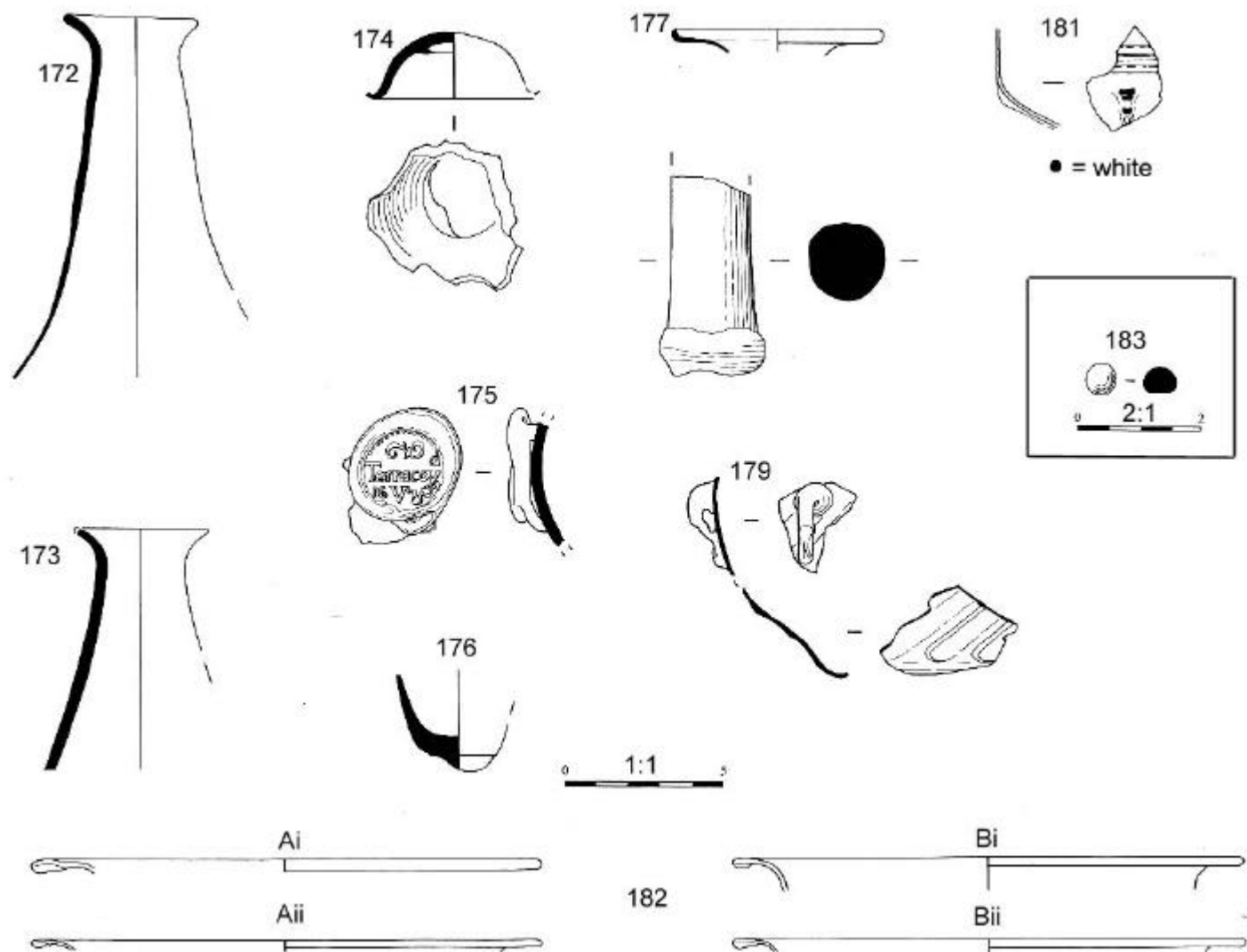




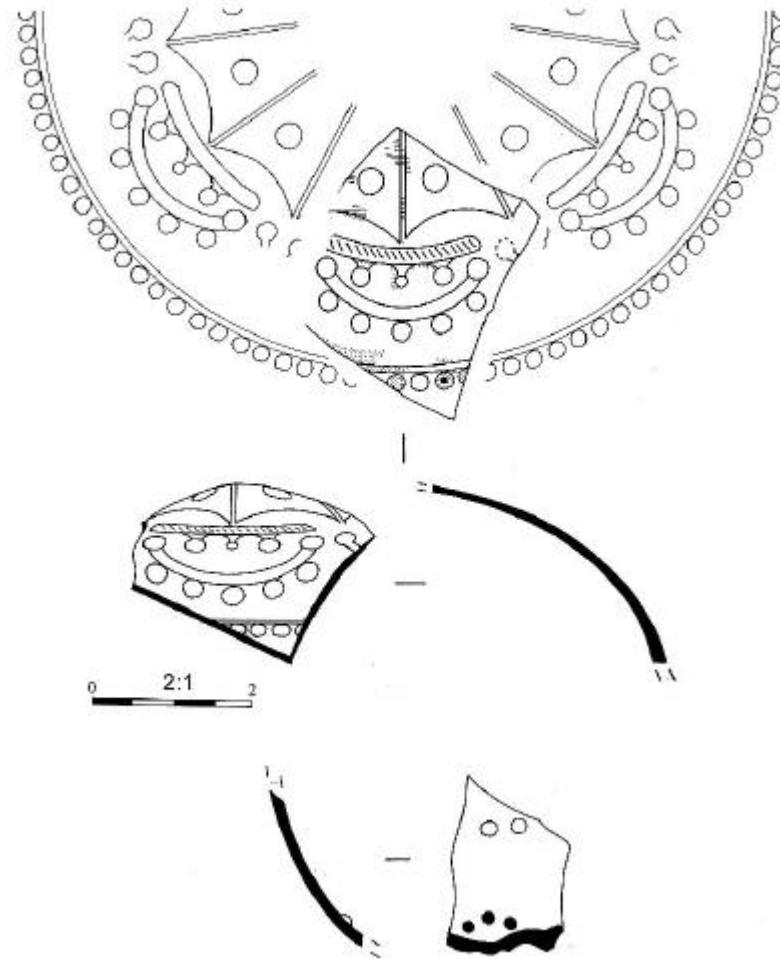
168









 - Gold - White - Red

BIBLIOGRAPHY:

- Abbitt, M W, 1973 'The Eighteenth Century Shoe Buckle' in I, Noel Hume (ed) *Five Artifact Studies*. Colonial Williamsburg Occasional Papers in Archaeology. Vol.1
- Allan, J P, 1984 Medieval and Post-medieval finds from Exeter, 1971-1980. *Exeter Arch Reports*. 3.
- Andrews, D D, & Milne, G (eds), 1979 Domestic settlement, 1: Areas 10 and 6, Vol 1 of J G Hurst (gen ed), *Wharram: a study of settlement on the Yorkshire Wolds*, Soc Medieval Archaeol Monogr Ser, 8.
- Andrews, D D, 1979 'Miscellaneous Small Finds' in above. 124-132.
- Biddle, M, Barfield, L, & Millard, A, 1959 'The Excavations of the Manor of the More, Rickmansworth, Hertfordshire', *Archaeol.J.* 116, 136-99.
- Biddle, M, 1990 Object and Economy in Medieval Winchester. 2. Oxford University Press.
- Biddle, M, & Hinton, D, 1990 'Jewel stones', in M Biddle (ed), *Object and Economy in Medieval Winchester*, Winchester Studies 7. Vol.2, 653-6.
- Borenius, T, & Charlton, J, 1936 'Clarendon Palace. An interim report'. *Antiq J.* 16, 55-85.
- Brakspear, H, 1907 'The Cistercian Abbey of Stanley, Wiltshire'. *Archaeologia*. 60. Part 2, 493-516.
- Brennan, D. (1996) with G. Evans, H. James and E. Dale-Jones 'Excavations in Carmarthen, Dyfed, 1976-1990. Finds from the Seventeenth to the Nineteenth Centuries. Pottery, Glass, Clay Pipes and Bone' *Medieval and Later Pottery in Wales*, No. 14 1993-4.
- Butler, L A S, 1974 'Medieval finds from Castell-y-Bere, Merioneth', *Arch. Camb.* 123, 78-112.
- Charleston, R J, 1964 'Medieval and Later Glass', in B Cunliffe, *Winchester Excavations 1949-1960*. Vol.1, 145-51.
- Charleston, R J, 1972 'The Vessel Glass from Rosedale and Hutton', in D W Crossley & F A Aberg, Sixteenth Century Glass-making in Yorkshire: Excavations at Furnaces at Hutton and Rosedale, North Riding. 1968-71. *Post-Med Arch.* 6, 107-59.
- Charleston, R J, 1975 'The Glass' in C Platt & R. Coleman-Smith, *Excavations in Medieval Southampton*, 1953-69. 2. The Finds, 204-26.
- Charleston, R J, 1980 'Vessel Glass', in M Christie & J G Coad, Excavations at Denny Abbey. *Arch J.* 137, 138-279.
- Charleston, R J, 1981 'Medieval and Post-medieval Glass from the North-West Quadrant', in A Down, *Chichester Excavations V.* 221-228.
- Charleston, R J, 1983 'Vessel glass', in A Streeten, *Bayham Abbey*. Sussex Arch Soc. Monograph 2, 112-16.
- Charleston, R J, 1984 'The Glass' in J P Allan, Medieval & Post-medieval Finds from Exeter. 1971-1980. *Exeter Arch Rep.* 3, 258-278.
- Charleston, R J, 1985 'Vessel Glass' in J N Hare, Battle Abbey, *The Eastern Range and the Excavations of 1978-80*. HBMCE Archaeol Rep 2, 139-146.
- Charleston, R J, 1990 'Vessel Glass of the late Medieval to Modern Periods', in M Biddle (ed), *Object and Economy in Medieval Winchester*, Winchester Studies, 7. Vol.2, 934-947.
- Christie, P M, & Coad, J G, 1980 'Excavations at Denny Abbey', *Arch.J.* 137, 138-279.

- Clapham, A W, 1922 'Haverfordwest Priory. Report on the Excavations of June, 1922'. *Arch. Camb*, 71?, 327-335.
- Connor, R D, 1987 *The Weights and Measures of England*. HMSO. Science Museum.
- Courtney, P, 1991 'Metal Working Features' in James, T, Excavations at Carmarthen Greyfriars 1983-1990: The Structure and Development of the Friary Buildings. *Med. Arch.* 1997.
- Cunliffe, B, 1964 *Winchester Excavations. 1949-1960*. Vol.1.
- Down, A, 1981 *Chichester Excavations V*.
- Durham, B, 1977 'Archaeological investigations in St Aldates, Oxford', *Oxoniensia*. 42, 83-203.
- Egan, G, & Pritchard, F, 1991 *Medieval Finds From Excavations in London: 3 Dress Accessories c.1150-c.1450*. Museum of London. London: HMSO.
- Ellis, B, 1990 'Spurs' in Biddle, M, *Object and Economy in Medieval Winchester*. 2. Oxford University Press, 1037-1041.
- Fingerlin, I, 1971 *Gurtel des hohen und spaten Mittelalters*, Berlin.
- Fox, R, & Barton, K, J, 1986 'Excavations at Oyster Street, Portsmouth, Hampshire. 1968-71', *Post-Med. Arch.* 20, 31-257.
- Foy, D, 1988 *Le verre medieval et son artisanat en France mediterraneenne*. Editions Du Centre National De La Recherche Scientifique. (C.N.R.S). Paris.
- Foy, D, & Sennequier, G, 1989 *A travers Le Verre du moyen age a la renaissance*, Rouen.
- Fry, D K, 1976 'Anglo-Saxon lyre tuning pegs from Whitby, N. Yorkshire', *Med Arch.* 20, 137-9.
- Geddes, J, 1986 'Cistercian metalwork in England' in Norton, C, & Park, D.(ed), *Cistercian art and architecture in the British Isles*. 256-266.
- Gilchrist, R. and Mytum, H. 1993 *Advances in Monastic Archaeology*.
- Goodall, A R, 1981 'The medieval bronzesmith and his products' in D W, Crossley (ed) *Medieval Industry*. C.B.A. Res. Rep. 40, 63-71.
- Goodall, A R, 1983 'Objects of copper alloy' in A Streeten (see below), 109-110.
- Goodall, A R 1983 'Objects of lead and lead alloy' in A Streeten (see below), 111-112.
- Goodall, A R 1988 'Non-Ferrous Metal Objects' in Scull et al (see below)
- Goodall, I A, 1983 'Iron Objects' in P Mayes & L A S Butler, *Sandal Castle Excavations 1964-1973*, Wakefield. 240-252.
- Graham, J T, 1979 *Weights and Measures*. Shire Album. 44. (2nd edition 1987).
- Groves, S, 1966 *A History of needlework tools and accessories*. (2nd edition 1973).
- Halls, Z, 1970 London Museum, *Men's Costume 1580-1750*. HMSO.
- Harden, D B, 1969 'Medieval glass in the west', Proc. VIIIth *International Congress on Glass* 1968. Soc. Glass technology, Sheffield, 97-111.
- Hare, J N, 1985 *Battle Abbey. The Eastern Range and the Excavations of 1978-80*. Northampton.
- Hartshorne, A, 1897 *Old English Glasses*, London.

- Hassall, T G, Halpin, C E, & Mellor, M, 1984 'Excavations in St. Ebbe's, Oxford, 1967-1976: Part II: Post-Medieval Domestic Tenements and the Post-Dissolution Site of the Greyfriars'. *Oxoniensia*. 49, 153-277.
- Hassall, T G, Halpin, C E, & Mellor, M, 1989 'Excavations in St Ebbe's, Oxford, 1967-1976: Part I: Late Saxon and Medieval Domestic Occupation and Tenements, and the Medieval Greyfriars', *Oxoniensia*. 54, 71-279.
- Hirst, S M, Walsh, D A, & Wright, S M, 1983 *Bordesley Abbey II*. Brit. Archaeol. Rep. 111.
- James, T, 1997 'Excavations at Carmarthen Greyfriars 1983-1990' *Medieval Archaeology*, xvi, 100-194 + plates iv—x.
- James, T. and Brennan, D., 1995 Excavations at Carmarthen Greyfriars, 1983-1990. *13th-16th century Earthenware and Oolitic Limestone Floortiles*, Topic Report No. 1.
- Jones, F, 1987 *Historic Carmarthenshire Homes and their Families*. Carmarthen.
- Kenyon, G H, 1967 *The Glass Industry of the Weald*. Leicester.
- Lawson, R G, 1978 'Medieval Tuning Pegs from Whitby, N. Yorkshire', *Med Arch*. 22, 139-41.
- Lawson, R G, 1983 'A possible musical tuning-peg' in C, *Highway The East and North Gates of Gloucester and associated sites. Excavations 1974-81*. 192.
- Lewis, J M, 1973 'Some Types of Metal Chafing-Dish', *Antiq. J*. 53, 59-69.
- Lewis, J M, 1978 *Medieval Pottery and Metal-ware in Wales*. National Museum of Wales, Cardiff.
- Lodwick, V. and J., 1972, *The Story of Carmarthen*
- L.M.C. 1940 London Museum Medieval Catalogue.
- Manley, J F, & Lewis, J M, 1987 'A collection of medieval artefacts found near Holywell, Clwyd', *B.B.C.S.* 34, 270-282.
- Mentasti, R B, Dorigato, A, Gasparetto, A, & Toninato, T, 1982 *Mille Anni di Arte del Vetro a Venezia*. Venice.
- Moorhouse, S, 1971 'Finds from Basing House, Hampshire (c.1540-1645): Part II', *Post-Med. Arch*. 5, 35-76.
- Moorhouse, S 1993. 'Pottery and Glass in the medieval monastery' in Gilchrist R, & Mytum H, (eds) *Advances in Monastic Archaeology*. BAR British Series 227, pp.127-146.
- Munby, J, 1989 'Painted Wall-Plaster' in T G Hassall et al, *Excavations in St. Ebbe's, Oxford, 1967-1976: PartI: Late Saxon and Medieval Domestic Occupation and Tenements, and the Medieval Greyfriars*, *Oxoniensia* 54, 71-279.
- O'Mahoney (1998), Excavations at Carmarthen Greyfriars 1983-1990, Topic Report No. 2, *Pottery, Ridg tiles and Ceramic Water Pipe* (electronic version 1998). (Note: In late 2000 the possibility of publishing this as an issue of *Medieval and Later Pottery in Wales* was being discussed)
- Oakley, G E & Hunter, J, 1979 'The Glass', in J H Williams, *St. Peter's Street, Northampton Excavations, 1973-76*. Northampton, 296-302.
- Oman, C, 1962 'English Medieval Base Metal Church Plate', *Archaeol. J*. 129, 195-207.
- Platt, C, & Coleman-Smith, R, 1975 *Excavations in medieval Southampton 1953 - 1969*. 2, The finds.

- Poulton, R, & Woods, H, 1984 *Excavations on the site of the Dominican Friary at Guildford in 1974 and 1978*. Res. vol of the Surrey Arch Soc. 9.
- Rigold, S E, 1977 'Seals...' *Antiq J.* 57. Part II, 324-329.
- Rigold, S E, 1977 'A mould for leaden ventilators, from Neath Abbey, South Wales', *Antiq J.* 57, 334-336.
- Scull, C, et al, 1988 'Excavations in the Cloister of St Frideswide's Priory, 1985', *Oxoniensia* 53, 21-73.
- Steane, J, 1985 *The Archaeology of medieval England and Wales*.
- Streeten, A, 1983 *Bayham Abbey*. Sussex Arch Soc. Monogr 2.
- Tait, H, 1968 'Glass in Europe from the Middle Ages to 1862', in D B Harden, K S Painter, R H Pinder Wilson & H Tait, *Masterpieces of Glass*. British Museum, London. 127-192.
- Tebbutt, C F, 1966 'St. Neots Priory', *Proc. of the Cambridge Antiq Soc.* 59, 33-75.
- Tylecote, R F, 1972 'A Contribution to the Metallurgy of 18th- and 19th- Century Brass Pins', *Post-Med. Arch.* 6, 183-191.
- Williams, F, 1977 *Excavations At Pleshey Castle*. Brit. Archaeol. Rep. 42.
- Wise, P J, 1985 *Hulton Abbey: A century of Excavations*. Staffordshire Archaeol Studies. Museum Arch Soc Rep. New series. No.2.
- Wilkinson, J. L. 2001, *Carmarthen Greyfriars. Analysis of Skeletal Remains* (electronic publication).
- Woodfield, C, 1981 'Finds from the Free Grammar School at the Whitefriars, Coventry, c.1545 - 1557/58', *Post-Med. Arch.* 15, 81-161.