

THE Augustinian priory at Lanercost lies approximately three miles north-east of Brampton. It was founded *c.* 1166 and occupied until the Dissolution of the Monasteries in 1536, after which the buildings became the property of Sir Thomas Dacre. The nave west of the crossing became the parish church and was restored in about 1740. The ruined east end of the church and associated claustral buildings are in the guardianship of English Heritage.

Problems of damp penetration through the walls along the sides of the north transept, lady chapel and presbytery were adversely affecting the condition of the walls, floors and tombs in this area. A scheme was proposed to rectify the problem by inserting a drainage system along the exterior of the north walls of the effected areas of the building and lowering the adjacent ground level. Prior to this work being carried out two trial trenches were excavated in 1994 by the archaeological staff of Historic Properties (North Region), English Heritage, to evaluate the surviving archaeology and its consequent possible disturbance (Fig. 1).

Skeletal remains were located sufficiently close to the ground surface to make the proposed depth of ground levelling unsuitable. The proposal was therefore modified so as not to disturb the burials.

### **Archaeological excavations**

The two trenches (Fig. 1) each 3 m x 1 m, were situated (1) at right angles from the base of the north wall of the presbytery to the east wall of the lady chapel and (2) from the north wall of the lady chapel to the east wall of the north transept. The alignment of the trenches was positioned to give the best chance of establishing the existence of any buried walls, or pentice buildings.

#### *Trench 1*

The upper levels of this trench (contexts 1001, 1002) contained pieces of modern vessel glass and pottery, bitumen (from earlier repairs to the roof of the lady chapel), and a segment of clay tobacco pipe of late nineteenth-century date. Beneath these contexts was a substantial amount of sandstone pieces (contexts 1003, 1004), some of which bore tooling marks. Lime mortar fragments and patchy areas of lime, thin strips of lead window comes, fragile fragments of window glass, some of which have remnants of a painted design, and fragments of iron, were also recovered.

These contexts had been truncated at their south and west ends by an earlier drain which had been dug along the side of the building and was seen again in trench 2. The foundations of the presbytery wall, located 800 mm below present ground level, are 400 mm wide and consist of pieces of sandstone up to 300 x 200 mm, varying in shape from triangular to oblong. Remnants of the original

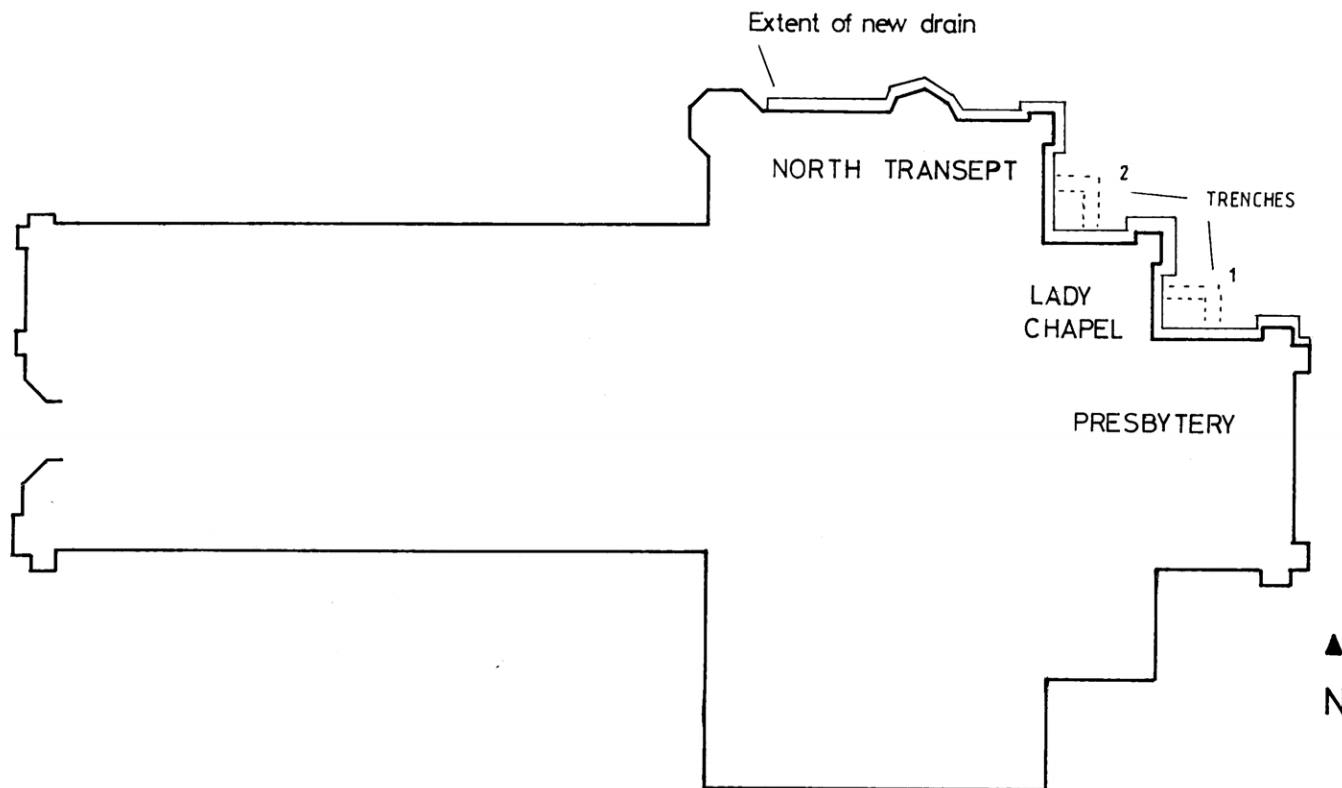


FIG 1. Lanercost Priory location of drain and trenches.

mortar remain between the joints of the lower courses of the walls as well as in the foundation course.

### *Trench 2*

The upper levels of the trench (context 2002, 2003) contained fragments of bitumen, areas of decayed mortar, angular fragments of sandstone up to 200 mm in length, modern and medieval window glass, animal bone, and clay tobacco pipe fragments of nineteenth-century date. A number of iron nails and pieces of lead sheet off-cuts were also recovered from these layers.

Below these lay an area of silt loam (context 2004) 220 mm deep which contained a mixture of lime mortars, patches of charcoal, iron nails, window glass fragments, medieval pottery and strips of lead. This mixed material appears to be associated with dumped and spread material relating to works on the building as well as possible dumping of excess soil remaining from churchyard burials.

Also within this layer, towards the east wall of the north transept, were the remains of an infant child which had been buried only 250-300 mm beneath the present ground level. No grave marker or coffin remains were found although it is possible that some of the nails may be related to a small wooden coffin which no longer survived.

The continuation of the cutting for the drain seen in trench 1 was noted (context 2005, 2008) and contained nails, bitumen, fragments of lime, cement based mortar, modern glass, modern pottery, a tile of cement based reconstituted stone, a small copper alloy pin, 27 mm long, probably from the shroud of a disturbed burial, and a clay tobacco pipe stem. Five fragments of sandstone with architectural moulding were located during the cutting of the trench for the new drain alongside the lady chapel and the sanctuary. These included fragments of a column shaft, column base and possible capital. A fragment of red sandstone roofing tile with peg hole was found in the fill of the trench.

Beneath this layer was a substantial area of large (60-200 mm) compact sandstone fragments which covered the entire area of the trench (context 2010). Within this context were the buried remains of three infants with indications of a further two grave cuts which were not excavated. A small copper alloy pin was associated with one of the burials. All of the burials in this context were left *in situ*. The burials had cut through the area of sandstone fragments which may have been part of demolition or stripping activity associated with the post-Dissolution period of the priory. No paving slabs were identified and it was not considered that the compact material was part of a paved or deliberately made up area.

Two circular holes (contexts 2013, 2021) one of which cut through a grave, may be related to scaffolding for work carried out on the priory or perhaps for a lean-to-shed alongside the wall. A section of wood 500 mm long by 100 mm diameter was found in one hole (context 2022), but no packing remained in hole no. 2013.

The foundation courses of the presbytery, lady chapel and north transept were located at a depth of 700 mm below the present ground level. The foundations consist of large (60-200 mm) or very large (200-600 mm) pieces of sandstone projecting up to 400 mm from the priory wall face. Medieval lime mortar survived in

parts of the foundation course as well as between the joints of the main wall blocks. Lying just above the foundation course were two pieces of a partly vitrified material, examination of which by the Ancient Monuments Laboratory showed the base material to be sedimentary rock, whose surface had been vitrified at high temperature, probably with an alkali fuel acting as a flux. This is a common reaction when fuel, heat and a strong blast of air (applied or naturally induced) are present and it is quite likely to be an accidental product perhaps formed during a conflagration. In 1296 the Scots pillaged and burnt parts of the priory and again in 1297 the buildings and church were damaged by William Wallace. However no other vitrified material or areas of burning and fire damage were located within the two trenches so it is unlikely that the material was a result of this action. It is possible that the heating formed part of an industrial process, but a qualitative X-ray fluorescence analysis failed to detect significant levels of elements such as copper, tin or zinc which might have linked the material to non-ferrous metal working.

### **Burials**

A total of four infant burials was identified, all in trench 2, with a fifth and sixth suggested by two possible grave cuts. In one of the burials was a copper alloy pin 23 mm long which was more than likely to have been used to secure the body shroud or covering. The burials were left undisturbed except the first one located which has since been reburied by the vicar of Lanercost. It appears from the size of the bones that the burials were either of stillborn or newly-born infants which had not been buried in the churchyard proper, perhaps as they were unbaptised, and there is no record in the church register of any known burials in this area.

### **Pottery**

Catherine Brooks identified the pottery recovered from the excavation as ranging from modern grey glaze and grey ware to pieces of thirteenth to fourteenth-century partially-reduced grey ware, and late fifteenth to early sixteenth-century reduced grey ware. One fragment of a large vessel contained part of its bung hole.

### **Clay Pipes**

Peter Davey commented that the six fragments of clay tobacco pipes are of mid to late nineteenth-century date, one of which had remains of a moulded name which appears to read CARLISLE. The whole group is likely to have been locally made by one of the later Carlisle makers, the most probable being S. Hamilton who is recorded between 1847 and 1873 or J. Murray, 1897 to 1906.<sup>1</sup>

### **Lead**

The Ancient Monuments Laboratory reported that the lead fragments resemble window comes which are characterized by long strips of lead with an H-shaped cross-section. The lead fragments were found in close association with the glass

fragments. Although some of the larger pieces of lead have been twisted very tightly and wrapped back upon themselves the shape suggests they were once part of a window. One piece has possible tool marks along one edge while another large piece divides into many branches. There are also three flat pieces of lead which join together to form a flat sheet which was once possibly triangular.

### **Window Glass** by David Sherlock

A large quantity of window glass was recovered from the trenches and sent to the Ancient Monuments Laboratory for conservation (see below).

The glass, in varying degrees of preservation, consisted of fragments of larger pieces including some with grozes or smooth-cut edges, and many smaller fragments. In total there were sixty-four pieces of diagnostic glass, thirty-two pieces of painted glass, thirty-nine pieces of non-diagnostic or totally shattered fragments, and three boxes of minor fragments. The great majority were in extremely poor condition. These include two fragments still held in their lead comes (see above). It can be assumed that all the glass fell out of the adjacent windows on the north side of the presbytery at or after the Dissolution when the eastern arm of the church was ruined. This was also the context for an earlier collection of window glass, now also in the Laboratory, which came from within the presbytery when it was excavated in advance of the laying of new pavings by the Department of the Environment in 1977.<sup>2</sup> It seems appropriate to consider this unpublished material here in conjunction with the 1994 glass, pending its fuller publication with those excavations. Some fragments may even have come from the same windows but generally the 1977 glass appears to be of a better quality and in better condition, although it is not known whether poorer fragments were discarded at the time of those excavations. A selection of the best preserved painted pieces from both excavations is illustrated in Fig. 2, all but nos 19-23 coming from the earlier excavations. The earlier glass is described first because it is the more diagnostic.

Nos 1-5 are painted with an ivy-leaved flower design. The curved, grozed edge of no. 1 suggests it was near the edge of the window or on the border of the complete design. The style is likely to be fourteenth-century. No. 6, and possibly no. 7, is also likely to be a border pattern, though stylistically earlier. No. 8 could be from the base of a painted canopy or niche which is thus likely to have contained a figure. There is a parallel for this in the window glass at Stanford St Nicholas' church, Northants. This and nos 10-14 are probably fourteenth-century. Nos 15-23 are all examples of grisaille, that is, painting which was originally in a grey monotone lattice, now decomposed to a maroon colour, and done to represent designs in relief. The designs are of scrolls and trefoils, characteristically thirteenth-century and comparable with stiff-leaf carving in stone.

These small, poorly preserved fragments are quite insignificant when considered nationally but they do tell us something about Lanercost itself. They are the only surviving pieces of medieval glass from the church, the oldest extant window glass being fifteenth-century fragments in the little window in the blocking of the cloister doorway into the nave, and the sixteenth-century glass from Sir Thomas Dacre's dwelling now set in the east window.<sup>3</sup> Secondly, the grisaille fragments probably date

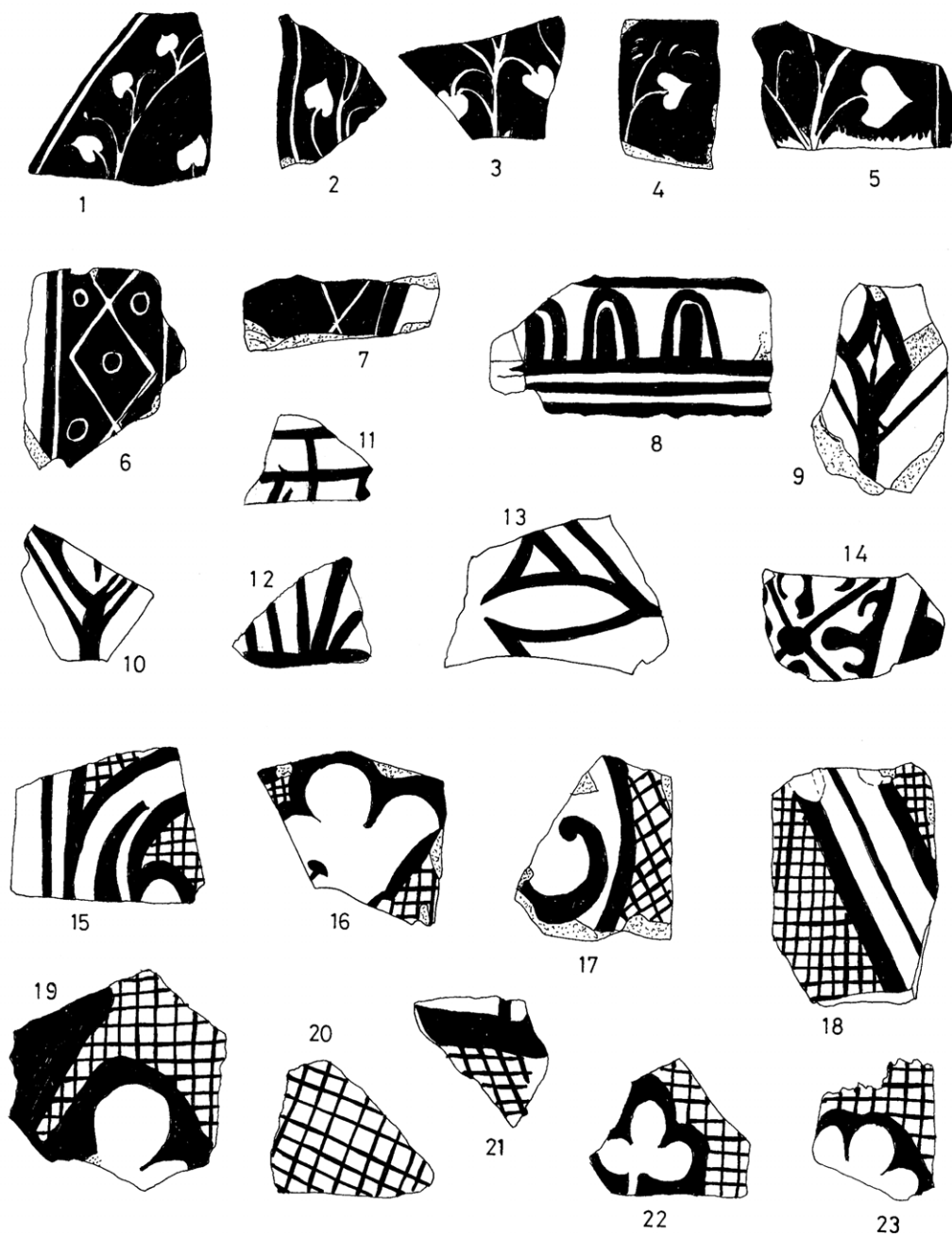


FIG 2

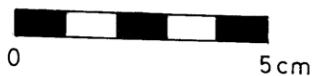


FIG. 2.

from the primary glazing scheme in the presbytery, lasted until the Dissolution, and shows that this was in the main stream of window glass decoration in England. No. 8, if part of a canopy or niche, shows that at least some of the lost glass designs may have been figurative.

Alison Draper of the Ancient Monuments Laboratory supplied the following technical comments:

The glass is from contexts which are closely related to the lead, and it appears to be all window glass rather than vessel glass. These are characterized by grozed or smooth, cut edges. A significant proportion of the glass have diagnostic features.

The overall condition is extremely poor and all except a few pieces are dark coloured and opaque. Many pieces show that the deterioration starts on the outer surfaces and travels inwards as there is often a line in the centre where the two deteriorating surfaces meet and the fragment of glass is prone to separating at this point. There seems to be very little silica network remaining and consequently the glass crumbles very easily into cuboidal fragments. The deterioration of the glass is also a function of its composition and is exacerbated by the use of a potassium flux rather than a sodium flux. The use of potassium was widespread in the medieval period and may have been used in this glass. The dark opaque colour may be a result of the ingress of iron or manganese ions from the burial environment and these seem to have a lamellae structure. A shiny surface on the dark glass shows that there is some hydrogen glass still remaining on the outer surface. Other fragments of glass have a stonelike appearance and are porous due to their loss of mass during burial. The majority of glass conforms to Newton and Davisons description of glass decay which produces an enamel-like surface, iridescent pits and crumbling in a mosaic like manner.<sup>4</sup>

The phenomenon of glass pitting is found on many of the fragments. On the painted pieces, it occurs mostly, but not exclusively, on the opposite side to the paint. It has been suggested that pitting may be an initial step before the formation of a crust on medieval window glass.

Many pieces have traces of paint on one surface and appears as a red-brown-black colour and possibly a white colour. It is unlikely that these are the original colours of the paint as burial would subject it to deterioration, as well as the glass. The patterns seem to consist of motifs such as lattice work, club shapes and blocks of colour. The most common method of applying colour to medieval glass was by using copper and iron compounds together with a binding material.

### **Iron** by Alison Draper

There are fifty fragments or objects of iron and these were found in four contexts. Most of the iron can be identified as having a structural function originally. There are many nails, some of which have mineral preserved organic material attached which appears to be wood, suggesting they may be coffin nails. Other pieces of iron have masonry attached.

The nails and nail shafts have a mixture of square, rectangular and round cross-sections. One shaft which tapered to a serrated edge at the head end had a square cross-section. There is also a large hook which may have a hole through the body of it. Another piece had a large L-shaped fitting which had a denser metal (copper alloy?) pin at one end and possibly two more in the adhering material.

There are remains of iron sheeting covering masonry. These may be from the roof of a now-lost lean-to building built against the north side of the church or perhaps off-cuts from repair work in the past.

### **Pins** by Chris Caple

Both of the pins found are identified as wound wire headed pins of the Caples 'C'

type head. They are examples of the smaller type of pin more prevalent in the later periods, probably post 1500, and most likely dated between 1600 and 1900 A.D. Both exhibit traces of tinning which was the normally applied coating to pins of these dates. All previous analyses have shown that this type of pin is made of brass wire with a small addition of lead. Pins were made by the thousands per day during this period<sup>5</sup> and they were extensively used for pinning clothing, burial shrouds and other pieces of textile. They are so numerous as to be undiagnostic of social status, sex or purpose.

### **Masons Marks**

Tooling marks were evident on most of the masonry wall blocks and a total of eighty-seven masons marks was recorded, several of which had been repeated over a dozen times. The position of the marks on the lower courses of the wall above the foundations suggest that they are related to the first phases of construction of the priory church c. 1200 A.D. A 1:1 tracing was made of all of the marks. During the course of the recording of the inner walls of the west end of the refectory undercroft and the external face of the south transept by the present writer a large number of masons marks were also noted. All of the recorded marks have been reproduced here (Figs. 3-5).

### **Discussion**

The two L-shaped trenches were placed in such a way as to locate any buried walls which may have been attached to the exterior walls of the sanctuary, lady chapel or north transept. No such walls were found during the excavation. The topsoil covered the area exposed to a depth of 70-80 mm and contained fragments of bitumen, modern pottery and glass as well as fragments of clay tobacco pipes. This would appear to relate to building work carried out in the nineteenth and twentieth century on the north side of the monument to as late as 1994 when repairs were carried out to the roof above the lady chapel.

The drainage ditch around the base of the sanctuary, lady chapel and north transept walls appears to have been open in relatively recent times as pieces of bitumen, fragments of modern glass and pottery, nails, a clay pipe stem and parts of reconstituted stone tiles were discovered in its fill. The mix of material in the ditch suggests that it was back-filled or levelled off using soil from the surrounding area.

The mix of objects in the upper contexts of the excavation trenches and the varied date ranges of the pottery could not be used to date the layers in which they were found.

Although it had not been possible to distinguish the grave cuts at a higher level, it was apparent that the burials had cut into the compacted sandstone layer and were therefore later. The fact that no records or head stones exist for the graves suggests that the children were unbaptised when they were placed here.

A French drain 500 mm deep has now been inserted around the outside of the affected walls of the Priory and the topsoil has been lowered by a depth of 200 mm.



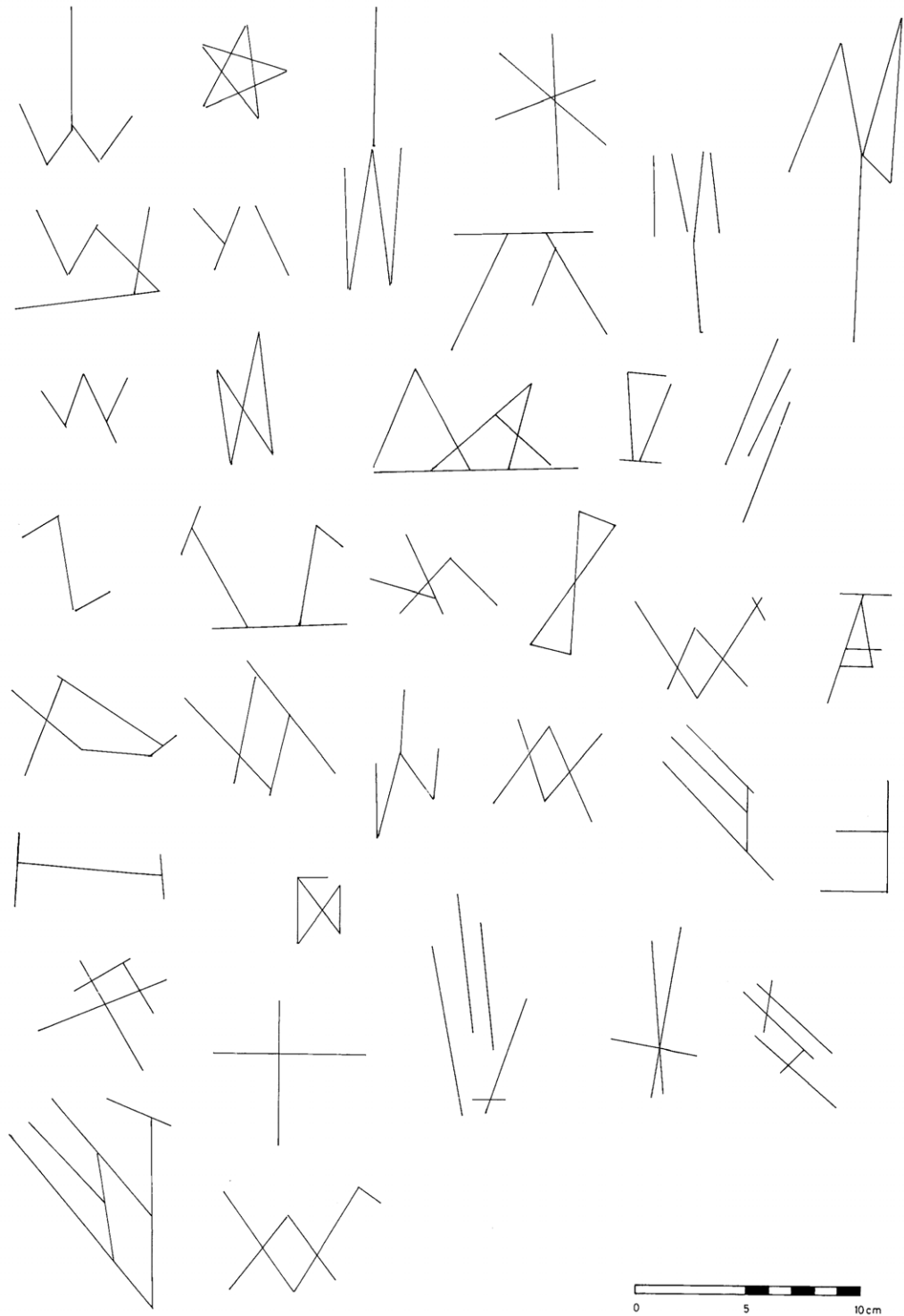


FIG. 3. Masons marks on external face of north transept, lady chapel and presbytery.

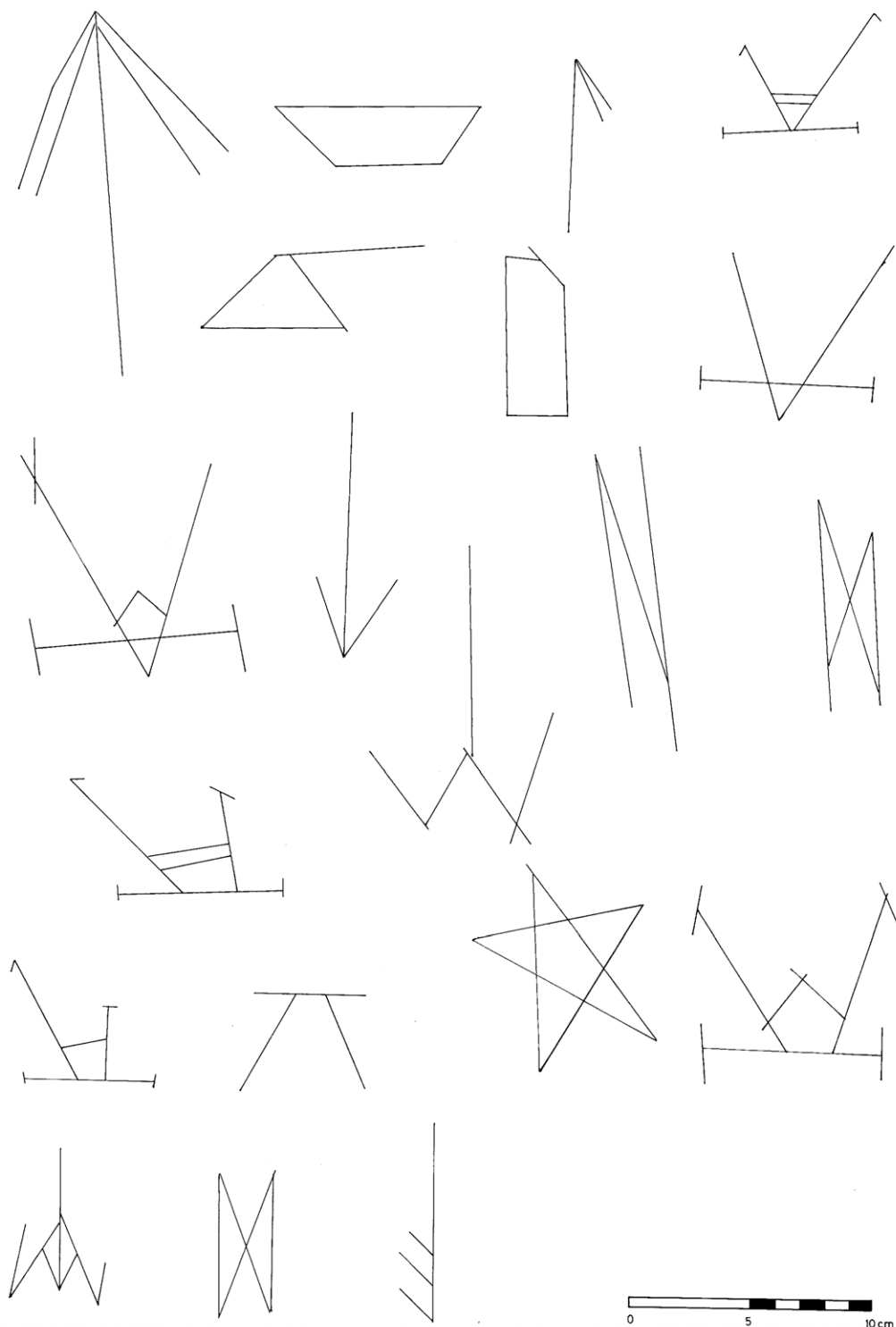


FIG. 4. Masons marks on internal face of refractory undercroft.

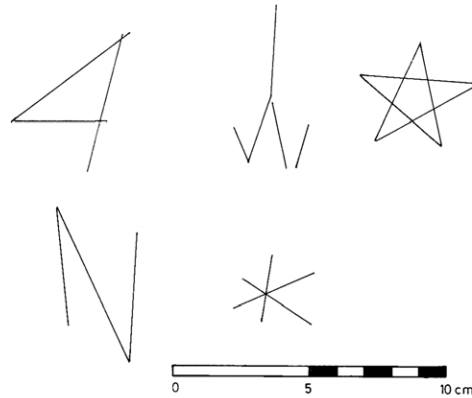


FIG. 5. Masons marks on external face of south transept.

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### Notes and References

- <sup>1</sup> Oswald, A., *Clay Pipes for the Archaeologist* British Archaeological Report 14 (Oxford, 1975), 165.
- <sup>2</sup> Gosling, P., "Excavations within the presbytery of Lanercost Priory", forthcoming.
- <sup>3</sup> *CW2*, xcvi, 96.
- <sup>4</sup> Newton, R. G. and Davison, S., *Conservation of glass* (1989).
- <sup>5</sup> Caple, C., "The Detection and Definition of an Industry: The English Medieval and Post Medieval Pin Industry", *The Archaeological Journal* 148 (1992), 214-55.

