Excavations at Carlisle Cathedral in 1985

Graham Keevil

Edited by Ian Caruana and David Weston

Editorial note

THIS report was drafted in the late 1980s or early 1990s and was intended to be included as part of a larger monograph focused upon Graham Keevil's 1988 excavations on the site of the proposed Treasury (Trenches G and H, Figure 1). Since the demise of the Carlisle Archaeological Unit no work has been carried out on any aspects of the report. An attempt is now being made to move the publication process on. Since the report on the 1988 excavation requires considerable work to draw it to completion, this 1985 section, which was substantially complete, has been extracted for independent publication with some additional input from the editors, Ian Caruana and David Weston.

The 1985 excavation was supervised by Andrew Dacre and owes much to his careful excavation and meticulous record keeping. It is not clear to us if any of the post-excavation work was done by him but we do wish to put on record his contribution to the project. We also wish to record our gratitude to Philip Cracknell who drew most of the figures and to Peter Messenger for help in preparing some of them for publication.

Since the text was drafted a substantial compilation about the Cathedral and its precincts has been published (Weston, 2000). A re-assessment of the 12th century Cathedral (McCarthy, 1996) is also available as well as the proceedings of the British Archaeological Association's 2001 conference on Carlisle and Cumbria (McCarthy and Weston, 2004).

The excavations

In 1985 Carlisle Archaeological Unit was asked to carry out test excavations for the Dean and Chapter to assess the structural integrity of the foundations of Carlisle Cathedral. The six excavations, site codes CAT A-F (Fig. 1), were limited in size and were confined to the south and west sides of the nave and choir. Each site was recorded separately and excavated by hand. The archaeological deposits, especially the Roman layers, were subjected to the minimum disturbance possible. The work was funded by English Heritage and the Dean and Chapter and was carried out during July and August. A brief note has been published (McCarthy, 1987) and some discussion of the results has appeared in print (McCarthy, 1996, 36-8) but this report provides a full description of the results.

The main purpose of the work was to examine the Cathedral foundations. In most

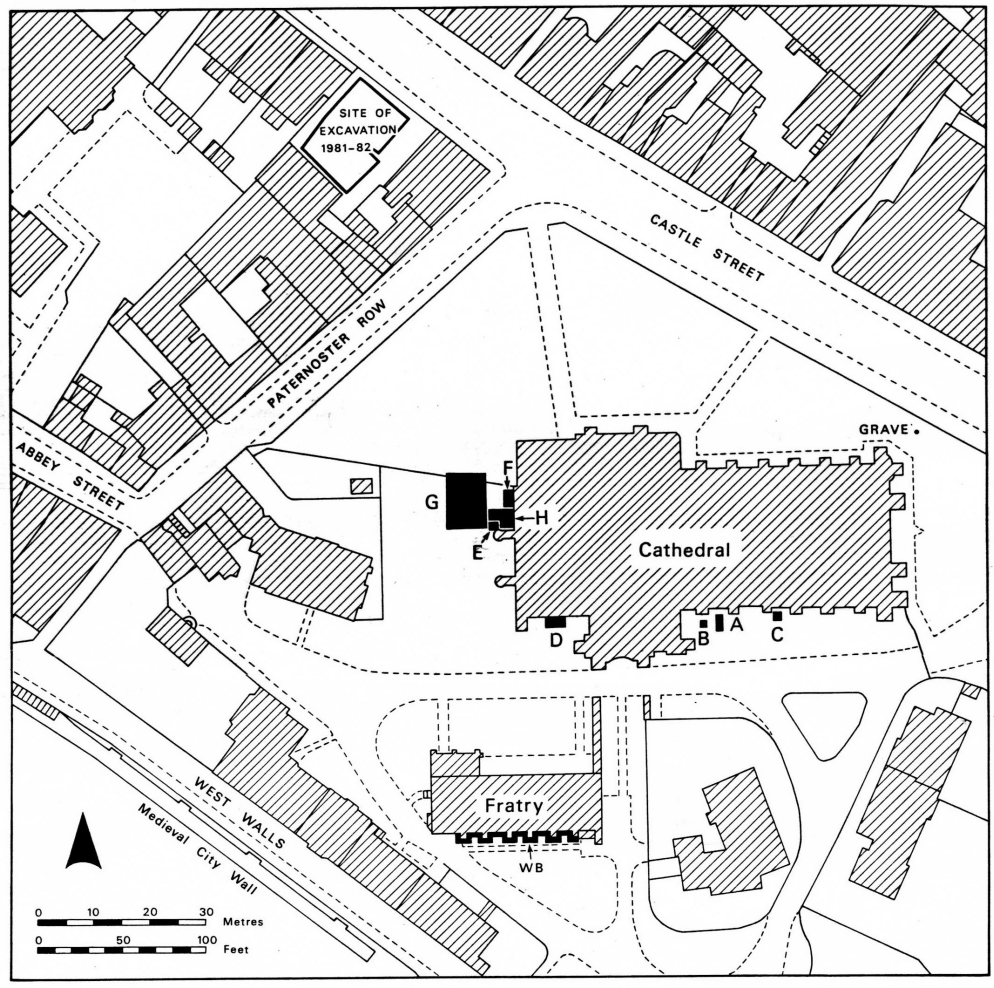

FIG. 1. Location of the 1985 (A-F) and 1988 (G-H) excavations and watching brief on the south side of the fratry

of the trenches excavation ceased upon reaching Roman levels. Most contexts were recorded in section only. The limited sequences are thus described from the latest material to the earliest, noting correlations with the 1988 results where relevant. A brief discussion of each trench is provided, but examination of the relationship between the 1985 and 1988 excavations is reserved to comment in the future.

Trench A

Description (Figs. 2, 3 and 4)

Trench A, measuring 3m north-south by 1m wide, was located against the south wall of the second bay of the choir. It was excavated to a maximum depth of 1.68m below turf level, or Ordnance Datum (OD) 22.10 m, alongside the foundations; the southern

half of the trench, however, was not excavated below a depth of 0.70m. An auger boring penetrated to a depth of 3.60m below turf level, or *c*.OD 20.20m, without reaching natural. A modern pipe trench crossed the south end of the excavation.

Six contexts were recorded. Below the turf and topsoil (A1), up to 0.10m deep, was an irregular layer of loamy sand (A2) up to 0.75m deep, sealing a silty loam (A3) up to 0.39m deep. Below this was a deposit of loosely-packed human bone (A4), up to 0.45m deep. This was interpreted as the fill of a charnel pit. No relationship with the choir foundations could be discerned.

The foundations (A6) consisted of mixed ashlar and sandstone rubble set in hard white mortar at least 0.50m deep below OD 22.65m (Figs. 3 and 4). An indistinct horizon noted at this level may represent the contemporary ground level. Above this five courses of closely-set ashlar, 1.15m high and inset by 0.12m from the foundations, lay below the turf line.

Two skeletons were revealed in the trench, though grave cuts were not observed in either case. SK1 in grave A5 lay at a depth of OD 23.17m, 0.60m below turf level and 0.70m south of the choir foundations (Fig. 2). Only the legs below the knees intruded into the trench. The grave clearly post-dated the construction of the choir, as it lay above the level of the bottom of the wall.

The second skeleton, to which no contexts were assigned, lay below and was partially disturbed by the choir foundations. As far as can be determined the grave was oriented west-south-west to east-north-east with the head to the west. The grave clearly pre-dated the choir foundations.

Discussion

Little can be said of the upper layers. They appear to be post-medieval and may relate to 19th century landscaping of the precinct (Perriam, 1987, 138). While the stratigraphic position of the possible charnel pit could not be determined, it seems likely that it relates to disturbance of earlier graves during construction of the choir. Grave A5 post-dates the latter and is likely to be of post-medieval date. The superstructure of the choir belongs to the 13th/14th century rebuilding, but the foundations appear to be original Norman work, entirely consistent in depth and construction with the character of the nave foundations in trench D and the 1988 excavations. Thus the earlier grave would be demonstrably pre-Norman.

Trench B

Description (Figs. 2 and 5)

Trench B was 1m square and was excavated to a depth of 1.80m. It was situated against the first choir buttress east of the south transept, 1.88m west of trench A. Below the turf and topsoil (B1) was an irregular gravel spread (B2) up to 0.10m thick, sealing a layer of rubble (B3) approximately 0.50m deep. This overlay grave B9, fill (B4), containing a supine, extended adult SK1 with the hands overlying the pelvis; the

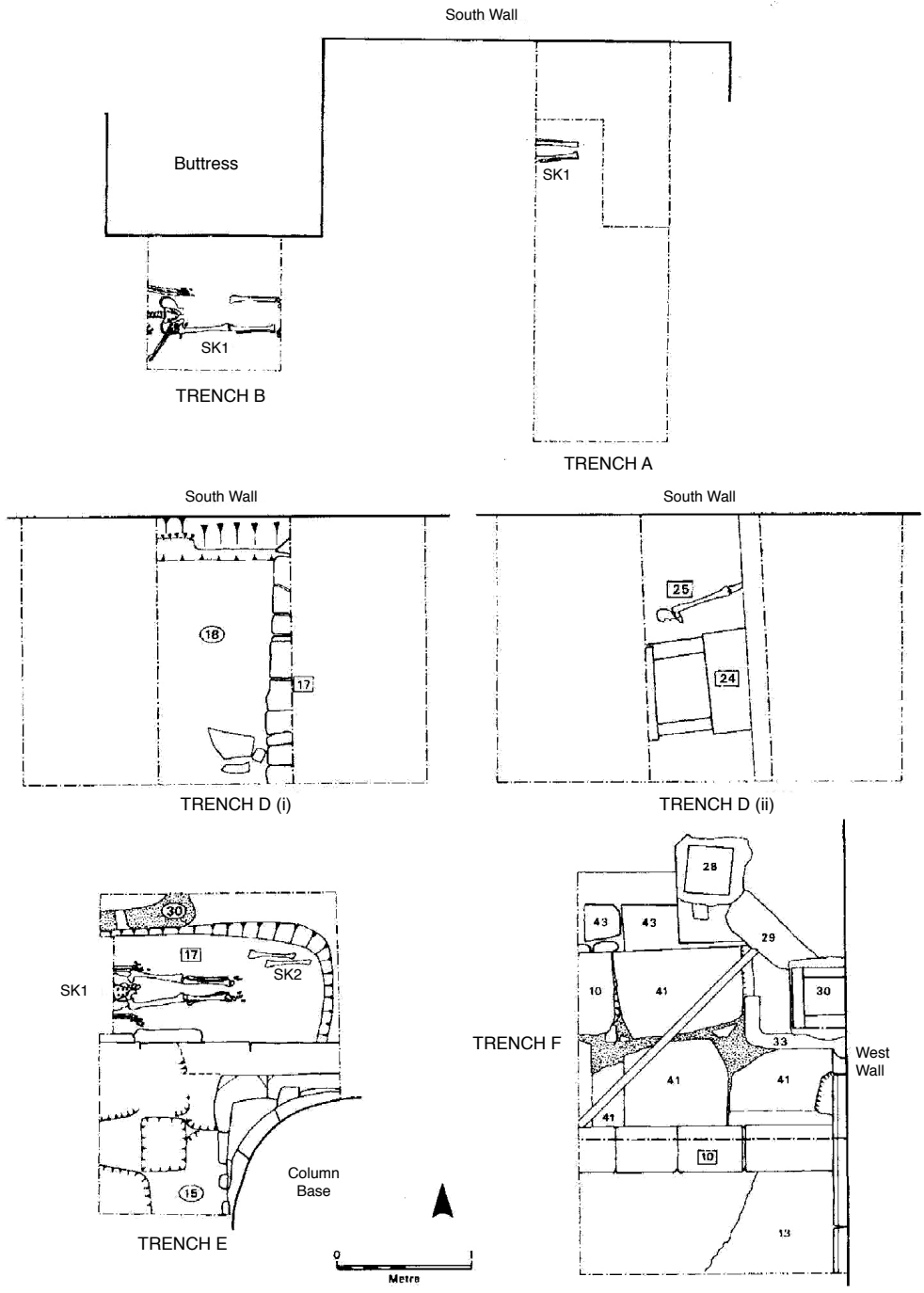

FIG. 2. Plans of trenches A, B, D, E and F (Note: Trench C not drawn – location given in Fig. 1).

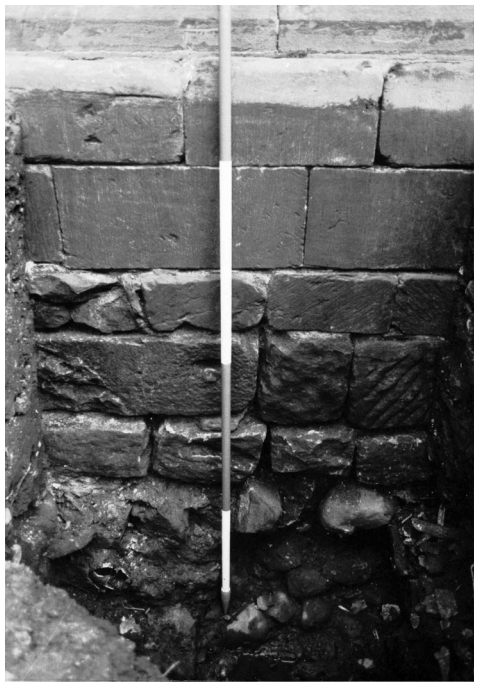

FIG. 3. Foundations of the south chancel wall, Trench A (scale = 2m).

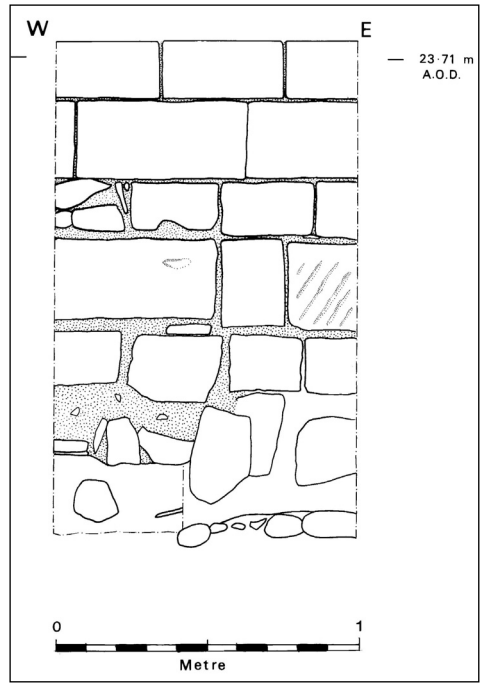

FIG. 4. Profile of the south chancel wall, Trench A.

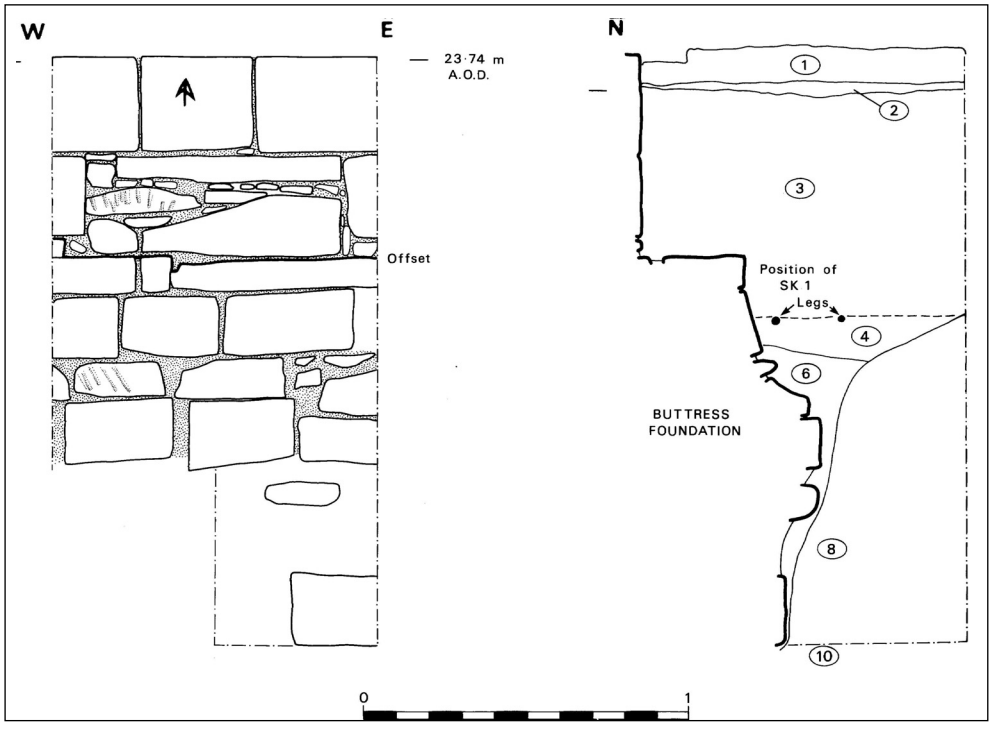

FIG. 5. Sections and profiles, Trench B.

upper torso lay beyond the excavated area to the west. The body lay at OD 22.94m, 0.12m above the medieval ground level.

The buttress foundation trench B7 contained at least four courses of mixed ashlar and rubble (B6) 0.88m deep below the contemporary ground level of OD 22.82m. Above this were two courses of ashlar representing a plinth offset by 0.30m from the buttress. It is not certain that the base of the foundations had been reached in the excavation (Fig. 5). Two courses of the buttress were revealed above the plinth. Similar plinths were recorded on the south side of the Fratry during a watching brief in 1988 (shown on Fig. 1).

The drawn profile of the buttress foundation records the position of an unexcavated grave at OD 21.95m but no other record was made of this grave. Its position would suggest that it pre-dates the buttress. Foundation trench B9 cut a layer of dark earth (B8) below which was a gravel deposit (B10) which may represent the top of the Roman levels.

Discussion

Layer B2 seems to be part of a cobbled surface, probably of 19th century date, overlying post-medieval/modern soil build-up, layer B3. The latter seals grave B9 which is either late or post-medieval, post-dating the buttress construction. Unfortunately it is impossible to determine whether the buttress foundations are Norman or belong to the 13th/14th century rebuilding. Their depth and construction suggest the latter, and there are no buttresses to the surviving Norman fabric. Only excavation at the junction of the buttress and choir wall, however, could prove the point. The interpretation is crucial to the dating of the unrecorded grave at the base of the trench. At the very least it must be pre-14th century, and its depth makes a pre-conquest date likely. The mason's mark on the second course of the buttress (Figs. 5, 16.2) is also found, the other way up, on the walls of the choir (Creed, 1881, Plate II; Weston, 2000, 133) which would suggest that this buttress is also 13th/14th century work unless the orientation of the mark signifies different masons.[1]

Trench C

Description (Fig. 1)

Trench C was sited in the angle of the choir wall and the east face of the third buttress from the south transept, 10m east of A (Fig. 2). Norman Phillips, formerly Surveyor of the Fabric to the Dean and Chapter, had previously excavated a test pit here so that the archaeology had been removed. The purpose of trench C was thus to check the extent of destruction and to draw any exposed wall or foundation faces. It was apparent that Phillips had not in fact penetrated to foundation level, and so excavation proceeded no further. Unfortunately this precluded examination of the foundations of the rebuilt choir where there was no likelihood of Norman foundations being present. A number of large cobbles were, however, exposed on the bottom of the trench. There is no plan of the trench.

Trench D

Description (Figs. 2, 6 and 7)

Trench D measured 3m east-west by 2m wide and was located against the south wall of the nave, 5m west of the south transept. When excavation had reached a depth of 0.50m the area was reduced to 1m x 2m (Fig. 6). The remaining strip was then excavated to a depth of 2.15m, or OD 21.52m.

Immediately below the turf and topsoil (D1), a modern brick-lined heating duct was located, connecting the Fratry boiler room to the Cathedral. It was cut into rubble (D2) up to 0.17m deep which overlay a succession of rubble layers (D3, D8, and D10-16 inclusive, Fig. 6) mostly of indeterminate nature. Layer D10 was an irregular spread of rough cobbling lying against the nave wall. This may have been a path, though the excavator did not consider it to be a deliberately-laid surface.

Below layer D16 was a north-south alignment of sandstone slabs (D17), up to 0.07m thick, with a distinct straight edge to the west; three isolated fragments lay immediately west of this (Fig. 2). The slabs were set into a layer of sand (D18) up to 0.10m deep and extending westwards beyond the straight edge of layer D17. The top of surface D17 lay at a level of OD 22.65m, thus butting against the top of the nave foundations. Below the sand (D18) was a layer of hard-packed loamy sand 0.10m deep (D19), probably an earlier floor; this also butted against the foundations (Fig. 6).

The foundations (D26) were four courses deep below OD 22.90m. The lower two courses, consisting of rough-quarried sandstone and plaster or *opus signinum*, were arranged in a herring-bone pattern in coarse sand and chippings, with a combined depth of 0.65m maximum. The upper courses, of mixed ashlar and sandstone rubble set in hard white mortar, were up to 0.42m deep. Four courses of the south wall were present in the trench (Fig. 6).

The foundations cut a dark soil deposit (D20) which was at least 0.75m deep. This was also cut by two graves. The later of these consisted of a sandstone-lined and covered cist (D24) in east-west pit D22, backfilled with silty loam (D21). The cist contained an adult skeleton SK1, supine and extended, which was left *in situ*; the grave was re-sealed with a slab, inscribed with the appropriate date to avoid confusion in any future excavation (Fig. 7).

Grave D22 cut a second grave (D25) containing an adult skeleton SK2 (Fig. 2). The torso and upper right leg had been removed by the later grave, and the lower legs lay beyond the limit of excavation to the east. The body was aligned west-south-west to east-north-east and the left leg would certainly have intersected with the nave foundations; the balance of probability is that the latter would cut the grave. Below these burials were deposits of mortar, *opus signinum* and cobbles which were not excavated.

Discussion

The limited finds evidence suggests that contexts overlying layer D10 belong to the

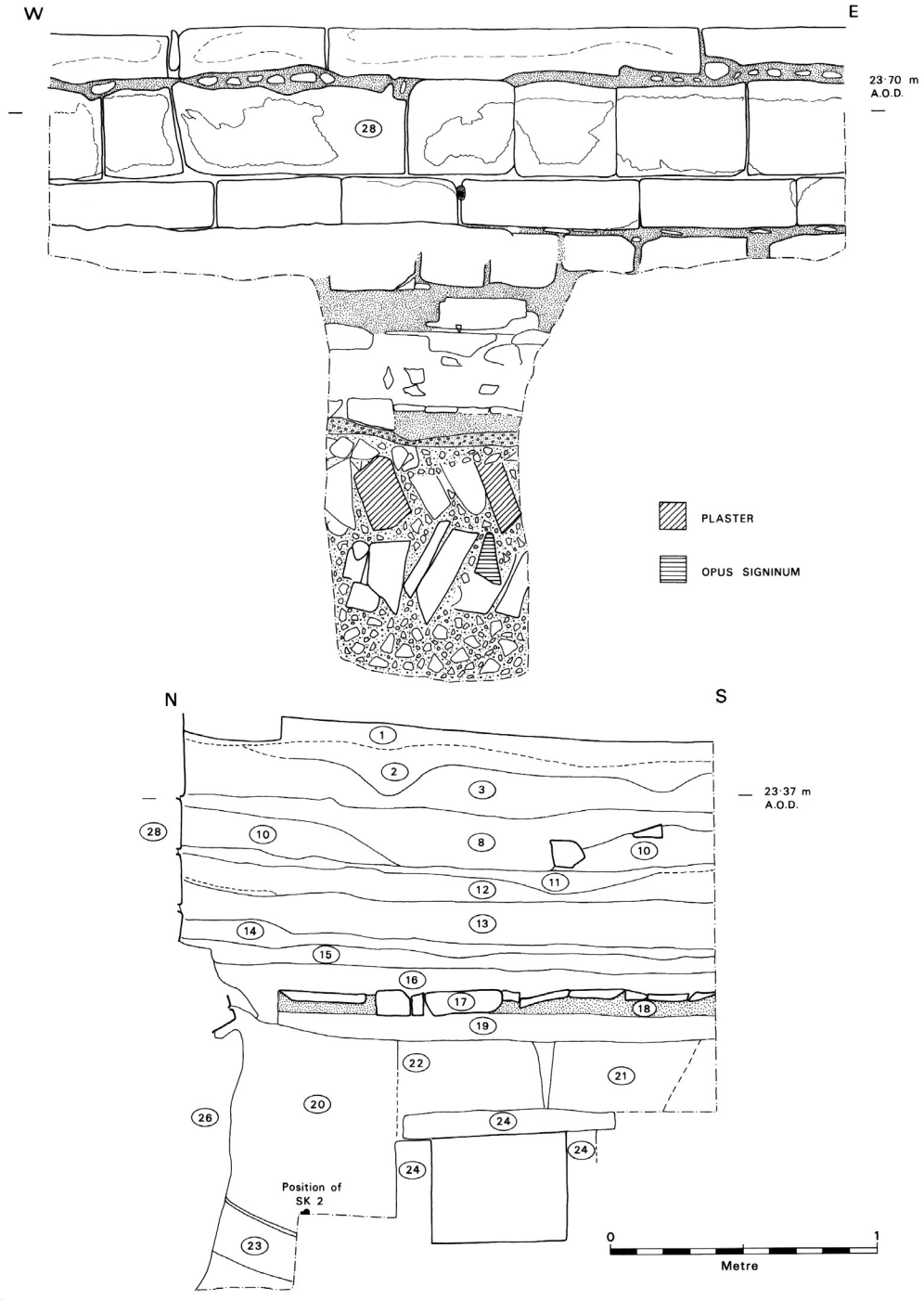

FIG. 6. Section and profile, Trench D.

FIG. 7. Stone cyst from beneath the cloister floor, Trench D (scale = 50cm).

19th and 20th centuries. The possible path (D10) appears to have been laid down in the 19th century. Layers D11-D15 must be post-medieval on the basis of associated artefacts and stratigraphic position overlying the lower courses of the Norman masonry. Layer D16 lies in an ambiguous stratigraphic position, overlying the paved surface (D17) but not being clearly later than the nave foundations. It is possible that layer D16 was a trampled earth replacement for the pavement.

Pavement D17, sand layer D18 and the underlying hard-packed sandy loam (D19), possibly a surface, were medieval, being the floors of the Priory cloister and, in the case of pavement D17, at least, its east passage. There is no reason to suppose that these are other than the original floors, and they appear to have been sunk into the contemporary ground surface rather than being laid on it; the pavement (D17) was clearly butted on to the nave foundations. The top level of the latter lies substantially below the comparable foundation levels in trenches E, F, G and H on the north side of the Cathedral, but is in line with the results from Trench A and is slightly below the later buttress level in Trench B.

The cloister contexts sealed a pair of burials which, by implication, should be of pre-Norman date. In the case of D25 this is supported by the likelihood that the grave was truncated by the nave foundations. Grave D22 is more notable for its elaboration,

however, being a finely-built lintel or cist grave. These are known from pre-Viking and Viking cemeteries in the Isle of Man (Bersu and Wilson, 1966, 10-13; Freke, 1988). At St Mark's Church, Lincoln (Gilmour and Stocker, 1986), lintel graves have a currency from the 11th/12th to 17th/18th centuries. An early medieval lintel/cist grave was discovered in Trench H, while late- and post-medieval examples occurred in Trench G.

The graves were cut into a dark soil encountered elsewhere in the 1985 and 1988 excavations. It is impossible to interpret the small amount of material revealed at the base of the trench, but a late Roman date would be appropriate.

Trench E

Description (Figs. 2, 8 and 9)

This trench was 2m square and was excavated to a maximum depth of 2.40m, or OD 21.70m. It was sited against a pier of the north arcade of the Norman nave; this was originally the third pier west of the crossing but was incorporated into the 17th century reconstruction of the nave as a buttress for the new west wall. The latter is 2.50m east of the arcade pier, which was recorded as context (E7). A mason's mark (Fig. 16.3) was found on the column base.

Immediately below the turf and topsoil (E1, up to 0.15m deep) was a brick and concrete shaft E6, containing a numbered reading point established in 1964 (information from N. Philips, formerly Surveyor of the Fabric to the Cathedral). This cut a sandy silt containing abundant rubble (E3) 0.13m deep which was also overlain by a silty loam, 0.17m deep (E2), unaffected by feature E6. Finds from these layers suggest a modern date, probably in the 19th century.

Layer E2 sealed unexcavated feature E28, a small part of which occurred in the north-west corner of the trench (Fig. 5). Two horizontal sandstone slabs lay on the south side of the feature, which was thus interpreted as a grave. It was fully excavated in trench G, grave 6. However, in trench H, the feature was cut into a lens of silty sand (H5) 0.07m deep.

Below layer (E5) was a series of sand and mortar layers (E8-10) containing large amounts of building rubble including architectural fragments (Nos. 15 and 16: Fig. 13.1-2) This material was evidently derived from the demolition of the Norman nave. Layer E8 sealed sub-rectangular feature E12 cut into the top of the arcade foundations. There was no identifiable purpose for this feature.

Layer E10 sealed grave E17 which contained an adult burial, SK1, supine and extended (Fig. 2). Only the legs and pelvis occurred within the excavation; the hands appeared to lie by the sides of the pelvis. Also in the grave were the disarticulated remains of a second individual, SK2. The grave was sited against the arcade foundations and cut through a layer of compacted sand (E21/22).

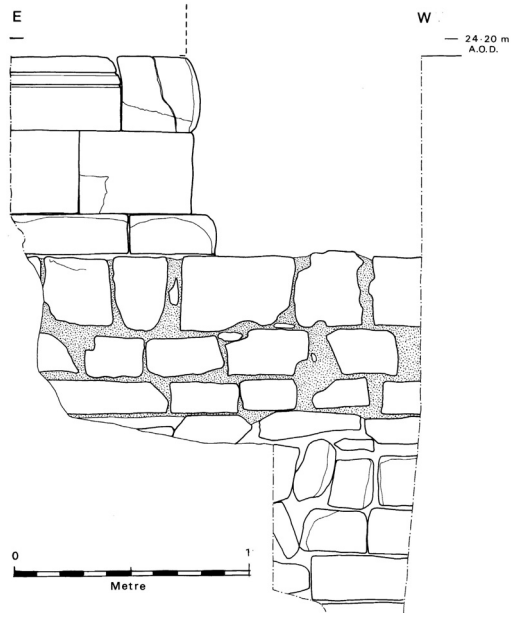

FIG. 8. Profile of nave arcade foundations, Trench E.

FIG. 9. Column and underlying foundations of demolished nave, Trench E (scale = 50cm).

The latter sealed a lens of pale brown mortar 0.04m thick (context E15 south of grave E17 and overlying the arcade foundations, context E30 north of grave E17). The surface of the mortar contained impressions which may have been caused by floor slabs; these lay at a level of OD 23.22m. The same surface was identified in trench H with the remains of three sandstone slabs *in situ*.

The arcade foundation consisted of a continuous sleeper wall E18 built of coursed sandstone rubble and large cobbles (Figs. 8 and 9). It was at least 1.5m deep but its base could not be revealed within the confines of such a small area.

A number of compacted silty layers (E23-25) were identified in section, sealing the backfill (E26) of the sleeper wall foundation trench but lying below the top of the wall itself; nevertheless it is likely that layers (E23-25) represent remnant floor levels within the nave. The foundation trench cut through indistinct layers recorded as context E20; these probably represent the pre-Cathedral dark soil and, possibly, the top of Roman levels.

Discussion

Trench E contained significant evidence regarding the construction of the nave and arrangements within it. Equally significant was the discovery of a grave, E17, which was sealed by the post-medieval demolition rubble. This implies that SK1 was buried within the Norman nave, although presumably towards the end of the medieval period as it cut the latest (E15/30) of a series of internal floor levels. Feature/grave E28, by contrast, cut the demolition levels and must therefore be of post-medieval date. The layers E2 and E3 sealing E28 are likely to have been deposited after the Cathedral cemetery was closed in 1854 (Perriam, 1987, 139).

Trench F

Description (Figs. 2, 10 and 11)

Trench F measured 3m north-south x 2m east-west and was located against the 17th century west wall and across the north wall of the Norman nave. The trench was excavated to a maximum depth of 1.75m, or OD 22.42m. The north wall and its foundations were exposed in profile but not removed (Fig. 10).

The turf and topsoil (F1) sealed a layer of modern rubble (F2) up to 0.15m deep and equivalent to E2. This overlay a number of modern features, including trenches containing a telephone cable F24, a lightning conductor, drain heads F28 and F30, and a reused mullion supporting a re-positioned gravestone by the west wall. These features are described in archive. Most of them cut rubble layer F3, up to 0.22m deep and equivalent to trench E3.

Rubble layer (F4), up to 0.24m deep, overlay the nave north wall and was equivalent to trench E context (F5). South of the north wall, layer F4 sealed a sequence of lenses (F5-F8, F42) post-dating the insertion of the 17th century west wall. The latter sat on

a coarse rubble foundation, F15, containing a number of architectural fragments. This feature was further exposed during the 1988 excavations and watching brief and a full description will be given there. Dumps or lenses of mortar (F9), silty loam (F11) and sand (F12) lay in uncertain relationships to F15, but the latter two butted against the fabric of the north wall. Layer F12 overlay a silty clay layer (F14), also cut by F15, up to 0.08m deep; this layer, and the underlying rubble scatter (F17), sealed the top of the north wall foundation trench, but the wall itself seemed to lie on layer (F14).

Two courses of the north wall survived within the trench. The lower (F10) consisted of closely-jointed sandstone ashlar fronting a concreted rubble core, 1.30m wide in total and 0.21m high. The upper course (F41) was a single skin of sandstone ashlar,

FIG. 10. New west wall inserted in the 17th century overlying the north wall of the nave to the left, Trench F (scale = 50cm).

0.67m wide and 0.32m high, set centrally on the base course. The foundations (F43 in trench F19, backfill context F18) were laid in four courses cut from a level of OD 23.10m (Fig. 10). They were investigated more fully in the 1988 excavations. A mason's mark was found on the north wall of the nave (Figs. 11 and 16.1). This simple arrow-form has been found with a variety of orientations on other parts of the Norman nave (Creed, 1881, Plate I; Weston, 2000, 132). The occurrence of a similar arrow mason's mark on 14th century masonry in the choir is almost certainly unrelated.[2]

The foundations cut a dark soil deposit (F20-F22). Human skeleton SK1, partly removed by the nave foundations, was found at the bottom of the layer; no grave cut was identifiable. Bones from the skeleton submitted to Harwell produced a radiocarbon determination of A.D. 750 ± 70 (at one standard deviation = 1,200 ± 70bp) (HAR 7046). No underlying Roman levels were revealed.

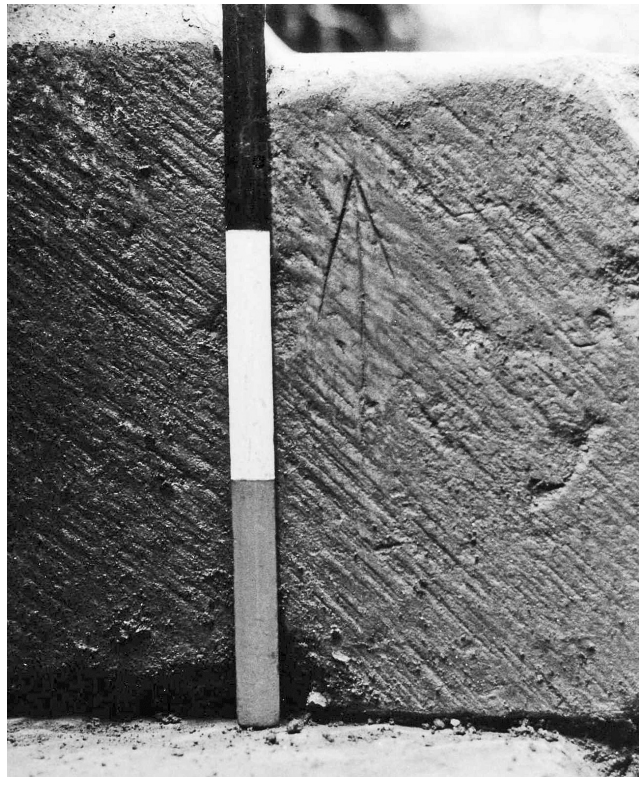

FIG. 11. Mason's mark from the north wall of the nave, Trench F (scale = 30cm).

Discussion

As in trench E, important structural evidence for the construction of the Cathedral was forthcoming in Trench F. This not only concerned the Norman nave, but also the 17th century west wall. The radiocarbon determination from SK1 was of prime

importance in furnishing an absolute date for one of the several demonstrably pre-Cathedral burials revealed in 1985.

The Finds[3]

This catalogue of the finds was always intended to be a sample of the finds from the excavation rather than a detailed description of everything found and we have concurred in this judgment. The majority of the material is poorly stratified and of little significance; listings held in archive were considered to be a sufficient record (although these lists seem never to have been completed). In presenting this section we have, however, broadened the scope of the original text in a number of directions. Firstly, it appears that the finds were never fully assessed when the report was first worked upon; we have examined some classes of material ourselves but we have also relied on a more detailed assessment by Tim Padley, Finds Officer at Carlisle Archaeology Ltd., some years after the report was first drafted. Secondly, in the light of these assessments we have identified additional items of intrinsic interest which deserve notice. Thirdly, we have included discussions of the medieval floor tiles and the lead which bear particularly on the structural history of the Cathedral – the main objective of the excavations.

Other finds include pottery (Roman and medieval), bones, ironwork, bronze finds and glass which are not considered here. Louise Hird identified 176 sherds of Roman pottery from these six trenches of which 30 are samian but concluded that there was nothing unusual present. The window glass parallels the presence of the lead cames but is highly fragmentary and was not considered likely to yield significant information by detailed study. It should also be noted that, because of the frequent upheavals in the Carlisle finds stores, it has not been possible to locate all the finds, either in the care of Tullie House Museum or the Dean and Chapter.

Roman coins: D. C. A. Shotter

Ten coins were recovered, most of which were too worn, corroded or damaged to permit complete identifications. Two Roman coins from trench D could not be located at the time of writing.

1. Radiate copy, Victorinus, A.D. 269-71
   Obv. [IMP C VICTORINVS P F AVG]
   Rev. female figure left, possibly *Salus* [SALVS AVG]
   Moderately worn (MW) Wt: 1.88g; *RIC* 5^2 (Victorinus), 71?
   A+ (from A2 or A3) N1

2. Radiate copy, Victorinus or Tetricus I, A.D. 271-3
   This coin is too corroded to permit precise identification or assessment of wear.
   Wt:1.80g
   A+ (from A2 or A3) N2

3. Very crude Radiate Copy, possibly Tetricus I, A.D. 271-3
   Fragmentary, Rev. possibly *Sol* [ORIENS AVG]
   MW Wt: 1.00g; *RIC* 5[2] (Tetricus), 98?
   B6 N1

4. Radiate Copy, Victorinus, A.D. 269-71
   Obv. [IMP C] VICTORIN[VS AVG]
   Rev. possibly [FELICITAS AVG]
   MW Wt: 175g; *RIC* 5[2] (Victorinus), 41?
   B8 N2

5. Radiate Copy, probably Tetricus I, A.D. 271-3
   Rev. possibly [ORIENS AVG]
   MW Wt: 120g; *RIC* 5[2] (Tetricus I), 98?
   E14 N1

6. Very crude Radiate Copy, probably Tetricus I, A.D. 271-3
   Rev. Mars walking right with spear and trophy [MARS VICTOR]
   MW Wt: 2.09g; *RIC* 5[2] (Tetricus I), 94?
   E14 N2

7. Fragmentary, very crude Radiate Copy, Victorinus, A.D. 269-71
   Obv. [VICT]
   Rev. illegible
   F+ N1

8. Minim, Radiate Copy *c*.A.D. 280-90
   No features visible. Dia. 8mm. Wt: 1.28g.
   F14 Ae2

RIC 5[2]: Mattingly H., Sydenham E. A. and Webb P., *The Roman Imperial Coinage*, Vol. 5, Part 2, London, 1933.

It can be assumed that the absence of coins of pre-3rd century date is to be explained by the fact that these sites were excavated only to the bottom of the Cathedral foundations, although it is worth noting that the later (1988) excavations at the Cathedral, despite not being excavated to bottom but reaching to a depth of three metres, did produce in residual contexts a reasonable-sized sample of coins of the 1st and 2nd centuries. The present sites do, however, share with the 1988 site an extremely strong showing of Radiates and copies; like the present sample, the majority of those from 1988 were very poor copies of types issued during the *Imperium Galliarum* (A.D. 260-73). The general frequency of such coins from all sites in Carlisle, combined with their uniformly poor quality, suggests that Carlisle would appear to have been a centre for the copying of such coins – perhaps natural in view of its status as the possible *Civitas*-capital of the Carvetii.

However, one notable difference from the coins from the 1988 site, even in this small

sample, is the complete absence of issues of the 4th century; on most sites excavated in Carlisle 4th-century coins, particularly those of the House of Constantine, are as numerous as radiates and copies of the 3rd century. Although beyond proof, it is perhaps not unlikely that some of the third-century coins from the present sites could represent losses of the 4th century.

Styca: E. J. E. Pirie

9. Phase Ia: issued in silver (of decreasing baseness), *c.*790-830 (Fig. 12)
   Eanred, *c.*810-41/2; moneyer Eaduini
   Obv: +EANREDREX around central rosette of pellets
   Rev: EADUI<NI around central rosette of pellets
   Wt: 0.76gm (11.7 gr.); die axis 90°
   D+ N3

The coin was coated in hard copper oxide, forming a lump over part of the obverse. The silver itself appears to be base. Although many coins by this moneyer are known with this combination of motifs, neither die can be traced elsewhere. The obverse legend may be accounted aberrant, since it omits the **R** from the king's name.

Scottish coin: Dr Barrie Cook, British Museum

10. Halfpenny of Robert III, (1390-1406)
    Edinburgh halfpenny, second issue (cf. Stewart, 1967, as Pl. III, 49)
    Dia. 13mm. Wt. 0.47g
    A+ N3

FIG. 12. Styca, No. 9, from Trench D. (Photo. E. J. E. Pirie; scale *c.*3:1).

The medieval and later English coins and jetton: M. M. Archibald

11 Halfpenny, Edward III, 1327-77; Florin Coinage, 1344-51, London mint
Wt: 0.67g; Ref: North, 1960, 1131
A+ N3
This coin was very fresh when deposited and was probably lost soon after issue.

12. Rose farthing, Charles II, 1625-49; type 2a, 1636-44, initial mark, crescent
Wt: 1.01g; Ref: Peck, 1960, no. 328
D+ N1
This coin was probably lost by *c.*1650.

13. Nuremberg jetton, 16th century
Wt: 0.67g; dia. uncertain; fragment *c.*15mm wide
D+ N2

About a quarter of a jetton. What remains of the legends appear to be largely illiterate, nor is any part of the issuer's names present; it would appear to be one of the anonymous 16th century issues with nonsensical legends, rather than one of the later moneyer-named later 16th or 17th century issues.

Metal Objects: D. Tweddle

14. Copper-alloy strap-end buckle and slide (Fig. 13)
The buckle-plate was originally rectangular, made from a narrow strip of metal folded in two over the pin bar, and with a slot cut for the pin. At the open end the strap was held in place by two rivets, one near each corner, with slightly domed heads on the front face. Only a fragment of the open end of the buckle plate with part of the mineralised leather strap survives, detached from a portion of the inner end of the buckle plate still folded over the pin bar. The cast buckle-loop is D-shaped. The straight pin-bar is of sub-circular section, the loop itself is of sloping section, with the upper surface decorated with punched ring-and-dot. The upper edge of the loop is chamfered and decorated with a row of closely spaced punched dots. Much of the decoration, particularly towards the front of the loop, is obscured by corrosion products. These also partly obscure the pin, which is parallel-sided and simply folded over and round the pin-bar at its inner end. The pin still engages with the opposing end of the calfskin strap, passing under the buckle loop and above the buckle plate. Another hole is visible *c.*13mm behind that with which the pin engages. Just behind this is a transverse band of corrosion product representing the original position of the strap slide. The slide itself is a trapezoidal frame. The widest element, of D-shaped section, forms the front; it is decorated near each end with a pair of circumferential grooves. The remaining elements are of rectangular section. Adhering to the inner sides, 2-3mm from the rear element of the frame, are copper alloy sheets fragments.
Buckle L. 40mm; W. 26mm; Th. 7mm. Slide L. 21.5mm; W. 17mm; Th. 5.5mm.

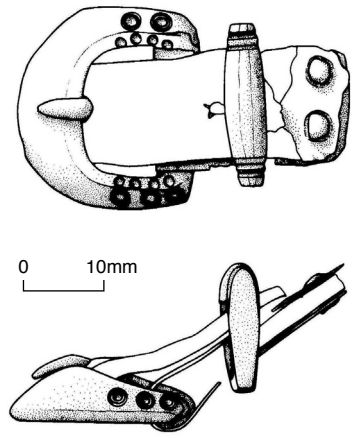

FIG. 13. Anglo-Scandinavian belt buckle and slide (No. 14) (scale 1:1).

A very similar pair of buckles, strap slides and strap-ends from grave 255 in the 1988 excavations at Carlisle Cathedral illustrates precisely how this buckle, which is now fragmentary, originally functioned. One end of the leather strap fitted into the open end of the buckle plate and was held in position by the rivets. These also served to limit the movement of the strap slide; its rear element passed under the strap leaving the front element standing proud of the front of the buckle by about 4mm. The opposing end of the leather strap passed through the buckle loop as seen on this example and then under the front element of the strap slide, before hanging down for some distance. This end of the strap was finished by a round-ended strap-end, present in grave 255, but absent here.

Such sets of small buckles occur widely in the late 9th and early 10th centuries. In addition to the two from Carlisle Cathedral, dating to the first half of the 10th century, there is a comparable buckle in silver with a pair of strap-ends and strap slides from the Trewhiddle hoard deposited *c*.A.D. 868 (Wilson, 1964, nos 99-103, pl. XXXVII). Similar small buckles and strap ends occurred in one of the graves at Balladoole in the Isle of Man. Judging by their decoration these pieces are of continental origin and of 9th century date (Bersu and Wilson, 1966, 360-9, pl. VII B-D). The Balladoole buckles belonged to a set of spurs, and similar buckles in iron are associated with spurs from 16-22 Coppergate, York, dating from the 10th century (Ottaway, 1992, 698-704). On this basis a date in the late 9th or first half of the 10th century can be suggested for the Carlisle example.

Despite the associations of the Balladoole and York examples with spurs, such buckles apparently had other functions. A pair from Lejre, Sjaelland, Denmark, for example, was found below the knees of a skeleton and may have been used on boot straps or garter bands (Graham-Campbell, 1980, no. 189, pl. 189). The pair from grave 255 similarly was not associated with spurs.

Architectural fragments

Fragments 15-16 appear at first sight to be simple voussoirs. The fact that the whitewash and overpainted red lines extend beyond the soffit and on to the adjacent faces, however, suggests that all three faces should be visible. Thus it is suggested that the fragments belong to a pier or respond. Both were found in post-medieval rubble overlying the demolished part of the Norman nave and probably derive from the Norman arcade. It is worthwhile recalling that although whitewash was used extensively on the interior walls of the Cathedral, all surviving examples of red lines on whitewash are on Romanesque masonry in the nave and south transept (Weston, 2000, 10; Plant, 2004, 92-3).[4]

15. Fragment (Fig.14.1)
    Voussoir from the inner order of an arch, or section from course-built pier or respond. Concave soffit. Remains of painted limewash survive, with overpainted red line both on the soffit and adjacent face. This suggests use in a pier or respond rather a function as a voussoir. Found in post-medieval rubble. Probably Romanesque. E8 ST3

16. Fragment (Fig.14.2)
    A fragment identical in form to 15. This also has been whitewashed, with a red, painted line surviving on the soffit and adjacent face. From post-medieval rubble. Probably Romanesque. E8 ST7

17. Moulding by David Weston (Fig.14.3)
    Fragment of moulding apparently from a pilaster. Comparable mouldings can be seen in the 13th century (Early English) work on the arcade of the north aisle (Billings, 1840, pl. VIII and X). E9 ST29
    N.B. This description is based on the drawing; the stone could not be located at the time of writing.

Lead Objects[5]

Cames

A minimum of 37 fragments of H-shaped lead came were recovered from the excavations, representing about 12 per cent of the total lead. Most of the pieces were quite small, under about 20mm in length, with only two longer lengths and one with a junction. Although many of the pieces were flattened only one (unstratified in Trench A) had been folded as though salvaged for re-use. This contrasts with the cames recovered from mid-17th deposits at the Bishop's residence at Rose Castle where the cames were clearly being collected and folded up ready to be carried away as scrap (Caruana unpublished report). The most interesting piece was a small triangular quarry, broken and fragile, but still held by cames on all three sides (from E3).

The greatest concentration of cames (19) was recovered from trench A with significant numbers from E (10) and F (6). Trenches B and D produced only one piece each and there were no finds from Trench C. The cames derived entirely from demolition layers post-dating the 17th century building in trenches E and F or later levels in Trench A.

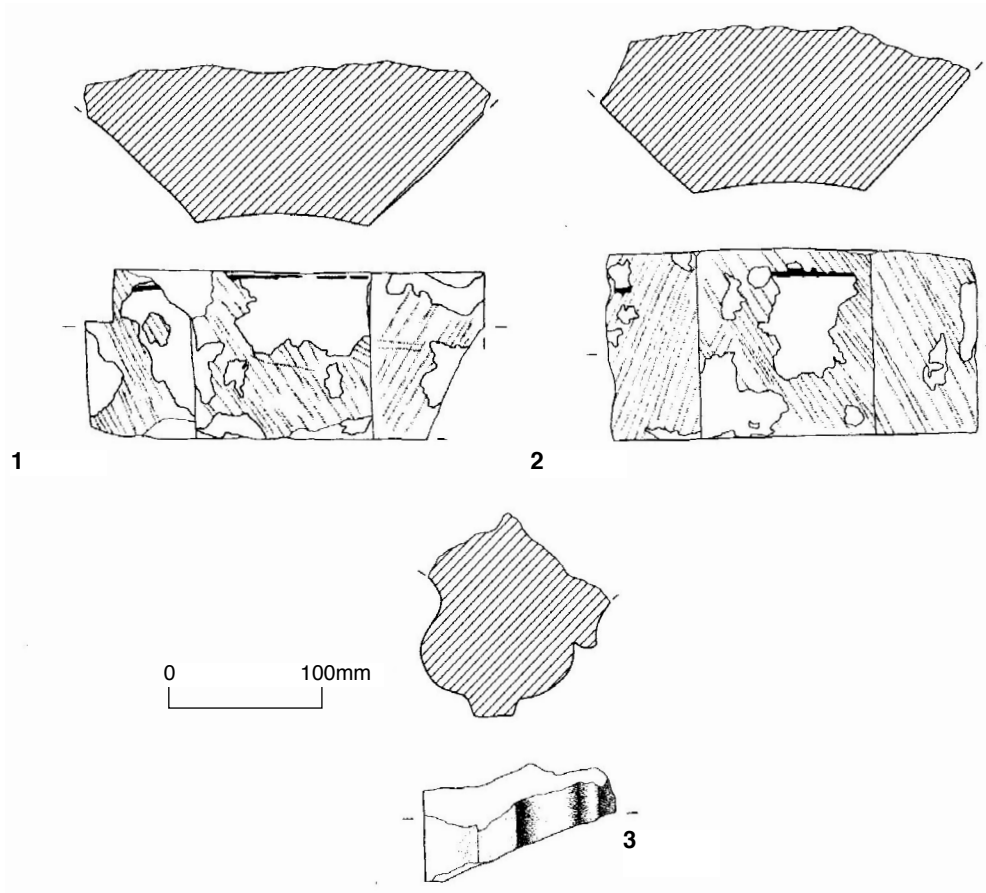

FIG. 14. Moulded stones from the 1985 excavations (scale *c.*1:5).

Other structural lead

A total of eight pieces of sheet lead, mostly short strips of varied widths, with nail holes, were noted. Many had been torn across one or more of the nail holes. A structural purpose is likely for these strips but it is not at all clear how, when or where these were used. A complete diamond-shaped rove from trench B may be from the medieval cathedral.

Musket Balls

Six musket balls were found, two each in Trenches A, E and F, and all similar. Three were 13mm in diameter (35 bore) and one was 12mm (44 bore); the two from F23 were only 11mm in diameter, one with and one without sprues attached. Both of these were less corroded than the rest and showed casting seams. Of the others only one had a sprue attached, another had a clear facet, probably where the sprue had been removed, and the remaining two were more cleanly removed. None showed

impact damage. The musket balls were found in 19th century soil deposits but could well date from an earlier phase in the Cathedral's existence. Nine musket balls were found during work at Rose Castle in 1994 (*Medieval Archaeology* xxxix (1995), 193-4), all likely to date from Civil War activity, as may the Cathedral finds, including three in the 12-13mm range but also a wider spectrum of diameters from 10-18mm (Caruana, unpublished report).

Medieval floor-tiles[6]

Stopford's book on northern floor tiles provides the essential background to this subject. The current tiles were available to her in compiling her corpus and she illustrates five of the seven fragments (2005, 256, Fig. 25.2: note that her 33.3. and 33.5 are conjoined fragments from the same tile). These seven are placed in a general group (33) assigned to '*Carlisle: the Cathedral, Scotch Street and Annetwell Street*' (*ibid.*, 256, 284). None of the fragments found in 1985 are of a type found previously in their original position by C.G. Bulman, forming the floor of the demolished Chapter House (Weston, 2000, 95; Stopford's Group 28, 250). By contrast she describes these fragments from Group 33 as 'amateurish products' which may have been produced by the monastic community within the monastery (*ibid.,* 73). In this context it is worth recalling that wasters of 13th-14th century pottery were identified at a site on Castle Street opposite the Cathedral Close (Jope & Hodges, in Hogg, 1955, 80-1). It was unlikely that the Chapter House would be the only building on the site with a tiled floor, so floor tiles of other designs and dates were always to be expected, including the floor of the cathedral.

18. Small corner fragment from a floor tile in mid-grey and pale orange fabric. The decoration consists of two concentric circles with a row of short stab-marks between. Inside the inner circle there are further marks but too little survives to be sure of their character. Only faint traces of an olive or greenish glaze survive in the decoration.
    Th. 22-24mm. Stopford 33.6. B3 (Fig. 15.1)

19. Two conjoined fragments of floor tile in mid-grey fabric with orange surface on under side and edge. The surface is decorated with a series of loops and curves, possibly stylized vegetation. Olive-green glaze survives only in the decoration and, in part, down one edge and underneath.
    Min. L. 109mm; Th. 24mm. Stopford 33.4 & 33.5. D13 (Fig. 15.2)

20. Corner fragment from a glazed floor tile in grey and orange-red fabric. The decoration is similar to the above with the addition of an arc intersecting it. The fourth punched/stabbed hole is slightly larger than the rest and also appears to be at the centre of the arc, suggesting that the tile may originally have been only about 80mm square. The olive-green glaze survives only at the bottom of the decoration on the surface but is abundant on the edges and on the underside. The bottom of the tile, with the glaze on it, is very thin and irregular and the tile may be mis-fired.
    Min. Th. 14mm. Stopford 33.8. D8 (Fig. 15.3)

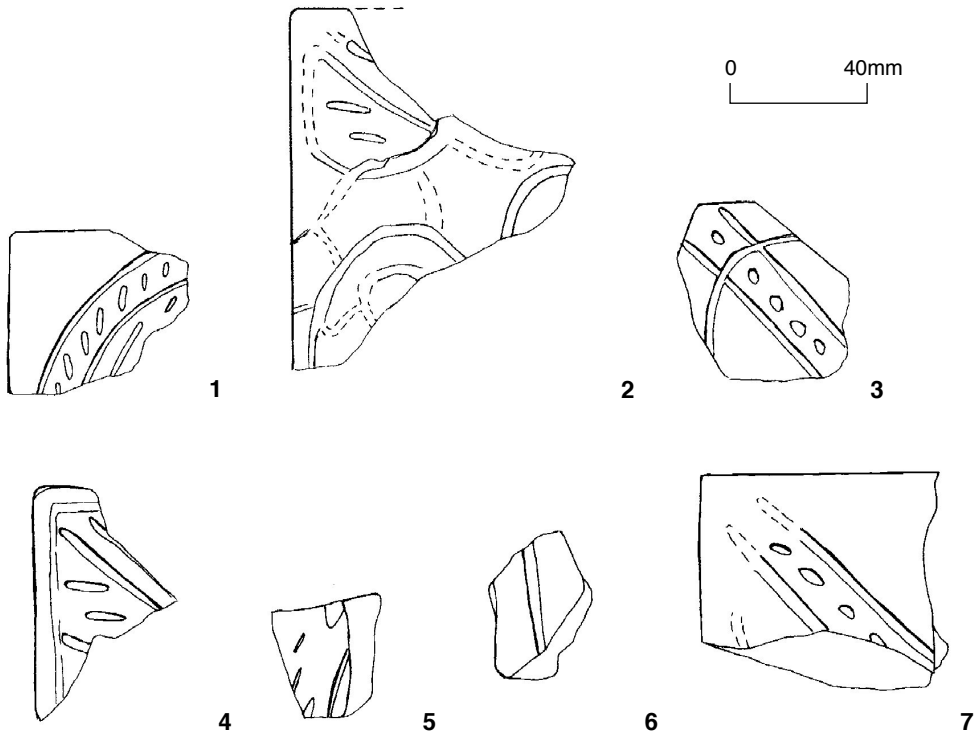

FIG. 15. Medieval floor tiles (scale 1:2).

21. Corner fragment with two parallel lines running into the corner and shorter, slashed decoration to one side. There are faint hints of a border running just inside the tile edge.
Stopford 33.3. D13 (Fig.15.4)

22. Tiny fragment of glazed tile in orange-red fabric with grey core. The surface has a dark green glaze uniformly over it and possible traces of lines from a decorative pattern.
Min. Th. 15mm. D15 (Fig. 15.5)

23. Small fragment in orange fabric with grey core. Traces of an olive-green glaze are present in a single, slightly curved line of surface decoration.
Min. Th. 16mm. B2 (Fig. 15.6)

24. Corner of floor tile. The fabric is dark grey with orange-red surface on under side and edges. The top surface is mid-grey. The decoration comprises two parallel lines running from the corner with a line of spots roughly equidistant between. The glaze is olive-green but only survives in the decoration and in a drip down one side.
Th. 22mm. Stopford 33.7. E4 (Fig. 15.7)

Masons' marks (Fig. 16)[7]

Three certain and one possible masons' marks were identified by the excavators:

1. On south face of north wall of nave (F41), Romanesque (Fig. 11; Creed, 1881, Plate I; Weston, 2000, 132)

2. On buttress for the south choir wall (B11) (Fig. 5, Creed, 1881, Plate II; Weston, 2000, 133). This is the mark coded by Alexander as 5f1 (2004, Fig. 21). Since Alexander excludes single occurrences of marks from her study (2004, 121) there appears to be a strong case for suggesting that the mason using this mark was engaged in rebuilding the Gothic choir. The mark's appearance on the second course of the buttress as well as on the walls of the choir suggest that this buttress is also 13th/14th century work.

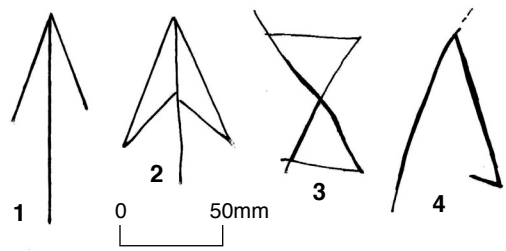

FIG. 16. Masons' marks (scale 1:4).

3. On base of third column on north side of the nave (E7), Romanesque.

4. Possible mason's mark from trench F, on block supporting the mullion shown on Fig. 10, i.e. on re-used masonry in west wall. The form cannot be precisely matched in either Creed's (1881) or Alexander's (2004) figures. However, it is evident from the excavator's drawing that he was unsure of its full extent or whether this really was a mason's mark; if it was incomplete, it could be matched with a number of known marks.

Conclusions[8]

The main objective of these trial pits was clearly achieved, in that the character of the foundations of the south wall of the choir, the north nave wall, the north nave arcade, and the 17th century inserted west wall was established. The excavations distinguished Norman work from 13th-14th century rebuilding and identified the position of the south wall of the Norman choir (Trench A) as foundations beneath the later rebuild. The mason's mark on the choir buttress lends support to the idea that the buttresses were newly built as part of the Gothic choir. Trench D also demonstrated the survival of surfaces within the cloister. Loose finds hint at the character of some of the floor tiling within the medieval cathedral and also suggest that some of the tiles might have been locally made within the Abbey precinct.

The finds material was characterised by the products of demolition and rebuilding activity in the 17th century but possibly also from later episodes of reconstruction work. The radio-carbon dating of the skeleton from trench F appears to give an indication of

an Anglian period (pre. *c*.850) burial, suggesting the possibility of an early ecclesiastical site below the Cathedral precinct. However, it appears that no Anglian phase of activity was encountered in the 1988 excavation at the west end of the Cathedral, prompting a query about the value of this date (McCarthy, 1996, 37). Nonetheless, loose finds dating from the Anglian period were found in the 1988 excavations in addition to the styca (No. 9) reported above and it would be premature to dismiss the evidence for an Anglian establishment somewhere beneath the Cathedral close. Less controversial is the testimony of the Anglo-Scandinavian buckle and slide (No. 14) whose significance is confirmed by the discovery of a cemetery of that date in the 1988 excavations.

Notes

[1] Additional commentary, Ian Caruana.
[2] Additional commentary, Ian Caruana and David Weston.
[3] Introduction to this section by Ian Caruana and David Weston.
[4] Additional commentary David Weston.
[5] This section compiled by Ian Caruana.
[6] This section compiled by David Weston.
[7] This section compiled by Ian Caruana.
[8] Conclusions provided by Ian Caruana and David Weston.

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