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The Early Medieval cemetery at the Castle, Newcastle upon Tyne

John Nolan

with Barbara Harbottle and Jenny Vaughan

and contributions by Richard Bailey, Patrick Ottaway and Elizabeth Pirie

SUMMARY

The cemetery, which may have its origins in the late seventh century AD, overlies the remains of the Roman fort of Pons Aelius, occupying a headland site on the north bank of the River Tyne. In 1080 the 'New Castle upon Tyne' was constructed on the headland, reputed by some twelfth-century chroniclers to have previously been the site of a Christian community called Monkchester. Although the construction of the 'New Castle' destroyed many burials, a large area of the cemetery was enclosed within the castle rampart, including fragmentary structures which are suggested in this report to have been a late Saxon church. Some burials continued after 1080 but the building of the Keep (1168–1178) almost obliterated the active area of cemetery, though the suggested church survived and a narrow strip of cemetery to the south appears to have remained in intermittent use as late as the mid-thirteenth century.

This report describes and discusses the results of the excavations of the cemetery, including the impact of the 'New Castle' and the later refortification. This is not considered to be a final or definitive statement on the cemetery. Study of the skeletal remains is continuing and it is likely that the results of future analysis may revise some of the conclusions presented here. Similarly the suggested presence of a late Saxon stone church, and a possible smaller predecessor, will almost certainly be a subject for further research and, perhaps, re-interpretation.

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1: INTRODUCTION, BACKGROUND TO THE EXCAVATIONS AND SCOPE OF THIS REPORT

BETWEEN 1973 AND 1992, excavations were carried out on the northern part of the medieval Castle in advance of a programme of consolidation of the visible masonry and of landscaping by the landowner, the City of Newcastle. Cemetery levels were first encountered in 1977 and, by the conclusion of the excavation programme in 1992, 660 numbered burials (679 individuals were actually identified in osteological analysis) had been excavated and recorded from discrete areas to the north, north-east and west of the twelfth-century Keep. The cemetery is the largest group of Christian Anglo-Saxon and Saxo-Norman burials to have been excavated from a single site in north-east England.

This report on the cemetery is the third to be published on the principal periods of site use. The post-medieval occupation was reported on in 1990 (Nolan). A paper on the first significant period of site use, the Roman fort, followed in 2002 (Snape and Bidwell): this allocated numbers to the Roman buildings, and these numbers are referred to in this report.

The consolidation, the landscaping, and the archaeological investigations were initiated by Ivan Stretton, Senior Buildings Surveyor in the (then) City Estate and Property Department, and were administered by him until his retirement in 1986. The principal funding bodies were the City of Newcastle, the former Tyne and Wear County Council, and Historic Buildings and Monuments Commission (HBMC), now English Heritage.

The excavations were directed by Barbara Harbottle, with co-directors Margaret Ellison (1977–1983), and John Nolan (1984–1985). John Nolan took over direction in 1986, 1987, 1990 and 1992 with supervisors Glyn Goodrick (1990) and Lawrence Truman and Sharon Dixon (1992). The seasons of excavation when burials were encountered, areas (shown on fig. 2), and associated skeleton (Sk.) numbers are summarised below:

SEASON	AREA (RAILWAY ARCHES ABBREVIATED TO RA)	SK. NUMBER
1977–1978	RA 25 (RA 1) and RA 26 (RA 2)	1–148
1979	RA 27 (RA 3) and Compound	149–333
1980	RA 27 (RA 3)	334–51
1981	Area C (western half)	352–411
1982	Area D	412–30
1990	RA 29 and Area C (eastern half)	431–545
1992	RA 28 and Area E	546–660

NB: RA 25 to 27 are referred to as RA 1 to 3 in the site archive. The numbers used here are the British Rail designations.

This report attempts to synthesise the thirteen seasons of excavation which investigated burials and deposits spanning a long period. The Castle site contains deep and complex stratigraphic sequences, and the excavations have taken place over a period in which excavation and recording techniques and methodologies have evolved, as is evident in the progressively increased level of contextual recording over this time. The implications of such an evolution in contextual recording are considered below.

It proved almost impossible to impose a visually meaningful overall phasing structure upon what are, in effect, nine discrete areas, few of which were excavated in a single season and most of which were subject to differing excavation methodologies and levels of recording. Consequently, only two cemetery phase plans are included in this report: pre- and post-1080 (figs. 4 and 15). This most basic chronological division of cemetery use is only possible where the 1080 clay rampart was substantial enough to clearly form a stratigraphic separator, as in the Compound, Railway Arches 25–7, and Area D. In RA 28 and RA 29 the clay rampart could not be identified with complete confidence and in Area C it was absent. These areas also happen to have the greatest density of burials. This will be discussed in more detail in Section 3 below.

Burial type, body position, sex and age are discussed in detail in Section 4, and their distributions are illustrated on figs. 19, 31, 38–9. Not all skeleton numbers are referred to in the text, principally because it was not practicable at the scale of reproduction to label graves on the plans. However, a few specific burials are labelled or can be identified on the plans by association with, for example, numbered grave slabs.

OSTEOLOGICAL REPORTS

Detailed osteological reports and catalogues, giving biometric, anthropological and pathological data, have not been included in this report. These are accessible in the site archive and may, in future, be part of an expanded monograph publication. Skeletons 1–18, excavated in 1977, were initially reported upon by Dr D. A. Lake of the Department of Oral Anatomy, University of Newcastle upon Tyne. Unfortunately neither the excavation records nor the bones survive for Sk. 2–7, 9–13, 15–16. The surviving skeletons from 1977 (Sks. 1, 8, 14, 17 and 18) were re-examined, together with Sks. 19–148a from the 1978–1979 excavations, by Sue Anderson at the Department of Anthropology, Durham University (Anderson 1988). Sks. 150–430 from 1980–1982 were subsequently processed by Claire Marlow, also at the Department of Anthropology, Durham (Marlow 1991). The skeletons from 1990 and 1992 were analysed by Elizabeth Rega and Sue Boulter for Archaeological Research and Consultancy,

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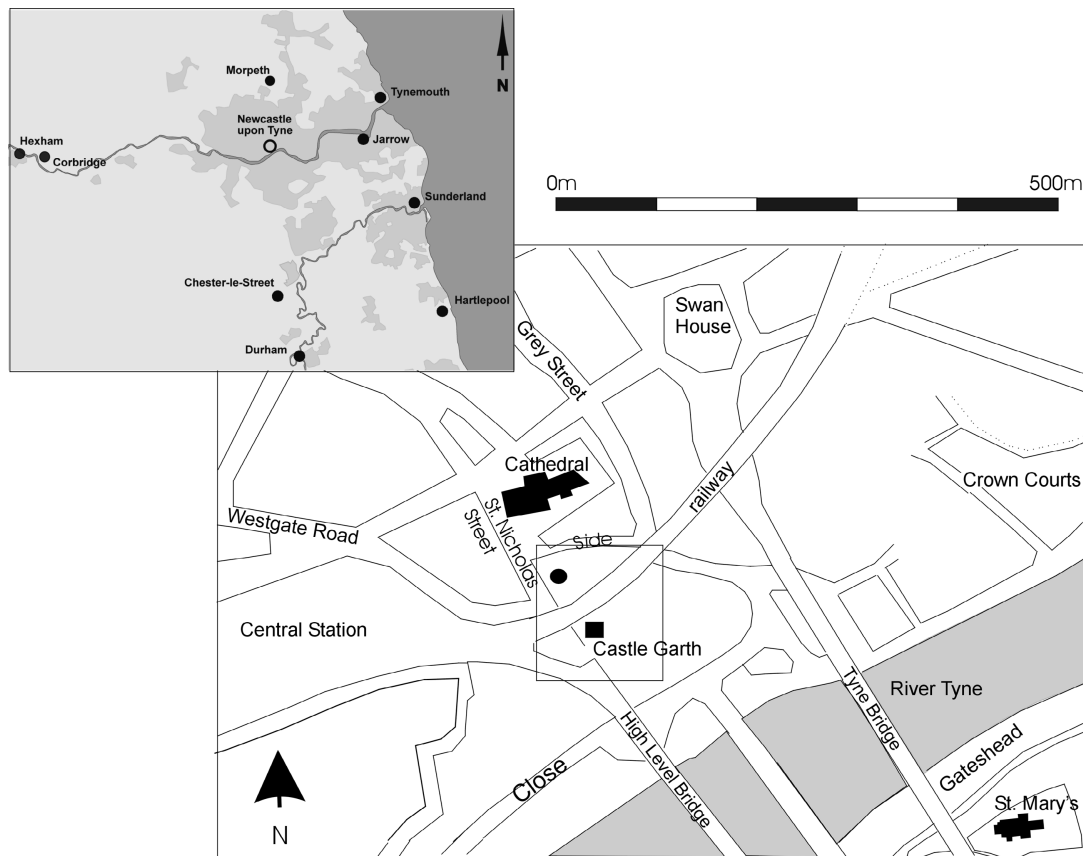


Fig. 1 Location.

University of Sheffield (ARCUS), and an archive report and catalogue were produced in October 1993 (Boulter and Rega 1993).

EXCAVATION AND RECORDING METHODOLOGIES

The sequence in which the areas were excavated was dictated by the improvements programme and by the need to retain as much spoil on site as possible: the spoil from one area being used to backfill another. Work in all the areas of excavation was constrained by standing structures and fences, highways and services, and particularly by the piers of the railway viaduct. As a consequence, the nine areas could only be very broadly connected stratigraphically.

From 1977 until 1987 the context record was maintained using bound notebooks. Pro-forma context sheets were used in the 1990 and 1992 excavations. Articulated burials were allocated a skeleton (Sk.) number using a running number sequence established in 1977. In 1977–1978 burials were recorded in the context notebook. A detailed pro-forma skeleton recording sheet was first introduced in 1979, and continued to be used, with minor revisions, for all subsequent seasons of excavation.

There was some difficulty in identifying grave-cuts, as the fill material and the cemetery soil into which the grave had been cut were in effect identical and all tended towards being a homogenous dark brown or black. In the densest areas of burial the difficulty was compounded by heavy inter-cutting of graves and, under the railway arches, differential drying and fissuring caused further confusion. This is a recognised problem of cemetery excavations (Cramp 2005, 76). Wherever the edges of a possible grave-cut were determined, excavation was continued stratigraphically within that defined area until human remains were encountered and the full extent of the skeleton was then carefully exposed. The upper surfaces of the bones were lightly washed with a soft toothbrush and sponges.

In RA 25, RA 26, Area C (1981) and 1982, skeletons were drawn individually at a scale of 1:10, and the graves planned at a scale of 1:20 or 1:40. Because of the difficulty in distinguishing grave-cuts in the soil, the outline shown on plan represents the string 'box' placed around the skeleton to define what was seen as the extent of the burial. Almost all of the burials were photographed, using combinations of black and white and colour print film and colour transparency. Vertical relationships of deposits and features, including grave-cuts, were recorded by levelling, although levels were not taken for individual bodies until 1979. Thereafter, levels were taken at the head, knees and pelvis, after lifting the bones. In subsequent post-excavation analysis these levels proved of limited use for phasing the burials, since some of the latest interments were in deeper grave-cuts than earlier ones.

In RA 28 and RA 29, photographic targets were placed around the body, which was photographed, usually vertically from above, using colour print and transparency film. The overall length (height) of the skeleton was then measured *in situ*, and the measurements of undamaged long bones were also recorded. The location of the photographic targets related to the site grid was recorded on the skeleton recording form. The bones were then carefully lifted and air-dried before being lightly brushed, bagged and boxed. On osteological advice, none of the bones was ink-marked with skeleton or context numbers at the excavation stage.

Bulk finds from the excavations (pottery, building material and animal bone) were recorded by context number. Other finds such as metalwork, glass and coins, were also given a 'small find' number (Sf.).

In 1990 and 1992, disarticulated human remains from the cemetery soil and charnel material within grave cuts were recovered (with the exception of small fragments such as ribs), recorded by context number, dried and brushed. The scientific value of recovering disarticulated human remains has been questioned. Although some disarticulated material must derive from partly disturbed burials which would have been allocated a 'skeleton' number, the presence of unique skeletal elements, particularly skulls, can give an indication of the numbers of the 'vanished' cemetery population — that is, those bodies destroyed by later burials. This material also offers the possibility of additional pathological evidence being recovered.

In the planning of the site, a combination of multi- and single-context recording was used. The latter became more frequent in the last two seasons of excavation, and the number of contexts planned also increased. Excavations prior to 1990 relied principally on triangulated taped survey using 'fixed points' established at convenient positions around the areas of excavation, although an independent site grid was established for Area D in 1982. Under the railway arches, the inner faces of the piers themselves served as baselines. This method of planning, and the use of recording media such as graph and tracing paper, is liable to produce discrepancies, particularly over any distance. Consequently, some inconsistencies were

inevitably encountered when overlaying and combining site drawings for the figures used in this report, not all of which have been resolved. The 1990 and 1992 excavations shared a common grid based on a centre-line in RA 29 with most of the recording being done using planning frames.

THE AREAS OF EXCAVATION (fig. 2)

Compound

At the end of the 1978 excavation season, the modern, uppermost, layers were removed to the level of the top of the clay rampart of the 1080 Castle, which extended across the area. Excavation of the area was completed in 1979. The medieval and cemetery deposits and features were badly fragmented by post-medieval drains and other services, and by a large, irregularly-shaped, investigation trench dug for the North of England Excavation Committee (hereafter NEEC) in 1929. This resulted in a number of 'islands' of largely disconnected stratigraphy. In this area a discrete context number sequence, running from 1 to 450, was used.

Area C

The western part of this area was excavated in 1980–1981, and the eastern part in 1990. Below nineteenth-century cobbling a narrow strip of archaeological deposits survived, truncated on the south by the foundations of the Keep and on the north by extensive eighteenth-century cellaring for a public house called the *Three Bulls' Heads* (demolished c. 1847 to make way for the railway viaduct) and by the ditch of a seventeenth-century artillery bastion, dug at the time of the Civil War. These, and the presence of live services running along the south side of the railway viaduct, precluded any physical link between this area and those under the railway arches to the north. Burials within Area C were very dense and included stone-built cists. The clay rampart of the 1080 castle did not extend into this area.

A large trench running parallel with the north face of the Keep and cutting through the medieval and cemetery deposits was dug for the NEEC in 1929.

Area D

Before excavation in 1982, this area had been covered with sheds known as Findlay's Warehouse. Below shallow medieval and post-medieval deposits, the entire area was covered by the clay rampart of the castle of 1080. Post-excavation analysis of this area (and of part of Area E) was handicapped by the theft, during the excavation, of a site book containing records for 184 contexts, many relating to the cemetery. Although the missing contextual information was reconstructed as far as possible (see Acknowledgements) the stratigraphic sequences have had to be deduced, largely, from overlaying the plans.

Area E

This lay on the north-east side of the Castle site close to the edge of the precipitous escarpment above The Side. It was excavated in stages, principally between 1982 and 1987. In the central part of the area, below the twelfth-century North Gate, were deposits of clay and rubble forming the north-east terminal of the 1080 castle rampart, Understanding of the pre-1080

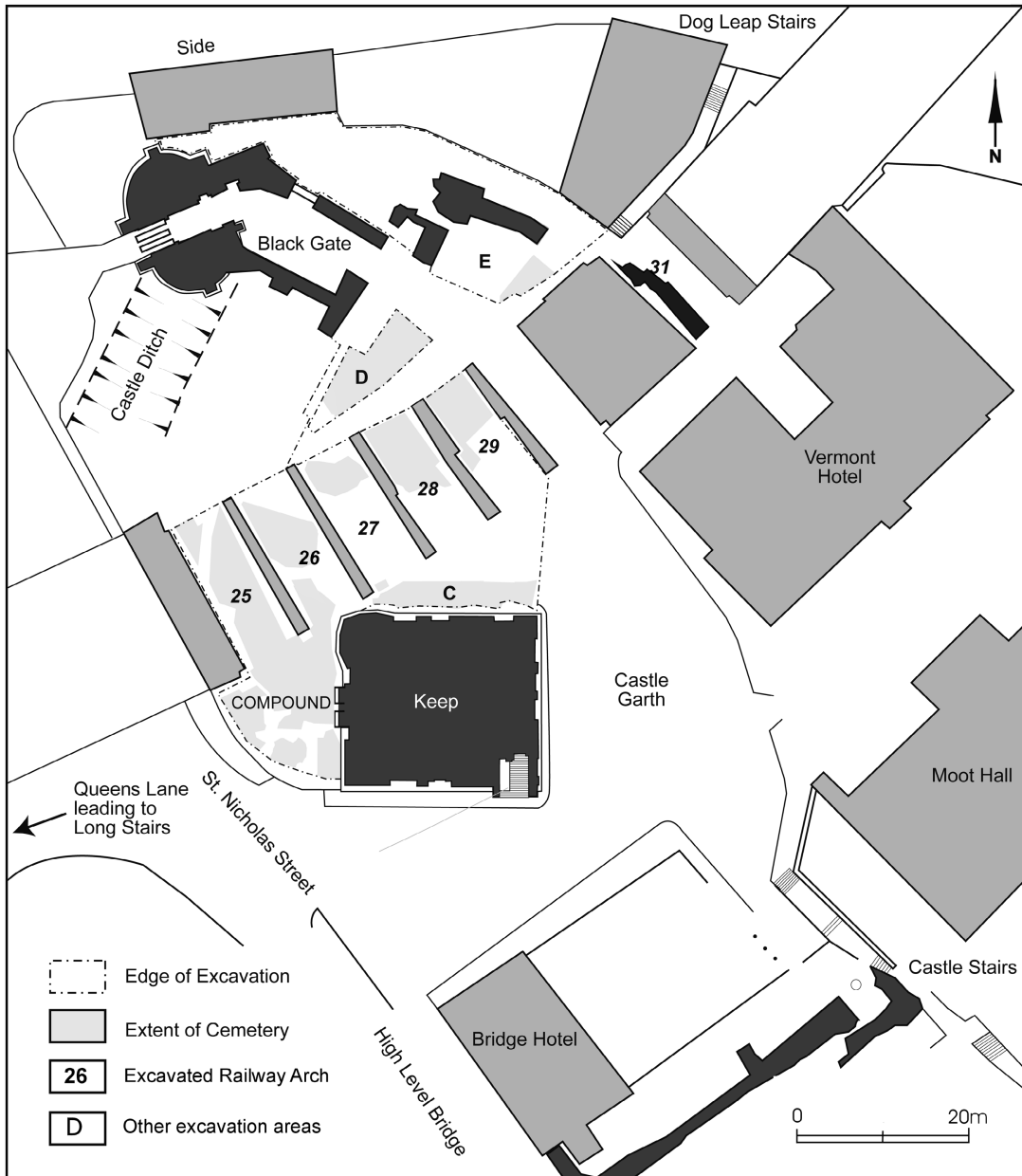


Fig. 2 Overall site plan.

stratigraphy was complicated by some major intrusions. To the north and east, medieval defensive ditches and a substantial post-medieval landslip had truncated earlier deposits, while at the southern end of the area was another of the NEEC's 1929 investigation trenches and some service trenches. The medieval North Gate and a large area of medieval masonry to the north-east effectively formed a baulk over 5 m wide, dividing the area into two.

Two poorly-preserved burials were found in the final phase of excavation in 1992 which investigated a narrow strip at the southern end of the area, adjacent to the railway viaduct, where a redundant concrete duct (carrying railway signalling cables) was partially removed for re-landscaping.

Railway Arch 25 (known at the time of excavation as Railway Arch 1)

Excavation began with a trial trench in 1977 to establish the depth of the clay rampart of the 1080 castle, and in 1978 the top few feet of this deposit were removed by machine. The rest of this area was then excavated by hand. Levelling for the railway in the mid nineteenth century had removed most of the medieval and post-medieval stratigraphy, and the cemetery was truncated by the medieval castle ditch and by the ditch and wall of the Civil War bastion. Running diagonally across the area was a scarp, sloping down to the north-west, possibly caused by subsidence into a pre-Roman feature (Snape and Bidwell 2002, 19). This area used a discrete context number sequence running from 1–195.

Railway Arch 26 (known at the time of excavation as Railway Arch 2)

Excavation began late in 1976 with a limited investigation at the north end of the arch; the northern two-thirds were excavated in 1977 and the south end completed in 1978. Cemetery deposits had been disturbed by the construction of an early medieval stone tower (Building 68) — suggested in this report to be part of a pre-Norman church — and were truncated by the ditch and wall of the Civil War bastion to the north, and by two twentieth-century petrol-tanks to the south. In this area a discrete context-numbering sequence, running from 1 to 368, was used.

Railway Arch 27 (known at the time of excavation as Railway Arch 3)

In 1977 all of the ground under the arch was stripped to reveal two distinct areas: at the north end the clay rampart of the 1080 castle sealed earlier stratigraphy, while at the south end part of the ditch of the Civil War bastion, overlain by a cellar and a by a petrol-tank, truncated most of the earlier stratigraphy. Work resumed in 1979 with the removal of the remaining post-medieval deposits and the 1080 rampart; it continued in 1980 with the excavation of the cemetery and of the layers beneath it, and was completed in 1981 with the recording of a cist burial, a robbed wall (Building A) and a medieval tiled floor in the south-west corner. The context numbering sequence begun for this area in 1977 was continued for Areas C, D, E and for RA 28, RA 29 and RA 31.

Railway Arch 28

This area was completely excavated in 1992. Removal of modern floor surfaces revealed medieval deposits in the northernmost half, overlying spreads of clay interpreted as the 'tail'



of the inner slope of the 1080 rampart. This area was truncated on the south by the ditch of the Civil War bastion and was bounded on the north by the concrete casing of the railway signal cable route running along the north side of the viaduct. The density of burials was high — comparable to Area C — and increased towards the south.

Railway Arch 29

This arch was completely excavated in 1990. As in RA 28, burials and cemetery deposits only survived in the northernmost half of the archway. Even here part of the upper level of the cemetery and its surface had been truncated by a post-medieval cellar belonging to the *Three Bulls' Heads*, and possibly also by levelling associated with railway construction and with the later use of the arch. The area of excavation was cut by the ditch of the Civil War bastion and was bounded by the railway signal cable route on the north. The burial density was generally lower than RA 28, although this may have been a consequence of post-medieval disturbance to the upper levels of burials.

2: THE SITE: DESCRIPTION AND HISTORICAL SUMMARY

LOCATION, GEOLOGY AND TOPOGRAPHY (fig. 1)

The cemetery occupies a southward-sloping promontory on the north bank of the River Tyne at a point where, before reclamation in the thirteenth to fourteenth centuries, the river gorge narrowed to some 110 m in width, forming the lowest convenient bridging point. The geology of the site consists of Carboniferous sandstone overlain by glacial till (boulder clay) and occasional fluvio-glacial deposits.

To the south, the promontory is defined by a steep escarpment rising to a height of approximately 30 m above the river. To the east and west are deeply-cut natural denes which were probably formed by post-glacial streams: the Lort Burn valley and its tributaries on the east and north-east, and perhaps another un-named narrower channel (now occupied by the Long Stairs) on the west. Castle Stairs probably occupies the site of another naturally-eroded channel in the side of the hill.

HISTORICAL SETTING AND DOCUMENTED REFERENCES TO THE CEMETERY AND SITE USE

Prehistoric and Roman

A small number of worked flints, including a saw apparently found near the head of Dog Leap Stairs by the NEEC in 1929, and a neolithic axe-head (unpublished) of Whin Sill dolerite found in a Roman context in 1992, suggest a pre-Roman presence on the promontory. The axe may however have been brought to the site during the Roman period. Plough-marks underlying some of the stone buildings of the Roman fort may also be evidence for pre-Roman Iron Age agriculture. The fort of *Pons Aelius* was established on the promontory in the second century AD and was abandoned in the late fourth to early fifth century (Snape and Bidwell 2002). One burial in the cemetery, a coffined old adult male Sk. 99, inexplicably yielded a calibrated radiocarbon date of AD 211–357 (Appendix), thus apparently placing it within the lifetime of the fort. This date is, however, clearly anomalous, since the burial overlies both the



demolished walls of the West Granary and feature 350 (shown on fig. 3.1), which was within the cemetery soil.

Post-Roman and Saxon

The history of the site is unclear for almost the next 400 years, until the first presumed use of the site as a cemetery, perhaps in the late seventh century. There is imprecisely-dated evidence for the demolition, collapse, and robbing of standing structures within the Roman fort, and for some features suggesting continued use or re-use of the site (see Phase 1, below). Stone may have been robbed for use in a nearby civilian settlement, or in settlements that have not yet been located, or to provide materials for use elsewhere on the site in connection with the cemetery, such as buildings, grave-markers, and cists.

In the sixth and early seventh centuries the site lay within the kingdom of Bernicia. Under its last pagan ruler Aethelfrith (AD 593–616), Bernicia was united with Deira to the south, creating the Anglian kingdom of Northumbria. Aethelfrith was succeeded by Edwin as first Christian king of Northumbria. Following Edwin's death in AD 632–3 there was a period of instability as the kingdom was ravaged by Penda of Mercia and Cadwallon. Order was restored by Aethelfrith's sons, Oswald (AD 634–642) and then Oswiu (AD 642–670). It was during their reigns that a 'network of monastic settlements' (Clack and Gosling 1976, 39) developed, providing trading connections with the continent, and fostering a revival of sculpture and of architecture in stone. It has been hypothesised (Walker 1976, 63–7) that Bede's description of a 'royal villa' known as *Ad Murum*, where Penda of Mercia and Sigebert, king of the East Saxons, were baptized c. AD 653, is a reference to the site of the later 'New Castle'. There is, however, no archaeological or unambiguous documentary evidence to support this. Only two finds from this period are recorded from the vicinity: a large square-headed brooch was dredged from the Tyne near Whitehill Point in 1892 and another square-headed brooch was found in 1957 at Benwell near a glass vessel, possibly indicating an inhumation. Both have been dated to the seventh century (Lucy 1999, 39). The Whitehill brooch may however have originated up-river of its find spot.

Whilst there is no documentary evidence for activity at the cemetery site in the later seventh century, and datable archaeological evidence for activity from this period is limited to two beads of seventh-century type (see Finds: glass, below), two radiocarbon dates for burials could be evidence for a commencement of the cemetery in perhaps the second half of the seventh century. These are discussed under Phase 2 below. It was in this period (the later seventh century) that Bede refers to the establishment of monasteries at Wearmouth, founded in 674 by Benedict Biscop, and at Jarrow, begun in 682 (Cramp 1969, 22–3), on land granted by Ecgfrith, king of Northumbria (AD 670–685). Bede also records the existence of other monasteries at Tynemouth, South Shields, Hartlepool, and even, possibly, Gateshead (Bede 1969). But if the dubious identification of 'Ad Murum' is discounted, there is no reference at this date to any settlement — monastic or otherwise — on the castle headland.

Similarly, there are no identifiable documentary references to the Castle site in the eighth to ninth centuries, although a small number of datable finds, particularly coins, indicate that some activity was taking place. The earliest radiocarbon dates for burials, mentioned above, span the seventh and eighth centuries, suggesting that the cemetery was established by, perhaps, c. AD 700, and it is possible that this originated as, or developed from, an unrecorded seventh-century monastic settlement. The secular power of the Northumbrian kingdom



began to decline in the mid-ninth century and monasteries were abandoned. In the case of Wearmouth and Jarrow this may have been as a result of Viking attacks in 874–5. What impact this might have had on a possible monastic settlement at Newcastle is unknown, but by the tenth century the cemetery appears to have been well-established, serving a lay community or communities. It is also suggested in this report that by perhaps *c.* 1000 a church had been built in the cemetery.

The first explicit documentary references to the site appear in the early twelfth century chronicles, the *Vita Oswini* and Symeon's *Libellus de Exordio* (Raine 1838; Simeon 2000). The former, describing events in 1072, states that the army of William I, returning from campaign in Scotland, camped 'about a place formerly called 'Monecestre' and now called New Castle' where they would have apparently perished for lack of sustenance but for the stores at Tynemouth (Raine 1838, 42). Two years later, in *c.* 1074, Aldwine and his companions found the churches of Wearmouth and Jarrow in ruins and, arriving at the site of 'a former monastic settlement called "Monkchester", now New Castle', found that too to be waste. The monks did not leave the site of Monkchester immediately however, perhaps because it still had 'power of place', but were soon induced by Walcher, bishop of Durham, to move on to Jarrow. The motive behind Walcher's invitation was apparently that Monkchester, although lying within his diocese, was under the direct jurisdiction of Earl Waltheof (Simeon 1885, 559; Simeon 2000, 202 n. 77). These retrospective uses are the earliest known appearances of the name 'Monkchester'. The scant chronicle evidence suggests that if there had been a monastic community on the site of the Castle — as it would seem Aldwine firmly believed — it was not in existence in Bede's day and had certainly disappeared by the 1070s. As this report will show, however, no explicit evidence for actual settlement, either lay or monastic, before 1080 has yet been found either at the Castle, or anywhere else within the bounds of the modern city.

The Norman 'New Castle' of 1080

In an abrupt change of use, an earthwork castle — the 'New Castle upon Tyne' — was constructed on the site in the autumn of 1080, by Robert Curthose, son of William I. The castle ditch cut through the cemetery on the north and west. Other parts of the cemetery were covered by up-cast from the ditch forming the rampart, and the postulated late Saxon church, with a small surviving cemetery area, was enclosed within the bailey. In appropriating and partly destroying the cemetery site, the Norman castle-builders may not only have been exploiting the naturally defensive qualities of the site, but they may also have been making a statement of overlordship.

After the construction of the Norman castle in 1080 some burials continued to be made within the bailey. These were most likely to have been members of the castle garrison and their families rather than a continuation of local civilian usage.

Reconstruction of the Castle in the twelfth century: the end of the cemetery?

The rebuilding of the Castle in stone by Henry II resulted in further significant disturbance to the cemetery: the massive foundation raft for the Keep (built between 1168 and 1178) removed an unknown number of burials and further contracted the available burial space. There is some evidence to suggest at least occasional, later, interments.



The Post-medieval period

Refortification of the castle in preparation for, or during, the Civil War is known from the excavations in RA 25–RA 29. The defences revealed by excavation suggest that the Keep was surrounded by a form of ‘star-fort’ with pointed bastions and broad external ditches. The construction of these defences involved immense destruction of archaeological deposits, including much of the cemetery, though curiously there are no contemporary references to the discovery of human remains.

Post-Civil War development in the Castle Garth included construction of the *Three Bulls’ Heads* public house. This was built on the north side of the Keep ‘where they say was the chapel of the garrison’, and was also known as the ‘Chapel House’ in the early eighteenth century (Bourne 1736). The earliest known reference to burials being found at the castle occurs in 1752, when workmen digging a cellar discovered ‘a great Number’ of human bones some seven to eight feet (2.1–2.4 m) below the ground surface. This reference is probably to the excavation of the cellars found in 1990 in Area C. The contemporary account of the discovery attributed the bones to siege casualties, but added that a large stone coffin was also found and ‘by the Remains in it, ‘tis evident a Person of extraordinary size had been deposited there’ (*The Newcastle General Magazine* 5, 220). Possibly this was the cist for Sk. 476 which had been broken open and disturbed in the eighteenth century. Construction of the cellars of the public house also destroyed much of the foundation (designated Building B in this report) which, it is suggested, was that of a chapel or church.

More discoveries of human remains were made on the south side of the Keep when the Castle Street approach to the Moot Hall was being formed in 1812. In removing a hill called the Mount, two prone male skeletons were found about 18 inches below the surface (Mackenzie 1827, 102). It is always possible that these were not associated with the cemetery. More positive evidence for the existence of the latter comes from a report in 1824 of workmen who, while digging a drain on the south side of the Keep, uncovered several skeletons lying at depths of between three and eight feet. Two of these were enclosed ‘by rude sepulchres, the bottoms and tops of which were formed of thin stone slabs, the sides being built up with stones and lime’ (*ibid.*). One of these burials reportedly had a round hole in the top of the skull made by a blunt instrument, and a piece of stone fixed in its forehead. The description of the ‘rude sepulchres’ suggests that these were cists. The other bodies found at this time were described as being ‘promiscuously huddled together’.

In 1847, construction of the railway through the castle resulted in significant quantities of human bones being found on the north side of the Keep. Contemporary newspaper reports commented mainly on the quantity of human remains, although in one instance it was perceptively noted that they were ‘disposed in layers’ (*Newcastle Chronicle*, 29 January 1847, 4). G. B. Richardson later commented on these discoveries:

‘We ourselves have seen the labourers throwing out a dozen skulls at a time, and these being seized upon by the idle children standing by, were speedily mounted on sticks and conveyed around the Garth in triumph’ (Richardson 1852, 28–9). At this time a group of skulls were found in what might have been a charnel pit, and a ‘stone coffin’ was discovered (*Newcastle Chronicle*, 8 October 1847, 4). Reporting these discoveries in 1852, Richardson attributed the bones to victims of the plague in 1638, basing this on an earlier misinterpretation of a reference to plague burials in ‘Garth-side’ (actually Gateshead) (Jenison 1637, 251). Two more ‘stone coffins’, containing the bodies of children, were found in 1862 ‘in the



neighbourhood of the Castle' (i.e. the Keep) (PSAN4, 3, 151). Apparently, the intention was that these should be donated to this Society, which rather suggests that they were cut from single pieces of stone, rather than being built of slabs as were all the cists excavated in the cemetery.

In 1929, F. G. Simpson, on behalf of the NEEC, cut a number of trenches into the Castle Garth, hunting for the Roman fort. Those trenches within the area of the excavated cemetery are shown on figs. 4 and 15. The excavation strategy appears to have been wholly focused on the search for Roman remains, and the significance of the overlying deposits was either not recognized or ignored. In the published report on this work the only recorded encounter with the cemetery levels is confined to a comment on 'quantities of human bone heaped in confusion on and above the Roman masonry' (NEEC 1930). It was only with the start of modern, stratigraphic, excavation by Barbara Harbottle in the 1970s that the presence of human remains at the Castle was proven to belong to an early medieval cemetery.

3: THE CEMETERY

SUMMARY OF PHASES

Phase 1: Presumed late or post-Roman activity, apparently pre-dating the cemetery. It has been suggested (Snape and Bidwell, 2002, 111–27) that some features belonging to this phase are 'early Anglo-Saxon'.

Phase 2: Burials from c. 700 to 1080. This phase includes the first appearance of a building within the cemetery, possibly a small church or chapel (Building B).

Phase 2.1: c. 1000? It is suggested that the postulated Phase 2 church or chapel was replaced by much larger stone building (Building 68, Building A, and wall 3168), perhaps a 'church'.

Phase 3: Burials from 1080 to 1168. The cemetery area was reduced by construction of the Norman castle, which enclosed the phase 2.1 church. Some burials were destroyed in the digging of the ditch; others were sealed below the rampart. The church continued in use as a chapel for the garrison, and was perhaps extended eastwards.

Phase 4: The cemetery after 1168–78: abandonment, with possible occasional use. The remaining cemetery area south of the 'church' was almost completely destroyed by construction of the Keep (1168–78), and some Phase 3 burials to the north and west may have been sealed by material cast down from the 1080 rampart when the curtain wall was constructed. It is possible that the occasional burial, perhaps of priests attached to the garrison, took place in the gap between the Keep and the 'church' as late as the thirteenth century.

PHASING THE BURIALS

The term 'burial generation' (Kjølbye-Biddle, 1975) has been used in preference to 'phase'. A burial generation has been variously defined as being about 20 years (*ibid.*) or 30 years (Gilmour and Stocker 1986, 91). In the three most densely-buried areas at the Castle (RA 28, RA 29 and Area C west) eleven 'burial generations' have been identified stratigraphically, the earliest being possibly of the eighth century, and the latest perhaps post-dating the construction of the Keep in the twelfth century.



For several reasons it is not possible to impose a single, consistent, and wholly reliable phasing structure across the excavated cemetery. The areas were, in the main, physically discontinuous, and there is evidence that some areas were at times more intensively used than others. Also, unknown factors — disease or war — may have resulted in the number of burial generations being chronologically ‘compressed’ in some areas but not in others. Firm dating evidence for the sequence of burials, based on artefacts and on the few radiocarbon dates currently available, is also very limited and often ambiguous, as are the relationships of burials even to features of known (or presumed) date, such as the rampart of the castle of 1080 and the Keep of 1168–78. If, for example, some of the clay spread interpreted as the rampart of 1080 was in fact a result of erosion, or had been cast downwards during construction of the stone curtain wall in the twelfth century (as seems to be the case in Area E; Harbottle and Nolan, forthcoming), some post-1080 burials sealed by such material could have been interpreted as being pre-1080.

The burial sequences that have been established for the cemetery are thus really only valid within their discrete excavation areas, and are based principally on their immediate stratigraphic relationships determined by intercutting. Even this is unsatisfactory as a number of burials may take place in one location, perhaps as a ‘family plot’, over a relatively short period of time. This would create more ‘levels’ and give an impression of greater time-depth within a very localised part of the cemetery.

Thus no attempt has been made to show the suggested phasing on plan, other than very broadly indicating ‘pre-’ and ‘post-’ 1080 (figs. 4 and 15).

CHOICE OF SITE AND PHYSICAL EXTENT

The site of the cemetery may have been chosen because there was some existing, physical definition of an area suitable for the interment of the dead, or because it was an area with social, historical or ritual significances which are now unknown, or indeed a combination of all of these factors. It may be suggested that, despite extensive stone-robbing in the early post-Roman period, traces of the walls of buildings within the fort of *Pons Aelius*, perhaps even the walls of the fort itself, were visible as surface features when the first burials took place, if not much later. The survival of the walls of the fort, even in a degraded state, would have provided a defined boundary within which to bury. It is also possible that it was the survival of the walls of the fort that led to the use of the ‘*cestre*’ element of ‘Monkchester’, the terms *civitas* and *caster* being used to distinguish sites with visible Roman walls from *urbs* or *burgh* with earthen fortifications (Blair 2005, 249). Such survival may also have caused the ‘New Castle’ to be so named.

An indication of the north-eastern limit to the cemetery is suggested by two widely spaced burials in Area E: Sk. 546 and Sk. 562 (see fig. 4 for location of these) and by the topography of this part of the site, which must always have dropped steeply down to The Side. Burial Sk. 562 cut the robbed foundations of a Roman wall (3625). This was apparently a continuation of another wall (2498), a short length of which was found to the west in 1986 and was at that time suggested to be the wall of the fort. This identification was supported by Snape and Bidwell (2002, 99) although as so little of the feature could be exposed, and identification of the outer face was confused by the subsidence of medieval foundations and core-work, the perceived width of this feature (c. 1.7 m) could suggest that it was the core-work of a returning wall or an internal division. If this was the wall of the fort, then clearly it had been heavily

robbed and was disregarded as a boundary by the cemetery users. However, some 14 m north-east of Sk. 562 another section of a substantial Roman wall (1996, see fig. 3.2) was found in 1985 in an area of nineteenth-century land-slip and was then interpreted as being part of an annexe or an enlargement of the fort. Snape and Bidwell (2002, 103) identifies this feature as an extra-mural retaining wall, though this is not at all convincing since the wall was founded, shallowly, on what had been the plateau surface. Whatever the function of wall 1996 relative to the fort, it may be suggested that it defined the north-eastern boundary of the cemetery.

There is other evidence to suggest that features within the fort remained visible into the post-Roman period. In RA 25, a short section of the north wall of the West Granary and the northward return of a buttress are visible on a site plan showing graves and stone 'tumble' within the cemetery (marked 'granary wall' on fig. 3.1). This partly survived as a feature on the cemetery surface sealed by the Norman rampart in 1080. A drain or 'aqueduct', which incorporated a re-modelling of a primary hypocaust channel in the *praetorium* as part of its course, is described by Snape and Bidwell (2002, 112), and is briefly discussed in Phase 1, below. The excavated sections of drain followed a very straight course from RA 26 (to the north-east) to the north-west corner of the Compound, and it seems unfeasible that its connection with the hypocaust channel could have been accidental. A stone-lined tank associated with the drain was fitted so closely against a buttress of the west granary as to suggest that masonry was visible. In RA 29 the line of the north wall of Roman building II (Snape and Bidwell 2002, 81–2) was visible as a line of rubble (2912; fig. 3.2) at least during the early use of the cemetery.

With the exception of the possible short section of the wall of the Roman fort on the north-east, the extent of the defended enclosure of *Pons Aelius* is, however, unknown and must lie outside the excavated areas. If the wall of the fort constituted the physical boundary to the cemetery it follows that the full extent of the cemetery is also indefinable. Consequently, there is little value in attempting to estimate the extent of the cemetery or the size of its population by extrapolation from the (possibly very small) proportion of the burial area that has been excavated. From the marked concentration of burials, including the distinctive cists, excavated immediately north of the Keep, burials extend beyond the excavated areas in differing densities, and nothing is known of the burial pattern south and east of, or on the site of, the Keep itself. The progressive decrease in the density of burials to the north, north-east and north-west of the railway viaduct may however have been a consequence of the 'fossilisation' of part of the cemetery below the rampart of the 1080 castle.

An indication that the burial area extended south of the Keep is provided by the discoveries of human bones in 1824 and 1929, described in Section 2, though the survival of part of a hypocausted building at a high level (Snape and Bidwell 2002, 266–8) suggests that burial here was not as intensive as it was to the north or even to the west. Approximately 35 m further south, excavations adjacent to the South Curtain Wall by the North of England Excavation Committee in 1928 (*PSAN* 1928, 245–6), and again by Barbara Harbottle in the 1960s, did not produce any evidence of burials or even of disarticulated human remains. Nor were any human bones recorded in excavations in 1995–1996 in the basement of the Bridge Hotel, although Roman features were discovered suggesting this area lay within the fort (Snape and Bidwell 2002, 107–10).

The limited evidence suggests that the southernmost limit of burials may lie between the Keep and the Bridge Hotel. It is even possible that a V-shaped, east-west aligned, ditch found by F. G. Simpson some 17 m south of the Keep was a boundary to the cemetery rather than a

feature relating to the fort (Simpson 1976, 188). At present it can only be said that all of the excavated burials appear to lie within the walled area of the Roman fort, and that both the extent of the fort and of the cemetery were probably dictated by the steep natural scarps to the east (The Side and Dean Street), west (Long Stairs), and south of the promontory. These escarpments and the outline of the plateau have since been considerably modified by natural slippage and by artificial terracing.

In considering the possible extent of the cemetery, two evaluation excavations on Westgate Road, both within 70 m of the castle, are of relevance. One of these was within the former Hertz Building (now Cooper's Studios) and the other was under the railway viaduct. With the exception of a possible second to third-century cremation burial at the latter, represented by a single fragment of burnt bone which has not yet positively been identified to species, no human remains were reported from either site (HER 2007 and HER 2004). This seems to support the suggestion (made above) that the cemetery, at least to the west, did not extend beyond the natural water channel now occupied by the Long Stairs.

PHASE 1. THE PRE-CEMETERY LANDSCAPE: FEATURES AND DEPOSITS FORMING THE PRE-CEMETERY GROUND SURFACE (figs. 3.1 and 3.2)

It has been suggested that the earliest post-Roman activity on the site of the Castle followed the abandonment of *Pons Aelius* in the early fifth century, and it has been assigned to an 'early Anglo-Saxon' and pre-cemetery phase (Snape and Bidwell 2002, 31). This is necessarily a presumption, as there is no datable artefactual material associated with the physical remains. Although the evidence for post-Roman and pre-cemetery use of the site has been discussed by Snape and Bidwell, it is briefly revisited here since it is pertinent to an assessment of any possible monastic origins for the cemetery. These features and deposits are shown on figs. 3.1 and 3.2.

By the late fourth century there may have been only quasi-military activity within the fort, and some form of native, squatter, occupation may have begun there before the traditionally accepted end of formal Roman rule *c.* 411. This is characterized by deposits which suggest either the deliberate demolition and robbing of the buildings within the fort, or the clearance of decayed structures. Much of the fabric was presumably taken for re-use elsewhere, although at the time of writing there is no archaeological evidence for the destination of any recycled Roman building materials. It is possible that they were being used within the site itself, perhaps for the repair of the walls of the Roman fort (if these were still extant) in order to maintain an enclosed area, or for the construction of new buildings within areas of the fort which have not been archaeologically investigated. The apparent paucity of faced stonework (except for a concentration in RA 25 close to the west end of Building 68), and of large architectural fragments found in the excavations suggests both a fairly thorough scavenging of these structural elements, and perhaps their re-use in a structure of some pretensions. It must however be emphasized that there is no firm dating evidence for this phase of activity, or for its duration: there may have been a single intensive campaign of clearance, or more probably, steady attrition over some period of time.

Compound

The evidence suggests an informal, rather than formal, military re-occupation of the *principia* in the late fourth century (Snape and Bidwell 2002, 38). The actual nature of the re-occupation

is unclear, and the deposits which indicate dereliction of the *principia* cannot be closely dated. Brown soil, building rubble and mortar within the building, and similar deposits overlying the latest Roman-period surface of the *via principalis*, are recorded as containing disarticulated human bone. The presence of human remains in these contexts is evidently contamination from later grave-digging: a site plan shows the bases of five graves cutting into these deposits. The occurrence of human bones below the identifiable cemetery soil horizon can be attributed to the difficulty of distinguishing actual grave-cuts in excavation.

At the northern end of the Compound was a ragged east-west linear stone feature (un-contexted, see fig. 3.1), 2.88 m in length, possibly a rather ephemeral 'wall'. There was the beginning of a possible return at the east end, cut by a grave (Sk. 284). Some 1.8 m further east and slightly further north, though possibly related, meandering lines of stones (also un-contexted) lay close to the former drain of the *via principalis*. This suggests either some form of re-use, or that its line was being perpetuated for some other reason. There were patches of mortar at the east end of the 'wall' and the west end of the possible re-used drain. Neither feature can be dated but that to the west seems to have been visible within the cemetery soil, and it is possible that their presence and alignment influenced the marked south-east/north-west orientation of a number of graves, discussed in Phase 2 below (fig. 4). This again suggests that elements of the fort layout were still visible in the post-Roman period.

Any physical relationship between the two stone features described above was lost by the digging of the graves for Sk. 277 (fig. 21) and Sk. 284, though the similarity in levels for the two features suggests they could have been contemporary. Spreads of rubble overlay both the features; that over the eastern feature being described as a deliberately laid rubble surface while that over the 'wall' was a formless spread. This may imply a significant functional division between the two features, but the remains were too disturbed and ephemeral to interpret further. Both rubble deposits contained human bones, intrusive from later grave digging, and neither can be dated.

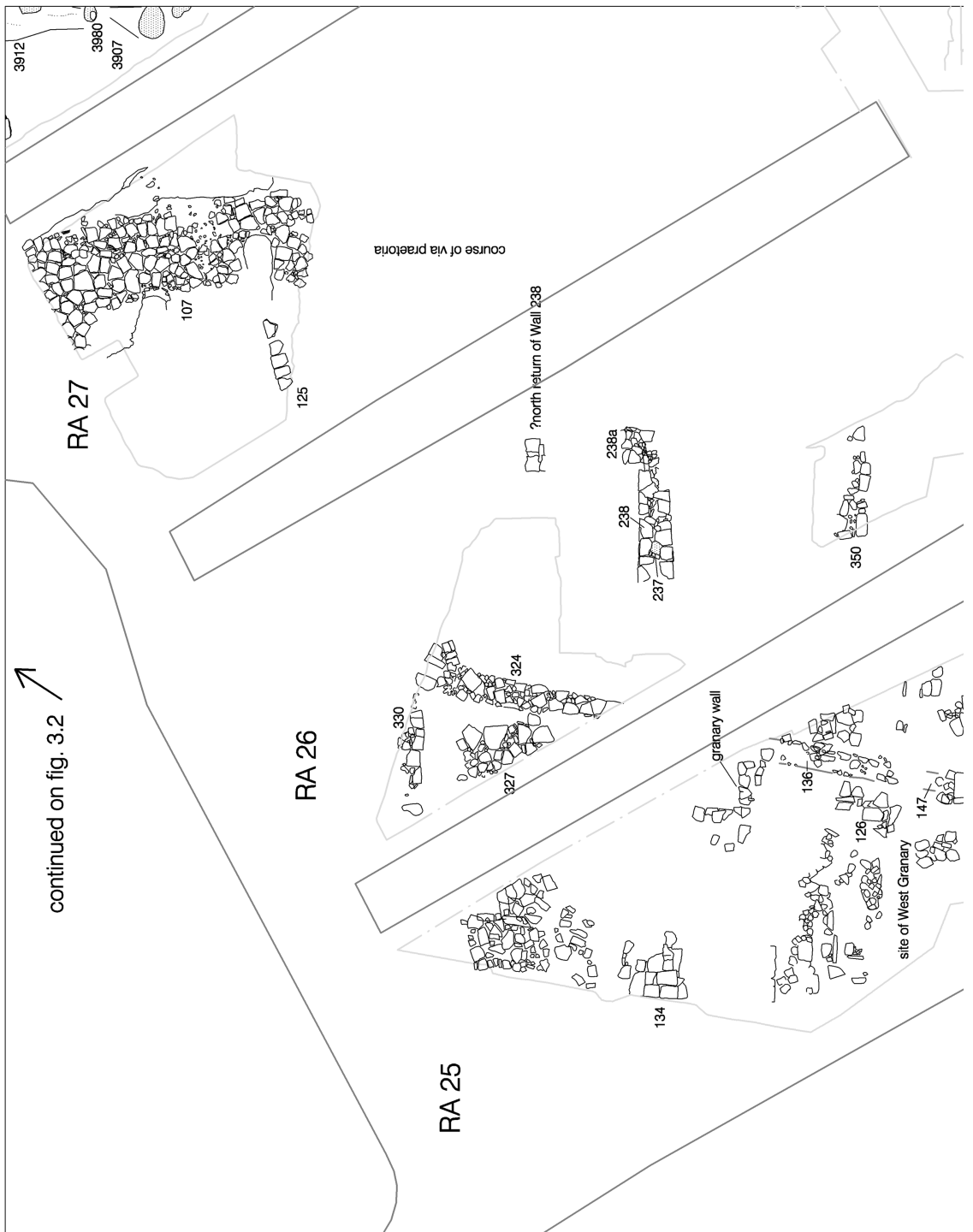
Cutting across the line of the *via praetoria* in the north-western part of this area was part of the drain or 'aqueduct' (172) mentioned above, which ran south through RA 26 and RA 25 (see below) to connect with the hypocaust system under the *praetorium* (see fig. 3.1).

Railway Arch 25 (fig. 3.1)

The post-Roman ground surface was represented in RA 25 by a deposit of soil, clay and mortar which overlay the sleeper walls of the West Granary, and apparently extended over the line of the demolished south wall. This was interpreted at the time of excavation as representing a dereliction horizon which post-dated demolition of the granary and preceded cemetery activity (at least in this area). Cutting this deposit, the latest metalling of the *via praetoria*, and the south wall of the West Granary, was the drain or 'aqueduct' noted above in the Compound, with sandstone rubble sides (136/147), and capping (146). Here it appeared to be associated with a shallow tank or cistern (160). Both features have been suggested to be 'early Anglo-Saxon' (Snape and Bidwell 2002, 111), although there is no artefactual evidence for dating, and they could conceivably have been a result of very late or sub-Roman 'native' use of the site.

There were also traces of fragmentary walls (134 and 136), the latter possibly associated with wall 238 in RA 26, and stone features of indeterminate form or function at the south end

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3: THE CEMETERY, PHASE 1: PRE-CEMETERY



Fig. 3.1 Presumed post-Roman and pre-cemetery features: Compound, RA 25, RA 26, RA 27.

of the arch (148, 150, 151). Elsewhere ragged lines of stones appear to represent the disturbed upper courses of granary sleeper walls rather than formal structures. Although assigned to a pre-cemetery phase on the grounds that none of these features cut or overlay any burials, it is always possible that they were in existence while burial was taking place elsewhere.

Railway Arch 26 (fig. 3.1)

In this area the latest identifiable Roman horizon was overlain by another section of aqueduct (324) and by a fragmentary stone feature (330) on its west side, and apparently at right angles to it, which may have been a wall. Apparently associated with these was a surface of laid stones (327) covered with layers of ash and sealed by a deposit of dirty clay. This formed the ground surface which was cut by the first burials in this area. Although this horizon was cut by graves it is possible that, as suggested for RA 25, burials could have been taking place in another, more preferred, part of the site at this time, and that these features represent other activity associated with early cemetery usage. South-east of the features just described, and also apparently pre-dating any burials in the area, were the remains of a wall (238) running approximately east-west, 0.6 m wide and surviving to a length of 2.2 m, and overlying a cobbled surface. It is possible that wall 134 in RA 25 was part of the same structure. At the surviving east end were traces of a possible start of a northward return, probably continued by a detached fragment of similar masonry, uncontexted, 1.9 m further to the north.

Wall 238 is described here with pre-cemetery features on the grounds that it was cut by the graves of Sk. 2–4 and by the foundations of a building (Building 68), suggested on form and context to be part of a pre-1080 church (see Phase 2.1, below). The original excavation record, however, states that wall 238 and the cobbled surface overlay a brown soil (332), and that both wall and brown soil sealed a pit (336) 0.25 m deep, the fill of which included three pottery fragments identified as late ninth- to tenth-century York A ware (see Section 7: Pottery, below). This would put wall 238 into the latter part of Phase 2 of the cemetery use, and presents major problems in fitting Building 68, and the density of burials, into a feasible chronology of structural development in this area. The foundation of Building 68 was cut through burials which themselves were dug through the foundations of wall 238. If wall 238 was built *after* the late ninth to tenth century and Building 68 *before* 1080, the sequence has to be fitted into a space of c. 180 years. This appears to be an unrealistically tight timescale.

Fundamental to the interpretation of timescale is the stratigraphic integrity of pit 336. The pit was evidently first excavated as a sub-rectangular feature, but was then redefined as a larger irregular pit. The site plan on which it appears is annotated 'note corrected outline to 336'. The enlarged outline can be seen to have been partially cut by another pit/posthole (237), which was cut through wall 238 (see fig. 3.1). This raises the possibility that the York A pottery from 336 might have been a result of contamination from 237, which may itself be associated with the construction of Building 68.

Railway Arch 27 (fig. 3.1 and fig. 3.2)

In RA 27 the latest identifiable Roman horizon appeared to be a cobbled and flagged road surface. This was overlain by deposits of soil, often mortar-flecked, and stones which were interpreted as representing a period of neglect and decay, if not active destruction of Roman structures. These deposits were subsequently covered by two successive layers of black soil,

the first with small sandstone rubble (101) and the next (114) with mortar spots and limestone chips. On the eastern side of the area these deposits were overlain by a spread of large stone paving (107) apparently forming a 'path' which appeared to perpetuate the line of the *via praetoria* in this area. West of 107 was a single line of dressed stones (125), described in the site record as perhaps being the remains of a wall. It is possible that both these features were continuations of the stone-edged 'paths' recorded in Area D and discussed below.

Railway Arch 28 (fig. 3.2)

In RA 28 an alignment of three sandstone flags with worn surfaces (3949) overlay the partly collapsed or robbed walls of two phases of Roman building (4013 and 4040 respectively). The positioning of these stones above earlier building walls suggests they might be the remains of a pre-cemetery 'path', such as those identified in Area D (see below) which also followed the still faintly-visible wall of a Roman building, or the 'wall' and 'path' in RA 27 described above. Intensive burying in Phase 2 had destroyed any other evidence for the pre-cemetery ground surface in this area. Some possible post-and-trench alignments, suggestive of a post-built structure or structures, or of a fenced enclosure or enclosures, are shown on fig. 3.2. Their date and form is ambiguous. There is some slight evidence to suggest these appeared during the early period of burials in this area (see Phase 2). They may have been associated with the similar alignment of features described in Area D below (see Section 6, Discussion: Building C), and are accordingly described here.

The remains of the south wall of Roman Building III (4051) and the north wall of Building IV (4053) (Snape and Bidwell 2002, 118–9), were both cut by an apparently linear feature (3912/3907), aligned approximately north-south, and 0.9 m wide and 0.7 m deep. This appeared to have contained two stakeholes and three irregularly-sized post-holes (3901, 3917 and 3980) along its east side (fig. 3.2). This apparent alignment of features could be projected some 2m further southward to include two other post-holes (3976 and 3994), and may account for the otherwise inexplicable absence of the lower thoracic, pelvic, and femoral elements of Sk. 645, the grave of which lay between post-holes 3976 and 3980. If this alignment did cut a grave, then clearly feature 3912 was constructed during the lifetime of the cemetery in this area.

Post-hole 3994 was slightly offset to the east, and with another (3969) was suggestive of another possible alignment of cut features running west-east, comprising three postholes (3960, 3963, 3965) and a sub-rectangular west-east cut (3957) with post-holes at opposing ends. This general alignment has been identified (Snape and Bidwell 2002, 88–9) as representing the south wall of Roman building IV, an interpretation based largely on an interpretation of wall 149 (RA 27) as being the south-west corner of that building. In the opinion of the present writer, the site records show 149 simply as a section of north-south wall, truncated by the mid-seventeenth-century bastion, and with no convincing south face. If the south wall of Building IV actually lay further south, then these cut features could be seen as forming a return to 3912/3907. Another sub-rectangular west-east cut with post-holes at opposing ends (3982 and 3985) lay 1.8 m to the north, and appears to have been the grave for Sk. 657, so feature 3957 may have been an 'empty' grave, and the paired post-holes within both could have been the sites of timber head and foot markers. Another post-hole to the north (3997) may have been associated. Whether these were pre- or early cemetery features, they disappeared and were overlain by the mass of later burials during subsequent cemetery use.

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Fig. 3.2 Presumed post-Roman, pre- and possibly early cemetery features: RA 27, RA 28, RA 29, Area D, Area E.



Railway Arch 29 and Area C

In RA 29 the line of the north wall of Roman Building II (Snape and Bidwell 2002, 81–2) was visible, at least in part, as a line of rubble (2912, fig. 3.2) during the early use of the cemetery. In Area C, on the north side of the Keep, there was evidence for collapse of and robbing of the walls of the east granary, though much of the destruction can probably be attributed to grave digging rather than pre-cemetery activity. Nothing clearly identifiable as a post-Roman and pre-cemetery feature had survived intensive burying during Phases 2 and 3 in these areas.

Area D (fig. 3.2)

The principal features which have been assigned to this phase, as they appear to predate all burials in this area, were metalled ‘paths’ or ‘trackways’ possibly associated with that noted in RA 27 above. One (525) ran on a south-west / north-east alignment, was c. 1.5 m wide, and straddled the west wall of Roman Building I. South of context 525 was a similar length of ‘path’ (uncontexted) possibly forming a return running roughly west-east and c. 1.35 m wide. Both ‘paths’ were defined by stone edging.

It is possible that the edging of a similar ‘path’ was represented by another west-east line of stones (555), though this was interpreted in the Roman report (Snape and Bidwell 2002, 81) as the south face of the north wall of Building I and part of primary fort construction. This feature may indeed broadly mark the line of the north wall of Building I, but its stones appear to be different in character to those forming the west wall and south-east return of that building. Also one stone of wall 555 is marked on the site plan as being dressed on its north side (i.e. where it would not be visible) indicative of re-use.

Wall 555 appears on site plans showing spreads of stone rubble predating burials in this area, and it overlay a cut (586/587) and smaller stones which spread north beyond the area of excavation. Snape and Bidwell (2002, 118–19) assign cut 586/587 to the post-Roman/ early Anglo-Saxon phase of site use, although there is no actual dating evidence; this suggests it is associated with a possible alignment of post-holes and cut features (589, 597, 623, 630 and one uncontexted) recorded below the cemetery soil in this area, running south, and appearing again in RA 28 (see above, and fig. 3.2). None of these features contained any datable finds, but 623 appears to have cut the south wall of Roman Building I. Within the angle formed by these features, and again recorded as being below the cemetery soil, were six post-holes (595, 619, 626, 629, 633 and 652). Only two (633 and 652) produced any datable finds, and these were Roman. The validity of the suggested north-south alignment, and of assigning the other six features to the same phase of activity, is considered below (Section 6, Discussion).

On the evidence given above it may be suggested that wall 555 was post-Roman and associated with putatively pre-cemetery ‘paths’. If however 586/587, the post-holes and cuts to the south, and the similar features in RA 28, are all regarded as contemporary, and if the RA 28 alignment did in fact cut a burial, then it is possible that wall 555 was in some way associated with cemetery use.

Area E (fig. 3.2)

Identification of a pre-cemetery surface or activity in this area was made difficult by the fragmented areas available for excavation. In the southern part, metalling of small to medium sandstone rubble (2454/2456 and 2677, see fig. 3.2) incorporating areas of level ‘paving’,



overlay what has been interpreted (Snape and Bidwell 2002, 120) as a section of the Roman Fort wall (2408/3625) demolished and paved-over in the post-Roman or early Anglo-Saxon period. As described above (Choice of site and physical extent), very little of the putative 'fort wall' could be seen however, and other interpretations of the remains are possible. Two pits or large post-holes (2457 and 2461) apparently cut the metalling, and are ascribed to the same period.

However, none of the datable finds (pottery and coins) from deposits associated with, or immediately overlying, the metalling are later than the late fourth century, and at least one of the post-holes was sealed by a deposit containing Roman material of the second half of the fourth century. This suggests that these features were late Roman deposits, rather than a result of post-Roman, let alone early Anglo-Saxon, activity. With only two graves identified at the southern edge of this area there may have been little ground disturbance between the late fourth or early fifth century and construction of the rampart of the 1080 castle, thus favouring the survival of late Roman deposits and features.

Below the clay rampart of 1080, in a narrow area north of the twelfth-century North Gate, there were deposits of black soil mixed with small, medium and large stones, characteristics of the cemetery soil in areas to the south and west. These deposits, which contained no finds later than the Roman period, had been affected by post-medieval subsidence creating a marked terrace. The surface was strewn with sandstone fragments but these did not appear to have formed a regularly-paved surface (see fig. 3.2, 2174), and may have been the result of immediately post-Roman robbing of the fort's walls and buildings. Alternatively, the rubble may have derived from Roman buildings disturbed in the course of cemetery usage, and which may have been dumped here, if this was indeed the periphery of the burying area. Wall 1996, which may have formed part of the defensive circuit of the Roman Fort (see above: Choice of site and physical extent), had also clearly been affected by subsidence, and may have been displaced some distance from its original position. As a consequence, no clear physical relationship could be established with the deposits in this area. It is probable, however, that it was still a visible surface feature at least during the early life of the cemetery.

To the north-west, in a narrow (1.5 m wide) section through castle ditch deposits, two features (2365 and 2292) have been interpreted as an early post-Roman gully and possibly an Anglo Saxon ditch respectively (Snape and Bidwell 2002, 123–5 and fig. 2.7B). As so little of these features was excavated it cannot be assumed that they were continuous linear features of any length, nor can we be confident of their orientation. The full depth of 2365 was only established in an even narrower sondage close to the section edge. No Anglo-Saxon artefacts were found in the fills, the lowest of which contained pottery of the second half of the fourth century AD, while an upper fill (2366) contained two small sherds of twelfth-century pottery. Several fills were black and silty, suggesting erosion from 'cemetery soil' deposits cut through at the top of the ditch slope.

Feature 2292 was larger, appeared to have cut the fills and north-west side of 2365, and (within the excavated section) showed evidence of a continuous if erratic eastern edge; this was suggestive of a ditch terminal, though it could equally have been a large pit or a beam-slot. No datable material was found in the excavated section, though a 'step' in the south-east side contained black silty soil with a fragment of human bone — possibly also eroded cemetery material — and there were some large pieces of sandstone rubble in the base of the cut. On the limited evidence it seems more likely that 2365, if not actually a disturbed Roman

feature, was associated with the 1080 castle, and that 2292 may thus belong to the twelfth-century remodelling of the defences.

PHASE 2. THE SAXON CEMETERY c. 700–c. 1080 (fig. 4)

It may be suggested that burials began at this site around 700. This is based on a combination of finds evidence and two radiocarbon-dated burials: Sk. 660 (RA 28), a partly-flexed old adult ?male, on his right side, which yielded a date of 667–780, and Sk. 422 (Area D), a child, which is rather broadly dated to 670–900. Two even earlier radiocarbon dates have been discounted: that for Sk. 99 (see Section 2, Historical Setting) and a date of 430–660 for Sk. 575 (RA 28) which was inconsistent with this burial's place in the stratigraphic sequence. This skeleton produced a significantly later date when re-submitted (see Appendix).

All interments were apparently Christian, being buried without any identifiable grave goods, and orientated broadly east-west. Actual orientations ranged between 235 and 283 degrees (see Section 4). As previously noted (Section 1, above), it was not practicable at the scale of reproduction to label graves on the plans in this paper; consequently the majority are not referred to by number in the text. Most of those that are mentioned are either illustrated or their locations can be identified on the plans, for instance by association with a cist or with a specific grave type.

Compound (fig. 4 and figs. 5.1–5.4)

This area was completely covered by the clay identified by the excavators as the rampart of the castle of 1080. On this basis, all but ten of the excavated burials have been assigned to this phase. Where the body position (figs. 31.1–3) could be determined the majority were supine, though there was a high proportion of right-sided burials, 40% of the total in this area. Other non-supine burial positions were eight left-sided and eight prone (or possibly right-sided burials that had slumped eg. Sk. 277, fig. 21), and three that were flexed. Although burials were dense in this area there does not seem to have been significant pressure on grave-space; many graves were on a single level of interment, neither cutting nor cut by other burials. Where overlying or 'stacked' and intercutting burials occur, they are in discrete groups and a maximum of four 'generations' deep, perhaps suggesting use of 'family' plots. One possible related grave grouping is Sk. 272, an infant, which overlay Sk. 284, an old adult male, below whom was Sk. 289 an old adult female, who in turn overlay the primary burial, Sk. 333, an unsexed old adult.

The single graves, and the lowest level of 'stacked' or intercut graves, comprised 83 burials. Of these nine were foetuses and neonates, nine were adult females, sixteen were infants, and twenty-six were adult males or ?adult males. Of note was a double burial of old adult males (see Section 4, Body Disposition, and fig. 37) in plain graves, where the supine/flexed Sk. 176 was overlain by the prone (or slumped right-sided) Sk. 175; the latter was radiocarbon-dated to 1015–1155.

At the north end of the area and extending into RA 25, were two parallel lines of graves over 3 m apart which appeared to define an east-west 'corridor' (see fig. 4). These graves, which represented more than one 'generation' of burial, may have taken their alignment from the stone features described in Phase 1.

Perhaps one of the latest events in this phase and area was represented by features and deposits which, it is suggested, can be interpreted as the remains of a mortar mixer although

this identification was not made at the time of excavation (figs. 5.1–4). This overlay the cemetery surface and was sealed by clay (3) forming the 1080 castle rampart (see Sections J–K and L–M, fig. 5.4). It had been cut by the Keep foundations and by post-medieval drainage, fragmenting the surviving evidence into several islands of isolated stratigraphy, not all of which were excavated at the same time, thus complicating an understanding of the stratigraphic sequence. The primary deposit was a patch of dark red ash (68/165, shown in bold outline on fig. 5.1) with a curved northern edge, containing areas of burning, scattered stones, and some small stakeholes (177), which was then covered by spreads of mortar (17/164, fig. 5.1). These were overlain by an extensive deposit (20; fig. 5.3), mainly composed of small flat pieces of magnesian limestone. The southern edge and south-east corner of this deposit formed a well-defined right-angle, suggesting that it had been retained in some way. Scattered stake-holes may have been associated with this activity. In the surface of 17 a rough arc of eight stake-holes (part of a group (129), fig. 5.2) was visible, which can be projected to form a circular feature 3.2–3.5 m in diameter. This suggested dimension, and the pattern of stakeholes, are similar to Anglo-Saxon mortar mixers found at Wearmouth (see Section 6: Structural Remains). Within the arc of stakeholes, and forming another arc roughly parallel to and some 0.7 m to the south, a patch of burnt mortar (140), containing some limestone chippings, overlay 17. This patch was cut by four other stakeholes. A similar deposit, also numbered 140 but unburned (140.1 on fig. 5.2), abutted the arc of stakeholes to the north-west, and appeared to have been laid down while the stakes were still in position. Finally, the inner arc of burnt mortar (140) was overlain by burnt clay (67/122) which appeared to have been contained within a curving arrangement of stones on the line of the arc of stakeholes described above. The two may even have been contemporary. The stones were set in a patch of unburned clay with a sharply-angled ‘corner’ to the north (fig. 5.3).

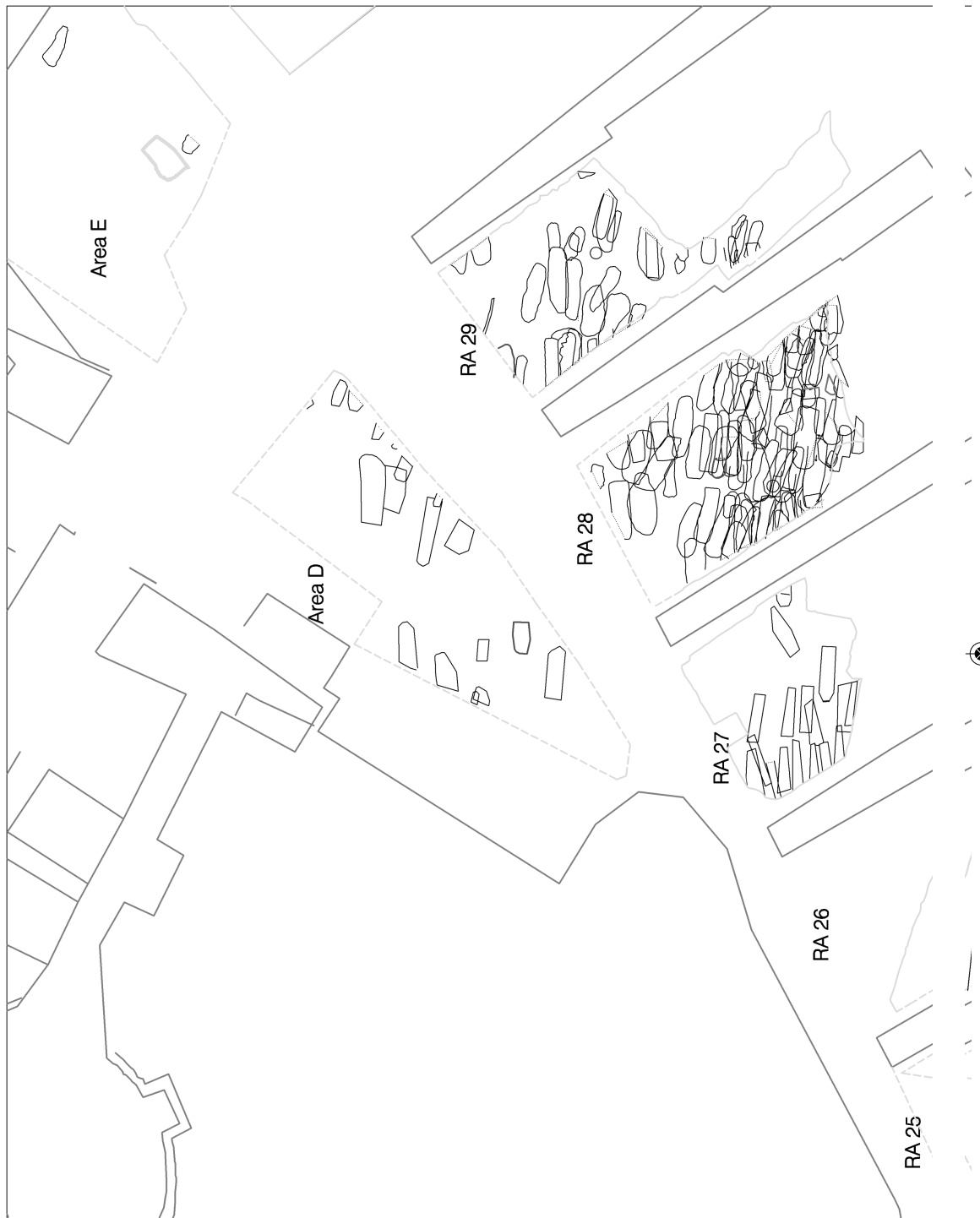
The deposits forming the suggested mortar-mixer sealed a number of burials, and there was no indication that grave-digging continued in the area beyond the spreads of clay and ash. However a patch of ‘cemetery’ soil (158, see fig. 5.1) noted within the spreads of mortar and ash and apparently overlying Sk. 314–17, may represent graves dug after this industrial activity had ceased. Another patch of ‘cemetery’ soil at the north end of the Compound (149) appears to represent the grave cut for Sk. 224, dug through the clay rampart.

Possibly part of the same phase of pre-1080 activity was a rectangular ‘box’ or tank (11) of sandstone flags set on edge (figs. 5.1–3). Although in size and construction this had some affinities with the stone-built cists in Area C there was no evidence on excavation that it had ever contained human remains, and the feature clearly overlay context 48 which sealed all the excavated graves in this area. If Feature 11 was connected with the suggested mortar mixer, it may have been a water tank or a lined pit for slaking lime. The flags forming the north side had been partly pushed inwards, most markedly at the east end, perhaps by pressure from the clay rampart. One flag had a rounded head with a central, circular, small hole, similar to a stone forming part of feature 288 (see fig. 8) in Area C, and may have been re-used Roman material. Immediately to the south of, and in line with 11, there was a disturbed area suggesting the robbing of a similarly-sized feature. A single upright flagstone survived at the east end.

A number of small depressions and pits were visible in the surface immediately beneath the clay rampart. One, at the south-east end of the area near the Keep (43, fig. 6.1) contained a quantity of human bone, presumably representing disturbance of burials. Another pit (51) overlay feature 11 described above.



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3: THE CEMETERY, PHASE 2: ANGLO-SAXON (C. 700-C. 1080)

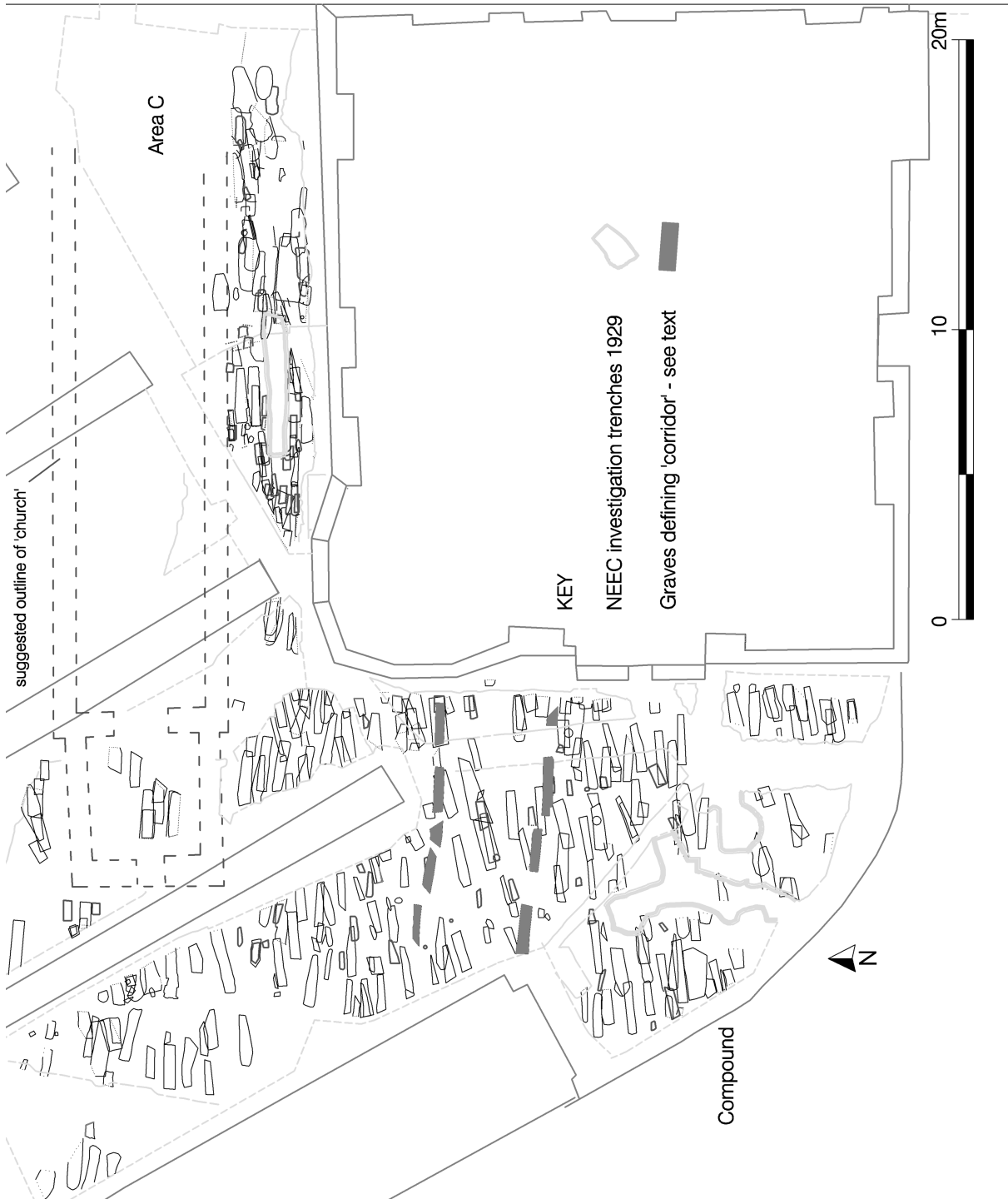
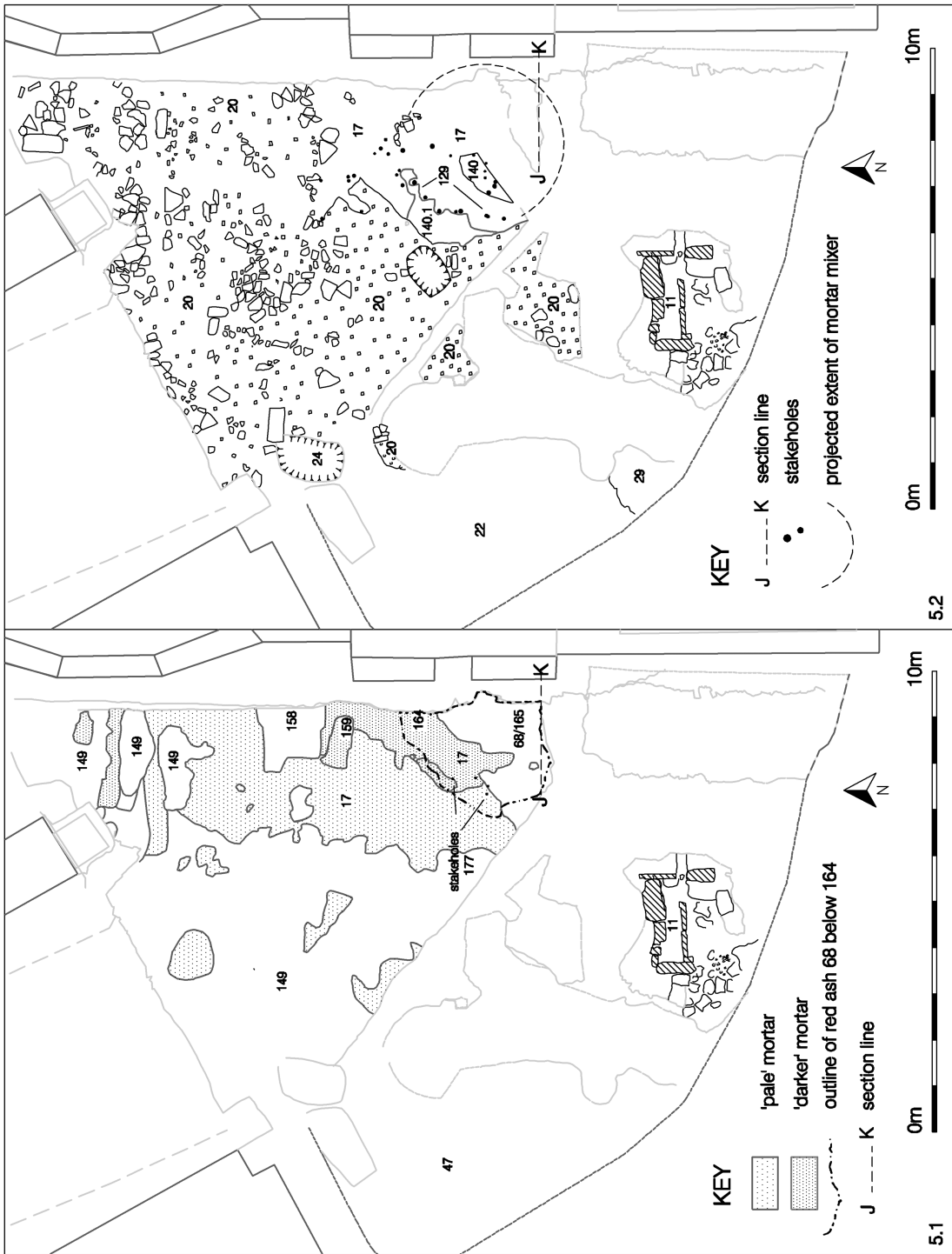


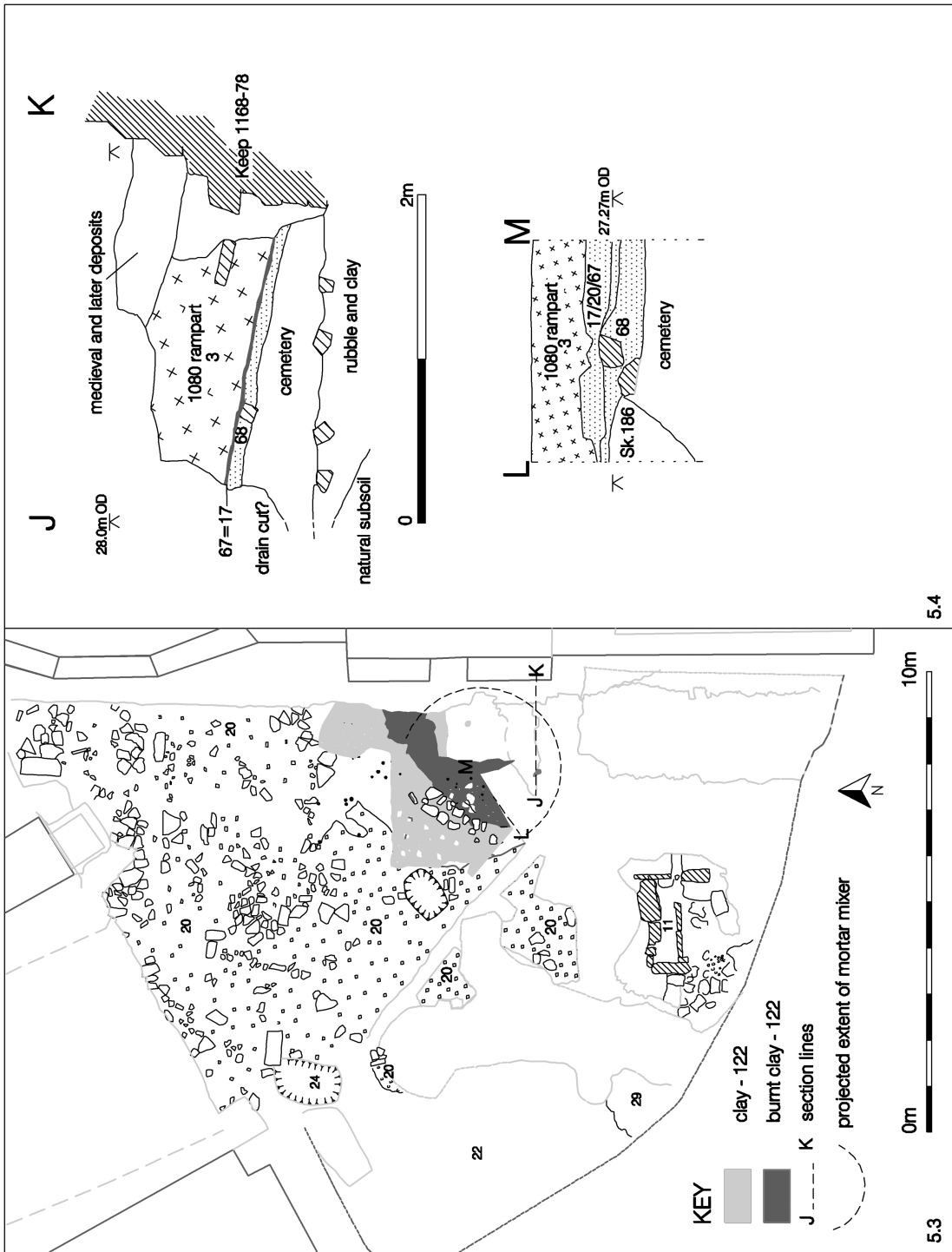
Fig. 4 Burials pre-1080 (Phase 2). Extent of surviving cemetery deposits shown in light grey outline.

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Figs 5.1 & 5.2 Compound: sequence of pre-1080 activity associated with possible mortar mixer.

3: THE CEMETERY, PHASE 2: ANGLO-SAXON (C. 700-C. 1080)



Railway Arch 25 (figs. 4 and 6.1)

At the bottom of the scarp slope (see Areas of Excavation, above) five graves in a deposit of brown soil and sandstone rubble (141) represented the earliest level of surviving burials. These were apparently overlain by 'flagstones' (138), though it is not clear if this was a formally laid surface or a spread of rubble, and it is possible that three of the burials had in fact cut the spread. Clearly cutting it was a second 'generation' of five burials in brown soil (137).

The uppermost burials, that is, those not obviously cut by any other graves, comprised fifty-six interments. Of those that could be aged and sexed, two were neonates and twenty-two were infants and juveniles, while the remainder included fifteen adult and old adult males, and twelve adult and old adult females. Four of these lay below scatters of rubble within the cemetery soil (101). The graves of Sk. 23 (adult female), lying at the bottom of the scarp, and Sk. 30 (juvenile) and Sk. 31 (old adult female) on the surface south of the slope, were visible on the cemetery surface (see fig. 6.1), suggesting they had been recently interred when this area of the cemetery was sealed by the 1080 rampart.

This last phase of burial was partly covered by a substantial spread of large and small stones (102). The stones lay against the scarp and appeared to the excavators to have been tipped down the slope. The site book notes that the large stones were 'often cut or worked', and the site plan indicates those that were 'building stone worked or partly dressed' (see fig. 6.1). Four of these stones were embedded 'on end' in the cemetery surface at the south west end of the arch, and could have been grave-markers. Because of the location of the spread, opposite the west face of Building 68, it is tempting to see the two as having been associated. Unfortunately, however, the character of the 'facing' or working was not recorded, and no sample stone appears to have been kept. They may have been a dump of disturbed Roman building material from the West Granary, or building material intended for use in Building 68 — if that structure was still under construction in 1080. Alternatively, the stone may have come from a partial demolition of Building 68 by the Norman castle-builders.

A stone spread (102) partly overlay a linear feature (108) which, together with three others (110–12) and Sk. 23, Sk. 30 and Sk. 31, was visible on the cemetery surface before it was sealed by the 1080 rampart. These linear cuts, which apparently belonged to the last phase of the pre-1080 cemetery use, resembled graves but contained no identifiable burials. Possible explanations for these 'empty' graves are discussed below (See Section 4: Burial practice).

Railway Arch 26 (figs. 4 and 6.1)

Of the fifty-six burials or parts of burials, surviving in three discrete islands of undisturbed stratigraphy, possibly eight made up the lowest surviving 'generation'. Later burials included all those cut, or overlain, by Building 68 which is suggested (see Phase 2.1 below) to have been the tower or porch of a pre-1080 church. Disarticulated human remains underneath two of these burials (Sk. 9 and Sk. 10), within the footprint of the building, indicated the disturbance of earlier graves. Another twenty-six burials also appeared to pre-date Building 68.

The latest or upper 'generation' comprised twenty burials, half of which were identifiably positioned on their left or right side. As none of the latest burials were obviously cut by Building 68, it is possible that some could post-date the construction of the 'church' and belong to Phase 2.1 or even Phase 3.

The appearance of the cemetery surface immediately before it was sealed by the rampart of 1080 is not clear, as only a small area was recorded in a sondage through the clay bank to the north of Building 68. South of Building 68 it does not appear to have been recorded at all. In the sondage the last pre-1080 deposit or feature was a spread of rubble apparently overlying the grave for Sk. 21. Possible continuations of this deposit to the north and south of the sondage were not recorded when excavated the following year, though a complete Roman impost block described as having a lewis hole in the underside, which partly intruded into the 1977 sondage, and another large stone to its west, were drawn in the site notebook (fig. 6.1). Impost blocks occurred in the *principia* (Snape and Bidwell 2002, 135) and in RA 28 (fig. 6.2), while a similarly-moulded stone to that in RA 28 was re-used as a surface grave marker in Area C (267: fig. 8 and fig. 51, no. 23).

Railway Arch 27

Burial began west of the Phase 1 'path' (107). The earliest level is represented by three burials. These were succeeded by perhaps three further 'generations' comprising fifteen burials. One of the latest of these, Sk. 335, was in a coffin, or plank-lined and lidded grave, packed with clay (located on fig. 19.3). Five further burials represented possibly the last phase before this area was sealed under the rampart of the 1080 castle. The cemetery surface of c. 1080 in RA 27 was not drawn.

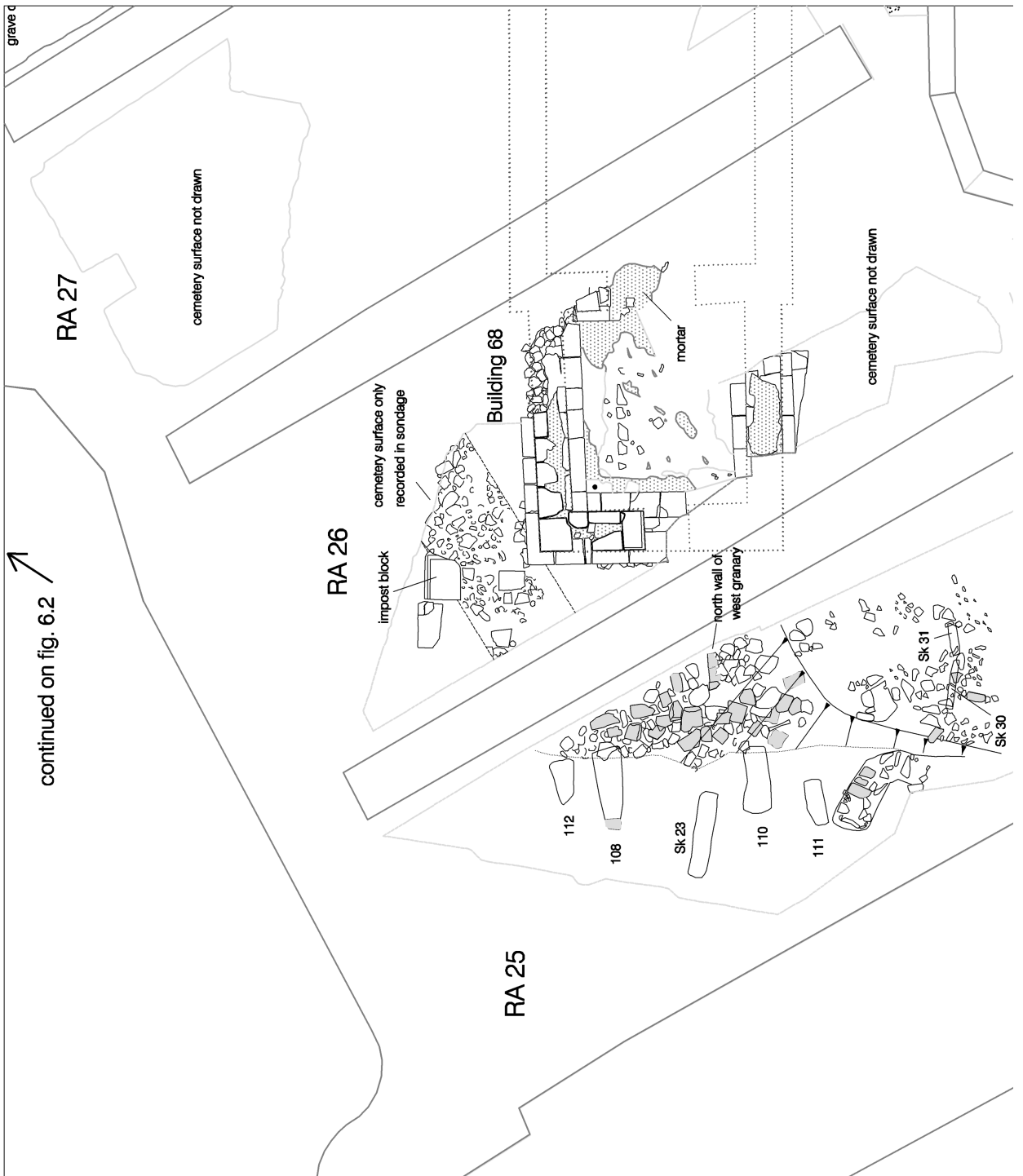
Railway Arch 28

Perhaps as many as eighty-four of the total of 114 burials in this area can be broadly assigned to this phase. The difficulties of establishing a more refined phasing structure within high-density areas of the cemetery have been discussed (see Section 1: Phasing), and only four burials have been radiocarbon-dated: Sk. 575 and Sk. 646 span the first half of the ninth century to the early tenth century, and Sk. 580 the period 880–1050. Sk. 660, apparently the earliest at 667–780, is mentioned above. Within this phase there were four burials on their right-sides, including Sk. 619 (fig. 20), and seven burials on their left-sides, including Sk. 612 (fig. 25; for the distribution plan: fig. 31.2). Two of these burials on their sides, Sk. 619 and Sk. 644, and possibly also Sk. 612, had been in wooden chests (see Section 4, grave types). Other grave types included the use of 'ear-muffs' (Sk. 601, fig. 22) and 'head-boxes' (Sk. 605, fig. 23).

The possible post-and-trench structure, which might have belonged to the early part of this phase, has been described in Phase 1 above. Perhaps associated with such a structure was another Roman impost block (3824, fig. 6.2), lying upside down and apparently carefully and deliberately laid to present a level surface. This may have been a grave marker as it overlay Sk. 641, which was probably one of the earliest 'generation' of burials in this area, though it seems an unwieldy size of stone to use for such a purpose. A line of reused Roman building stones running roughly west-east from, and in line with the south edge of the impost block may have been associated with it, or was defining a burial. It had subsided into the grave of Sk. 591.

Possibly the latest generation of burials in this area before castle construction in 1080 was represented by nine supine burials. The grave fills for some of these were visible below patches of clay which may represent the rampart material of 1080: rubble filling the upper

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3: THE CEMETERY, PHASE 2: ANGLO-SAXON (C. 700–C. 1080)

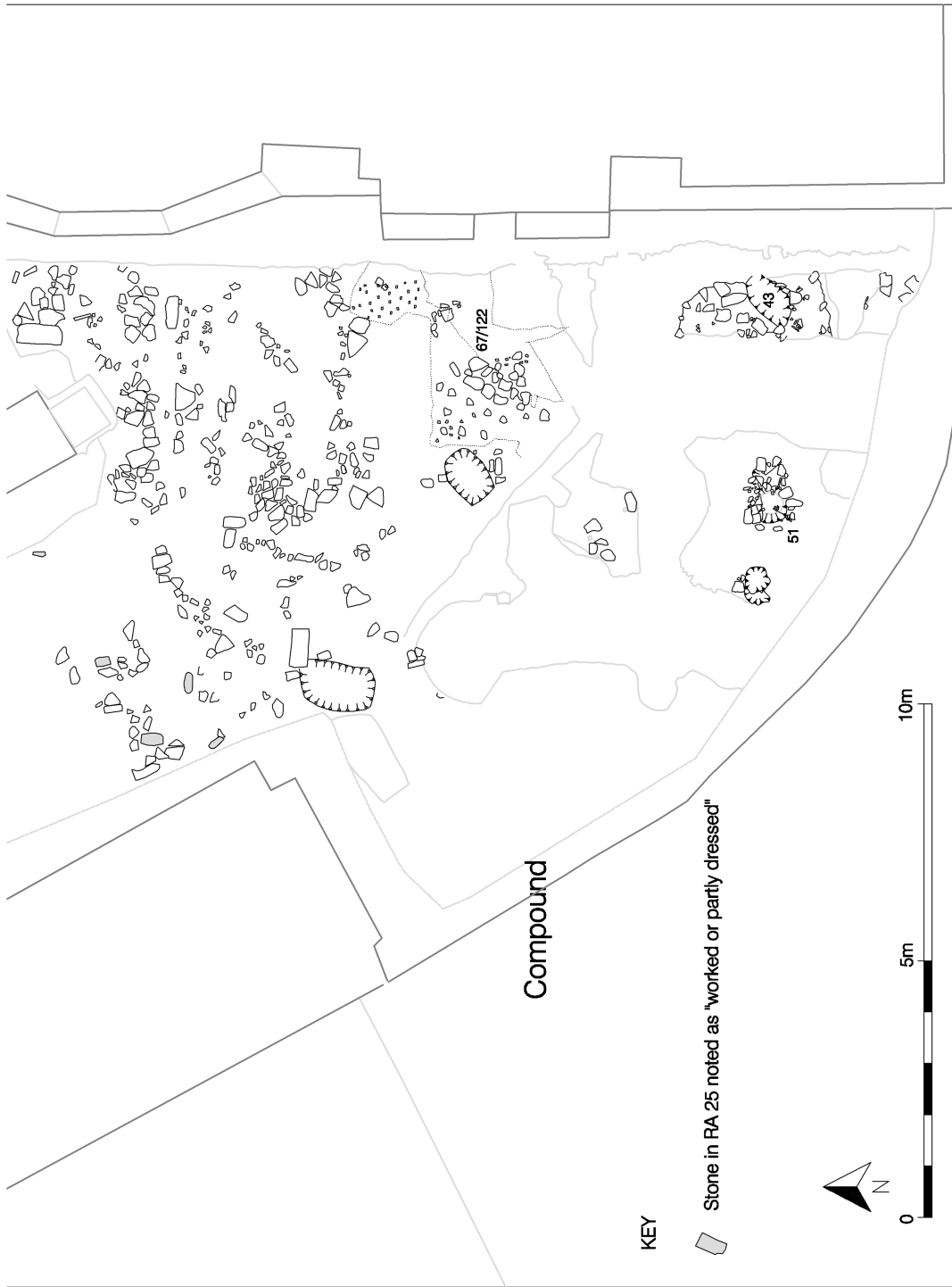


Fig. 6.1 The cemetery surface as it may have appeared in 1080: Compound, RA 25, RA 26, RA 27. Extent of surviving cemetery deposits shown in light grey outline.

182 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



3: THE CEMETERY, PHASE 2: ANGLO-SAXON (C. 700-C. 1080)



Fig. 6.2 The cemetery surface as it may have appeared in 1080: RA 27, RA 28, RA 29, Area D, Area E. Extent of surviving cemetery deposits shown in light grey outline.

part of the grave cuts for Sk. 574 and Sk. 575, and for Sk. 568, was visible on the cemetery surface (fig. 6.2). Two possible 'empty' graves (3676 and 3812) may be evidence for exhumation in 1080, or may have been unfinished graves. The stoney fill of 3812 is visible on fig. 6.2.

Railway Arch 29

Stratigraphically, the lowest surviving burial generation was formed by Sk. 436 and Sk. 458–60. Where body position could be determined the majority were supine, with three identifiably non-supine burial positions: two on their right-side and one on its left-side. Skeletons 451 and 525 may also have been left-sided but appear to have collapsed back into a partially supine position, perhaps as a result of post-burial movement (figs. 34 and 35). The latest burials before construction of the castle in 1080 appear to be represented by twenty-four graves. Where body position could be determined these burials were supine. Sk. 457 had 'ear-muffs', but the remainder had no grave furniture.

Area C

The density of burial in this area — in some cases as many as eight 'generations' deep — and the presumption that this was a favoured location, complicates identification of the earliest graves since the stratigraphic depth of burials need not equate to a similar time-depth. On the evidence from the Compound, it may be suspected that right-sided, left-sided, and prone burials, and those stratigraphically beneath them, are pre-1080. It is also probable that many of these pre-date the suggested Phase 2.1 'church'. It is noticeable that the number of non-supine burials decreases markedly from the extreme western end of Area C (1980–1981) to the east (1990) (figs. 31.2 and 31.3). In the former area there are eleven burials on their right sides, two on their left side, two prone and two flexed. In the latter area there are only three burials on their right sides and two on their left side. The higher incidence of survival of such burial positions towards the west, particularly noticeable in the group of right-sided burials, suggests preferential use of the area to the east for supine burial at a later date, leading to the destruction of earlier, non-supine burials.

Another 41 burials probably belong to this phase or phase 2.1. One (Sk. 368, an old adult male) in a stone-built cist — a burial type once thought to be an exclusively post-1080 (Phase 3) form — has been included in this phase on the basis of radiocarbon dating which gave a calibrated range of 808–973. The cist was marked on the surface by head- and foot-stones which could have contained a recumbent surface slab such as those described in Phase 3. The cist was covered with thin slabs (326, fig. 8) including a number of re-used broken surface markers, some with roughly incised diagonal lines (fig. 53, nos. 35–37). Burial 368 cut three neonates, one in a mortar-lined grave, but was not stratigraphically related to any other stone-built cists. It is thus quite possible that other cist burials which have been assigned to Phase 3 were in fact contemporary, and that this form of burial is associated with the suggested Phase 2.1 'church'

The most substantial early cemetery structure, designated 'Building B', was found in Area C in 1990 (fig. 8). The remains consisted of part of a foundation raft of clay and rubble (3160, 3433–7; figs. 8 and 10), surviving at a level of 27.31 m–27.38 m OD, edged with roughly squared sandstone blocks, which were probably re-used Roman masonry. The raft had a compacted clay surface (3160) below which was a sticky dark-brown clay mixed with large



pieces of sandstone rubble and some tooled stonework. Only the south-east corner survived, from which the course of the south wall could be traced westwards for c. 3.6 m, overlying the northern sleeper wall of the Roman east granary, before disappearing in an area of intensive burial disturbance (including grave slabs 266 and 3180) and the robber trench associated with the construction of Civil War bastion (see Phase 2.1, below). Two smaller stones, approximately on the same line and also tipping southward, may have been associated. If so, these would extend the length of the south wall to 4.5 m. A deposit of clay-bonded rubble (230), seen on the north side of robber trench 233 and a little over 4 m to the west of 3433–7, appears from the context description to be so similar in character that it may represent a continuation of, or the limit to, the foundation. If so, an approximate west-east building length of some 8.5 m could be suggested. Only 1.02 m of the northern return of the east wall survived before being cut by cellars of the post-medieval *Three Bulls' Heads* public house, and consequently no width can be suggested.

The foundation filled the space between the north sleeper wall and the outer north wall of the Roman East Granary (fig. 10 Section E–F) and overlay the latter, which may have been the source for the dressed stonework incorporated into the foundations. A ventilation gap in the north sleeper wall had been roughly blocked with masonry, perhaps as part of the construction of this building.

The foundation raft overlay a shallow (c. 0.15 m) depth of cemetery soil which contained at least two plain graves: one is located on section E–F (Sk. 545, fig. 10). Either some depth of cemetery soil had been removed for the construction of Building B, or it had been constructed at an early stage of cemetery use. The latter interpretation is supported by contrasting the height — c. 0.56 m — to which the north sleeper wall of the East Granary had survived below Building B's foundation, against the height of survival of the sleeper walls to the south. These had been reduced — to fragmentary sections of upstanding masonry only some 0.2 m high, or even to smears of mortar bedding — by grave-digging, as use of this part of the cemetery intensified. Clearly the north sleeper wall and north wall of the granary in this area had been protected for a considerable period during the use of the cemetery.

The stones forming the southern edge of Building B had parted from the clay platform and had tilted southward. The instability which this clearly indicates may have been a result of intensive grave digging close to the wall (fig. 7), or a result of deliberate demolition of Building B. The former may be suspected, since the final cemetery surface in this area was 0.28 m lower than the level surface of the clay platform. The apparent discrepancy in levels is discussed in Phase 3.

Area D

The earliest graves were arranged in two rows, set some distance apart (fig. 4). At the west end and cutting the surface of the *via principalis* were five burials, three of them covered by spreads of rubble (538–9). These appeared to respect the metallated 'paths' or 'trackways' described in Phase 1. To the east, two burials (Sk. 428 and Sk. 429) lay within Building I of the Roman fort, the earliest butting the north face of masonry interpreted (Snape and Bidwell 2002, 81) as part of the south wall (536B). Another burial cut a stone feature (679) within that building. These burials were covered by another spread of rubble (540).

Running east-west across the area, from just inside the alley between Roman Buildings I and II, was a broad strip of dark soil (537) which covered Sk. 422 and Sk. 424 (cut into the *via*





Fig. 7 Cist capping and head and foot stones for Sk 478, with disarticulated bones. The foundations of Building B to the north, apparently slumping into the grave. Area C. Scale 1 m.

principalis), and Sk. 425 and Sk. 427 (cut into the alley surface). The relationship between 537 and the rubble spreads is ambiguous: the contextual record (reconstructed after the theft of the original site books) suggests that it (537) underlay the rubble spreads and was cut by context 549, also below the rubble, described in the reconstructed site record as 'cemetery soil'. Whilst 537 and 549 may have essentially been the same deposit, it is also possible that 537 was an intrusion through the spreads of rubble, in which case the burials it covered may represent a second generation buried within a discrete area. A definite second generation of burial was represented by three burials.

All these burials, and the 'trackways' or 'paths', were sealed by a substantial spread of stone rubble (520/521), subsequently cut by two burials at the west side of Area D and a group of five burials at the eastern end. These were in turn sealed by a scatter of rubble (491 and 518, fig. 6.2) which was cut by a number of small stakeholes and the grave of Sk. 412, in a wooden coffin or a plank-lined grave. Although this was the latest identifiable interment before this area was sealed by the rampart of the castle of 1080, there was some other evidence for late activity, principally a closely-packed layer of stones (505) just protruding from the east section (fig. 6.2), and a scatter of smaller stones (508) to the west. These seem to have been covered by a deposit of dark soil, and may have been contemporary with the burial of Sk. 412.



Area E

Two burials, Sk. 546 and Sk. 562, were found at the southern end of this area. The relationship of these graves to the layers of metalling and stones to the north and north-east (shown on fig. 3.2), suggested by Snape and Bidwell to be late Roman/early Anglo-Saxon, is unclear. These features have been discussed in Phase 1 above.

In this area, where only some 12–15 cm of deposits had accumulated over the suggested late Roman metalling described in Phase 1, the ground surface immediately before construction of the castle in 1080 appears to have been represented by a thin layer of iron pan (2440). Over, or perhaps forming part of, this layer were several patches of burnt soil or ash, and two patches of stones (2444 and 2445, fig. 6.2). A number of small stake-holes cutting the iron pan may have been associated with early occupation of the Norman castle. Overlying these features and the iron pan was a dark brown silty clay soil (2434) attributed to castle construction in 1080. This was sealed by deposits of clay and sandstone rubble, presumably forming the inner slope of the 1080 rampart. These deposits will also be discussed in Harbottle and Nolan, forthcoming.

In the northern part of Area E, where there were no burials, the ground surface of 1080 was represented by a compact black soil with sandstone fragments lying on its surface (2168, fig. 6.2), which lay immediately below clay layers forming the castle rampart.

PHASE 2.1. A LATE SAXON CHURCH? (figs. 8–10)

This part of the report describes features in RA 26, RA 27 and Area C which appear to be surviving elements of a single building, orientated east-west — or of a range of buildings — which substantially pre-dates construction of the castle of 1080. Because of their character and their location within the cemetery these have been tentatively interpreted as comprising the remains of a pre-1080 church (see also below Section 6). The suggested outline of this is shown on the various distribution plans.

Railway Arch 26

The upper levels within the cemetery, a black or dark brown clayey soil with mortar flecks (88, 89 and 230 — fig. 9 section A–B) were cut by the remains of a substantial stone-built structure, subsequently designated Building 68, which was fully excavated in 1977 (fig. 11). Clay forming the rampart of 1080 overlay the cemetery soil and the projecting foundations of Building 68, and was packed tightly against the upstanding outer wall faces. The foundations of the building also cut three skeletons (Sk. 2, Sk. 4, and Sk. 5) but no burials were found to cut or overlie the building itself, suggesting that it represents the latest pre-1080 structural event in this part of the cemetery. The foundations were of sandstone rubble and cobbles capped with clay (90 and 226, fig. 9), 2.1 m wide, set in a construction trench 1 m deep which had been dug through the cemetery soil onto the subsoil. On top of this foundation was a single plinth course, 0.3 m high, of large dressed sandstone blocks 1.45 m wide. Above the plinth, a single course of dressed masonry, 0.75 m in thickness, survived, beyond which the plinth course projected as an internal and external offset.

The north wall was the most complete, showing the internal north-west and north-east angles and the north-west external corner.



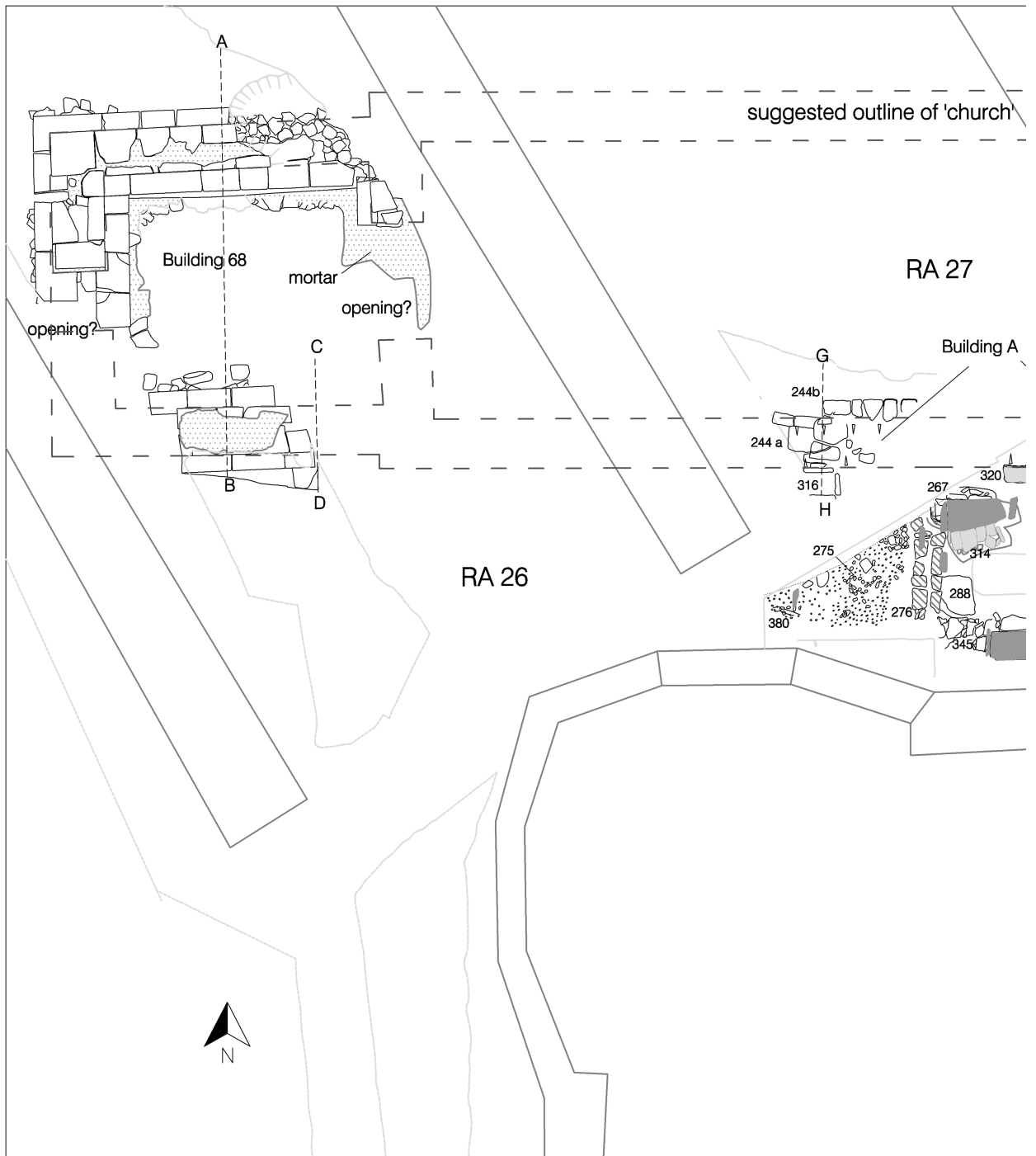
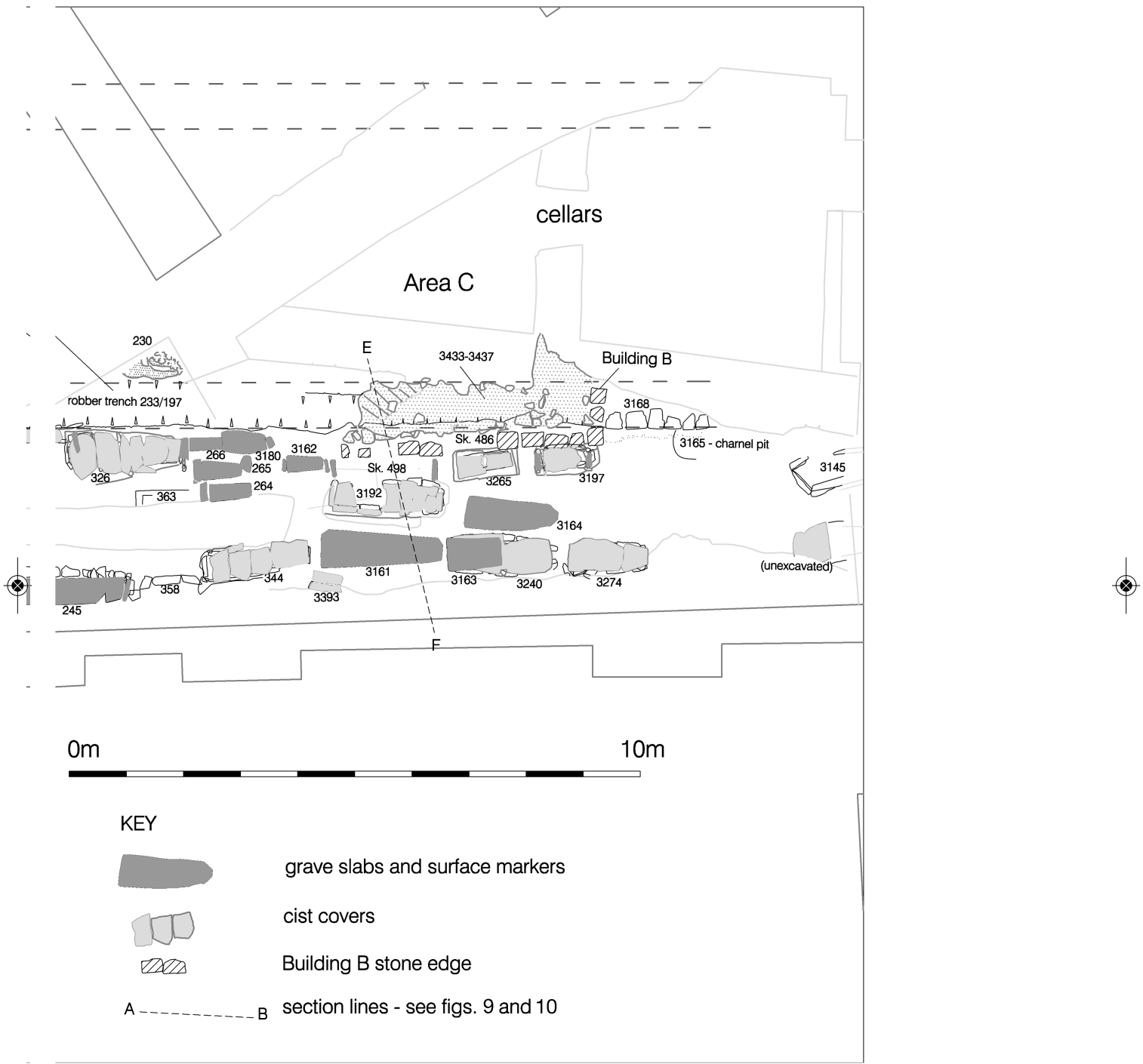


Fig. 8 Building B (Phase 2) and Phase 2.1 structures forming the 'church':



3: THE CEMETERY, PHASE 2.1: LATE SAXON CHURCH?



also showing cists and surface grave markers (all phases).



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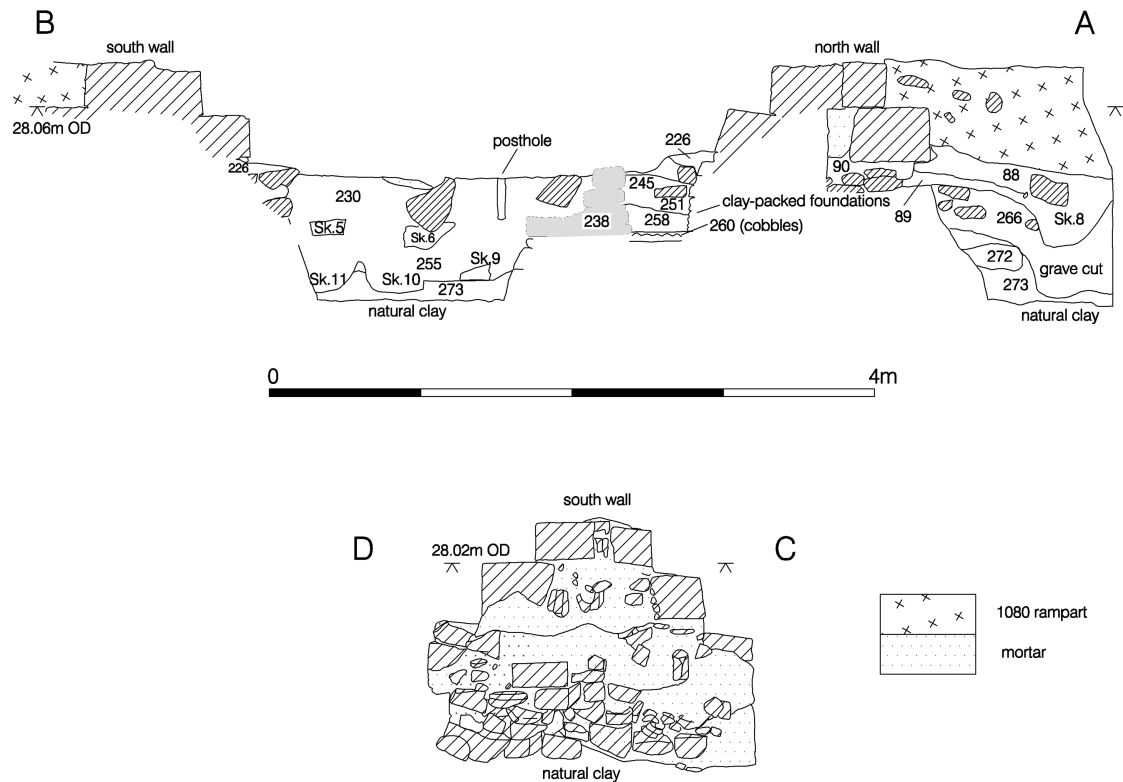


Fig. 9 Building 68: Sections — see fig. 8 for locations.

At its west end, the north wall and plinth course returned south-west for c. 2.5 m, where they were cut by the western pier of the railway arch. At this point the wall itself terminated in a single block of sandstone laid as a through-stone, the only such stone in the surviving structure. The through-stone was chamfered on its west and south sides, suggesting it formed one side of an opening (figs. 12 and 13). Assuming such an opening was centrally placed, it could have been 0.99 m wide, or 1.33 m if the inner edge of the chamfer is assumed to be the face of the reveal. This fits well within the range of widths for doorways in Saxon church towers (Taylor 1978, 817) where the narrowest is 0.6 m and the widest just over 1 m. At the eastern end of the north wall was a shorter south-west return which, as noted on the original site plan, may have terminated at a wider opening facing to the east. When the remains of this structure were consolidated in the late 1970s it was however given a continuous east wall. Only a short length (2.5 m) of the south wall survived, cut by post-medieval intrusions before reaching the point where a corresponding northern return would be expected. The surviving masonry defined a tower-like building, albeit with an apparently wide opening in the east wall, with external dimensions of 5.6 m east-west by 5.2 m north-south and enclosing a 'space' measuring 4.2 m by 4.16 m. It is possible that the building was constructed with re-used Roman stone: the internal offset to the south-west return incorporated a stone with diamond broaching similar to stones noted in the strong room of the *principia* (Snape and Bidwell 2002, 34).

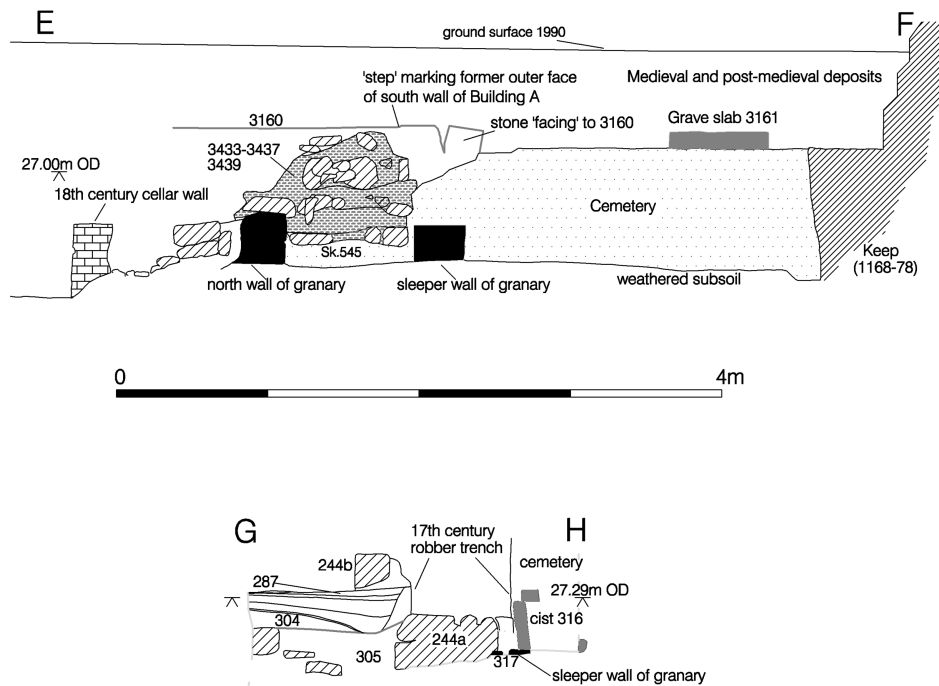


Fig. 10 Sections. See fig. 8 for locations: Building B (top); Building A (RA 27) (below).

There was no surviving solid floor within the 'tower'. The deposits post-dating construction comprised some 0.7 m depth of thin bands of laminated clay, sandy mortar and black ash, one of which contained human bones; several produced a considerable quantity of animal bone. Medieval pottery, none earlier than the twelfth century, was recovered from almost every subsequent layer, suggesting that the original flooring had been robbed. This will be discussed in Harbottle and Nolan, forthcoming.

Externally, overlying the plinth and abutting the surviving upper courses, were layers of orange clay and soil with stones (80, 83, 86) *c.* 0.65 m deep, interpreted as the remains of the castle rampart of 1080. The clay slightly overlapped the outer edge of the surviving upper course of stonework. This might suggest that there had been an offset course above, though this would have made the wall very thin. It is more likely that an 'upstand' of clay had been left by later stone-robbing, and that this had been smeared over the edge.

Railway Arch 27 and Area C

Building B (see Phase 2, Area C above) was overlain by Building A (fig. 8), the latter first identified in RA 27 and Area C in 1980–81 (Ellison and Harbottle 1983, 141–3). Stratigraphically isolated from Building 68 and 6.5 m to the east, though following the same alignment, this was represented by a robber trench (197/233), *c.* 7 m-long, probably dug *c.* 1640 to obtain stone for the artillery bastion around the Keep (*ibid.*, 141). Within RA 27 the building was represented by two courses of masonry (244a), apparently forming the footings of the



Fig. 11 Building 68 after excavation and before consolidation, looking south-east.
Scales 1 m.

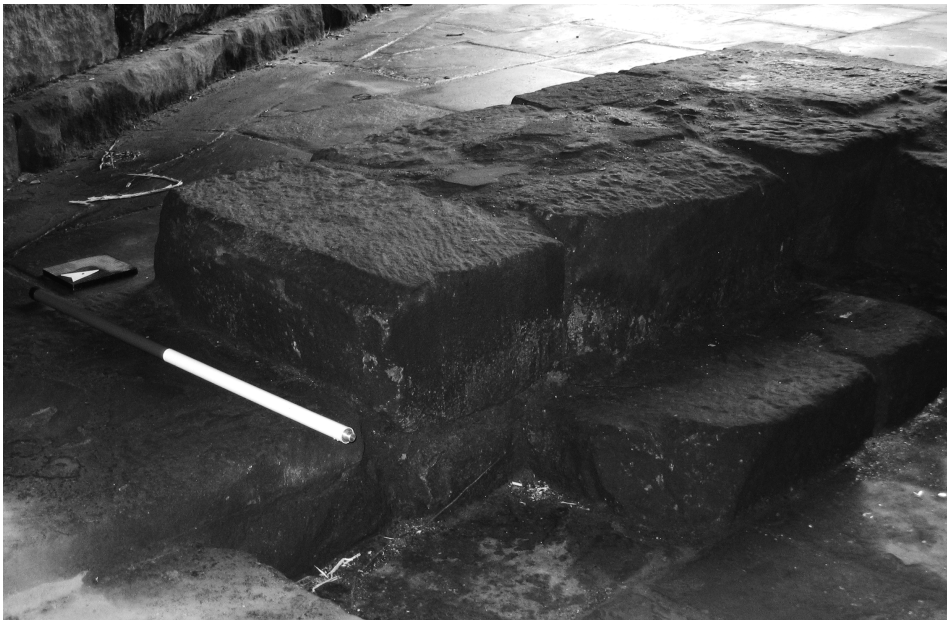


Fig. 12 Building 68: north jamb of suggested west door, showing chamfer and the scar of a possible missing rebate, after consolidation. The paving is part of post-excitation landscaping. Scale 1 m.



south wall — 0.68 m wide and surviving *c.* 0.35 m high — of a building orientated east-west. The masonry cut into, or overlay the northernmost sleeper wall of the granary (228 and 317: fig. 10 section G–H), and overlay a ‘hard surface’.

On the north side of wall 244a were deposits (304 and 305) described as red-brown sticky clay with a few human bones. Above this were layers of mortar and stones (296 and 298) containing no finds, suggested as either ‘renewed floors...or...filling’. Uppermost of these was deposit (287) on which was laid a row of stones (244b: fig. 8), 0.28 m high, interpreted as a wall bench (fig. 10, section G–H). This was covered by fourteenth-century deposits and then by a tiled floor (Harbottle and Nolan, forthcoming). Cemetery deposits butted against the south side of 244a (see Phase 3).

In Area C (west) all stonework relating to Building A had been thoroughly removed. The robbed foundations had overlain part of the cobble foundation of the outer north wall of the Roman East granary, and had evidently butted up against the north face of the northernmost sleeper wall (see fig. 10, section E–F), which formed the south side of the robber trench.

The line of the southern wall face of Building A could be traced in the eastern portion of Area C as a shallow sinking, 0.02–0.04 m deep, across the clay and rubble platform of Building B. Adjoining the south-east angle of Building B, and continuing the line of the robbed masonry, was a line of wall facing-stones (3168 — figs. 8 and 14). This comprised a single, south-facing course of sandstone blocks, bonded with a yellow sandy mortar, laid on a diagonally-pitched rubble foundation (3446) in a trench (3169). The finish of the facing stones was, from west to east, alternately rough or pecked, and diagonally-tooled. The tooling was similar to that used on Building 68 (fig. 13), and was noticeably coarser than that on the un-weathered chamfer courses of the Keep, suggesting that wall 3168 was not contemporary with the twelfth-century refortification.

At the western end of Area C a short section of rubble wall (276: fig. 8) surviving one course high and 0.44–0.48 m wide, ran on a north-south alignment. Associated with the wall on its west side, or perhaps pre-dating it (since the two did not actually abut), was a metalled area (275) described in the excavation record as a floor. This may have been associated with two very large stone slabs (288) which lay below the wall and were exposed in excavation only on its east side. Many burials underlay all three features but 275 was not cut by any graves and, together with the slabs, appears to have ‘fossilised’ this part of the cemetery for a period before the Keep was constructed. This interpretation is supported by the number of burials on their right side, sealed by these features which, as described in Phase 2, is markedly greater than in the area to the east. The wall and floor probably appeared at a late stage in the cemetery’s usage, and may be associated with the postulated church. All three features were cut by a projecting foundation of squared masonry apparently associated with construction of the Keep, and wall (276) was cut by a cisted child burial (Sk. 361, below slab 267) which, it is suggested, belonged to Phase 3.

PHASE 3. BURIAL 1080–1168: THE IMPACT OF CONSTRUCTION OF THE ‘NEW CASTLE’ IN 1080 UPON THE CEMETERY (fig. 15)

Some continuation of burial after 1080 within the bailey of the ‘New Castle’ is clearly demonstrated by a small number of graves which cut clay deposits identified as part of the rampart of the castle. The archaeology of the Norman castle will be the subject of a future

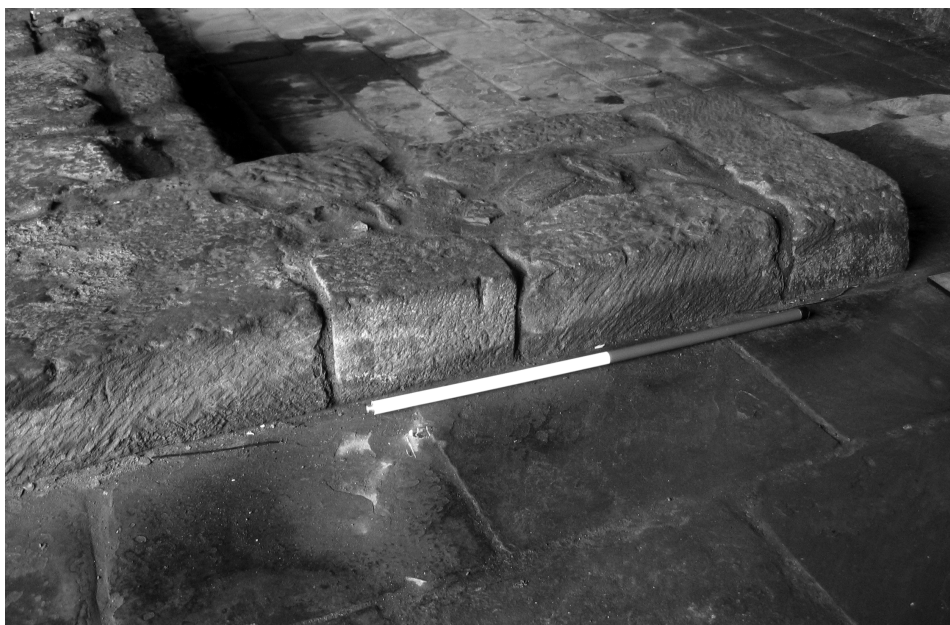


Fig. 13 Building 68: external west face showing tooling and suggested north jamb of doorway. The paving is part of post-excavation landscaping. Scale 1 m.



Fig. 14 Wall 3168 (Area C) showing surviving south facing stones, with alternate tooled and pecked finishes, abutting the south-east corner of the earlier foundation 3160. Scale 1 m.



report (Harbottle and Nolan, forthcoming), and it is only necessary here to briefly outline its physical impact upon the cemetery. The castle of 1080 was defended by a rampart and an external ditch, which can broadly be equated with the line of the later medieval castle ditch. It ran from the head of The Side to the Long Stairs (see fig. 2), effectively cutting off the promontory. The builders of the Norman castle may have exploited and enlarged an earlier ditch (perhaps one marking the boundary of the cemetery, which may itself have been adapted from the ditch of the Roman fort). The interface between the 1080 ditch and the cemetery lies outside the areas of archaeological investigation, but it is presumed that ditch digging (or enlargement) in 1080 encroached upon the cemetery and destroyed a number of burials.

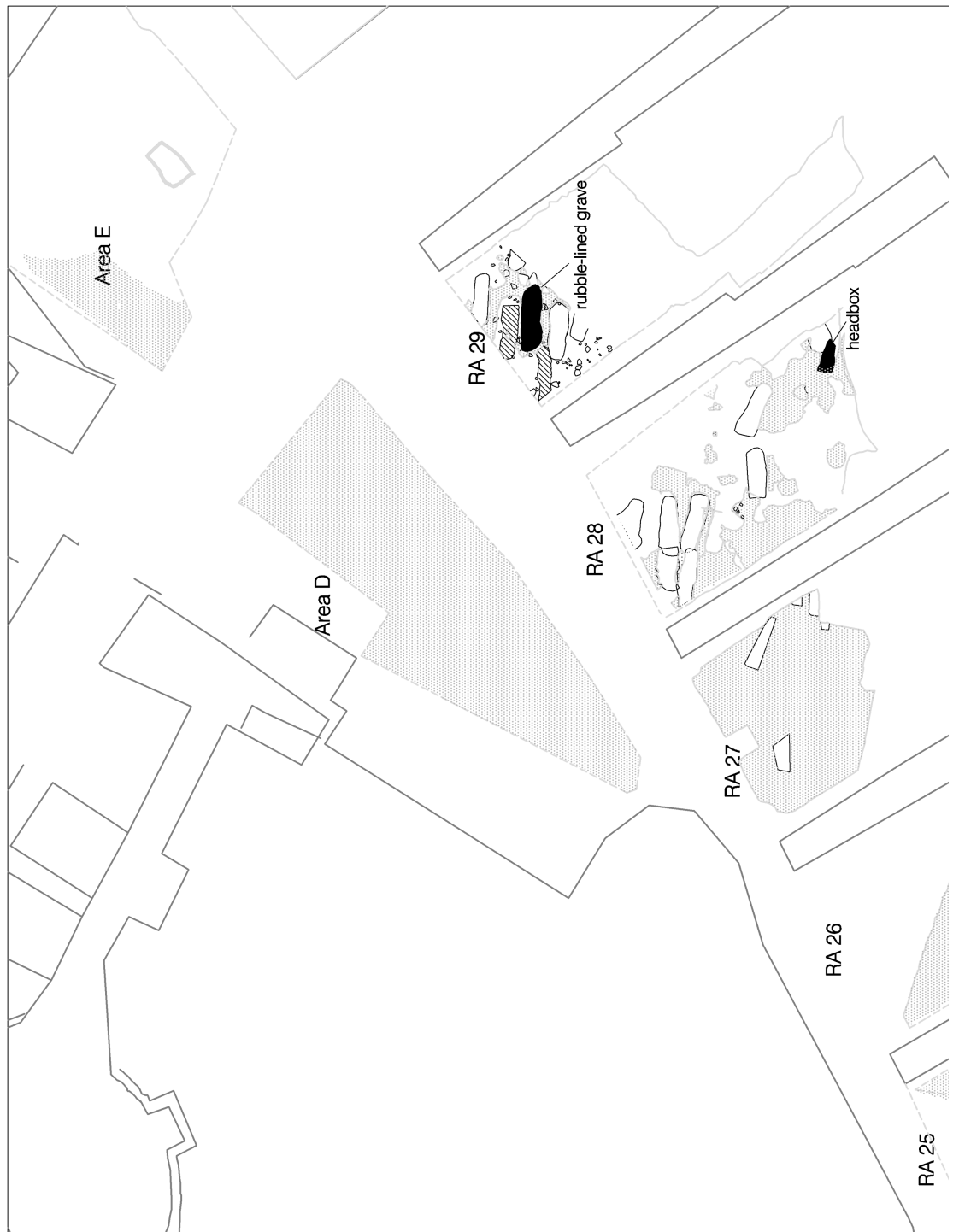
What is clear is that a substantial area of the cemetery was sealed under the rampart, usually referred to in the excavation records as the 'clay bank' and used as a stratigraphic horizon to separate the Saxon and Norman phases of the cemetery. This was represented in the Compound, RA 25, RA 26, Area D and a small part of Area E by various deposits of clay and stones. The 'clay bank' may not, however, be a homogenous feature resulting from a single construction event. There is evidence from Area E that rampart material could spread out from its inner face through a combination of erosion, slippage and perhaps also from disturbance of the rampart crest when the curtain wall was erected in the twelfth or early thirteenth century. Similar layering within the 'clay bank' was noted in other areas, even when the rampart clay was excavated as a single deposit (Harbottle and Nolan, forthcoming).

Evidence for the rampart in Railway Arches 28–29 was more ambiguous, suggesting these areas lay inside or possibly just at the tail of the inner slope. In RA 28 a sequence of clayey deposits sloping gently south and east from the north-west corner, and which included some broadly twelfth-century pottery, may represent erosion from the inner face of the 1080 rampart, or redeposition of rampart material during the twelfth-century refortification. Below these were patches of clay which may derive from rampart construction in 1080. They were clearly cut by some burials and contained a few finds broadly datable to the eleventh to twelfth centuries. If the identification of 1080 rampart material in RA 28 and RA 29 is questionable, in Area C it was entirely absent. Consequently in these areas it is not possible to separate pre- and post-1080 burials with any degree of certainty.

Compound, and Railway Arches 25, 26 and 27 (fig. 15)

In the Compound, ten graves were found to cut the 'clay bank'. These were confined to a small area adjacent to the multi-angular tower of the Keep perhaps reflecting the constraints on burial space imposed by the rampart. One burial in RA 25 (Sk. 19), and two in RA 26 (Sk. 18 and Sk. 22) also cut clay deposits. Sk. 22 had 'ear-muffs' and although stratigraphically post-dating the 1080 rampart has been radiocarbon-dated to 880–1040. The excavation record for this burial speculated that it had been encountered, still articulated, during castle construction, and had been re-interred in the clay rampart. This seems unlikely. Either the clay deposits are earlier than the 1080 castle, which on present evidence must be considered unlikely, or the radiocarbon sample had been contaminated. In RA 27 five burials cut deposits of clay identified as material from the castle rampart. In the south-west corner of this arch, on the south side of a short section of the robber trench of Building A, the remains of a stone-built cist (316: figs. 8, 10) were found containing the remains of an adult (Sk. 358). This was, in terms of historic site use, a continuation of the cemetery activity in Area C to the south and east described below.

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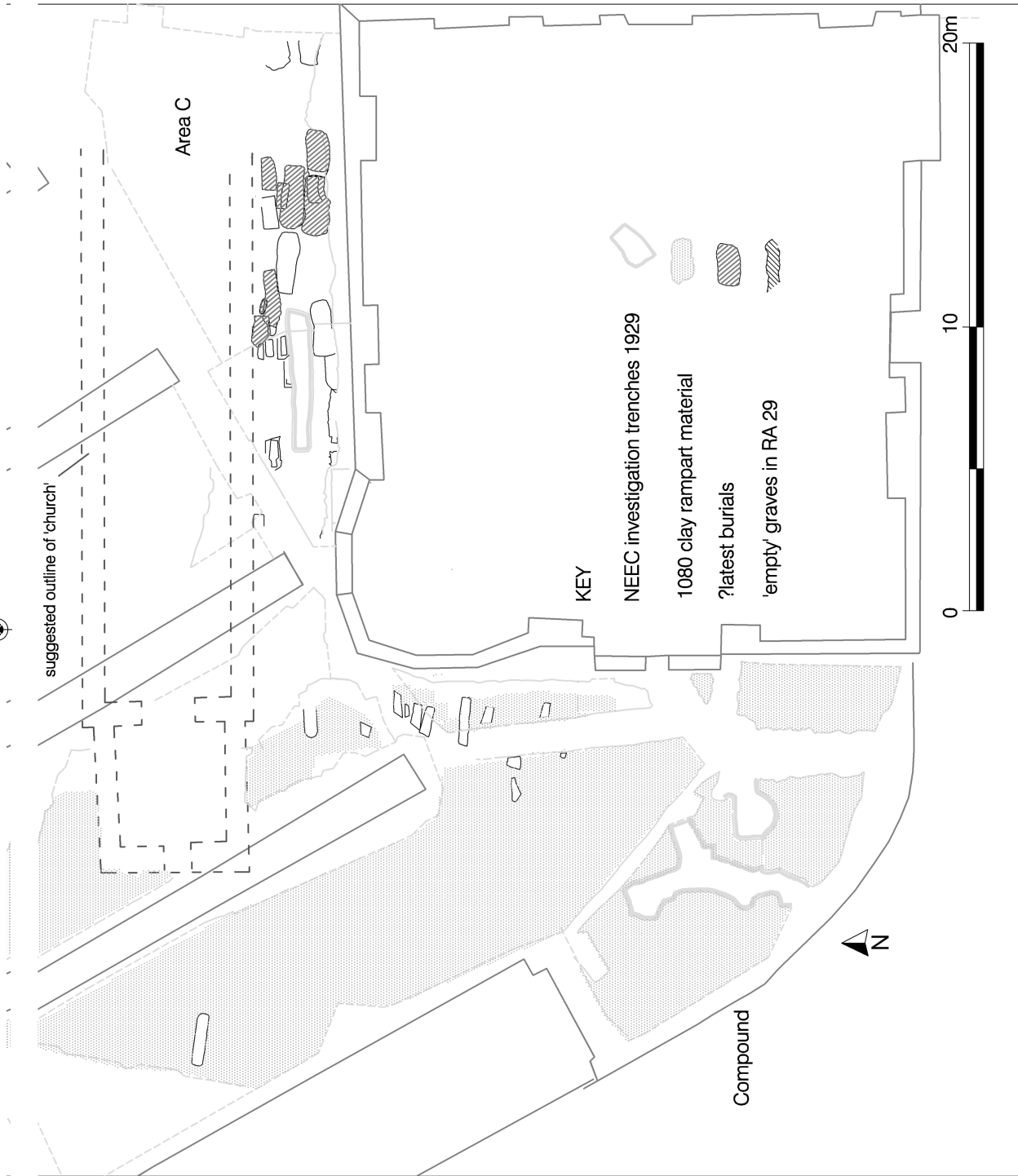


Fig. 15 Burials post-1080 (Phases 3 and 4). Extent of surviving cemetery deposits shown in light grey outline.



Fig. 16 The cemetery surface in Area C before construction of the Keep c. 1168–78, showing grave markers. Building A and wall 3168 to the east cut by the cellar walls of the ‘Three Bulls’ Heads’ and Building B. Scales 2 m.

Railway Arch 28

The difficulties of identifying pre- and post-1080 burials in this area have been previously discussed. Nine burials, all supine, cut the clay patches suggested above as possibly deriving from rampart construction (fig. 15). One, Sk. 584, was a child with a ‘head-box’. The others were in plain graves with no surviving evidence for coffins or timber linings.

Railway Arch 29

Four, possibly five, burials appeared to cut spreads of yellow/grey clay which were probably the equivalent of the clay patches in RA 28. One of these burials (Sk. 435) was in rubble-lined grave (fig. 15), and one (Sk. 432) was in a plain grave with ‘ear-muffs’. Cutting the surviving area of cemetery surface were two linear features (2795, 2801) similar to the ‘empty’ graves noted in RA 25 and RA 28. The fill of 2795 (fig. 15), which cut deeply into the north wall of Roman Building II, included bone fragments but no interment. Feature (2801) to the north-east, however, was so closely coincident with Sk. 457, encountered at a lower level, that it may simply represent settlement of the grave fill over another post-1080 burial. Alternatively, both could have been the result of an exhumation, or could have been unfinished graves.

Area C (figs. 8 and 16)

This area lay within the line of the 1080 rampart, some distance away from the presumed primary up-cast from the ditch, and perhaps shielded from subsequent spreading and erosion of the clay bank by Buildings A and B. Consequently no pre-and post-1080 stratigraphic relationships could be confidently established.

Cist burial, which seems to have begun before *c.* 1000 (see Phase 2, Sk. 368) continued and may have been the dominant form of burial in this area where evidence for two 'generations' of cist burial was provided by cist 345 (Sk 394) which had been cut by cist 343 (Sk. 377), and cist 346 (Sk. 381) which had been cut by cist 352 (Sk 375, dated to 960–1160). The form and possible dating of the cists is more fully discussed below (Section 4: Aspects of cemetery use) and since more refined dating of this burial form is, at present, impossible, most cists in this area (ten) have been grouped under this phase of cemetery use. Another cist, also presumably belonging to this phase, has been described in RA 27 above.

Surface grave-markers — recumbent slabs and head- and foot-stones — were used, with cists, and with coffined or plain graves. Nine of the ten recumbent marker-slabs which were



Fig. 17 Area C (east): showing grave slabs 3162 (foreground) with head- and foot-stones, and 3180. In the background is the backfill of the 1981 excavation. The Civil War robber-trench for Building A is on the right. Scale 1 m.

found *in situ* on the latest cemetery surface in this area (fig. 8) have been assigned to this phase. Two of these, slabs 245 (Sk. 377) and 267 (Sk. 361), overlay cists and also had head- and foot-stones. Of the other six slabs, which overlay coffined or plain graves, 265 (fig. 51, no. 20) and 3162 (fig. 17 and fig. 51, no. 27) also had head- and foot-stones. The latter slab has been suggested on stylistic grounds to date between *c.* 1080– and 1095 (the late J. Lang, pers. comm.) though such close dating has been questioned (E. Cambridge, pers. comm.). The small size of this stone suggests, by analogy with the nearby slabs 264–266 which overlay infant burials (Sk. 396, Sk. 402 and Sk. 359 respectively), that it too originally marked an infant grave. Slab 3162, however, did not directly overly any identifiable infant burial, the nearest being Sk. 496 and Sk. 497 to the north, but was above the grave of an adult (Sk. 491). Possibly the stone had been displaced. Slabs 264 (fig. 51 no. 19) and 266 (fig. 51 no. 22) only had head-stones. It is possible that the foot-stone to the latter had been removed to accommodate slab 3180 to the east (fig. 17 and fig. 51 no. 28), which only had a foot-stone. Three slabs which had neither head- nor foot-stones, 3161 (fig. 52, no. 32), 3163 and 3164 (fig. 53, nos. 38 and 39) need not represent a difference in burial practice, but were perhaps a consequence of surface slabs having been ‘borrowed’ and re-used. This may have happened to Sk. 498, whose plain grave was marked on the surface only by head- and foot-stones approximately 1.66 m apart, a space which could have accommodated slab 3164, lying without head- or foot-stones some 0.6 m to the south east.

It is possible that the difference in level between the final cemetery surface and the clay foundation of Building B, referred to in Phase 2, may be a consequence of soil ‘lost’ due to the construction of cist burials in the adjacent part of Area C. The volume of soil excavated to construct each cist, particularly for an adult burial, would clearly have been greater than could be disposed of in backfilling. A lesser surplus must have occurred with other grave types. Since there is no evidence for mounding, the soil may have been disposed of away from the immediate burial area, progressively diminishing the volume of soil here.

The subsidence of the stone edge of Building B was possibly a consequence of this. A narrow bank of dark grey/brown sandy silt containing lumps of clay, mortar and sandstone abutted this stonework and filled gaps between the stones; it was perhaps deliberately deposited to try to stabilize the remains which were partly serving as a foundation to Building A. The projecting south wall-line of Building B was cut by the grave of Sk. 486 (fig. 8), an infant, perhaps deliberately placed under the eaves-drip of the ‘church’.

Areas D and E

There was no identifiable post-1080 cemetery activity in these areas.

PHASE 4. THE CEMETERY AFTER 1168–78

There is no firm evidence for the date of final disuse of the cemetery. The Keep foundations, presumably dug in 1168, certainly cut many burials including several cists, but it is possible that there were subsequent interments. A burial paten, ascribed to the thirteenth century (fig. 47), found at some depth in the cemetery soil on the north side of the Keep in 1929, may indicate the burial of priest serving the chapel in the Keep or perhaps even the ‘church’, if that had continued for garrison use. The two ‘stone coffins’ found in 1861 (see Section 2), if hewn from single pieces of stone as the reference suggests, would also appear to belong to a later



phase of burial. However, no parallel for this form of burial was found in the cemetery excavations described in this report, and the 'coffins' may in fact have been cists. Other evidence for burials in this period is reviewed below.

Compound, the Railway Arches, Areas D and E

No burials or features can be suggested to belong to this phase.

Area C (figs. 15 and 18, and fig. 8 for the cists and slabs mentioned)

The dark brown, almost black, cemetery soil was cut by the heavily mortared sandstone rubble foundation raft of the Keep. Two graves, containing cists for Sk. 499 (3240) and Sk. 509 (3274) both appeared to have cut a spread of mortar along the base of the chamfer courses and rubble foundation of the Keep. The lower (eastern) half of the surface slab (3163) marking the grave of Sk. 499 was subsequently removed and a coffined neonate (Sk. 495) was deposited upon the cover-stones of the cist itself. This appeared to be the latest burial, and it is possible that the individuals were related. The same grave also provided evidence for an earlier, possibly Phase 3, burial using a recumbent surface marker slab: the head end of a broken slab, with a smooth face and sides tapering towards the foot end, had been re-used as part of the cist cover (fig. 53, no. 40). Eight other burials produced very small fragments of pottery spanning the twelfth to early thirteenth centuries or were stratigraphically above those that did. These latest burials are shown on fig. 15.

There was some evidence for disturbance of graves towards the end of the cemetery's lifetime, possibly associated with construction of the stone castle in 1168–78. A sub-rectangular patch of dark grey clay with mortar, sandstone and charcoal filling a shallow cut in the grave fill above Sk. 498 (location shown on fig. 8) contained numerous disarticulated human bones. This may have been a charnel deposit, associated either with Keep construction, or with continued use of the cemetery between 1080 and 1168. The presence of head- and foot-stones to this grave suggests that a surface slab may have been removed at some point. There was further evidence for disturbance just to the south where a sub-rectangular patch of firm dark brown silty clay, and sandstone fragments and a silty soil overlay cist 3192.

In the eastern part of this area, the cemetery surface was covered by thin spreads of brown-black sandy-silty clay soil with charcoal and sandstone rubble inclusions (3167 and 3173). Overlying (3167) and aligned east-west was a strip of closely-packed sandstone cobbles (3152) 0.8 m wide. The cobbles were retained on the south side by a kerb formed by a single course of sandstone blocks (3157; fig. 18), among which was a silty soil containing a Tealby-type half-penny of Henry II dated 1154–80 (Brickstock 1995, no. 409), suggesting that this feature may have been associated with construction of the Keep between 1168–78. To the north the cobbles butted against the lower course of wall 3168 (see Phase 2.1, above) and overlay the edge of Building B, suggesting that they had also butted the south face of Building A where it ran over the earlier foundation. The cobbles had subsequently been extended 0.66 m southwards by the addition of another kerb (3129) of dressed sandstone blocks, leaving only a narrow strip of soil, 1.4 m wide, between it and the footings of the Keep (fig. 18). The highly decorated grave slab 3162 did not seem to have been covered by the cobbles, and may have been deliberately left visible in the surface.



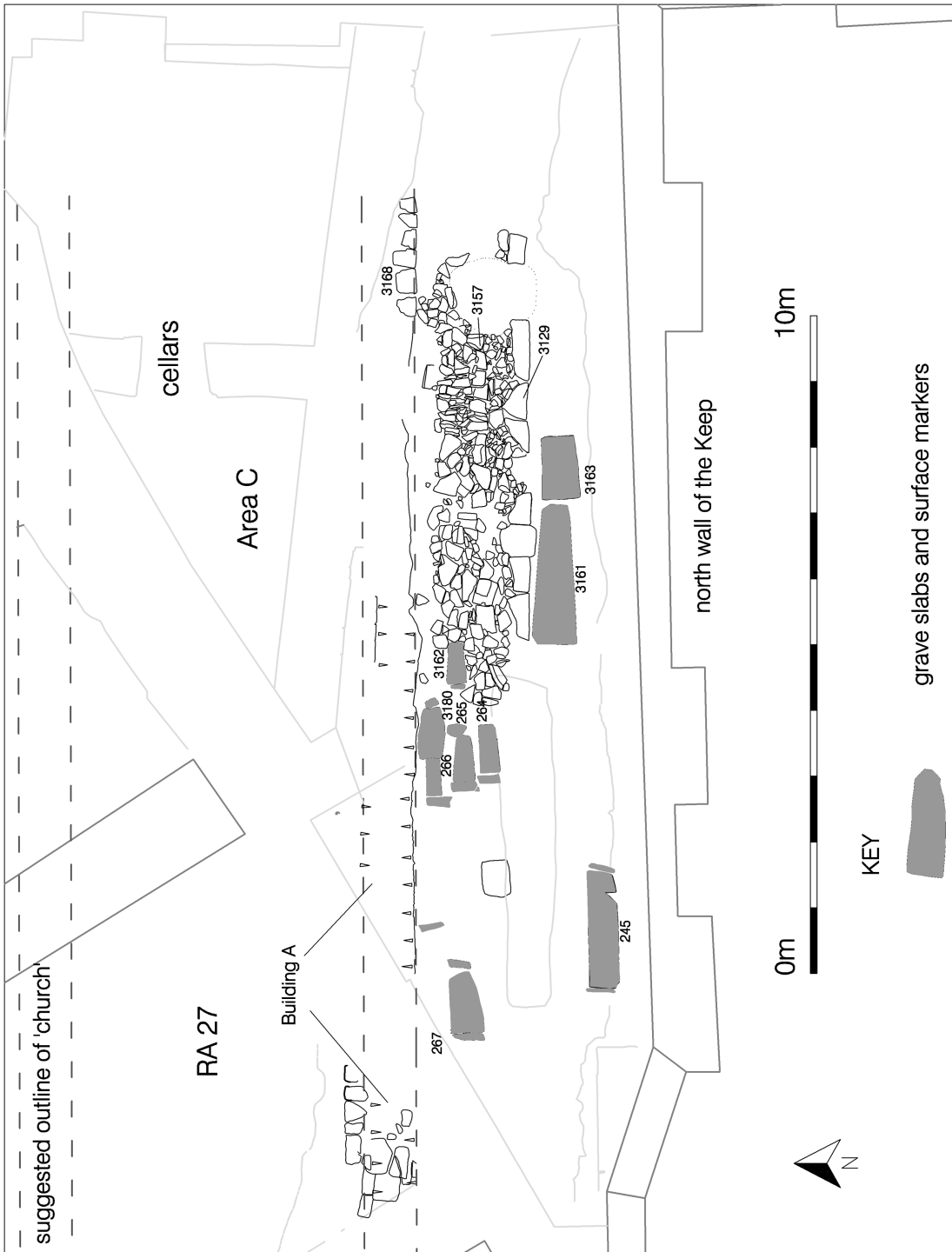


Fig. 18 Area C: after 1168-78 (Phase 4).

At the east end the cobbles had been cut by a stone foundation abutting the north face of the Keep (Harbottle and Nolan, forthcoming). To the west, the cobbles ended raggedly a little over 0.30 m east of a group of surface slabs (264, 265, 266), suggesting that these graves and other 'last generation' burials to the west and south of them (some of which must have been destroyed by the 1929 investigation trench) cut the cobbles and are of late twelfth- or even thirteenth-century date. This interpretation is strengthened by the burial paten found in the 1929 investigation trench (fig. 47). There was also some evidence that feature 3129 had at one time continued westwards. A surface of laid stones (240) abutting the foundation of the multi-angular tower of the Keep had a straight edge to the north, in line with the south face of 3129. This suggests that 240 had been contained on its north side by a feature which had subsequently been robbed. Since context 240 clearly post-dated the 1168–78 building, this is further support for a late episode of cemetery use in this area. This will be considered in more detail in the forthcoming report on the medieval castle.

4. ASPECTS OF CEMETERY USE

THE CEMETERY SOIL

The formation processes which produced the cemetery soil, some 0.7 m–0.95 m deep in Area C, are not fully understood. In RA 25 the earliest burials were in a brown soil with rubble (context 141), the later ones being in a dark soil. In RA 26 the cemetery was characterized by a black-brown soil which included varying amounts of cream-coloured mortar. Two layers of cemetery soil, both black, were distinguished in RA 27, the lower (114a) containing small sandstone rubble, the upper (101a) containing mortar flecks and limestone chips. In Area C, RA 28 and 29, the 'cemetery soil' again appeared as black or very dark brown, fine grained, with small stones and containing disarticulated human and animal bones – the latter almost certainly being largely residual Roman material. In Area E, the soil immediately below the rampart material was again black or very dark brown, even beyond the identified limit of burials, and generally less thick than further south. On the south side of the medieval North Gate, potentially the same horizon, sealed by slippage or deliberate slighting of the 1080 rampart, was a moist, clayey, dark brown. Whilst the presence of rubble and mortar can be explained by disturbance to the underlying remains of Roman deposits, this would not seem sufficient to produce the considerable depth or the 'blackness' which characterises the cemetery soil.

Black soil has been widely reported overlying Roman sites where there was no subsequent cemetery use, and has been ascribed to agricultural activity. At Newcastle, the height to which the buildings of the Roman fort survived before the cemetery was established argues against any significant post-Roman period of cultivation. As noted above in Phase 3, there is no evidence of soil displaced by grave-digging being 'mounded' over graves. It may simply have been spread about the cemetery surface. Where this cemetery surface was sealed by the rampart of the castle of 1080, 'blackness' may also be partly due to decayed organic material trapped below the clay.

It may be significant with regard to determining the extents of the cemetery that the 'black' soil associated with the cemetery has not been reported in more recent excavations to the west of the castle, at 1–8 and 14–18 Westgate Road, where Roman deposits and features are described as being sealed by a clayey silt (HER 2007, 22), or a grey silty clay (HER 2004).



GRAVE TYPES (figs. 19.1–19.3)

In areas sealed by the rampart of 1080 there was little evidence for grave-marking on the cemetery surface, although in RA 25 sockets were noted which may originally have contained upright marker stones, and some pieces of dressed stone may have been used to mark burials. In Area C, two cist graves incorporated re-used vertical grave markers, one possibly dating to the late eleventh century (see fig. 5.1 no. 25, and fig. 53, nos. 33–37), and a fragment of another stone with part of a possible cross in relief was found residually in the Bastion ditch in RA 28 (see fig. 5.1 no. 26).

Plain graves

Most burials were in plain graves (fig. 19.1), that is, without any apparent timber or masonry lining, or coffin. This form of grave was associated with supine, prone, left and right-sided burials. Whilst only a few of these contained shroud pins, many bodies were tightly compressed suggesting that they had been bound, wrapped or shrouded (see figs. 20 and 21). Recorded grave depths varied between 0.9 m and 0.07 m — the latter a result of truncation by later burials — with the majority ranging between 0.25 and 0.6 m. Shallow inhumation was common in the medieval period, with grave depths of 0.3–0.4 m having been recorded for putatively thirteenth-century burials at Hexham Abbey (Cambridge and Williams 1995, 68).

'Ear-muffs'

A variation on the plain grave, confined to supine burials, involved placing stones on either side of the head resembling 'ear-muffs' (Sk. 601, fig. 22). These were intended to prevent the head lolling sideways and were presumably added after the body had been placed in the grave (Thompson 2004, 123). In one case an adult skull, presumably disturbed in digging the grave and thus perhaps belonging to a relative of the newly deceased, formed one of the 'muffs' for Sk. 627.

The use of 'ear-muffs' has a broad date range, having been recorded in seventh- to eighth-century graves at Colchester, where they were made with Roman tiles, in graves at Caistor-by-Norwich probably dated to the seventh century, and in others at Rivenhall probably dating from the late eighth to tenth century (Drury 1982, 385). At Newcastle their distribution (fig. 19.2) might suggest that this was a post-1080 burial practice, none having being recorded from graves sealed by the clay rampart (RA 25, 26, Area D and the Compound), and an 'ear-muff' burial (Sk 22) was apparently cut into clay forming the 1080 rampart in RA 26. However Sk. 601, mentioned above, was overlain by Sk. 580 which has been dated by radiocarbon to 880–1050, so this form of burial evidently pre-dated the Normans. As mentioned above (Phase 3), Sk. 22, despite its stratigraphic level, also yielded a pre-Norman date of 880–1040. The three examples of 'muffs' in Area C are amongst the latest burials. The small number in this area, as compared with RA 28, may be a consequence of destruction by even later grave-digging.

'Head-boxes'

A variation on the 'ear-muffs,' again only used with supine burial, though not identifiably a chronologically later form, was for an additional stone to be placed at the back of the head,



thus enclosing it on three sides, with a flat slab laid across all three to form a 'head-box'. This protected the face of the deceased from direct contact with the soil. In some cases, although designated 'head-boxes', the top slab was missing (eg. Sk. 581 and Sk. 584). This may be due to later disturbance, or perhaps pieces of wooden plank were sometimes used. Four examples of 'head-boxes' occurred in RA 28 (fig. 19.2): in the graves of Sk. 605 (fig. 23) and of Sk. 620 which lay beneath, and again in Sk. 581 and an underlying burial Sk. 595, suggesting some inter-relationship. Another example occurred in RA 29 (Sk. 446). It has been suggested that the use of stones arranged so as to provide protection for the head and torso, represent changing attitudes or sensitivities to interment since these parts of the body were associated with breathing and the senses, and were thus seen as the seat of the individual's identity (Thompson 2004, 123).

As with ear-muffs, 'head-boxes' have been dated at other sites to the mid seventh to eighth centuries and as late as the early tenth century (Drury 1982, 386). Apart from their absence in Area C, the distribution at Newcastle parallels that of 'ear-muffs', and both occur in what are assumed to be the uppermost three 'generations' of burial. The same broad date-range and possible zoning may be suggested, though no 'head-boxes' were recorded west of RA 28. It is also possible that the 'head-box' was an 'economy' form of the full length cist which appears on the (arguably) more prestigious south side of the 'church'.

Rubble-lined graves (fig. 19.2)

In five of the burials the grave-cut contained a rough lining, or partial lining, of a single course of un-mortared sandstone rubble, quite distinct from the formal cists. The most substantial and complete belonged to Sk. 523 (fig. 24) and Sk. 580. These had the appearance of having been quite carefully prepared for the interments. The others were fragmentary and, in the case of Sk. 435 (RA 29), seemed to have involved no more than re-use of whatever Roman building material was encountered in digging the grave. Skeletons 435 and 580 had separate 'ear-muffs': for Sk. 523 this function was served by two of the stones of the rubble lining. In none of these cases were there any capstones, and it is possible that the rubble lining formed a ledge for a planked lid as has been suggested at Raunds (Rahtz *et al* 1980, 422).

The distribution of these graves did not indicate any obvious grouping or preferential location, as they occurred north and south of the 'church', nor was there any apparent sex or age bias in their occupants. It is possible that the rubble-lined grave, like the 'head-box', was a prototype cist, or a 'cheaper' version. This type of grave has been recorded elsewhere, for example at Fillingham, Lincolnshire, where the burials were dated between 900 and 1035 (Buckberry and Hadley 2001, 11–18).

Plank-lined graves or wooden 'coffins', and chests (fig. 19.3)

The cemetery soil was generally free-draining and consequently wood did not survive well, though a black sooty or carbonized deposit, apparently representing the sides and lids of either coffins or plank lining, was noted in 12% of the graves excavated before 1990 (74 total). The highest incidence of timber traces occurred in the Compound (46 graves), and survival here may have been a consequence of the area being sealed by the clay rampart of 1080. It is possible that the timber was charred externally as a preservative measure. By contrast, traces of only eight coffins were recorded in 1990 and 1992 (seven in Area C east, and one in RA 28).

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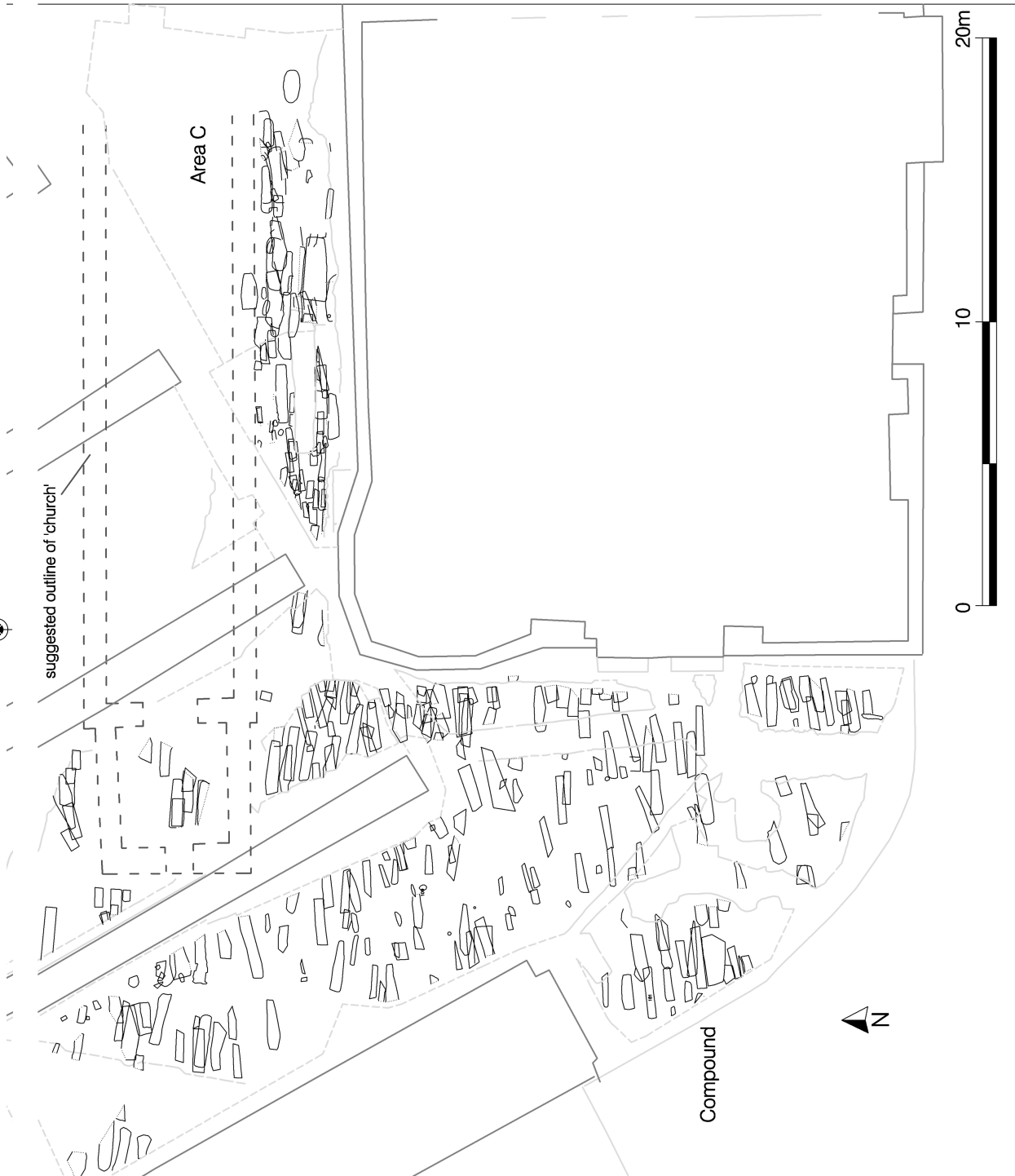
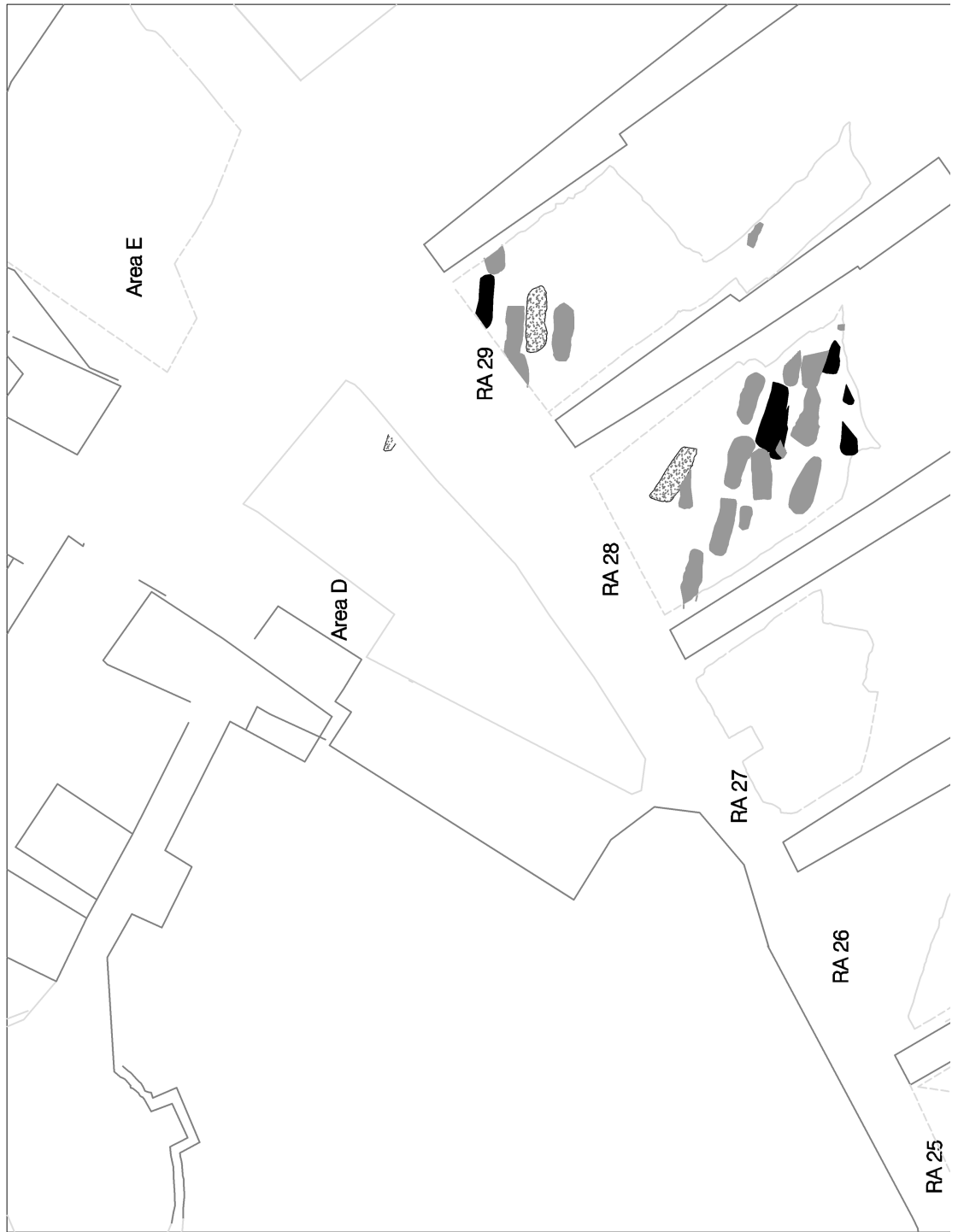


Fig. 19.1 Distribution of burials by grave type: plain. Extent of surviving cemetery deposits shown in light grey outline.

208 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



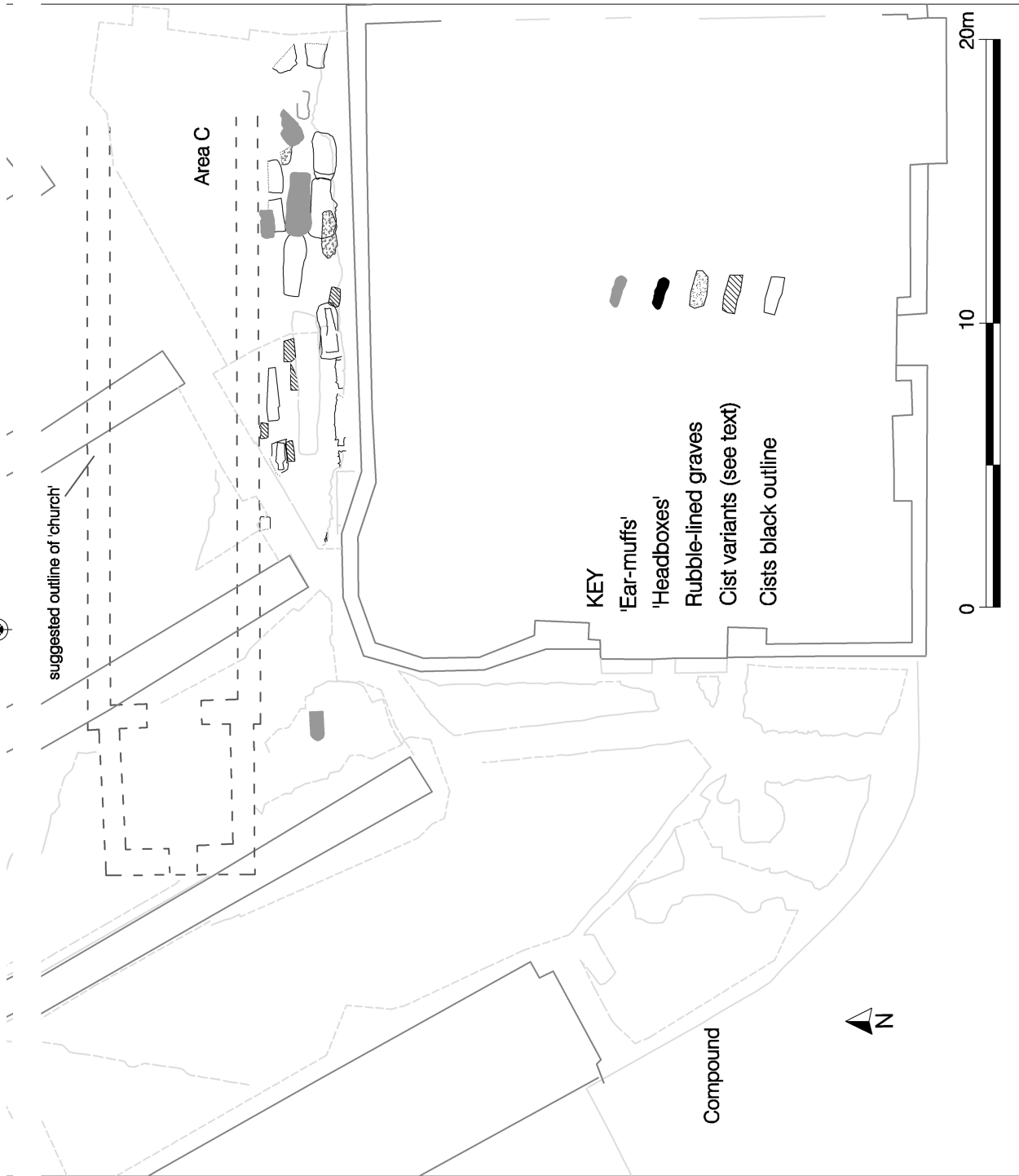
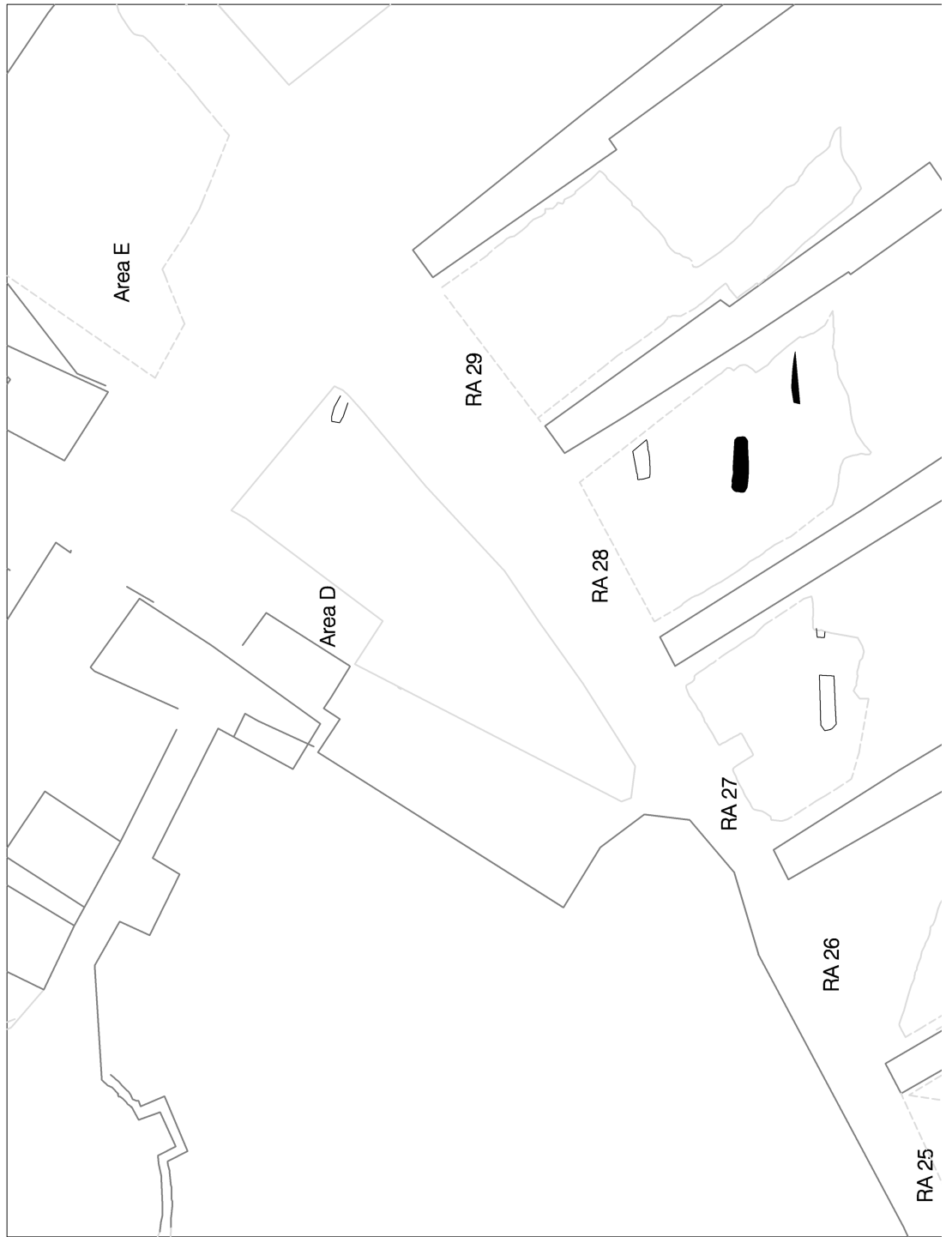


Fig. 19.2 Distribution of burials by grave type: cists or stone furniture. Extent of surviving cemetery deposits shown in light grey outline.



210 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



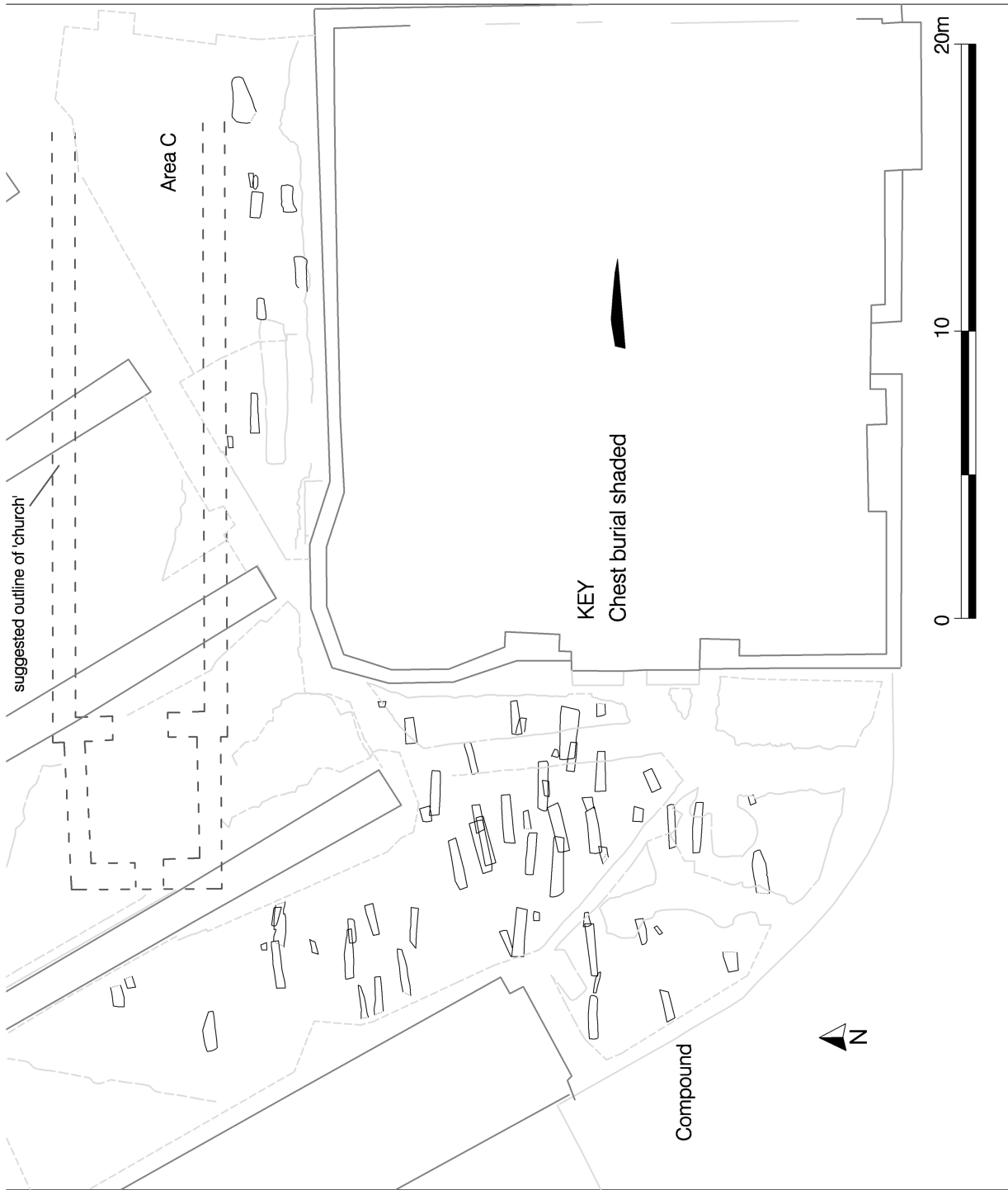


Fig. 19.3 Distribution of burials by grave type: coffins or plank lined graves. Extent of surviving cemetery deposits shown in light grey outline.



Fig. 20 Sk. 619, a female aged 45–54, on her right side. The tightly compressed body form suggests a coffined or shrouded burial allowing no post-burial movement; the former is most likely as a lock of a chest was found with this burial. The line of charnel material at the head of the grave also suggests it was packed against a container. RA 28. Scale 0.5 m.

No obvious age, sex, body position or phase preference for coffined burial was apparent. Of the 74 'coffin' graves excavated before 1990, four were fetuses or neonates, 19 were infants, five were juveniles, 27 were adults and 17 were old adults. In Area C, coffins were most commonly associated with infants and juveniles: for example Sk. 495, Sk. 519, and Sk. 522. Infant Sk. 495 (coffin 3233) overlay the cist (3240) of Sk. 499, showing that cists were not, exclusively, the latest form of burial. One 'coffin' (Sk. 335 RA 27) had apparently been packed with clay and then covered with a planked lid.

Only in one grave (Sk. 519, 3296) was there evidence of a base-board. An apparent absence of base-boards elsewhere may be due to preservation conditions or mean that lining graves with planked sides and covers was more common than the burial of a body fully enclosed in a timber shell. In support of the latter interpretation there are a number of burials on their right side (33), on their left side (three) and prone (two), in graves with traces of timber: body positions which do not appear compatible with fully coffined burial (eg. Sk. 612, fig. 25).

The form and dimensions of coffins or planked grave linings were generally unrecoverable, although in the grave of Sk. 519, in moist soil conditions, a lid, sides, baseboard, and parts of end boards (3296) survived as recognisable soil stains (fig. 26). The side planks were 520 mm long, apparently tapering from 170 mm wide at the head end to 120 mm wide at the foot.



Fig. 21 Sk. 277, a young to middle-aged male buried on his right side, almost prone. The tightly compressed body suggests a shrouded burial. Compound. Scale 1 m.

As with other 'coffins' in the cemetery, no nails were noted, and it is probable that wooden dowels had been used. Pegged or dowelled construction has been recorded in a dendrochronologically-dated late tenth-century oak coffin burial at Beverley Minster (YAT 2004, 274; YAT 2005, 378) and at St Peter's Church, Barton-upon-Humber (Rodwell and Rodwell 1982). Where one or two iron nails were found in graves, it is likely that these represent residual Roman building material rather than nail-joined coffins.

There was at least one example of a 'chest' burial, in RA 28. The was a middle-aged to elderly ?male (Sk. 644), lying on his left side. Two iron 'straps' or bands (fig. 49, no. 11) lay across the lower legs and lower arms. The grave fill also produced an iron lock (fig 49, no. 12). Another lock was found in association with Sk. 619 (fig. 49, no. 14), an old (45-54) female, lying on her right side. Possible residual chest-fittings were found with several other burials including Sk. 612 where there were also traces of wood. The 'chest' burials are discussed in detail in the Finds section of this report.



Fig. 22 Sk. 601, a juvenile aged 10 with 'ear-muffs'. RA 28. Scale 0.5 m.



Fig. 23 Sk. 605, an adult male aged 45-54, supine, with a 'head-box'. RA 28.
Scale 0.5 m.





Fig. 24 Sk 523, an unsexed juvenile aged 15–24, supine, in a rubble-lined grave, possibly with a wooden cover. Area C. Scale 0.5 m.

Stone-built cists (fig. 27)

Apparently one of the latest identifiable grave types was the cist, built of slabs of local carboniferous sandstone, possibly re-used Roman building material, and sometimes associated with recumbent stone surface grave slabs with head- and foot-stones.

Fifteen cist burials, or remains of cist burials, were recorded in the excavations (fig. 19.2). Fourteen of these came from Area C, and one (Sk. 358, in cist 316) from the south-west corner of RA 27 (fig. 8). Three were marked on the surface by recumbent slabs: 245 (Sk. 377), 267 (Sk. 361), set between upstanding head- and foot-stones, and 3163 (Sk. 499). Two cists, 347 (Sk. 368, below coverstones 326) and 3197 (Sk. 478), had head- and foot-stones but no slabs, which may have been removed during the lifetime of the cemetery or robbed when the Keep was constructed in the twelfth century. Seven other cists, including that in RA 27, had no form of surface marker: cist 345 (Sk. 394), cist 3145 (Sk. 476), cist 3192 (Sk. 482), cist 3288 (Sk. 509), cist 3265 (Sk. 511), and an un-numbered cist at south-east end of Area C.



Fig. 25 Sk. 612, a male, aged 40–49, on his left side, with hands clasped at abdomen, and traces of coffin surviving. RA 28. Scale 0.5 m.



Fig. 26 Sk. 519, a coffined infant showing the outline of a coffin and remains of collapsed lid lying over the body. Area C.

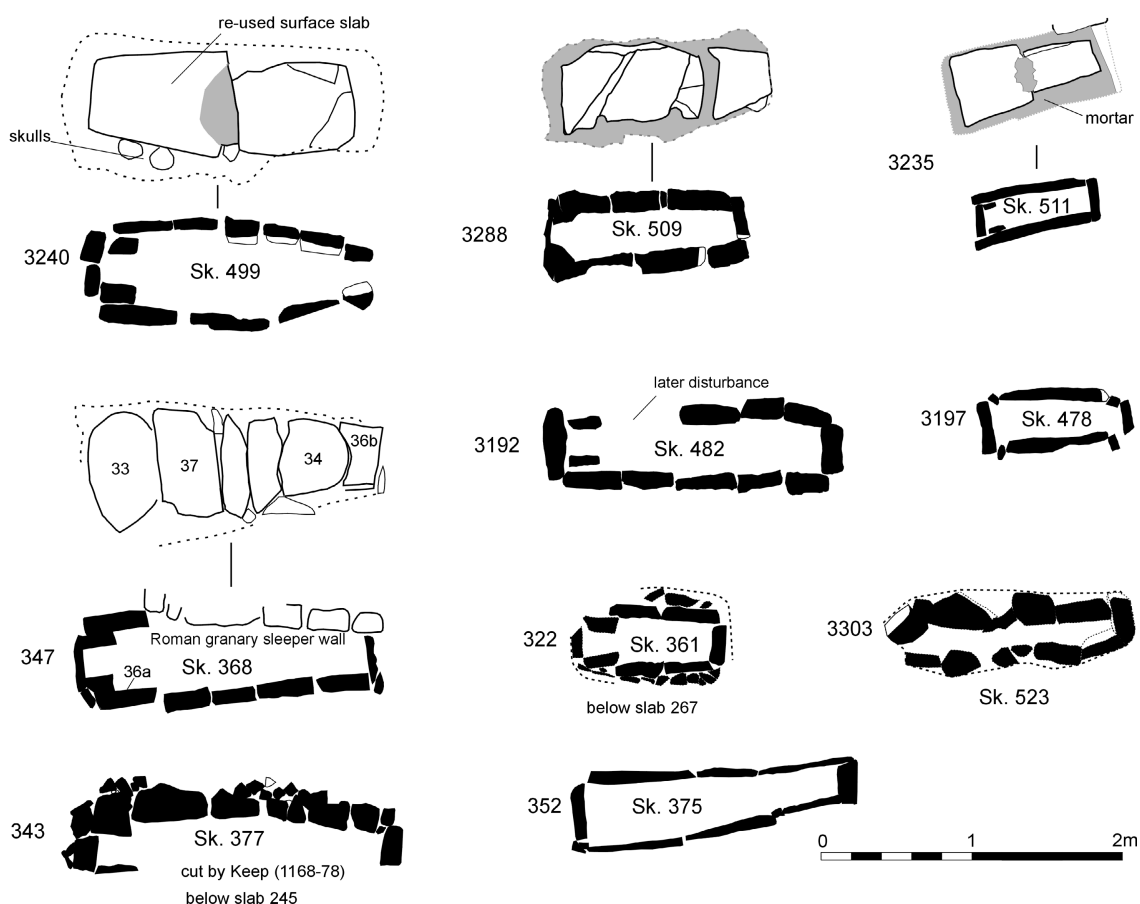


Fig. 27 Details of some cists. Numbers given for 347 refer to illustrated grave slabs.

Four cists had been cut by the foundations of the Keep: 343 (Sk. 377, below slab 245), 352 (Sk. 375, below coverstones 344), 358 (Sk. 381) and 380 (unexcavated), so clearly this form of grave was in use before 1168–78. The early nineteenth-century reference to (apparently) cisted burials on the south side of the Keep (see Section 2) suggests that this form of burial had also extended south of the excavated area.

The cist form had sides constructed of slabs, mostly rough-hewn, set on edge with additional ‘ear-muff’ stones at the west end forming a recess to support the head. The ‘floor’ of the cist was usually earth, though in one case (Sk. 511) this too was of stone slabs. The cists were covered with more flat slabs, sometimes incorporating re-used surface marker stones, as in cist 3240 (Sk. 499) — where one of the cap-stones was a re-used trapezoidal surface slab (fig. 53, no. 40) — and cist 3288 (Sk. 509). A grave-marker carved with a late eleventh-century cross (see fig. 51 no. 25) was re-used as a cap-stone to the cist for Sk. 361. The cist for Sk. 368 (fig. 28) incorporated two broken, reused, stones on either side of the head cavity with intersecting incised lines (fig. 53 nos. 35 and 36a). The cist covering also included four other pieces of re-used recumbent slabs or upright markers (fig. 53, nos. 33, 34, 36b and 37), two, possibly



Fig. 28 Sk. 368, an adult male aged 35–45, supine in a mortared stone-built cist with in-built ear-muffs. Dated AD 808–973. The north side of the cist is formed by a sleeper wall of the East Granary of the Roman fort. Area C. Scale 1 m.

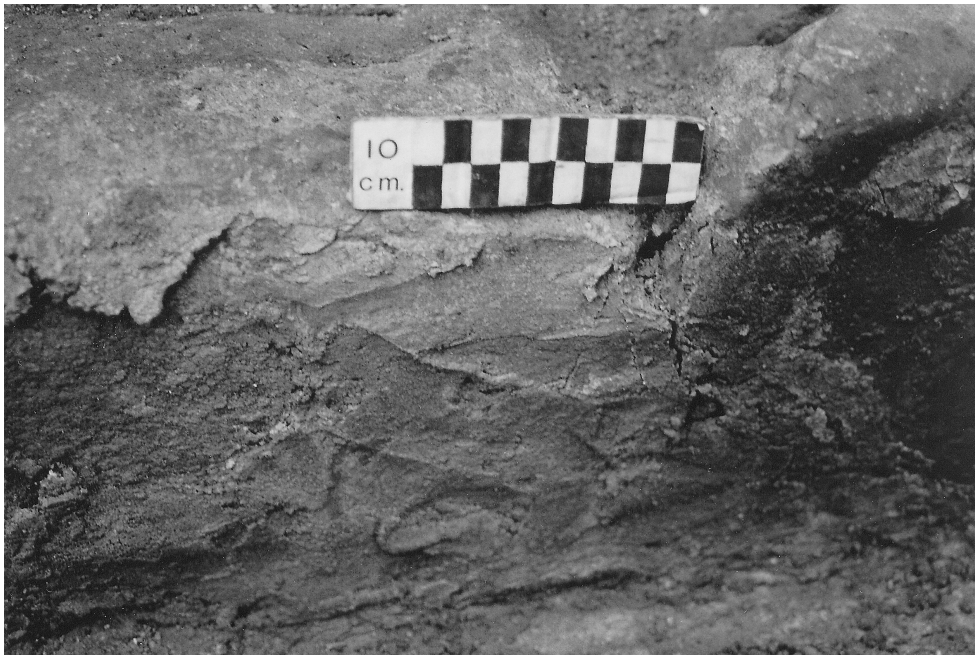
three, of which had crossing or converging incised lines. The use of intersecting lines is echoed by those on an 'ancient grave cross' found below the east wall of the south transept of St Mary's Church, Gateshead, in 1908 (Wood 1908, 319) and now on display there. The cross was probably a remodelled upright grave-marker. It was republished by Peter Ryder as Gateshead no. 8 (Ryder 1994, 45). A church is known from documentary sources to have existed at Gateshead in 1080 (see Section 6, below).

Some cist graves were marked on the surface by stone slabs and head-and-foot stones. In other cases there were head- and foot-stones but no surface slab (Sk. 368), and in the case of Sk. 375 there were neither. This may, however, have been a result of stone-robbing.



Fig. 29 (left) Sk 509, an unsexed juvenile aged 6, supine, in a mortared and stone-built cist with in-built 'ear-muffs'. Area C. Scale 1 m.

Fig. 30 (below) Detail of the mortar lining to the cist for Sk 509, showing trowel and finger marks. Area C. Scale 0.1 m.



The cists for Sk. 509 (figs. 29 and 30) and Sk. 375 were mortared internally at the joints, and mortar render had been roughly applied to the inner faces of the side slabs. The 'earmuffs' supporting the head were made of mortar with small stone fragments. Cap-stones were mortared with a fine pale yellow mortar at the joints. The earth floor of cist 3274 (Sk. 509) was covered by a layer of mortar (3327) which had evidently still been wet when the interment took place, since the impressions of textile — possibly a shroud — were preserved (see *The Finds: Textiles*).

Two possible variants on the cist form were noted. Four burials (Area C, excavated in 1981) were in grave cuts lined with mortar or with mortar and small stones: Sk. 353 (below cover 314), Sk. 364 (below cover 320), Sk. 396 (beneath slab 264) — all infants — and feature 363 (no skeleton — this burial had been disturbed by the 1929 trench). One of these contained a wooden coffin. Another variant, of which only one example is known, consisted of two rectangular, rough-hewn, sandstone slabs (3393) both *c.* 0.57 m long and 0.25 m wide, leaning against the other so that the upper edge of the northern slab overlapped the southern, forming a 'tent' above infant Sk. 544. There was no evidence that this form of 'cist' was significantly earlier or later than the common form described above.

Cist construction involved some effort, expertise and, presumably, expense, and consequently it is tempting to see this form of burial as being the prerogative of individuals who in life had enjoyed some social standing. All the examples here lay broadly parallel to, and south of, the alignment of the features suggested as forming a late Saxon church, and their absence from the northern and western areas of excavation could be an indicator that this was a higher status form of burial confined to the south side of the church.

The cist burials at the Castle cannot be precisely dated. The only two currently available radiocarbon dates, Sk. 368 with a date range of 808–973 and Sk. 375 of 960–1160 (see Appendix), suggest that this form of burial could have appeared around the same time as the postulated 'church' — perhaps built *c.* 1000. The absence of cists from the northern and western areas of excavation, where the cemetery and the 'church', was covered or encased by the rampart of the castle of 1080, evidently cannot be attributed to this burial practice having been a Norman introduction. Nor can the apparent confinement of known cists to the area south of the 'church' be attributed solely to a contraction of the burial area in 1080. Rather it appears that they were higher status burials in a focal area of the cemetery, favoured by those of wealth and social standing before the Norman castle was built.

A number of cists, mentioned above, were cut or overlain by the foundations of the Keep, built 1168–1178, and others were sealed below a deposit containing a coin of Henry II (1158–80) (see above, Phase 4). However a continuation of the practice after *c.* 1178 cannot be entirely ruled out, particularly where there is no clear stratigraphic connection between cists and datable structures; Sk. 499 and Sk. 509 may belong to the post-1168–78 period. Unless or until more radiocarbon dates are obtained for cist burials, their date-range remains ambiguous though the extent of cist distribution suggested by archival references (see Section 2) becomes more plausible if a pre-1080 origin for this burial practice is accepted.

Cist burials, recumbent surface-slabs, and head- and foot-stones are known from other sites such as Hereford, where the proposed date range is 1100–1150 (Shoemith 1980, 10); St Mark's, Lincoln, where the range seems to be late eleventh or early twelfth century, continuing into the thirteenth or early fourteenth century (Gilmour and Stocker 1986); and Castle Terrace, Berwick, where they are possibly twelfth century (Cambridge *et al.* 2001, 47). The use of head- and foot-stones with recumbent surface slabs is also paralleled at York Minster in the

eleventh-century cemetery under the south transept, sealed *c.* 1075 (Phillips 1985, 46), and in the twelfth century at Whitby Abbey (the late J. Lang, pers. comm). At Hexham Abbey, three burials in stone-built cists of the form found at Newcastle are considered to post-date construction of the fourteenth-century southern sacristy/chapel, and to possibly be associated with it (Cambridge and Williams 1995, 69–70). If so, this grave type enjoyed a long period of popularity in the region.

'Empty' graves

Linear features of similar proportions to graves, and following similar orientations, occurred in most areas of the excavated cemetery. All were identified in the latest burial horizons: the degree of intercutting and homogeneous nature of the cemetery soil precluding identification of such features in earlier phases of cemetery use.

A number of explanations for these 'empty graves' are possible. Where they were shallow they might have been a result of subsidence over recently-dug graves, or they might have been new and unused graves which were abandoned either because they intruded upon 'fresh' burials, or because this part of the cemetery was 'militarized' for castle-building before an interment could take place. They could also have been graves from which bodies had been exhumed, either for relocation to a more favoured or prestigious part of the cemetery, or perhaps 'rescued' in advance of rampart construction for re-interment elsewhere, as has been suggested for Sk. 22 (see Phase 2, above). Fragments of carbonized wood found in an 'empty' grave in RA 29 (context 2759) could thus be the remains of an exhumed coffin. Another, less likely, possibility is that at least some of these 'empty' graves were the beam slots of timber post-and trench founded structures, the full form of which were not recognizable within the fragmented areas available for excavation.

ORIENTATION

All burials at the Castle were aligned broadly west-east. This is the common but not itself exclusively Christian practice (Welch 1992, 74). Four principal variations on this orientation were apparent. These ranged from 283° from north (orientation 1) to 235° from north (orientation 4), the majority being a few degrees either side of 270° (orientations 2–3). Where stratigraphic sequences of burials could be established, a significant proportion of the lowest generations followed orientation 1. The largest number of excavated burials in all areas followed orientations 2–3, including burials which had clearly been sealed by the 1080 rampart. Orientation 4 was most frequently associated with the upper generations of burial, including graves cutting the 1080 rampart.

The orientation of graves may be dictated by a number of factors, such as the angle of sunrise, alignment with significant features or boundaries either within the cemetery or the local landscape, or possibly even as a distinguishing mark for important individuals. At the Castle, the predominance of orientations 2–3 may be attributable to alignment with significant structures, perhaps the postulated 'church' or its suggested predecessor (Building B). The wide variation between orientations 1 and 4 is not easily explained, though the earliest (orientation 1) graves may not have had any significant buildings upon which they could be oriented, and the alignment of the suggested latest (orientation 4) burials may have been affected by structures associated with the emergence of the Castle.

BODY DISPOSITION (figs. 31–37)

The majority of burials within the cemetery (approximately 74%) were supine (fig 31.1), with arms either laid straight along the sides, wrists crossed at the pelvis (e.g. Sk. 586), crossed at the waist (e.g. Sk. 585), or crossed on the chest (e.g. Sk. 591). Legs were either extended and straight, or crossed at the ankles. Individual supine burials had various combinations of these arm and leg positions.

The most frequently identifiable variations on supine burial were those individuals who were placed on their left or right sides (figs. 31.2 to 35), together forming 26% of the total number of excavated burials. None occurred in Phase 3 or 4. Eighteen examples of left-sided burial occurred; of these four were female, two ?female, seven male, and five ?male. Right-sided burials were the most common, with 158 examples. Of those that could be sexed, 31 were female, 11 ?female, 34 male and 13 ?male; this suggests that there was no sex or age bias in this burial form. Some were merely right- or left-inclined, that is the head and legs were crossed to that side, but the upper part of the torso lay more or less supine. Where these were right-sided burials, the right arm lay extended and the lower left arm lay across the abdomen (fig. 32), in left-sided burials this was reversed (e.g. fig. 33). This arm positioning has also been noted in right-sided burials at Wearmouth, and could have been a result of post-burial body movement within the grave, rather than being a burial practice in itself.

Of the burials on their right sides (fig 31.2), the greatest density was in the Compound where it occurred in 40% of the excavated burials, followed by RA 25 (25%), and RA 26 (33%). By contrast, RA 27, RA 28, RA 29 and Area C produced only 16 right-sided, five left-sided, two flexed and two prone burials between them. The smaller number of non-supine burial positions in these areas may however be a result of later, intensive, burial when supine was the favoured position. This distribution does suggest that right-sided burial was a pre-Norman practice, since all those in RA 25–26 and the Compound were sealed by clay interpreted as the rampart of the castle of 1080. There is no evidence that a right- or left-sided burial position was dictated by pressure of burial space, since it occurred in Area D where grave density is low. Right-sided burials also occurred at Wearmouth, where they formed 67.5% of the pre-Norman burials, while at Jarrow they occurred in equal numbers with the supine burials (Lowther 2005, 82, 176–7).

Six burials were fully or partly flexed (fig 31.3), another (Sk. 176) was uncertain. Where these individuals could be sexed they were male, and ranged in age from neonate to old adult. Two flexed burials, Sk. 422 in Area D and Sk. 660 (fig. 36) in RA 28, are suggested as early: Sk. 422 being radiocarbon-dated to 670–900, and Sk. 660 being stratigraphically in the lowest level of the burial sequence. Others, however, occur later in the stratigraphic sequence, and these could even be a result of burial before *rigor mortis* had disappeared. No cases of flexed burial occurred in Phases 3 or 4. There appears to be no reason for seeing crouched burial as evidence for the influence of a strong native British tradition (Lucy 1999, 14).

Ten burials were prone (fig. 31.3), including three females, four males and one possible male, and two infants. Of these six were located in the Compound (Sk. 160, Sk. 177, Sk. 171, 184, Sk. 172, and Sk. 175 (discussed below)). Two each in RA 26 (Sk. 20 and Sk. 5) and Area C, and one in RA 28 (Sk. 649).

In three cases, body disposition suggested casual burial, possibly of execution victims, though it has to be stated that none of these showed any identifiable trauma. In the Compound, two middle-aged to old (35–45+) males, Sk. 175 and Sk. 176, appeared to have been

buried together (fig. 37). Skeleton 176 was supine, but his legs were bent to the right; Sk. 175 lay prone, partly on top of Sk. 176, left arm extended with hand resting on the other's pelvis with his legs bent to the left, fitting closely with those of the underlying body. The upper burial has been radiocarbon-dated to 1015–1155 (Appendix), but as it was sealed by the clay rampart must be pre-1080. A similar pair of burials, in this case female, occurred in RA 27 (Sk. 341 and Sk. 345). Another, fragmentary, prone burial (Sk. 638) appeared to have been buried with its hands tied together behind its back. If these burials were victims of violent death, perhaps by execution, their spatial distribution would suggest there was no segregation in death for such individuals within the cemetery. No prone burials occurred in Phases 3–4.

BURIAL DENSITY AND ZONING (figs. 38–41)

The distribution of the burials by sex is shown in figures 38.1 and 38.2 and by age in figures 39.1 to 39.4. The distribution by sex is also illustrated in two formats in the charts. Figure 40 shows the percentage of the gender groups by area — e.g. 20% of the total of female burials were found in RA 25 but only 14% of the males. Figure 41 shows the relative proportions of the sexes in each discrete area — e.g. 31% of the burials in RA 25 were female and 35% male. (NB. the proportions are shown as percentages in the chart, but only the Compound, RA 25 and RA 28 contained more than 100 burials). RA 28 displays a similar pattern to RA 25. As, overall, males outnumbered females (61% to 39%) these concentrations are of interest. However, given the incomplete data for the cemetery as a whole they may not be significant.

By contrast, in RA 26, there were 11 females and 31 males. The males formed a tight group to the south of Building 68. The excavated burials within and below Building 68 were also exclusively male. The females largely cluster towards the eastern side of this area, a grouping which could perhaps be reflected by the group of eleven females in the north-west corner of RA 27, where there were only six males. This suggests that a north-south strip of the cemetery some 3 m wide was favoured for female burials. It is uncertain how this zone relates stratigraphically to the postulated 'church', though the absence of female burials within the footprint of Building 68 would suggest the groupings in RA 26 and RA 27 post-date its construction, and that their western boundary may have been the western end of the 'nave' of the postulated church. The group in RA 27, mainly middle-aged and old, may have been bounded by 'path' 107 to the east, and perhaps did not extend northwards as far as Area D.

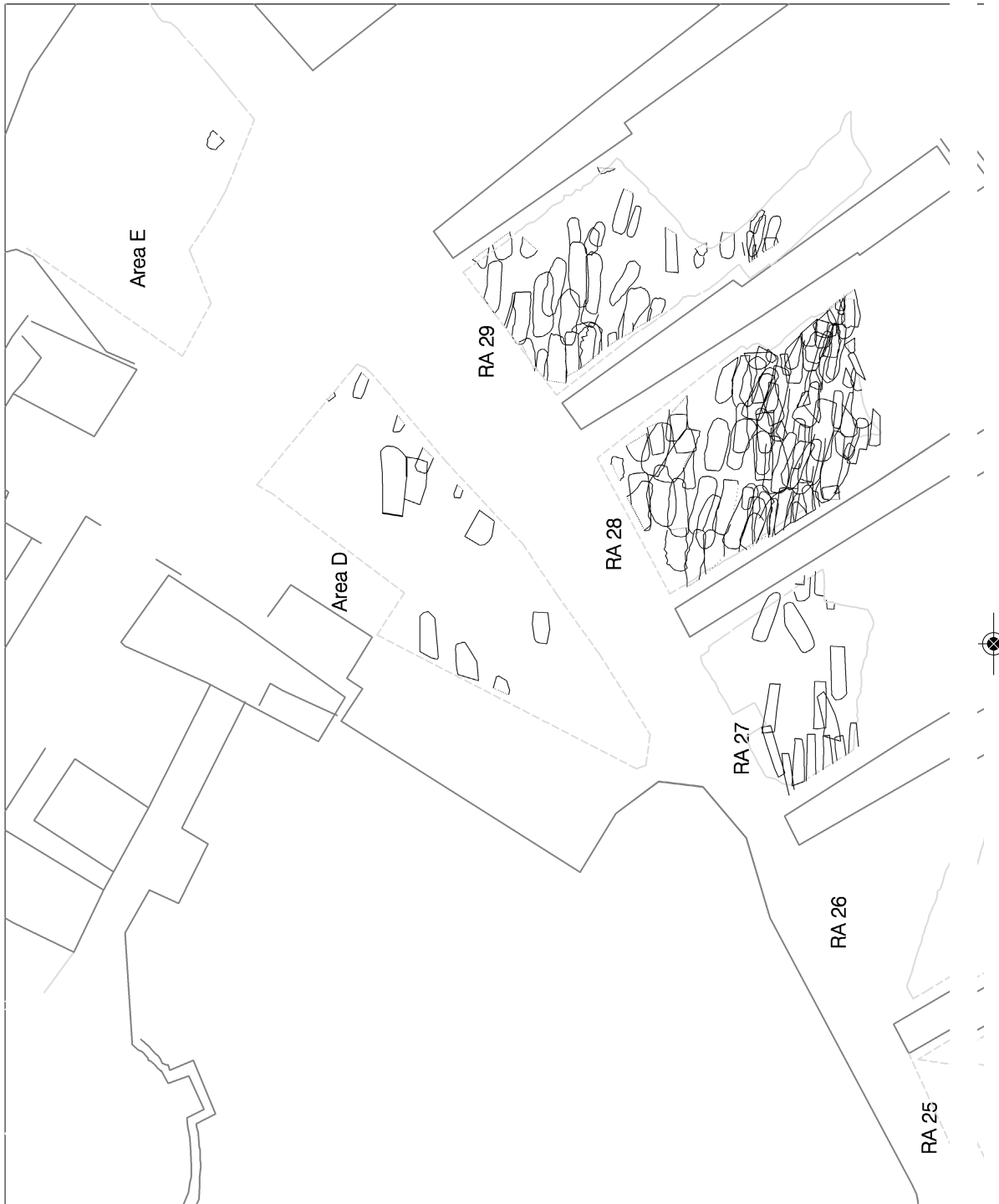
East of RA 27 the proportion of male to female burials increases and is at its highest in RA 29 where it was 61% male to 24% female. This appears to be a genuine concentration like that in RA 26. In both areas there are high proportions of middle-aged and old individuals. In Area C, where sex could be determined in the adults, males (26) again outnumber females (11). The greatest number of females in this area lay in the eastern part, excavated in 1990, though this may be an accident of survival rather than deliberate segregation.

Differences in the density of surviving burials also suggest that there were favoured burial locations, or ones imposed by social or physical constraints, within the cemetery area. The zones of greatest burial density are close to the north and south walls of the suggested 'church': that is in Area C, south of a line apparently defined by Building A and wall 3168, and in RA 28 and RA 29 for up to 16 m north of this line.

Construction of the 'New Castle' in 1080 inevitably resulted in a contraction to the previously available burial area (see above, Phase 3). Perhaps with use of the northern and western areas of the cemetery significantly restricted, the areas immediately to the north and south of



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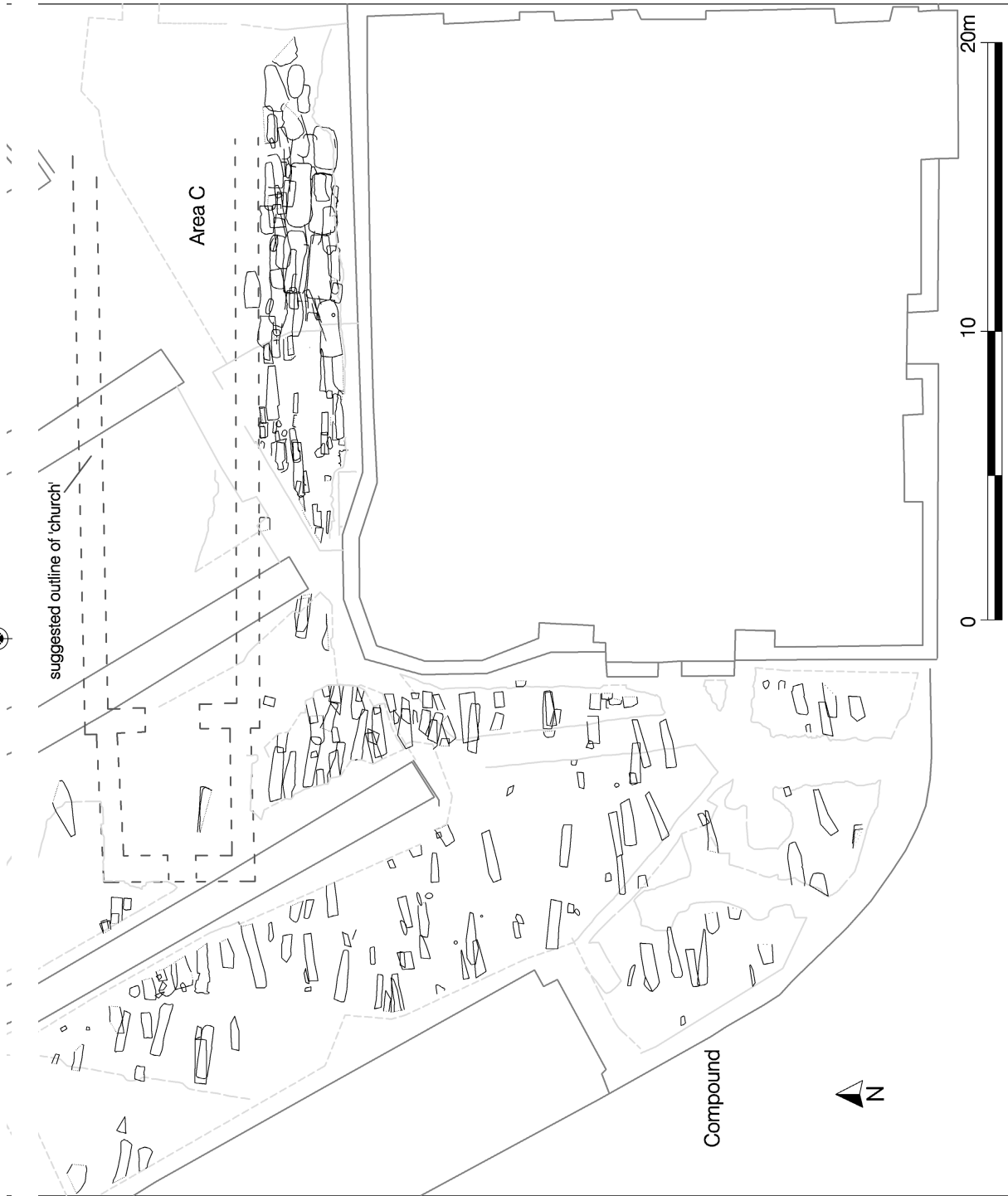
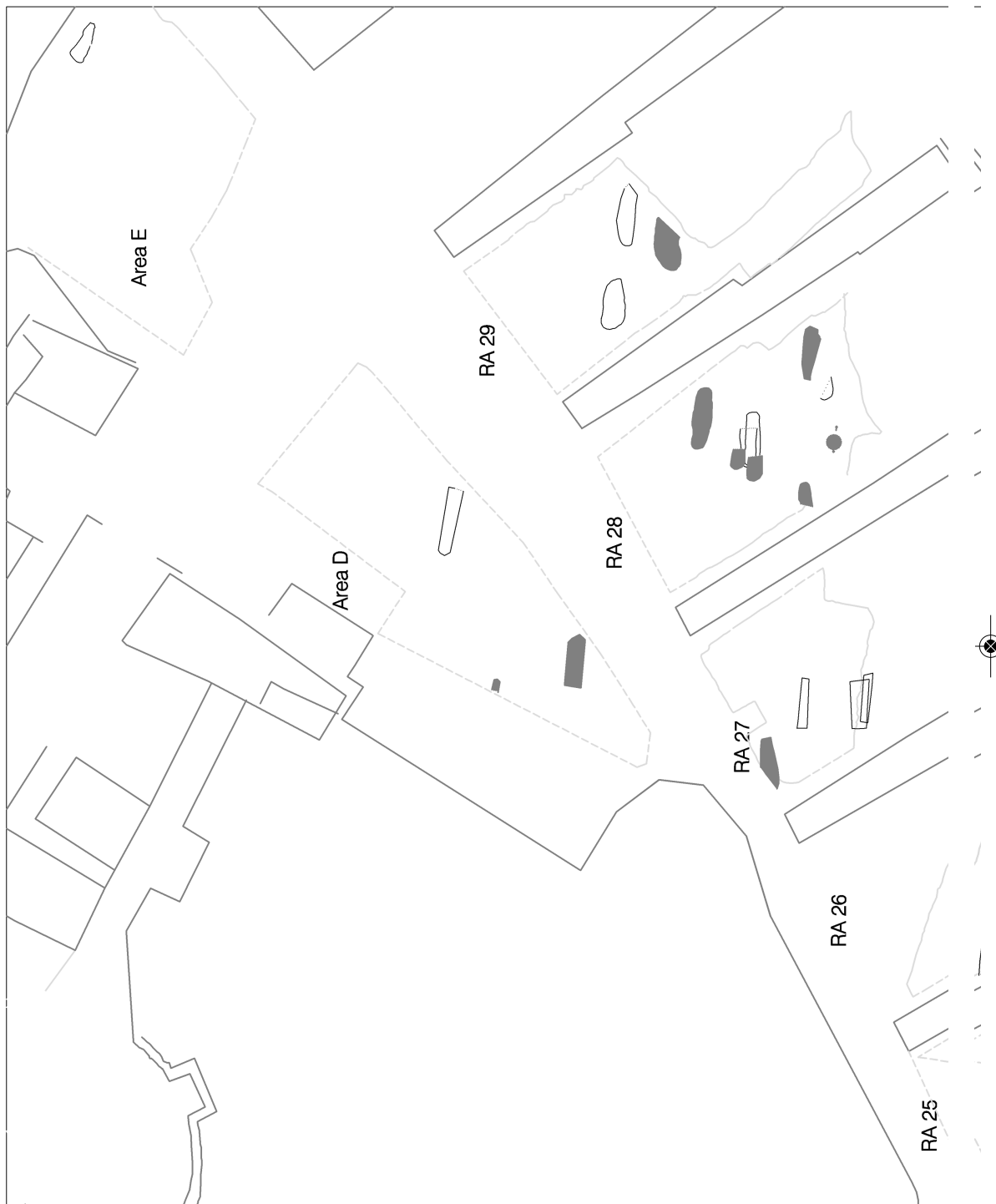


Fig. 3.1.1 Distribution of burials by body position: supine. Extent of surviving cemetery deposits shown in light grey outline.

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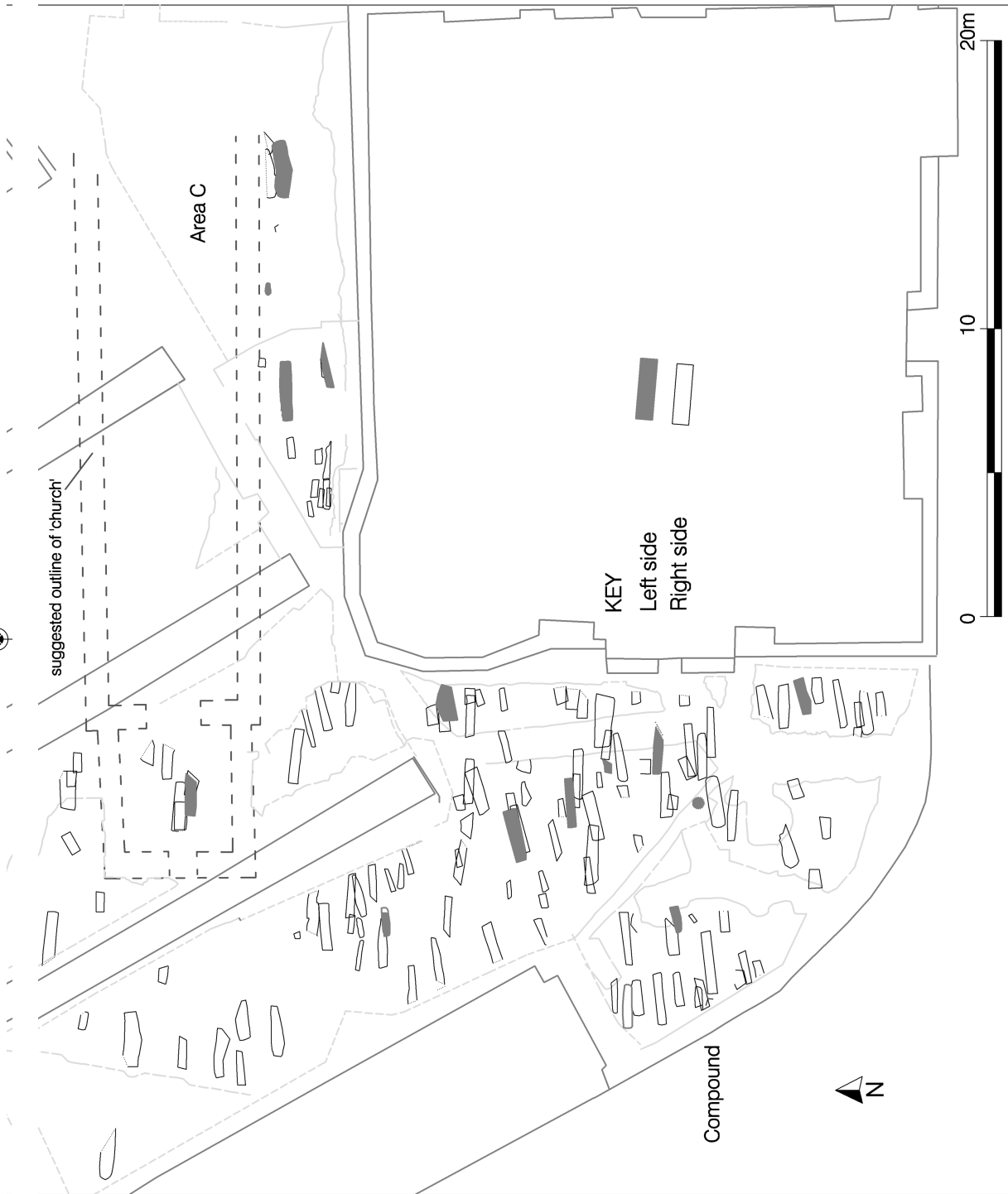
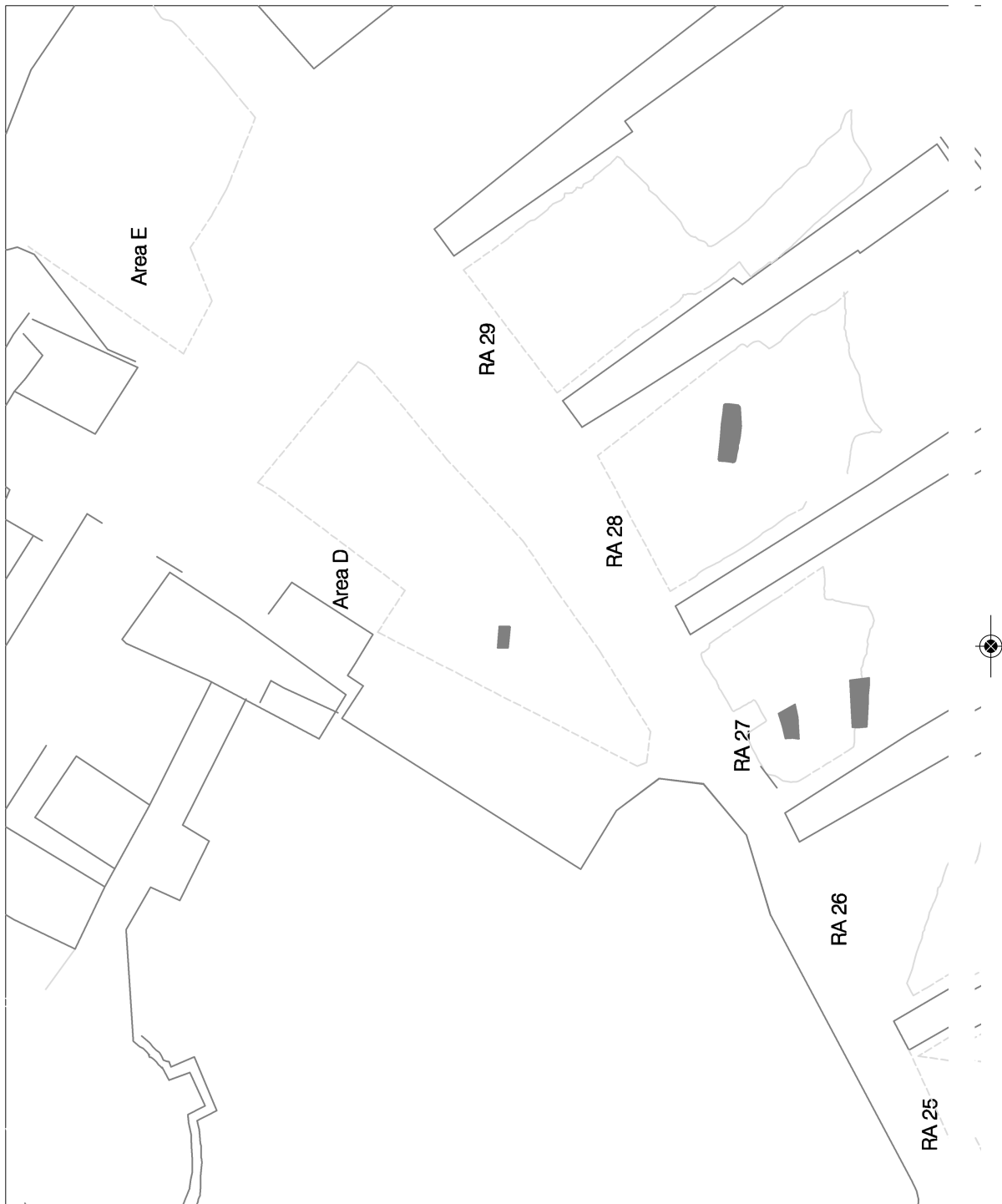


Fig. 31.2 Distribution of burials by body position: left- and right-sided. Extent of surviving cemetery deposits shown in light grey outline.



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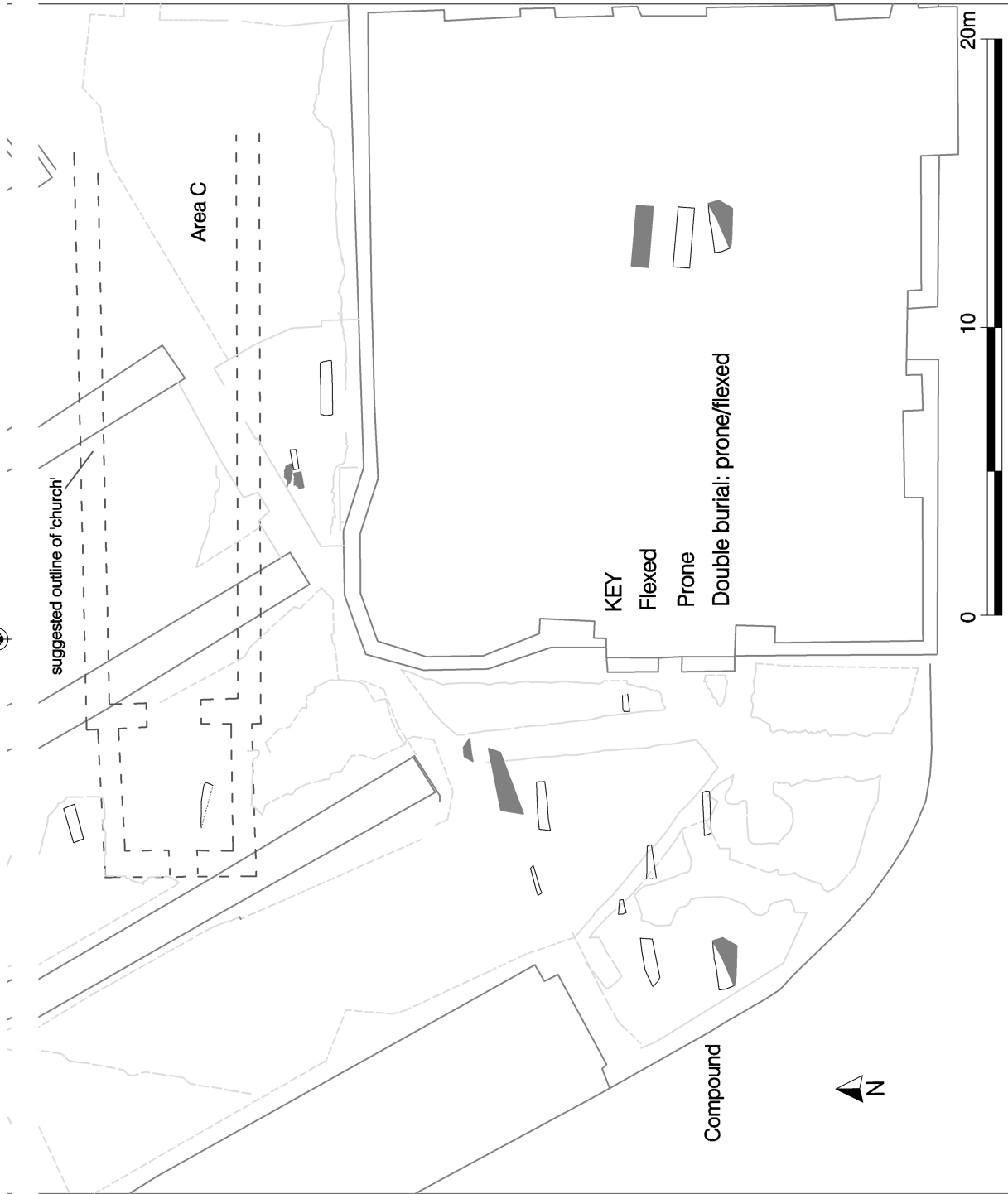


Fig. 3.1.3 Distribution of burials by body position: prone and flexed. Extent of surviving cemetery deposits shown in light grey outline.



Fig. 32 Sk. 650, a ?male, aged 30–39, on his right side. Right arm extended, left arm across abdomen. Scale 0.5 m.



Fig. 33 Sk. 454, a ?male, aged 35–49, on his left side, left arm extended, right arm across abdomen. The burial lies against the wall of a Roman building. RA 29. Scale 0.5 m.





Fig. 34 Sk. 451, an adult male, aged 30–44, on his left side, showing signs of post-burial movement of the upper body into a more supine position. RA 29.



Fig. 35 Sk. 525, a male, aged 35–49, on his left side. Left arm extended, right arm across pelvis. The body shows signs of post-burial movement, the torso falling back into a supine position. Note charnel material redeposited around the head. RA 29.
Scale 2 m.



Fig. 36 Sk. 660, a flexed ?male aged 40–59. Dated AD 667–780. RA 28. Scale 0.5 m.

the 'church' became more intensively used. At present this cannot be proved because of the difficulties of assigning burials in RA 28 and 29, and to a lesser extent Area C, to the post-1080 period with any certainty. A small number of graves cut into clay apparently forming the lower inner slope of the 1080 rampart shows that this area was not totally out-of-bounds to subsequent burials (fig. 15). Perhaps these reflect social or economic distinctions, or are simply a result of pressure on burial space within the rampart.

There is a markedly high proportion of foetuses, neonates, and infants — 44% — in the excavated burials in Area C compared with the other areas: RA 25 (14%), RA 28 (5%) and Compound (18%) (fig. 39.1). There were only two in RA 29 and one in Area D. None were recorded in RA 27 and Area E. This may reflect the widespread practice of burying un-baptized children close to, or under, the eaves drip of a church, thereby perhaps achieving posthumous baptism (Blair 2005, 471). However it is also possible that the high number of these age-groups is an accident of survival due to their being the latest burial generation in this part of the cemetery, and thus being less subject to disturbance from subsequent grave-digging.

Another interesting distribution was that of young adults. Although the total number of young adult burials was only 36, the concentration of 16 in the Compound (fig. 39.3) was marked given the overall density of burials in that area. One, a female, was post-1080; the rest, ten males, four females and one unsexed, were earlier.

There are other indications of possible zoning based on burial type. The 'chest' burials (Sk. 619 and 644), all but one of the graves which produced possibly residual chest fittings,

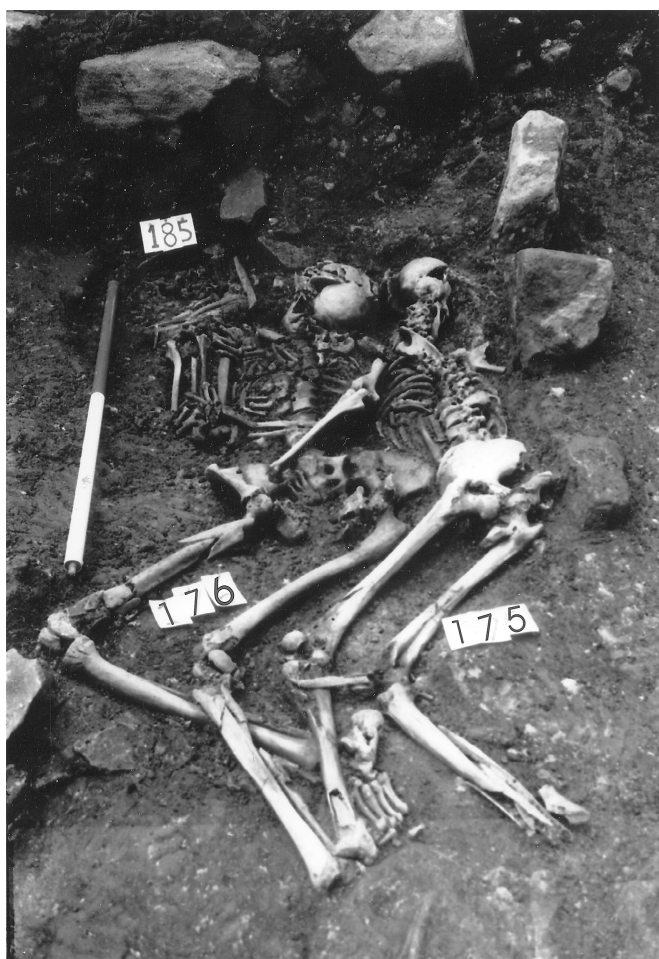


Fig. 37 Sk.175 (topmost, to right), a male, aged 35–45, on his right-side and slightly flexed, with left arm extended over Sk 176, an old adult male, supine and slightly flexed. The similarity of position suggests a double burial. Sk.175 is dated AD 1015–1155. Compound. Scale 1 m.

and all the 'head-box' burials, lie in RA 28, RA 29 and the eastern extremity of Area D (figs 19.2, 19.3). There are tenuous suggestions of a western boundary to these burials in RA 28, where a narrow strip of untouched cemetery soil separates them from those to the west. (This 'gap' can be seen on some of the distribution plans.) This cannot be confidently traced further south-west because of the increasing density of burials, and may have been a very localized division, perhaps between 'family' plots. This ephemeral boundary lay a little over 1 m east of an alignment of post-holes and a possible post-trench designated Building C in this report (see Phase 1 and fig. 3.2), and it is possible the two were related. Building C may even have been an enclosure around the 'head-box' and 'chest' burials (see Discussion). The presence of fully-flexed or 'crouched' burials Sk. 660 (fig 36), in RA 28, and Sk. 422 in Area D some 9 m to the north, may again hint at this area of the cemetery having had some special significance, and perhaps being the earliest focus for burial. The apparent confinement of all the excavated cist burials to the south of the 'church' suggests, if this form of burial can be taken as a reflection of social status, that this was the area favoured by the elites of the contributing population.



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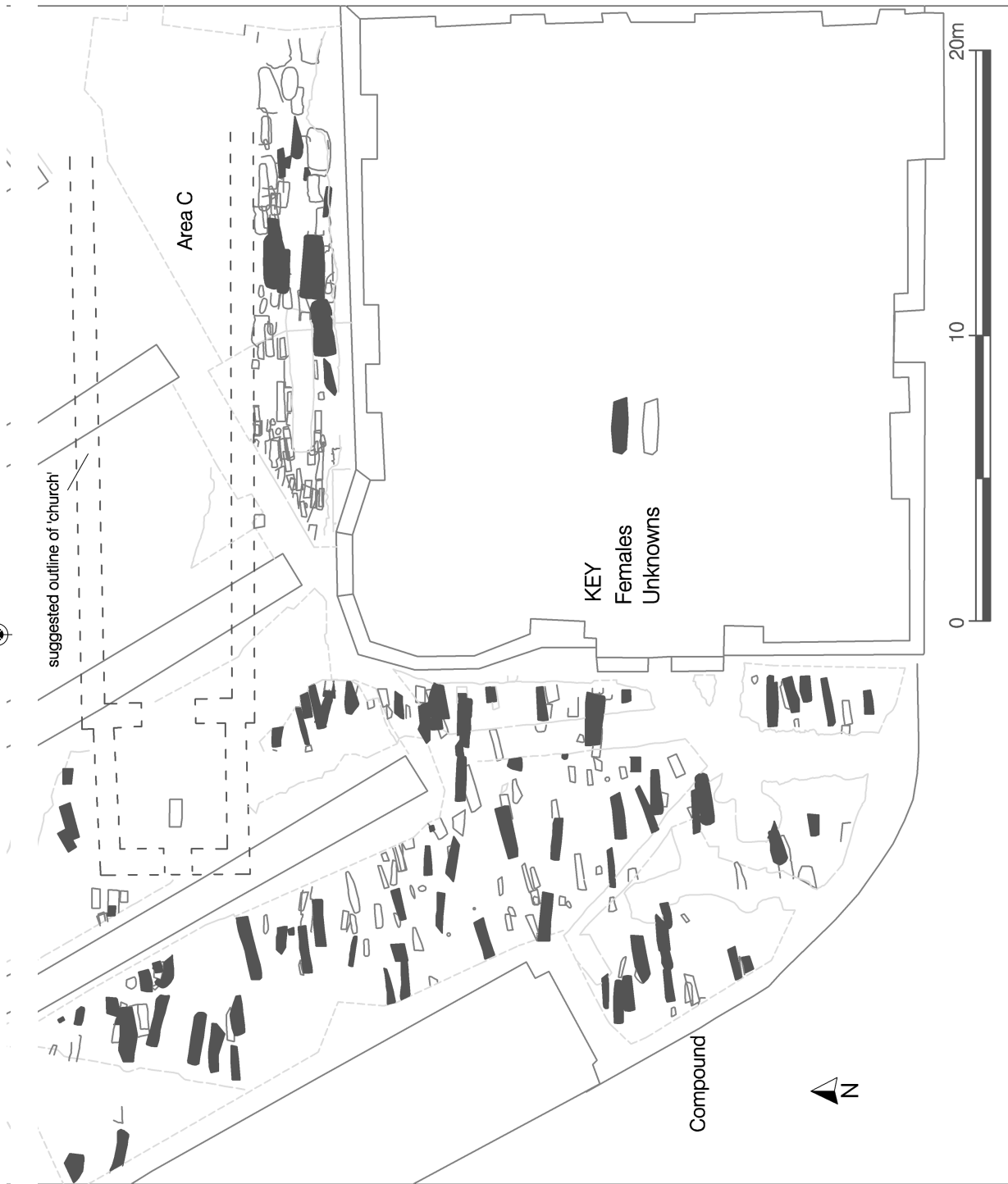


Fig. 38.1 Distribution of burials by sex: females and unknowns. Extent of surviving cemetery deposits shown in light grey outline.



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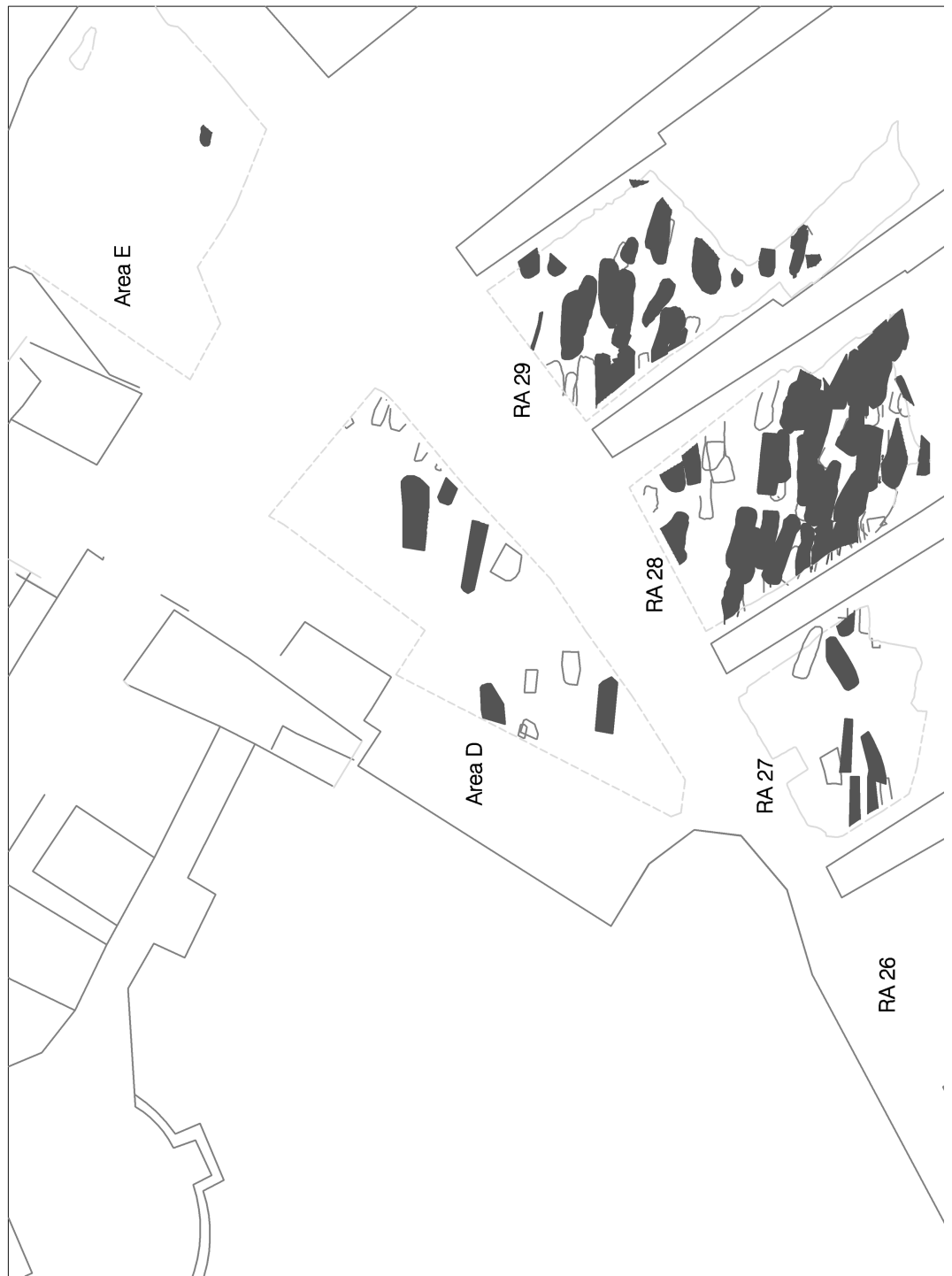
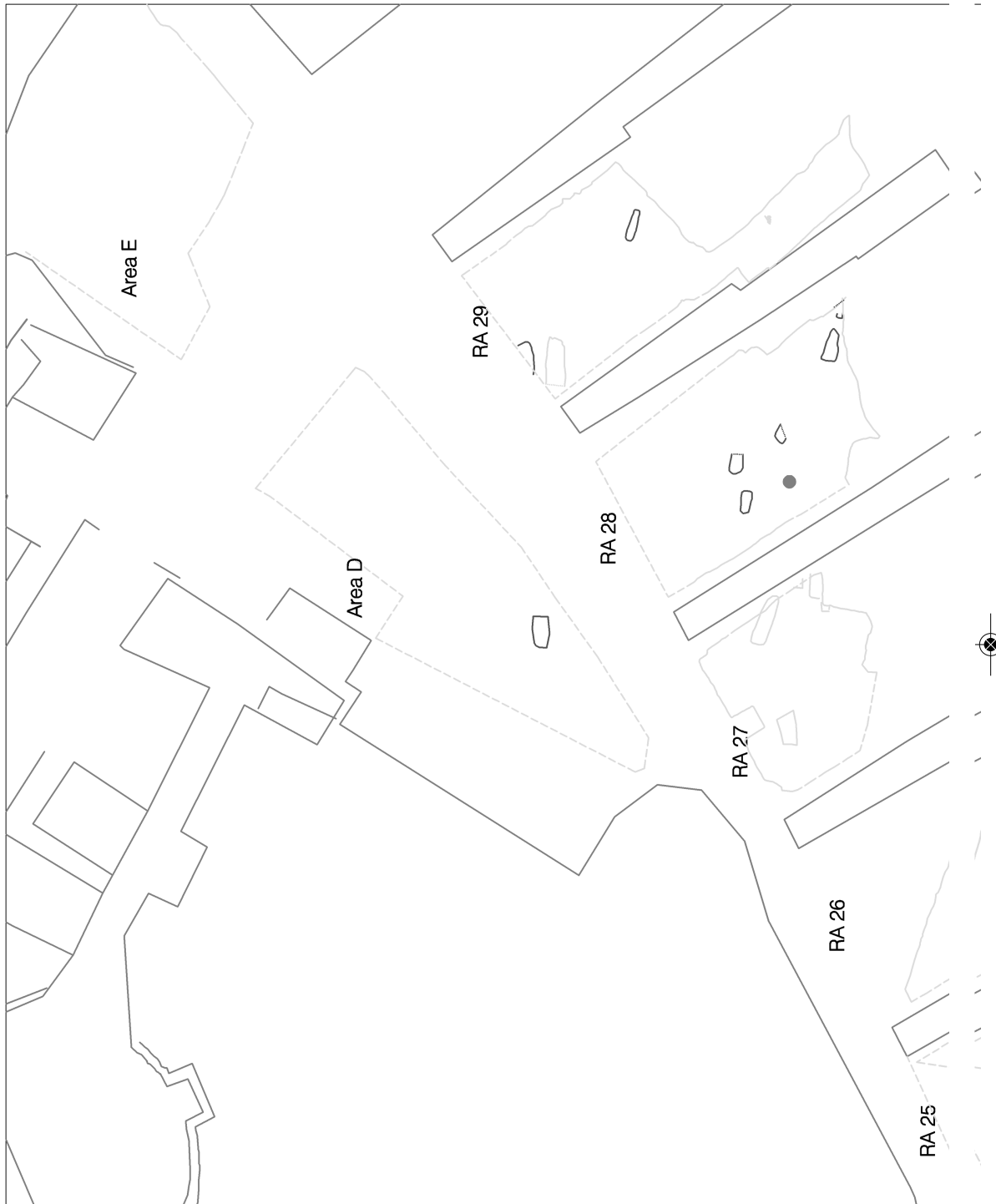




Fig. 38.2 Distribution of burials by sex: males and unknowns. Extent of surviving cemetery deposits shown in light grey outline.

238 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



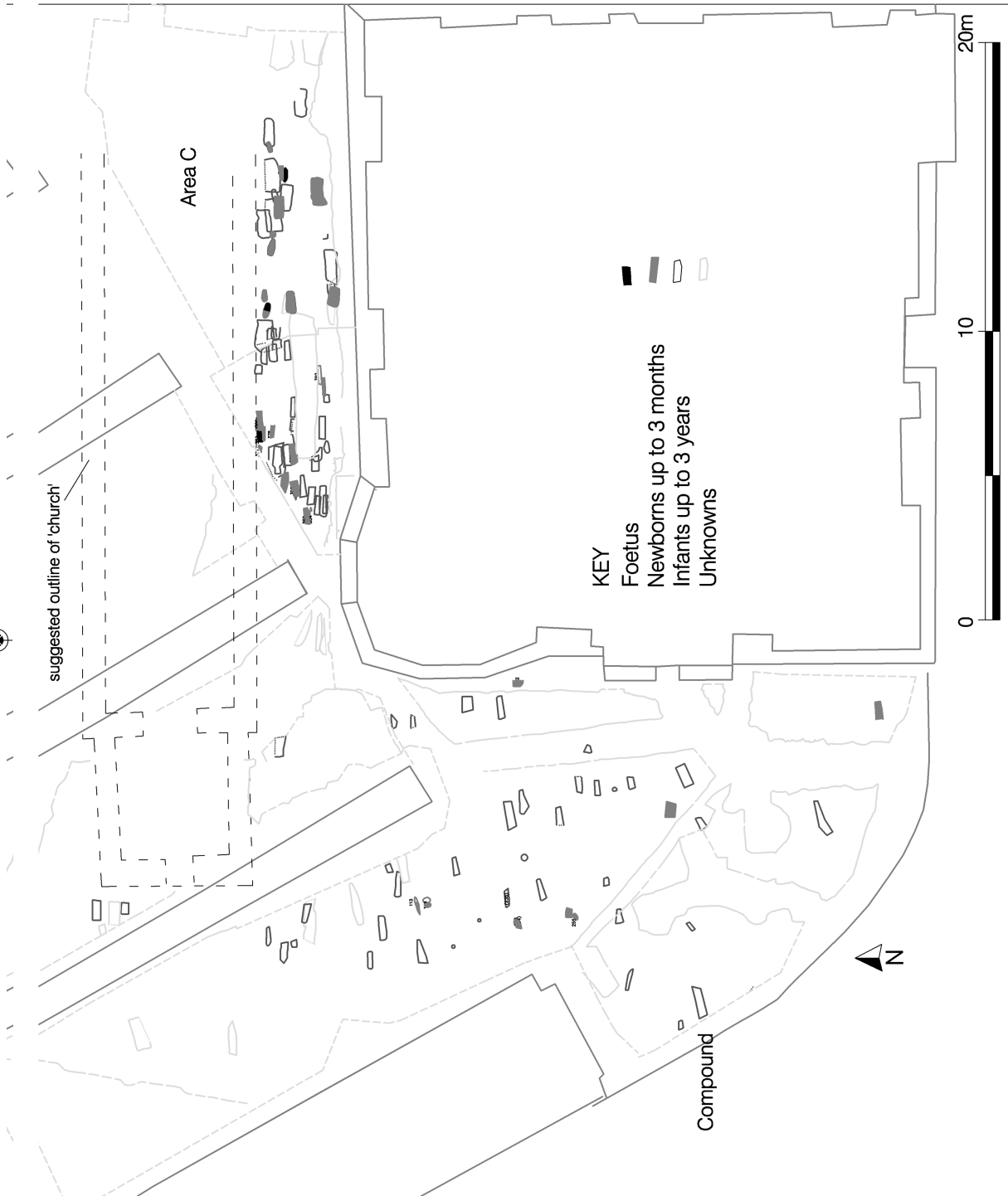


Fig. 39.1 Distribution of burials by age: foetus, neonate, and infants up to 3 years. Extent of surviving cemetery deposits shown in light grey outline.



240 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



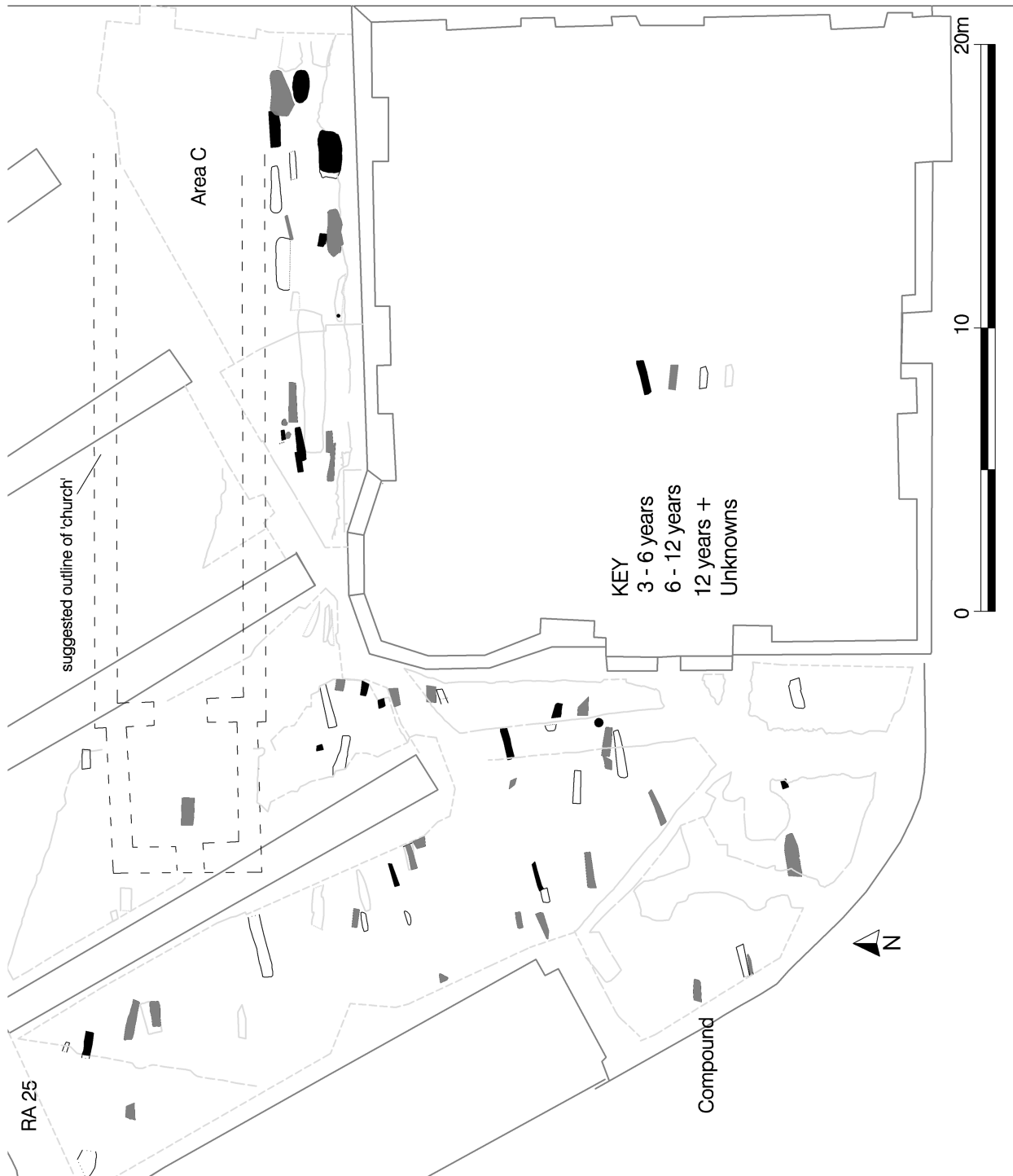
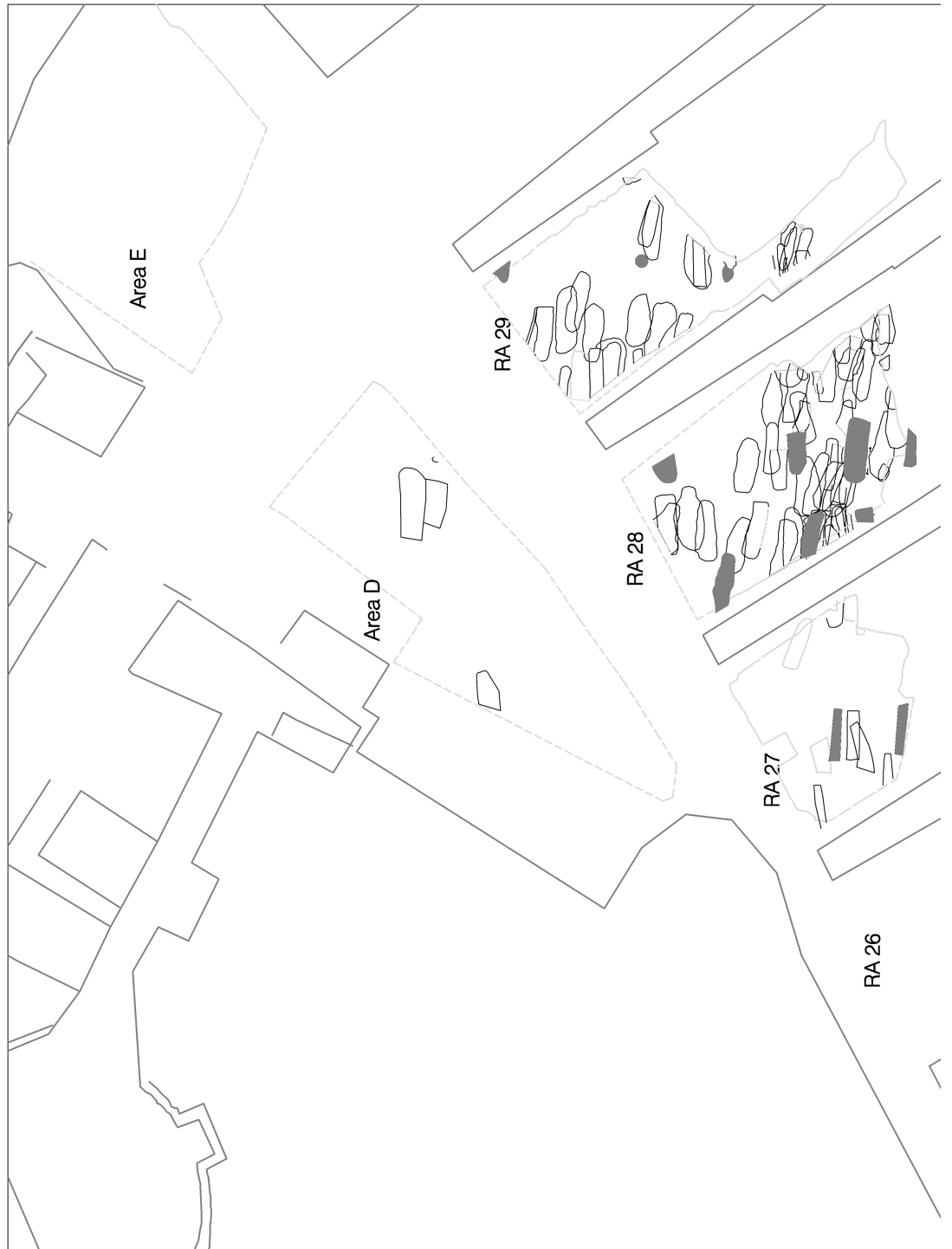


Fig. 39.2 Distribution of burials by age: juveniles. Extent of surviving cemetery deposits shown in light grey outline.



242 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



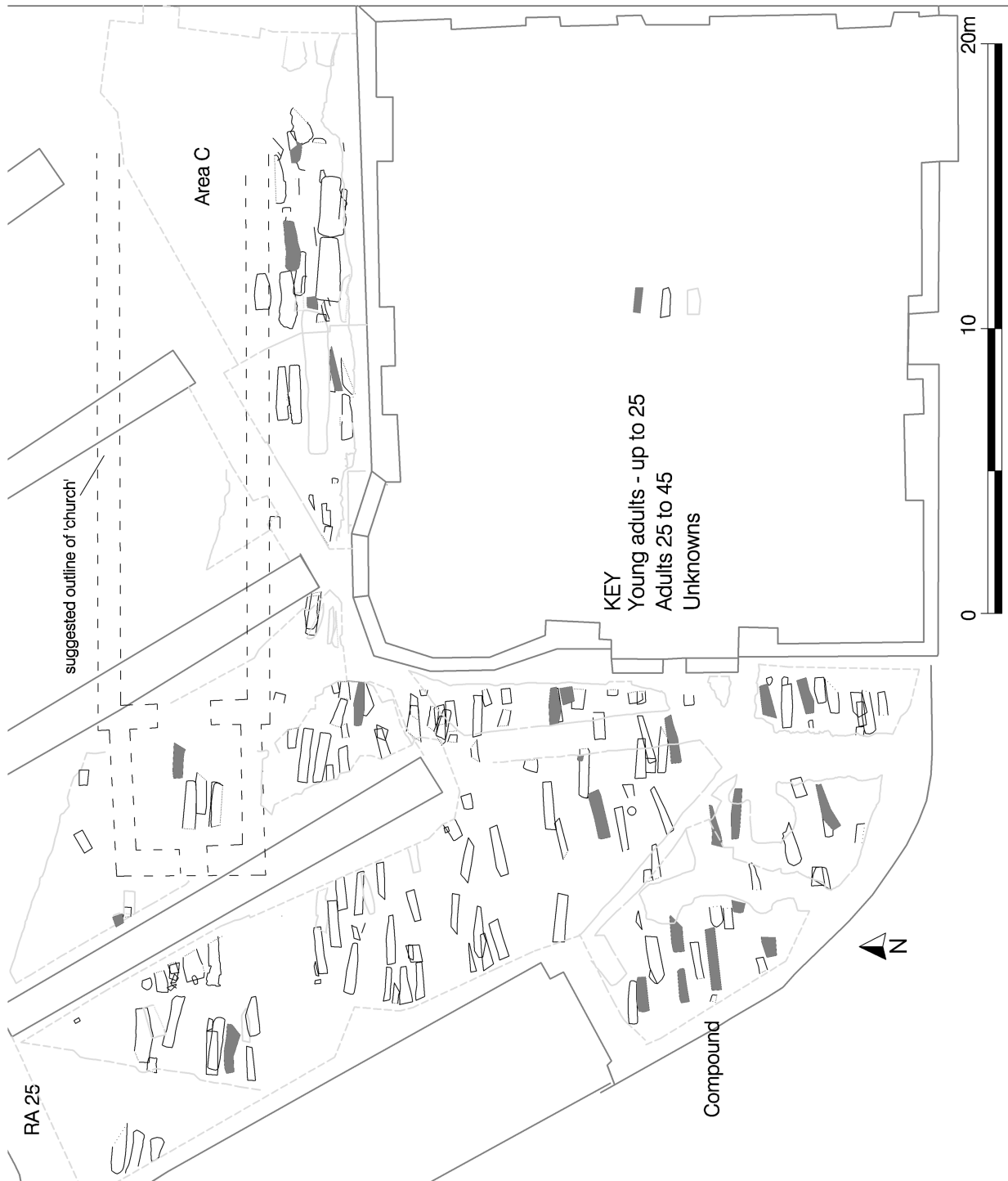
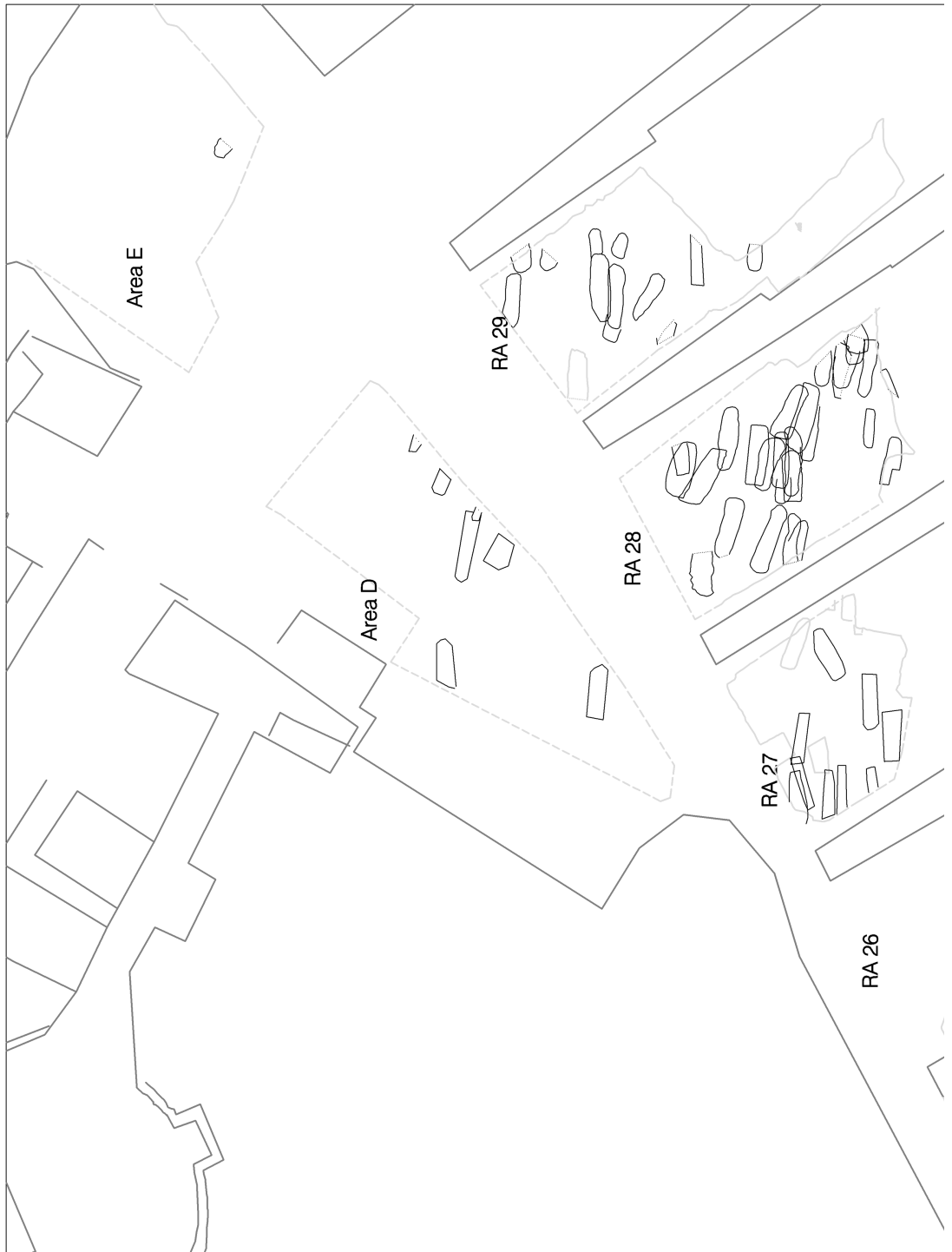


Fig. 39.3 Distribution of burials by age: adult (20-45). Extent of surviving cemetery deposits shown in light grey outline.



244 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE



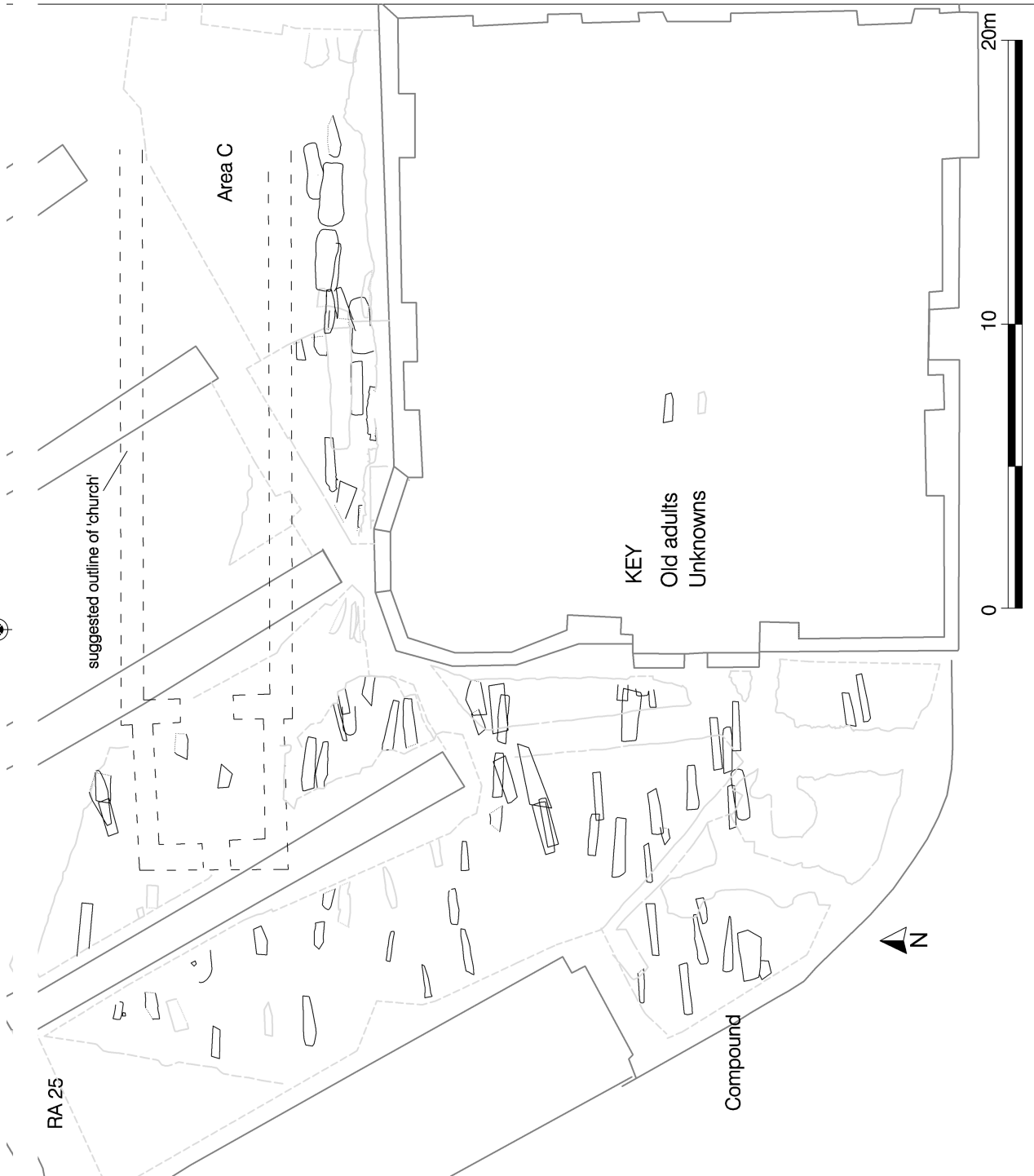


Fig. 39.4 Distribution of burials by age: old adults (45+). Extent of surviving cemetery deposits shown in light grey outline.

246 EARLY MEDIEVAL CEMETERY AT THE CASTLE, NEWCASTLE UPON TYNE

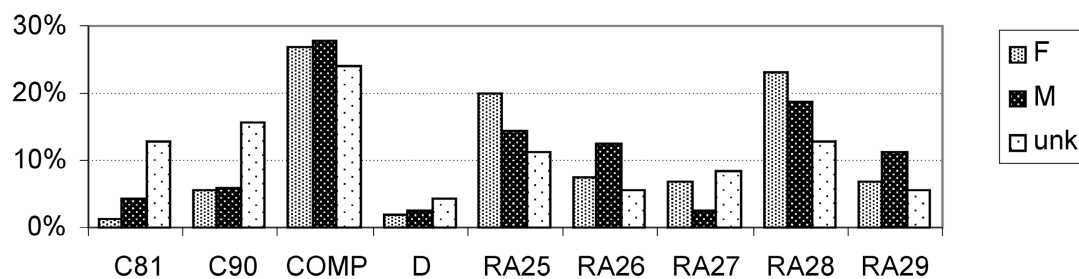


Fig. 40 Area/gender groups: percentage of gender group, by area.

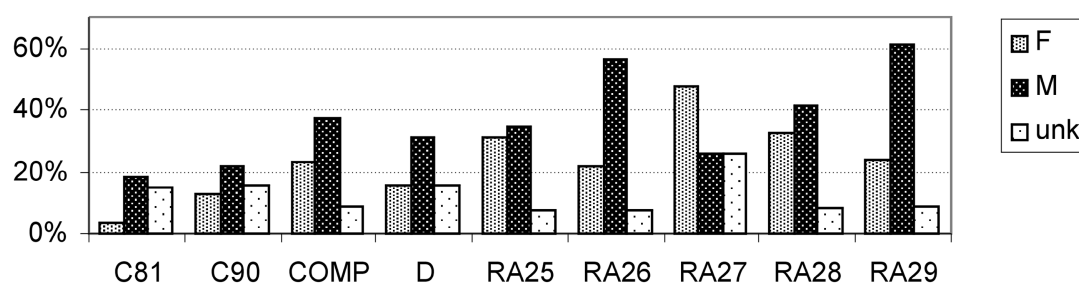


Fig. 41 Area/gender groups: gender as a percentage of area group.

GRAVE 'GOODS' AND FINDS ASSOCIATED WITH THE BURIALS

No artefacts which could be described as 'grave goods' (excluding shroud pins and body containers) were found, and most artefacts from cemetery contexts have been identified as residual Roman material.

A number of 'shroud' pins were recovered from earlier years of excavation. Although termed 'shroud' pins by virtue of their cemetery contexts, similar items were used as dress or hair fastenings by the living. Some pins were associated with *in situ* burials, though these apparently derived from grave fills and were not identifiably located on parts of the bodies that would suggest actual funerary use. These are dated broadly to the eighth to ninth centuries (see The Finds).

In 1929 a pewter burial paten was recovered from a trench dug by the North of England Excavation Committee (Hunter Blair 1929). The paten was found 'lying upon the top course of a mediaeval wall, at a depth of about 5½ feet, close to the north face of the keep'. The trench was located in Area C and since the truncated remains of several burials could be seen in the sides of the trench, Hunter Blair's comment that 'no remains of a burial were found near it' must surely be taken with a pinch of salt. The 'medieval' wall can now be identified as the truncated remains of a sleeper wall from the East Granary of the Fort. The reported depth at which the paten was found (c. 1.68 m) places it within the cemetery horizon, and it seems likely to have been associated with a late, *in situ*, burial, possibly of a priest associated with the suggested church or with the chapel in the Keep.

CEMETERY ORGANISATION AND MANAGEMENT

There is evidence, most clearly seen in the later burials, for some organization and management of burials within the cemetery. The orientation and spacing of burials in itself need not have been an imposed discipline, since it is likely that in many cases new graves had visible earlier ones to dictate alignment and position. It is not known if the graves were dug by relatives of the deceased, or whether before 1080 this was carried out by a professional gravedigger. After 1080, with a smaller cemetery area enclosed within the rampart of the castle, it is possible that grave digging devolved upon a designated individual or individuals. Construction of stone-built cists, which required greater investment of time, materials and labour than earth graves, might at all times have been a professional undertaking.

The re-deposition of body parts disturbed from earlier burials within a new grave cut, frequently noted in all areas of the Cemetery, reflects what later became the sexton's duty of keeping the graveyard clean and decent — visible human remains being regarded as physically and emotionally offensive. Two charnel pits were found in Area C in 1990. One (3165), was filled with remains (3156) possibly disturbed at the time of the construction of the Keep (figs. 8 and 42); the other possible charnel pit (3209) was a rectangular, grave-like cut just to the north of Sk. 509 (below slab 3274: fig. 8) filled with gritty silt and sandstone fragments containing human long-bones and a small fragment of glazed roof-tile.



Fig. 42 Charnel deposit 3156 against wall 3168, perhaps indicating late cemetery use. Area C. Scale 0.5 m.

It has been suggested (Gilmour and Stocker 1986, 56) that the use of recumbent slabs, as in Area C of the cemetery, may have been intended to delay disturbance by new grave-digging, and that consequently such marked graves may have enjoyed greater longevity than might otherwise be expected. This may be demonstrated by the grave of Sk. 368, a cist burial marked on the surface by with head- and foot-stones. Although the date for this burial (see above) places it before 1000 and it lay in an apparently preferred area of the cemetery, it had not been cut or overlain by subsequent burials. This suggests that the head- and foot-stones had accompanied a surface slab, which was only removed at a late date in the cemetery's use. As described above (Stone-built cists), there were several instances of slabs and upright markers having been recycled and incorporated into cists. Perhaps this was material generated by an episode of cemetery surface clearance.

5: THE CONTRIBUTING POPULATION

Much of this section is based on the archive osteological reports mentioned at the beginning of this report (Anderson 1988; Boulter and Rega, 1993). It is a broad overview of the most obvious characteristics and trends within the cemetery population, since at the time of writing detailed statistical analysis of the combined pre- and post-1990 assemblages has not yet been undertaken. Continuing study of the skeletal assemblage has refined, and in some cases revised, earlier identifications and conclusions, particularly with regard to pathology, and will no doubt continue to do so.

SIZE AND SOURCE

The actual number of individuals interred during the life of the cemetery cannot now be known with any certainty: the full extents of the burial area have not been located, later burials have in many cases destroyed earlier ones, and an unknown number of burials have been destroyed by medieval and later intrusions. Although 660 *in situ* burials were identified on site, in some cases the remains of more than one individual were, unintentionally, excavated under a single skeleton number. Any statistics quoted are based on a catalogued total of 679 individuals. A number of other individuals are represented by disarticulated remains. Although this can only be regarded as a sample of the total cemetery population it nevertheless represents the largest assemblage of *in situ* Saxo-Norman burials to have been excavated from a single site in north-east England. At Wearmouth and Jarrow the totals from *all* periods were 178 and 523 respectively (Lowther 2005, 77) and at Hartlepool the recorded Anglo-Saxon burials, including disarticulated remains, only amount to between 89 and 110 individuals (Anderson 2007, 97).

The size of the contributing population cannot be accurately calculated as the original extent of the cemetery is not known. Some broad indication may be gained by dividing the number of identified *in situ* individuals by the number of 25 year 'generations' (an average of the measures of 20 and 30 years, as defined by Kjølbye-Biddle and by Gilmour and Stocker) during the period of cemetery use, possibly 400 years. This gives a possible 'living' generation of forty-two (Halsall 1995). Adding in the minimum number of individuals represented by the disarticulated fragments retained in 1990 and 1992 this increases to fifty-three. This number could probably be at least tripled by taking into account the unexcavated areas, the areas disturbed by later activity and those from which disarticulated material was not kept.

This may suggest the nearby presence of either a single, modestly-sized, lay settlement, or perhaps more likely a number of smaller, dispersed lay settlements, perhaps in effect farms, which were served by the cemetery.

At the time of writing the location of any Saxon settlement or settlements which might have contributed to the cemetery has not been demonstrated. This is not particularly surprising since the period from the late fourth or early fifth century until the mid-eleventh-twelfth century is not, so far, identifiable in ceramic assemblages on Tyneside, and the areas subject to recent excavation within the urban area may not have been sufficiently large or undisturbed to pick up the outlines of buildings represented by postholes. The possibility that, prior to the Conquest, the catchment area for the cemetery could have included Gateshead, is discussed below.

SEX AND AGE (figs. 43–45)

Only 411 (61%) individuals could be sexed with any degree of confidence. These included a few of the older adolescents, but the mass of the sub-adults were unsexable. In the whole excavated assemblage, males (at 61%) outnumbered females (39%). The definitions and terminology used for age categories varied between the osteological archive reports and there is a certain amount of cross-over in actual age years between reports (the distribution plan fig. 39.3 conflates some of these). However, it can be seen that at least 33% of individuals (half of those surviving to adulthood) were 35 or over at death, i.e. middle aged or old (fig. 43).

The most marked differences in age at death occurred in the young adult category, where there was a higher proportion of male deaths, while in the 35–45 age-group there were more females (fig. 44).

About 31% of the burials were 'sub-adults' (see fig. 43). The proportion of sub-adults in the disarticulated group is greater, at 39%. Further evidence that the *in situ* remains cannot be taken as an accurate number for this age-group, is provided by the 'several partial infant skeletons' identified among animal bone from the cemetery (Gidney 1997, 8). The sub-adult age groupings are shown in more detail in fig. 45, which also shows the difference in the pattern when the disarticulated group, which included a further three fetuses and 21 neonates, is added. The marked density of neonates and infants in Area C is considered above (Section 4: Burial Density and Zoning).

HEALTH AND STATURE

Degenerative joint diseases — arthropathies — were common. The most frequently identified was diffuse idiopathic skeletal hypertosis, an arthropathic disease eventually causing spinal fusion, though recent re-examination suggests the frequency of this has been exaggerated (D. Swales, pers com.). Osteoporosis and osteoarthritis were common in adults, e.g. Sk. 17, 19, 19a, who also had dental abscesses and occasional fractures. Osteoarthritis was also common at Jarrow (Anderson *et al.* 2005, 492).

Spondylosis, a fracture of the inferior part of the neural arch of a vertebra, was identified in seven individuals. Sk. 628, an adult male, had four vertebrae affected. The others were males or ?males Sk. 454 (fig. 33), Sk. 461, Sk. 603, Sk. 611, and females or ?females Sk. 635 and Sk. 645. Other vertebral fractures were noted in Sk. 480 Sk. 493, which had possibly healed, and Sk. 577.

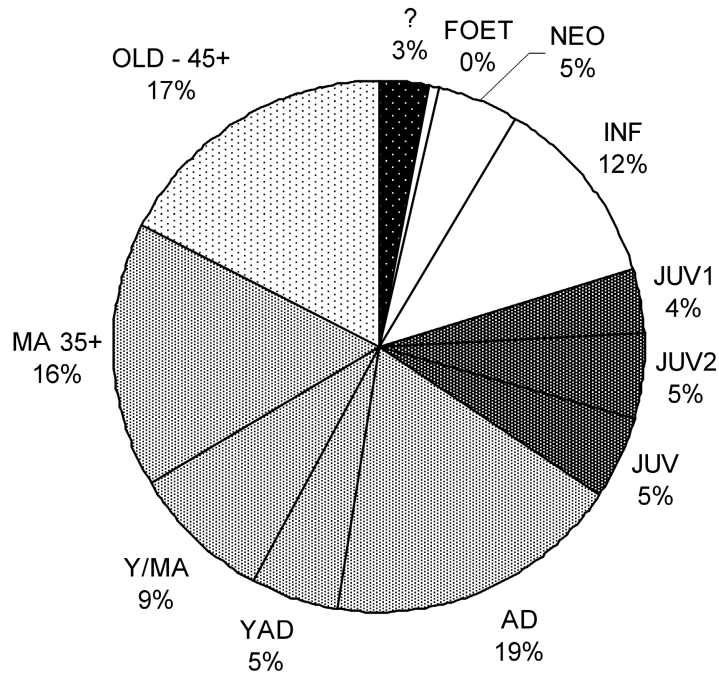


Fig. 43 Age groupings.

Note: in figs 43 and 44 the following abbreviations are used:

NEO	Neonate – 0–3 months	YAD	Young adult, up to 25 years
INF	Infant – 3 months to 3 years	Y/MA	Adults, 25 to 35 years
JUV1	Juvenile – 3 to 6 years	MA	Middle-aged, 35–45 years
JUV2	Juvenile – 6 to 12 years	AD	Undefined adult, 20 to 45 years
JUV	Juvenile – 12 years or older	OLD	45+ years

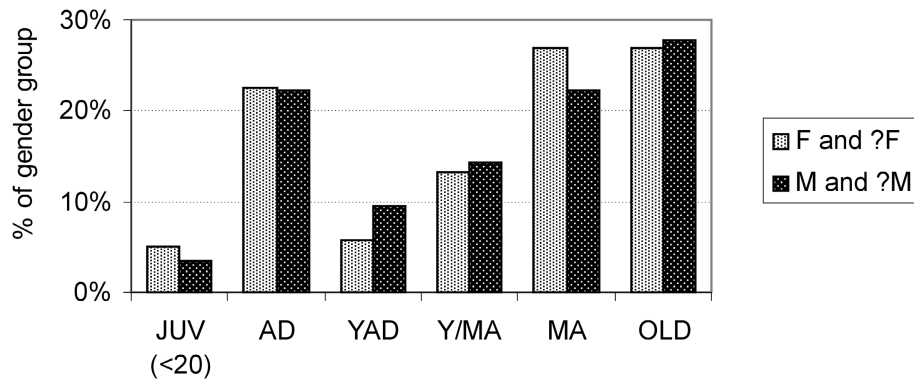


Fig. 44 Age and sex groupings.

5: THE CONTRIBUTING POPULATION

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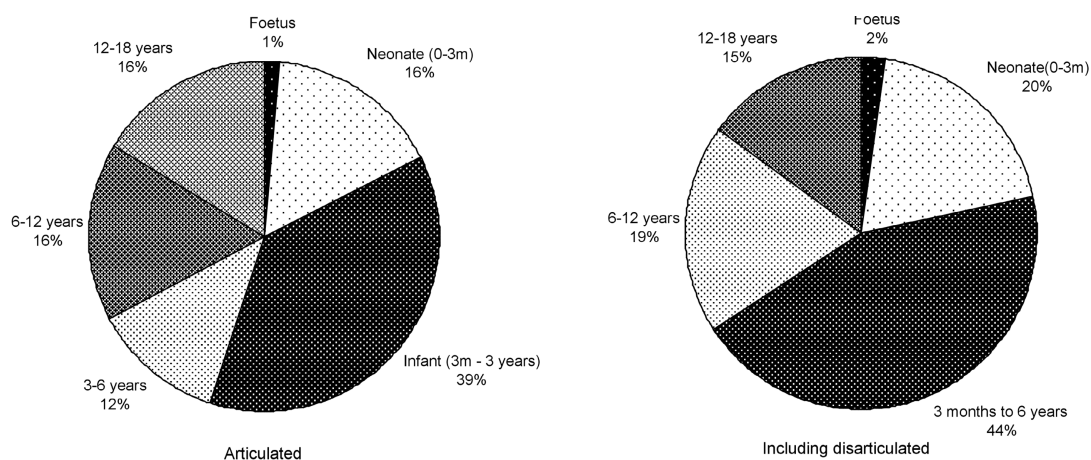


Fig. 45 Detailed breakdown of 'sub-adults'.

Dietary deficiency in childhood was suggested by *cribra orbitalis*, caused by anaemia, and evidence for rickets. Paget's disease may have been present in Sk. 8, 19a and a skull fragment in the 1990/92 disarticulated bone assemblage.

Spina bifida was noted in 12.3% of the 1990/92 assemblage, principally affecting males. This incidence is considered high, and inexplicable. One possible case of tuberculosis was noted, in Sk. 557.

It has been suggested that three juvenile burials, Sk. 187 (Compound) and Sk. 574 and 575 (from RA 28) exhibit traces of congenital syphilis, a disease traditionally thought to have been brought to Europe from the New World by Columbus in 1492-3. In the case of Sk. 187 this suggested diagnosis was based on clear evidence of a bony infection, particularly affecting the skull. With the other two burials this is based on the apparent presence of mulberry molars, accepted by some to be specific to congenital syphilis, in both skeletons. Possible mulberry molars are also suggested in Sk. 477 and Sk. 646. None of these individuals exhibit any other probably syphilitic bony lesions, nor has any such evidence been identified in any adults, and since the specificity of mulberry molars to syphilis has been questioned, no firmer conclusions can be reached.

Stature ranged from 1.57 m to 1.83 m (5ft 2 ins to 6ft) for males and 1.47 m to 1.70 m (4ft 7ins to 5ft 7ins) for females, which is broadly comparable with the published evidence from Wearmouth at 4ft 9ins to 6ft 1ins for men and 4ft 9ins to 5ft 7ins for women, and from Jarrow at 5ft 3ins to 6ft for men and 5ft to 5ft 6ins for women (Anderson *et al.* 2005, 486).

EVIDENCE FOR TRAUMA

Trauma can be defined as any bodily injury or wound which affects the bone or soft tissue. A small number of traumatic, or possibly traumatic, injuries were noted. One extreme example of trauma, from disarticulated material probably filling the cist grave of Sk. 394 in Area C, was the skull of an adult male, aged approximately 42-48 years. This showed one healed depressed cranial fracture and three unhealed cut-marks inflicted by a sharp-bladed

implement, possibly a sword. The form of the three lesions is consistent with cranial trauma ascribed to sword injury at other late Anglo-Saxon sites such as Cherry Hinton (Patrick 2006, 348–9) and St Andrew Fishergate (Stroud & Kemp 1993). The absence of bone remodelling, infection or inflammatory response associated with these three injuries indicate the individual died soon after this trauma was inflicted. The injuries appear to have been inflicted from behind, or with the individual facing away from or side-on to the assailant, suggesting the wounds were not the result of face-to-face encounter (Swales 2008).

Another adult male, Sk. 556, had a possible healed head injury resulting in a lesion, two healed rib fractures and a Colles' fracture to the right radius, possibly caused by a fall onto the outstretched hand. Arm fractures were also noted in an adult ?male Sk. 447, which had healed; Sk. 467 where a break to the left ulna had failed to unite though the broken edges had healed; and Sk. 610 (adult female) with a healed fracture to the right radius. Possible greenstick fractures were recorded in adult male Sk. 56 (right clavicle) and sub-adult Sk. 523 (right radius and ulna). At the time of death the injury to the radius was well resolved, but that to the ulna was not.

Leg injuries were represented by Sk. 52, an old male, who had a well-healed fracture to left tibia, and possibly also to right tibia. Sk. 579, an adult male, may have had a fracture to a metatarsal of his left foot. Three other adult males: Sk. 444, Sk. 467 and Sk. 588, had rib fractures; the latter also had a healed fracture to the right clavicle. Fractured clavicles were also identified in Sk. 493 and one female, Sk. 620. Possible fractured clavicles also occurred in Sk. 589, Sk. 442 and Sk. 559, both male, and Sk. 651, ?male. While the male cases may be a result of a developmental defect, it could also relate to habitual load-bearing.

6: DISCUSSION AND CONCLUSIONS

POST-ROMAN AND PRE-CEMETERY SITE USAGE

The decay and clearance of buildings within the Roman fort may have begun in the late fourth century. The fragmentary walls in RA 26, RA 28 and the Compound, and the aqueduct in RA 25 and RA 26, provide evidence for re-use or for continued use of the fort area, apparently into the post-Roman period. None can, however, be firmly dated, and they could be assigned to any time within the long period between the latest Roman pottery and coins (in the late fourth century) and the earliest datable Anglian/Anglo-Saxon artefacts (coins, beads and shroud pins), all of which are broadly of the seventh century onwards. Thus there is, in terms of finds at least, a distinct hiatus between *c.* 400 and *c.* 600. All that is clear is that these structures were, ultimately, covered by burials, though burying may have been going on in other areas of the site without impinging on these features while they were in use. It is possible that some of these features represent residual use and exploitation of the fort area by the local native population since Anglo-Saxon influence, if not actual presence, only becomes identifiable in the region by the early sixth century (Cramp 2005, 29).

It has been suggested (Section 3) that the wall of the fort was still visible in the eighth century, though probably in a degraded state, and that this both defined an area for burial and is the origin of the '-caestre' element of the name Monkchester, used by twelfth-century chroniclers when describing the site before 1080. The locations of some pre-cemetery features also suggest that there were remains still visible within the fort: for example the tank (161) of the 'aqueduct' in RA 25 and RA 26 seems to fit too neatly against the granary wall and buttress



for its location to have been coincidental. Similarly one of the 'paths' in Area D straddles the west wall of Roman Building 1 suggesting it was following some feature that was identifiable on the surface. The siting of Building B in Area C also pre-supposes that a sleeper wall of the East granary was visible on the surface, or was at least known from grave-digging, so as to dictate a later building line. One possible indicator of the visible survival of internal fort structures is that the orientation of so many burials follows that of the Roman buildings. This could of course follow from the finding of substantial masonry when excavating for graves: it would clearly have been easier to dig down against walls rather than through them. Some graves certainly did cut into walls, and into paved road surfaces, but this may be a product of pressure on space in preferred areas of the cemetery dictating a more labour-intensive grave-digging process, rather than the accidental discovery of concealed masonry. There is, however, little doubt that in many of the areas, particularly RA 28, RA 29 and Area C, all surface trace of the buildings within the Roman fort would have disappeared in the course of the cemetery's use due to dense and inter-cutting burials.

CHOICE OF SITE

The choice of the ruins of *Pons Aelius* as a burial site was probably dictated by the commanding location of the promontory, which was equally attractive for a religious focus as it was for defence. The Saxon churches at Dover and Scarborough occupy similarly commanding positions, and both lie within medieval castles. It has also been suggested that early medieval associations of Christianity with Roman structures reflects a 'sense of history', and that the remains of such structures were prominent in the Saxon conception and definition of the landscape (Bell 1998, 6). It is possible that the remains of the fort walls made a suitably extensive and defined enclosure in which to bury, a feature noted on the Continent in a fifth- or sixth-century context, while closer to Newcastle there are churches within Roman forts at, for example, Bewcastle, Bowes, Chester-le-Street and Ebchester .

There is no firm evidence from the distribution or alignment of the presumed earliest burials for any particular point of first focus, such as a church or chapel, around which the cemetery could have been established. Many organised cemeteries in the north of England have no known associated church before the tenth century, and it is possible that churchyard burial did not become common for any but members of religious communities and for elites and their kindred before the early part of that century, or in places even later (Gittos 2002, 201; Hadley 2002, 209).

By the tenth century, however, it appears that the status of a church could be judged by whether or not it had a cemetery, and it is thought that this may have been the reason for the construction of churches within existing cemeteries in the tenth and eleventh centuries (Hadley 2002, 221–2). This sequence of development could be reflected in the cemetery at Newcastle, where burials underlie both Building B and Building 68.

POPULATION SOURCE

The large numbers of women (24%) and children aged 6 or under (21%) which are represented in all levels of the excavated cemetery suggest a strong lay presence, if not a lay cemetery. After c. 1080 the principal contributing population of the Cemetery may have been



the occupants of the 'New Castle', but for the pre-1080 period there is no evidence, either documentary or archaeological, for settlements from which the contributing population could have derived. This is not particularly surprising, given the often ephemeral nature of the structural remains of this period, which, without associated artefactual material, could be difficult to identify in the frequently restricted and disturbed areas available for urban excavation. Since, apart from those from the Cemetery, no Anglo-Saxon finds have been recorded from the urban core of Newcastle, and the earliest known documentary reference to occupation is of the twelfth century, it may be suggested that the area of the later medieval town was not settled in the pre-Conquest period.

By contrast, Bede's reference to Utta '...a renowned priest and abbot of Gateshead', which has been taken to imply the existence of a monastery there in the mid seventh century, indicates that there was Anglo-Saxon occupation on the south bank of the River Tyne. As in Newcastle, there is to date no archaeological evidence for settlement in Gateshead at this period, though it is always possible that the present St Mary's church occupies an earlier monastic site. As mentioned above (Section 4, Stone built cists) a possibly pre-Conquest grave marker was found there in 1908 and a church was certainly in existence in Gateshead by 1080 when it was the scene of the murder of Bishop Walcher (Nolan and Vaughan 2008, 128). Bede's reference does imply that the headland only some 200 m south-east of the cemetery at the Castle was occupied, perhaps as a monastic settlement, close the period when the cemetery is thought to have begun. Could the later identification of the name 'Monkchester' with 'New Castle' have been a loose geographical application, perhaps extending across the river? It is also possible that prior to the Conquest, the catchment area for the cemetery could have included Gateshead.

The presence in the cemetery of one, if not two, 'chest' burials in RA 28, could be taken as (admittedly tenuous) evidence of a monastic presence on the site. Ottaway (see *The Finds: Metalwork*) notes that this form of burial, which was never widespread, occurs most commonly in the north of England, and often appears to be concentrated in certain locations in the cemeteries. Many of the sites where they occur are either monastic or cathedral cemeteries, or cemeteries 'attached to a church at a centre of political authority'. Consequently, 'chest' burial appears to have been accorded to persons with distinct status, though this could have been a member of a lay aristocracy, and not necessarily of a religious community. It does however imply that the cemetery, or one part of the cemetery, was important enough to attract 'elite' burial.

DATING THE PERIOD OF CEMETERY USE

If usage is defined by the appearance of the earliest datable finds, and if the unfeasibly early radiocarbon date for one burial is discounted, the cemetery may, as suggested above, have begun *c.* 700 (Section 3, Phase 2). The date for commencement is inevitably tentative: it is based on the very few finds which are not residual Roman material and which can be dated; on two radiocarbon dates, one of which is very broad; and on parallels with burial practice at other sites. The most readily datable finds are eight coins spanning the period *c.* 790–985, with a marked grouping of five between 841 and 849 — the reigns of Eanred (810–41) and Aethelred II (841–9), all of which could have been lost or deposited together. Only one coin (see *The Finds: Coins*, below, and fig. 48, Coin 1) dated *c.* 790–96 actually came from a grave

(Sk. 168), and one occurred residually in a nineteenth-century context. For the later cemetery usage one coin (Coin 9) from Sk. 161 is probably of eleventh-century date.

Another group of finds offering broader dating evidence are copper alloy 'shroud' pins, which are similar to eighth- and ninth-century pin forms recorded elsewhere. However Bailey (The Finds: the Pins, below) makes the point that such pins are not uniquely funerary in function, and thus with the possible exception of one pin which was found with an *in situ* burial (Sk. 35, in RA 25: fig. 46, no. 4), these objects could have been lost by living individuals even prior to cemetery use.

Dating cemetery usage from changes in burial practice is also of limited use: 'ear-muffs' and 'head-boxes' for example occur in other cemetery sites from the seventh to the tenth centuries, though an example at Newcastle (Sk. 22) apparently post-dates the 1080 rampart. One distinctive form of burial — in stone-built cists, sometimes with associated surface slabs and head- and foot-markers surviving, is also ambiguous in date terms. As discussed above, the only two radiocarbon dates for cist burials span a broad period from the first half of the ninth century to the second half of the eleventh century, and although some clearly pre-dated construction of the Keep, two others (3240 and 3274, fig. 8) appear to post-date 1168–78.

STRUCTURAL REMAINS

If, as suggested by the twelfth-century chroniclers, there had been a pre-Conquest monastic settlement at Newcastle, it might be expected that some structural evidence for the range of buildings which could be encountered at a monastic site would have survived. At Wearmouth, for example, the monastic infrastructure included a church dedicated to St Peter, a refectory, a common dormitory and domestic and farm buildings. At Newcastle the excavations produced some evidence for structures which cannot be firmly dated, but which pre-date some of the burials: paved 'paths', a drain or 'aqueduct', and fragmentary stone walls (figs. 3.1 and 3.2). If these are not part of very late or immediately sub-Roman site use, then it is perhaps possible that some at least relate to a short-lived monastic settlement, perhaps one of those that emerged in the seventh century and failed in the ninth century. The 'paths' in particular are reminiscent of the 'central cobbled path' at Wearmouth (Cramp 2005, 91) and, perhaps, at Whitby (Cramp 1969, 57).

Other apparently structural features in RA 28 and, perhaps, in Area D, designated Building C in this report, could belong to the period of cemetery usage (fig. 3.2). The remains in RA 28 were ephemeral, principally comprising two apparent alignments of cut features, one running north-south and the other west-east. It is not known if the two alignments were associated, as the point of intersection had been destroyed by the construction of the railway arch. They may even belong to different phases. It is suggested that they appeared early in Phase 2, principally on the basis of having apparently cut one burial, but little datable material was recovered from these features. This, and the fact that many of the post-holes forming these alignments were only identified and recorded where they cut the clay subsoil, even make it possible that the 'alignments' are a fortuitous combination of truncated Roman features with post-Roman or early cemetery intrusions. Similar *caveats* must be applied to the evidence from Area D, where feature (586/587) could represent a sharply-angled eastward return to a north-south alignment represented by the post-holes and cuts shown on fig. 3.2, possibly a continuation of that in RA 28. Or it may be a discrete feature on the same

alignment. Certainly in both areas the possible north-south features lie some 2.6 m east of the east side of the *via principalis* of the Roman fort. It is also noticeable that east of these features the side walls of Roman buildings I and II are more degraded, and in Area D the remains are of somewhat different character, suggesting that here there might have been some form of barrier preventing attrition by stone robbing or burial.

If Building C (see Phase 1 and fig. 3.2) represents an actual building or enclosure then, as mentioned in Phase 2, the re-used Roman impost block and perhaps some of the associated stone features (fig. 6.2) could be seen as having structural functions. The apparent mixture of post-hole and post-in-trench structures is a feature of Saxon buildings known at numerous sites, for example Hartlepool, broadly dated from the mid-seventh century to the eighth century (Daniels 2007, 69) where it was suggested that they were the remains of individual monastic cells (Welch 1992, 123–4). They are also reminiscent of the foundations of the ‘halls’ at West Stow dated to the fifth to seventh centuries (West 1969, 8–10). In conclusion, however, it has to be admitted that the available evidence for Building C is too tenuous for it be confidently interpreted as a ‘building’, let alone a monastic cell or cells, or a ‘hall’. At most the remains may represent spatial divisions, possibly short-lived, perhaps in early stages of cemetery use. If this is the case the re-used impost block could be interpreted as either a grave marker for Sk. 641, or more speculatively as the base for a cross.

The more substantial structural remains designated Buildings A, B and 68, and wall 3168, lie in the most densely-packed area of excavated burials and, in modern perceptual terms, at the ‘heart’ of the cemetery (fig. 8). Of these structures, Building B is stratigraphically the earliest. It appears to have been constructed after at least the primary phase of burials in this area as it overlay Sk. 545, and to have gone out of use within the lifetime of the cemetery, being superseded by a more substantial stone structure (Building 68, A and wall 3168). So little survived of Building B that discussion of its form and function is inevitably hypothetical, though because of its position and the substantial nature of the clay and rubble foundations it may have been a small, rectangular, single-celled, church similar in form to the first church at St. Helen-on-the-Walls, Aldwark, York, ascribed to the tenth century (Dawes and Magilton 1980, 6). It is possible this was a chapel or church founded within an existing, and perhaps previously church-less, cemetery. If so, the presence of re-used Roman stone in the kerb around the clay foundation, if not simply a consequence of the ready availability of Roman building stone, may also be an example of the desire to claim ‘*romanitas*’ (Cramp 2005, 24).

Building B was overlain by Building A and wall 3168 which, together with Building 68, appear to be components of a more substantial building, or perhaps a range of buildings, orientated roughly east-west. It is suggested that these represent the remains of a church, though this interpretation must, with such fragmentary evidence, be open to question. The case for a church — or some form of ecclesiastical building — is however strengthened by a number of post-medieval documentary references, cited in Section 2 above, which suggest a ‘tradition’ that this was the site of a church or chapel belonging to the castle. Also, the south sides of both Building 68, suggested as a church tower or porch, and Building A/wall 3168, suggested as a ‘nave’, seem to be respected by the later phases of burial. This is particularly noticeable in Area C, where Building A and wall 3168 seem to define a northern boundary to the cist graves and where wall 3168 is butted by a charnel pit (fig. 42).

The external dimensions of Building 68 measure 5.76 m east-west by 4.88 m north-south, and are close to those of extant Saxon church towers at Whittingham (5.18 m by 4.80 m) and Wharram Percy (5.18 m by 4.95 m). The surviving remains of the east wall suggest an open-

ing, perhaps leading from the 'tower' into a 'nave'. Although nothing survived of the north wall of the 'nave', extrapolation from the relationship of the south wall to the 'tower' suggests an external width of *c.* 6 m, and possibly *c.* 4.5 m internally, and a possible external length of *c.* 22 m west-east. In comparison, at Jarrow the eastern church measured 13.41 m long by 6.25 m wide (44ft x 20ft 6ins) and may have been joined to another church on the west measuring 27.43 m long by 5.79 m wide (90ft x 19ft), giving a combined total length of *c.* 45.72 m (150ft). The church at Wearmouth has a nave with an internal width of 5.64 m. It should be noted however that the angled return shown on the cemetery plans between the suggested 'tower' and the 'nave' may be anomalous, and a consequence of problems in accurately positioning the excavated areas of Arches 26, 27 and the western part of Area C relative to one another (see Section 1).

The building 'footprint' suggested by Building 68, Building A and wall 3168 is broadly comparable to those of the tenth-century phases of churches at, for example, St Helen's-on-the-Walls in York, Lincoln Castle, and Norwich Castle. There are, however, aspects of the suggested plan at Newcastle which are problematic, and interpretation is not helped by the limited evidence for Northumbrian church plans. One problem is the relationship of the apparently extreme length of the suggested 'nave' to its suggested width. It is possible that the 'nave' was not in fact a continuous range of building but, as at Jarrow, there were two separate buildings on the same alignment. There are, however, examples of long, narrow, naves, from the late eighth and ninth centuries: the church at Cirencester had an aisled nave 34 m long and 6.5 m wide (Gem 1993, 41) and St. Michael, Edenham (Lincs.) was 21.5 m long and 6.5 m wide (*ibid.*, 47). One possible Northumbrian parallel is the church of St. Cuthbert at Billingham, where the nave appears to have been *c.* 21 m long and *c.* 5.5 m wide, though the date of this is uncertain (*ibid.*, 50). Another difficulty raised with regard to the suggested footprint at Newcastle is the absence of a chancel, though this could lie outside the area of excavation, or could have been removed by the cellars of the post-medieval *Three Bulls' Heads* public house which clearly truncate wall 3168. It is also possible that feature 3168 represents an offset foundation with the actual wall-line running further north. The late twelfth-century cobbled strip abutting 3168 and, presumably, Building A, may have been intended to provide clean and dry access across the Keep construction site to the 'church' door.

If the interpretation of the remains of Buildings 68, A and wall 3168 outlined above is accepted, then the suggested mortar mixer and the extensive spreads of limestone fragments and burned mortar (possibly evidence for lime-burning on site) sealed by the rampart of 1080 in the Compound, could be supporting evidence for the construction of a pre-Norman church. With the possible exception of two small clusters of burials, all of the deposits associated with this activity overlie the cemetery. Accordingly it may be suggested that fossilisation of the cemetery in the Compound area was a consequence of pre-Norman industrial usage rather than just by having been sealed by the 1080 rampart. The few graves which appear to have cut these deposits and features are on the north-eastern edge of the Compound, and could be part of the continued use of the favoured area of the cemetery to the south of the church.

The Newcastle 'mortar mixer', if that identification is correct, has similarities with one of two mortar-mixers found at Wearmouth (Cramp 2005, 93–95). The most complete of the Wearmouth mortar mixers was sub-circular, 3.66 m east-west by 3.2 m north-south, with a ring of stake-holes *c.* 50 mm in diameter set at about 0.3 m intervals and angled outwards — the remains of the wattle frame to contain the mixture. The remains at Newcastle suggest a diameter of about 3.2 m to 3.5 m, and the stake holes, which vary from 60–90 mm in diameter

are approximately 0.4 m apart. At Wearmouth, too, burials overlay the mortar spread, and there were layers of brown and reddish clay to the east, reminiscent of the deposits at Newcastle, which may have been associated with its use. Mortar mixers dated broadly to the eighth century and between 2.15 m and 3.00 m in diameter, have also been recorded at St Peter's Street, Northampton (Williams 1979, 118–133).

The position of the postulated 'church' within the Norman 'New Castle' also suggests a pre-1080 origin. It seems unlikely that any new building within the bailey, let alone one of such significance as a church or chapel, would have been built so tightly against the perimeter of the defensive circuit as to have been partially encased in its rampart. Accordingly it seems reasonable to suggest that such a building was already in existence by 1080, was enclosed by the rampart of Curthose's castle, and that, once enclosed, it could have continued in use and even been extended, as a garrison church or chapel. Such a sequence of development has parallels elsewhere: at Colchester Castle the excavator postulated a late Saxon origin for the chapel of St Helen, built of timber and plaster and, like Buildings A and B, founded on the walls of Roman buildings. At Colchester the timber chapel was succeeded by a stone chapel before the Conquest; this was rebuilt after 1066, again in the late eleventh to early twelfth century, and yet again in the thirteenth century (Drury 1982, 327, 387). Pre-Conquest chapels enclosed within later castle yards are also known at Norwich (Ayers 1985), Scarborough, Hastings, Pevensey and Taunton. If the stone scatter (102) in RA 25 — described in Phase 3 above and shown on fig. 6.1 — was associated with Building 68 then other possibilities suggest themselves. Perhaps this was building material, and Building 68 was still under construction in 1080. Alternatively, Building 68 may have been partly demolished by the Norman castle-builders: the extant remains show a slight tilt towards the east which could have resulted in structural instability.

The clay abutting the outer faces of Building 68 and lying over its offset base course was identified at the time of excavation as being the 'clay bank' or rampart of the 1080 castle. Given the close proximity of Building 68 to the castle ditch this is still the most likely interpretation, though it could also be in part a consequence of natural slippage from the inner side of the rampart, or even material deliberately thrown down from the rampart when the stone curtain was added in the twelfth century. Disposing of rampart material inside the defended perimeter would have the advantage of broadening the base on which the stone curtain stood, while not compromising the defensive capability of the ditch, and could account for the presence of twelfth- to thirteenth-century pottery in the outer clay and rubble layers forming the inner slope of the rampart in Area E (Harbottle and Nolan, forthcoming).

CONCLUSIONS

The earliest documentary references to Newcastle, by Symeon of Durham and the St Albans chronicler of the *Vita Oswini*, both of whom were writing in the twelfth century, identify the site of the Norman 'New Castle' with an earlier place name '*Munecaceastre*', modernized as Monkchester. This is the first appearance of the place-name, which is not mentioned by Bede, nor does it occur in the Anglo-Saxon Chronicle. The *ceastre/chester* element is most often used in the context of Roman towns or forts (Bell 1998, 5), and may in this case be seen as an allusion to the ruined fort of *Pons Aelius*. Symeon clearly states there had been a 'community of Christ' at '*Munecaceastre*', and that no trace of that 'community' remained when Aldwine

visited the site in *c.* 1074. He makes no mention of a lay settlement, cemetery or other continued use of the site, though this is not necessarily significant, as Symeon makes no mention of the extensive post-monastic use of areas to the south of the church at Wearmouth for lay burials, yet these are well attested archaeologically at both sites into the eleventh century.

This prompts two considerations. Firstly, is it clear how, in the twelfth century, the place-name '*Novum castrum*' was being interpreted? Perhaps by this date it need not simply have applied to the Castle, but to a developing settlement, expanding north, west and east. Secondly, Aldwine could, perhaps, have been simply reporting that there was then no *monastic* settlement surviving. This does not rule out the continued existence of an ecclesiastical building, or buildings, which may have originated as part of a monastery but had later been appropriated and perhaps enlarged or rebuilt by a local elite for a lay community. Indeed, there is no mention that Aldwine and companions had to build their own shelter, and it might be inferred that some form of habitable structure existed — or was provided — at least sufficient for their brief stay. As at Wearmouth, there is clear archaeological evidence that the site was in use as a burial ground in Aldwine's time, and the absence of any reference to this form of use in what was an essentially monastically-orientated chronicle may not be surprising.

At Wearmouth, one stone and some timber buildings also appear to date from this period, and the church tower may have been raised at the same time. The church at Jarrow also continued in use until *c.* 1070 and the 'Harrying of the North'. If the interpretation of Building B as a 'church or chapel', and of Buildings A, 68 and wall 3168 as an enlarged, successor 'church', is at least broadly correct, then the erection of a substantial, stone-built church on the site of the future 'New Castle' *c.* 1000 could echo the evidence for recovery at Wearmouth.

If the identifications of these fragmentary structural remains as chapels/churches are accepted, still more questions arise: for whom, at whose cost, and at what date were they built, and what community or communities did they serve? Was this the site of an earlier monastic or 'minster' church, perhaps represented by Building B, or even Building C? The presence of the earlier clay foundation of Building B below the suggested later stone church certainly suggests continuity of use of a consecrated site — possibly an example of the 'concern for unbroken retention of its function and site' noted at Yeavinger (Hope-Taylor 1977, 278).

The cemetery excavations have almost certainly raised more questions than they have answered, and there is still insufficient archaeological and artefactual evidence for any firm conclusions to be safely drawn on whether or not the 'New Castle' occupies the site of an Anglo-Saxon monastic settlement. For example, there are no name-stones or evidence for 'Christian' metalworking, as at Hartlepool (Daniels 2007, 124–42). The possibility that the cemetery originated as, or developed from, an unrecorded and archaeologically elusive seventh-century monastic settlement might still be considered, though identification of the Castle site with the 'Monkchester' of the twelfth-century chroniclers remains frustratingly unproven.

The settlement source, or sources, of the cemetery population, remains unknown. This is not surprising, given the general paucity of evidence for settlement before the twelfth century, and the date of establishment and original character of the cemetery are still speculative. Even if there is no further excavation on the site there is still, clearly, a great deal of scope for further analysis of the skeletal assemblage, and this might help to resolve some of the ambiguities inherent in this report.

7: THE FINDS

Context information is given in the form Area/context number. Finds may have an index number e.g. B34, E56, or a small find (Sf.) number. Find numbers for 1990 and 1992 are given thus: 90.123 or 92.121. Only illustrated finds are given report numbers. Where a year is specified for Area C, '1981' indicates the western half and '1990' the eastern half (see Background, above).

Due to the dispersal of the excavation archive following the abolition of the Newcastle City Archaeology Unit in 1997, some iron objects, although catalogued and described in this report on the basis of X-radiographs, have still not been re-located or were recovered too late to be fully illustrated. It is intended that the most significant of these can be published as an appendix to the report on the medieval castle (Harbottle and Nolan, forthcoming). It should be noted that the report on the pins by Richard Bailey and Elizabeth Pirie's coin report were both prepared a number of years before this report was completed.

POTTERY

Table 1 Distribution of medieval pottery across the areas

	COUNT	WEIGHT
Area C	86	553
Area D	1	19
RA 1(25)	1	94
RA 3(27)	1	4
RA 28	15	119
RA 29	7	55
TOTALS	111	844

Roman pottery occurred, residually, in most cemetery contexts as a consequence of disturbance to underlying fort deposits by grave-digging. It was processed and published with the stratified Roman pottery by Snape and Bidwell in 2002. By contrast, the medieval pottery assemblage was small. The quantities given in the tables here are approximate but give a reasonably good guide. The pottery has been moved and looked at by various different workers in the last ten years or so and some sherds now appear to be missing.

The average sherd weight (disregarding the single fragments from RA 25 and Area D: Table 1) was just over 5 grams. Even if each could be accurately identified and dated, this means that the assemblage does not, of itself, permit any meaningful statistical analysis or interpretation, while the possibility that such small

fragments could be intrusive cannot be ruled out. As can be seen from Table 1, the great majority of the fragments came from Area C. This is probably because there was more activity in this part of the cemetery in the later phases of its use, after it had been enclosed within the rampart of the castle.

The types of pottery present are shown in Table 2. Apart from three small fragments of yellow glazed Stamford ware there is nothing to positively date any of this material earlier than the twelfth century. Production of gritty wares like those made at the Dog Bank kiln (O'Brien and Bown 1988, 31-8) may have begun in the later eleventh century but there is no definite evidence for this as yet. Buff white wares, as first identified and defined in the report on the Castle Ditch (Ellison 1981) are a thirteenth- to early fourteenth-century type, although other sandy and gritty light firing wares occur earlier than this. The early sandy glazed (formerly 'early reduced greenwares') and unglazed wares (buff grey and 'oxidised gritty') appear alongside the buff white wares but seem to be the dominant type earlier, so some occurrences here could be late twelfth-century. The London type ware could be dated to the twelfth century too, as could a fragment tentatively identified as Developed Stamford ware and a very small fragment of North French green-glazed ware. However, the Scarborough ware (a jug handle) is thirteenth-century.

In two or three instances in Area C and two in RA 28 sherds joined, or were obviously from the same vessel as, sherds in stratigraphically later layers. One of the RA 28 fragments was a rim sherd of a small jar which came from the fill of one of the latest graves in the area. Most of this vessel was recovered from later contexts which produced an interesting group of twelfth-century vessels, eight of which, including this one, were full profiles (Vaughan and Sage 2006). Unfortunately it is not possible to be certain whether the sherd was intrusive into the upper fill of the grave, or whether this burial was contemporary with the activity which resulted in the presence of the pottery!

Table 2 Quantification of medieval pottery by fabric type

	COUNT	WEIGHT
Dog Bank and similar coarse wares	25	181
Early buff wares	12	94
Other gritty wares	7	51
Buff white type	12	50
Early sandy wares	11	152
Late 13th/14th-century reduced greenware?	5	29
London type ware	8	35
Stamford ware	3	13
Developed Stamford ware	1	4
Miscellaneous, ?non local	21	118
Scarborough ware	2	101
North French ware	1	2
Imported redware?	3	14

In addition to the assemblage from the cemetery itself about 160 fragments were recovered from contexts in RA 26 related to Building 68. These indicated that the building itself was still in use in the later medieval period although the majority of the small group was of broadly thirteenth-century date. However, the most interesting of the sherds from this area were three coarsely gritted fragments found in a feature (336) beneath Building 68 in 1978 (see discussion in the main part of the report). This suggested that the pottery was pre-Conquest and thus of some importance, although when it was examined some years later it was at first identified as Dog Bank ware. The Dog Bank kiln was dated to the second half of the twelfth century (O'Brien 1988, 31).

Alan Vince suggested that the pottery might be York A ware, an Anglo-Scandinavian type, and it was submitted to him for petrological and chemical analysis (Vince 2001). His report concluded that these sherds were from a vessel in York A fabric and late ninth- to tenth-century in date. Subsequent to this a number of other samples, including material from the Dog Bank kiln itself, and similar wares from medieval contexts in RA 28, were analysed in the same way. Comparison of the results confirmed the original identification of the sherds from RA 26 as York A ware, rather than a Tyneside product (Vince 2003).

This presents the pottery specialist with some difficulties. The similarity of York A ware to the Dog Bank fabric is marked, and if fragments are small, and there is no reason to suspect an early date, a purely visual examination may well miss them. 'York type' gritty wares were identified at Jarrow and Wearmouth (Hurst 1969, 59–65). At least some of these, with the distinctive rouletting on the rim, can now be seen to be products of the, then undiscovered, Dog Bank kiln. As mentioned above, the date given to this kiln is twelfth-century, although it is not known when production started or how long it lasted. It would seem that, when only these coarse gritted wares are present, and unless there are distinctive form sherds to aid identification, it is not possible without chemical analysis to provide a date closer than 'ninth to twelfth century'.

OTHER CERAMIC OBJECTS

Half of a spindle whorl in a dull pinkish-brown fabric. Roughly shaped, the hole was made by pushing a smooth-sided object through the moist clay. D. I. 30 mm, hole 8 mm. From cemetery soil in RA 28/4048. Probably residual Roman.

CERAMIC BUILDING MATERIALS, MORTAR AND PLASTER

A quantity of ceramic building material was recovered from cemetery contexts. Where identifiable, this was predominantly residual Roman roof tile. Mortar and plaster fragments are also likely to belong to the Roman phase.

GLASS

Several glass beads from cemetery contexts were published by Snape and Bidwell (2002, 225–6). Most of these are residual Roman finds but a bead from RA 25/101 (*ibid.*, no. 97) is of possible seventh century date. It is an incomplete cylinder bead of opaque terracotta glass with three bands of streaked opaque yellow and translucent natural glass. This bead has been made in the same tradition as the bead found in 1929 (see below) (Cramp and Miket 1982, 8, no. 5) and is likely to be of similar seventh-century date (identified by Lindsay Allason-Jones).

An 'Anglian' bead in a 'reddish-brown decorated vitreous paste', and dated to the seventh century, was found in an excavation by the North of England Excavation Committee, near the head of Dog Leap Stairs in 1929. This pit was relocated in 1987, Area E/2587, close to Sks. 546 and 562. There was nothing to suggest that the few other glass fragments found were anything other than residual material from Roman deposits.

METALWORK

Copper alloy pins (fig. 46)

Richard N. Bailey

The four pins described below are all of types well represented in the corpus of Middle Saxon (eighth to ninth century) metalwork in northern England, reflecting the fact that pins had replaced brooches as the dominant form of dress fastening in the course of the seventh century. Parallels can readily be found among the large body of material published from major sites in Yorkshire: Cottam (Haldenby 1990, 1992; 1994); South Newbald (Leahy 2000); Whitby (Peers and Radford 1943); and York (Waterman 1959; Mainman and Rogers 2000). Further *comparanda*, and refinements in dating, will doubtless become available with the publication of the excavations at Jarrow/Monkwearmouth and Flixborough — where over 600 pins have been recorded (Leahy 2000, 70; Loveluck 2001). Though all of the Newcastle pins may have functioned as shroud pins, it is clear that identical forms were also used elsewhere as dress or hair fastenings; the pierced headplates of two of these pins, indeed, argue that any funereal use here was secondary.

1. Pin with fragmentary flat head, pierced by a hole surrounded on both sides by an incised contour line. Near-complete (but now broken) swollen shaft of circular section. Length: 58 mm. B230 RA 25 / 101

The only surviving side of the head appears to be straight, not curved. Possible parallels for pierced heads, with differing sub-rectangular head-forms, can be cited from South Newbald, Whitby and York (Leahy 2000, figs. 6.6, no. 1 and 6.8 no. 16; Peers and Radford 1943, fig. 14; Waterman 1959, fig. 11, nos. 1–3). All are assigned to the eighth and ninth centuries. The piercing could have been designed to link this pin to another or for sewing the metalwork to a garment.

2. Pin with flat disc head decorated on one side with ring and dot motifs; one of the encircled dots on the right has been drilled through. Incomplete shaft of circular section. Now broken in two pieces across the bottom of the head. Length: 39 mm. B237 Compound/31.

Ring and dot decoration is both long-lived and ubiquitous in Anglo-Saxon decoration. Applied to disc-headed pins there are good parallels at Cottam and South Newbald (Haldenby 1990, fig. 3; 1992, fig. 2; 1994, fig. 1; Leahy 2000, figs 6.5, no. 2 and fig. 6.8 no. 19). Pierced examples are known from South Newbald and Whitby (Leahy 2000, fig. 6.8., no. 18; Peers and Radford 1943, fig. 13.1). Leahy (2000, 62) relates the general form to a series of elaborately

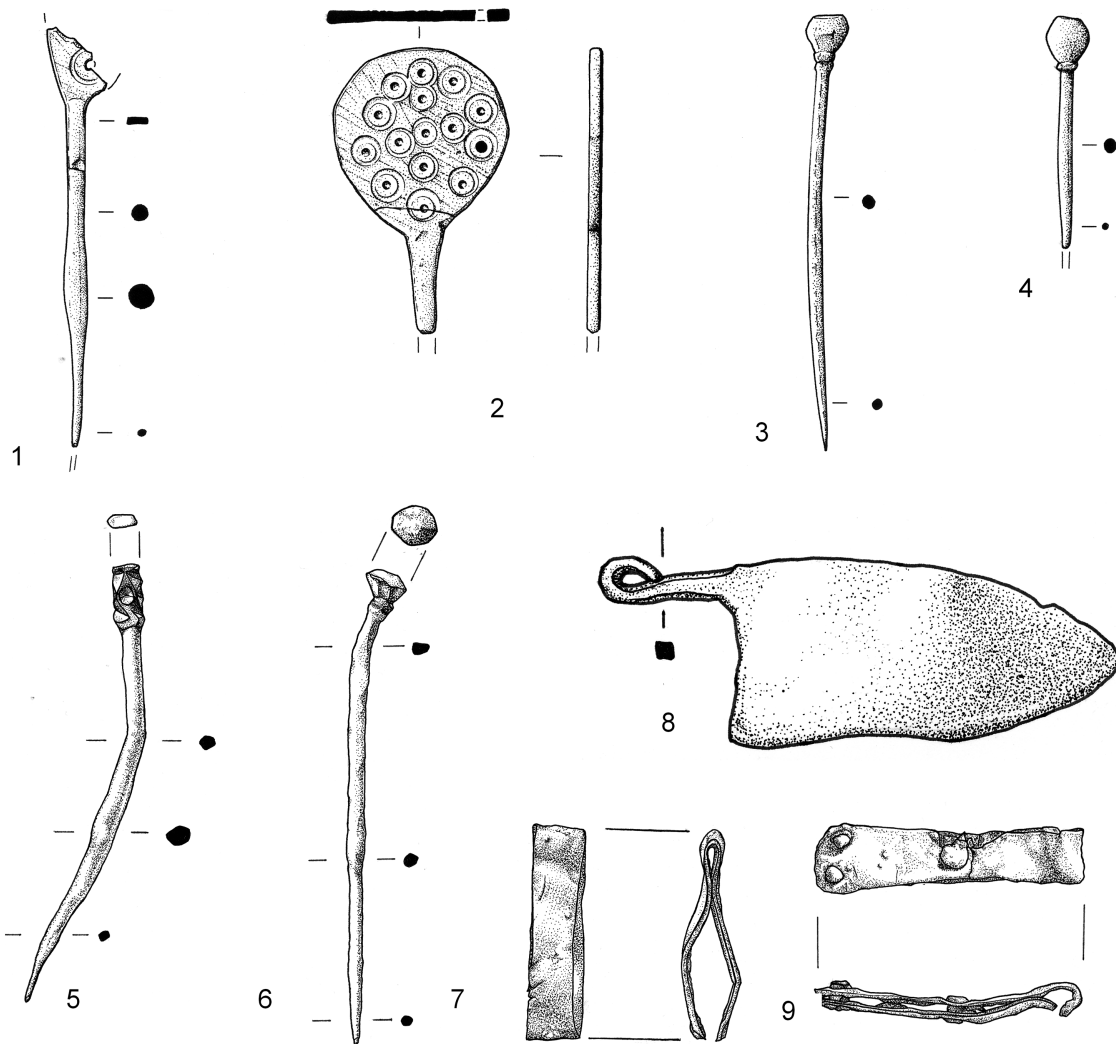


Fig. 46 Pins and other copper alloy objects (1:1).

decorated plate-headed pins of eighth-century date and this would certainly fit with the period when linked pin suites, requiring a pierced head, were popular.

3. Pin with flat-topped globular head and single collar; incomplete swollen shaft of circular section. Length: 60 mm. B238 Compound/149.
4. Pin with flat-topped globular head and single collar; incomplete shaft of circular section. Length: 32 mm. B229 RA 25/Sk. 35.

Collared globular-headed pins with swollen shafts are found across the whole country in Middle Saxon contexts. This variant with a flattened top can be paralleled at, for example, both Barking Abbey and Flixborough (Webster and Backhouse 1991, fig 67f; Whitwell 1991, pl. on 247); it is also well represented at Cottam, South Newbald, Whitby and York (Haldenby 1990, fig. 3; 1994, fig. 1.1;

Leahy 2000 fig. 6.6 nos. 17, 18, 20, 23, 25; Peers and Radford 1943, fig. 14; Waterman 1959, fig. 11.9; Mainman and Rogers 2000, 2577, with additional references). In his discussion of finds from Meols, Cheshire, Bu'Lock (1960, 9) argued that such types of pin do not often occur at Viking-age sites but it should be noted that seven of the ten recovered from Coppergate, York, were found in the earliest Scandinavian levels. The form may therefore have continued in use into the early years of the tenth century.

Other Pins (fig. 46)

There was a fragment, possibly from a link-headed pin (Sf. 4) from the grave fill of Sk. 334. Other pins or fragments of pins might possibly be residual Roman items. These included shanks from cist 343 for Sk. 377, from Sk. 570, and from Area D/549, and a pin head from Area C/3207. Two other pins of some interest are illustrated.

5. Pin, Fowler type E (Fowler 1964). Area D/549 Sf 114. This is a late Roman/sub-Roman type, though few appear to be closely dated. The hollows in the head may have been filled with coloured enamels. (Thanks to Lindsay Allason-Jones and Rob Collins for their identification and comments.)
6. Pin, circular, domed head with collar below. Round shank, slightly expanded midway along the shaft, and bent a little below the head. From the grave fill of Sk. 578. RA 28/3683 Sf. 92.202. This is a Roman type but smaller and more delicate than usual (Allason-Jones pers comm.). The form does however continue and, although this may be Roman (a bead or collar from the same context was published by Snape and Bidwell 2002, 213, no. 14), it could be a shroud pin contemporary with the grave.

Other copper alloy objects (fig. 46)

Several copper alloy objects from cemetery deposits have been identified as Roman and were published by Snape and Bidwell (2002). Many other objects were very fragmentary or unidentifiable; these included a number which had the appearance of coins. It is quite probable that the majority of this material also derives from the Roman occupation of the site. All the objects are itemized in the finds archive report. A few identifiable items are illustrated. Of some interest is the quantity of fragments, some evidently casting waste, from Area D. Context 519 produced nine, including three fragments of sheet, one with circle and dot and raised decoration. Context 549 produced eighteen. All are likely to be Roman (*ibid.* 215, no. 20, and 219 no. 58, for a button-and-loop fastener and a penannular ring from the same context).

7. Tweezers, formed from a single, thin strip. Area C/272 Sf. 32. Probably Roman, since two other finds from this context have been identified as Roman (*ibid.* 217, no. 26, and 218, no. 46) but this could be part of a girdle hanger (Allason-Jones, pers com).
8. Razor. Leaf-shaped blade with short integral handle looped at the end (for suspension?). Area D/525 Sf. 102. This is of a form associated with the pre-Roman Iron Age (Allason-Jones, pers com). See also Bone objects, below.
9. Buckle plate? Thin strip, bent in half, forming a loop and secured, possibly to a leather strap, by three copper alloy rivets. Broken where bent. Area C/284 Sf. 36.

From earlier excavations (fig. 47)

Paten: a twelfth- or thirteenth-century tinned bronze burial paten, inscribed '+AHNVSDIPVITOLISPCATAMVNDIMIS' (reputedly 'Lamb of God, that takest away the sins of the world, have mercy upon us')

Found (in Area C) during investigation by the North of England Excavation Committee (Hunter Blair 1929). The paten hints at an *in situ* late burial of a priest associated with the presumed church or chapel.



10 cms (approx)

Fig. 47 Paten.

*Coins (fig. 48)**by Elizabeth Pirie*

Nine specimens recovered from the site span a period of more than 250 years. Representation of the two distinct series of coins is, however, meagre; there is no true cross-section of issues for either the styca coinage or the subsequent pennies. Only one coin (no. 8, below) is of some particular numismatic interest because of its unusual reverse legend.

It may seem remarkable that all the material is of local, Northumbrian, origin. During the years when stycas were in circulation few coins from elsewhere, other than Carolingian deniers from the continent, reached the northern kingdom, but in the post-Viking period there could well have been pence from mints other than York.

The main value of this evidence seems to lie in the provision of dating for the site. There are some distinct time-lags to be noted, even between the earliest styca, for Æthelred I, and those for Eanred and Æthelred II; the absence of any coins for Osberht, during whose reign production of stycas ceased, may be likened to the situation attested by the Whitby coin-list and compared with the classic hoard from Hexham (recovered in 1832) which was deposited just before the time of Osberht.

There are further time-lags: until *c.* 980 and the evidence of the *First Hand* penny; between that and the occurrence of the fragment. Dates cited for the various issues of the later pennies may seem to be unusually precise and may now, perhaps, be open to question. Nevertheless, there can be little doubt that the York penny (no. 8) for Æthelred II of England was struck early in his reign as, indeed, the fragmentary piece (no. 9), assigned now to Edward the Confessor, may well have remained in circulation until the Norman Conquest.

A. STYCAS OF NORTHUMBRIA

The specimens, though few in number, are listed in accordance with the scheme demonstrated in *Coins of the Kingdom of Northumbria, c. 700–867* (CKN: Pirie, 1996), which identifies two main phases of development and, within the second, three concurrent groups of issues: A, B, and C. A large number of irregular coins, reflecting the authorized work of Group C, is registered for convenience



Fig. 48 Coins (1:1).

in a further group, D. All the specimens were recorded in an initial inventory of known finds (Pirie, 1986, no. 84); an eighth coin, mentioned there as of uncertain identity, is no longer seen as a styca. The material has since been registered again in a revised, and greatly extended, gazetteer of recoveries (Pirie, 2000, no. 177).

Phase I, c. 790–c. 835

Phase Ia: early issues, in silver of fluctuating fineness, c. 790–830

1. Æthelred I: second reign, c. 790–96; *moneyer*: Ceolbald
 Obv.: xAEDIL.RED (a pellet in each angle of the initial cross), round central *evangelistic* cross (cross with a pellet in each angle), within an annulet of pellets
 Rev.: +CEOLBALD, round central boss-in-annulet
 Wt.: 0.96 g (14.8 gr.), cleaned; die-axis: 190°
 Compound associated with Sk 168 (Z73)

The coin has already been published, in Booth's *corpus* (1987) and illustrated, uncleaned as found: p. 77 and Plate 2, no. 11; cleaning has not confirmed the die-identity of the obverse with that of the example in the Ashmolean Museum, Oxford (*ibid*, no. 12); there *are* slight differences in cutting.

Phase Ib: early issues in copper-alloy, c. 830–35

No specimens of this period have been recovered.

Phase II: later issues in copper-alloy, c. 837–55

No specimens of Groups A or B were found.

Group C (the largest of this phase, and itself subdivided into three sections)

GROUP CI

2. Æthelred II, c. 843/4; *moneyer*: ostensibly Odilo
 Obv.: +EDIL.. .REDRE, retrograde, round central cross-in-annulet
 Rev.: +OD.. .I(L)O, retrograde; the central motif is obscured by corrosion, but is probably a small cross.
 Wt.: not recorded; die-axis (determined from tracings): 60°
 RA 25/101 (Z40)

The coin itself is now missing, and identification has been made from photographs. The obverse, though retrograde, is known for official coins by the moneyer Uulfred (CKN 882–4), and is then used again in combination with further reverses naming Odilo (CKN 895–6) and Monne (CKN 897–8). This Black Gate specimen affords evidence of an additional reverse for the second cluster, within the category of issue which has come to be termed the descendants, for most of the relevant

reverse dies are distinguished by a cartoon appearance, and often by the liberal use of pellets. (One should note that the corrosion on this reverse probably masks another trefoil of pellets, either between the *I* and *L*, or before the final *O*.) Further, it has been determined that the reverse dies themselves were tools of poor quality which, in striking the coin-flans, were apt to leave 'puddles' round the individual characters. This feature can be noticed here, at least round the initial cross and the first *O*.

One can argue that these descendants, struck from a combination of good and poor dies, were issued for Æthelred II during the short period of Reduulf's usurpation. Conventionally, this event occurred during the year 844 but, again, there are arguments for recognizing that Reduulf seized power for a few months in the previous year.

3. Æthelred II: second reign, *c.* 843/4–*c.* 849; *moneyer*: Earduulf
 Obv.: +ED(ILR)EDR(EX), round central cross-in-annulet
 Rev.: (+EA)RDV(V)LF (the *A*, unbarred), probably round central star, or ornamented pellet, within an annulet of pellets
 Wt.: 1.12 g (17.3 gr.), uncleaned, worn and corroded; die axis: 60°
 From a nineteenth-century construction trench for west pier of RA 25 (Z60)

The coin is almost certainly from the same obverse die as that of CKN 1138–47; the reverse is probably that of CKN 1141.

GROUP CII

4. Eanred, *c.* 810–*c.* 841; *moneyer*: Brodr
 Obv.: +EANREDREX (the *N*, reversed), round central rosette of pellets
 Rev.: +BRODR, round central pellet
 Wt.: 0.81g (12.5gr.); die-axis: 180°
 RA 25/135 (Z45)

The coin, which now shows signs of considerable wear, is struck from the same dies as CKN 1352.

5. Æthelred II: first reign, *c.* 841–43/4; *moneyer*: Eanred
 Obv.: +EDILREDREX (the *L*, inverted) round central cross
 Rev.: +EANRED (the *A*, unbarred; the *N*, reversed), round central cross
 Wt.: 0.92 g (14.2 gr.); die-axis: 90°
 Compound/149 (Z98)

The coin has been struck from the same dies as CKN 1372.

6. Æthelred II: second reign, *c.* 843/4–*c.* 849; *moneyer*: Eanred
 Obv.: (+)ED(ILRE)DRE: (the *L*, inverted), round central rosette of pellets
 Rev.: (+E)ANRED (the *A*, unbarred; the *N*, reversed), round central cross
 Wt.: 0.37 g (5.7 gr.), chipped and the obv. worn; die-axis: 300°
 Area D/ 522 (Z235)

This coin has been struck from the same dies as CKN 1512. The rosette motif is believed to have been used during the king's second reign. This obverse is known in combination with nine other reverses (CKN 1807–15): four of them with rosettes, one with a central pellet-in-annulet. Those dies may well have been used before the obverse was paired with others having the small cross (CKN 1511–13) and the cross of five pellets (CKN 1514–15).

Group D

GROUP DI (MISCELLANEOUS CLUSTERS OF IRREGULAR ISSUES)

7. Coin with obverse attempting the name of Æthelred II; the reverse legend is indeterminate.
 Obv.: XEDIIREDX, retrograde, round central cross-in-annulet

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Rev.: either, +DVEIINVD (the N and the second D, reversed), retrograde, or, +DVNIIEVD (the E and the second D, reversed), round central pellet-in annulet; the initial cross appears to be miniscule.

Wt.: 0.73 g (11.2 gr.); die-axis: 170°
Area C/ 272 (Z222)

The coin, of poor-quality fabric in the first place, is worn and some detail is indistinct. It is, however, recognizably from the same dies as CKN 1850, whose obverse is common to CKN 1846–52. This cluster, together with a few other specimens linked by repeated use of dies, does not yet form part of the main, extensively die-linked, complex of Group Dii.

That the official coinage was struck in copper-alloy, from c. 830, seems immediately to have provided the opportunity for contemporary forgery, on a small scale at least. The usurpation of Reduulf during the total reign of Æthelred II appears to have been a flashpoint, triggering a flux of irregular issues which must ultimately have caused the collapse of the authorized work, early in the reign of Osberht. Many of these may have been intended as genuine money of necessity, or tokens, rather than as outright forgeries. The evidence suggests that the production of these coins was regional and that their circulation was likely to have been within a fairly limited area.

Most of these irregulars are struck from dies whose legends are retrograde, and it has been usual to record them as such, in an attempt to recognize the original attempt at portraying a personal name. Many legends, however, whether read anticlockwise or clockwise, defy all identification as other than nonsense. Coins are pieces of metal with letters on them and, for those who would make their own, it did not really matter what those letters were. Yet, it has become apparent that some of those legends which, in the twenty-first century, seem at first to be nonsense, do contain the element *DVN*. Should one, therefore, suggest (even very tentatively) that such dies, of which this reverse is one, were made with the intention of recording a place-name?

B. ANGLO-SAXON PENNIES

8. Æthelred II, 978–1016

First Hand issue, 979–85; *moneyer*: uncertain (? Wineman); *mint*: York

Obv.: +AEDELRED REX ANLO (the AE, ligatured), around bust facing right

Rev.: +(P)INECIVN M-O EF (the C, square in form), around Hand between Alpha and Omega

Wt.: not recorded; die-axis: 0° (determined from the line of break)

RA 26/349 (Z44)

This silver coin may well be described as blundered or even as anomalous. The moneyer's identity is really uncertain, not so much because the first element of a compound name cannot clearly be determined, as because the final element cannot be matched against the true name of any moneyer recorded for Æthelred. Further, since the type occurs early in the reign, the registers of moneyers for the preceding reigns of Eadgar and Eadward the Martyr have been searched, but also in vain. If the coin was authorized, the die-cutter was at least careless about the accurate rendering of an unfamiliar name. Yet, the letters CIVN seem to be totally alien to what is normal for nomenclature of the period and might indicate, therefore, that the legend of the reverse should be accepted as a contemporary fabrication.

9. A fragment of a silver penny which is much worn, corroded and cracked. The size and fabric can be identified as those of an eleventh-century issue; detail of the dies is fugitive. Traces of drapery and the single letter *D* serve to identify the obverse as one for Edward the Confessor (1042–66). The reverse bears two fairly clear letters, *DO* (the *D* barred through the back) — and the upright stroke of a third — which identify the moneyer as Thorr of York who worked during the Confessor's reign. Also visible are pellet-terminals for the central cross which names the *Hammer Cross* type that was issued from c. 1059 to 1062. That it is this type is confirmed by the absence of an inner circle; the latter feature is common to most other types. It should be noted that the letters *DO* in conjunction, are also found on coins of the reign, and type, struck by the moneyer Leofnoth of Chester. The size and style of the lettering on the relevant coins in no way corresponds with those of this recovery in Newcastle, so the attribution to Thorr of York need not, perhaps, be challenged.

In view of the fragment's condition, its weight, in relation to that of a full coin, is virtually meaningless and has not been recorded; the die-axis of the coin appears to be 180°.

Compound Sk. 161 (Z79)

Ironwork (fig. 49)

Many of the iron items were unidentifiable fragments and nails, 42 of which were recovered in 1990–92, mostly as single finds from grave-cuts. The small quantities of nails, and lack of any significant groupings in grave-cuts, suggests that many of these are residual Roman material rather than deriving from coffins or other forms of funerary structures. Other iron objects are described and discussed below.

10. Bell, fragment. Formed of sheet iron with extensive copper alloy traces (plating?) on the body and the remains of a suspension loop. This object appears to have been deliberately destroyed, perhaps for re-cycling. H. 88 mm. From the grave fill of Sk. 420. Area D/565. Similar to, though larger than, one found at Vindolanda (Jackson 1985, 146, no. 93) though thought on size to be medieval rather than Roman (Allason-Jones, pers com). There is no stratigraphic evidence to suggest Sk. 420 is post-1080, and this item may belong to the post-Roman and pre-cemetery usage of the site.

Iron Objects

Patrick Ottaway

Note: dimensions are given in mm and are abbreviated: L = length, W = width, T = thickness, D=diameter.

KNIVES AND OTHER BLADES

There is one complete knife and there are two knife blades of which the tangs are largely missing. The complete knife (recorded from X-radiograph only) came from a grave in Area D (519 Sk. 416 or 417) and appears to have a blade back which is slightly convex and a cutting edge which is slightly S-shaped, the tip is missing. It has no unusual features but is very typical of knives of the Late Anglo-Saxon and medieval periods L. c. 115; blade L. c. 80, W. c. 18 mm. Another, associated with Sk. 339 (RA 27/141) is a blade with the so-called 'angle back' which is common in the Mid-Late Anglo-Saxon periods (Ottaway 1992, 562–5). L. 60, W. 15 mm. There is also a small blade from the cemetery soil (RA 25/101), the form of which is obscured by corrosion. L. 50, W. 15 mm.

A cased folding knife was found in the grave fill of Sk. 361 below surface slab 267 in Area C (recorded from X-radiograph only). This is of a distinctive form which is only known from Mid-Late Anglo-Saxon contexts. At one end the blade articulates on a pin which holds the two sides of the case together whilst at the other end the sides are forged together into a spike. There is one of similar length (87 mm) from 16–22 Coppergate, York, a site which also produced a case with its spike, and a detached blade (Ottaway 1992, 588, fig. 244, 2979–81). A slightly longer example (99 mm) comes from Carlisle Cathedral (excavations c. 1990 by Carlisle Archaeological Unit, Sf218) and one which is much longer (165 mm) comes from Thwing which also produced a detached blade (Ottaway unpublished a, 176–77). The function of these knives is unclear but possibly there was a craft which required the combination of a small blade and a tool like an awl. The variation in sizes of the objects may hint at a range of functions. L. 87, W. 17; blade L. 65 mm. Not illustrated (see preface to finds section)

A possibly incomplete sword blade in two pieces came from the grave of Sk. 578 in RA 28 (Sf. 92.200), but the object is badly corroded and has no features diagnostic of date or form. L. 120, W. 36, T. 5 mm.

An incomplete shears blade with a stub of stem attached came from the grave of Sk 558 (Sf 92.191). L. 65, W. 18, T. 4 mm.

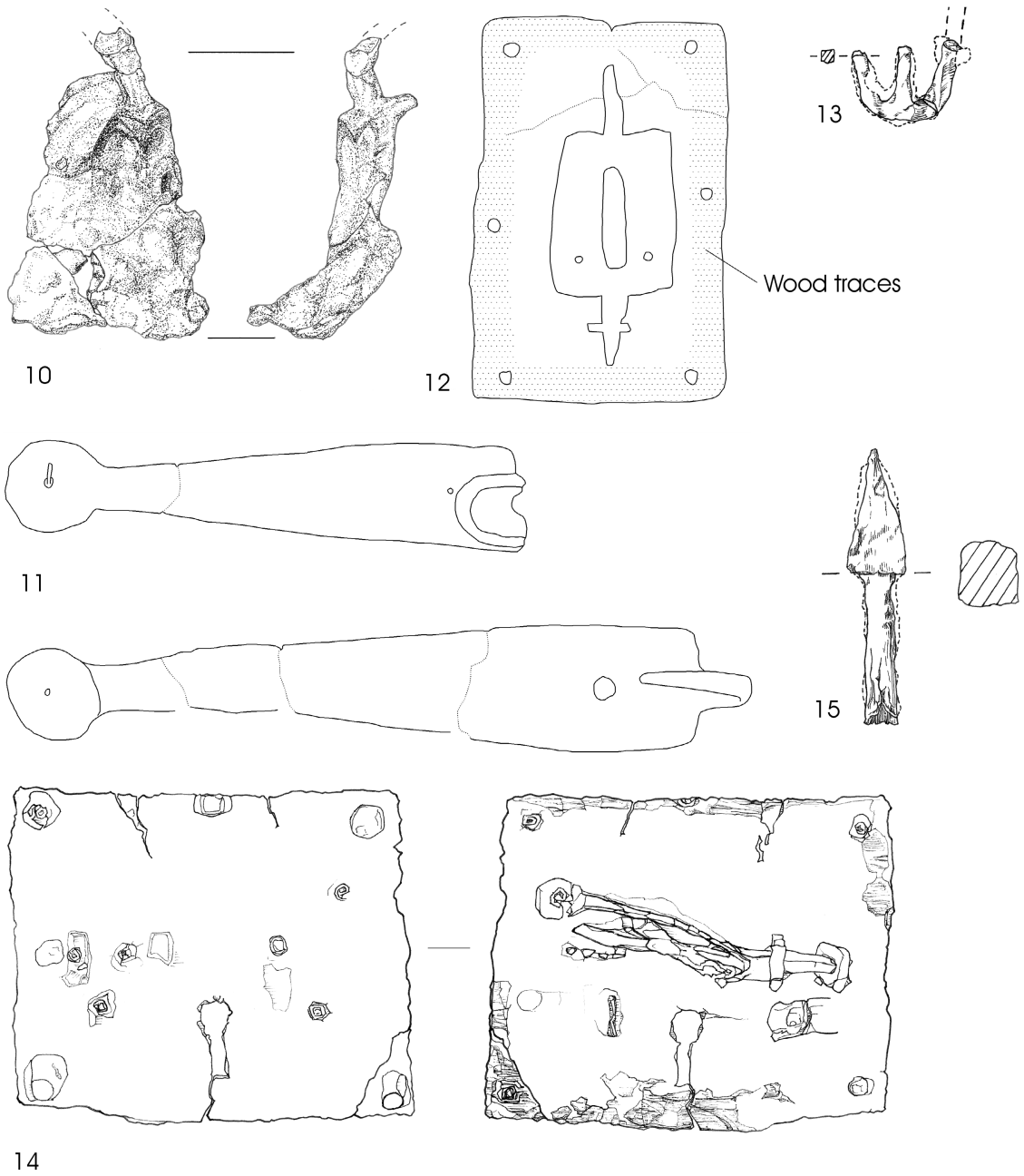


Fig. 49 Iron objects (1:2).

FITTINGS

Nails

Not all nails have been catalogued. However, two (associated with Sk. 408 and SK. 644) are plated, probably with tin. The former may have had some decorative role in an object accompanying the burial of which no other trace survives. L. 37, head W. 21, T. 6 mm. At Dacre Priory, Cumbria (Ottaway unpublished b, 321) there is an example of a Late Anglo-Saxon hinge strap from a chest, used as a coffin, which was held in place with plated nails. Four plated nails were found in Mid-Late Anglo-Saxon burial contexts at Ailcy Hill, Ripon and it was suggested that they may have come from caskets (Ottaway 1996, 100). Examples of caskets, with plated nails, occur as grave goods in ninth- to tenth-century burials in Scandinavia, including those from the Danish sites of Søndersønsild (Roesdahl 1976, 32) and Fyrkat (Roesdahl 1977, 96, figs. 125–6, 129).

Other nails from the site appear to be similar to those found in Anglo-Saxon contexts elsewhere in having a roughly rounded and flat head on a shank of square cross-section and a wedge-shaped tip. Length of unbroken examples varies between c. 35–60 mm.

Clench bolt

A small clench bolt comes from the grave fill of Sk. 637 in RA 28. L. 32; rove D. 28 mm.

Staples

There is an incomplete rectangular staple (from grave fill of Sk. 604). L. 78, W. 40, T. 5 mm. In addition, there is a small rectangular staple which the X-radiograph suggests is plated, probably with tin, from Sk. 334. Like the plated nail described above, this may have come from a small wooden object such as a casket of which no other trace survives. L. c. 45, arms: L. c. 20; W. 10 mm.

Hinges

There are five straps from hinges of the type usually employed on chests and boxes in the Anglo-Saxon and immediate post-Conquest periods. One strap was curved over at the head to form a loop which was linked to an eye at the head of a second strap. The former strap was nailed to the lid of a chest and the latter to the back. This can be seen on surviving chests of the period from Scandinavia, notably Chest 156 in the Oseberg Ship (Grieg 1928, figs. 66–7), and can be inferred from what are probably household chests used as coffins in cemeteries in England (see below).

A pair of straps, from Sk. 644 (Sf. 92.252), consists of a lid strap and another which is broken, but was possibly from the back of a chest (fig. 49, no. 11). The two may originally have been linked together and nailed onto a chest used for the burial. Both straps were of one of the commonest forms in narrowing away from the head towards a pierced, rounded terminal at the base.

Lid strap. L. 220, W. 37; Terminal: W. 26 mm

Lower part of a strap. L. 154, W. 30; terminal: W. 28 mm

There were three incomplete back straps associated with burials, of which only the heads survive: Sf. 92.244 from Sk. 634 (L. 51, W. 35, T. 4 mm), from Sk. 560 (L. 35, W. 30, T. 7 mm) and from Sk. 612. (L. 53, W. 23, T. 7 mm). They were made in the typical manner whereby the head of the strap was drawn out and curved around to make the eye. On the strap from Sk. 612, which is rather smaller than the other two, the eye is more neatly centred than usual; this may be from a corner bracket or another type of strap rather than a hinge.

The cemetery soil in RA 28 produced what is probably an incomplete eye from a so-called U-eyed hinge used with a hinge pivot for the suspension of a door. (Sf. 92/261) W. 30 mm.

Hinge pivot

A hinge pivot (L. c. 60, T. 15 mm) came from RA 28 (3632).

Corner brackets

Associated with Sk. 513 in Area C was a corner bracket from a chest or box of a common form with a pierced oval terminal at the end of each arm (Sf. 90.156). Arms: L. 55 and 53, T. 2; terminals: W. 17 mm. Another (Area C/308) is a single arm with a rounded terminal. An example from Sk. 289 (Compound) is unusual in that one arm has a loop, rather than a piercing, at the end through which it would have been nailed in place; the other arm is incomplete. There are well-preserved wood remains on the object which may have come from a coffin.

Strip fitting

From Area D (518) is an incomplete strip fitting which probably had a rounded terminal at one end. The X-radiograph shows it is plated, probably with tin. Small decorative fittings from caskets and boxes are common finds in Mid-Late Anglo-Saxon contexts.

Pierced plates

Six pieces of incomplete pierced plate include one from RA 28 (Sk. 560). It is broken at both ends and appears to be expanded in the centre where it is pierced. This could be part of a balance arm. L. 70, W. 21, T. 6mm. Items from RA 28 (3632), Sk. 582, Sk. 605, Sk. 637 and Area C 308 are probably broken brackets, bindings or similar objects. A short strip, (recorded from X-radiograph only) is pierced twice near one end with two small nails in situ (RA 27/141). At the other end the strip is pierced again and the X-radiograph shows a small staple which may be linked to the object in some way. Two somewhat similar objects both come from burials in RA 28 (Sk. 549 and Sk 605). The latter is pierced twice and at one end widens out slightly into a pierced terminal. The former does not have a distinct terminal but its concave sides create the impression of a terminal at one end. Neither object appears to be broken and so they cannot be corner bracket arms, but they may none the less have had some strengthening function on a coffin.

Locks and Key

There are two very fine and more or less complete, if corroded, locks (Sf 92.230 from Sk. 619 and Sf 92.249 from Sk. 644) each consisting of a lock plate, which was attached to the face of a chest, and attached to it the mechanism which would have been contained within a slot cut into the chest. They represent the two principal types of lock which were current in the Anglo-Saxon period. Most comparable examples come from the cemeteries in which chests were apparently used for burial (see Discussion below).

The lock plate from Sk. 644 (fig. 49, no. 12) is pierced for attachment with nails at the corners and in the middle of the longer sides. When seen from the front the plate had a horizontal slot serving as a key hole and to one side of it a vertical slot into which the hasp fitted. The mechanism consists of a bolt which has a central plate with a horizontal slot cut into it, and an arm projecting from each end. The bolt was held in place by small staples. When in the locked position — as it is in this case — it was made secure by a spring divided into two leaves. They would have rested against a ridge at the end of the central plate nearest the hasp slot and the base of the spring was anchored in the inner face of the lock plate. One arm of the bolt engaged in the hasp holding the lid closed. To unlock, a key with an inverted T-shaped bit, each arm of which had a vertical prong, was inserted through the key hole and through the slot in the bolt. The key was then twisted so that the teeth engaged in two holes at the head of the slot and pulled towards the user slightly to release the springs. The bolt could then be drawn back to release the hasp. A reconstruction illustration of a similar lock can be seen in Ottaway 1992 (fig. 282) and Ottaway 1996 (fig. 26). L. 114, W. 7.3 mm. (NB: the illustration was prepared from the x-ray as the object was recovered too late to be redrawn.) Locks with this type of mechanism were in common use for much of the Anglo-Saxon period, probably until c. 900. In some cases the key hole was set above or below a bolt which did not have a central slot, and in this case a key with an L-shaped bit was required. Sf 90.33 is a fragmentary example of such a key from a cemetery-related deposit. (fig. 49, no. 13)

The origins of this type of lock with its leaf springs may lie in the Roman period, although only two examples have been recorded. There is a bolt said to be Romano-British from Lakenheath, Suffolk (Manning 1985, 95, pl. 42, O66) and another apparently well-stratified example from a late third- / early fourth-century grave at Winchester (Rees *et al.* 2008, 164, fig. 89, 805.). Numerous keys with both L-shaped and T-shaped bits are known in Roman contexts but were used with other types of locks. Early post-Roman examples of the locks like Sf 92.249 come from caskets found in seventh-century Anglo-Saxon burials at, for example, Chamberlain's Barn, Leighton Buzzard (Hyslop 1963, 196, fig. 7, 7) and Buckland, Dover (Evison 1987, 100–1, figs 17, 21, 30, 33–4, 39, 51, 124). However, the largest single collection of these locks comes from the eighth- to ninth-century cemetery at Thwing, east Yorkshire, where nineteen were found associated with chest burials (Ottaway unpublished a). Two more come from the Anglo-Scandinavian (ninth–tenth century) cemetery at York Minster (Kjølbye-Biddle 1995, fig. 173, M438; fig. 177, M1667d) of which the first was found in Burial 76 with a lock plate as in the case of Sf. 92.249. Two other examples with a lock plate come from the eighth- to ninth-century cemetery at Ailcy Hill, Ripon (Ottaway 1996, 106–9, fig. 22, 233, 367).

The lock plate of Sf. 92.230 (fig. 49, no. 14) was flat and fixed on to the chest by a nail at each corner. When seen from the front it had a key hole in the centre near the base and near the left side was a slot for the hasp. The mechanism consists of a bolt and a tumbler, and a mount behind the key hole in which there was probably a projecting spindle which is now missing. When in the locked position, as in this case, the bolt engaged in the hasp and was held in place by the tumbler which rested against a notch in the top edge of the bolt. The tumbler may have been welded or nailed to the lock plate but this cannot be determined due to corrosion. To unlock, a key with a hollow stem was passed through the key hole and fitted over the spindle. On turning, the key bit pushed against a projection on the lower edge of the bolt and at the same time pushed up the tumbler and released it from the notch allowing the bolt to be drawn back. A reconstruction of this type of lock can be seen in Ottaway 1992 (fig. 280), Ottaway 1996 (fig. 27) and Ottaway and Rogers 2002 (fig. 1439). L. 120, W. 101, T. 10 mm.

Perhaps the earliest evidence for a lock of this type is provided by a very similar object to Sf 92.230 from a chest for a burial at Pontefract, West Yorkshire (Wilmott unpublished). This has a radiocarbon date centred on the late seventh century. Otherwise, bolts from this type of lock and suitable keys are common in the middle–late Anglo-Saxon periods (Ottaway 1992, 657–60; 668–71). Of probable eighth- to ninth-century date are three complete locks with lock plates from Ailcy Hill (Ottaway 1996, 109–110, fig. 20, 267, fig. 25 163, 567). Another couple, of ninth- to tenth-century date, come from York Minster (Kjølbye-Biddle 1995, fig. 176, M1667C; fig. 178, M1701). After the Norman Conquest simple locks employing much the same sort of mechanism as Sf 92.230 remained current until the sixteenth century, although the form of the components changed somewhat over the centuries.

From RA 29/2791 Sk. 435 there is an incomplete padlock bolt surviving as the lower part with a closing plate above a pair of springs, one of which is divided into two leaves. The presence of a closing plate suggests an eleventh century or later date in the medieval period.

HORSESHOE

From a later cemetery deposit, came the right branch of a horseshoe with a wavy edge and three countersunk holes. It is late eleventh- to early thirteenth-century in date. Sf. 92.158, L. 115, W. 24, T. 6 mm.

PROJECTILE HEADS (fig. 49, no. 15)

There are two socketed projectile heads: one from a possible 'empty grave' (3812) in RA 28, and another from RA 26 (230), apparently pre-dating Building 68. The example from RA 28 (fig. 49, no. 15) has a robust pyramidal head. It is superficially similar to a large group of quarrels from Area E assigned to the period of castle usage between 1080 and 1168–78 (to be discussed in Harbottle and Nolan, forthcoming) but with a length of *c.* 80 mm, is rather longer than all but two of these.

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Furthermore, medieval quarrels usually have tips which are thickest at or near the centre. The tip of this object is thickest at the base hence the pyramidal shape. There is a similar item, unprovenanced, but thought to be Roman, in the Museum of Antiquities, Newcastle upon Tyne (Manning 1976, fig. 13, 29). Other very similar, if slightly longer examples come from the Corbridge hoard, each described as 'pyramidal catapult bolt' (Allason-Jones and Bishop 1988, 17, fig. 19, 48–50). In conclusion this object is probably Roman. The object from RA 26 is probably another example, but is heavily corroded and its exact form cannot be determined. L. 82; socket: L. c. 50, D. 11 mm.

Another object, from the grave of Sk. 428 (Area D/592) is probably a socketed arrowhead with a flat blade, but this is largely missing. L. 60; socket: D 10 mm.

Although there are a few Late Anglo-Saxon socketed arrowheads, a change from a tang to a socket as the preferred method of attaching an arrowhead to a shaft occurs at about the time of the Norman Conquest.

PLATES AND STRIPS

A possible 'empty' grave in RA 28 produced a rectangular plate from one side of which two short projections have been folded back onto one face. From a corner on the opposing side is a short broken projection. No obvious function for this object suggests itself, but it may be an incomplete binding or strap from a wooden object. Sf 92.176 L. 50, W. 50, T. 2 mm.

Another possible binding fragment from a cemetery layer in RA 26 (349) is a piece of plate with another short piece attached to it at right angles. L. 100, W. 54, T. 6; projection: L. 40 mm.

A small plate which appears to have a raised edge around it came from a pre-1080 deposit in the Compound (31). The X-radiograph suggests that it is plated, probably with copper alloy. This may come from a small bell or padlock case, both types of object which were copper alloy plated in Anglo-Saxon times. L. 45, W. 26 mm.

From the same grave in Area D that produced a complete knife (see above) came an elongated tapering strip which at the thicker end is flattened out into what may have been a blade, but no certain identification of function can be made. L. 120, W. 10 mm. Another fragment from the same context (recorded from X-radiograph only) is a strip with a looped terminal which may be a padlock key from which the bit is missing. L. c. 112mm.

Three other pieces of plate occurred in RA 25 (115) and RA 28 (3677 and 3763). Strips were also found in the grave of Sk. 582 (RA 28/3761) and in RA 27/101 and 146.

DISCUSSION: CHESTS USED IN BURIALS

There appears to be evidence for at least one (Sk. 644), if not two burials (Sk. 619) in which the body was interred in a coffin which was probably a re-used chest with a lock. In burial Sk. 644 a pair of hinge straps (Sf 92.252) was located above the knees and the lock (Sf 92.249) was on the left side of the body; both items are exactly where one would expect to find them if a chest had been used. The burial was disturbed by later activity which had probably removed the second pair of hinge straps, to be expected near the head. The grave also included two nails, but the chest was clearly not nailed together and this accords with the evidence for chests from elsewhere. The lock Sf 92.230 was found with Sk. 619, although no other ironwork was found associated with it. Bone fused to the iron corrosion products may indicate proximity to a human skeleton. The other hinge straps and corner bracket described above may indicate the presence of other, disturbed chest burials in the cemetery.

The earliest examples of burial in a container with a hinged lid — presumably a chest rather than a purpose built coffin — are apparently Romano-British. Pairs of hinge straps were, for example, found in two graves of the period at Cirencester (Viner and Leach 1982, 88–9, fig. 36). The appearance, or re-appearance in the post-Roman period, of the custom of burial in chests, which are usually represented by locks as well as hinge straps, is hard to date in the absence of diagnostic associated artefacts. However, in view of the date of the burial from Pontefract noted above, a mid to late seventh-century date is likely. Others from Thwing (26 examples; Ottaway unpublished a), Monkwearmouth, Co. Durham (about six; Cramp 1969, Clogg 2006), Dacre Priory, Cumbria (five;

Ottaway unpublished b), and Flixborough, Lincs (Ottaway 2007, Grave 1) are probably eighth- to mid-ninth century. Others again from Repton, Derbys (c. 18 examples: unpublished, excavated by Martin Biddle and Birthe Kjølbbye-Biddle), Hereford (Shoosmith 1980, 36–8, Grave S86), Winchester (about six; unpublished) and York Minster (five; Kjølbbye-Biddle 1995) are probably mid ninth- to tenth-century. Those from Repton and Hereford and all but one from Winchester (Goodall 1990, 1016–7, 3686) have no locks, although they have hasps which would have required a padlock to secure.

Chest burials were never widespread and are unknown in many mid-late Anglo-Saxon cemeteries. However, where they do occur, most commonly in the north of England, they often appear, as at Dacre, Monkwearmouth, Thwing, Winchester and York Minster, to be concentrated in certain locations within their cemeteries or, as at Repton and Ripon, in a discrete cemetery within a sacred site with other burial areas. These factors, taken together with the distinct status of many of the sites themselves as either monastic cemeteries (Dacre, Monkwearmouth, Repton and probably Ripon), or cathedral cemeteries (Winchester and York Minster) or a cemetery attached to a church at a centre of political authority (Hereford and Thwing), suggest that the chest burial custom was reserved for people of distinct status. What this status was is hard to tell, especially as few details are available, in most cases, of the associated skeletons. However, one might propose that a chest with iron hinges, a lock and, on occasions, other fittings, was a mark of high rank in society at a time when conventional grave goods were proscribed.

Lead (fig. 50)

A small quantity of lead was recovered from cemetery contexts all of which could be residual Roman material. Some pieces from RA 26 (230 and 245) were structural, including a leading-in for an iron 'dog' or hinge-pin. Two pieces were similar to strips used to repair cracks or holes in pottery, RA 26/308 and Area D/556. Other fragments, including several from Area D, appear to be offcuts or casting waste, while a piece from RA 26/250 was possible residue from a crucible. There were two pieces of rolled sheet: one from the grave fill of Sk. 437 and one from the cemetery soil in RA 29; and two strips from the grave fill of Sk. 604. Only three objects had any suggestion of being deliberately formed (fig. 50):

16. Object, flared or tapered with moulded 'ring' at the mouth or widest end, a centre hole and traces of a narrower cross-hole at the narrow end, where there are marks suggesting deliberate cutting through. RA 27/Sk 271 E55.

17. Cast object, shaped like a cotton-reel. Area D/549 E39.

Not illustrated: 'Collar' 20 mm wide. Area D/Sk. 428, E37.

Bone Objects (fig. 50)

18. Knife handle. Two plates, both with smoothly-finished surfaces, with three copper alloy rivets which secured the tang. One plate has a small area of decoration comprising shallow curving incised lines, possibly the start of a crude interlace design. From the grave of Sk. 553. RA 28/3646, Sf. 92.163. The decoration, and the number of rivets, suggests that this is Saxon rather than residual Roman.

As with the other finds groups other items are likely to be of Roman date. These included: a comb (RA 29/2700, Sf. 90.18); a weaving comb with incised decoration (RA 28/3792 Sk. 597 Sf. 92.208); an antler tine, with a number of cut marks on all sides, possibly manufacturing waste (RA 27 Sk. 347 C76); a spindle whorl, hemispherical (diam. 41 mm), with hole drilled through the centre (Area D/519 C29).

Weaving combs are mainly associated with the pre-Roman Iron Age, but an example is known from South Shields (Allason-Jones and Miket 1984 cat. 2.23) and a similar but undecorated example from a Roman site at Cramond (Holmes 2003, 127, no. 9). Red deer antlers occurred in late fourth-century contexts (Compound 115 and 266), and in RA 28 deposits between the walls of Roman

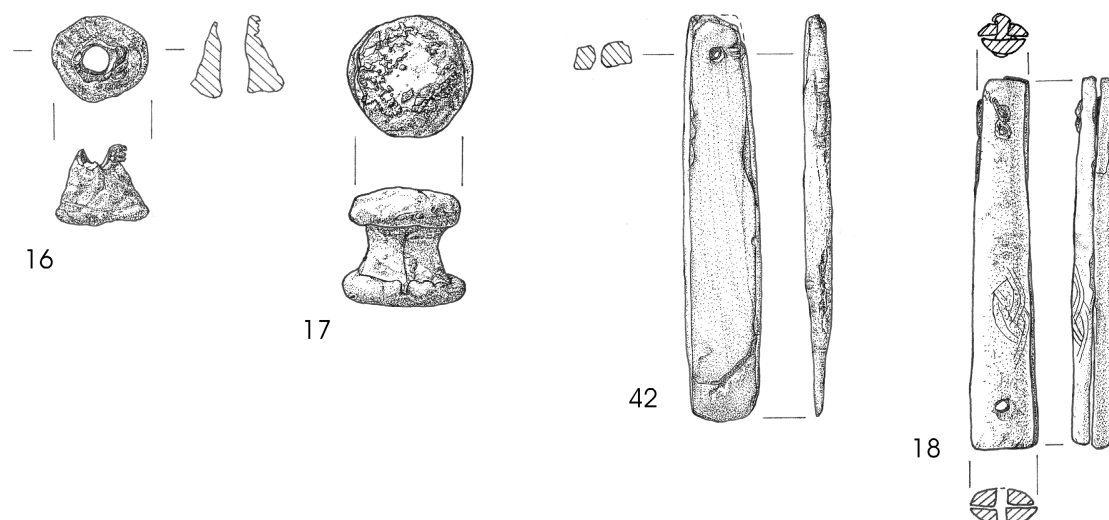


Fig. 50 Objects of lead, stone and bone (1:2).

buildings, hence the suggestion of manufacturing waste. Although the ?spindle whorl is possibly Roman, a similar object, with ring-and-dot ornamentation, has been published with finds from the Anglian monastery at Whitby (White 1984, 38 cat. 8, fig. 2).

STONE OBJECTS

Grave slabs and grave markers (figs. 51 to 53)

These are all sandstone, and apart from no. 26, are all from Area C. Apart from nos. 26, 38, 39 and 40 all the stones were published by Ryder (2002) though not all were illustrated — Ryder's numbers are given. Nos. 23 and 25 were also published in Cramp 1984. NB: One fragment of slab published by Ryder (*ibid*, no. 21) as 'discovered in 1990' was not, in fact, from the cemetery excavations. Its provenance is unknown.

19. Grave slab, surface marker. Ryder 6. The previously published description and measurements were based on the mistaken assumption that part of the slab was missing. A head-marker stone of sandstone rubble was found in 1981, but the foot end of the slab lay under the section. Nothing confidently identifiable as a foot-stone was located when this area was excavated in 1990. 1981/264 associated with Sk 396 and 408.
20. Grave slab, surface marker. Slightly coped, chamfered on the long sides. Ryder 7. A head-marker was found in 1981 (see no. 21), and a fragment of sandstone rubble, possibly a foot-stone, in 1990. 1981/265, associated with Sk. 402.
21. Head (west) marker stone. Deeply incised vertical line crossed by two fainter lines. Ryder 8. Associated with no. 20 and Sk 402.
22. Grave slab, surface marker. Edges chamfered. Ryder 9. A possible head-marker stone (though more likely this was a foot-marker for Sk. 368) was found in 1981, but no foot marker could be identified in 1990. 1981/266 associated with Sk. 359 (or 366?)
23. Grave slab, surface marker. Ryder 8. The slab has a double ?roll-moulding along its head, and was possibly part of a re-used Roman string course, plinth or cornice. Set between an upright head-stone, which is possibly part of a re-used graveslab (see no. 24) and a foot-marker of sandstone rubble. 1981/267, marking grave of Sk 361. Late eleventh- to mid twelfth-century.

7: FINDS — STONE (GRAVE SLABS AND MARKERS)

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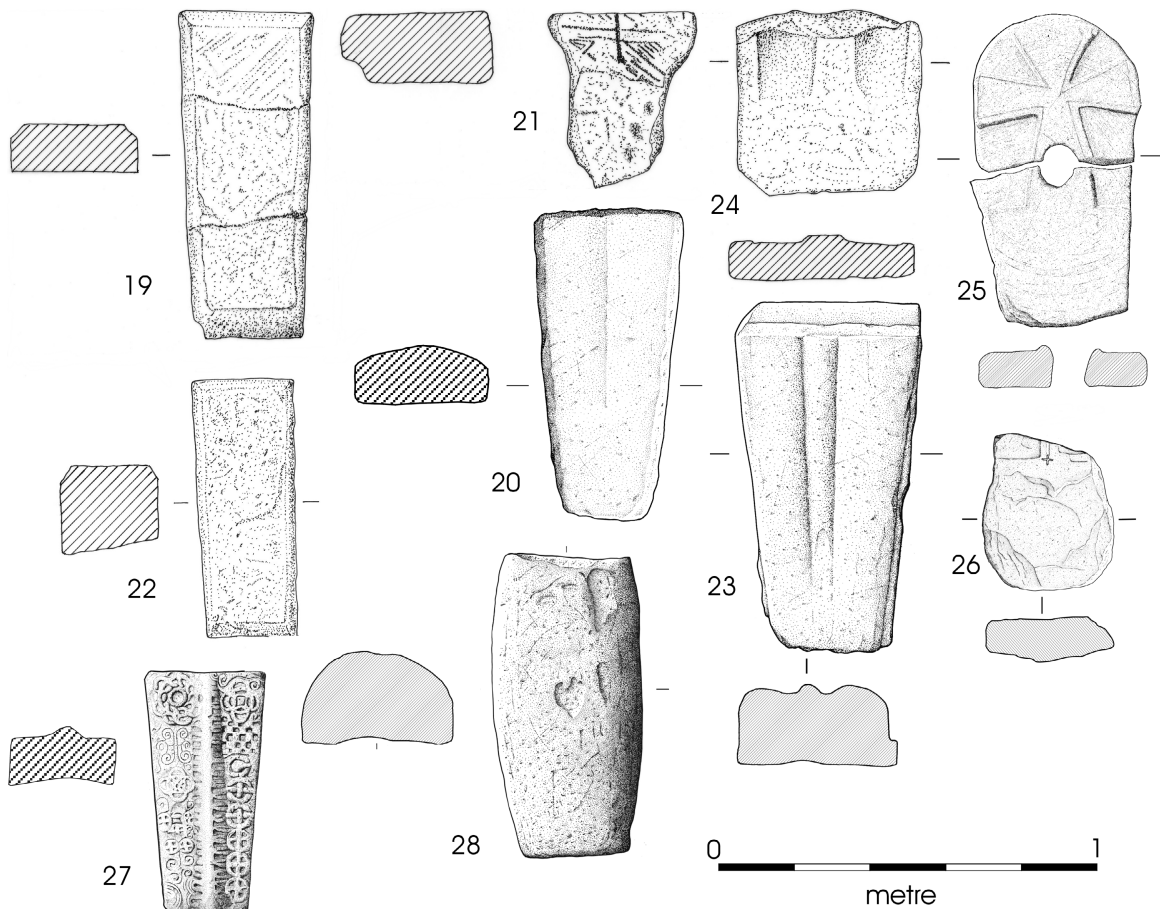


Fig. 51 Grave slabs (1:10).

24. Head-stone — see no. 23. Ryder 10. Sunken panels with a raised central shaft.
25. Grave marker made from a Roman or Saxon mill stone and re-used as a cist cover for Sk 361 (see no. 23). Ryder.1. Only one face is carved. The stone and its decoration are described in detail by Cramp (1984, no. 1) who suggests that it could have been produced as early as the late eleventh century, a date which has been tentatively assigned to similar monuments such as Bolam 1 or Woodhorn 3 (Cramp 1984, 244–5). However, this date was based on the fact that it was reused in a cist burial, and the assumption that all such burials predate the construction of the Keep. This may not be the case. 1981/315.
26. Grave marker. Lower part of a marker stone, with a bulbous base presumably intended to be earthfast. Traces of shallow relief decoration, possibly part of a cross, are visible where the stone narrows and is broken. Heavy tooling on reverse sides. RA 28/3549. Residual in seventeenth-century bastion ditch.
27. Grave slab (Ryder 19 — where the slab is illustrated at a larger scale). Heavily decorated with early geometric ornament, and dated on context and stylistic grounds to c. 1080–1095 (the late J. Lang, pers. com.). Head- and foot-marker stones of sandstone rubble. 1990/3162.

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28. Grave slab, shaped like a half-barrel (Ryder 20). There was a possible foot marker stone of sandstone rubble at the east end, but no head stone could be identified at the head (west) end, which was almost butted by the foot of slab 266 (see no. 22), 1990/3180. The only burial with which this slab could be associated was Sk. 485, though the two did not exactly correspond and it is possible that the stone had been repositioned.
29. Grave slab, surface marker. Ryder 3 (two pieces) and 11. The latter was misidentified by Ryder, due to an ambiguity in the site archive, as a foot stone to slab 267. Plain, the long sides are chamfered. Set between a head marker stone (no. 30) and a foot marker (no. 31) Undated, but associated with cisted burial Sk 377 which is cut by the foundations of the Keep and must therefore predate construction in 1168–78. 1981/245.

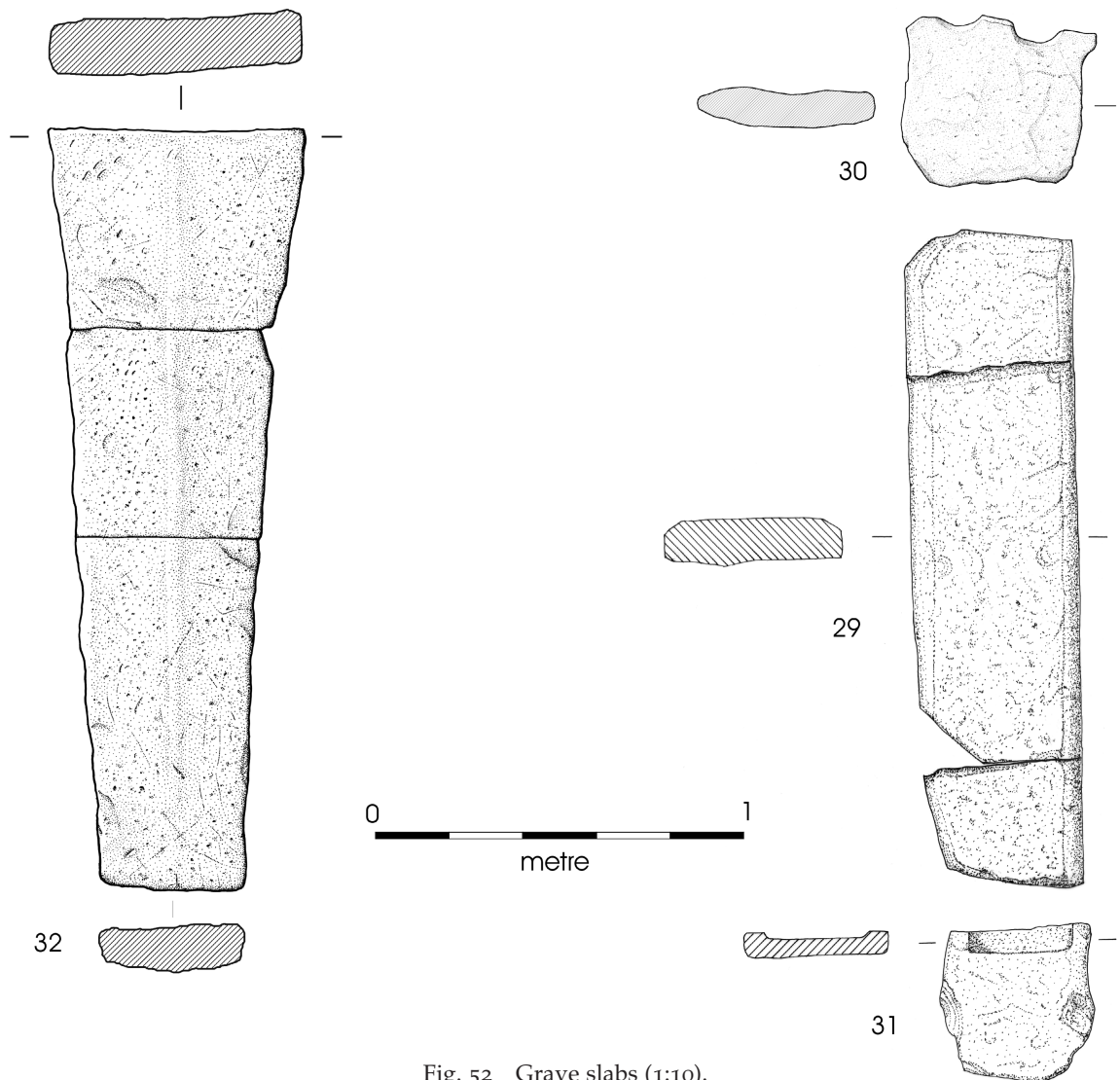


Fig. 52 Grave slabs (1:10).

30. Head marker stone, Ryder 4. Associated with cisted burial Sk 377, see nos. 29 and 31.
 31. Foot marker associated with No. 29 above. Ryder 5. Possibly the stump of a taller stone, it appears to have the remains of sunken panel at the top. 1981/245.
 32. Grave slab, fractured in two places. It had straight sides and squared ends and tapered from the head to the foot (east) end. 1990/3161, marking the grave of Sk. 487.
 Slabs 33 to 37 were reused in 326 and 347, the cist for Sk. 368.

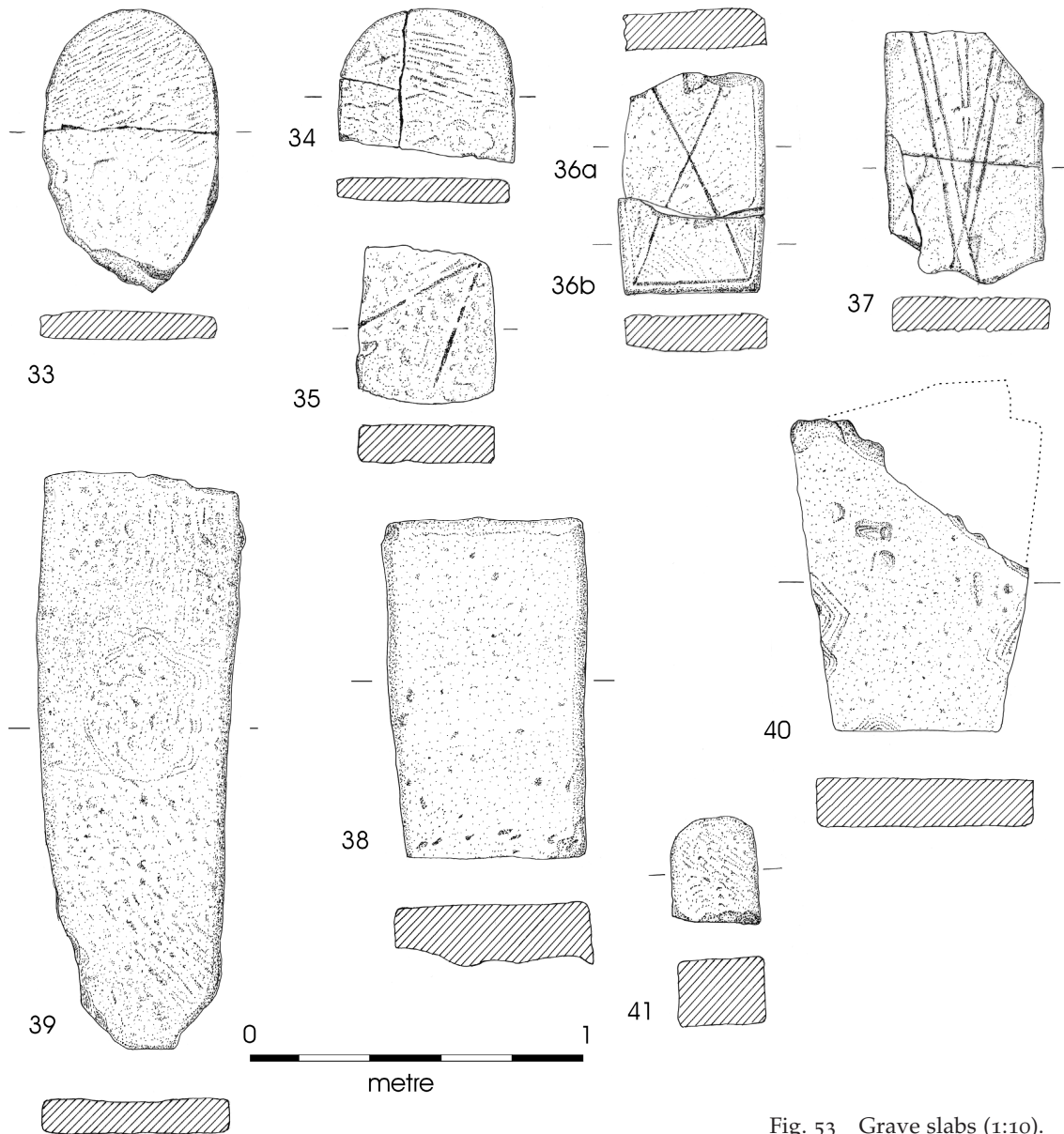


Fig. 53 Grave slabs (1:10).



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33. Slab with semi-circular end, Ryder 13. Part of the cist cover (326), possibly a re-used head stone.
34. As no. 33 above, Ryder 16. Part of cist cover.
35. Slab with simple geometric decoration. Part of the cist walls (347).
- 36a, Ryder 18 and 36b, Ryder 16. 36a was part of the cist walls and 36b part of the cover. Simple geometric decoration.
37. Ryder 14. Part of the cist cover. Geometric decoration.
38. Grave slab (broken). Chamfered along the three remaining sides. 1990/3163, marking the grave of Sk. 499.
39. Grave slab. No obvious tooling and worn or naturally dished in its centre. 1990/3164, marking the grave of Sk 481.
40. Grave slab. Part of the cover for cist containing Sk. 499. (1990/3240)
41. Possible grave marker, Ryder 12. (1981/246)

Architectural fragments

Pieces of sandstone with evidence for shaping and tooling occurred in a number of cemetery contexts, the largest concentration being in RA 25/102 (see above, Phase 2 and fig. 6.1).

Two sandstone Roman impost blocks were found in cemetery contexts, one in RA 26 and another in RA 28. The latter (RA 28/3824) was approximately 1 m square and 0.29 m thick, with a simple moulding to one side, and a shallow rebate to the opposite side, possibly to receive paving. There were a number of deep incised grooves on the surfaces, either for keying to mortar or to take leaded-in iron cramps. There are similarities between the moulding on this fragment and that of grave slab 267 in Area C (see above, no. 23), suggesting that this stone may also have been re-used as a grave marker.

Other stone objects

These objects are not uniquely datable, and though it is presumed that most, if not all, are residual Roman, a Saxon origin cannot be wholly discounted. Six were whetstones — one is illustrated. The others were from RA 28/Sk. 579 (Sf. 92.195); RA 28/Sk. 580 (Sf. 92.226), this one was pierced; RA 28/Sk. 560; fragment from RA 28/Sk. 652. There was also a quern fragment (RA 28/Sk. 604) and a hammer stone (RA 28/Sk. 612)

42. (fig. 50) Whetstone/hone. Small hole for suspension cord at one end, drilled from both sides, opposite end worn on the faces to a blunt chisel end. RA 29/2837 Sf. 90.25.

TEXTILES

Two textile, or presumed textile, samples were recovered from Cemetery contexts in 1990. The mortar rendering inside cist 3288 containing Sk. 509 (Area C) retained some textile impressions (3327), presumably from a shroud, and a few poorly preserved fibres came from the pelvic region of Sk 457 (RA 29/2839). The following catalogue entries and discussion are from a report by Penelope Walton Rogers, The Anglo-Saxon Laboratory:





Sample 1. 1990/3253 (and 3288), SK 509

Textile preserved in block of soil and mortar. Remains cover c. 150 x 150 mm, in patches, of which the largest patch is 60 x 50 mm. Poorly preserved and in some areas only represented by an imprint. Tabby weave, 20/Z x 18/Z per cm. Fibre probably a plant stem fibre such as flax or hemp, but too poorly preserved to be certain.

Sample 3. 1990/2839, SK 457

Fibres and insect remains held together in a clear 'gluey' material. Fibres viewed at x400 magnification with a transmitted-light microscope proved to be very fine fibres interspersed with coarser barbed ones. These are typical of feather down.

The patches of textile from the Saxo-Norman burial, SK 509, appear to be the remains of a single layer of medium-fine linen, in tabby weave. From the eleventh century onwards, plain tabby weave was the norm for linen and undyed linen tabby was a common material for shrouds. Similar remains have been found in a twelfth/thirteenth-century chalk cist at St Mary's Abbey, Winchester (information from Frances Pritchard, formerly Museum of London) and in other medieval burials in the same city (Crowfoot 1990, 483); and a man buried at St Bees Priory in Cumbria, c. 1300, was wrapped in two linen shrouds within a lead coffin (information from Jean Glover, North-West Museum and Art Gallery Service). The St Bees shrouds are relatively coarse, but the Winchester examples are of a finer quality, similar to the Newcastle remains.

WOOD

Six samples (approximately 1.4 kg) of apparently carbonized wood from coffins were taken in 1990 (Sk. 519 3296, 3233, 3229 and 3293). Unfortunately the material was too dry and degraded to yield any useful information. Four fragments of carbonised wood from an empty grave, RA 29/2789, may indicate an exhumation.

SOIL SAMPLES

No soil samples from the cemetery excavations up to and including 1982 were processed. In 1990 and 1992 samples were taken from 111 burials. Samples from truncated burials, or from burials with a significant risk of contamination, were later discarded. Twenty samples were subsequently submitted for processing but only four produced any significant material consisting of coal, charcoal and some grain, all of which could be residual and a result of disturbance to underlying Roman deposits. The sample results given below are extracted from an assessment report by Jacqui Huntley (1994)

Sk. 432 grave fill (2788). Charcoal and coal with some grain.

Sk. 495 silty fill (3234) below lid of wooden coffin. Coal, clinker and some grain.

Sk. 499 silty deposit (3245) within cist. Charcoal and clinker, 4–5 wheat seen.

Sk. 519 (3292) filling the cist. Coal, fine mineral, and charcoal.

ANIMAL BONE

Animal bone from cemetery contexts was not kept prior to 1990 on the assumption that it derived from Roman activity rather than being associated with cemetery use: a conclusion also reached by the specialist (Gidney 1997). However the mixed preservation of animal bone from cemetery contexts kept from 1990 (Gidney 1994) does suggest the possibility that there was some contemporary — or at least post-Roman — rubbish disposal.



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The finds were drawn by John Davies (fig. 51 nos. 19, 21, 22, 24; fig. 52 nos. 29, 31; fig. 53), Mark Hoyle (fig. 46 nos. 1–4; fig. 51 nos. 20, 23, 25, 26, 28; fig. 52 nos. 30, 32) and Kate Clarke (fig. 46 nos. 5–9; fig. 49 nos. 10, 13–15). Mark Hoyle also prepared figure 2 and the insert for figure 1. The drawings traced from x-rays were prepared by John Nolan. All other drawings were prepared by John Nolan and Jenny Vaughan.

APPENDIX: RADIOCARBON DATES OBTAINED FOR SKELETONS

Fourteen human skeletal samples were submitted for radiocarbon dating during post-excavation analysis in 2003 and 2008, with funding from the City of Newcastle upon Tyne. The 2003 samples were submitted on behalf of the authors by Jacqui Huntley, English Heritage North East Regional Science Advisor, to Dr Gordon Cook at the SUERC Radiocarbon Dating Laboratory, SUERC, East Kilbride. The 2008 samples were submitted by the Department of Archaeology, University of Sheffield, to the University of Oxford Radiocarbon Accelerator Unit, Research Laboratory for Archaeology and the History of Art. A further four samples were submitted by Diana Swales of the University of Sheffield in 2009 as part of the Global History of Health Project (GHHP). These included one from a previously sampled skeleton (see below, Sk. 575).

Sk. 20 (RA 26). ORAU P21881. Low yield. Undated.

Sk. 22 (RA 26). Gordon Cook. Calibrated date AD 880–1040 at 2 sigma.

Sk. 23 (RA 25). ORAU P21882. No yield. Undated.

Sk. 40 (RA 25). Gordon Cook. Calibrated date AD 880–1040 at 2 sigma.

Sk. 99 (RA 26). ORAU 19079. Calibrated date AD 211–357 at 91.7% probability.

Sk. 175 (Compound). ORAU 19080. Calibrated date AD 1015–1155 at 95.4% probability.

Sk. 368 (Area C west). ORAU 19081. Calibrated date AD 808–973 at 92.7% probability.

Sk. 375 (Area C west). Gordon Cook. Calibrated date AD 960–1160 at 2 sigma.

Sk. 422 (Area D). Gordon Cook. Calibrated date AD 670–900.

Sk. 477 (Area C east) GHHP. AD 799–883

Sk. 506 (Area C east) GHHP. AD 876–962

Sk. 523 (Area C east). ORAU 21886. Low yield. Undated.

- Sk. 545 (Area C east). Gordon Cook. No data received.
- Sk. 575 (RA 28). GHHP. AD 832–916. This individual was previously dated (Gordon Cook) to 430–660 AD (calibrated) but the stratigraphic relationships made this date clearly anomalous. Possibly the sample was contaminated.
- Sk. 580 (RA 28). Gordon Cook. Calibrated date AD 880–1050 at 90.7% probability.
- Sk. 646 (RA 28). GHHP. AD 831–915
- Sk. 660 (RA 28). ORAU 19082. Calibrated date AD 667–780 at 93.4% probability.

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