An Early Anglo-Saxon Cemetery at Quarrington, near Sleaford, Lincolnshire: Report on Excavations, 2000-2001.

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The early Anglo-Saxon cemeteries in the Kesteven part of Lincolnshire form two distinct distribution patterns (Fig.1): a north-south line along, or just to the west of, the limestone edge between the former Roman towns of Lincoln and Ancaster, of which the best known is an outlier near its southern tip, the large mixed-rite site at Loveden Hill; and a cluster in the south-east, of which the best known are Ruskington and Sleaford, essentially inhumation cemeteries but with a handful of cremations each (Leahy 1993; 1999). This paper reports on the excavation of a small inhumation burial site just 2.5km west-south-west of the Sleaford cemetery and now in the civil parish of Sleaford, but formerly in the parish of Quarrington (Fig.2). An Anglo-Saxon burial site has been known from near here since the early nineteenth century, when urned cremations and accompanying inhumations were discovered during gravel digging (Yerburgh 1825; Trollope 1872, pp.98-100; Meaney 1964, pp.160-61; Lincolnshire Historic Environment Record, no.60375). Recently, an Anglo-Saxon settlement of the sixth to eighth centuries has been excavated at Town Road, Quarrington, 1.1km to the east (Taylor 2003). The interrelationship of these three Anglo-Saxon sites is a matter for discussion (below), but it is proposed that the nineteenth-century discoveries now be known as Quarrington I and the new burial area as Quarrington II.

The new site was located in the course of a programme of evaluation, watching briefs and selective excavation which was carried out in advance of Transco's construction of a gas pipeline from Silk Willoughby, near Sleaford, to Staythorpe Power Station, Newark, Nottinghamshire. The archaeological project was directed by Andrew Copp of Field Archaeology Specialists Ltd, York, on behalf of RSK Environment, with excavation carried out in two phases between July 2000 and August 2001. This report draws on the unpublished technical report (Field Archaeology Specialists 2004), which includes accounts of the post excavation assessment, treatment and analysis by Karen Barker and Julie Jones (conservation), Diana Briscoe (pottery stamps), Christine Haughton (pottery vessels), Simon Holmes (Roman coin), Malin Holst (osteology), Alan Vince (pottery fabrics) and the author, and which has been deposited, together with the finds, with the Lincoln City and County Museum, Lincolnshire County Council.

The site, designated Site 4 (Plot 14) of the project (centred at NGR TF046447), is situated towards the apex of a triangle formed by the Grantham Road (A153), the Grantham-to-Sleaford railway branchline and the A15 trunk road to the east. It lies at a height of 20m OD, on the northern side of a slight ridge of river terrace sands and gravels running west to east and overlooking the River Slea to the north. The field has been deep-ploughed, resulting in truncation of the features beneath the relatively light, friable soil. Fifteen graves were identified, but the grave-cuts, where recordable, penetrated the subsoil to a depth of only 0.10m to 0.20m, with only one reaching 0.30m depth; some of the human remains lay on the subsoil surface (Fig.3). There were also fourteen shallow or surface-level contexts which contained unburnt, disarticulated human bones, some of which were stained by copper salts, implying contact with copper-alloy grave-goods. These groups of jumbled bone, usually containing multiple individuals, were more likely to be the result of metal-detectorists' activity rather than a consequence of deep-ploughing. Most of the excavated graves were recovered from the southern (uphill) edge of the site. Their better survival here, and in some cases greater depth, was probably due to the protection afforded by the hedgerow which separated the field from the adjacent main road. But this factor, and the generally shallow depth of the interments, meant that the graves had also suffered from animal and root disturbance. A second cluster of burial remains lay on the downslope to the north, in the area of three shallow linear features (F40, F41 and F43). These features were covered by a build-up of soil, and are interpreted as possible plough-furrows (F31 further north was a pit containing medieval pottery). Perhaps the parallel line formed by C1059, F36 and C1056 to the east also marks the line of a now obliterated furrow. F44 was a plough-furrow at right-angles to these, which travelled through graves 6 and 7.

The concentration of graves along the southern field boundary might not be entirely fortuitous, however, since the burials align with, and in one case cut into, the angled butt-end of ditch F32/F319. This contained grog-tempered early Bronze Age pottery, which represents the earliest activity on the site. Subsequently, five early Bronze Age cremations (F314-F318) were inserted into its partial backfill or buried nearby (Toop 2004, p.16). It is possible, then, that a still visible earthwork influenced the choice of this site for Anglo-Saxon burial, and even the disposition of the graves within it. Only limited investigation was carried out south of the hedgeline, so it is possible that the cemetery extended to the south under the modern road. Sadly, these various post-depositional factors, including less-than-benign soil characteristics, have limited the quality of the evidence and its potential for analysis and interpretation.

Catalogue

Graves and grave-goods have been re-numbered in a single sequence, with the excavators' original feature (F), context (C) and find numbers (FN) given in brackets. Two features, containing disarticulated unburnt human bone, are presumed to be the remains of extensively robbed graves as, during laboratory analysis, each of these groups of bones was found to belong to single individuals. These two features have been added to the fifteen recorded graves as graves 16 and 17. Information relating to the twelve other contexts containing disarticulated bone is tabulated using the original feature and/or context numbers (see appendix); it is assumed that these bones represent material disturbed from the recorded graves and from other, unrecorded, ones. Grave orientation is expressed from head to foot: thus W-E is west to east. All drawings of ironwork, apart from the shield bosses, have been done from X-radiographs.

Abbreviations: D. = depth below ploughsoil; H. = height ;
W. = width; dia. = diameter; th. = thickness; f. = female;
m. = male; l. = left; r. = right; approx. = approximately;
est. = estimated (measurement); ext. = extant;
max. = maximum; nd = not determinable;
deh = dental enamel hypoplasia;
djd = degenerative joint disease; oa = osteoarthritis;
MNI = minimum number of individuals.

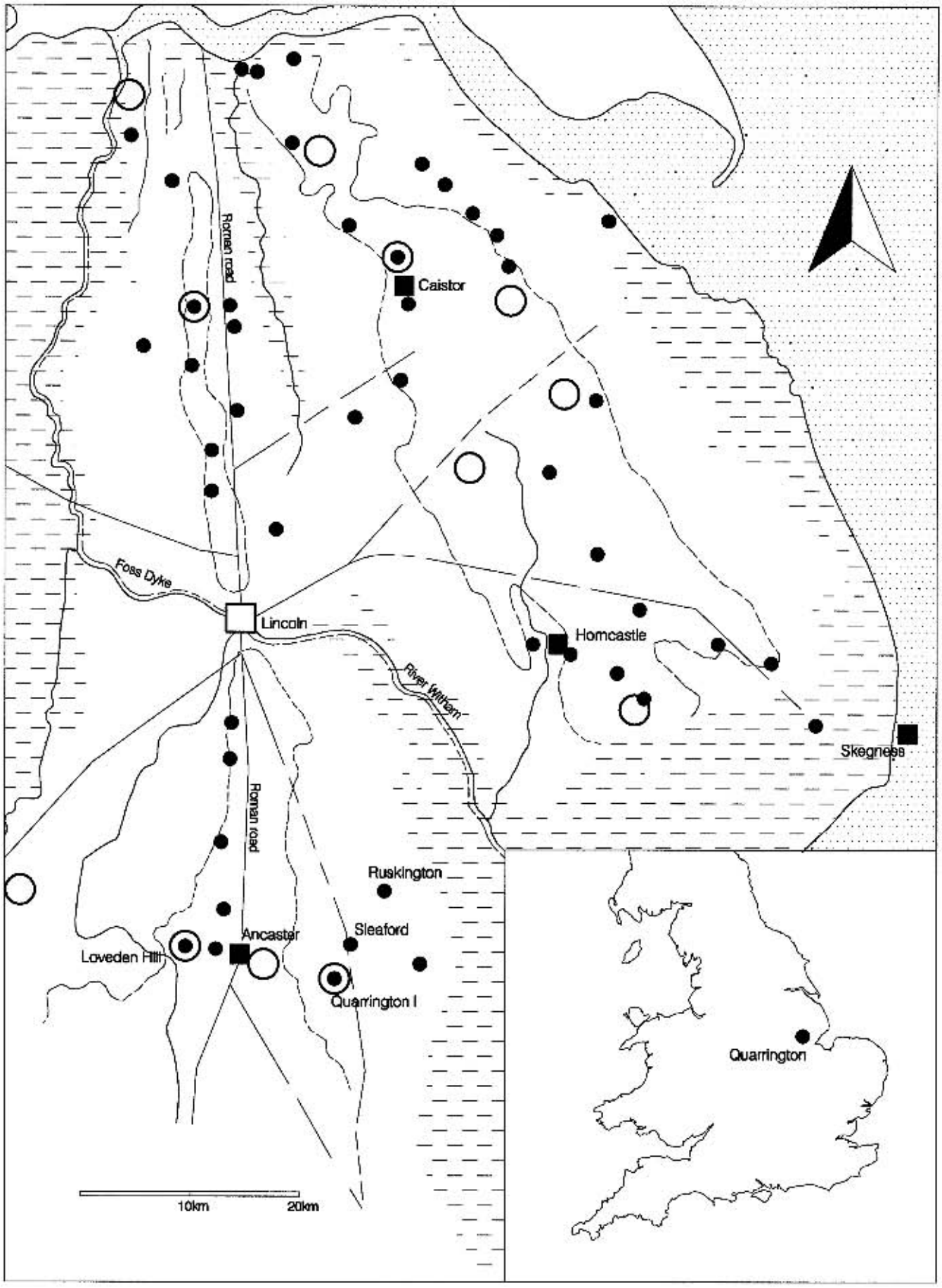

Fig.1. Site context map, showing Anglo-Saxon cemeteries in Lincolnshire. Open circles: sites with cremation burials; filled dots: sites with inhumation burials (after Leahy 1993, Figs 4.1-2).

Grave 1 (F33, C1050) (Figs 4 and 7).

Grave: W-E; grave cut approx. 1.9 by 0.75m , max. D. 0.10m. Skeleton: Preservation: poor (90%). Extended, supine, head tilted towards r., hands on sides of femurs and ankles crossed. Sex: m. Age: 26-35. Stature: 1.7803 ± 0.327m. Pathology: Harris line; Schmorl's nodes; djd in l. ankle; crush fracture of l. calcaneus; two well-healed, blunt-force depression injuries on r. parietal. Dental health: calculus; overbite.

Grave-goods:
1. Spear (in three parts). a. iron blade and upper socket (FN6), by l. side of lumbar vertebrae, point to head; b. iron lower socket (FN8), across the sacrum, broken in antiquity: Swanton Group H2, total L.>257mm, blade L. 130mm, blade max. W. 32mm; socket contained wood (not identified); c. iron ferrule (FN7), outside lower l. leg; L. 52mm.
2. Knife (FN9). Between lower r. ribs and inside of r. elbow; iron; fragmentary; L. >110mm, max. W. 20mm
3. Shield (FN12). Over distal end of r. humerus/lower r. ribs; a. iron boss with wood underneath flange (not identified): Dickinson Group 1; H. 83mm, dia. 151mm; b. iron grip beneath boss: Härke Type Ia1; L. ext. 122mm, W. 28mm.

Grave 2 (F34, C1052) (Figs 4 and 7).

Grave: W-E; grave cut approx. 1.90m by 0.62m; plough-damaged.
Skeleton: Preservation: poor (25%), cut away below ribs/r. humerus. Upper body extended, supine, with head tilted down towards r. shoulder, lower r. arm probably across body; l. humerus absent, but lower arm and hand rest on r. shoulder. Sex: m. Age: 46+. Pathology: spinal oa, T4-T5 fused; oa at l. fifth interphalangeal joint; bone excavations. Dental health: calculus; infractions; abscess; periodontitis.

Grave-goods:
1. Pottery vessel (FN19). To upper r. of head, abutting top of skull; black fabric throughout; rim lost due to deep ploughing; sharply biconical profile, decorated around widest part with a row of single and paired vertical bosses, formed from separate pieces of clay luted to the surface of the pot and separated by zones of incised vertical lines; on the shoulder is a zone of incised chevrons, the hanging chevrons containing groups of comb-impressed stamps (Briscoe type N 1aii); on the neck are two rows of positive left-facing Z-shaped stamps (Briscoe type H 1bv); H. >130mm, max. dia. 175mm, wall th. 4.5-5mm, base th. ≤7mm.

Grave 3 (F35, C1054) (Figs 4 and 7).

Grave: W-E; subrectangular grave cut, truncated at either end, >0.80 by 0.58m, max. D. 0.10m.
Skeleton: Preservation: very poor (15%), missing head and extremities; flexed on r. side, with r. arm bent up so hand lies over r. ribcage and l. arm bent at right-angle across spine; femurs drawn up at right-angle to spine and knees bent. Sex: nd. Age: Adult. Pathology: oa at l. knee; periostitis at r. rib neck; bone excavations.

Grave-goods:
1 - 2. Pair of sleeve clasps (FN3 and 4). Outside r. ulna and outside distal end of l. ulna respectively; copper alloy; sheet metal with applied bar: Hines Form B17a; the hook of 1 (FN3) is a secondary replacement soldered to the back of the plate; the hook of 2 (FN4) has been folded into a double layer, rolled into a hook, and soldered between the bar and base plate; textiles on backs (not identified); L. 39mm, W. 16mm.

Grave 4 (F37, C1058) (Figs 4 and 8).

Grave: W-E; indeterminate grave cut, approx. 2.0 by 0.65m; D. approx. 0.10m; south-east part cut away by grave 5.

Skeleton: Preservation: excellent (60%), top of cranium lost through plough damage, r. lower arm and r. leg removed by cut for grave 5. Extended, supine, with head turned to r., l. arm by side and l. leg pointed to r. across line of body. Sex: m. Age: 26-35. Stature: 1.715 ± 0.299m. Pathology: spinal djd, L2-L3 fused; body of the sternum and manubrium fused obliquely; Schmorl's nodes; ear infection; bone excavations; enthesopathies; spina bifida occulta. Dental health: deh; calculus; infractions; periodontitis; crowding.

Grave-goods:
1. Belt-fitting (FN1). On second lumbar vertebra; subrectangular hoop of osseous material with narrow hinge bar, around which is attached a copper-alloy, S-profiled pin and rectangular sheet-metal plate secured by two iron rivets; the pin nests in a cut-away within the plate; leather and textile remains (not identified); hoop L. 25mm, max. W. 26mm; plate L. 22mm, W. 13mm.
2. Knife (FN11). Lying at a diagonal between buckle hoop and top of r. iliac crest of pelvis, i.e. probably hung along a belt; iron, fragmentary, with extensive wear on blade; ext. L. 116mm, blade W. 10mm.
3. Pottery vessel (FN20). Outside and abutting middle of l. femur; about two-thirds extant; dark-grey fabric, with brown patches on the surface; shouldered with a flat base and vertical neck; H. 145mm; rim dia. 139mm, max. dia. 160mm, wall th. 6mm, base th. 4.5-5mm.

Grave 5 (F39, C1063) (Figs 4 and 7).

Grave: W-E; cuts Grave 4; subrectangular grave cut, approx. 1.30 by 0.50m, D. 0.20m; badly damaged by tree roots and burrowing animals.
Skeleton: Preservation: very poor (50%), skull (disturbed), humeri and leg long-bones only. Extended, supine, with l. leg flexed over straight r. leg. Sex: nd. Age: 11-15. Pathology: bone excavations.

Grave-goods:
1. Knife (FN5). Between inside of r. humerus and missing ribs: i.e on r. chest? Iron; stumpy (incomplete?) blade with complete handle; L. ext. 91mm, handle L. 41mm, max. W. blade 21mm.

Grave 6 (F42, C1067) (Figs 4 and 8).

Grave: W-E; plough-damaged subrectangular grave cut, with vertical sides, 1.70 by 0.80m, D. 0.20m.
Skeleton: Preservation: poor (75%). Body supine, with head turned to l., r. arm drawn up across body so hand on l. shoulder, while l. forearm angled to r. across abdomen; legs flexed to l. Sex: f?. Age: 17-21. Pathology: cribra orbitalia. Dental health: deh; calculus; infractions.

Grave-goods:
1. Small-long brooch (FN2). Behind r. knee, possibly moved by plough; copper alloy, cast, with fragmentary iron pin remains; L. 67mm, W. headplate 34mm.
2. Knife (FN10). Under proximal end of r. femur (hung from belt or in a pouch/pocket?); iron, fragmentary; L. ext. 67mm, max. W. 15mm.
3. Pair of suspensory tabs (FN 263). Location not recorded; copper-alloy, sheet metal strips, each with perforation at one end containing fragments of iron, probably remnants of the rivet or loop from which they were hung; other ends bent in profile and abraded; L. 19mm, W. 11mm.

Grave 7 (F46, C1074) (Figs 5 and 8).

Grave: W-E; subrectangular grave cut with sloping sides; plough-damaged at south-east corner, 1.90 by 0.90m, D. approx. 0.20m.

Skeleton: Preservation: moderate (90%). Extended, supine, in slight l. inclining arc, with head tilted towards l. shoulder, arms close by sides, r. ankle crossed over l. Sex: m. Age: 26-35. Stature: 1.726 ± 0.337m. Pathology: Harris line; spinal djd; djd at both acetabula, clavicles, r. glenoid cavity; Schmorl's nodes; fracture of C6? cribra orbitalia; bone excavations. Dental health: deh; calculus; infractions; periodontitis; crowding.

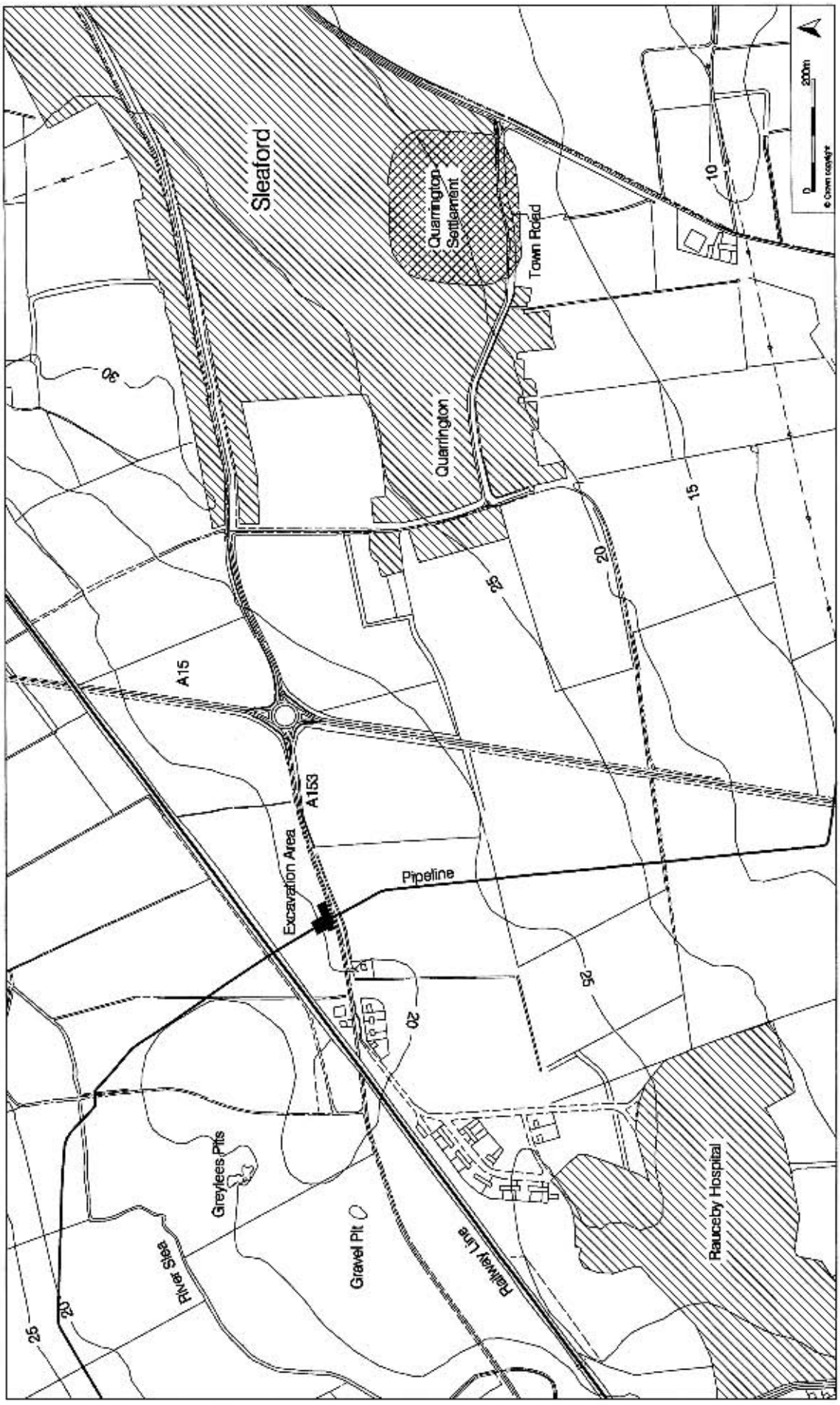

Fig.2. Site location map.

Grave-goods:
1. Strap-end (FN13). By head of r. femur; two copper-alloy tongue-shaped sheets, fastened at the butt end by a copper-alloy rivet: the upper sheet has two tiny, off-centre perforations; L. 39mm.
2. Shield. Outside r. humerus/shoulder; iron boss (FN16 and FN247-250, the latter not located), fragmentary and unreconstructable, but including parts of flange, W. 28mm, and carination between the cone and concave wall; two iron disc-headed studs (FN14 and 15) from flange or shield-board, dia. 24mm, the former without evidence of a rivet, the latter with a rivet, L. ext. 6mm, and wood remains (not identified).
3. Knife (FN17). At r. side/under and parallel with lumbar vertebrae (i.e. at waist); iron, fragmentary, total L. ext. approx. 85mm; handle, L. ext. 38mm, blade W. approx. 10mm.
4. Buckle (FN1103). With knife; iron hoop with pin, L. 17mm, external W. 23mm.
5. Pottery vessel (FN18). Over middle of l. arm; partially reconstructed; largely dark grey-surface with a few light brown patches; H. 225mm, rim dia. 138mm, max. dia. 245mm, base dia. 140mm, wall th. 6-7mm.

Grave 8 (F309, C1422) (Figs 5 and 9).

Grave: W-E; rectangular grave cut, with root disturbance throughout, approx. 1.50 by 0.60m, D. 0.10m.
Skeleton: Preservation: poor (50%). Flexed on l. side, with r. lower arm bent across rib-area/lower l. arm. Sex: nd. Age: 6-8. Pathology: bone excavations.

Grave-goods:
1. Metal-bound vessel (FN228 and FN229). Between the l. side of the head and the west end of the grave, at a higher level than the skull; copper-alloy sheet-metal rim binding reconstructable as a single hoop, but found in two pieces, FN229 probably having been tipped over by the plough; no evidence of rivet holes or organic materials; a fine incised line borders each edge; W. 17-18mm; approx. dia. 106mm.
2. Knife (FN231). Across lower r. ribs; iron blade fragmentary, handle complete; L. ext. 90mm, handle L. 55mm, max. W. approx. 18mm.
3. Belt-fitting (FN236). In area of lower l. ribs; fragments of iron oval buckle hoop and pin and wrap-over, copper-alloy, sheet metal, rectangular plate, fastened at its butt end by an iron rivet; fragments of leather inside plate; plate L. 25mm, W. 13-11mm.

Grave 9 (F310, C1442) (Figs 5 and 9).

Grave: W-E; rectilinear grave cut, disturbed at western end, and with root disturbance throughout; W. 0.50m.
Skeleton: Preservation: poor (20%), leg bones only survived; legs flexed to r. Sex: nd. Age: adult.

Grave-goods:
1. Knife (FN239). To l. of proximal end of l. femur; iron; organic remains from sheath and handle (not identified); L. ext. 119mm, handle L. 43mm, max. W. 20mm.
2. Ring with suspensory fitting (FN240). In line with knife, to l. of middle of l. femur; iron, circular-sectioned ring with fragmentary, U-profiled hasp, fastened at its butt-end by an iron rivet and preserving organic remains and textile (not identified); ring dia. 60mm; hasp L. 30mm, W. 13mm.

Grave 10 (F311, C1428) (Figs 5 and 9).

Grave: NW-SE; grave cut only partially visible; disturbed by root and worm action.
Skeleton: Preservation: very poor (15%); extended, supine. Sex: nd. Age: 1-2. Dental health: calculus.

Grave-goods:
1. Pottery vessel (FN242). Abutting r. side of skull; about half of a crude vessel with slightly sagging base; buff to dark grey surface colour, with a dark grey core; H. 114mm, rim dia. approx. 130mm, base dia. 80mm, wall th. 7mm, base th. 7-9mm.

Grave 11 (F312, C1430) (Fig. 5).

Grave: W-E; grave cut not detected.
Skeleton: Preservation: poor (45%). Supine? Sex: nd. Age: 1-2. Pathology: Harris line.

No grave-goods.

Grave 12 (F313, C1433) (Figs 5 and 10).

Grave: W-E; grave cut not detected; extensive animal and root disturbance.
Skeleton: Preservation: very poor (30%), missing skull and ribs; flexed to l., with humeri both pointing to l., and r. femur across l. femur. Sex: m?. Age: adult. Pathology: Harris line.

Grave-goods:
1. Shield (FN224 and FN238). To l. of l. shoulder; FN238, found to r. of r. shoulder joins a piece from FN224 and was presumably disturbed by the plough; a. iron boss, highly fragmented, but preserving parts of the wall and full circumference of the flange, including five rivets and attached wood-remains (not identified); probably Dickinson Group 1; approx. dia. 194mm; b. iron grip with disc-headed iron rivets; strip-leather binding on front, wood with grain parallel to long axis on back (not identified); Härke Type Ia1; L. ext. 118mm, W. 21mm.
2. Knife (FN230). Immediately to r. of central thoracic vertebrae (i.e. at back of waist); iron, fragmentary; organic remains from handle and sheath (not identified); L. ext. 110mm, W. 15mm.

Grave 13 (F320, C1445) (Figs 5 and 9).

Grave: W-E; subrectangular grave cut, 1.60 by 0.50m, D. 0.30m.
Skeleton: Preservation: poor (65%), r. lower leg lost through disturbance. Extended, supine, with head and upper body twisted to l.; l. arm bent up at elbow with hand bent forwards, r. arm crossed over body with hand outside l. hip; l. leg and r. femur straight. Sex: f. Age: 20-25. Pathology: djd of L5; Schmorl's nodes. Dental health: deh; calculus; infractions; caries; periodontitis.

Grave-goods:
1. Roman coin (FN232). By distal end of l. radius (originally by or in the hand?); copper-alloy, Æ3, unpierced; House of Valentinian (AD364-78); rev. *Securitas Reipublicae*.

Grave 14 (F321, C1447) (Fig. 6).

Grave: W-E; subrectangular grave cut superimposed on grave 15, with east end possibly cut by modern activity; approx. 1.30 by 0.40m, D. 0.20m.
Skeleton: Preservation: poor (50%), no hands or feet. Flexed to l., with head and torso slumped forwards, thus lying prone; l. arm raised beneath head, r. arm by side, legs flexed to l. Sex: nd. Age: 13-15. Pathology: bone excavation.

No grave-goods can be reliably assigned to this grave, though at excavation a small-long brooch (FN227) found outside and behind the l. shoulder of the skeleton in grave 14 was ascribed to it. Given the disposition of the skeleton, the lack of metal staining on it, and the fact that the brooch is the exact pair to one on the skeleton in grave 15 (FN226), it is likely that it had been disturbed from grave 15, either when grave 14 was interred above grave 15, or more recently through plough damage.

Grave 15 (F322, C1449) (Figs 6, 10 and 11).

Grave: W-E; grave cut not detected and suffered considerable root disturbance; lay under grave 14.
Skeleton: Preservation: moderate (70%). Extended, supine,

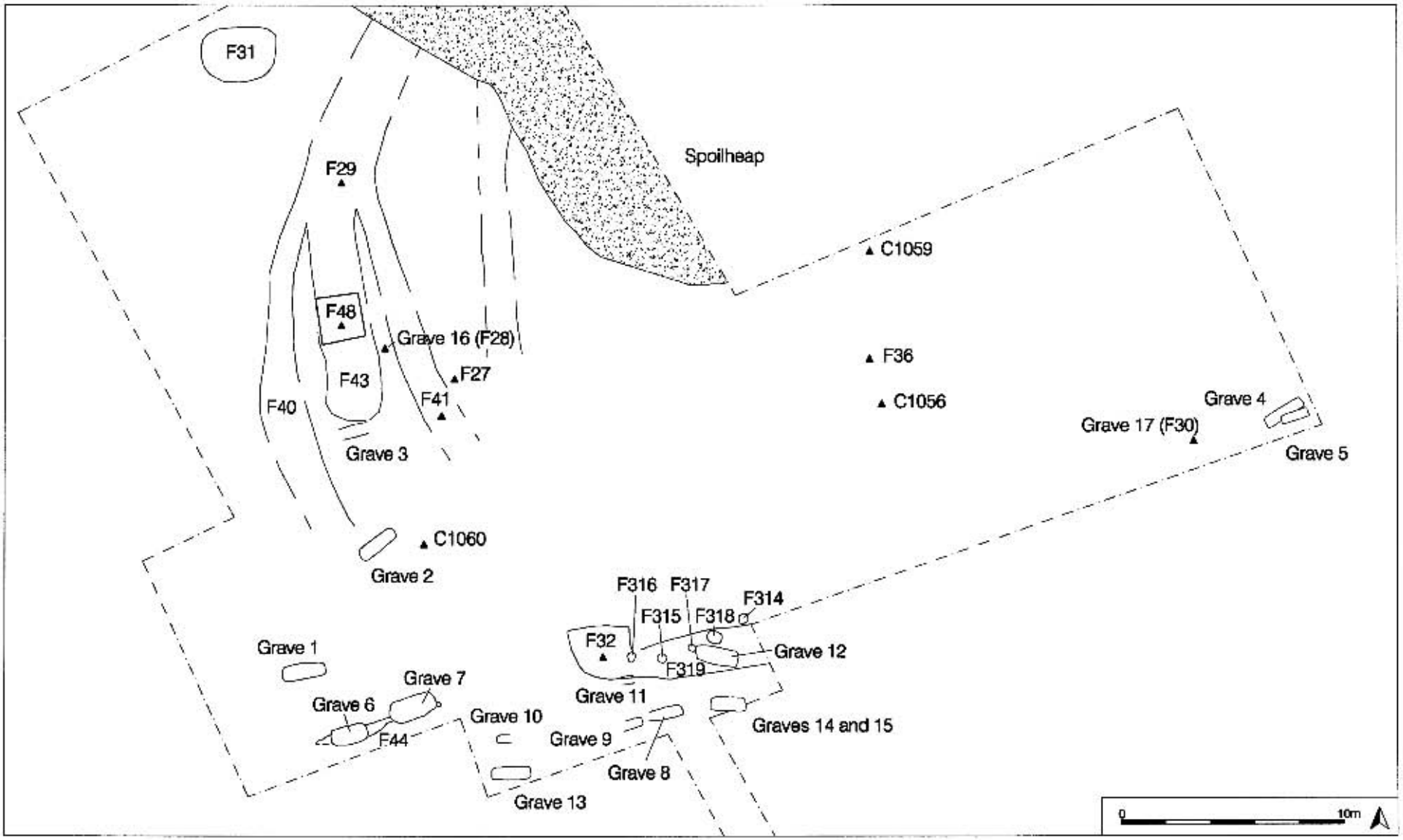

Fig.3. Site plan, showing graves, heaps of disarticulated unburnt bone (solid triangles) and other features. C1039, C1061 and C1543 were numbers allocated to general ploughsoil finds and cannot be plotted.

with l. arm by side, r. lower arm bent l. across pelvis, l. leg crossed over r. leg, which is slightly flexed l. at knees. Sex: f. Age: 17-19. Stature: 1.593m (from long bones), but given the collapsed spine, in life probably somewhat less. Pathology: tuberculosis; paralysis. Dental health: deh; calculus; infractions.

Grave-goods:

1. Cruciform brooch (FN225). Over upper thoracic vertebrae/ r. shoulder; copper alloy, with remains of iron pin-spring in pin-holder lug; catchplate coiled tightly to l., but no evidence of pin within it; flat-backed apart for slight concavities at knobs and down central axis of foot; lappets in form of profile Style I 'helmet' head with bird-beak, incomplete on the left-hand lappet; decorated with two annulet punches, the larger being applied mostly as a semicircle or crescent; Mortimer Type D5; L. 130mm, max. W. headplate 67mm.
2a and b. Pair of small-long brooches (FN226 and FN227). a. At head of r. humerus/distal end of r. clavicle; b. outside r. shoulder (disturbed from left side?); cast copper alloy with remnants of iron pin and spring; decorated with triangular, crescentic and annulet punches; a. L. 69mm; b. L. 67mm, both W. headplate 27mm.
3. Buckle (FN233). By lumbar vertebrae (i.e. on centre waist); iron, oval hoop with pin and rectangular plate; L. 42mm, W. hoop 25mm, W. plate 14mm.
4a and b. Pair of sleeve clasps (FN234 and FN235). a. Between distal end of r. radius and hand-bones; b. either side of distal end of l. radius and ulna; b. is a complete clasp, but a. consists of the eye-half only; copper-alloy sheet metal with repoussé bosses and crescentic punched decoration; Hines Form B7; L. 34-36mm, W. 17-18mm.
5. Copper-alloy fragments (FN237). By l. scapula; tiny fragments of sheet metal, possibly from a necklet .
6. Knife (FN241). By lumbar vertebrae, next to buckle; iron; mineralised organic remains (not identified); L. ext. 105mm, handle L. 49mm.
7. Ring (FN241). Over the blade/handle junction of the knife; iron with textile adhesions (not identified); dia. 32mm.
8. Amber bead (FN243). Under upper thoracic vertebrae; max. W. 18mm, L. 9mm.
9. Polychrome glass bead (FN244). On r. mastoid process (i.e. by r. ear); badly degraded, wound and marvered opaque white, short globular with circumferential, wide crossing, translucent blue waves and three red dots; Guido Type 3iiic; max. dia. 15mm, L. 7mm.

Grave 16 (F28, C1037 and C1042).

C1037 was excavated as a jumble of disarticulated bone; C1042 was the backfill of a poorly defined scoop. Together they have been reconstructed as a single individual and presumed to be a disturbed grave.
Skeleton: Preservation: moderate (30%). Sex: m. Age: 23-25. Pathology: Schmorl's nodes; unhealed blade injury on L1.

No associated grave-goods.

Grave 17 (F30, C1047).

Damaged and disturbed during machining, but thought to represent a previously undisturbed grave.
Skeleton: Preservation: good (25%). Sex: m. Age: 36-45. Pathology: djd at r. proximal radius and l. acetabulum; crease in l. scaphoid; bone excavation.

No associated grave-goods.

Unassociated Anglo-Saxon finds (Fig.11).

1. Knife (FN222; F38, C1061). Iron; L. ext. 88mm, W. 14mm.
2. Pottery sherd (C1039, the ploughsoil). Not illustrated.

Discussion

The buried population

Despite the overall poor bone preservation, the osteological analysis by Malin Holst (Field Archaeology Specialists 2004, Appendix D) allows an unexpectedly vivid picture to be drawn of the population sample, both generally and, in some remarkable instances, individually. A broad population-range is represented, although, as is often the case in early medieval cemeteries, it does not correspond with an expected profile of age-at-death for a pre-modern population: the seventeen identifiably individual burials comprised five children under fifteen years (two older infants in graves 10 and 11; a child in grave 8; an older child/young teenager in grave 5 and another young teenager in grave 14); three young adult females (graves 6?, 13 and 15); five adult males (graves 1, 4, 7, 16 and 17) and one older male (grave 2); there were also three adults of indeterminate years and sex (graves 3, 9 and 12), though the individual in grave 12 was possibly male. An estimation of the minimum number of individuals represented by the remaining twelve contexts with disarticulated bone, based on counting all long-bone ends and other larger skeletal elements, would add only another three individuals, making a site total of twenty.

Stature could be estimated for only three adult male skeletons (graves 1, 4 and 7) and one female (grave 15). They fall clearly into the normal range for early Anglo-Saxon cemeteries, when stature among pre-modern British populations reached a peak (adult male mean of 1.723m and maximum of 1.90m; adult female mean of 1.614m, Caffell 1997), although the disability suffered by the grave 15 female means that she was almost certainly shorter than her long-bone measurements suggest.

The palaeopathological evidence produced some exceptional cases of disease. The unfortunate young adult (in fact, still in her late teens) in grave 15 had suffered from tuberculosis for a number of years. She had typical lesions on three surviving lumbar and three thoracic vertebrae, and also severe atrophy of all the limbs, especially the legs, implying extended periods of bedrest or actual paralysis: she must have been attentively cared for during her illness. Other archaeological cases indicate that such care for disabled children was not unknown among early Anglo-Saxons (Crawford 1999, pp.94-96). Cases of tuberculosis occur in early Anglo-Saxon cemeteries, usually singly (e.g. Evison 1988, p.59; Malim and Hines 1998, p.177), but the dispersed and rural settlement conditions meant that the disease was not extensive in the way it was to become in the later Middle Ages; childhood contraction of the disease and likely close contact with animals suggest the source was bovine. An inflammatory lesion of a central right rib shows that chronic lung infection (e.g. tuberculosis or pneumonia), which was still active at the time of death, also afflicted the adult in grave 3. Erosion of the internal and external structures of the left ear of the adult male in grave 4 indicate that he had suffered from a cholesteatoma (a non-cancerous tumour), which probably caused deafness and possibly was fatal (Mays and Holst forthcoming).

As is generally the case with early Anglo-Saxon populations, dental health was mostly good, probably as a result of a reasonably rough diet, which shows up in the moderate and age-related wear on the teeth, especially the first molars. Of the eleven skeletons for which data were available (representing 220 tooth positions and 208 teeth), only 1.8 per cent of teeth had been lost ante mortem; in only one individual (grave 2) could an abscess be detected from an externally draining sinus; caries were also found only once, in the young adult female in grave 13, although, given her age, she suffered exceptionally, presenting with ten slight to severe lesions on the posterior teeth. She also stood out as the person most severely affected with periodontitis, and the only one with this condition under twenty-five years of age; otherwise it occurred only slightly,

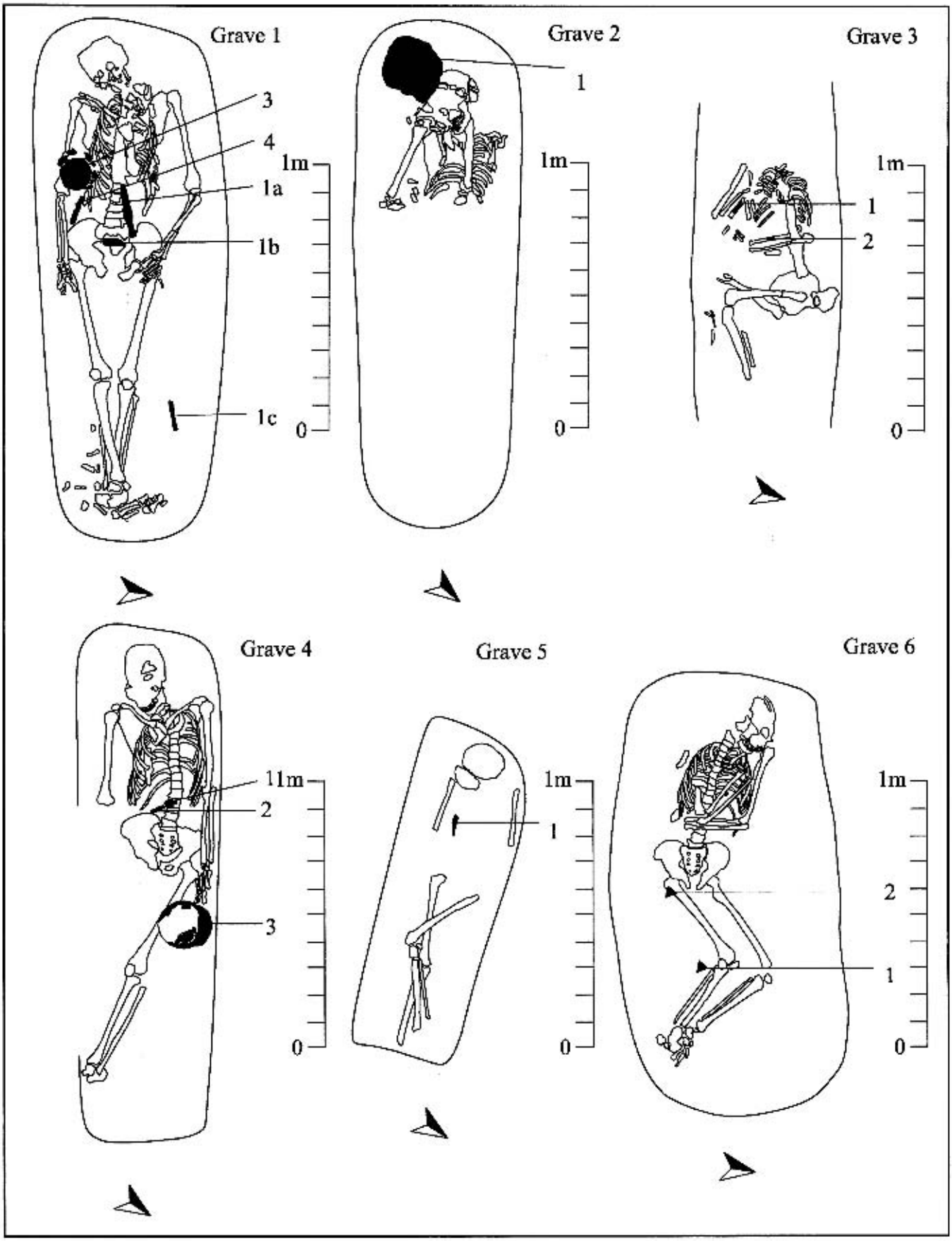

Fig.4. Plans of graves 1 to 6.

or moderately, in three young adult males (graves 1, 4 and 7) and somewhat more extensively, as might be expected, in the older male in grave 2. Clearly, the dental hygiene of the woman in grave 13 was very poor compared with the norm, although she was not particularly affected by calculus (dental plaque), which was evident, albeit usually mildly, on 73 per cent of the teeth. Contrary to the normal incidence of this condition, however, which reflects the position of the salivary glands, the Quarrington population had their calculus deposits spread fairly evenly among the mandibular teeth and barely at all among the maxillary teeth.

Congenital conditions were scarce and minor, and would not have affected lifestyle. The man in grave 4 had a malfusion of the manubrium and body of the sternum and spina bifida occulta; he also lacked the third mandibular molars, and, like the man in grave 7, had overcrowded teeth resulting from a small jaw. The man in grave 17 displayed a crease on the articular surface of the left scaphoid (wrist).

Many of the Quarrington skeletons showed the marks of arrested or disturbed growth. Dental enamel hypoplasia, caused by severe disease or malnutrition before the age of about seven, was found in five individuals: relatively mildly in the adult males from graves 4 and 7, more severely in the young adult females from graves 6, 13 and 15. The sample size is probably too small to infer a sex-based dietary difference here. Harris lines, which were observable in broken shafts of leg bones from the adult males in graves 1, 7 and 12, as well as the older infant in grave 11, are also an indication of arrested growth in childhood because of severe disease or malnutrition. In the case of grave 7, this episode might also have caused his cribra orbitalia, a sign of chronic iron deficiency (anaemia) in childhood. This condition was possibly more prevalent than this one instance from a recorded grave suggests, because eye orbits were otherwise poorly represented among the recorded graves, whereas cribra orbitalia was detected in two of the disarticulated bone contexts (an adult male in F27 and a juvenile in F29).

There was also a range of evidence for conditions associated with occupational activities. Habitual squatting is evidenced by two cases of lateral tibial squatting facets of the right tibia and three of the left (adults in graves 7, 9 and 15). It is probably also the cause of trauma at the insertion point of the soleus muscle in the tibia of the female in grave 6 and non-adults in graves 5, 8 and 14, since this muscle is involved in inferior flexion of the foot. Infractions (dental enamel chipping) suggest some activities involved the use of teeth, and that these were differentially sex-based: while they affected mainly the canines and premolars of two young adult males (graves 4 and 7), they affected the first maxillary incisors of three females (graves 6, 13 and 15) and the male in grave 4. Muscular stress at the attachment of the gluteus maximus (the large muscle of the bottom) is probably the cause of the six cases of hypotrochanteric fossae (a linear depression) of the left femoral shaft and seven of the right (graves 4-5, 7-8 and 12-14). Mild degenerative joint disease (djd) was recognised in five adult males (graves 1, 2, 4, 7 and 17) and on four fragments from F29, mostly in the hip and right shoulder, though in the case of grave 1 it was a secondary complication following a healed ankle fracture. Osteoarthritis, caused by the degeneration of cartilage at the joints, was noted in the left fifth metacarpal and spine of the man in grave 2, in the left knee of the unsexed adult in grave 3, and in an elbow from F29. The individuals in graves 1-4, 7, 13 and 15 also suffered from spinal joint disease: among the males it was much more likely to affect the entire spine, including the cervical vertebrae, whereas in females it was not common, and only affected a tiny number of vertebrae. Although joint disease can be caused by genetic or endocrine factors, physical stress and ageing are the more likely causes here. Given its much greater, and differential, incidence among the adult males compared with the females, and that most of these individuals were under the age of thirty-five, it can probably (except presumably in the case of the disabled female in grave 15) be attributed to hard physical labour undertaken from an early age. This is confirmed by the occurrence of Schmorl's nodes, which are probably caused by axial pressure on the vertebrae and herniation of the intervertebral discs during adolescence or early adulthood (they show no increase with further age). These too predominated among the men (graves 1, 4, 7 and 16), whose thoracic vertebrae were most affected, whereas in the one female instance (grave 13), the lumbar vertebrae were more severely affected. This suggests differences in the way young men and women carried heavy loads or in the sort of occupations involving lifting in which they engaged.

Quarrington has also produced a surprising number, proportionally, of weapon injuries, which are actually not common in early Anglo-Saxon cemeteries, and are more frequent among weaponless than weapon-bearing men (Härke 1992, pp.211-14; Wenham 1989), although whether this was true of the Quarrington cases cannot be proven because of the circumstances of recovery. Two fragments of a skull from F29 bore a cut posteriorly from the left orbit, separating the orbital from the frontal, which is typical of face-to-face sword-fighting, and would have been fatal. A shallow cut limited to the posterior part of the first lumbar vertebra of the individual in grave 16, probably caused, therefore, by a knife or dagger rather than a sword, would also have been fatal, severing the back muscles and spinal cord; this is more typical of less formalised fighting or when warriors were in retreat or had fallen (Wenham 1989, pp.137-38). In the case of grave 1, the only grave certainly with weaponry and weapon-trauma, the two injuries made by a blunt oval implement to the right parietal, which need not have been received in formal battle, had healed and had not been the immediate cause of death. Whether these happened at the same time as the compression fracture to the left ankle, usually caused by a vertical fall from an elevated position, is unknowable, but it too had healed and caused secondary djd. The only other fracture observed was near the wrist on a right radius from F29.

Overall, these skeletons suggest a community in which disease and hard physical labour took their toll from an early age, and in which occupations differed according to sex. While it is not known how representative of the population as a whole these bodies are, they do provide the human dimension against which the funerary behaviours can be assessed.

Grave construction and layout

Only nine grave cuts were identified in the field. All were rectangular or subrectangular. They ranged in length from 0.80m (the truncated grave 3) to 2.00m, and in width from 0.40m to 0.90m. Despite the small sample, there is a consistent correlation between the largest graves (L. 1.9-2.00m) and adult male occupants (graves 1, 4 and 7), and between smaller graves (L. 1.30-1.50m) and children (graves 5, 8 and 14), which is entirely to be expected (Stoodley 1999, p.67). There was no evidence of coffins, and the body-layouts do not suggest that the bodies had been constrained by a container or shroud. Sex and age seem also to have had some influence on how the body was laid out in the grave. In eight cases definitely (graves 1, 2, 4, 5, 7, 10, 13 and 15) and in one case probably (the infant in grave 11), the bodies were supine and extended. Three of these, all younger adult males, also had their arms by their sides (graves 1, 4 and 7), whereas the older male (grave 2) and the two younger females (graves 13 and 15) had one or both arms crossed over the body; the men in graves 1 and 7 had, however, their legs crossed at the ankle, and the child in grave 5 and young woman in grave 15 had one leg slightly flexed, which thus crossed over the other leg. Nonetheless, of those individuals laid out with both legs flexed or more tightly crouched – a layout which seems to have been the norm at Sleaford (Thomas 1887, p.385) – and with one or both arms crossed over the body, only one was possibly

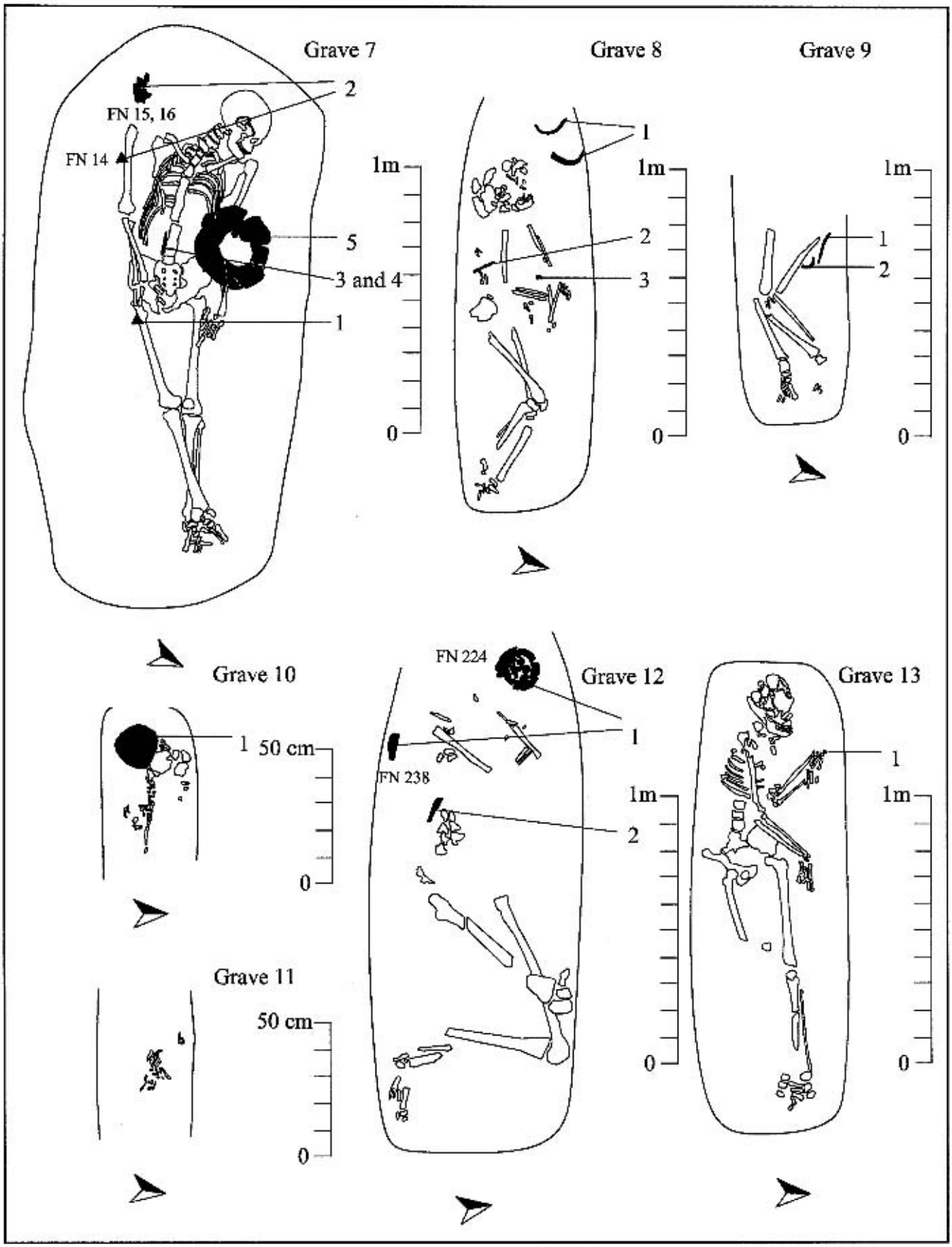

Fig.5. Plans of graves 7 to 13.

male (grave 12), while the other five were young, female or unsexed adults. Their body-position varied, however: while the individuals in graves 3, 8 and 12 were on their side, the young adult in grave 6 was supine, and the teenager in grave 14 had the upper body twisted into a prone position (only legs survived from grave 9).

There were two cases of superimposition: grave 5 (a child) cut grave 4 (an adult male), while grave 14 (a young teenager) was stacked above grave 15 (a young adult female). From Nick Stoodley's detailed investigation of patterning in multiple burials, it seems that nothing of significance can be inferred from the former case. In the latter case, only one grave-cut was detected – at the level of grave 14 – and the upper burial had been disproportionately damaged by the plough. It is uncertain whether this is a genuine example of very rare, contemporary stacked burial or a case of the slightly more evidenced, though still not common, consecutive stacked burial. The slight evidence of disturbance to grave 15 could have been the result as much of the deep-ploughing as the secondary insertion of grave 14. The prone position of the individual in grave 14 would concord with other examples of contemporary stacked burial, but the co-association of a female adult and adolescent (actually both in their teens) is not characteristic of double burials. Coupled with the fact that the sickly and crippled individual from grave 15 would have been particularly marked out in life, the burials are clearly unusual, but they need not carry sinister or ritual connotations. Whether the deaths were contemporaneous or not, they could have been sufficiently unusual or stressful within a small community to merit the special treatment (Stoodley 2002).

All the recorded graves were oriented approximately west to east, except for the fragmentary infant burial (grave 10), which was north-west to south-east. West to east is by far the most common orientation for Anglo-Saxon burials (Stoodley 1999, pp.63-64) and was the standard at Sleaford locally (Thomas 1887, p.385), although at Quarrington, as already outlined, it could have been influenced by awareness of the Bronze Age ditch (F32/F319) and its subsequent Bronze Age cremation burials, which may have provided a focus for the Anglo-Saxon cemetery (Fig.3). The apparent layout of the burials – mostly within a roughly V- or L-shaped zone, approximately 25m in each direction, with just three graves (4, 5 and 17) some 22m further to the east – may owe more, however, to post-depositional disturbance.

The grave-goods

The number and range of the grave-goods is modest, but correlations between the artefact assemblages and the sex, age and other features of the associated individual, and their correspondence with patterns established from larger samples of graves (Stoodley 1999), partially counter uncertainty about the integrity of the grave-groups occasioned by the circumstances of survival and recovery. Of the fifteen excavated graves with articulated bodies only two (the children in graves 11 and 14) contained no artefacts at all. The five graves with just one item apiece comprise two more children (graves 5 and 10), the young woman with appalling dental health in grave 13, the older male in grave 2, and the badly damaged feminine adult in grave 3. Individuals with two to four objects consist of only one child (grave 8) but six adults (graves 1, 4, 6, 7, 9 and 12), of whom four, probably five, were male and one (grave 9) feminine. Remarkably, the disabled young adult female in grave 15 had the most (seven artefacts, counting items from a necklet as one). There must be a strong suspicion that because of metal-detectorist activity typical adult feminine assemblages are under-represented; graves 3 and 9 in particular could well have lost brooches and other items.

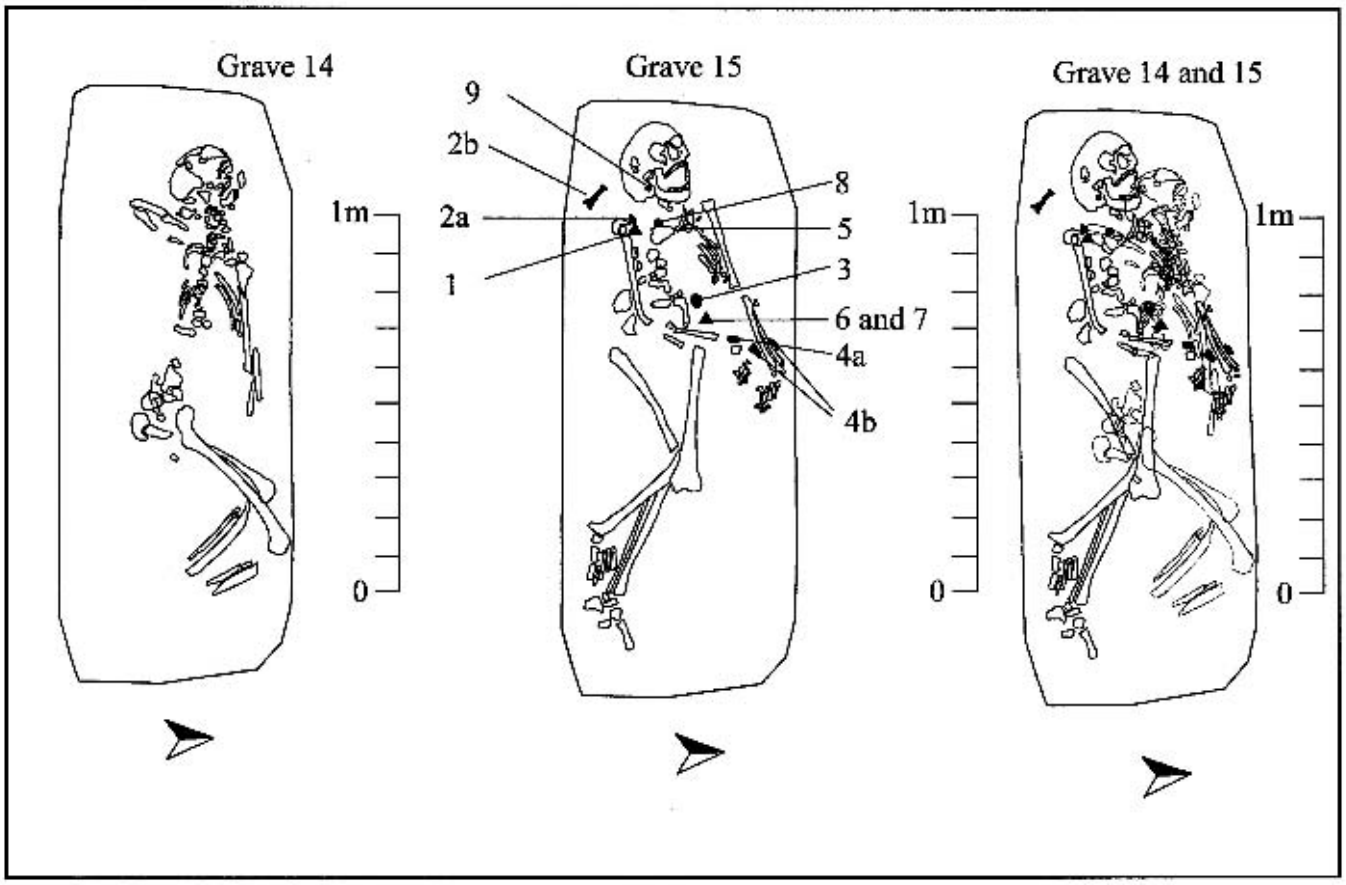

Fig.6. Plans of graves 14 and 15.

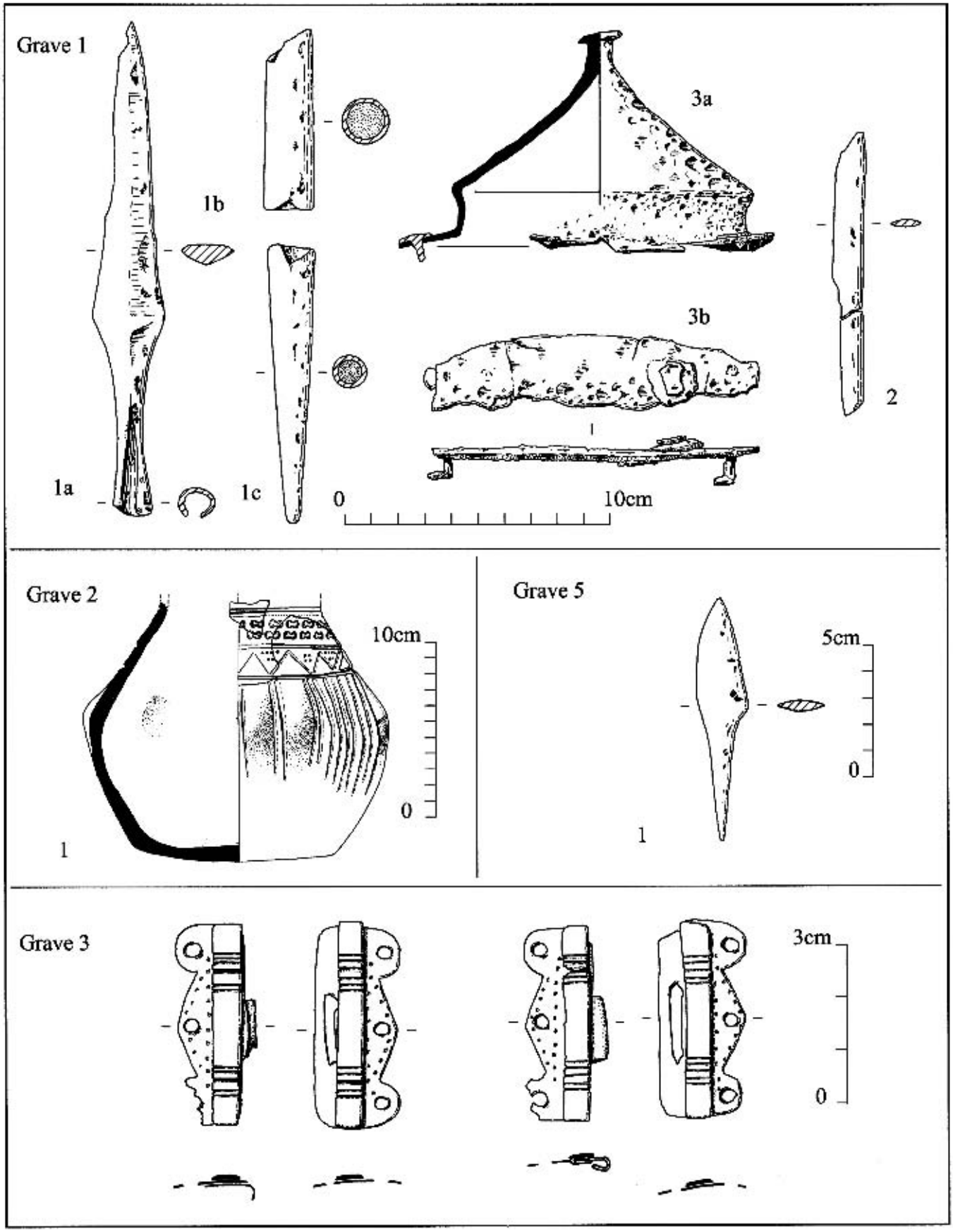

Fig.7. Grave-goods from graves 1, 2, 3 and 5 (Drawn by R. Jackson).

Jewellery and dress fastenings

Brooches were recovered from two adult graves. Grave 15 contained a pair of small-long brooches with trapezoidal headplate: one was apparently *in situ* on the right shoulder, the other outside/above the right shoulder, but arguably originally on the left shoulder, the two thus fastening a *peplos*-type dress at the shoulders. A small-long brooch with trefoil-shaped headplate was found behind the right knee in grave 6, but again had probably been displaced. Small-long brooches are not readily datable, but in John Hines's correspondence analysis of Cambridgeshire and East Anglia female assemblages, those with square headplates headed one of his two parallel and 'earlier' (later fifth to earlier sixth century?) costume groups, costume group B, whereas those with trefoil headplates were characteristic of the subsequent costume group D, dated by Hines to the 'final decades of the Migration Period' (in his terms *c*.525/30-560/70: Hines 1999). Also characteristic of his costume group D were cruciform brooches of Mortimer's Type D (cognate with Åberg's Group IV: Åberg 1926, pp.42-49), one of which, with bird-of-prey lappets in minimal Salin's Style I, was on the shoulder (perhaps originally the chest) of grave 15. It can be identified as a Type D5, but Mortimer's corpus provides no exact parallel for its particular combination of squarish lappets and headplate and foot without Style I additions (Mortimer 1990, pp.85-90; Cath Mortimer, pers. comm.). This might suggest some chronological inconsistency in grave 15's dress-jewellery. Perhaps her small-long brooches had been handed down a generation, though there is nothing obviously second-hand about them. Alternatively, the anomaly results from differences in fashion between Cambridgeshire/East Anglia and Lincolnshire, or from the difficulties of classifying small-long brooches and seriating grave-assemblages. A recent attempt by Helene McNeill at classifying Lincolnshire small-long brooches, which was guided by, but not wholly dependent on, correspondence analysis, put the grave 15 pair into the group of brooches with plain square headplates, but they were noted as exceptional. They were closely paralleled, however, by a pair from Sleaford grave 2 (McNeill 2001, pp.29-30, 45-48 (Group 4), Fig.3.8; Thomas 1887, p.389). The chronological place of this local form may, therefore, be different from that of the normal square-headed type. McNeill's argument that trefoil-headed brooches began the typology, preceding square-headed forms, was not tested against seriated grave-assemblages, however; were it to be the case, it might resolve the anomaly of grave 15, but it would contradict Hines's analysis.

That grave 15's assemblage should be aligned with Hines's fully sixth-century costume group D is corroborated by its (incomplete) pair of his Form B7 sleeve clasps (Hines 1993, pp.39-43), which are also a characteristic of costume group D. By contrast, the Form B17a sleeve clasps from the damaged grave 3 typify Hines's other 'earlier' costume group, group C (Hines 1993, pp.57-58; 1999, pp.68-72). It is likely that, originally, they too were partnered by a brooch or two (Stoodley 1999, p.79 and Table 47).

The two beads in grave 15 – one amber, the other short globular white glass with blue crossing waves and red dots – cannot refine this dating. The glass bead falls into type 3iiic of Margaret Guido's typology (based primarily on colour-combination and patterning), which she dated mainly to the later sixth and earlier seventh century, whilst admitting earlier occurrences, including at least one from the early fifth century (Guido 1999, pp.33, 202-06). The bead's wide crossing waves and overall proportions are not typical of the classic Continental versions of the type, defined now by Birte Brugmann as Koch 34 Blue and Dot 34, and which characterise her Anglo-Saxon bead-combination phase B2, *c*.AD580-650, and B, *c*.AD555-650, respectively (Brugmann 2004, pp.38-39, 44-58, 70 and 81). Rather, with its slightly protuberant dots, it would seem to represent an earlier product, more typical of Brugmann's bead-combination phase A, *c*.AD450-580, and probably of her phase A1, *c*.AD480-530 (cf. *ibid*., Fig.76; Birte Brugmann, pers. comm.). The beads probably formed a necklet, perhaps with a copper-alloy pendant, suspended from the small-long brooches.

It is typical that whereas items of jewellery were found only with female and unsexed adults, belt fittings (all for narrow belts) were associated with both sexes and a wider age-range. Three of the buckles have simple oval or oval/round iron hoops, the most common type of early Anglo-Saxon belt fitting, especially outside Kent (Marzinzik 2003, pp.32-34, Typegroup I.11). Their combination with a simple rectangular plate of iron (grave 15) or copper alloy (grave 8) is equally widespread (*ibid*., pp.46-47, Typegroup II.19) and association with a simple, two-piece copper-alloy strap end (grave 7) is also well established for adults, though, contrary to the instance here, in Sonja Marzinzik's sample of 1379 buckles it was rare with males (*ibid*., p.64). The buckle loop of osseous material with a rectangular copper-alloy plate from grave 4 is harder to place in context. The only other example of a rectilinear and bone loop known to me is an outer-edge fragment from Cleatham cremation 265, Lincolnshire, associated with playing pieces, a triangular-backed comb and an urn which falls early in Kevin Leahy's phasing of the site (K. Leahy, pers. comm.). Rectangular loops are otherwise known only in metal, and mostly belong to Marzinzik's distinctive Type I.6a (Marzinzik 2003, pp.24-25, pl.16), which is dated to the mid and later sixth century and is related to the series of buckle-types with narrow axles that were imported from the Continent into southern England, or were copied there, during the late fifth and sixth centuries (Marzinzik's Types I.2–5). Although a narrow axle is a feature of the grave 4 buckle, the loop is elongated in shape, unlike the high-rectangular profile of Type I.6a. The only possibly analogously shaped loop figured by Marzinzik comes from Alton grave 34, Hampshire, which was fastened to a long copper-alloy plate (*ibid*., pl.111, Typegroup II.19b): the loop is squared on its outer edge only, however, and Vera Evison has suggested that it might have been modelled on the late Roman (early fifth-century) buckles with out-turned horse heads and long plates (Evison 1988, p.22). Buckle loops made from bone or ivory are in general rare. In Marzinzik's sample there were only three: interestingly, in view of the parallels already adduced, two were of sixth-century Continental, heavy or faceted D-shaped type (Type I.5) found with males in Wessex, the other a simple oval (Typegroup I.11), made of boar's tusk, from Castledyke South grave 91, south Humberside, a grave dated to the seventh century (Drinkall and Foreman 1998, pp.61-62, 272, 357, Fig.81; Marzinzik 2003, pp.24-25, 55-56). Bone buckle loops appear, then, to have been a particular, if minority, preference in Lincolnshire, and the analogies for grave 4 – in bone and metal – probably favour its identification as a variant of sixth-century forms popular in southern England.

Personal items

Although personal items are usually separated from dress ornaments and fastenings, many hung from the clothing, and so were part of burial dress. Most typical of this category are knives, the most frequent grave-find in early Anglo-Saxon cemeteries, but notoriously insensitive to effective typology and dating. The ten examples from Quarrington II are no exception, especially as they are nearly all incomplete (graves 1, 4-9, 12 and 15, which represent all social categories, and one unstratified). All are small to small-to-medium in length, likely to have been for personal domestic use, and their contexts are quite consistent with burial practices of the later fifth to sixth centuries (Stoodley 1999, pp.30 and 35).

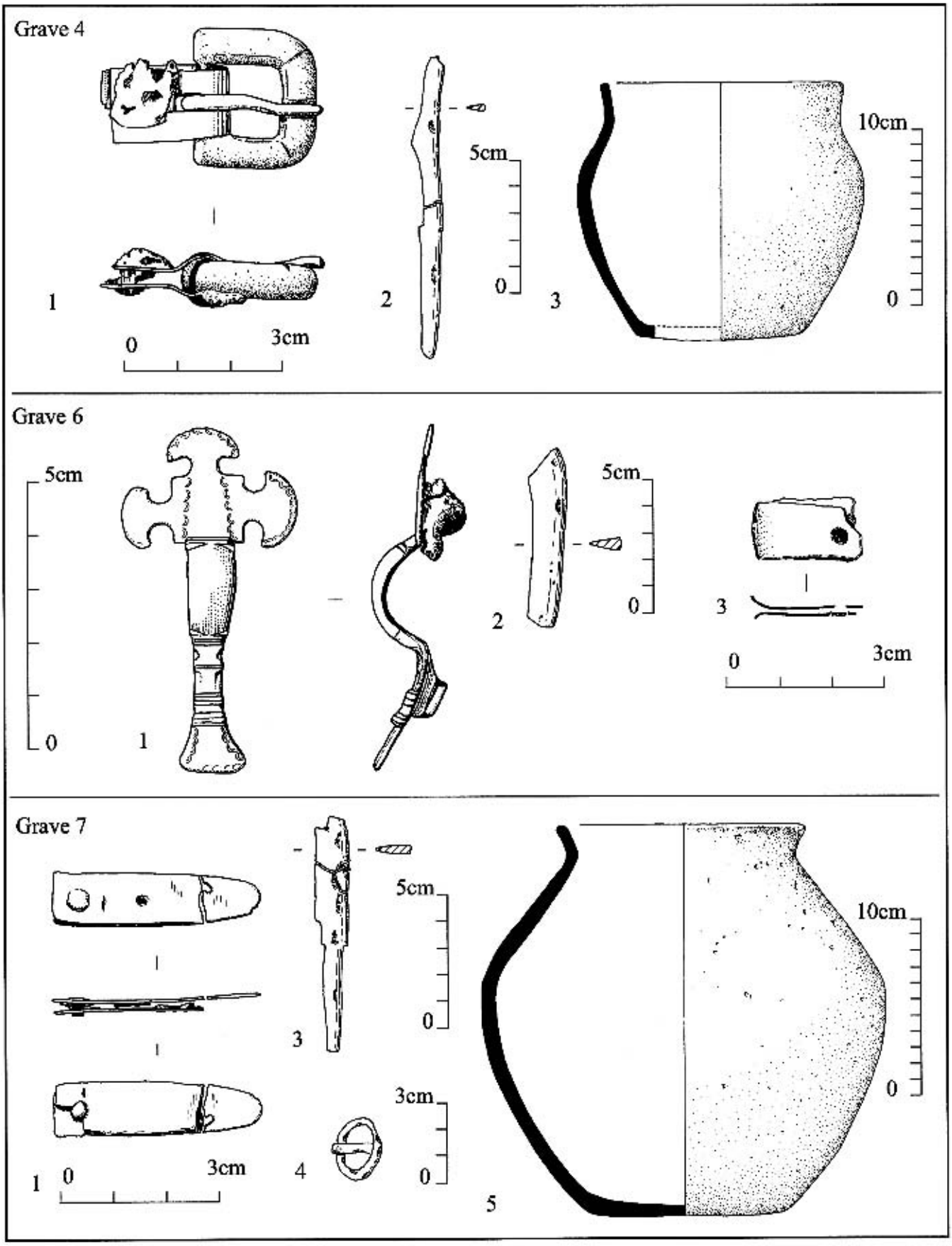

Fig.8. Grave-goods from graves 4, 6 and 7 (Drawn by R. Jackson).

Most retain traces of organic remains from the handle and/or sheath, which previous studies have shown are most usually horn and leather respectively (e.g. Malim and Hines 1998, p.231; Haughton and Powlesland 1999, p.141).

Non-functional items suspended from the girdle are characteristic of adult and adolescent female burial costume (Stoodley 1999, pp.33 and 108-11). The iron rings which hung from the girdle in graves 9 and 15, in the former case being suspended from an iron hasp, might have been amulets or, like the keys with which elsewhere they can be associated, symbols of feminine roles in or over the household (Meaney 1981, pp.174-78; Stoodley 1999, pp.124-25 and 137). Possibly the two small sheet-metal tabs with slightly bent ends from an unrecorded position in grave 6 had a similar role, especially if they were meant to be token latch-lifters.

The fourth-century Roman brass coin was the only item found with the young adult female in grave 13. Unpierced, it seems to have been clasped in the hand, a rare instance in early Anglo-Saxon England of a variant of the Roman practice of depositing in the grave a coin that the shade of the deceased can use to pay the ferryman, Charon, to be ferried to the world of the dead. Roger White's sample of 109 Anglo-Saxon graves with Roman coins recorded only seven such instances, of which only two, both from the Cambridge area, were actually in the hand rather than by it or the forearm, although in a child's grave at Sleaford (grave 85) six or seven coins were noted in two heaps, either among and on bones of the hand, or in the left hand and near the right elbow, the hands being crossed over the chest (Thomas 1887, pp.387 and 393; White 1988, pp.99-101, 156, Fig.48,2; cf. Morris and Dickinson 1999, p.94). What exact significance was invested in this gesture, and why it should occur at Quarrington as the only grave deposit for the lady with appalling teeth, are hard to say. Simplistic notions of continuity of Roman custom or of Romano-British populations are almost certainly inadequate.

Weapons

There were three weapon graves, two certainly and one possibly of adult males. Grave 1 contained a spearhead of Swanton's type H2 (Swanton 1973, pp.108-09) together with a shield with a Dickinson Group 1 boss, a combination typical of the later fifth to mid-sixth centuries, though both types can be found later (Dickinson and Härke 1992, pp.10-12). The spearhead, which lay over the abdomen, had been broken at the blade-socket junction in antiquity, presumably at burial. The position and angle of the ferrule might imply that the spear-shaft had also been broken at the point where it entered the spearhead socket, so that the spear lay in a Z-shape over the lower body. Heinrich Härke has drawn attention to other cases where the orientation and position of the spearhead indicates that the spear must have been broken in order to fit into the grave, especially if it reached normal adult spear-length, which he gives as 1.4 to 1.8m (Härke 1992, pp.125-26, footnote 160; Härke quoted in Adams and Jackson 1988-89, p.146). While most of his examples are southern English, he notes a particular custom of placing the spearhead at the level of the pelvis or upper legs, which is found in three Anglian-area cemeteries: Bergh Apton graves 20 and 71, Norfolk; Empingham II, graves 56 and 112, Rutland; Wakerley I, graves 27, 52 and 56, Northamptonshire (Green and Rogerson 1978, pp.20 and 46; Timby 1996, Figs 68 and 86; Adams and Jackson 1988-89, Fig.83, fiche B7-8 and D4-6). The example from Droxford grave 27, Hampshire, is fairly similar. Here, however, the spearhead was diagonally over forearm and pelvis, with the ferrule, which is rarely present in these cases, adjacent and parallel to it (Aldsworth 1979, p.164, Fig.8). The ferrule in Quarrington grave 1 must indicate where the butt of the spear was, so if the spear had been of standard length, it had actually been broken more than twice to fit into the grave. But if, as the layout of finds suggests, it was broken only twice, then the spear was not much over 0.90m in total length, which might undermine inferences drawn from the other cases of spearheads deposited at mid-body, although Quarrington would still join them as evidence for a minority preference in spear-placement. And, if it was arranged in a Z-shape, then the Pictish symbol of the 'Z-rod' (actually a reversed 'Z') or 'broken spear' might provocatively provide an analogy. It has been interpreted as meaning 'dead person' (Thomas 1963, pp.49-51, Fig.6,15) and is an obvious token of death or broken power, perhaps especially apposite for the man in grave 1 with his history of weapon-inflicted injury.

The other two weapon-graves, 7 and 12, contained only a shield. While other objects might have been disturbed from grave 12, this is unlikely in the case of grave 7; anyway, shield-alone burial is a well-recognised custom, especially in Anglian areas (Dickinson and Härke 1992, p.67). The boss from grave 7 cannot be reconstructed; the extant features of the boss in grave 12 correspond best with Dickinson's Group 1.1.

Grave equipment

The only other additions to the grave were vessels. Four graves (2, 4, 7 and 10) contained pottery, a relatively high incidence which reflects the greater popularity of pottery accessory vessels in Anglian cultural areas compared with other parts of England (Shoemaker 1995; Stoodley 1999, pp.33, 108). It is noteworthy, however, that whereas, in general, pots are more likely to be in the graves of women or children, at Quarrington while the smallest and crudest pot was given to an infant (grave 10), the other and larger pots furnished the graves of adult males. In the current state of early Anglo-Saxon pottery studies, none can be independently or closely dated. The decorated vessel in grave 2 can be assigned to Myres's Group IV *Buckelurne*, a widespread form of the later fifth and sixth centuries (Myres 1969, pp.45-47), while the others are undecorated and even harder to narrow down.

The grave 2 vessel was stamped with two dies, a comb-impression (Briscoe type N1aii, which is a common form), and a 'wyrm' design, in this case a positive, left-facing 'Z' with closed negative outline (Briscoe type H1bv), which in England is otherwise known only from Loveden Hill, where it is also associated with a type N1aii stamp, Cleatham, Spong Hill, Norfolk, and Girton, Cambridgeshire (Briscoe 1983, esp. p.64 and Figs 4-5). Open-ended variants of the 'wyrm' (Briscoe type H1bvii, left-facing, and H1bviii, right-facing) are represented plentifully at Loveden Hill, and there is one instance of H1bvii at Newark-on-Trent, Nottinghamshire. If stamps relate to familial identity (Arnold 1988), then a connection between the Quarrington population and those whose cremations were deposited at Loveden Hill, some eight miles (13km) to the west, is not so surprising, but the links (and shared meanings) clearly extended to other major cremating centres in neighbouring Anglian regions.

Petrological examination, based on thin-sectioning, also suggests that the pottery was made from locally available materials, but from a variety of different sources (Alan Vince in Field Archaeology Specialists 2004, Appendix H; Vince 2003b). The grave 4 pot was tempered with material which was derived originally from the weathering of Permo-Triassic sandstone to the west of the Trent; but since pottery-use in that area was rare, and since pottery from the Trent valley north of Newark contains a wider range of inclusion types, it is suggested that the source of this pot's material came from further south in the Trent valley. The grave 10 pot included an admixture of Trent-valley quartzose sands, but was distinguished by evidence of a calcareous clay derived from the Lower Lias or Rhaetic, which outcrops in the Trent valley. A sherd recovered from the ploughsoil combined materials from fluvio-glacial sands of the Trent valley and from

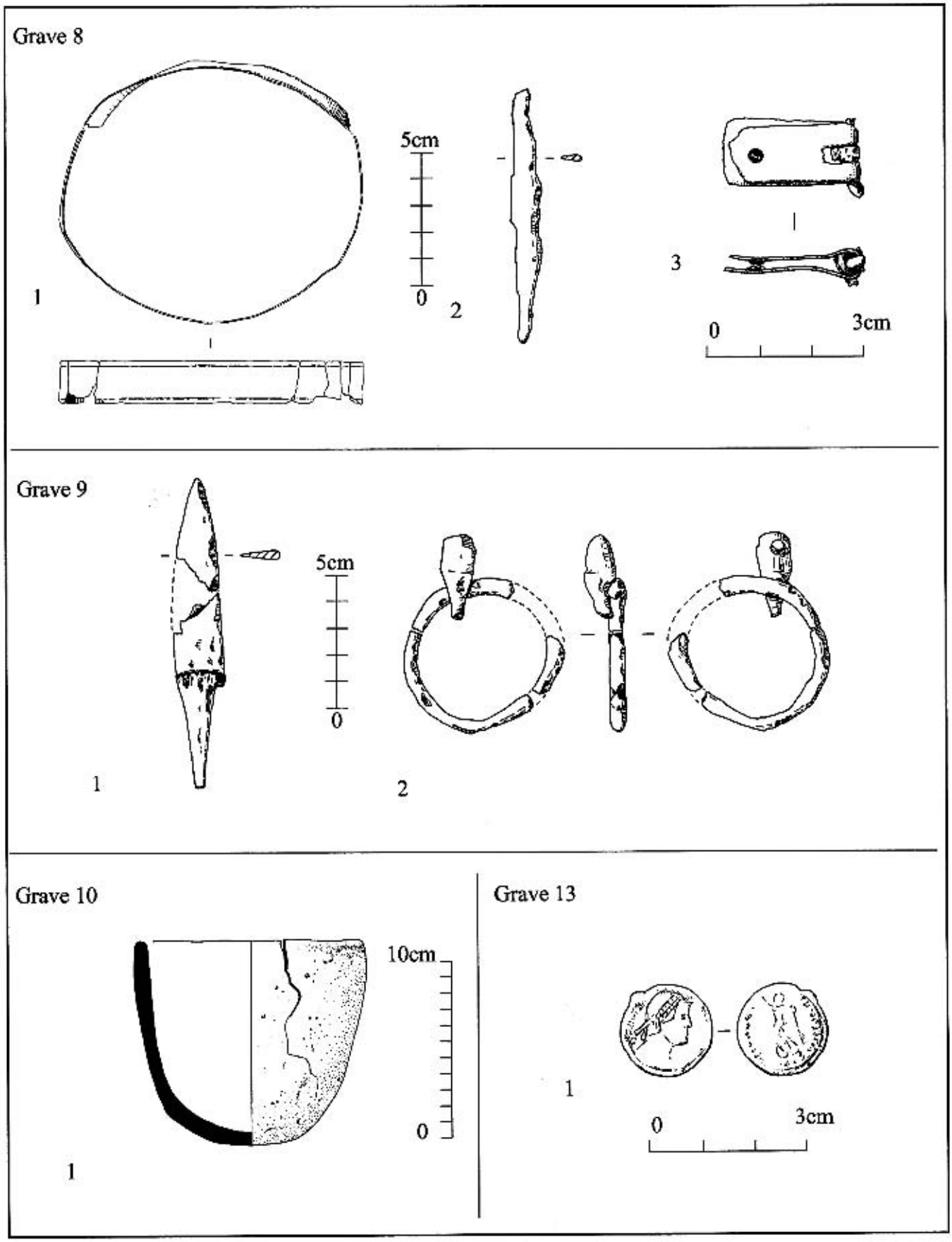

Fig.9. Grave-goods from graves 8, 9, 10 and 13 (Drawn by R. Jackson).

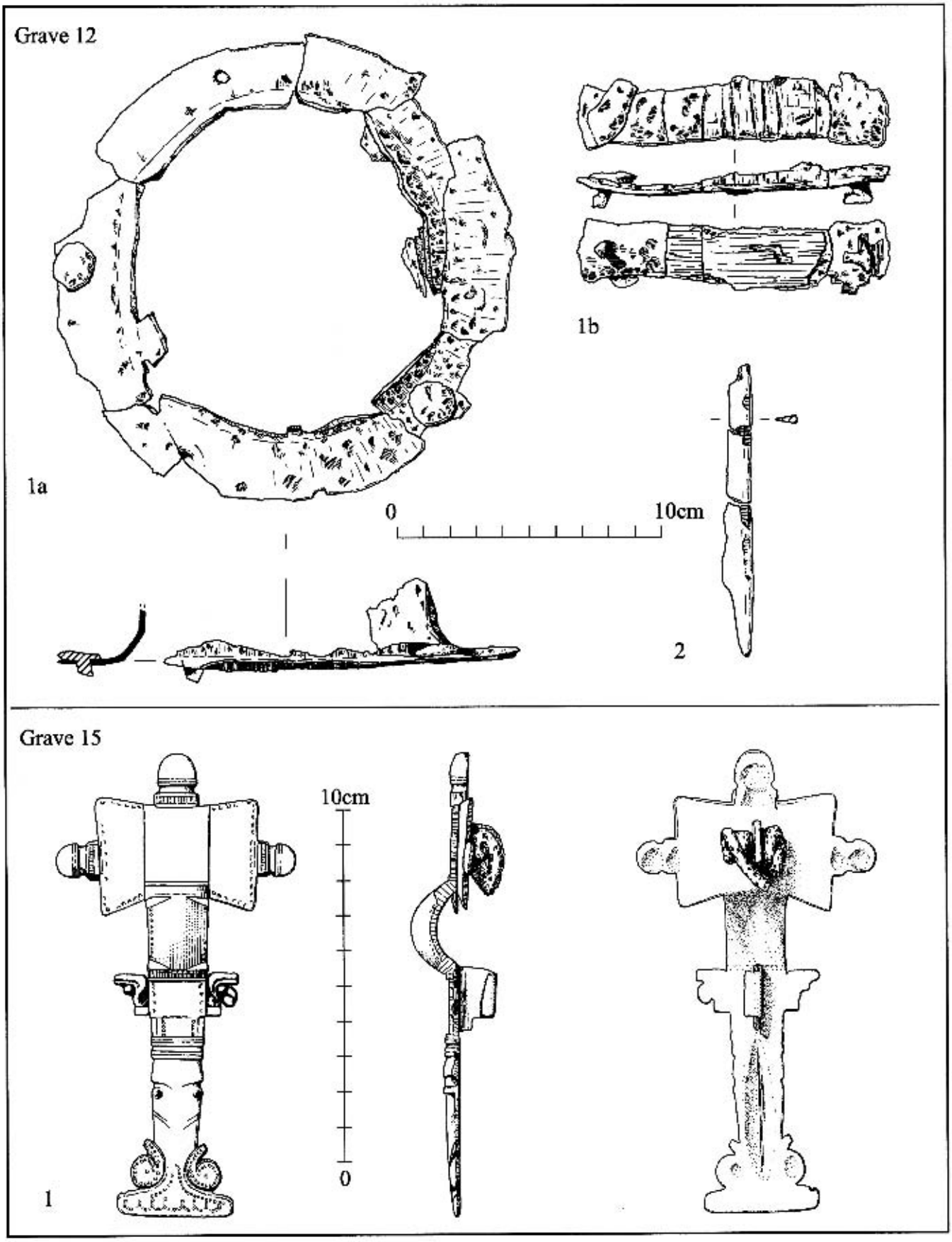

Fig.10. Grave-goods from graves 12 and 15 (Drawn by R. Jackson).

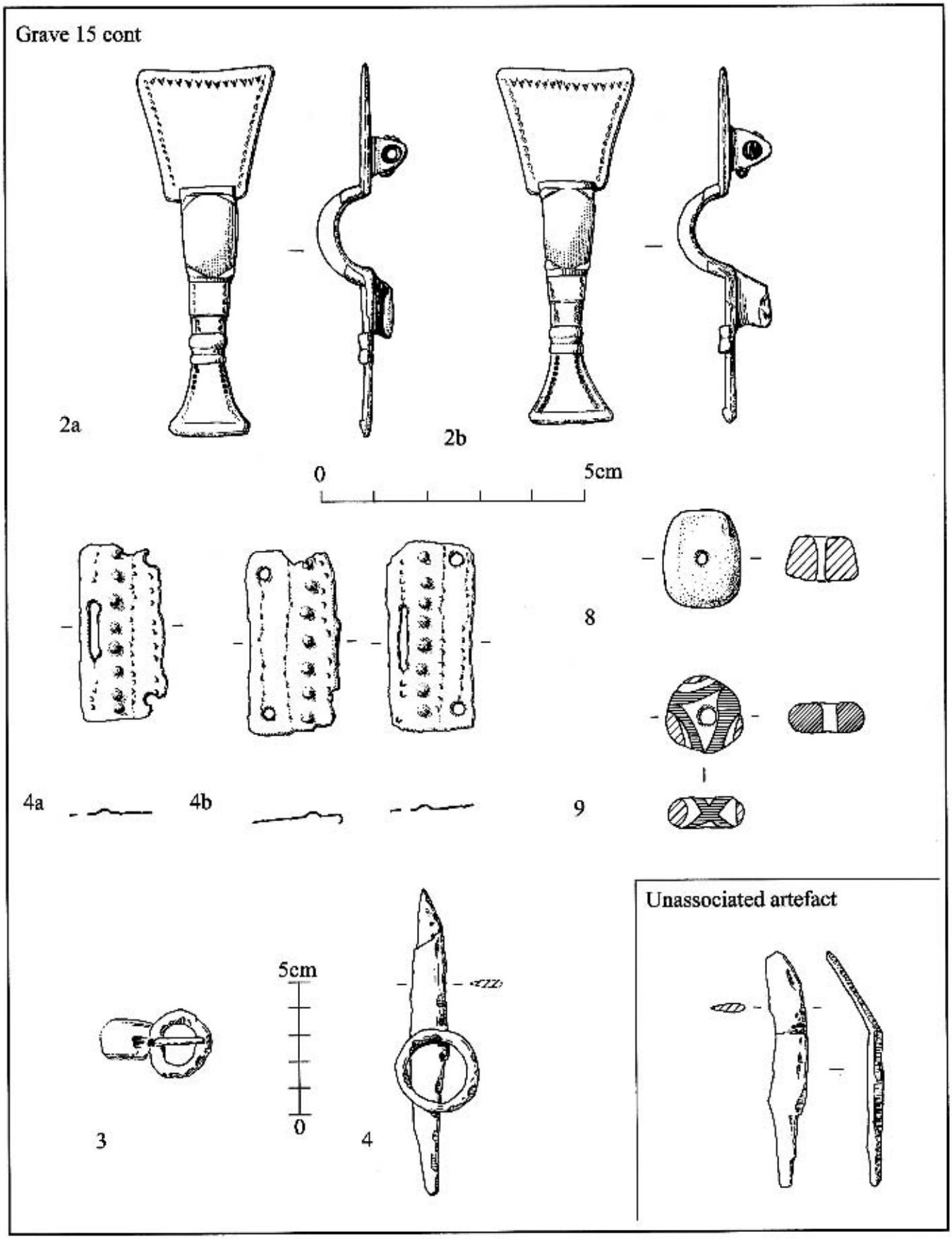

Fig.11. Grave-goods from grave 15 (cont.) and unassociated (Drawn by R. Jackson).

calcareous gravels derived from the Lincolnshire limestone; it was distinct, however, from fabrics classed as LIM in the East Midlands Anglo-Saxon pottery survey, and it was also tempered with chaff. The pots in graves 2 and 7 too contained inclusions typical of Trent-valley fluvio-glacial sands, but were particularly characterised by fragments of igneous rock, sparse in the case of grave 2 – to which an unidentified organic material had also been added – but the second most frequent inclusion in the case of grave 7. Discrepancies between the petrology of these pots and the igneous rock of the Charnwood Forest area of Leicestershire, and the Anglo-Saxon pottery containing it which was made there, leave the source open, although comparable fabrics have recently been noted from two sixth- to seventh-century settlement sites at Glebe Farm, Brough, Nottinghamshire, and Dunholme, Lincolnshire (Williams and Vince 1997; Vince 2003a). Boulder clays containing glacial erratics might be the most likely source, but while outcrops are known in Lincolnshire, as yet, none has been demonstrated to be consistent with the particular make-up of the Quarrington samples. Alternatively, the igneous rock was added as freshly crushed rock, which the angularity of the inclusions, in contrast to the sands, might indicate, but its source would still remain an enigma. Why five pots should give such a diverse pattern of production is not clear. It might indicate that pottery was not a well-organised craft, and that when pots were required the potter had to hunt for suitable raw materials rather than returning to traditional clay pits or sand exposures, or it might indicate that production took place in numerous localities. Either pottery was exchanged between groups of people, or perhaps, as at large cremation cemeteries, those buried at Quarrington came from more than one settlement and pottery for their graves was specially commissioned for the occasion – a distinct possibility in the case of the unusually stamped pot from grave 2. Whichever of these interpretations is correct, however, the pattern is very different from the centralised production and regional distribution which can be demonstrated in this area from the late seventh century onwards (Young and Vince forthcoming).

Lastly, a vessel made from organic material with a straight vertical copper-alloy rim-fitting was deposited with the child in grave 8. A very similar, if slightly smaller, vessel-fitting was found in exactly the same position, above the floor of the grave, in Beckford A, grave 14, Worcestershire (Evison and Hill 1996, pp.22, 77 and Fig.13). Each probably represents a wooden cup, bowl or handle-less bucket.

Synthesis

The burials from Quarrington II are entirely characteristic of inhumations found in the Anglian regions of England during the later Migration Period, that is from the later fifth to the later sixth centuries. None of the graves is finely datable, although the best-equipped (grave 15) fits the later part of this period as defined by Hines's Cambridgeshire and East Anglian costume group D, while grave 3 fits a costume group of the earlier part (Hines 1999). While parallels for the individual grave-goods have been drawn widely from within the Anglian cultural area, and even beyond, many of the items have their closest affinities locally within Lincolnshire and specifically within Kesteven: for example, the pottery (fabrics and stamps), the small-long brooches from grave 15 and perhaps the bone buckle from grave 4.

Although the recovered graves are a small sample and their assemblages both modest and not necessarily all complete, their burial practices reflect a degree of consistent social patterning, with grave structure, body layout and grave-goods correlating to some degree with the age and sex of the person buried. These both reflect well-known patterns among Anglo-Saxon burials and reveal local idiosyncrasies, such as the use of pottery accessory vessels mainly for adult males. In fact, Quarrington has thrown up a surprising number of apparently unusual practices: the apparently broken Z-shaped spear in grave 1, the use of a 'Charon's coin' in the hand in grave 13 and, most noteworthy, the treatment given to grave 15. The female occupant, who had suffered from tuberculosis since childhood, with consequent wasting of her lower limbs, had obviously been cared for with devotion, preserving her life into earliest adulthood. In death she received the largest grave-assemblage among this group of burials and apparently was the only one accorded the full adult feminine-gendered burial kit as defined by Stoodley (1999, pp.78-80). Further, her grave was thought appropriate as the burial place, at the same time or later, of a slightly younger person – an uncommon pairing. Here inferences from osteological analysis and burial practice come together to illuminate how familial and feminine status had been accorded to an individual Anglo-Saxon. A better understanding of the burial practices at Quarrington would obviously come from including them in a chronological and contextual analysis with other Kesteven inhumations, particularly those from the nearby Sleaford cemetery, but this was beyond the scope of the current report (Brenan 1985 applied a rank/wealth analysis to Sleaford, but the utility of the approach may be questioned).

At the immediately local level, however, there is the question of the relationship of the new burial area to the mixed-rite cemetery found during gravel digging in the nineteenth century. The earliest published source reports that in 1824 seven inhumations, in a poor state of preservation, were found at a depth of about three feet in a close owned by Sir J. Thorold; in addition, cremated bone was identified between a light layer of gravel and a solid one at a depth of three to four feet (Yerburgh 1825, pp.106-07). In 1853 the Rev. Yerburgh exhibited the finds to the Royal Archaeological Institute, but the notice of this, in *Archaeological Journal* for that year (vol.10, p.73), adds nothing. It was not until 1872 that a fuller publication, albeit still brief, was made. This ascribed the finds, obviously in error, to 1828, and located them in a field called Grey Lees (Trollope 1872, pp.98-100). The first edition of the six inch Ordnance Survey map (1890-91) marks 'Greylees Pits' in the middle of the next field but one to the west of the field in which the new burial area lies, that is at the point where the 20m contour forms a narrow neck of land (Fig.2; NGR TF043448). A smaller gravel pit is marked in the next field again to the west and closer to the A153 Sleaford-to-Ancaster road (TF041446). Trollope reported that burials were also found 'extending over some portion of the field on the other side of the road' (Trollope 1872, p.99), that is presumably in a field which was later cut by the Sleaford-to-Ancaster railway line. If that intervention did disturb further burials, it did not reach public knowledge. Given that from Greylees Pits north-south to the railway line is 300m, and west-east to the eastern edge of the new burial site is 425m, or from the smaller gravel pit 450m, it is out of the question that a single Anglo-Saxon cemetery is at issue. Rather it may be hypothesised that burials were in clusters, with the Quarrington II burials clearly separate from the others. Perhaps the line of the modern Sleaford-to-Ancaster road, roughly along the west-east ridge, enshrines an earlier routeway, along which burials might have been distributed. The early nineteenth-century finds also included early Romano-British bow brooches and pottery, a coin of Valens and a stone, six feet long and two feet wide, which Trollope thought might have been a Roman stone coffin and tried, unsuccessfully, to relocate (Trollope 1872, p.100, pl.II:4-5). Unfortunately, this evidence is insufficient to determine whether there were Roman burials here, or only settlement traces. And whether the coincidence of the road-line with that of the early Bronze Age ditch and its middle Bronze Age cremations indicates an alignment of yet earlier ancestry must be even more speculative. The visibility of prehistoric, and putative Roman, burial activity alone could have drawn Anglo-Saxons to bury in this place, in an act which sought to associate themselves with ancestral occupiers and owners of

the land (cf. Williams 1997; 1998). Alternatively, the precise location of burials might have been guided by the 20m contour, for it links up Greylees Pits, the field to the south of the A153 road and Quarrington II in an arc that looks down north-east over the valley followed by the railway line. Archival research might be able to cast further light on this problem.

The relationship of these burial clusters to the recently excavated Anglo-Saxon settlement site in Quarrington village is also uncertain. The latter is over a kilometre from Quarrington II; it lies on the south-eastern flank of the west-east ridge, overlooking a minor stream (Moor Drain) to the south, and 1.5km from the Sleaford cemetery. This does not look like the pattern of 'paired' settlement and cemetery, such as can be recognised in other locations (Lucy 2000, p.154). Arguably, there are many more habitation, and burial, sites yet to be discovered. And there is also the possibility, raised by the Quarrington II pottery-fabric analysis, that even small inhumation cemeteries did not draw their population from a single place of residence. How early Anglo-Saxon household, family and community were represented in place of burial is still a major problem for future research.

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Appendix: Tabulation of Disarticulated Bone Contexts

Feature	Context	Bone	Age	No of Fragments	MNI
27	1036	1 right, 2 left clavicles; 3 un-sided clavicle fragments; 3 right, 5 left, 1 un-sided humerus; 4 right, 3 left, 9 un-sided radial fragments; 4 right, 1 left, 6 un-sided ulna fragments; 5 right, 3 left, 10 un-sided femur fragments; 3 right, 1 left, 8 un-sided tibia fragments; 4 un-sided fibula fragments; 6 hand phalanges; 2 calcaneus fragments; 2 metatarsal fragments; 1 right patella; 2 sternums; 1 manubrium; 4 sacral fragments; 2 right; 1 left; 8 un-sided scapula fragments; 20 thoracic vertebrae; T1, T5, T10-12, 13 lumbar vertebrae; 2 L2, 2 L3, 1 L4, 1C1, 1C2, 1 other cervical vertebra; 25 vertebral fragments; 9 ilium; 3 ischium, 4 pubis fragments; 4 occipital, 13 frontal, 4 temporal fragments; 2 maxilla, 6 mandible fragments; 58 cranial vault fragments. Right hand: 1 fifth metacarpal. Left hand: 1 first, 3 third, 2 fourth, 2 fifth metacarpals. Right foot: 1 fifth metatarsal. Left foot: 1 talus.	1 infant to juvenile, 1 juvenile, 1 YMA female, 2 YA females, 1 YMA male, 1 male of unknown age.	994	7
	1041	1 ulna fragment; 1 fibula fragment; 10 femoral fragments; 1 right clavicle; 1 un-sided clavicle fragment; 2 left humeri; 1 un-sided humerus fragment; 1 right radius; 1 un-sided radius fragment; 3 ilium fragments; 1 ischium fragment; 3 un-sided tibia fragments; 1 manubrium; 21 rib fragments; 17 vertebral fragments; 24 cranial vault fragments; 1 orbit; 1 mandibular fragment.			
-	1039	1 femoral fragment; 2 fibula fragments; 2 right humerus fragments; 1 rib fragment; 1 fourth metacarpal; 1 ilium fragment; 1 parietal fragment; 14 long bone fragments.	1 adult	29	1
-	1042	1 left, 1 un-sided humerus fragment; 8 un-sided femur fragments; 1 un-sided tibia fragment; 1 thoracic vertebra; 1 sacrum fragment; 2 vertebral fragments; 5 pelvis fragments.	1 adult		
29	1043	3 right, 2 left clavicles; 2 right, 2 left, 15 un-sided humerus fragments; 3 right, 2 left, 9 un-sided radius fragments; 5 right, 7 left, 8 un-sided ulna fragments; 5 right, 8 left, 30 un-sided femur fragments; 6 right, 2 left, 42 un-sided tibia fragments; 1 right and 3 left, 22 un-sided fibula fragments; 1 left patella; 5 right scapulae; 2 left scapulae; 5 hand phalanges; 6 calcaneal fragments; 1 talus fragment; 14 thoracic vertebrae; 3 cervical vertebrae; 12 lumbar vertebral fragments; 1 first, second and third lumbar vertebra; 31 unidentified vertebral fragments; 3 sacral fragments; 9 ilium fragments; 9 ischium fragments; 3 pubic fragments; 9 rib heads; 51 ribs angles; 12 tiny rib fragments; 10 occipital, 11 frontal, 18 temporal, 10 mandible, 2 maxilla fragments; 120 cranial vault fragments.	1 foetus, 1 YA female, 1 YA male, 1 OMA male, 1 MA male, 2 YMA females, 1 YMA male	1305	9

		Right hand: 1 fourth metacarpal. Left hand: 2 third metacarpals; 2 fourth metacarpals; 1 fifth metacarpal. Right foot: 1 fifth metatarsal; 2 medial cuneiforms; 2 tali; 2 calcanei; 1 cuboid; 1 intermediate cuneiform. Left foot: 3 second metatarsals; 2 third metatarsals; 1 fifth metatarsal; 2 tali; 2 calcanei; 1 medial cuneiform. 267 unidentified long bone fragments; 152 unidentified fragments; 19 unidentified joint surface fragments.			
32	1048	1 right femur; 1 scapula fragment; 1 left second metacarpal; 1 sciatic notch.	1 YMA female	8	1
36	1055	2 right clavicles; 2 un-sided humerus fragments; 1 right radius; 1 right, 1 left, 5 un-sided femur fragments; 1 left, 1 un-sided tibia fragment; 2 un-sided fibula fragments; 2 hand phalanges; 65 unidentified long bone fragments; 1 frontal fragment; 11 rib fragments; 6 ilium fragments; 2 vertebral fragments; 1 right; 1 left scapula.	1 adult	106	2
-	1056	1 un-sided femur fragment; 13 cranial vault fragments; 1 talus fragment; 8 cervical vertebrae fragments; 12 ilium fragments; 1 scapula fragment; 21 unidentified long bone fragments; 8 joint surface fragments; 30 unidentified fragments.	1 MA of unidentified sex	72	1
-	1059	3 humerus fragments; 2 femoral fragments; 1 tibia fragment; 1 ilium fragment; 2 anterior mandible fragments; 15 unidentified long bone fragments.	1 MA female	23	1
-	1060	1 humerus fragment; 2 ulna fragments; 1 parietal fragment.	1 juvenile, 1 adult	4	2
	1061	Left humerus; left tibia; left femur.	1 adult	3	1
	1065	1 rib; 1 cremated tibia fragment.	-	2	1
48	1075	1 right calcaneus.	1 adult	1	1
	1543	1 left radius; 1 scapula; 1 ischium; 1 lumbar vertebra fragment; 1 cranial fragment; 11 unidentified fragments.	1 juvenile, 1 adult	16	2

Key: YA – young adult (18-25); YMA – young middle adult (26-35); OMA – old middle adult (36-45); MA – mature adult (46+)