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The Traprain Law Environs Project

Fieldwork and Excavations 2000-2004

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Chapter 7

The Material Remains

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(with contributions by Dave Heslop, Cath McGill, Jason Mole, Jennifer Price and Steven Willis)

INTRODUCTION

In common with other excavated later prehistoric enclosures in southern Scotland, the TLEP sites yielded modest assemblages of finds. The bulk of the material comprised coarse pottery and a variety of stone implements. Other items are present in small quantities and on particular sites, including Roman pottery, glass, and metal. Easily the largest assemblage was that from Knowes, whilst East Linton was the only site not to yield any artefacts. Residues from the environmental samples were routinely screened for finds as a control on recovery rates, but the only notable find was an amber bead from Knowes.

The artefacts from the excavations are first presented below, with the exception of the Early Bronze Age cinerary urns from Standingstone, which are discussed in Chapter 4. An overview by Fraser Hunter follows, putting the material culture from the TLEP excavations in a broader southern Scottish context.

Abbreviations used in Chapter 7:

D – diameter
H – height
L – length
sf – small find/find number
T – thickness
W – width
Wt – weight

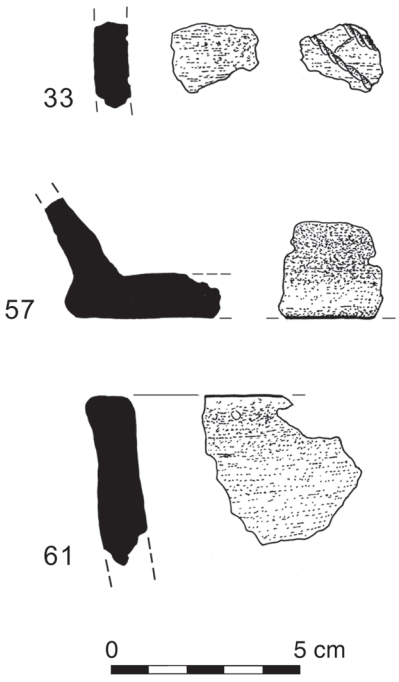

Figure 7.1
Pottery from Standingstone. Scale 1:2
(Gavin Lindsay and Christina Unwin)

THE COARSE POTTERY

ANN MACSWEEN
(with contributions by Cath McGill)

Whittingehame (C McG)

Only five small, heavily abraded body sherds from five vessels, with a total weight of 85g were recovered. Wall thicknesses vary from 11–19mm. The sherds are undiagnostic, but of probable prehistoric date. One sherd of fine clay with 10% of rock fragments came from the palisade (sf 4). Three are of fine sandy clay with 20–30% of rock fragments (sf 2, 8, 11), of which two came from the first cobbled surface (sf 2, 8) and one from the late trackway (sf 11). The fifth sherd, of sandy clay with only occasional rock temper, was unstratified (sf 7).

Standingstone (A MacS)

The cinerary urns apart (Chapter 4), the assemblage from Standingstone comprises 24 sherds and fragments from an estimated 12 vessels. Most of the sherds are either fine sandy clay or fine clay with 20–40% of angular rock fragments. Their colour (mainly grey with a brown/red margin) indicates a short firing; surface finish, if any, comprises a wet-hand smoothing. The only rim sherd, unfortunately unstratified, is a

flat rim from a thin-walled vessel (sf 61), which could date anywhere between the Middle Bronze Age to the Iron Age. The only base (sf 57) and the only decorated vessel (sf 33), along with five other sherds, are all from pit F56 with later Neolithic radiocarbon dates and could conceivably be attributed to the Grooved Ware tradition. Only the illustrated vessels (Figure 7.1) are described here.

- *sf 33 [21, pit F56]*

  Body sherd, decorated on the interior surface with two parallel lines of twisted cord impressions. The fabric is fine sandy clay with *c.* 30% of small angular mixed fragments which has fired hard and is grey with a brown exterior surface. Exterior surface sooted. Slightly abraded. T 10mm, Wt 7g.

- *sf 57 [21, pit F56]*

  Basal sherd, flat with angular walls. From a small vessel, estimated basal diameter only *c.* 50mm. The exterior surface is smoothed. The fabric is fine clay with *c.* 30% of angular black and white fragments, which has fired hard and is red. Abraded. T 7mm, Wt 27g.

- *sf 61 [unstratified]*

  Rim sherd, flat with a slight lip to the exterior. Coil constructed (N-shaped junctions). The fabric is fine clay with *c.* 40% of angular black/white fragments which has fired hard and is red with a grey core. Abraded. T 11mm, Wt 26g.

Knowes (A MacS)

The pottery assemblage from Knowes comprises 84 sherds and fragments from an estimated 46 vessels. Most of the pottery is made from sandy or fine sandy clay with between 10% and 30% of gravel or rock fragments. Coil junctions (mostly diagonal junctions) were noted on the majority of sherds. None of the sherds is decorated and the surfaces are at most smoothed. Most of the sherds are either red/brown with a grey core or grey with red/brown surfaces or margins, indicative of a short firing.

There are a number of rim sherds; those giving an indication of form are illustrated (Figure 7.2). The rims are either plain or slightly flattened and the profiles indicate either straight-sided or slightly inverted bucket-shaped vessels. One vessel (sf 133) has a more open form. Most body sherds are 10–20mm thick and there is a range of vessel sizes from 120–420mm where diameter could be estimated.

There is no indication that the pottery being used changed markedly in either form or fabric throughout the life of the site. The sooting noted on many vessels indicates their use as cooking vessels. Bucket-shaped vessels with plain or inturned rims are a common form of vessel on Iron Age sites in south-east Scotland (below).

- *sf 11, 29, 10 [111, set in surface of S ditch terminal]*

  Slightly inverted rim from a large, probably bucket-shaped, vessel. The fabric is sandy clay with *c.* 10% of mixed rock fragments (angular and moulded), which has fired hard and is grey with brown surfaces. The vessel is coil-constructed with a mix of N-shaped and U-shaped junctions. Below the rim in the interior are fingertip impressions where the rim has been shaped, and finger-smoothing striations. The exterior surface is smoothed with a wet-hand finish. There is extensive fire-cracking over the surface and the surface has spalled along the coil junctions. The exterior is sooted with patches of residue. T (walls) 17mm, D 420mm, Wt 503g.

- *sf 45 [115, silty sand, as 109]*

  Plain rim, inturned, from a coil-constructed vessel with N-shaped junctions. The fabric is sandy clay with *c.* 20% of mixed rock fragments (angular and rounded) which has fired hard and is black. Spalled along coiled junction. Exterior sooted. Fresh. T 11mm, D 120mm, Wt 19g.

- *sf 56 [112, silty sand outside CS2]*

  Plain rim, inturned, from a coil-constructed vessel with N-shaped junctions. The fabric is fine sandy clay with *c.* 20% of mixed rock fragments, some large, which has fired hard and is grey with brown surfaces. Some spalling along the junctions. The exterior is sooted and there is residue in the interior. T 13mm, D 240mm, Wt 38g.

- *sf 133 [158, remnants of CS1 wall]*

  Flat rim with a fingertip groove beneath the rim, from a coil-constructed vessel with N-shaped junctions. The fabric is fine sandy clay with *c.* 20% of mixed rock fragments (rounded and angular) which has fired hard and is grey with brown margins. There is fire-cracking in the interior. Residue on the exterior and light sooting in the interior. T 16mm, D 280mm, Wt 162g.

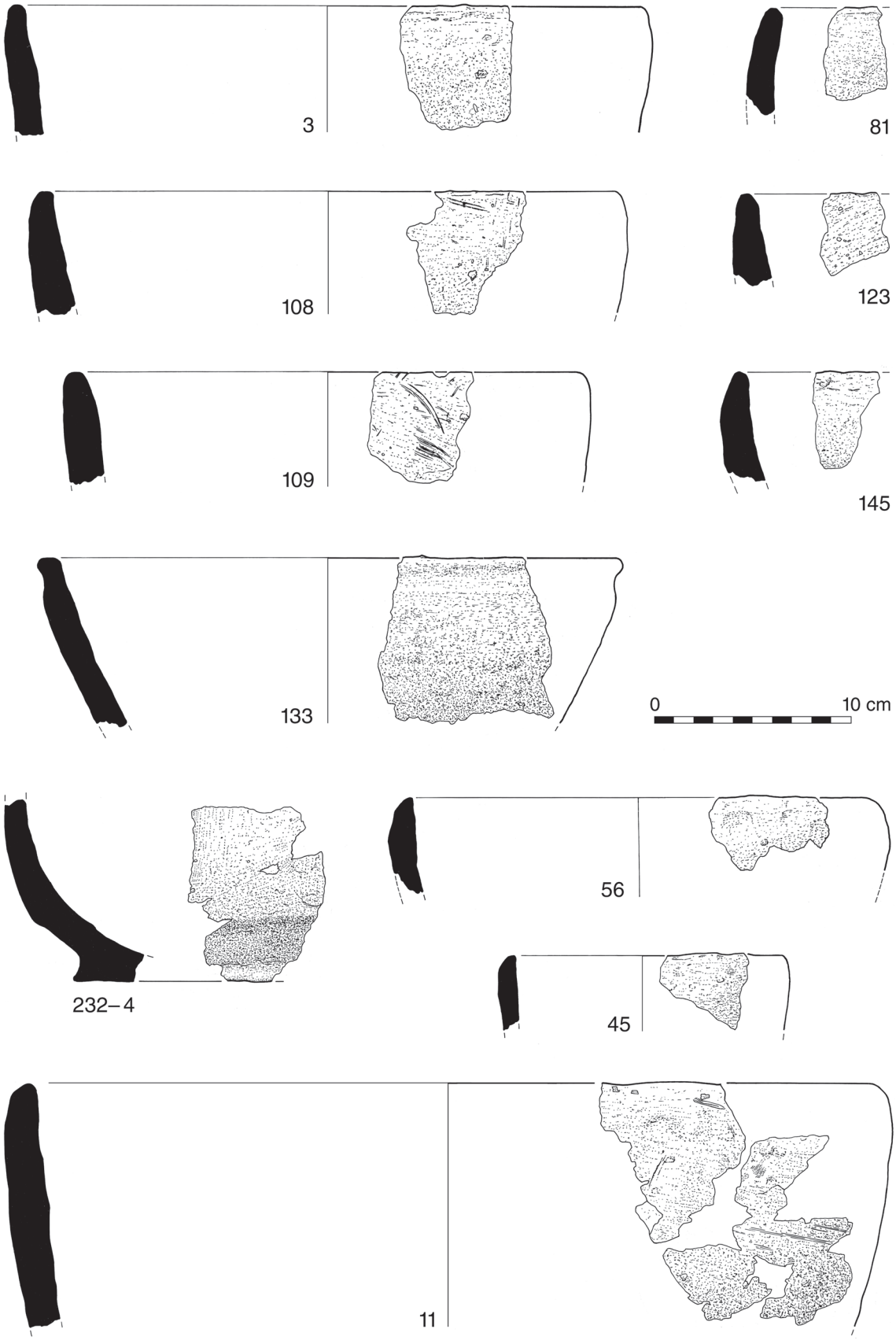

Figure 7.2
Coarse pottery from Knowes. Scale 1:3 (Gavin Lindsay and Christina Unwin)

- *sf 81 [135, scoop F129]*

  Slightly inverted rim with a plain lip from a coil-constructed vessel with N-shaped junctions. The fabric is fine sandy clay with *c.* 10% of mixed rock fragments (angular and round) which has fired hard and is grey with red margins. The exterior surface is sooted and there is light sooting in the interior. Slightly abraded. T 18mm, Wt 32g.

- *sf 232–4 [351, silty sand over path by CS2]*

  Flat base, footed, the walls angling sharply to the base. Coil-constructed with H-shaped and N-shaped junctions. The exterior surface is smoothed. The fabric is coarse sandy clay with occasional large angular fragments which has fired hard and is grey with a red exterior. Light sooting around the pedestal. The interior surface is sooted. T 17mm, Wt 149g.

- *sf 3 [8, external pit complex F5]*

  Plain rim from a coil-constructed vessel with N-shaped junctions. The exterior surface is smoothed. The fabric is sandy clay with *c.* 30% of mixed angular fragments which has fired hard and is black with a red exterior surface. Patches of sooting on both surfaces. T 14mm, Wt 81g.

- *sf 109 [124, silt within CS2]*

  Flat rim, with wiping striations on the exterior. The vessel has a slightly open profile. The vessel is coil-constructed with N-shaped junctions. The fabric is sandy clay with *c.* 30% of angular fragments (buff-coloured) which has fired hard and is red. The pottery has a crumbly texture, possibly due to post-depositional burning or over-use, with fire-cracking on both sides. Slightly abraded. T 18mm, D 280mm, Wt 54g.

- *sf 108 [124, silt within CS2]*

  Slightly inturned rim with a flat lip from a coil-constructed vessel with N-shaped junctions. The exterior surface is smoothed. The fabric is sandy clay with *c.* 10% of mixed gravel (angular and round) which has fired hard and is red with a grey core. Fresh. T 11mm at lip–21mm, D 290mm, Wt 70g.

- *sf 145 [124, silt within CS2]*

  Slightly inturned rim with a plain lip, from a coil-constructed vessel with N-shaped junctions. The exterior surface is smoothed. The fabric is sandy clay with *c.* 10% of mixed gravel (angular and round) which has fired hard and is grey with red margins. Abraded. T 12mm at lip to 19mm, Wt 35g.

Foster Law (A MacS)

Sixteen sherds and fragments were recovered from Foster Law. An estimated 11 vessels are represented, including a large thick-walled bucket-shaped vessel (sf 5) and a smaller vessel with a slightly inverted profile (sf 10). A flat base from a straight-sided vessel (sf 9) and a thumb pot (sf 6) are also present (Figure 7.3). Apart from sf 10, all the vessels in the assemblage are thick-walled (12–21mm thick), and constructed by coil building (N-shaped junctions are visible on many sherds). Again, this is a small assemblage and the sherds are not distinctive enough to be useful for dating. The form of the large rim sherd is, however, different from the rim sherds from Knowes and it is possible that they are chronologically distinct.

- *sf 5 [unstratified]*

  Plain rim from straight-sided vessel. The fabric is fine sandy clay with *c.* 20% of large angular fragments (mixed), which has fired hard and is grey with red surfaces. Coil-constructed with N-shaped junctions. The exterior surface is smoothed and there are wiping striations. There is light sooting on the upper part of the exterior and on the interior of the lip. T 17mm, D 340mm, Wt 233g.

- *sf 10 [unstratified]*

  Plain rim, slightly inturned. The exterior surface is smoothed. The fabric is sandy clay with occasional large fragments which has fired hard and is grey with red margins. Coil constructed with N-shaped junctions. Surface abraded. T 7mm, D 100mm, Wt 22g.

- *sf 9 [50, recut inner ditch F18]*

  Flat base with straight sides. The exterior surface is smoothed/pared and the interior surface is smoothed. The fabric is fine sandy clay with *c.* 20% of large mixed angular fragments which has fired hard and is grey with brown surfaces. The exterior surface is sooted. T 15mm, Wt 93g.

- *sf 6 [4, stone spread over ditches]*

  Thumb pot. The fabric is sandy clay with *c.* 10% of angular fragments which has fired hard and is grey and brown patchy. The interior has been made by

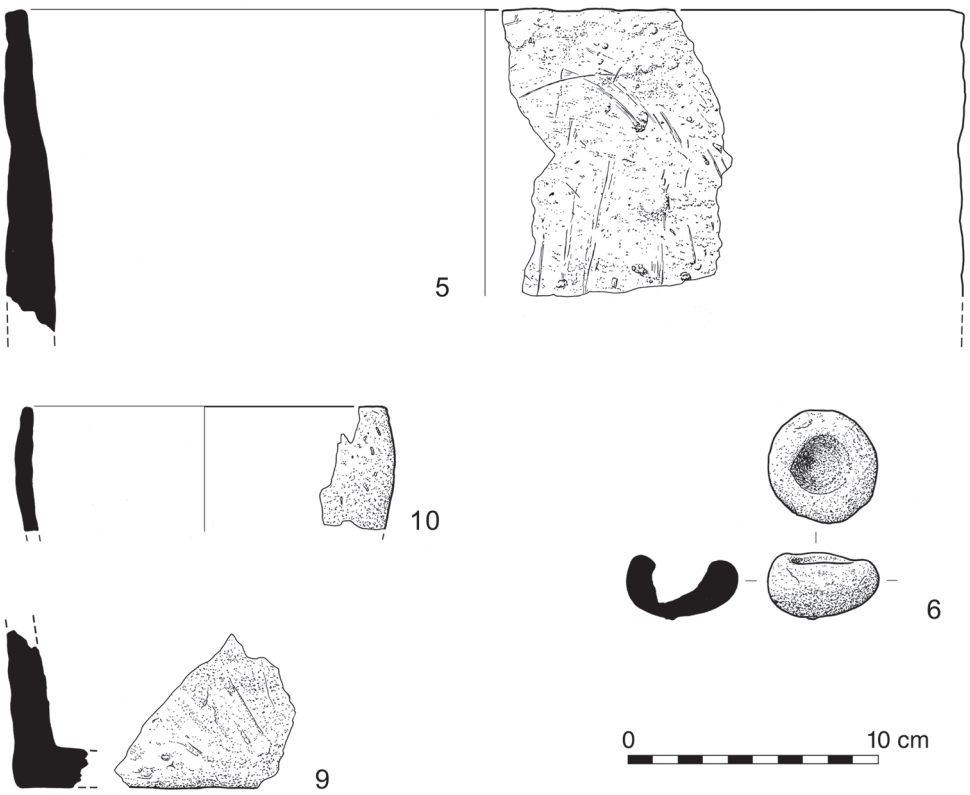

Figure 7.3
Pottery from Foster Law. Scale 1:3 (Gavin Lindsay and Christina Unwin)

sticking a finger into a ball of clay at an angle. Fairly fresh (some surface abrasion). A very similar thumb pot was found at Phantassie (Lelong 2007, fig. 7.3). T 14mm, Ht 23mm, D 42 × 44mm, D of hole 20mm.

East Bearford (C McG)

One sherd was recovered, a plain rim from a vessel with a slightly inverted profile (Figure 7.4).

- *sf 2 [2, gully F3]*

  Plain rim with a slightly inverted profile from a coil-constructed vessel. The fabric is sandy clay with *c.* 10% of angular rock fragments which has fired soft and is grey with red surfaces. T 13mm, Wt 57g.

Discussion

Apart from the possible Grooved ware (above) and Early Bronze Age urns (Chapter 4) from Standingstone, the

Figure 7.4
Pottery from East Bearford. Scale 1:3 (Gavin Lindsay and Christina Unwin)

TLEP pottery has its parallels with ceramics from later prehistoric sites in southern Scotland and northern England (see Cool 1982 and Cowie 2000 for a list of sites). The simple forms of the pottery of this period and area have made the construction of a ceramic sequence difficult, as has the relatively small size of the assemblages recovered. The excavations at Fishers Road West, Port Seton (Cowie 2000), for example, produced only eight sherds including one inturned rim, and those at Fishers Road East (Gwilt 2000) produced only six sherds representing two vessels from a sizeable area of excavation.

The TLEP has added radiocarbon dates for two contexts yielding rim sherds of later prehistoric tradition, both from Knowes: a date of 100 cal BC–cal AD 80 (SUERC-10568) for the slightly inverted rim with a plain lip (sf 81) from [135] and one of cal AD 1–220 (SUERC-10566) for the flat (sf 109) and inturned (sf 108, 145) rims from [124]. In addition, the stratified pottery from Foster Law was all from the upper fills of the recut inner ditch, which has a *terminus post quem* of 360–60 cal BC (SUERC-10635).

So far, the only published analysis tackling the question of dating this pottery tradition is Cool's (1982) original interim statement on the Broxmouth pottery, in which she identified a 'Middle Assemblage' characterised by Type I pottery – thick-walled (*c.* 20mm) bucket-shaped vessels with plain or occasionally inturned rims, and rim diameters of 250–350mm, made of fabrics with a coarse rock temper, thought to date to the second half of the first millennium cal BC – and Type II pottery – smaller vessels with bucket or barrel forms, thinner walls and finer fabrics – which was considered to date from the first century cal AD. More recently, Cowie (2000, 137) has argued that the currency of Type I pottery extends into the early first millennium AD.

Although there are a number of sites with broadly comparable material, there has been little opportunity to refine the chronology proposed by Cool. The pottery from the recent excavations at Traprain Law itself (Rees and Hunter 2000), for example, was ascribed a 'later prehistoric' date – the internal bevels seen in that assemblage are found at sites from the Late Bronze Age onwards (*ibid*., 420). The ditched enclosure at St Germains, Tranent (Alexander and Watkins 1998), is characterised by bucket-shaped vessels with plain or inturned rims made from coarse fabrics. No clear chronological division between these two rim types was evident and it was concluded that 'In general, the pottery from St Germains can be compared with both types, but perhaps is closer to Broxmouth Type II' (Alexander and Watkins 1998, 226).

There are certainly some vessel 'types' identifiable from a number of the TLEP sites. The rim sherd from East Bearford, for example, is a good example of a 'Type II' rim, and a number of rims from Knowes could also be designated as 'Type II', e.g. sf 56. In addition to Cool's examples of comparable vessels from Broxmouth, Traprain Law, Marygoldhill, Easter Langless, Edgerston, North Berwick Law, Craig's Quarry and Cockburn Law (1982, 85), other examples can now be identified in assemblages from sites such as the Auchlishie souterrain (SF189, A M Dick pers. comm.) and the native assemblage from Cardean Roman fort (McGill forthcoming a), which did not appear to significantly pre-date the fort itself (Cool's date of approximately 200 BC to AD 100 would hold out here).

What has yet to be established, however, is firstly, if there is a clear Type I to Type II chronological development across the region, and secondly, if the picture is more complex than Broxmouth might indicate, i.e. are there other vessel types from other sites that can also be used as chronological indicators? The excavations at Phantassie, for example, produced a fairly large assemblage with a characteristic vessel

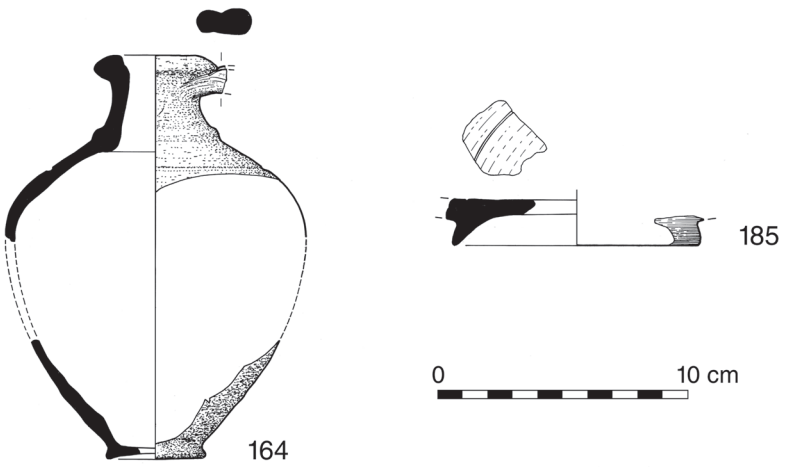

Figure 7.5
Roman pottery from Knowes. Scale 1:3 (Gavin Lindsay and Christina Unwin)

type – the flat-rimmed angular bucket – which is not represented in other East Lothian assemblages (MacSween unpublished).

The most promising approach to understanding this pottery is to compile a radiocarbon-based chronology for the area, one that dates material from contexts containing pottery, or even better, the residues which sometimes survive on sherds. In the meantime, together with the pottery from the A1 sites (Lelong and MacGregor 2007) and that from the recent work on Traprain Law (Armit *et al.* forthcoming), the material from the TLEP adds usefully to the database for this type of pottery.

ROMAN POTTERY

STEVEN WILLIS

Whittingehame yielded three extremely abraded fragments of samian, all from a single Central Gaulish bowl dating to the period *c.* AD 150–200.

- *sf 9 [39] (not illus)*

  Base of Central Gaulish Drag 31 bowl. 3 sherds, Wt 20g

At Knowes, two Roman vessels were forthcoming (Figure 7.5). The first is the footring of South Gaulish samian platter from La Graufesenque. Such vessels have a date range of *c.* AD 40–100. The second is a small flagon, of Gillam's type 15. The form is a late one and does not seem to occur on the Antonine wall, but there are two in the Corbridge destruction deposit (*c.* AD 180); a likely date range for the form is *c.* AD 160–200/230. The fabric family belongs to northern Britain and similar wares were produced at Inveresk and Corbridge in the Antonine period. The flagon has been examined by Viv Swan, who confirms that it is from a military pottery source, but not an Inveresk product, although there might be comparable material at Newstead. The vessel is represented by several sherds found in different contexts associated with CS2, including one from the oven.

- *sf 185 [161, possible hearth deposit, CS1]*

  South Gaulish samian platter footring, either Drag 15/17, or more likely Drag 18. Edge worn, but probably deliberately cut from the vessel. Wt 12g.

- *sfs 164, 173 and 247 [197]; 166 [124]; 204 [261, all CS2]*

  Small flagon. Neck and handle attachment, 2 base sherds and 2 body sherds. Wt 112g.

The low recovery of Roman vessels from the TLEP sites is comparable with other excavated settlements in the region occupied in the early centuries AD, with the sole exception of Traprain Law itself. The large settlement at Phantassie, for example, yielded a single sherd of samian from a plain Central Gaulish Drag 36 bowl, dating to the second century AD (Wallace unpublished; Lelong and MacGregor 2007, fig. 10.9).

THE QUERNS

DAVE HESLOP, PAMELA LOWTHER and FRASER HUNTER

One saddle quern was recovered from Whittingehame and six rotary querns from Knowes. They were examined by Fiona McGibbon, whose geological identifications are incorporated into the descriptions below; her full report can be found in the site archive.

Whittingehame

- *sf 6 [F254, set in natural subsoil] (Figure 7.6)*

  Saddle quern. Made from a large water-rolled boulder, split along bedding plane. Dolerite, presumably an igneous erratic. Top face is slightly dished (concave in two directions), with a neatly pecked surface, probably re-dressed several times to maintain good grinding face and attain this depth. Lower face appears to be natural surface of boulder. Original shape probably sub-oval, but three facets are broken off at one end, squaring-off the corner: perhaps trimmed for re-use? However, the dishing of the grinding face suggests that most of the object survives. Small area of peck marks/roughening on the lower face may be wear from use.

  L 273mm, W 265mm, H 80mm.

Knowes

Ten fragments of rotary querns were recovered, five from the same upper stone (Figures 7.7–7.8). The assemblage comprises a matched pair, together with three other upper stones and one lower stone, all of sandstone. All belong to the 'bun-shaped' variety common in the Later and Roman Iron Age.

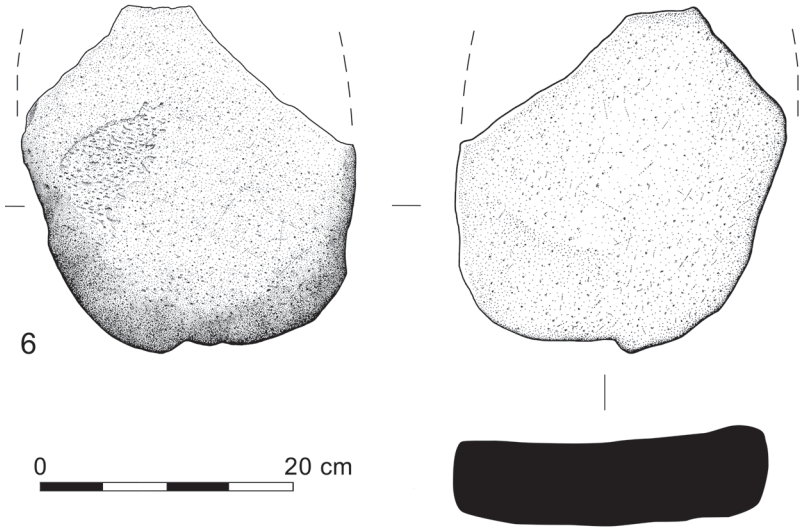

Figure 7.6
Saddle quern from Whittinghame. Scale 1:6 (Mark Hoyle)

- *sf 104 [179, upright in the upper fill of the western ditch F103]*

  Complete upper stone of a bun-shaped rotary quern. Sandstone with fossil voids, very pale for local outcropping sandstone, but most likely from a local Carboniferous source. The outer face of the stone has a rounded profile. A gently tapering, round central hopper, slightly unevenly splayed at the grinding face. There are concentric wear marks on the grinding face, which is worn smooth in places towards the circumference. Parts of three handle holes survive, each coinciding with a facet broken off the grinding face, effectively rendering the handle unusable. Two handle holes, which are set opposite one another, are tapering and have a rounded end; these lie close to the grinding face and may have worn through. At 90 degrees to the axis of these is another handle hole, this time of rectangular section, set further away from the grinding face, and thus presumably a replacement. Opposite this handle, a small facet has been broken off the grinding face. In other words, facets have been struck at effectively the four cardinal points. The stone is slightly higher at one side than the other (uneven wear?) – this matches the position of the paired handle holes. Lack of tooling on outer surface and grinding face.

  D 355–365mm, H 115mm. Hopper: basal D 40–45mm, top D *c.* 120mm. Paired handle holes L 48mm, max D 30mm, and L 40mm, est max D 30mm. Rectangular handle hole L 45mm, aperture W 35mm, H >20mm, tapering to 26 × 10mm.

- *sf 132 [F184, surface within CS1]*

  Roughly half of the upper stone of a low bun-shaped rotary quern. Pink-grey coarse to medium grained sandstone with well-sorted and well-rounded grains, slightly micaceous; no inclusions or fossil pits; local sandstone, Devonian or more probably Carboniferous. Moderate grinding properties. Irregularly shaped, flat form. The circumference of the stone is not terribly even and there is some damage to the outer face. The hopper is funnel shaped, splaying out slightly towards the grinding face. One side of the stone is higher than the other. No traces of handle hole/s. No wear evident on the feedpipe, presumably indicating a wooden spindle. The grinding face has been dressed with a very broad tipped hammer, making circular peck-marks up to 12mm across. Some wear towards the centre of the grinding face. Asymmetrical wear. No sign of regular surface tooling.

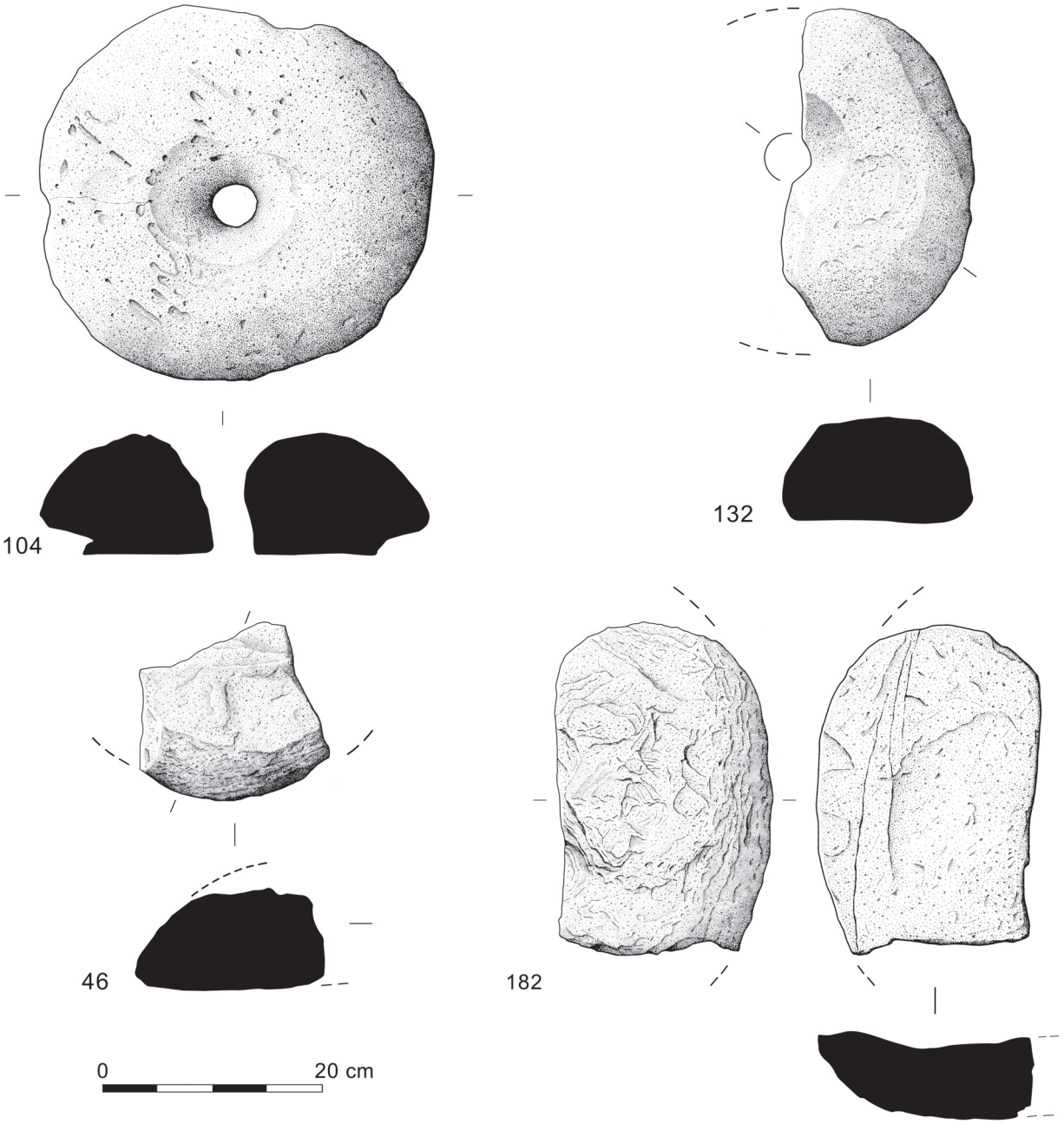

Figure 7.7
Rotary querns from Knowes. Scale 1:6 (Mark Hoyle)

D *c.* 330mm, H 90mm. Hopper: top D *c.* 105mm, narrowest point *c.* 40mm, basal D *c.* 45mm.

- *sf 46 [164, possible remnants of CS1 wall]*

  Part of the upper stone of a rotary quern. Beige-red local sandstone, Carboniferous or more probably Devonian. Part of the pecked outer face survives, indicating a bun-shaped quern. Peck marks are also visible on the lower, grinding face, which is pretty flat. Part of a handle hole survives, measuring >50mm in depth. Its projected circumference lies very close to the grinding face – had it worn

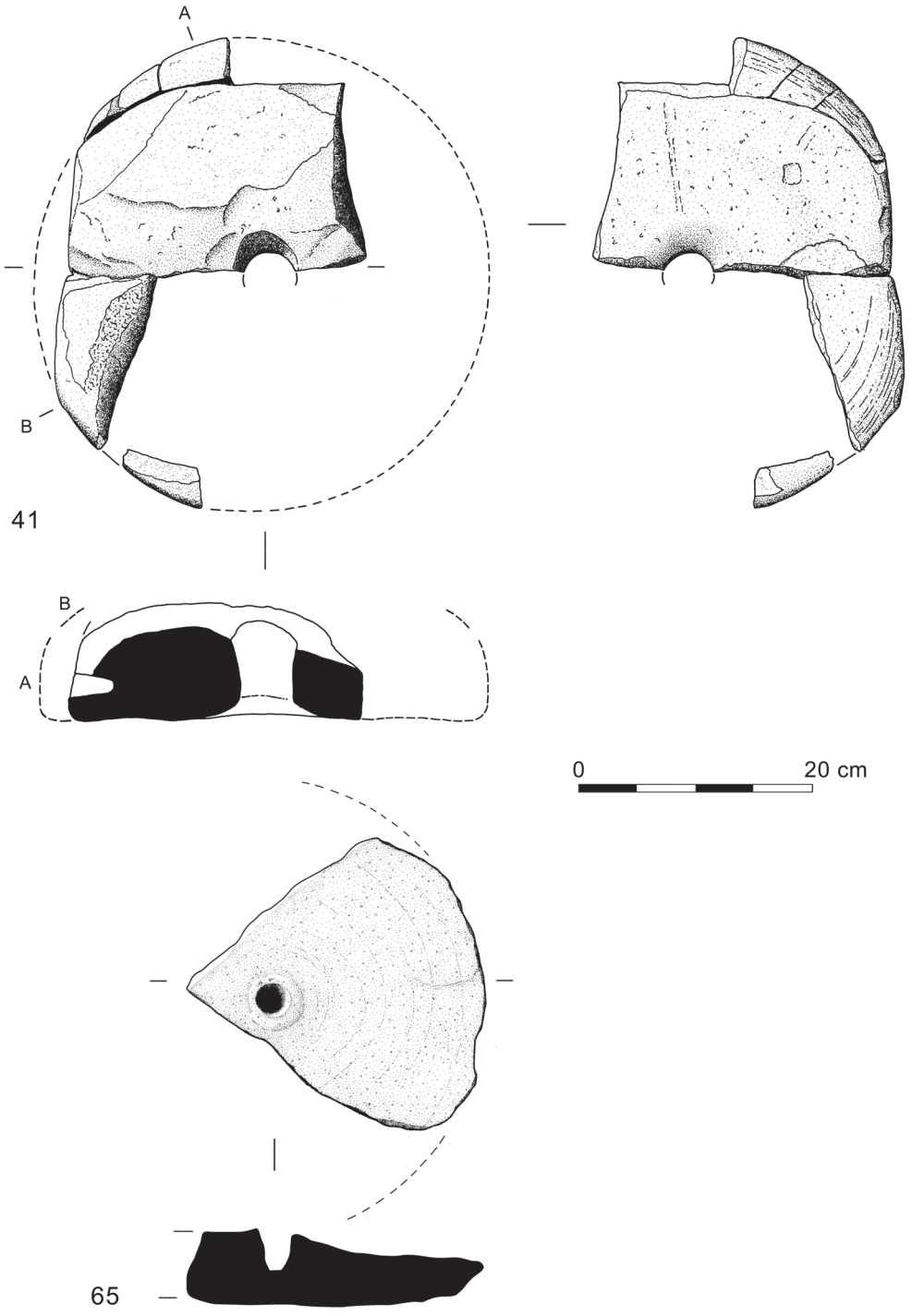

Figure 7.8
Quern pair from Knowes. Scale 1:6. The section of sf 41 is reconstructed from the surviving profile at points A and B (Alan Braby and Mark Hoyle)

through? The stone may have been deliberately re-shaped into a roughly squared block. Very small fragment of small, slightly concave hopper and circular feedpipe extant – too small to measure. Base of feedpipe missing. Grinding face has been dressed with a coarse round hammer. Similar tooling but more distinct on exterior surface.

D uncertain, max surviving H 92mm.

- *sf 65 [123, surface of eastern ditch F332]*

  20% of the lower stone of a rotary quern. Apparently the base for upper stone sf 41 (below). Fine grained, ferruginous sandstone, local Carboniferous or Devonian. The stone is thin, the surviving portion being only 30–65mm high, suggesting that it was set at an angle for use. The base has been pecked and is gently concave in profile. Concentric wear marks are visible on the grinding face, which is concave between the centre and the circumference. The whole of the spindle hole exists, 28mm in diameter and 32mm in depth, and has a slight raised lip around its edge, where a splay at the base of the hopper of the upper stone has not worn the lower stone. Spindle hole is not of penetrating type. Some small black patches on the grinding face may be burning.

  D 380mm, max T 65mm.

- *sf 41 [104, 124, 197, 261, all within or adjacent CS2]*

  Over a third of the upper stone of a bun-shaped rotary quern in six fragments, five of which join. Matched pair with lower stone sf 65 above, the raised lip of which has a matching depression on sf 41 at the base of the feedpipe. Same lithology as sf 65. The grinding face is fairly flat, slightly concave towards the feedpipe, and bears concentric wear marks. A slight groove running across the grinding face from centre to edge is an unusual feature: it can be paralleled on other local querns, one a stray upper fragment from near an Iron Age site at Wallyford with two right-angled grooves, the other, also an upper stone, from the Roman fort of Elginhaugh, with a diametrical groove (McLaren and Hunter 2007; MacKie 2007, fig. 10.57). The purpose of such a groove is unclear; Roman querns had multiple grooves to facilitate grinding and movement of the flour to the edge, and this is occasionally found on indigenous querns (e.g. Woodend Farm, Dumfriesshire, and Loch Glashan, Argyll; Taylor and Simpson 2000, 258, illus 14:1, Clarke 2005, 98, fig. 49), but generally much more closely-spaced. Widely-spaced grooves are known on a lower stone from Crosskirk broch, Caithness (Fairhurst 1984, 128-30, ill 81:540). The Knowes example does not appear to be part of a regular pattern; it may represent an attempt at re-dressing the surface, but may more plausibly be related to its destruction, with the intended subdivision of the quern indicated by the groove; on the Wallyford example, one of the grooves lies along a fracture line. About half of the central hopper survives, measuring from 42–47mm in diameter. Part of a conical handle hole survives, measuring 43mm in depth and from 10–18mm in diameter; it lies parallel to the grinding face, drilled into an edge which has been dressed flat, and may be a replacement. The stone appears to have been deliberately re-shaped into a sub-rectangular block; the resulting facets seem unworn. Little of the original pecked outer surface of the quern survives.

  D 390–400mm, max surviving H 100mm.

- *sf 182 [F184, surface within CS1]*

  Lower stone. Flat block of siltstone, muscovite abundant, defining lens-like ripple drapes. Local sandstone source, most likely Carboniferous. Has partly curved and 2 straight/broken edges. The upper face is hollowed towards the centre, with a particularly smooth area in a roughly circular band around the outside of the hollow; it has a much rougher area towards the circumference (although this may be somewhat damaged?). The outer edge of the lower face has been shaped to give a curving profile and the stone has a roughly flat base. The base stone of a rotary quern, with spindle hole missing. Outer surface is untooled.

  310 × 200 × 85mm

Discussion

The general form and lithology of the Knowes assemblage is typical of sites of this type and date. The querns are derived from sources not too distant from the settlement, and the usual range of handle types and hopper shapes are evident. What is of interest, and what makes this assemblage different from other groups that have been studied in detail, is the pattern of fragmentation and deposition.

Three features are of note. Firstly, the recovery of a matched pair of stones is extremely rare on Late Iron

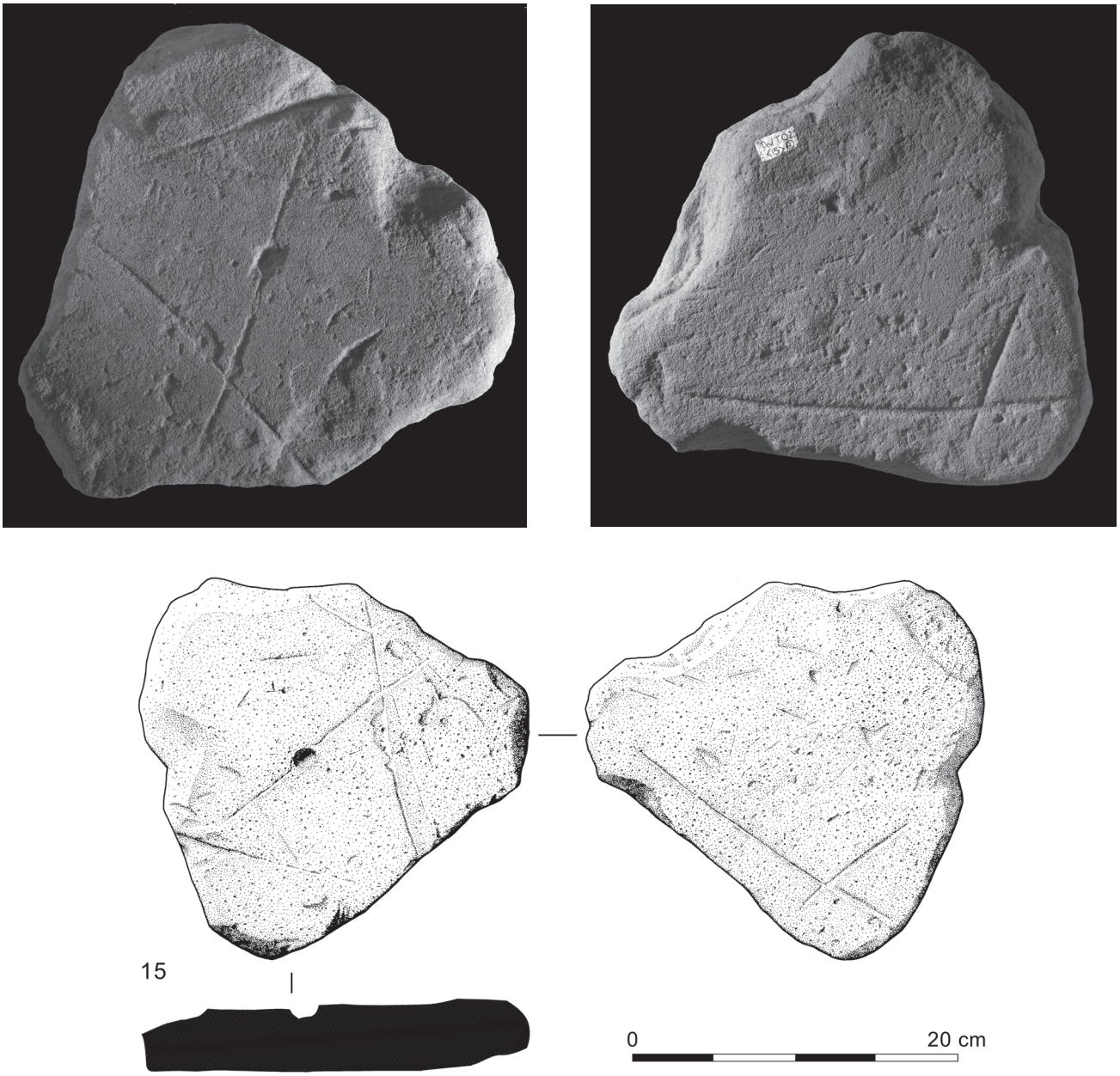

Figure 7.9
Decorated stone slab from Whittinghame. Scale 1:4 (Drawing Mark Hoyle; photo NMS)

Age and Roman settlements. In central Britain, we know of only one other example of a beehive pair recovered from secure deposits: from Ledston, West Yorkshire (Roberts 2005, 25). Secondly, the overall density of quern fragments is high, given the size of the excavation, and the density of features uncovered. This suggests that there was a special interest in quern deposition at this location, which is not evident on the vast majority of sites.

Thirdly, the presence of multiple fragments from the same stone is highly unusual. The normal pattern in central Britain is for the broken pieces of fragmented querns to be dispersed, so that only one fragment is recovered from each excavation (Heslop

2008). Exceptions do occur – for example two large pieces of a single high-quality top stone were recorded at Stanwick, North Yorkshire (Heslop forthcoming) – but these are not common. Moreover, on the majority of occupation sites, the fragments are detached in a more regular pattern, either to divide the stone into separate portions, each with part of the hopper, feedpipe, grinding face, etc. or to remove parts of the hopper or grinding face for secondary uses, as seen here with upper stone 104 (for general discussion of these patterns see Heslop 2008).

The pattern of fragmentation seen at Knowes is more indiscriminate, resulting from the smashing of the quern to produce a variety of different sized pieces of a more random character. A parallel for this is a larger group from Field Lane, Emsall, West Yorkshire, where a large pit at the centre of an enclosure of uncertain function contained 66 fragments from 11 querns, similarly smashed into random fragments (Heslop 2008). One possible interpretation of this type of deposit is the smashing of querns as part of ceremonies or activities associated with feasting or other communal gatherings, the conclusion of which saw the consumption of the means of production as well as of the products of that production. The presence also of several fragments of the same flagon associated with CS2 might support this suggestion.

OTHER LARGE STONE ARTEFACTS

PAMELA LOWTHER and FRASER HUNTER

Whittingehame

- *sf 14 [unstratified] (not illus)*

  Sub-triangular (almost 'drop' shaped) stone block, thickest at pointed end. Sits well on one face, with flat upper face sloping at an angle – possibly thus for use? A slight 'neck' near the pointed end, as if to enhance attachment, might indicate use as a weight (e.g. roof weight, line weight?) at some stage, perhaps secondary. Greyish colouration on sloping 'upper' face is a ferruginous deposit – may suggest use for crushing or burning in an iron-rich environment. Possibly utilised for pounding or crushing – perhaps a substance such as haematite (for pigment rather than ore?, given the lack of any metal-working evidence from the site).

  331 × 264 × 59mm.

- *sf 15 [2, surface of main ditch F1] (Figure 7.9)*

  Decorated sub-triangular slab, the shape largely natural but with limited edge-flaking. Local red sandstone; most likely Devonian. One face has a near-central small pecked hollow and an incised design. The predominant motif is a triangle, pendant from a line through the cup, with a marginal line along part of one side. The other face has two lines forming an irregular saltire in one corner. One face has ferruginous deposits towards the edges and in part of one incised line. Incised lines were used to mark the intended shape of roughouts (as with the spindle whorl from Knowes, below), but this seems unlikely in this case, as the decoration is not centred on the stone or the central marker hole. Instead, it is best interpreted as a decoration. This is unusual, but not unparalleled, although the phenomenon has seen little study. It is poorly stratified, and could be linked to the fifth–sixth century AD dates for the latest phase, but could equally be redeposited from earlier levels. Early Historic parallels are hard to find, but decorated stones are occasionally recovered from Iron Age sites, although rarely from secure contexts: there is a curved fragment with bifacial linear ornament from St Germains (East Lothian), a sandstone slab from Hawkhill (Angus) with a design of incised horizontal and vertical lines, and an unstratified slab from West Mains of Ethie (Angus) bearing cups and linear decoration, while the Late Bronze Age/Early Iron Age fort of Sheep Hill (Dunbartonshire) produced a sandstone slab with a serrated design incised along one edge. A hut circle at Ormiston (Fife) produced a large slab with an incised border, although it is poorly stratified and could be a medieval gaming board; an unusual decorated stone sphere from Dalladies, Kincardineshire is more securely Iron Age, but typologically more distant (Alexander and Watkins 1998, 238, fig. 18 no 586; Rees and Anderson forthcoming; Wilson 1980, fig. 4; unpublished, Hunterian Museum; Sherriff 1988, 104–5, fig. 4; Hall 1998; Watkins 1980, 159, fig. 20c). Closer to home, there is a small flat slab with incised rectilinear ornament from Traprain, while the site's unusual linear rock art may also be noted (Curle 1920, 72, fig. 7/42; Edwards 1935). The role of such stones is unclear, and is discussed further below. As noted, the dating is poor, and while the growing number of occurrences on Iron Age sites

carries some conviction, where in the 'long Iron Age' they sit is less clear.

Dimensions 240 × 220mm, max T 49mm.

Knowes: hollowed and cup-marked stones

Four boulders of various shapes and sizes each had a cup-shaped hollow pecked into one face (Figure 7.10). There is no evidence of smoothing from use as socket stones or mortars, and the pecking suggests instead use as a knocking stone, perhaps for dehusking barley (cf. Mitchell 1880, 44–5). Three of the four were in a fine-grained micaceous sandstone, the fourth an igneous rock. The lower face of one of the boulders was covered with more than 20 small pecked cups and is probably a re-utilised piece of earlier prehistoric rock art; these are relatively rare in East Lothian (Morris 1981, 138–57; *DES* 1996, 37).

- *sf 197 [F193, boulder revetment of scoop F284]*

  Stone block with a cup-shaped hollow pecked into the upper face. The stone appears to have been roughly shaped into a pentagonal or D-shape. Tooling with a round-tipped hammer or mason's point.

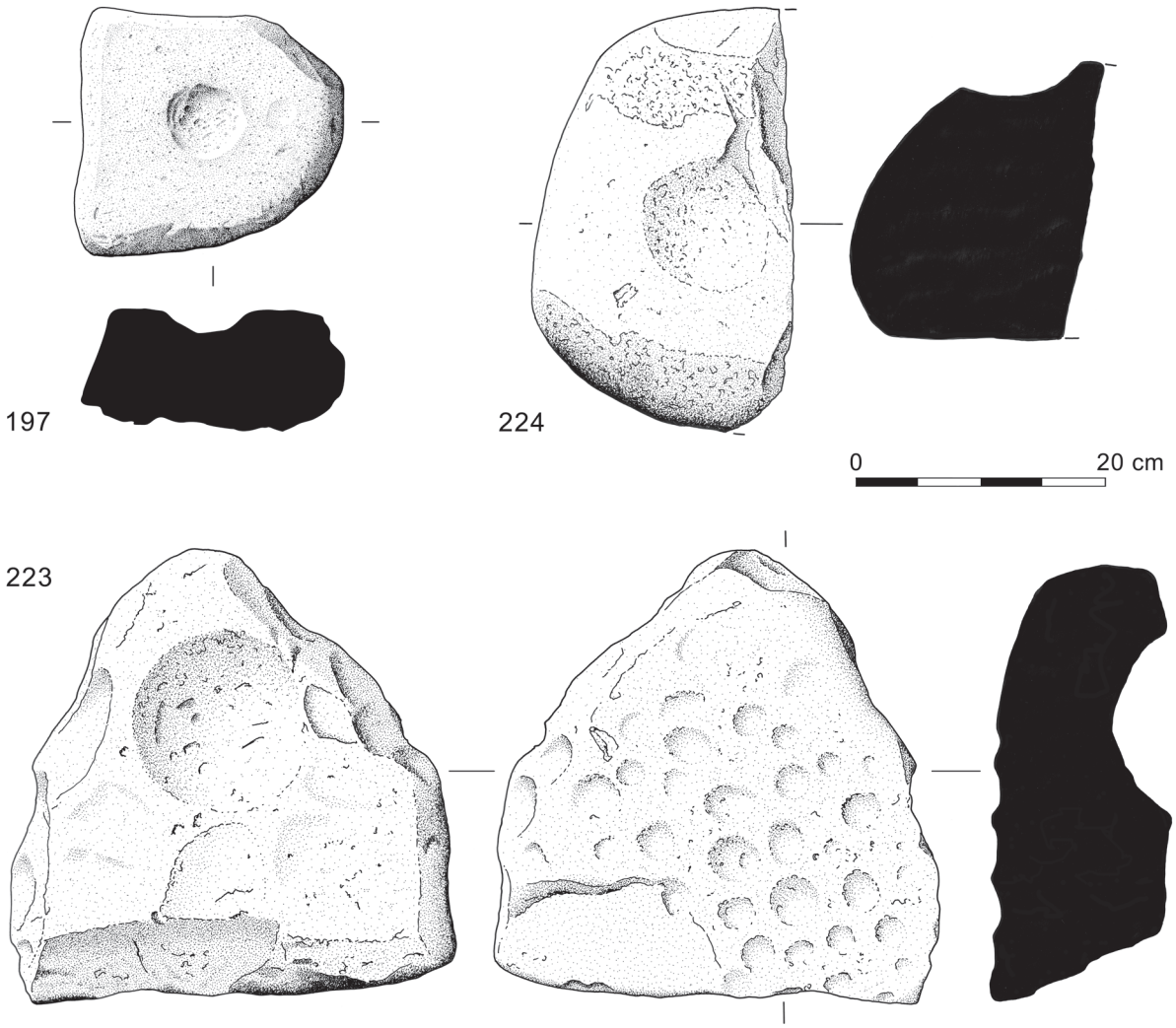

Figure 7.10
Cup stones from Knowes. Scale 1:6 (Alan Braby and Mark Hoyle)

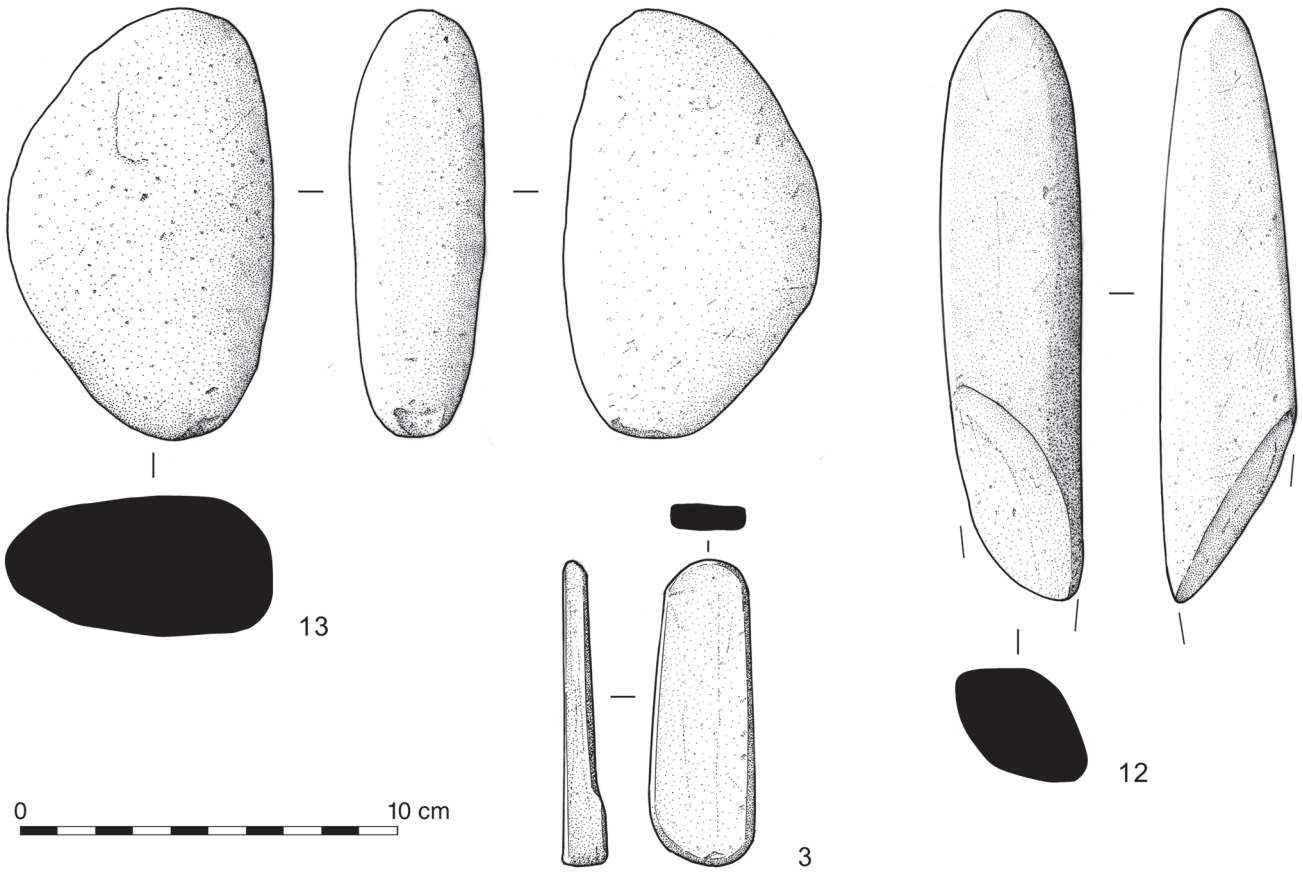

Figure 7.11
Cobble tools from Whittinghame. Scale 1:2 (Mark Hoyle)

Fine grained micaceous white/beige sandstone, typical of local Carboniferous or Devonian sources.

Block 200 × 195 × 95mm H; cup D 65mm, 20mm deep.

- *sf 223 [F327, paved surface in scoop F342]*

  Large sub-triangular block of stone with a large, shallow cup-shaped hollow pecked into 'upper' face. Peck marks are present only in the base, suggesting the sides have been smoothed by wear. The 'lower' face of the block is covered with more than 20 small pecked cups of 25–35mm diameter. Ferruginous brick-red sandstone, from local Carboniferous or Devonian source.

  Block: 415 × 360 × 185mm H; large cup D 145mm, 45mm deep; small cups D 25–35mm, max depth 15mm.

- *sf 224 [F199, wall of CS2]*

  Part of a large igneous boulder with a shallow, oval cup pecked into the upper face. The cup is unworn. One side of the boulder is broken off. The base of the stone has been worked flat; in places the surface of the stone is extremely smooth, elsewhere it appears pecked. Porphyritic igneous rock, gunmetal grey in colour; likely to be a glacial erratic.

  Boulder: 305 × 205 × 225mm H; cup 105 × 90 × 15mm deep.

- *sf 168 [192, stones on north edge of main scoop] (not illus)*

  Part of a small boulder with a basin-like cup pecked into the upper face. Broken through the cup, which is unworn. The sides of the stone appear to have

been roughly faceted. Fine-grained creamy-beige sandstone, local Carboniferous or Devonian source.

Boulder: L >245, W >100, H >150mm; cup est D *c.* 100mm, 42mm deep.

COBBLE TOOLS

PAMELA LOWTHER and FRASER HUNTER

These items are identified through damage or modification resulting from the use of the cobble as a tool; terminology is based on wear pattern, following the criteria of Ballin Smith (1994, 196–202). 'Rubber' is used interchangeably with polisher to indicate stones with a smoothed or polished surface, sometimes associated with residues, but lacking the dishing of a whetstone; none represents classic saddle quern rubbers, and they are likely to be hide-working tools. It is likely that many of them were multifunctional. More than half (12/22) of the objects are of greywacke, the commonest pebble and cobble type found in drift deposits and river beds in East Lothian, a proportion which also reflects its inherent usefulness and properties. The Carboniferous and Devonian sandstones are abundantly available locally. Other lithologies used were felsite, fine sandstone and quartzite, all of which occur locally in the boulder clay drift or in river deposits, and were probably specially selected for their particular density or hardness. The cobble tools were examined by Fiona McGibbon, whose geological identifications are incorporated into the descriptions below; her full report can be found in the site archive.

Whittingehame (Figure 7.11)

- *sf 3 [98, loam over cobbles]*

  Hone. Greywacke. A slabby pebble fragment. One face is very flat and smooth, with an area of wear/polish. The opposite face is roughly broken. The long edges have many fine striations. L 80, W 27, T 11mm.

- *sf 12 [98, loam over cobbles]*

  Hone. Elongated, tapering pebble, of D-shaped section, broken at one end. Greywacke. One face has a very smooth, polished area from wear. Sits well in the palm for use as a whetstone. L 155, W 30, T 32mm.

- *sf 13 [20, post-hole F19]*

  Pounder. Fairly flat heavy triangular greywacke cobble. One of the flat faces is very smooth and has slight polish, probably from secondary use as a rubber; there is also a patch of ferruginous deposit. The tapering end is abraded and has evidently been used as a pounder. Again, it is comfortably held in the hand. L 117, W 68, T 35mm.

- *sf 17 [20, post-hole F19] (not illus)*

  Large heavy cobble of basaltic volcanic rock. The lower face is smoothed and is discoloured grey – it has worn down to the inclusions which are not eroded out. Rubber/polisher? L 123, W 79, T 60mm.

- *sf 18 [43, pit F85] (not illus)*

  Red quartzite cobble with areas of darker red colour and small patches of gloss wear. Utilised as a rubber/polisher? L 88, W 75, T 46mm.

Standingstone (Figure 7.12)

- *sf 42 [101, western ditch terminal F3]*

  Fragment of a large quartzite cobble of roughly triangular section. One 'face' is very smooth and bears an area of high gloss polish, *c.* 50 × 40mm. The whole of the end of the cobble has extensive ground facets, covering a sub-triangular area of *c.* 65 × 40mm. The item has been used as both a polisher and a grinder. Lithology: quartz? Dimensions 88 × 100 × 50mm.

- *sf 20 [48, western ditch terminal F3]*

  Large, heavy, slightly tapering cobble with smooth surfaces. Porphyritic felsite. The more pointed end is roughly fractured from use as a hammerstone – a large facet has broken off one side as well as part of the end. At the other end of the cobble is an area *c.* 55 × 35mm roughened/pecked by grinding wear. A smaller area of roughening occurs along the side of the cobble. Polish and staining on one smooth convex face imply use also as a polisher. Multi-function cobble tool. The piece fits well in the palm of the hand. Lithology: fine grained, metamorphic? L 110, W 77, T 56mm.

- *sf 4 [4, western ditch terminal F3]*

  Small flat cobble of tapering form. Arkosic sandstone. The more pointed end has a small area of roughening

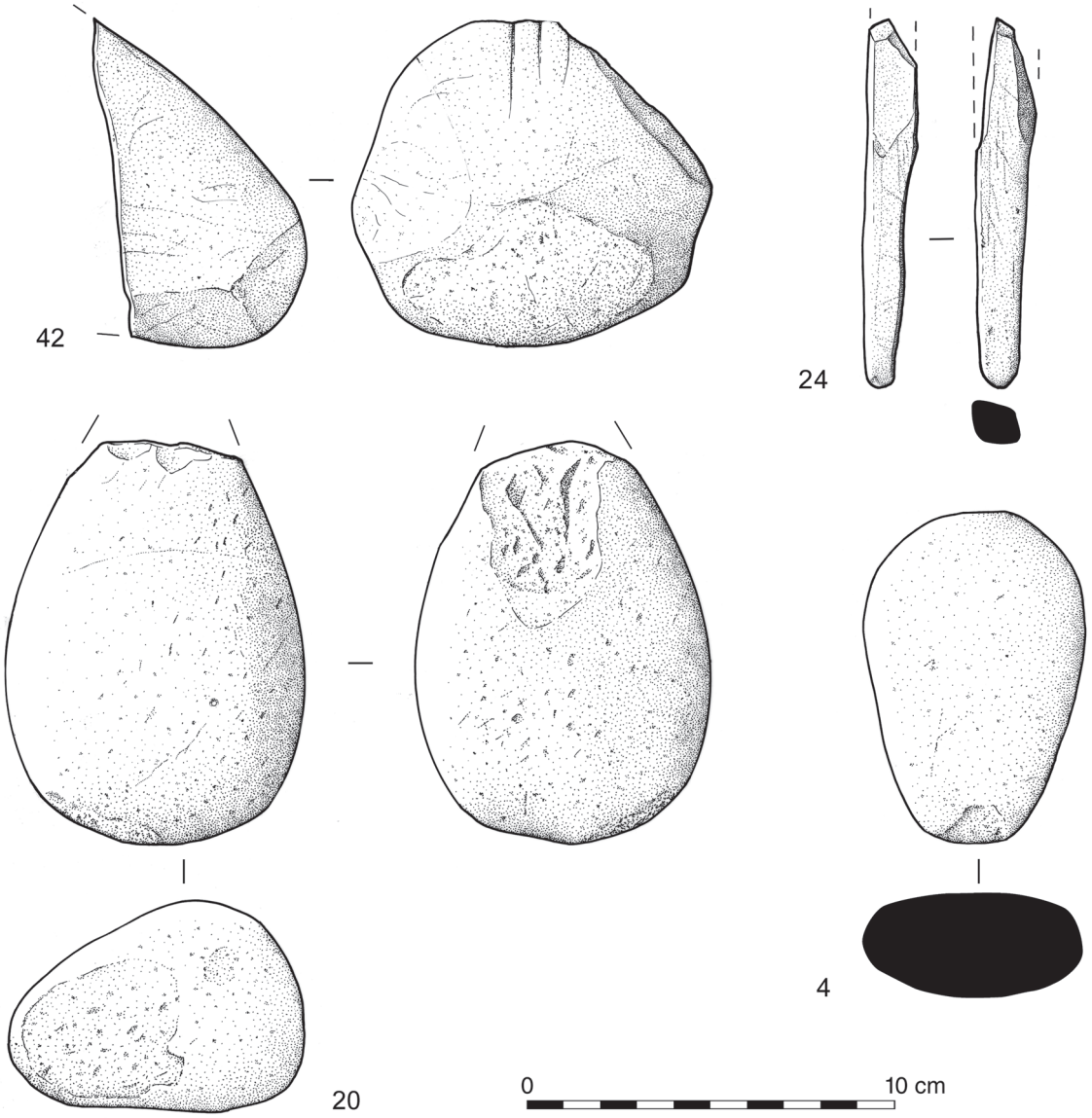

Figure 7.12
Cobble tools from Standingstone. Scale 1:2 (Mark Hoyle)

and a small flake has broken off, implying limited use as a pounder. Slight roughening of the rounded end may also be from use. One of the flat faces is fairly smooth and could have been used for rubbing/polishing, as it has a polished appearance. L 90, W 30–60, T 25mm.

- *sf 24 [58, enclosure ditch F70]*

  Long, thin fragment of very fine-grained greywacke cobble, broken along its length. Three flat faces are smoothed and dished, with fine striations or scratch marks. Whetstone. Petrology: very fine grained grey stone, siltstone? L 98, W 16, T 13mm.

- *sf 25 [48, western ditch terminal F3] (not illus)*

  A flat cobble, broken at one end, probably originally oval. Coarse, quartz-rich grit, from local greywackes. Two areas are worn smooth, along one of the long sides and adjacent to the other long side. Rubber/polisher. L 83, W 67, T 30mm.

- *sf 23 [48, western ditch terminal F3] (not illus)*
  Trapezoidal piece of medium-grained Devonian sandstone, with two deeply hollowed areas on one face. The elongated, tapering hollows are rounded or U-shaped in section. One near the centre of the 'upper' face measures *c.* L 55, W 20, D up to 12mm; the other runs along the end of the stone and is *c.* L 60, W at least 8, D 10mm. Both run out of the stone; the wear does not look natural. The object resembles a mould, but the hollows are incomplete, and the relevant edge of the stone is worn quite smooth and has well-rounded corners. Possibly some sort of a grinder or sharpener? L 105, W 82 tapering to *c.* 55, T 40mm.

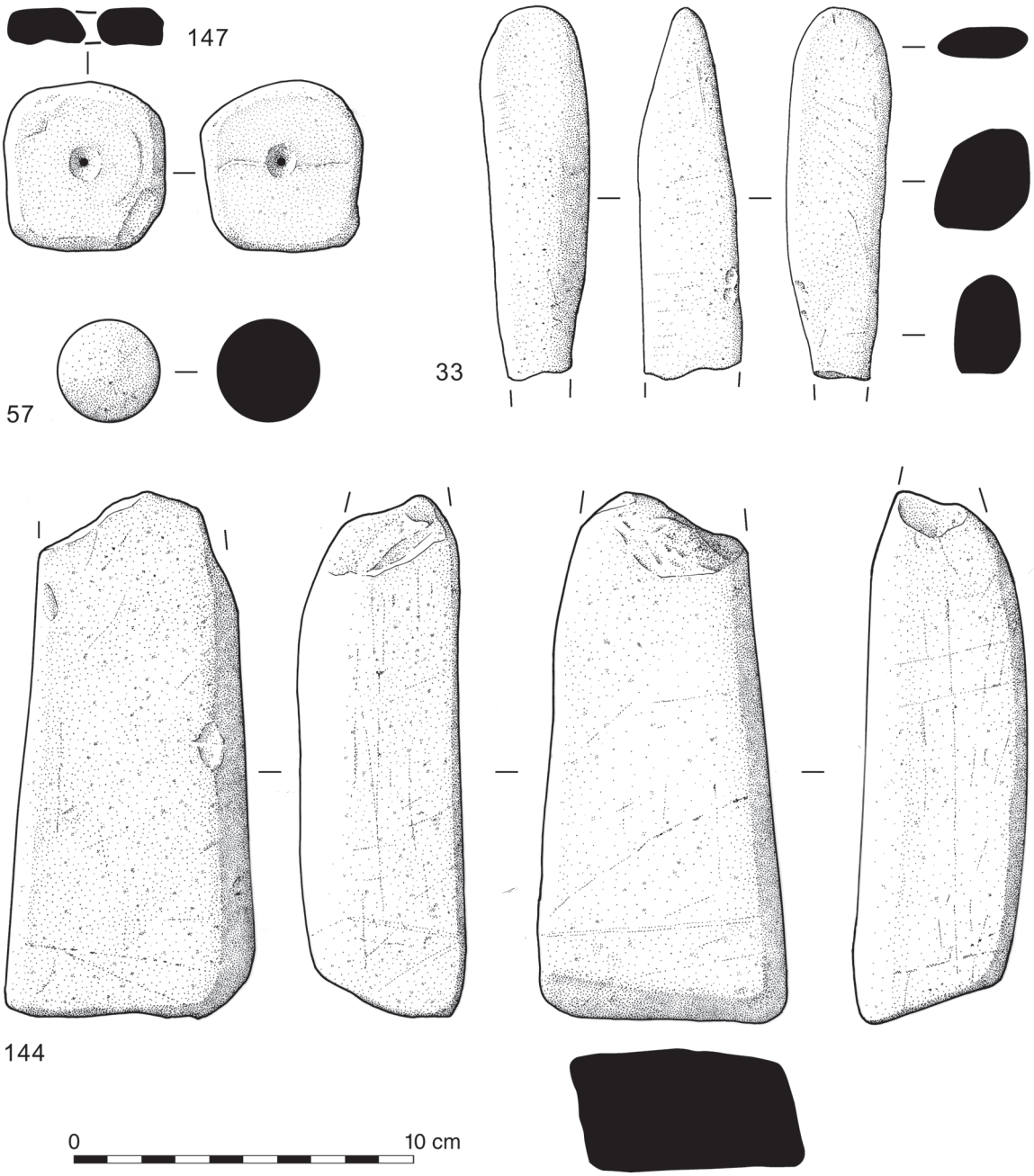

Figure 7.13
Stone whorl, ball and cobble tools from Knowes. Scale 1:2 (Mark Hoyle)

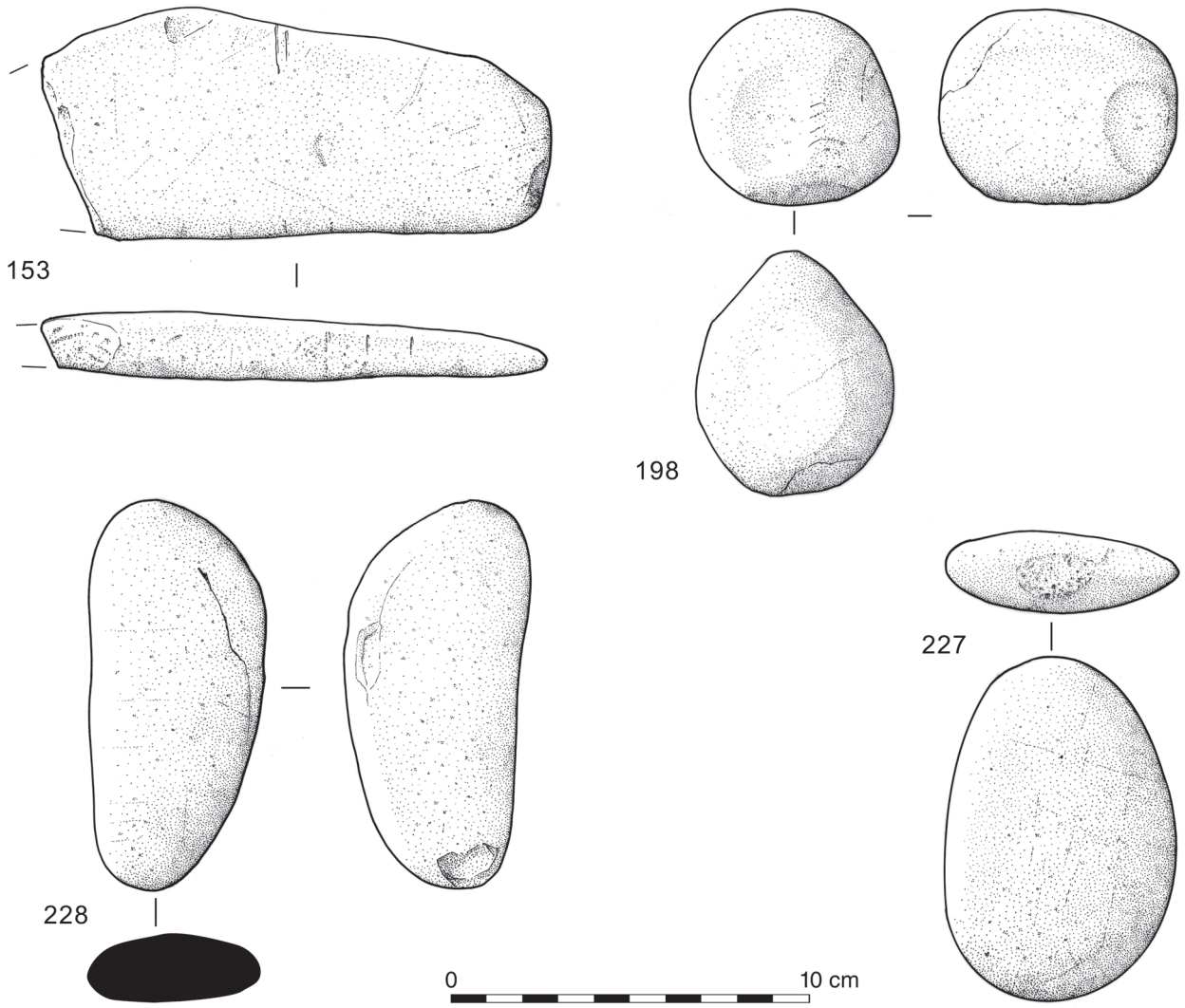

Figure 7.14
Cobble tools from Knowes. Scale 1:2 (Mark Hoyle)

Knowes (Figures 7.13–7.14)

A group of 11 utilised stones or cobble tools was recovered, together with an unfinished stone whorl and a small stone ball. The cobbles had been utilised as hones, pounders, and polishers or rubbers; some were evidently multi-purpose tools. This type of assemblage is not unusual for later pre-Roman or Roman Iron Age sites in the region, as discussed below.

- *sf 147 [124, silt within CS2]*

  Stone whorl. Flat piece of fine-grained red sandstone (Carboniferous or Devonian) shaped into a square with rounded corners, with a central perforation pecked from both sides (D max 9, min 3mm). One face bears an incised arc, which may be a marking out line for an unfinished circular whorl about 30mm in diameter. This method of manufacture finds close parallel in other perforated stone items, such as lignite bangles and beads. Dimensions 47 × 49, T 11mm.

- *sf 57 [122, silty sand in scoop F232]*

  Stone ball. Small spherical ball of fine to medium-grained sandstone/greywacke (probably from a

sand-rich layer within the greywacke sequence). No obvious facets. D 30mm.

- *sf 33 [109, silty sand over scoop F284]*

  Elongated pebble with one naturally wedge-shaped end, broken at opposite end. Fine- grained greywacke. One face is smooth and has a waxy patina suggestive of use as a hide-rubber, and there are possible sharpening grooves on the edges close to the broken end. L 110, W 28, T 28mm.

- *sf 144 [104, silty sand over CS2]*

  Flat, trapezoidal block of fine grained greywacke, broken at the narrower end. The two long, flat sides are worn very smooth. There is a definite angle along one long edge indicating where the side has been flattened, probably by ice or water transport. Used as a whetstone? L 154, W 68 tapering to 49, T 37mm.

- *sf 153 [124, silt within CS2]*

  Flat, elongated pebble, broken at one end. Greywacke. The flat faces are very smooth and have some worn areas. The edges have sharpening grooves. Probably saw very limited use as a whetstone. L 143, W 59, T 22mm.

- *sf 198 [at edge of paving F159, CS1]*

  Reddish quartzite cobble, with several areas of high gloss polish. It has been suggested that such high gloss polish is a residue deriving from the working of organic substances such as leather or plant fibres. A point has been knocked off at one end and subsequently smoothed through use. L 67, W 56, T 53mm.

- *sf 227 [335, pit F334]*

  Flat, sub-oval pebble with extremely smooth upper and lower faces. Greywacke. On the narrower end and part of the circumference are small roughened/pecked areas indicating use for pounding. L 92, W 59, T 25mm.

- *sf 228 [335, pit F334]*

  Flat, elongated pebble with particularly smooth, slightly hollowed area along the flat edge. Colour and shape typical of greywacke, but object is so covered in patina/polish that no fresh surface is visible. The upper face is smooth, possibly also the lower face, which is covered by a brownish ?ferruginous deposit which might relate to use. Polisher. L 107, W 48, T 20mm.

- *sf 127 [106, silty sand west of scoop F232] (not illus)*

  Large ovoid cobble with small areas at each end and intermittently along the sides roughened/pecked by light use as a pounder. Fine-grained sandstone, as sf 194. L 120, W 80, T 70mm.

- *sf 199 [252, pit F251] (not illus)*

  Flake from a large greywacke cobble. One area is very smooth and slightly hollowed, from use as a whetstone. Deposit of rusty brown material. L 132, W 42, T 20mm.

- *sf 194 [241, bedding for paving F166] (not illus)*

  Large ovoid cobble with a few peck marks at the ends. Sandstone. Uncertain whether these are purely natural, or indicate half-hearted use as a pounder. The flat faces appear completely natural and simply water worn. L 168, W 82, T 60mm.

CHIPPED STONE

JASON MOLE

Small groups of chipped flint, chert and quartz artefacts were recovered at Standingstone and Knowes. The flint was probably obtained locally in pebble form from boulder-clay deposits or riverine environments, or perhaps from the nearby coast. Chert is found in numerous locations around Lothian and the Borders (Wickham-Jones and Collins 1978). Quartz can be identified throughout Scotland in both vein and pebble form and is becoming recognised as a commonly utilised material throughout the country (Saville 1994).

Standingstone

Seven flakes and flake fragments were recovered; five flint, one chert, and one quartz. The pieces were categorised following Andrefsky (1998). One of the pieces of flake shatter was proximal, the other two medial. While four whole flakes were identified, the presence of cortex indicated only two secondary flakes and no primary thinning flakes. The primary stages of cortex removal are not represented. The flakes showed variation in size and shape, as well as in the production methods utilised, with both hard and soft hammer percussive techniques, and pressure flaking.

One fragment showed some evidence for platform preparation in the form of trimming. Four of the pieces came from pit F56, two flint, one chert, and one quartz, including a blade fragment.

- *sf 11 [21, pit F56]*

  Medial blade fragment, white chert. Broken obliquely at proximal end, transversally at distal end. Pronounced bulb indicates the use of a hard hammer percussion technique. The size and shape of the piece would normally indicate a late Mesolithic or early Neolithic date, but the associated radiocarbon dates and pottery from the pit are later Neolithic. L 17mm, W 12, T 3.4mm.

Knowes

Three pieces were recovered, a thumbnail scraper, a medial fragment of a thinning flake, both of brown flint, and a yellow quartz core.

- *sf 244 [unstratified]*

  Thumbnail scraper, brown flint. Sub-oval flake, termination type unknown due to retouching at its base. The striking platform is small and flat, showing very little sign of preparation, with a single striking facet. The dorsal side has a small amount of cortex on its right margin (less than 30%). The ventral side is retouched for approximately 40% of its circumference, from the left margin around to its distal end, to a depth of around 7mm. Thumbnail scrapers are most commonly Early Bronze Age (Edmonds 1995). L 25mm, W 22mm, T 8.84mm

- *sf 134 [186, dark silt within CS1]*

  A multi-directional yellow quartz core with six striking faces, most likely citrine. Not diagnostic of period. Maximum L 44mm, W 33mm, T 33mm.

ROMANO-BRITISH GLASS BANGLES FROM KNOWES

Fragments of four glass bangles were recovered, three in pale blue-green glass with central applied trails, the fourth in opaque white glass (Figure 7.15; Plate 6). The bangles were examined by Jennifer Price. The decorated bangles are of Kilbride-Jones Type 2, and find ready parallels on sites in Yorkshire, northern England and southern Scotland. They are essentially of Flavian date, being notably absent from Hadrian's Wall or Antonine period sites. All three bangles are of relatively small diameter (examples from contemporary southern sites such as Usk and Gloucester are frequently rather larger). It is unusual to find such a large fragment as sf 18, which represents very nearly half of the bangle. Opaque white bangles – of which sf 121 is a substantial example – are less

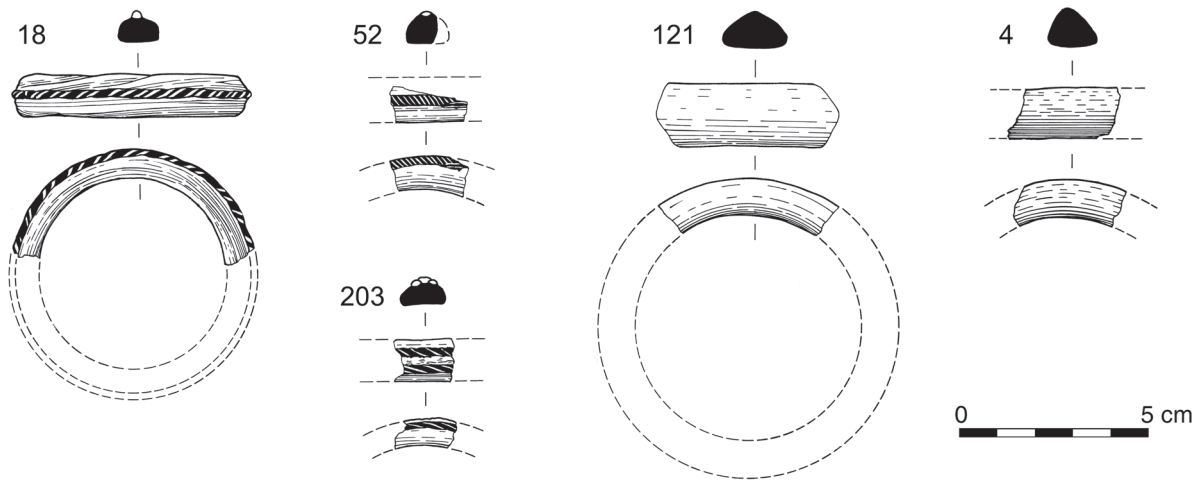

Figure 7.15
Glass bangles from Knowes and shale bracelet (sf 4) from Foster Law. Scale 1:2 (Christina Unwin)

easy to date precisely, occurring from the later first to early second centuries AD. In addition to the bangles, a single tiny flake of yellow-green glass was recovered; it was too small to discern whether from vessel, object or window, but the colour would suggest a slightly later Roman date.

- *sf 18 [104, silty sand over CS2]*

  Half of a bangle in blue-green glass, with a central applied trail of dark blue and opaque white glass twisted clockwise (2 strands white). The trail stands proud of the surface of the bangle. D-shaped section W 12mm × H 8mm; int D 52mm, ext 60mm; 45% of circumference.

- *sf 52 [123, above paving F152 at northern ditch terminal]*

  Small fragment of bangle in pale blue-green glass, with central applied trail of twisted white and brown glass, which has been marvered into the surface of the bangle, standing only slightly proud. D-shaped section W >9mm × H 7.5mm; L 19mm; int D *c.* 60mm; 8% of circumference.

- *sf 203 [197, deposit over floor of CS2]*

  Small fragment of bangle in pale blue-green glass with central decoration consisting of three closely set applied trails which stand only slightly proud of the surface: two dark blue trails twisted loosely clockwise flank a yellow-brown trail which has largely flaked off but was probably also twisted. D-shaped section W 11mm, H 7mm; L 17mm; estimated int D *c.* 60mm; 8% of circumference.

- *sf 121 [179, surface of western ditch F103]*

  Opaque white bangle fragment. Triangular cross-section 17 × 10mm; L 48mm; int D 60mm, ext D 80mm; 22% of circumference.

- *sf 55 [124, silt within CS2] (not illus)*

  Tiny fragment of yellow-green glass. Probably later Roman. 8 × 4 × 1.5mm.

SHALE AND AMBER

Foster Law

- *sf 4 [4, stony spread over ditches] (Figure 7.15)*

  Fragment of 'shale' bracelet, sub-triangular in section, the inner surface flat with circumferential abrasion scars, the outer polished to a low lustre and showing ?post-depositional wear. The material shows a conchoidal fracture and some laminar cracks, suggesting it is a canneloid shale. L 32, internal D 55–60mm (17% survives), section 13.5 × 10.5mm.

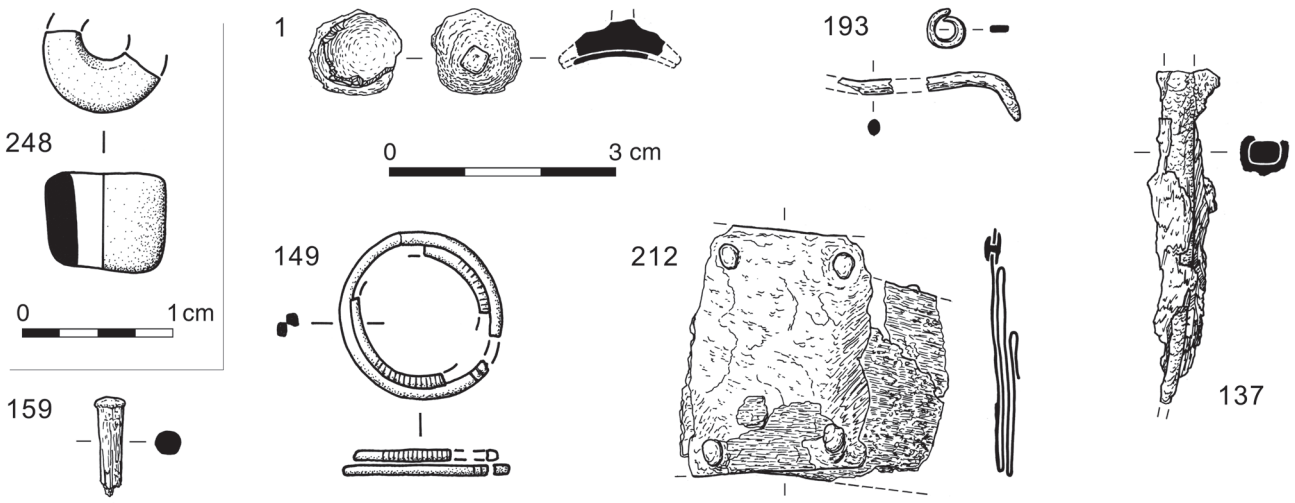

Figure 7.16
Amber bead from Knowes (sf 248). Scale 2:1. Metal objects: stud from Whittinghame (sf 1); copper alloy and iron from Knowes. All scale 1:1 (Christina Unwin and Alan Braby)

Knowes

- *sf 248 [10, western ditch F103] (Figure 7.16)*

  Part of a small amber bead with a weathered surface was recovered from a soil sample from the 2002 trial excavation. The bead is a slightly tapering cylinder, with the top surface at a slight angle. Roughly one third of the circumference survives. H 6.5mm, est D 9mm, T 2.5–3mm; D of perforation tapers from 2.5–5mm.

Amber is unusual in the Scottish Iron Age; a listing is provided in Hunter (1998a), where the significance is discussed.[1] It was clearly an exotic material of restricted availability, and is likely to have been of some social importance.

COPPER ALLOY AND IRON OBJECTS

FRASER HUNTER, JENNY JONES and PAMELA LOWTHER

Whittingehame (Figure 7.16)

- *sf 1 [39, L-shaped setting by SS1]*

  Circular dished copper alloy stud, its margins lost, with the stub of a square-sectioned tang centrally on the reverse. The dished front holds opaque deep blue enamel. Probably a decorative mount; the tang's square section indicates it is not a pin, and its central location would be unusual for a button-and-loop fastener. There is a related mount (in red) from Torwoodlee broch, although with a separate rivet rather than an integral fastener (MacGregor 1976, no 176); their detailed function is uncertain. D 10.5 × 12mm, max T 5.5mm, shank W 3mm.

Knowes (Figure 7.16)

- *sf 193 [213, gully F212 in scoop F232]*

  Copper alloy fragments: (a) Two non-joining pieces of curved wire of circular section, 2.5mm in diameter (L 7 and 12mm). One piece preserves a blunt tip. (b) Small penannular loop or coil, broken off a larger object, D *c.* 4.5 × 6mm, made from a piece of flattened wire 2.5mm wide and 1.5mm thick. Surface EDXRF analysis showed the wire to be either tinned leaded brass, or a quaternary alloy; and the loop to be leaded bronze, possibly tinned. The smaller piece of wire was found passing through the small loop, although this may be coincidental. The EDXRF analysis implies two separate items, although these may have formed parts of one object.

- *sf 149 [124, silt within CS2]*

  Spiral finger ring, in five non-joining fragments. Circular or oval-sectioned rod, the surviving terminal blunt, with two incised lines (absent on the inside) defining a collar. The external surface is decorated with transverse ribbing on the central turn – it is absent on the initial turn. Original extent unknown; external D *c.* 22mm, rod D 2 × 1.5mm. Surface EDXRF analysis detected copper, tin, lead and zinc, probably representing a leaded gunmetal. Rilled decoration of this type is fairly common on spiral rings (e.g. Taylor 1982, 229, fig. 6 no 27; Hunter 2001b, fig. 4.3).

- *sf 184 [161, possible hearth deposit, CS1] (not illus)*

  Fragment of copper alloy ring. Oval-sectioned wire, D 2.5mm, surviving L 19mm. Original D *c.* 25mm. Surface EDXRF indicates bronze with a very high level of tin.

- *sf 159 [104, silty sand over CS2]*

  Fragment of small copper alloy rivet or rivet-headed tack. The head is slightly expanded and domed (D 4mm); the broken shank is 3mm in diameter. EDXRF indicated a leaded bronze with a high level of tin and a small amount of silver (~ 1%). L 13mm.

- *sf 212 [124, silt within CS2]*

  Package of several pieces of sheet copper alloy fragments folded together and bent. Four pieces appear to be present. The top piece is a complete square patch with a solid rivet in each corner, still retaining fragments of sheet. Behind are three further thin sheets of copper alloy, probably adhering by corrosion alone. Some pieces have areas of dark surface, and some of the edges may be original,

[1] The following should be added to this list: Dun Bharabhat, Lewis (Harding and Dixon 2000, 28–9); Buittle, Kirkcudbrightshire (Wilson 2001, 96–7); Dun Ardtreck, Skye (MacKie 2000a, ill 24:39); Covesea, Moray (Benton 1931, 198–9, fig. 19:1–7); Birnie, Moray (*DES* 2006, 109); Dun Vulan, South Uist (Parker Pearson and Sharples 1999, 88); Underhoull, Unst (Small 1966, fig. 9).

possibly clipped. There are traces of a discontinuous thinner dark layer or plating. Surface EDXRF analysis showed the alloy to be bronze; the outer dark coloured surface did not show higher levels of tin. The top layer is evidently a patch, perhaps from a copper alloy vessel, but the current configuration of the pieces suggests that they are scrap. Dimensions 32 × 34.5mm, max T 4mm, patch 32 × 26mm.

- *sf 202 [197, deposit over floor of CS2] (not illus)*

  Tiny fragment of copper alloy sheet and a small tack which passes through another fragment of sheet. The tack has a circular, slightly domed head; the shank is complete but bent. The space (*c.* 3mm) between the head of the tack and the 'clenched' end indicates that it was attached to an organic item. One rounded edge of the sheet appears to be original. Patch or decorative panel. Both sheet and tack are unleaded bronze.

- *sf 242 [179, surface of western ditch F103] (not illus)*

  Sixteen tiny fragments of very thin sheet (T 0.25–0.5mm). One piece retains an original, curved edge, folded round the edge of another sheet. The fragments retain traces of impressed decoration, but could not be joined; one clearly shows a dot with two raised rings, another may have curvilinear repoussé (too small for EDXRF analysis).

- *sf 137 [124, silt within CS2]*

  Iron nail, bent slightly towards the point. Intact; head only slightly expanded. Traces of mineralised wood (not identifiable) on the surface. L 44mm, head 8 × 5mm, shank 5 × 5mm.

THE FINDS ASSEMBLAGES IN THEIR REGIONAL CONTEXT

FRASER HUNTER

The great value of the TLEP finds is that they provide a series of assemblages recovered by a consistent methodology and, for the three larger sites, excavated at a similar scale. While this does not of course eliminate taphonomic differences (in, for instance, intensity of plough damage, nature of subsoil, etc.), it does mean that similarities and differences between the sites are more reliable than is often the case. The aim of this section is threefold: firstly, to tease out the stories behind the more unusual finds; secondly, to characterise and compare the assemblages as a whole; and finally, to put them into their local context, assessing what they can tell us about the later prehistoric societies of East Lothian.

Notable finds

The specialist reports have discussed the material in detail, with largely prosaic finds dominating the picture. A few aspects are worthy of particular comment. The querns from Knowes are a notable assemblage, due in particular to their patterns of deposition. Not only is there a considerable quantity, but the occurrence of a matched upper and lower pair, and of multiple fragments from the one quern, is unusual. Unfortunately, Scottish querns have not yet received the detailed treatment now available for areas of northern England (Heslop 2008), a work which sets the standard in the field, but the Knowes finds provide intriguing pointers to the significance of quern deposition in the region. The intact upper stone seemed to have been laid flat in the hollow of the infilled western ditch, and it is interesting that the lower stone of the matched pair should have been found at precisely the opposite side of the circuit, just north of the entrance.

There is otherwise little in the deposition to indicate anything apart from rubbish disposal at any of the TLEP sites. Two possible exceptions, again from Knowes, are the smashing and scattering of the Roman flagon, which Heslop *et al*. link to the smashed quern from the same structure as a potential feasting-related event; and the rim of the coarseware vessel set in the surface of the southern ditch terminal.

Two other aspects of the finds are worthy of broader comment. One is the issue of decorative metalwork. Both Whittingehame and Knowes produced such items; an enamelled stud from the former, a spiral finger ring and decorated sheet object from the latter. While spiral finger rings are a fairly common find (Clarke 1971, fig. 3), other decorative metalwork is always rare, and its discovery from these two sites is noteworthy. The decorated sheet fragments are particularly interesting, as such items suffer much more than cast ones because of their fragility. Our picture of the sheet products of the Iron Age is partial in the extreme, and while the Knowes fragments offer only tantalising hints, their indications of curvilinear repoussé decoration are further evidence that decorated sheet metalwork was more common than surviving finds would indicate.

The second issue develops this decorative theme. Decorated items are conspicuous by their absence on Iron Age sites, but both Whittingehame and Knowes provide what is, in local terms, quite a broad spectrum of ornament: as well as metalwork, both produced decorated stones, and Knowes also had glass bangles. Decorated stones are unusual, and the two examples raise rather different issues. From Knowes comes sf 223, a knocking stone made from a re-used piece of late Neolithic rock art bearing multiple cupmarks. This is interesting from a number of viewpoints. Early prehistoric rock art is rare in East Lothian compared to other parts of Scotland, and this is a valuable addition to the corpus. More pertinent here is the implication that this stone was deliberately sought out for re-use; it is unlikely to have been accidental or unnoticed, and such creative referencing or re-use of antique items is increasingly recognised in the Iron Age. It is seen, for instance, in the later collection and deposition of Bronze Age finds, most strikingly in the Salisbury hoard (Stead 1998, 118–24), but is also marked by the collection of Neolithic axeheads (well-illustrated by the example from Hyndford crannog; Munro 1899, 379–80), and by Iron Age re-use of older monuments (Hingley 1996). In the specific case of rock art, examples are known from a number of souterrains (Hingley 1992, 29), and it seems there was a clear perception of such finds as significant. The Knowes stone helps build this case for the perceived power of such antiques, whatever meanings they were imbued with. It is worth noting that the cup-marked motif is found on a small number of undeniably Iron Age artefacts in East Lothian, specifically four querns from Traprain, Broxmouth and Phantassie (McLaren and Hunter in prep). It is tempting to suggest that a local Iron Age tradition of cup-decoration emerged from instances exactly like the current one, with creative re-use of much older motifs.

This creative re-use of earlier art is arguably seen also on Traprain Law, with the linear rock carvings overlying earlier cup-and-rings (Edwards 1935). This leads us to the other intriguing decorated stone: slab sf 15 from Whittingehame with incised linear ornament. As discussed above, such ornament is extremely unusual, but a few related pieces are known. Decorated stone is generally rare in the Scottish Iron Age, and in the few instances known it is almost always on functional objects, such as whorls, querns and, very occasionally, lamps; ornaments tend to rely on the inherent qualities of the stone for decorative properties, although there are occasional bangles with carved decoration (MacGregor 1976, nos 279, 334; Jackson 2005, ill 24; McLaren and Hunter in prep; Mann 1925, pl 37). In the present instance, its role is unclear, although it does not fit the normal canons of either earlier prehistoric rock art or Early Historic sculpture and may reasonably be claimed as a later prehistoric specimen (its context, in the surface of the main ditch, does not help greatly). It is a valuable reminder of the range of material, which bore decoration in later prehistory beyond the more familiar metalwork.

The TLEP assemblages

It is important not simply to cherry-pick a few choice finds for discussion; interesting patterns emerge if we consider the assemblages as a whole. Table 7.1 summarises the assemblages from the five sites that produced material, there being no finds from East Linton, occupied in both the Later Bronze Age and the Later Iron Age. The three main excavations, Knowes, Standingstone, and Whittingehame, will be the focus of further discussion.

A number of points are immediately apparent. One is the striking differences between the three major sites, both in terms of quantity and range of finds. Knowes has by far the biggest assemblage on both measures (although the range is restricted compared to sites such as St Germains; Alexander and Watkins 1998); however, while Whittingehame and Standingstone are similar in size, the former shows a broader spectrum of finds. This is largely attributable to a single complex of features at Whittingehame: the scoop structures and associated features of Roman Iron Age date. Whittingehame is an amalgamation of two assemblages, one of Late Bronze Age/Earlier Iron Age character, the other of Late/Roman Iron Age character, which produced the two striking finds from the site, the Roman pot and the decorated stud. This difference has been discussed in outline elsewhere (Hunter 2007a, 84–5), and mirrors patterns noted for southern Britain: the Earlier Iron Age is dominated by a prosaic material culture until the last couple of centuries BC, when a much broader range of ornamental and personal equipment comes into use, a phenomenon plausibly connected with individuals becoming increasingly concerned with issues of status and social identity (Hill 1995). The TLEP results would confirm this, with the essentially prosaic assemblages of Standingstone and Foster Law contrasting with the notably broader range of finds from Late Iron Age–early Roman Iron Age Knowes

Table 7.1
Summary of the finds assemblages from TLEP sites (East Linton produced no finds)

	Whittingehame (TWT)	*Standingstone (TST)*	*Knowes (TKN)*	*Foster Law (TFL)*	*East Bearford (TEB)*
Prehistoric pot (no of vessels)	5	12 (some Neolithic)	46	11	1
Roman pot	1 samian bowl		1 samian platter 1 coarseware flagon		
Glass			4 bangles 1 ?late Roman sherd		
Copper alloy	1 enamelled stud		3 ornaments 4 fittings/fragments 1 part-worked		
Iron			1 nail		
Struck lithics		11 (some in Neolithic pit)	4		
Querns	1 saddle quern		6 rotary querns		
Cobble tools	5	6	9		
Other stone items	2 (decorated slab; ?anvil)		2 ornament/leisure (amber bead, ball) 4 ?knocking stones (1 reused rock art) 1 whorl (unfinished)	1 shale bangle	
Total (small finds + indigenous vessels)	10 + 5v	6 + 12v	38 + 46v	1 + 11v	0 + 1v
Range	6	3	9	2	1

and the Roman–early post-Roman occupation at Whittingehame. The difference is made clear if key elements of the assemblages are drawn out; the evidence for imports and other status or unusual items, and for the activities taking place on the site (Table 7.2).

Typically, the activities represented are everyday tasks such as preparing, storing and consuming food, or preparing hides; other, equally everyday tasks such as textile manufacture or making stone tools are only intermittently represented, emphasising the partial nature of our assemblages. One of the recurring problems is our inability to determine what many tools were used for, notably coarse stone tools (Haselgrove *et al.* 2001, 21). These are an unfamiliar material for modern observers, carrying out unfamiliar functions, and they remain one of the great, untapped resources of the period. Wear patterns may be classified into broad groups (following the methodology from Howe; Ballin Smith 1994, 196–202); while this does not in itself necessarily define functional categories, it provides at least an avenue into the issue. The cobble tool assemblages here are really too small for reliable patterns, and the data collated in Table 7.3 show only hints of trends. The greater incidence of whetting and sharpening stones at Knowes may be a factor of its date, with a greater availability of iron later in the period; in support of this, at Whittingehame both whetstones are from the later phase. It is worth noting that both multi-function tools from Knowes had been used as sharpening stones, while on the other sites rubbing or polishing is the linking factor.

Pounding and grinding tools would be essential for a range of tasks, such as crushing barley or preparing

Table 7.2
Key features of the material culture of the three main sites

	TWT	*TST*	*TKN*
Imports	Roman pot		Roman pot Roman glass Amber
Status items	Enamelled stud		Decorative metalwork Glass bangles
Unusual items	Decorated stone		Reused rock art
Crafts & processes	Food Hides	Food Hides	Food Hides Stone Textiles Sheet Cu alloy

clay for pottery, while the incidence of rubbing tools is most likely linked to hide-working (diagnostic quern-rubbers are excluded from this category for analysis). One further tentative pattern may be noted: there is some variety in the incidence of multi-function tools, with Standingstone having a notably higher percentage. However, it would be unwise to place too much weight on such small assemblages; these are ideas to be tested in further, larger assemblages, and are developed a little further below, in considering the wider East Lothian evidence.

A final area to comment on is copper alloy use. The bulk of the Knowes finds were analysed, and are notable for the scarcity of zinc (detected only in sf 149 and sf 193). This contrasts with Dungworth's results from Traprain (1995, 221 and Appendix 5), where rather mixed quaternary alloys dominated his sample, representing recycling of Roman material. It suggests either variation in alloy use on different sites or a chronological difference, with the copper alloys from Knowes predominantly representing pre-Roman material; if so, this is not evident in the stratigraphy, since apart from sf 193 from the base of the main scoop, all the metal was from late contexts. Little comparable analytical work has yet been done in southern Scotland, since Dungworth only sampled a few sites; these results hint at a complexity within the broad trends he noted, with the possibility of different sites showing different patterns of alloy use.

The TLEP assemblages in their lowland Scottish context

There has been little attempt to characterise broad assemblage patterns and their variability in the Scottish Iron Age, although MacKie (2000b) has renewed effort in this direction with his study of northern mainland sites. Too often, the assemblages are dismissed as poverty-stricken and undiagnostic (e.g. Harding 2004, 81), but this arises largely from the lack of sustained material culture studies; the contrast with the evidence of decorative metalwork from hoards in the area should warn us that the 'poverty' is a misleading impression. Some years ago the author assessed a sample of lowland Scottish sites for the 'Circular Arguments' conference; the proceedings never emerged, but the chance is taken here to update and present aspects relevant to the current project. The sample comprises all lowland Iron Age sites (defined as the Tyne-Forth, Solway-Clyde and North-East provinces of Piggott's (1966) scheme) published in *PSAS* in the period 1945–2006, along with a selection of monographs. Each assemblage was assessed for the range of material and functional types represented. The aim is to create a robust system capable of yielding basic patterns that could then be tackled by more detailed analysis. It can be used either quantitatively or qualitatively, on a presence/

Table 7.3
Cobble tool functions at the TLEP sites. For multi-function tools, each function is recorded individually; thus TST has 6 tools but 10 functions, as three of the tools were multi-function. These latter are recorded in the form p/r, where the first letter of the function (as in the left column) acts as a code for their use.

	TWT (n = 5)	*TST (n = 6)*	*TKN (n = 9)*
Hammer		1	
Pound	1	1	3
Grind		3	
Rub/polish	3	4	3
Whet	2	1	3
Sharpen			2
Combinations	1 (p/r)	3 (g/r; h/g/r; p/r)	2 (r/s; w/s)
No of functions	6	10	11

Table 7.4
Occurrence of materials on a sample of 60 lowland Iron Age sites, and all 32 excavated East Lothian sites (on presence/absence basis; see Table 7.6 for East Lothian sites).

Material	*% of sites lowland Scotland (n = 60)*	*% of sites East Lothian (n = 32)*
Stone	85	78
Pot	77	84
Iron	47	25
Glass	45	28
Copper alloy	43	44
Other ceramic	18	22
Bone	15	50
Other non-ferrous	10	9

absence basis, where the data are poor (e.g. from older excavations). This allows us to move beyond the single site and consider the wider picture. It is, of course, only a sample, but it provides an initial step towards broader understandings of the nature of Iron Age assemblages in the area; further work will doubtless tease out diachronic patterning. To augment this, all known excavated assemblages from East Lothian were collected and analysed in a similar way to present the regional picture.

Turning first to the broad character of the assemblages, a number of points emerge (Table 7.4). Although the area is often dismissed as virtually aceramic, the vast majority of sites in the sample (77%) produce some hand-made pottery, rising to 84% for East Lothian; this compares well with north-east England (Willis 1999, 85). Unsurprisingly, stone is the most common small find, but almost 50% of sites produce copper alloy, iron or glass artefacts. Individual sites may appear impoverished, but cumulatively there is a useful body of data which merits further attention. East Lothian broadly follows wider trends, but with markedly more sites producing worked bone. The under-representation of iron and glass is difficult to explain, although the former may arise from the selective retention policies of antiquarian excavations.

Table 7.5
Functional analysis of activities represented by artefacts on lowland Scottish and East Lothian sites (expressed as the percentage of sites with evidence of the activity).

Activity	*% of sites with evidence lowland Scotland*	*% of sites with evidence East Lothian*
FOOD		
Preparation & eating	78	84
Agriculture	7	9
Hunting &c	2	0
DOMESTIC		
Fixtures and fittings	37	16
MANUFACTURE		
Skins	20	38
Textiles	30	38
Wood	7	3
Bone &c	7	41
Everyday stone	15	16
Stone ornaments	15	28
Iron-working	23	28
Non-ferrous	23	25
OTHER		
Transport	7	9
Weapons	7	6
Ornaments &c	58	56
Games and leisure	28	34
STATUS		
Exotica	12	31
Roman	40	47

When attempting a functional analysis (Table 7.5), taphonomic and research biases are immediately clear. Very few sites produce evidence for such core activities as agriculture or skin preparation in the finds record: this is largely due to issues of deposition and survival, with agricultural items being repaired and recycled rather than deposited, while the bone tools commonly used in skin-working rarely survive. The other major problem is the difficulty in ascribing function to cobble

tools, as discussed above. In the case of East Lothian, the higher percentage of skin working (for instance) is due both to the greater presence of bone tools, and the re-examination of cobble tools to identify likely hide-rubbers.

We are on firmer ground with processes where the residues are primarily inorganic, and thus should survive; it is instructive that under a quarter of lowland sites produce evidence of copper alloy or iron working, supporting models of specialisation in metalworking in this area (although with the caveat that iron slag was often ignored in reports until recently). The high proportion of sites with Roman artefacts (40%) questions simple views of Roman finds as status indicators – and this figure is an underestimate, as the sample includes sites which pre- and post-date the Roman Iron Age. It seems Roman finds were quite widely available in the lowlands, and we need to move beyond simple presence/absence indicators to more detailed analysis, since it is clear that the inhabitants of some sites had preferential access to a wide range of Roman material (see Hunter 2001a); this is considered for East Lothian below.

If we remove Roman finds from the picture, are there other indicators of differences between sites? Most produce a very similar range of material, suggesting a similar range of essentially everyday activities: artefact-rich sites like the lowland brochs of Hurly Hawkin and Fairy Knowe serve mainly to illuminate a wider spectrum of everyday objects than normally survive, such as iron tools. There *are* some potential indicators of status differentiation, but these are relatively subtle. The presence of metalworking appears to be of significance, and exotica (such as amber or La Tène brooches) are also restricted. Decorative metalwork is also quite exclusive, although its occurrence is highly dependent on varying depositional practices (Hunter 1997). The difficulty is that with such small quantities of finds, their presence or absence on any individual site is of little significance unless the assemblage is large; only the wider picture reveals trends. However, in this broader lowland Scottish perspective, these markers do indicate that a small number of sites can be differentiated on the basis of access to exotica or status items; this seems to be largely a Late Iron Age phenomenon, and will be discussed below for the East Lothian situation.

This analysis has been a provisional one, to test out the approach; the results are of interest, in starting to move beyond the rather dismissive treatment of Lowland assemblages which has prevailed (e.g. Harding 2004, 81–2), and point to avenues for further research. For the moment, however, the focus must turn to East Lothian.

The material culture of the East Lothian Iron Age

We can develop these ideas in the specific case of East Lothian, comparing the TLEP finds with all other excavated assemblages known in the region. Two key questions are whether this can cast light on similarities and differences between sites (and thus potentially on social relations, as explored by Macinnes 1984, 189–97), and the relationship between Traprain Law and its surrounds, a topic of prime interest in understanding this great hill and its role.

Of 35 examined sites, 34 produced artefact assemblages; 30 from excavation or recovery from erosion surfaces, four from stray finds or metal-detecting (Table 7.6). In several cases, the publication has insufficient treatment of the finds to allow full study (sadly this is as true of the recent A1 excavations (Lelong and MacGregor 2007) as it is of nineteenth-century work), but for 29 sites it was possible to examine the material first hand (for the large assemblages of Broxmouth and Traprain, this was an indicative assessment rather than the more detailed identifications carried out for other sites). With the exception of these sites, the assemblages are generally small: only Traprain, Broxmouth and Dryburn have more than 50 small finds (excluding pottery), and almost half the sites have fewer than 10 small finds. Given these small quantities, analysis has generally been done on a presence/absence basis.

Table 7.6 summarises the key elements of the assemblages, with Table 7.5 providing a functional analysis. A number of features are worth further discussion: specific finds groups, notably stone tools; the nature of production evidence; patterns in the availability of imports; and finally, what light this throws on social structures and interactions.

Stone tools

As one of the commonest find types, stone tools merit more attention than they often receive. The East Lothian assemblages are dominated by querns (from 17 sites), cobble tools (16 sites), whetstones (12) and stone balls (10). Ornaments (especially of shale) and shale-working are found on nine sites and mortars or similar items on eight, with other categories rather rarer. The quantities on any one site are rarely substantial, although some are notably more productive than

Table 7.6

Summary of assemblages from excavated East Lothian Iron Age sites. Those not examined first-hand are marked with an asterisk. The East Linton site excavated as part of TLEP produced no finds; it is included in the calculations in Tables 7.4–7.5. Some of the sites recorded in Table 7.9 as producing Roman finds are not recorded here, as they are only single stray finds with little more information.

Abbreviations: m/f = manufacture; CuA = copper alloy. Scale of excavation coding: 0 = casual finds; 1 = trial; 2 = moderate; 3 = large-scale. Quern coding: r = rotary, s = saddle.

	Site type	*Exotic/ unusual*	*Decorated items*	*Roman*	*Gaming*	*Bone &c m/f*	*Iron m/f*	*Shale m/f*	*Stone m/f*	*Textile m/f*	*CuA m/f*	*Ornaments*	*Quern*	*Scale of dig*	*Reference*
Aberlady	open			2										0	*DES* 1999, 27
Archerfield 1	cave	spear		2		x				x		bone, glass	r	3	Cree 1909
Archerfield 2	cave			1		x								3	Cree 1909
Biel Water	enc				x									1	Lelong & MacGregor 2007
Broxmouth	hillfort	coral	dec. horse harness (Celtic art)	2	x	x	smelt/ ?smith	x	x	x	x	bone, CuA, glass, shale	r s	3	NMS data
Castle Park Dunbar★	prom fort		gold wire	1	x							bone, shale	r	3	Perry 2000
Craig's Quarry, Dirleton	hillfort		La Tène brooch	2	x	x		x		x	x	CuA	r	2	Piggott 1952, 1958
Dryburn	enclosure			2		x	smelt/ smith	x		x		shale	s	3	Dunwell 2007
Eweford	enclosure						smith						r	1	Lelong & MacGregor 2007
Fishers Road East★	enclosure				x	x	smith			x	x	glass	s	3	Haselgrove & McCullagh 2000
Fishers Road West★	enclosure			1		x	smith			x			r	3	Haselgrove & McCullagh 2000
Ghegan Rock	open/odd?		dec. comb (Celtic art)	1	x	x		x				bone	r	3	Laidlaw 1870
Gilmerton House	enclosure			3				x					r	0	NMS data
Harperdean	open/ enclosed			2								glass		1	*DES* 1995, 51; Appendix 1
Long Yester	enclosure	amber						x		x		stone		0	NMS data
Muirfield, Gullane	open			1				x	x	x	x	glass, shale, stone		2	Younger 1936

Table 7.6 (continued)

	Site type	*Exotic/ unusual*	*Decorated items*	*Roman*	*Gaming*	*Bone & m/f*	*Iron m/f*	*Shale m/f*	*Stone m/f*	*Textile m/f*	*CuA m/f*	*Ornaments*	*Quern*	*Scale of dig*	*Reference*
N Berwick Law	hillfort				x	x	smith					bone		1	NMS records
Phantassie	open		dec. linch pin	2			smith	x	x	x	x	bone, clay, glass, iron, shale	r	3	Lelong & MacGregor 2007
Pincod, Dunbar	open					x						bone		0	PSAS 44 (1909-10), 102
Prestonpans (Edinburgh Rd)★	enclosure			1									r	1	*DES* 2001, 37
Prestonpans (West Loan)★	enclosure													2	Jones 2006
Rhodes Links, North Berwick	cave		pin									CuA		2	Richardson 1907
St Germains★	enclosure	amber		2	x	x			x	x	x	bone, CuA, glass, stone	r s	3	Alexander & Watkins 1998
Seacliff	cave													2	Sligo 1857
Seacliff 2	cave													1	Sligo 1857
South Belton	open													1	Lelong & MacGregor 2007
Thistly Cross	open													1	Lelong & MacGregor 2007
Traprain	hillfort	amber	horse gear	10	x		?	x	x	x	x	CuA, clay, glass, iron, shale, stone	r s	3	Jobey 1976
TWT	enclosure		enamelled stud	1								CuA	s	3	
TST	enclosure													3	
TKN	enclosure	amber	sheet metal-work	2	x				x	x		CuA, glass, stone	r	3	
TFL	enclosure											shale		1	

others; this seems mostly to relate to the presence of stone structures or surfaces, which often re-used stone tools in their makeup.

It is worth focussing on the various types of cobble tool, as these make up the bulk of the TLEP finds. The small quantities pose a problem for analysis, since it can be shown that with small numbers, the range of stone tools is directly proportional to the quantity of finds (McLaren and Hunter forthcoming). In discussion below, only sites with more than five tools are discussed individually; ten would be more robust, but would exclude most assemblages! Taking all the East Lothian cobble tools together gives 171 tools, representing 208 separate functions (*c.* 20% of tools had multiple uses). Analysis will proceed by counting functions rather than tool numbers (Table 7.7). The most common functions are whetting and rubbing/polishing, followed by pounding and grinding; others are markedly fewer and, in the case of hammering, are consistently linked to secondary uses of the tools, with only one tool primarily intended as a hammerstone; indeed the hammering may be linked to deliberate breakage of tools at the end of their life. (On the definition used here, hammering is a heavy-duty use and pounding a lighter-duty one.)

Teasing patterns from the material is tricky, as the quantities per site are small; a few trends can be noted, but their interpretation is not straightforward. Some sites have a surprising lack of pounders, such as Broxmouth and Phantassie; at the latter, the only tool intended primarily as a pounder was a small, perhaps specialised one, the other two being expedient re-use of other tool types. Two other patterns are clear. Some sites show markedly more multi-function tools, with over a third showing multiple uses (St Germains, Phantassie and Standingstone); the reason is opaque. Another group has a preponderance of whetstones: at Knowes, Whittingehame, Phantassie, Whitekirk and Broxmouth they make up a third or more of the tools. This may reflect greater availability of iron tools on these sites; while the Broxmouth phasing data are not yet available, in all other cases these are Late/Roman Iron Age sites or (in the case of Whittingehame), from the late phase of the site. To this may be added the Archerfield caves; both produced only a single whetstone, suggesting a restricted set of activities was carried on within.

Manufacture

As Table 7.5 indicates, there is manufacturing evidence for skins, textiles and bone/antler in over 40% of sites. With bone, the true figure is much higher, as manufacturing evidence is found on over 90% of those sites with bone preservation, indicating it was an everyday, widespread task. It is likely the same is true for skins and textiles.

Other craft activities are less abundant. The working of shale and related items into jewellery occurs on ten sites (29%); this is markedly less common than in the west of Scotland, where virtually every excavated site has such evidence (Hunter 1998b, 51). This may be connected to the relative local availability of raw materials, which are abundant in west central Scotland but less so in East Lothian. Oil shales are reported as coastal exposures from Port Seton to Dunbar (Gibson 1922, 48–52), and there may be inland exposures in river valleys which are not recorded since they were not commercially viable in recent times. Local informants confirm that such materials can be found on various East Lothian beaches. The manufacturing evidence does not suggest distribution from a few centres, as only one site has finished products but no manufacturing evidence. However, although the production process is relatively simple, there are hints that it may have been restricted, as on current evidence it occurs exclusively on sites with other evidence of manufacturing activities or access to exotic material (below). While bangles and other jewellery of shale and such materials are abundant on Traprain and Broxmouth, it is noteworthy that stray finds are exceedingly sparse – again in contrast to western Scotland – hinting that the use of such jewellery may have been comparatively restricted in the area.

There are clearer signs of specialisation in metal-working, only nine sites producing evidence of iron-working and eight of non-ferrous production. Iron-working evidence is tricky to assess from older excavations, but on current evidence smithing is more frequent than smelting (nine and two sites respectively), as might be anticipated. While by no means monopolised, this does tend to support models of metal production as being rather exclusive.

Imports and status items

Another topic worth considering is the availability of decorated metalwork and related items such as exotic imports. All are fairly exclusive, with amber from four sites, coral from one, and decorative metalwork from seven (plus the related decorated comb from Ghegan Rock; Laidlaw 1870, fig. 3), while Phantassie produced an iron linch pin with decorative inlay (although it was

Table 7.7

Cobble tools on East Lothian sites. Those marked ⋆ have not been examined first-hand. No cobble tools were found at Castle Park Dunbar, Eweford, Ghegan Rock, Pincod, Rhodes Links or Seacliff. (+) The Traprain figures are based on the finds from recent excavations (1996–2006), as these have been recovered and studied systematically.

Site	*hammer*	*pound*	*grind*	*rub/polish*	*whet*	*sharpen*	*combination*	*n tools*	*n functions*	*whet stone ratio*	*functions : tools*
Archerfield 1					1			1	1	1.00	1.0
Archerfield 2					1			1	1	1.00	1.0
Biel Water			1					1	1	0	1.0
Broxmouth	1	1	5	13	13		2	30	33	0.39	1.1
Craig's Quarry			1					1	1	0	1.0
Dryburn Bridge	1	1	6	6	2		3	12	16	0.13	1.3
Fishers Road East⋆		2		2			2	2	4	0	2.0
Fishers Road West⋆			4	1	2			7	7	0.29	1.0
Gilmerton House		3			1			4	4	0.25	1.0
Muirfield		3						3	3	0	1.0
New Mains			1	3	3	2		9	9	0.43	1.0
North Berwick Law	1	1	1				1	2	3	0	1.5
Phantassie	2	3	1	2	5	3	5	9	16	0.38	1.8
St Germains⋆	2	3	4	4	2		4	11	15	0.13	1.4
South Belton					1			1	1	1.00	1.0
Traprain+	2	17	15	12	16	4	10	57	66	0.26	1.2
TKN		3		3	3	2	2	9	11	0.33	1.2
TST	1	1	3	4	1		3	6	10	0.10	1.7
TWT		1		3	2		1	5	6	0.33	1.2
n	10	39	42	53	53	11	33	171	208		

old and worn when deposited). However, it is clear that they are not absolutely rare – they are present on a number of sites, albeit in small quantities. This leads to the question of how such material should be interpreted, which is considered below.

The evidence of manufacturing and 'status' items can also be considered in terms of site type (no detailed discussion of chronological variation can be sustained, beyond the observation that more ornate ornamental items and their manufacture are predominantly Late Iron Age). Table 7.8 divides this evidence by site type, although with caveats; many sites had a complex history, varying in the nature, scale, and presence of enclosing works over their life, and the 'types' are a generalised and shorthand convenience. However, they are retained here on the basis that the enclosure phase

generally remained visible even when out of use, and thus may have impacted on perceptions of the site. Although enclosures dominate the excavated record, they do not monopolise this more unusual material, which is also found on open sites. It is noteworthy that a wide range of enclosed sites is represented, from hilltop enclosures to lowland ones, both square and curvilinear sites, as well as the dominant hillfort of Traprain.

A notable exception is caves, only one of which has produced a 'status marker' – the pin from Rhodes Links. The range of activities in caves is markedly restricted: the limited range of cobble tools has already been noted, while of crafts, only bone- and (in one case) textile-working are recorded. It is notable that human remains are recorded from all bar Archerfield 1, as well as from the unusual coastal promontory site of Ghegan Rock (Laidlaw 1870; Richardson 1907; Cree 1909, 258; Sligo 1857). Such evidence does occur intermittently on settlements (notably Broxmouth), and the cave finds have not been independently dated, but their repeated presence is suggestive. There are other hints of special deposits; the condition of the Rhodes Links pin suggests it could be a deliberate deposit, as may a substantial part of a pot from Seacliff. While the interpretations of Seacliff at the time of its discovery are a little dramatic (with its 'unhappy victims of barbarous superstition' and deposits created by 'the sprinking of the blood of the victim by the priest during the sacrifice'; Sligo 1857), it seems caves fulfilled a rather specialised role in the landscape, including (though not solely) ritual aspects.

Roman imports in East Lothian

The Roman finds from Knowes and Whittingehame provide an opportunity to consider the distribution of Roman finds in East Lothian. It has been previously argued for south-east Scotland that the range of finds from different sites supports a hierarchical system of access (Hunter 2001a, 294-5), with material coming to a central point (in this case Traprain) and being redistributed from there. But could such patterns arise from material being brought to Traprain from surrounding settlements such as Knowes, at times when communities gathered on the site? A more detailed study may provide further insights into the processes involved.

There are 23 sites with Roman finds in East Lothian, two hoards, two burials, five stray finds of artefacts and 12 findspots of 19 stray coins. These are listed in Table 7.9 and plotted in Figure 7.17. The absence of Roman finds so far from North Berwick Law is a striking contrast to Traprain, and suggests different histories for the two dominant hills; although North Berwick has not been excavated, casual finds have been relatively plentiful, but whereas stray finds from Traprain regularly produce Roman pottery, this has not been the case at North Berwick.

Table 7.5 indicates that 48% of excavated settlement sites have Roman finds, but the amount of excavation in the area allows us to see that the true number is much higher. Of the 21 sites with Roman Iron Age evidence, only three have no Roman finds, and in two cases (Eweford and Pincod) the excavations were limited, leaving Fishers Road East as the one instance with Roman Iron Age radiocarbon dates but no Roman finds. This indicates that Roman finds were omnipresent in East Lothian, with virtually every site having access. However, the degree of access varied. Analysis using the methodology of Hunter (2001a) shows that the vast bulk of sites have only one or two

Table 7.8
Restricted activities by site type

	Enclosed sites (20)	*Open sites (8)*	*Caves (5)*	*? (1)*
Exotic items	5			
Decorated metalwork/bone	6	1	1	1
Iron-working	7	2		
Shale-working	6	3		1
Non-ferrous metalworking	6	2		

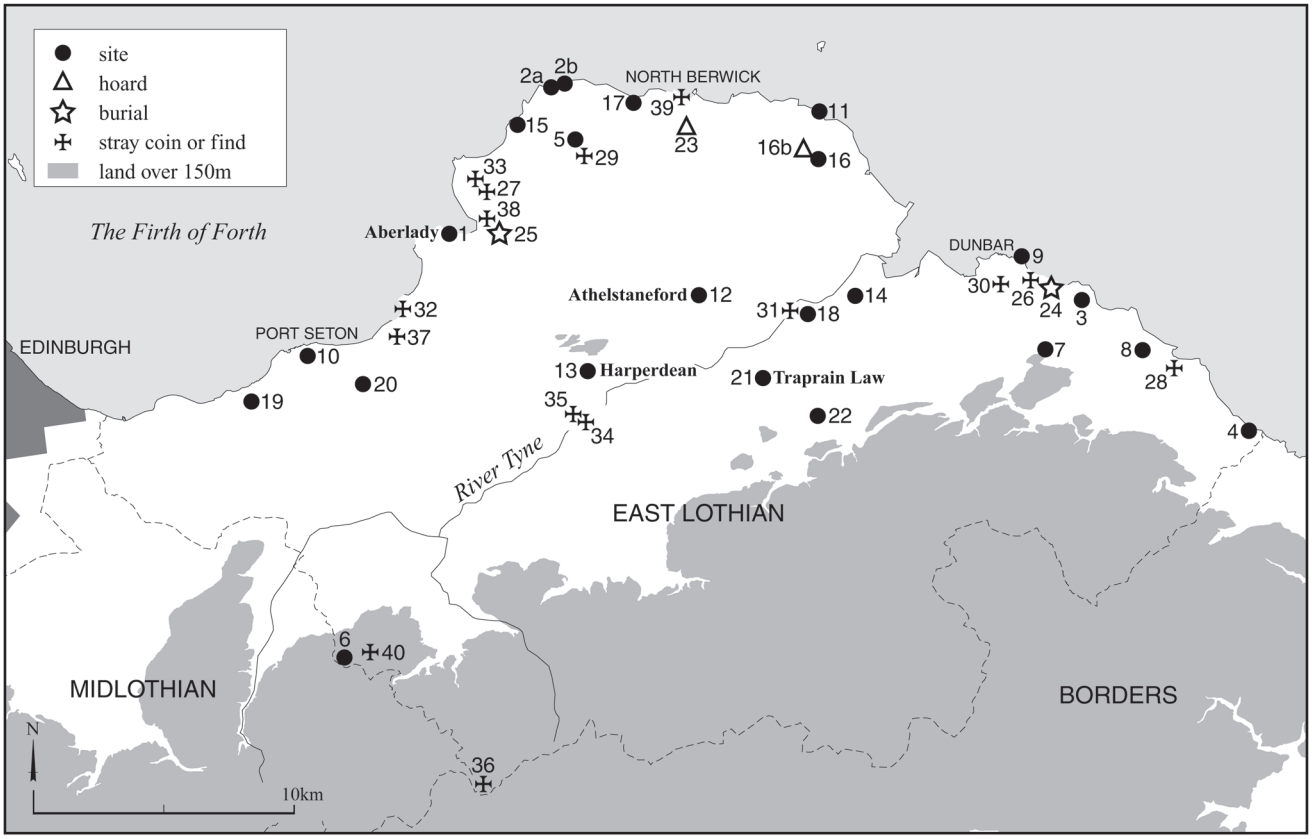

Figure 7.17
Distribution of sites with Roman finds in East Lothian (Crown copyright: RCAHMS, GV004515)

finds categories (12 and six cases respectively): only Knowes, Gilmerton House, St Germains and Dodridge have three find-types, and none approaches the range of Traprain. This is true not just in range but quantity, as the sherd counts in Table 7.9 indicate.

There are also marked differences in the frequency of different finds. Samian, coarseware and brooches dominate, being found on 35–40% of sites excluding Traprain (eight or nine sites); coins and glass occur on under 20% of sites (four). This represents a selective sub-sample of the assemblage found on Traprain, supporting a model of hierarchical access and redistribution; the lack of correlation between the finds on Traprain and those from the environs strongly suggests the material arrived on Traprain and spread out rather than reaching other sites and being brought in. It points to a two-step selection process, with arrival of a wide range of material on Traprain (although not an uncritical selection; for instance, amphorae and mortaria are rare), and the distribution of a portion of this, primarily tablewares and personal ornaments, to neighbouring/subsidiary sites.

There were also marked changes through time. Little of the ceramic material has seen recent study, making differentiation of Flavian from Antonine material uncertain, but the vast bulk of finds are first–second century in date; only Traprain, Knowes, Muirfield, Broxmouth and perhaps Harperdean have late Roman finds. The Muirfield coin, from a midden, may be augmented with stray coin finds from the Gullane dunes, suggesting this beach site was a contact point (with Aberlady perhaps fulfilling a similar role in the earlier period). Late Roman stray coins are otherwise rare, and some are unreliable as they come from modern towns and are probably recent losses. It is unclear how many Traprain environs sites were still occupied in the late Roman Iron Age; Whittingehame is a rare example, while Fishers Road West and Phantassie produced hints of evidence. It may be that late Roman imports, rare and thus more sought-after than earlier

Table 7.9

Roman finds from non-Roman sites in East Lothian. Numbers in the first column provide a location key for Figure 7.17. Numbers of sherds/finds are given in brackets. Date categories of early (E), middle (M) and late (L) Roman Iron Age follow Hunter 2007c, table 1. AE/AR/AV are used for copper alloy/silver/gold coin finds. All finds from the Musselburgh area are omitted, as they most plausibly derive from the Roman fort at Inveresk. Coin finds from modern towns are likely to be much later losses; those with eastern mint marks have been excluded. The ?second century sherd from Fishers Road West post-dates the site's occupation (Thomas 2000). The oculist's stamp from Tranent (Curle 1932, 354) is omitted as the account of its discovery suggests it is from a Roman structure (Simpson 1872, 238).

	Sites	*Material*	*Date*	*Reference*
1	Aberlady, Glebe Field	Brooches (4)	E	Appendix 2
2a	Archerfield I	Samian (3), coarseware (1)	E	Cree 1909; Curle 1932, 353-4; NMS data
2b	Archerfield II	Coarseware (3)	E	Cree 1909; Curle 1932, 353-4; NMS data
3	Broxmouth	Samian (6), LR bracelet fragment	E L	Hill 1982, 169, 188
4	Castle Dykes, Cockburnspath	Glass vessel	?	Hogg 1945
5	Craig's Quarry, Dirleton	Samian (3), coarseware (2)	E	Piggott 1958 & NMS data
6	Dodridge Law	Brooch, bronze vessel, coin	E?	Robertson 1971, 117
7	Doon Hill	Samian (1?)	E	C Wallace pers. comm.
8	Dryburn Bridge	?Brooch, glass vessel	E	Ingemark 2007; Hunter 2007b
9	Dunbar, Castle Park	Samian (3)	E	Cheer 2000
10	Fishers Road West	Coarseware (1)	E?	Thomas 2000
11	Ghegan Rock	Amphora (much of one Dr20 vessel)	E	Laidlaw 1870
12	Gilmerton House, Athelstaneford	Brooches (4), stud, glass vessel (2)	E	Appendix 2
13	Harperdean	Brooch, AE unidentified sestertius, Constantius I	E L	Appendix 2; Bateson & Holmes 2006, 165
14	Knowes	Samian (1), coarseware (1), glass fragment	E L	
15	Muirfield, Gullane	AE Theodosius I	L	Younger 1936
16	New Mains, Whitekirk	Brooch	E	Robertson 1970, table V
17	North Berwick links	AR Caracalla (perhaps from a midden)	M	Macdonald 1918, 235
18	Phantassie	Samian (1), brooches (2)	E	Wallace unpublished; Hunter unpublished; Lelong & MacGregor 2008, figs 7.27, 10.1

Table 7.9 (continued)

	Sites	*Material*	*Date*	*Reference*
19	Prestonpans, Edinburgh Rd	Coarseware (1; Verulamium-region whiteware flagon, not amphora as published)	E	DES 2001, 37; C Wallace pers. comm.
20	St Germains	Samian (6), ?coarseware (1), brooches (2)	E	Alexander & Watkins 1998
21	Traprain Law	Samian, fine- & coarseware, glass vessels, beads & gaming counters, bronze vessels, coinage, brooches & other ornaments, silver hoard, and other objects; >1000 items in total	E M L	Robertson 1970, table X; Curle 1932, 354-362
22	Whittingehame	Samian (1)	E	
	HOARDS			
16b	New Mains, Whitekirk	Skillet and Iron Age material	E	MacGregor 1976, nos 14, 206, 220
23	North Berwick	?Camp kettle, key	?	Wilson 1851, 389
	BURIALS[1]			
24	Dunbar Golf Course	Penannular brooch	E	Baker 2002
25	Luffness	Penannular brooch	E?	*PSAS* 80 (1945-6), 152; Whimster 1981, 413
	STRAY FINDS			
	?	Jug handle	?	NMAS 1892, 223, FT 7
	?	Skillet handle[2]	E	Bosanquet 1928, 252; Collingwood and Wright 1991, 47, no 2415.15; NMS FT 38
26	Dunbar Golf Course	Samian sherd	E	Baker 2002, 205
27	Gala Law, Luffness	Samian sherd	E	Hardy 1885
28	Skateraw	Samian sherd	E	Triscott 1996, 194
	STRAY COINS			
29	Dirleton (near)	AE Augustus	E	Macdonald 1918, 240
30	Dunbar (near)	AV Nero	E	Macdonald 1918, 240
31	East Linton area	AV Augustus	E	N Holmes, pers. comm.
32	Gosford Sands	AR Antoninus Pius	E	Robertson 1971, 122 (perhaps from midden)
33	Gullane Sands	AR Hadrian; AE Valens, Theodosius, ?Valentinian II	E L	Robertson 1950, 146; Bateson 1989, 169

Table 7.9 (continued)

	Sites	*Material*	*Date*	*Reference*
34	Haddington (town finds)	AE Trajan, Faustina I	E	Robertson 1971, 122
35	Haddington (field near)	AE Constantine I	L	Macdonald 1924, 328
36	Huntershall, Soutra	AE Vespasian	E	Bateson & Holmes 1997, 532 ('Hunter's Hill')
37	Longniddry (garden find)	AE Trajan	E	Robertson 1983, 412
38	Luffness	AE Antoninus Pius	E	Bateson & Holmes 2006, 165
39	North Berwick (town finds)[3]	AE Caligula, Antoninus Pius, Diocletian, Constantine I	E L	Macdonald 1939, 243; Robertson 1950, 146; Bateson & Holmes 2003, 250
40	Windymains, Humbie	?	?	Robertson 1971, 122

Notes

1 Penannular brooches of Fowler's type A series were found in two East Lothian burials. These are often seen as Iron Age types which continue into the Roman period (indeed the author has argued this previously; Hunter 2002). The issue was reconsidered in studying one from Phantassie, and all available data collated, but curiously and regrettably the excavators chose not to publish the finds reports. In summary, the spread of types A1–4 within the province and differences from earlier penannular brooches (type A and Aa) in decoration and use of copper alloy rather than iron make it unlikely that they represent a continuing indigenous tradition. Instead (like trumpet and dragonesque brooches), they are best seen as a Romano-British development formed by an amalgam of indigenous and Roman traditions. Their frequency on Iron Age sites suggests the preferential adoption of types consistent with local traditions; there are subtle differences in preferences for particular types between Roman and Iron Age sites.

2 Sadly the records of these two bronze vessel fragments are poor. Both were acquired by NMS before 1892; although the dates and provenances would allow FT 38 to be the vessel recorded from Dodridge, there is as yet no archival information to confirm this was ever donated to the museum.

3 The coin of Diocletian was found in a field immediately north of North Berwick Law.

ones, were retained by an elite on Traprain; or it may reflect a movement of settlement onto Traprain from the surrounding landscape.

The re-use suggested of the Knowes samian is quite a common feature. The samian from Craig's Quarry had been cut down and abraded, and one of the Broxmouth sherds represents a footring cut from a small vessel, perhaps to form a smaller receptacle, while around 60% of the Traprain samian had been reworked in various ways. Samian was a particular focus for such efforts, perhaps because of its perceived status, perhaps due to the properties of its fabric for pigments or other uses. Other Roman pottery was not treated in such a fashion, with the notable exception of the Dressel 20 amphora from Ghegan Rock. The surviving sherds comprise a large part of the vessel; the neck was found separately, deliberately cut off and with the handle detached – reminiscent of Gaulish treatment of Dressel 1 amphorae (Poux 2004, 29–34). To this should be added more prosaic reworking, hinted at by the occasional zinc-containing alloys at Knowes, which point to recycling of Roman material.

In the shadow of Traprain?

Traprain Law casts a long shadow on the East Lothian Iron Age. The paired Laws of Traprain and North Berwick are the physical landmarks of the county, but although North Berwick's history is poorly known, on current evidence it does not have the Roman Iron Age dominance which Traprain does. The range of finds from Traprain, both indigenous and imported, is remarkable, with its wealth of Late Bronze Age material and unparalleled range and quantity of Roman finds. This is not solely due to the scale of excavation; total excavation of the Broxmouth hillfort produced a large assemblage, but not one comparable to Traprain in its range and wealth. The hill remains poorly understood despite various excavation campaigns, but there are clear signs of a complex history, arguably with phases of intense occupation centred on the Late Bronze Age and Roman Iron Age sandwiching a period with less obvious material culture, when it may have been a place to visit rather than to live (Armit *et al.* forthcoming).

This changing role over a thousand years or more cautions against glib interpretations of function but, based on the finds, a few comments can be made about these broad phases. In the Late Bronze Age, Traprain is markedly different from the contemporary sites examined during the TLEP; the radiocarbon dates put occupation at Standingstone, Whittingehame and East Linton in this period, but their finds are markedly prosaic compared to the bronzes and mould evidence from Traprain. Some of the Traprain ramparts are likely to date to this time, and contemporary middens have also been located (Armit *et al.* forthcoming); while details remain opaque, it seems likely to have been quite intensively settled. There are hints that North Berwick may have been a similarly early hillfort, with discoveries of socketed bronze axes from the hill (Coles 1960, 68).

The Early and Middle Iron Age are poorly represented both on Traprain and elsewhere in the county. Elements of Traprain's rampart systems may fall into this period, and Cath McGill's reappraisal of the pottery (forthcoming b) would place some at this time as well. From the TLEP work, the Early Iron Age is poorly represented, with only Foster Law showing activity, and indeed the bulk of excavated sites show a sequence starting in the Middle Iron Age. This is generally seen as the classic period of the 'hillfort'; the dates from Broxmouth and the La Tène II brooch from Craig's Quarry provide some support for this, although the TLEP results emphasise the variability of settlement at this time and the Fishers Road sites show the variety of enclosures established (Haselgrove and McCullagh 2000). Artefactually, there are major problems in trying to define the period, as (apart from Broxmouth for the Mid–Late Iron Age) we have few well-contexted assemblages to show what an Early–Mid Iron Age assemblage looks like and the evidence so far is largely undiagnostic. The imminent reappraisal of the Broxmouth material will throw valuable light on this; Cool's original identification of chronologically-distinct assemblages (1982) was a valuable indicator of potential, although more recent work has started to cast doubt on elements of this (such as the dating of stone balls; Clarke 2004, 103), and a full treatment is long overdue.

There is more meat for discussion for the Late Iron Age onward, as more sites show evidence of this period. Traprain clearly did not have a monopoly of prestige items or craft activities at this time as the above discussion has indicated; they are spread across a range of site types (Table 7.8), with individually striking items from a number of sites – such as the linch pin and drawplate from Phantassie and the decorated comb from Ghegan Rock. This more unusual material (excluding Roman finds for the moment) is found at 19 of the 34 sites, indicating it was not highly restricted. However, such indicators must not be looked at in isolation – what correlations exist between them? Do

certain sites have preferential access or is the apparent spread a genuine one? Of the 19 sites, eight have only a single category of unusual finds. In three cases, these are 'art objects' which could represent the distribution of desirable material to dependent sites through social relations. Four cases are of iron-working (almost half the known total of this craft), suggesting its practice was not linked socially to the other categories considered here. Eight sites have two categories of material, but there are only two with three (Whitekirk, Dirleton), one with four (Phantassie) and two with all five (Traprain Law, Broxmouth). This would support a model of small-scale hierarchies, with a reasonable number of sites having some access to a variable palette of status tools, but only a small number showing a broad range.

In all cases, we are reliant on worryingly small quantities of finds to create the picture. Here, the Roman finds can play an important supporting role: since they are more frequent, if we accept that they followed existing social networks in moving through indigenous society, they can act as an archaeological tracer die in revealing patterns otherwise hard to see. The picture of fairly flat hierarchies is one which the Roman finds support; there are few marked differences between those sites which have Roman goods. However, Traprain still towers over the rest. As discussed above, the Traprain evidence does not support an 'accumulative' model whereby the inhabitants of neighbouring sites came to Traprain at certain periods and returned to smaller enclosure sites at others, since its material is markedly greater in range than the sum of the smaller assemblages (such a model could perhaps be applied more successfully to the other hillfort assemblages). Increasing work in the surrounds of the hill is serving to emphasise again and again Traprain's dominant position.

While much in this analysis is necessarily speculative, it shows that there is potential for social interpretation in the often-dismissed assemblages of later prehistoric Scotland. Further work will help to confirm, deny or develop some of the ideas in this overview, but the TLEP sites provide valuable information to fit into this developing picture.