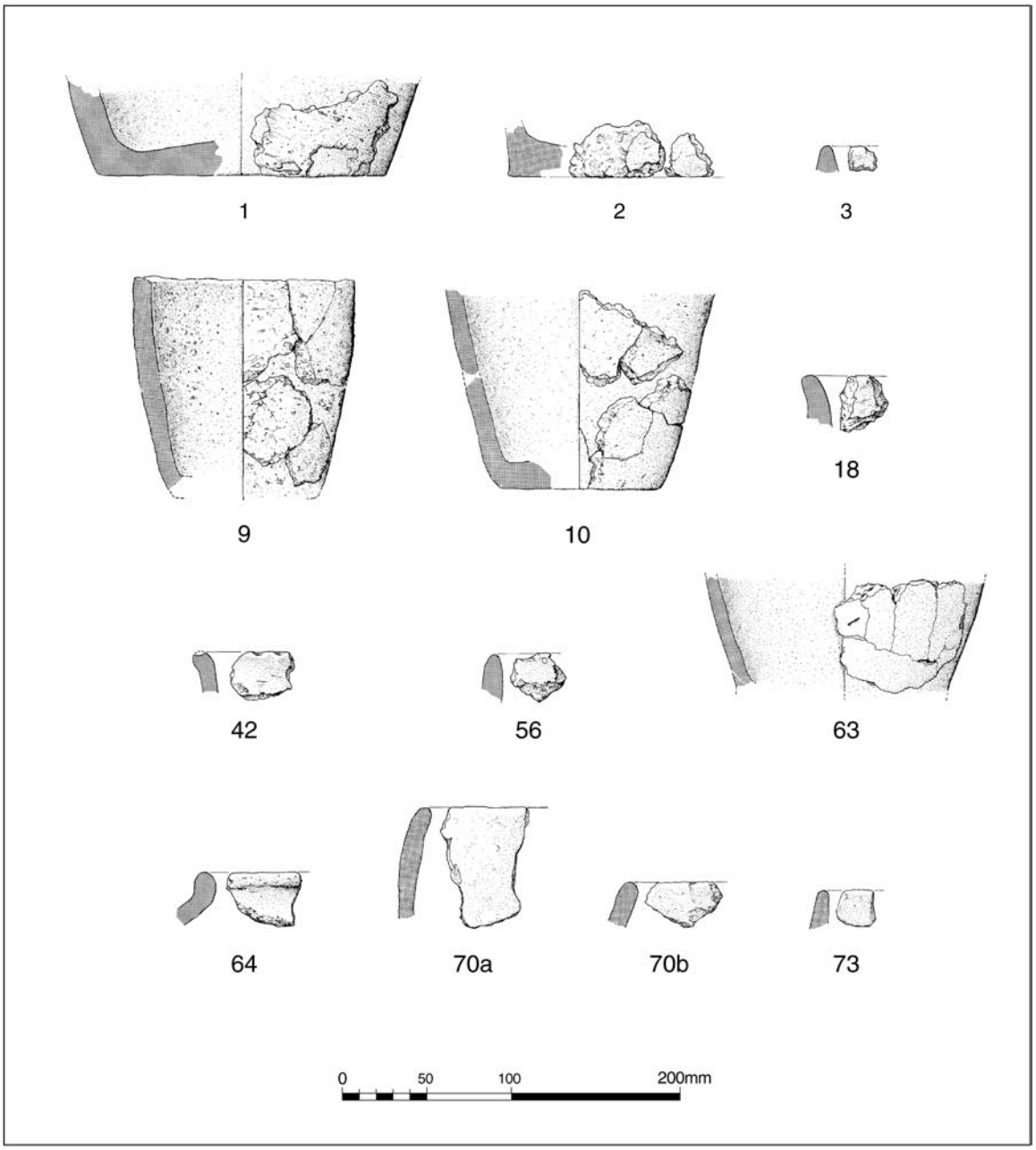
8 The Finds from the Iron Age Settlement

8.1 Pottery (illus 58) *by Hilary Cool* (drafted *c* 1980)

8.1.1 Discussion

The majority of the later prehistoric pottery from Dryburn Bridge consists of undecorated, fairly coarse-gritted sherds. Where the form of the vessel can be reconstructed it appears to have been a flat-bottomed, barrel or bucket-shaped with a simple upright rounded or internally bevelled rim. Although traces of coil manufacture can be seen in the section of some sherds, the pottery is generally well made and, in some cases, carefully finished. Cat Nos 10, 14, 22, 24, 67, 70 and 71 all have a smooth, slightly glossy outer surface which suggests that they were burnished to a greater or lesser extent when in a leather hard condition; in Cat No 63 this burnish-



Illus 58 Coarse pottery

ing has brought the surface to a very high gloss. Cat No 1 was burnished and then slipped with a more finely tempered clay than was used in the body of the vessel. These vessels were presumably used for cooking purposes as their inner surfaces are frequently covered by a thick black deposit. (Note by A Dunwell – No dating of organic residues adhering to pottery vessels was undertaken. Should the missing pottery assemblage be re-discovered, this material would appear to have the potential for further analysis and radiocarbon dating.)

The only sherds from Dryburn Bridge that show decoration, or possible decoration, are Cat Nos 20, 42 and 62. Cat No 62 is too small a fragment to identify with certainty and the indentation on Cat No 20 may be accidental. The regular rim-pinching on Cat No 42 is deliberate and the sherd may have come from a vessel similar to those discussed below where the potter had experimented with the rim form.

The undecorated barrel or bucket form, from which the remaining sherds appear to have come, was the dominant pottery class in southern Scotland from at least the Middle Bronze Age to the pre-Roman Iron Age. At the nearby site of Broxmouth (Hill 1982a), it has been possible to identify two consecutive types of pottery belonging to the second half of the first millennium BC (Cool 1982). These two types have been found at other sites too and therefore seem to have been of more than local significance. As Dryburn Bridge and Broxmouth are so close it is to be expected that the Broxmouth pottery types should be recognizable in the Dryburn Bridge assemblage if Dryburn Bridge was in contemporary occupation. At Dryburn Bridge there are no examples of the early Broxmouth Type I pottery and only a very few sherds that could belong to the later Broxmouth Type II. These are Cat Nos 33, 34 and 35 from feature M69/MAY, Cat Nos 36 and possibly 37 from the post-abandonment infill over House 2, possibly Cat No 60 from the north-west corner post of rectilinear structure D, and Cat No 73 from curvilinear ditch O76.

The occurrence of this pottery in M69 is interesting as not only does it suggest that this feature might be one of the latest features on the site, but it also suggests that Cat No 31, made of a hard thin fabric unparalleled elsewhere in the assemblage, may be of a similar late date as parts of it were found in the same feature.

The fact that the bulk of the plain pottery shows so little correspondence with the Broxmouth material suggests that the Dryburn Bridge pottery belongs to the earlier rather than the later part of the plain bucket class's date range. Pottery of this type, often termed flat-rimmed ware, has been found in contexts dated to the Middle Bronze Age by radiocarbon determinations. Pottery of this type from dated sites at Liddle, South Ronaldsway (Hedges 1975) and Green Knowe, Peeblesshire (Jobey 1980) suggest that the Dryburn Bridge pottery could date from anytime between the mid-second and mid-first millennium BC. Apart from the sherds noted above that have similarities with the Broxmouth Type II pottery, it has not been possible to isolate major differences between the pottery from different contexts. This is in part due to the fact that so many of the sherds are very small and need not indicate that they were all contemporary.

8.1.2 Catalogue of illustrated forms

1 6 body and three base sherds of a large flat-based vessel of possible bucket shape. Fabric thickly tempered with angular dark, red/brown and black and white crystalline grits (up to 10mm in length). Traces of coil building visible in section but vessel does not fracture along these lines. Exterior of vessel has a very pale buff slip which has flaked off in places to reveal pink/orange burnished surface. Interior of vessel fired dark grey and covered by thick black encrustation. Exterior surface has a few grass impressions. Base diameter *c* 160–180mm. Wall thickness 17mm. Base thickness *c* 20mm. Find nos β 547, β 607, β 610, β 623, β 820. Contexts: Post-holes belonging to rectangular structure C, and outer enclosure palisade.

2 2 flat base sherds thickly tempered with angular dark and black and white crystalline grits (up to 10mm in length). Fabric fired dark grey in core, buff/red on interior and buff on exterior. Exterior surface smoothed. Length 50mm. Wall thickness 11mm. Base thickness 20mm. Find no β 719. Context: Post-hole of rectangular structure C.

3 1 small rounded rim sherd tempered with 1 grey grit (*c* 8mm long) and smaller sandy grits (may have been coarsely tempered originally). Fabric fired dark grey in core, buff/orange on surfaces. Length 25mm. Wall thickness 9mm. Find no β 720. Context: Post-hole of rectangular structure C.

9 5 rim and approximately 10 body sherds of small, bucket-shaped vessel with upright, internally bevelled rim, in places a slight finger-marked channel on exterior below rim. Fabric thickly tempered with black and white crystalline grits (up to 6mm in length). Fabric fired dark grey in core, light grey interior surface and brown on exterior surface. Grits protrude through both surfaces, most noticeably on interior. Rim diameter *c* 130mm. Wall thickness 12mm. Find nos β 605, β 606. Context: From the complex of intercutting post-holes at the entrance to House 7.

10 2 base and 8 body sherds of flat-based possibly bucket-shaped vessel. Fabric thickly tempered with dark angular and brown sandy grits (up to 6mm in length). Fabric fired grey in interior and brown/buff on exterior. Interior surface has black encrustation, exterior burnished and shows smears in places. Base diameter *c* 120mm. Wall thickness 10mm. Base thickness 16mm. Find nos β 611, β 612. Context: From the complex of intercutting post-holes at the entrance to House 7.

18 1 rim sherd – slightly rounded and out-turned. Thickly tempered with angular dark and some black and white crystalline grits (up to 7mm in length). Fabric fired buff/grey on surfaces, dark grey in interior. Length 32mm. Wall thickness 13mm. Find no β 217. Context: southern terminal of the north-east entrance of the outer enclosure.

42 1 rim sherd – simple rounded rim, edge decorated by oval depressions formed by pinching clay at intervals. Tempered with dark angular grits (up to 5mm in length, many smaller). Fabric fired dark grey. Length 36mm. Wall thickness 10mm. Find no β 110. Context: entrance post-hole, House 3.

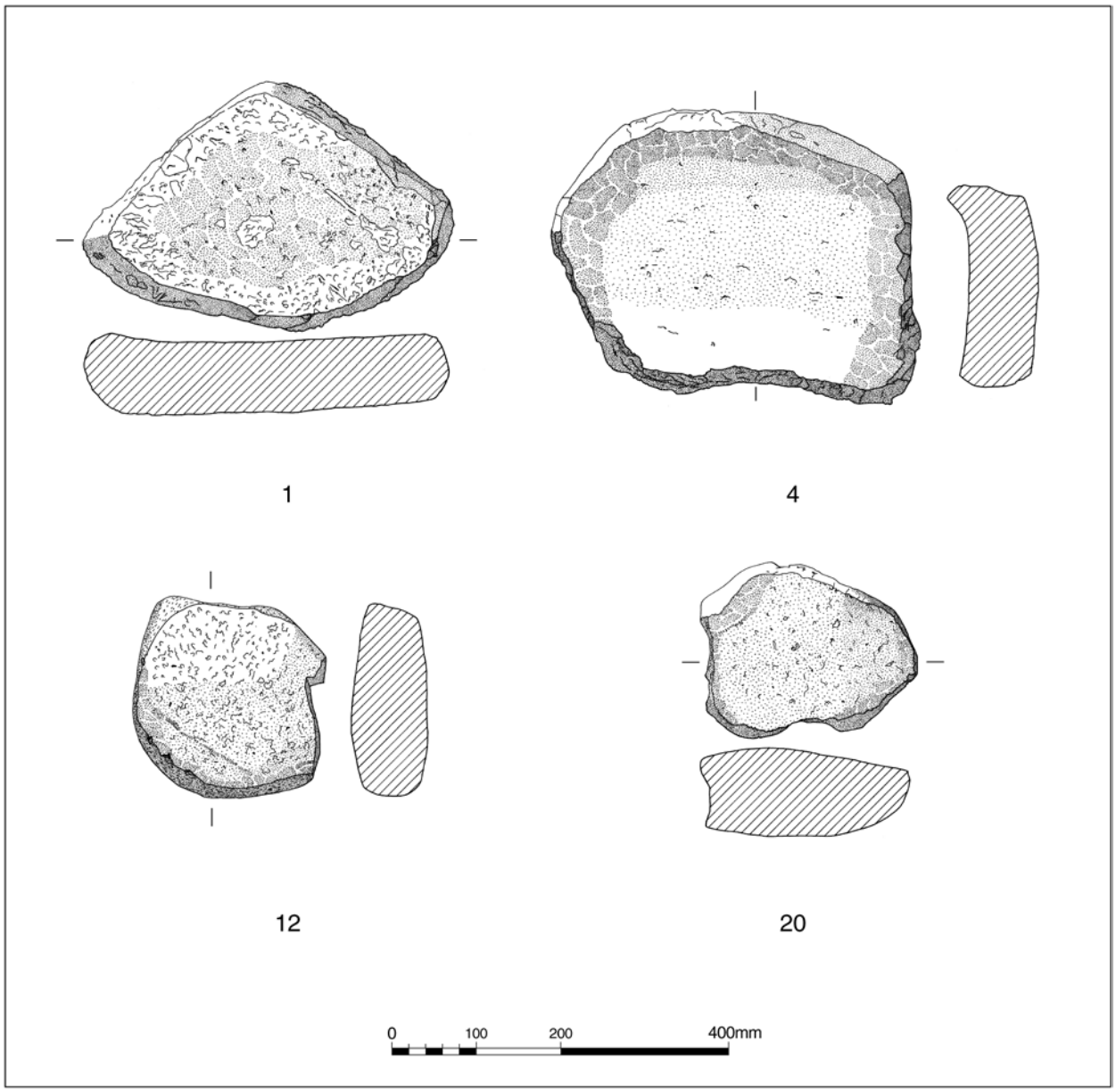
56 1 simple rounded rim sherd tempered with black and white crystalline grits (up to 10mm in length, majority smaller). Fabric fired red/buff on surfaces, dark grey in core. Length 30mm. Find no β 104. Context: Pit E1.
63 6 body sherds tempered with brown and white grits (up to 6mm in length). Fabric fired buff brown. Exterior surface burnished to a gloss. Length 70mm. Wall thickness 8mm. Find no β 613. Context: From unassociated pit to north of House 7.
64 1 rounded out-turned rim sherd tempered with small sandy and angular grey grits up to 4mm in length). Fabric fired dark grey. Length 43mm. Wall thickness 10mm. Find no β 100. Context: unlocated.
70 2 rim and 1 body sherds. Rim rounded and possibly inturned. Tempered with brown and white crystalline and grey grits (up to 5mm in length). Fabric fired brown/buff on interior, orange/buff on exterior. Exterior surface slightly burnished, grits project through interior surface. Length (rim) 70mm. Wall thickness 10mm. Find nos β 504 and 505. Context: unlocated.
73 1 rounded rim sherd tempered with sandy grits (up to 20mm in length). Fabric fired dark grey throughout. Length 20mm. Wall thickness 11mm. Find no β 527. Context: curvilinear ditch O76.

8.2 Coarse stone tools (illus 59; illus 60)

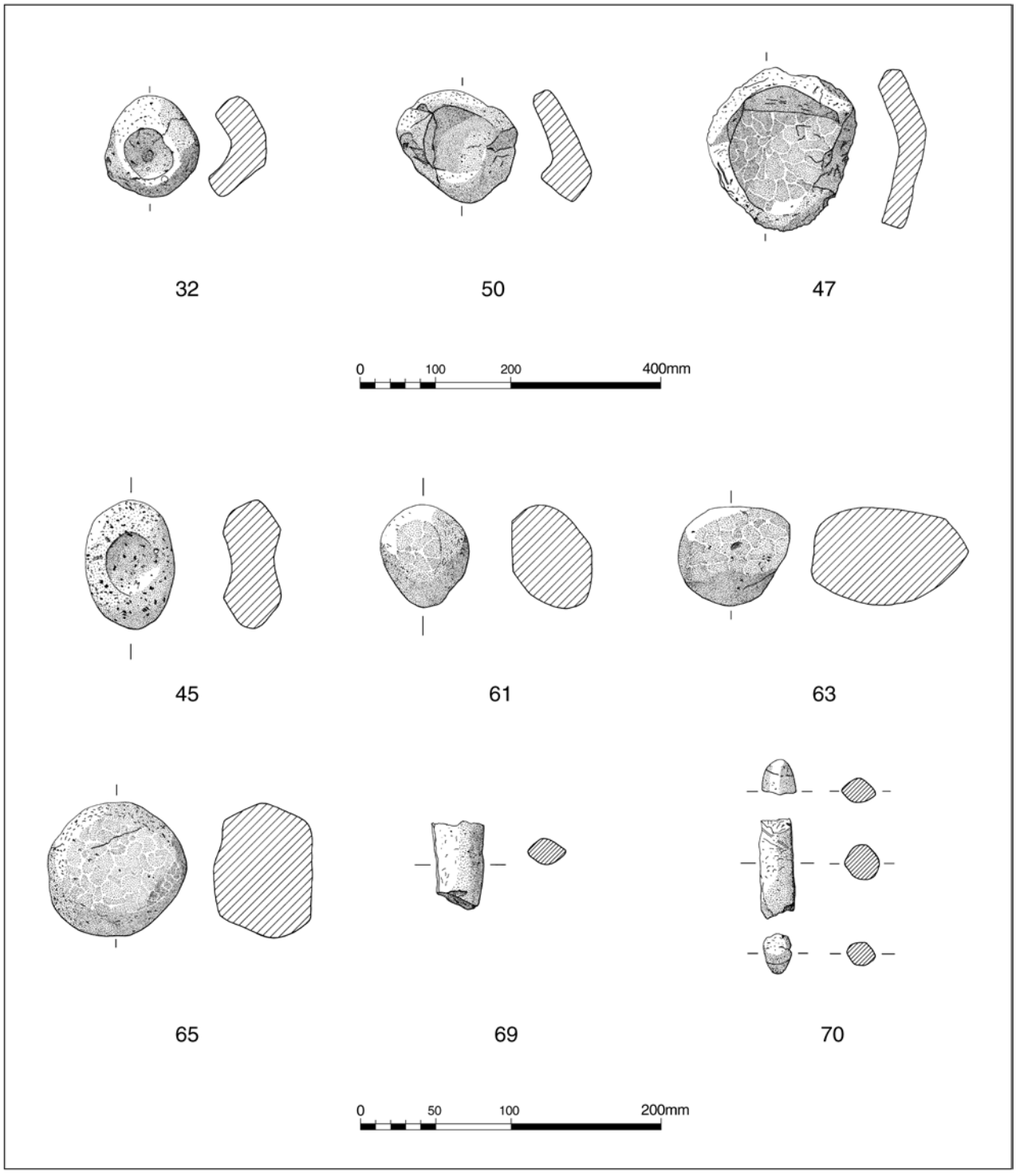
by Hilary Cool (drafted *c* 1980)

8.2.1 Discussion

The excavations at Dryburn Bridge produced 31 saddle-querns, of which only ten were complete, unbroken stones. The remainder varied from being only slightly damaged, for example Cat Nos 6 and 18, to being small fragments like Cat No 31. The fragmentary nature of this assemblage is not surprising



Illus 59 Selected saddle-querns



Illus 60 Other coarse stone items

as most of the stones had ceased to be used as quernstones before they reached the contexts in which they were found, and had been reused as paving slabs in the houses or as packing stones in post-holes. The secondary contexts from which the stones were recovered make it impossible to show whether or nor they were all of broadly contemporary date originally. Several of the stones are in very poor condition due to their constituent rock having rotted and crumbled subsequent to their reuse, presumably because of the action of water in the soil and of frost. The assemblage consists of 15 lower stones, ten probable upper stones or mullers and six stones which are too fragmentary to be identified.

The stones were made by splitting a boulder in half to produce a grinding face. The majority of the lower stones and all of the upper stones owe their shape to that of the boulder from which they were made,

as they show no evidence of having been externally dressed to shape. A boulder of approximately oval outline was usually preferred but triangular (Cat No 5), D-shaped (Cat No 6) and lozenge-shaped (Cat No 18) ones also occur. Three lower stones do appear to have had their lower faces deliberately dressed to shape to a greater or lesser degree (Cat No 1 where a triangular stone has been produced, and Cat Nos 2 and 3 which have an elongated rectangular shape). The grinding faces of most of the stones, both upper and lower, have been dressed with peck marks to roughen the surface so that material may be ground on them more efficiently.

The grinding faces on all the stones are consonant with the edges (that is they extend right up to them). The most common form of grinding face on the lower stones is one that is concave about one axis, though ones that are slightly convex, for example Cat Nos 9 and 11, were also found. Three lower stones, Cat Nos 5, 8 and 12, show a very shallow concavity about the axis at right angles to the axis of the major concavity, but none show a truly dished grinding face. The material ground on these stones, therefore, was not intended to be retained within the grinding face, but to fall away from it and to be collected on a cloth set around the base of the lower stone.

Two main types of wear pattern are visible on the stones. In one the area of greatest wear, taking the form of a high polish and smoothness, is found in an intermittent band all around the edges of the grinding face. This may be seen on Cat Nos 4, 6, 8, 12 and possibly on Cat No 10. In the other pattern, the greatest wear is concentrated at the short ends of the grinding face; it frequently takes the form of an angled slope between the main part of the grinding face and the upper face, in addition to being highly polished. Such wear occurs on Cat Nos 4, 6, 7, and possibly 12. On similar grounds of size Cat Nos 16 and 18 may confidently be identified as upper stones, as can Cat Nos 19 and 20, though here with less certainty. The concentration of the wear at the short ends of the upper stones was also seen on the upper stones from Douglasmuir, Angus (Kendrick 1995, 58–9). On those stones the wear took the form of a facet between the grinding and upper faces rather than the more gentle slope as here, a difference probably due to the different types of rock used. Although wear in a band around the edges of the grinding face appears to be limited to the lower stones in this assemblage, wear at the short ends is not limited exclusively to the upper stones.

In the case of Cat No 25, the wear is very similar to that seen on the undoubted upper stones, but as it is broken it is not certain that they themselves were upper stones. Small patches of high polish are seen on the short ends of the lower stones Cat Nos 3 and 11 but it is not of the extent or sloped form seen on the upper stones. Therefore, though we may note some exceptions, it does not seem reasonable to conclude that the different wear patterns correspond to the use of the stone as either an upper or lower stone.

The remainder of the worked stone assemblage from Dryburn Bridge came from similar contexts to those in which the quernstones were found and much had also been reused. Most of the objects have been only cursorily worked and would best be described as used rather than worked stone. In only a few cases has the original shape of the boulder or pebble been materially altered; these include two hones (Cat Nos 69 and 70).

There are a considerable number of stones that have cups or indentations worked into them (Cat Nos 32–45). The purpose of these cups is not clear, certainly none are large enough to have been used as mortars. The rest of the worked stone assemblage consists of pebbles and boulders that have been used for grinding and polishing. This utilization ranges from Cat No 47 which has a very smooth and carefully made saucer-shaped grinding face, to the patches of polish or wear seen on the hand-held pebbles Cat Nos 61–68 and the boulders Cat Nos 59 and 60.

Table 12 summarizes the contents of the coarse stone assemblage.

Table 12 Summary of coarse stone assemblage

Saddle-querns and uppers	31
Hollowed stones	14
Cobble tools	23
Hones	2

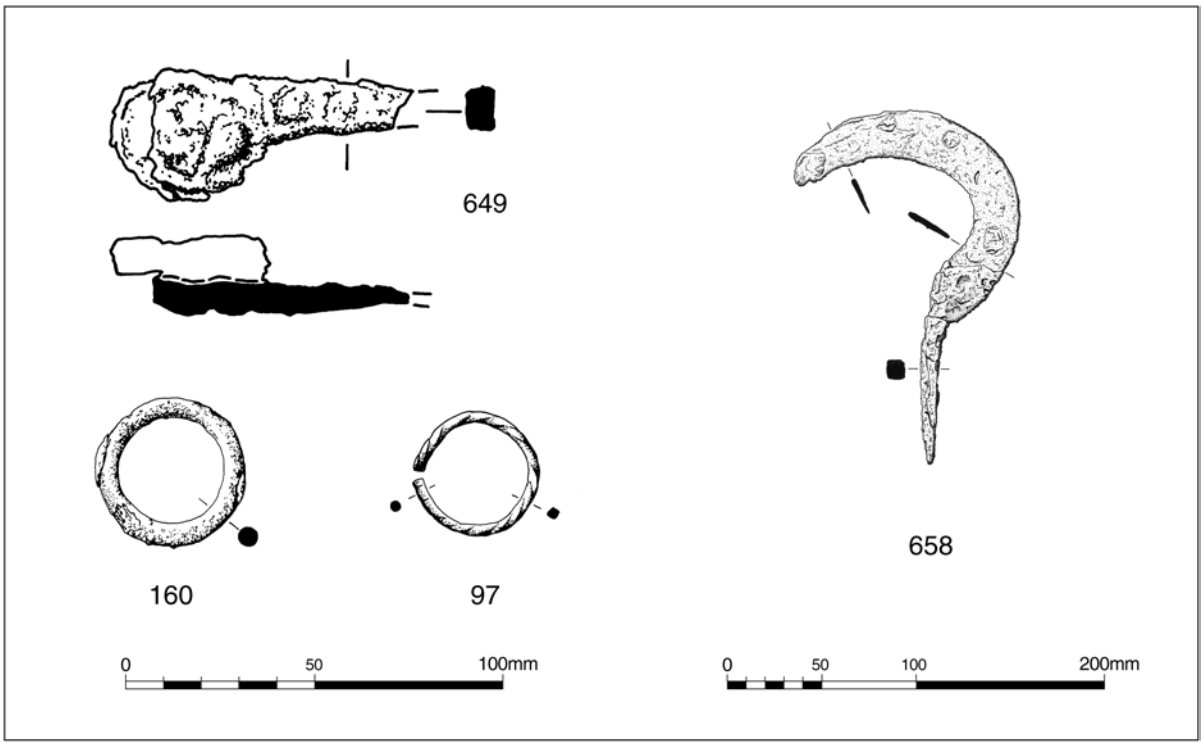
8.2.2 Catalogue of illustrated coarse stone artefacts

Lower quernstones

1 Complete triangular stone. Flat lower face and approximately vertical sides have been dressed to shape; grinding face is consonant with edges, slightly concave about short axis and has greatest wear concentrated in centre. Grinding face is chipped in places. Dimensions 440 × 300 × 95mm. Find no 629. Context: Paving in ring-ditch, House 7.

4 Complete oval stone. Lower face is natural cortex of boulder. Grinding face is consonant with edges; markedly concave about long axis and shallowly concave about short axis; dressed with peck marks and shows greatest wear as an intermittent band of high polish running around edges and being especially noticeable at shorter ends of stone. Dimensions 470 × 350 × 105mm. Find no 647. Context: Paving in ring-ditch, House 7.

12 Broken square stone. Lower face is natural cortex of boulder. Grinding face is consonant with edges apart from at one corner, shallowly concave about both axes and dressed with peck marks. Greatest wear is concentrated in a band running around approximately one-third of extant edge. Dimensions 240 × 220 × 90mm. Find no 569. Context: Fill of inner ring-groove, House 2.



Illus 61 Copper alloy and iron objects

Upper quernstones

20 Complete irregular oval stone. Upper face is natural cortex of boulder apart from along some ancient breaks. Grinding face is consonant with edges; markedly convex about short axis and shallowly convex about long axis and dressed with peck mark. Greatest wear is concentrated at short ends. Dimensions 235 × 210 × 100mm. Find no 634. Context: Pit O48/OBH.

Other worked stones

32 Approximately triangular-shaped rounded pebble, oval cup with rounded base pecked into upper face. Dimensions 130 × 120 × 80mm. Cup size 70 × 55 × *c* 20mm. Find no 566. Context: Cobble fill of ring-ditch, House 2.
45 Flattened oval pebble with smooth concave depression centrally placed on each flat face. Dimensions 85 × 60 × 35mm. Depression sizes 45 × 45 × 5mm. 40 × 35 × 5mm. Find no 234. Context: unstratified.
47 Small irregular oval boulder with upper face occupied by smooth dished concavity not consonant with edges. Dimensions 210 × 195 × 45mm. Find no 230. Context: House 3, ring-ditch fill.
50 Small, triangular boulder with circular concave depression on upper face showing a peck marked surface. Dimensions 165 × 135 × 65mm. Find no 559. Context: Cobble fill of ring-ditch, House 2.
61 Approximately oval pebble with one small flattened facet. Dimensions 70 × 60 × 55mm. Find no 553. Context: House 2, central floor area.
63 Approximately oval pebble with several flattened, slightly polished faces. Dimensions 105 × 75 × 65mm. Find no 630. Context: House 7, cobble-filled depression in central floor space.
65 Circular pebble with two polished faces; one flattened, other slightly convex. Dimensions 90 × 85 × 65mm. Find no 560. Context: House 2, fill of a shallow scoop in central floor space.
69 Oval-sectioned hone, both ends broken. Length 55mm, section 30 × 20mm. Find no 59. Context: unstratified.
70 Approximately circular-sectioned hone possibly tapering to angular ends; ends are now detached in three pieces and do not join body of hone. Length (largest piece) 65mm, section *c* 20mm. Find no 671. Context: fill of fence-line K5 adjacent to House 7.

8.3 Copper alloy (illus 61) *by Fraser Hunter*

8.3.1 Discussion

The alloys used are all consistent with a pre-Roman date except for the twisted hoop, whose silvering indicates a Roman or later date. As would be expected, the sheet objects are unleaded while the cast ones include lead for ease of casting. Much of the material is so fragmentary that little can be made of it, although the sheet fragments from pit M5 are probably mounts, fittings or repairs from an organic object.

The most significant and puzzling find is the twisted hoop (illus 61). It most closely resembles the hoop of a penannular brooch, although there are problems with this identification, notably the different terminals. One could be seen as a variant Fowler type A3 (Fowler 1960), but there is no evidence that the other terminal has broken off as the ends are smooth and patinated. It cannot easily

be explained as the reuse of another object: probes with twisted shafts are known, but the head would normally be modelled in the round, whereas the flattening inside suggests this was a primary design feature. Penannular brooch hoops are normally plain, although Roman examples are known with decorated, often ribbed hoops (eg Breeze 1974, 160, no 37). The silvering would also point to a Roman origin, as brooches were often decorated with white metal coatings. Although no precise parallels have yet been located, an origin as a variant Roman penannular brooch seems most likely.

8.3.2 Catalogue

DB78/96 Circular-sectioned rod fragment, slightly curved, broken at both ends. Unidentified. L 7.5mm, D 3mm. House 2 post-abandonment fill (CAB). Leaded bronze (trace silver, antimony, zinc) (see L Fraser comment based on surface X-ray flourescence (XRF) analysis by Laurianne Robinet and Katherine Eremin).
DB78/97 Penannular hoop formed from a spiral-twisted rod. One terminal is cut square, the other has a variant knob-and-collar moulding with a small, unexpanded knob and an elongated columnar collar, resembling a baluster moulding. This is defined only on the outside. The twisting is worn internally, especially opposite the terminals and near the moulded terminal. A slight white metal sheen on the surface was identified by XRF as silvering. The size, shape and wear resemble a penannular brooch, although the spiral twisting and non-matching terminals are unusual. External D 33mm, internal D 26.5mm, section 3mm. Hillwash over palisade east of House 2 (CAC). Leaded bronze (trace zinc). Illus 61.
DB79/652 Five sheet fragments; no original edges or surviving features. Heavily corroded. Largest fragment 15 × 10 × 1mm. Pit M5, fill under paving (MBK). Bronze (trace lead).
DB79/654 Nine flat sheet fragments, some slightly curved in section. One has a shallow linear channel; some have original straight edges. Largest fragment 18 × 12mm; T 0.3–0.5mm. Pit M5, fill under paving (MBK). Bronze (trace lead).
DB79/655 14 fragments of flat or slightly undulating sheet; probably one object, although there are no obvious joins. Part of one rivet hole, two perpendicular corners (one rounded) and one angled one. One fragment bent as if clenched over an organic medium to act as a mount. Largest fragment 21 × 17 × 0.5mm. Pit M5, fill under paving (MBK). Bronze (trace lead).
DB79/656 Circular-sectioned rod fragment, broken at both ends and damaged on one side. Too small to identify, but may be a pin shank or perhaps a rivet. L 7, D 2 × 2.5mm. House 8, ring-ditch fill (PAA). Leaded bronze (trace silver, barium, nickel, arsenic).

8.4 Iron (illus 61) *by Fraser Hunter*

8.4.1 Discussion

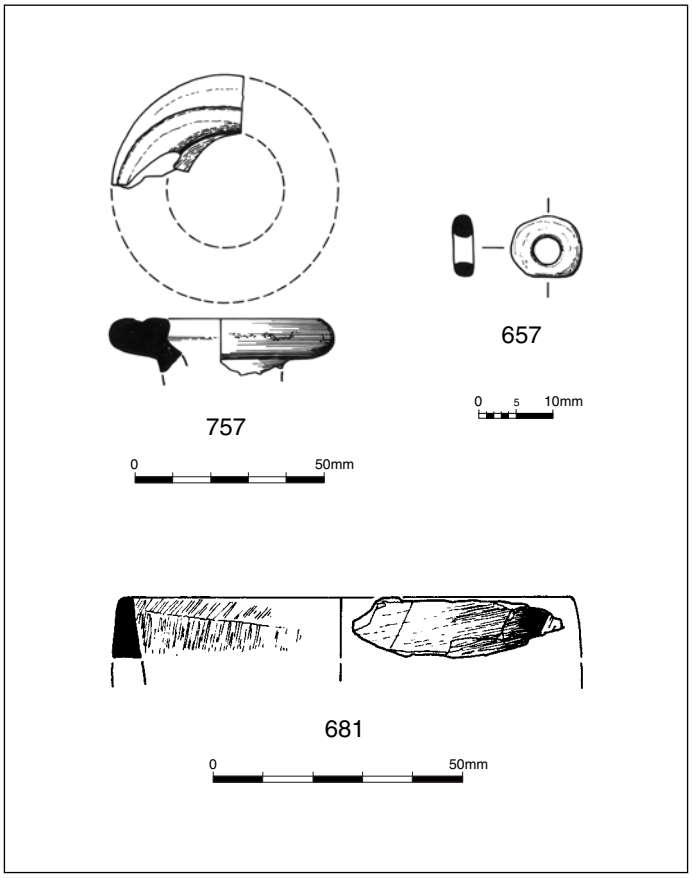
Of this sparse assemblage, only the sickle (illus 61) merits wider discussion. It is of balanced type, where the initial curve of the blade lies behind the axis of the tang (Rees 1979, 438–9, fig 136). These first appear in the late pre-Roman Iron Age, although they are commoner in Roman contexts (Rees 1979, 458; Manning 1985, 51). The earliest known Scottish examples are Roman Iron Age, in the hoards of Carlingwark (Kirkcudbrightshire) and Blackburn Mill (Berwickshire), and from Traprain Law (East Lothian; S Piggott 1953; Burley 1956, no 481). One from Tentsmuir (Fife), found with a shouldered bucket urn of later first millennium BC type may be earlier (unpublished: East Fife Museum SAAUM 1977.1993), although a Roman Iron Age date cannot be ruled out.

The deposition of the sickle in feature M69 may be linked to a series of Iron Age deposits of agricultural equipment. These have been seen as offerings with symbolic associations: it has been argued that sickles had a particular link with the agricultural cycle and hence concepts of fertility and prosperity (Hingley 1997, 13–15). Such special treatment of agricultural equipment is seen in the tools in the Carlingwark, Blackburn Mill and Eckford (Roxburghshire) hoards (S Piggott 1953), the sickle from a pit at Albie Hill (Dumfriesshire; Strachan 1999), the ard head from the substructure of Milton Loch crannog (Kirkcudbrightshire; C M Piggott 1953, 143–4; Rees 1979, 42–3), and the ard beam from a peat bog near Lochmaben (Dumfriesshire; Rees 1979, 43). Hingley has conveniently summarized other Scottish deposits of agricultural items (Hingley 1992, 23–4, 38–9). The Tentsmuir sickle and pot is a further likely example, although records are unfortunately vague.

8.4.2 Catalogue

Only iron from secure contexts has been catalogued in detail. A range of stray finds was recovered but none can be shown to be Iron Age, and they are probably post-medieval.

DB79/160 Ring, circular section. Probably a rod welded into a circle; no sign of a butt join, but corrosion obscures details. No evidence of wear to clarify function. External D 39mm, internal D 28mm, section 5.5–6mm. House 1, central post B71 (AFB). Illus 61.
DB79/649 Knife? Two non-joining fragments are best interpreted as parts of the tang and blade of a knife. The tang fragment is a tapering rectangular bar (10 × 5mm), probably aligned on the knife back; surviving L 28mm. The other fragment is part of a V-sectioned tapering blade, of width 23mm and T 5mm. Overall L of the two fragments is 80mm. Pit M5, fill under paving (MBL). Illus 61.
DB79/650 Ferrule? Heavily corroded with part of side missing, but broadly conical with remains of socket some 20mm D. 48 × 24 × 17mm. Pit M5, fill under paving (MBL).
DB79/651 Square-sectioned rod, too fragmentary to identify. Approx 5 × 5mm section, at least 34mm L. Pit M5, fill under paving (MBK).
DB79/658 Balanced sickle. The rectangular-sectioned tapering tang continues into the blade, which sweeps back then curves relatively sharply to an angled point. Handle L 74mm, section 10 × 9mm. Blade W 26mm, chord L 85mm, T 3–4.5mm. Overall H 185mm × W 118mm. Pit M69 (MAY). Illus 61.



Illus 62 Glass and oil shale objects

8.5 Roman glass (illus 62) *by Dominic Ingemark*

8.5.1 Discussion

One rim-sherd of blue-green bottle glass was found at Dryburn Bridge. As the rims and necks of cylindrical, prismatic and rectangular bottles (Isings Forms 51, 50 and 90) are identical (Isings 1957, 63–9, 108), the detailed type could not be determined. However, as rectangular bottles are relatively rare (Price & Cottam 1998, 201), it is most likely to represent a cylindrical or a prismatic bottle.

Although the earliest examples of these two types date to the Claudian period, only in the last quarter of the first century AD did they became common (Price & Cottam 1998, 191, 195). In Britain the cylindrical bottle was relatively short-lived, with production ceasing around AD 110, whereas prismatic bottles were manufactured until around AD 200 (Cool & Price 1995, 184; Price & Cottam 1998, 191). The most likely date-range for this find would be AD 70–200.

Bottle glass constitutes a significant proportion of assemblages on Roman sites between the Flavian period and the late second century AD (Cool & Price 1995, 236), reflecting its widespread use as a container for liquids, semi-liquids and solid foodstuffs (Isings 1957, 67–9; Charlesworth 1966, 26). There is, however, a lack of reliable chemical analyses of the contents, and it can only be assumed that narrow-necked bottles would have contained wine, olive oil and suchlike, whereas wide-necked bottles/jars could have contained honey or other foodstuffs. From depictions on tombstones and mosaics we also know that cylindrical bottles functioned as tableware in the Roman world, and there is much to suggest that it was for the serving of wine (Holwerda 1931, abb 20–1; DeMaine 1990, fig 3a; Masseroli 1998, fig 7).

No fewer than 28 native sites in Scotland and north Northumberland have yielded bottle glass, making it the single most common category of Roman vessel glass found in indigenous contexts (Ingemark 2003). It is primarily concentrated in the Scottish Lowlands and Northumberland, mostly – though not solely – on rich sites with a relatively wide range of other imported Roman goods. This could suggest a high value for the bottles, and thus that the contents rather than the actual bottle were the primary reason for importing them (Ingemark 2003). The heavy wear on much of the bottle glass found in native contexts bears witness to a more prosaic afterlife as containers once they were emptied of their original contents. In the case of the Dryburn Bridge find the relatively narrow neck suggests that it originally contained some sort of liquid – most

probably wine – but whether it reached the site full or empty must unfortunately remain unknown.

8.5.2 Catalogue

DB79/757 Rim fragment of cylindrical or prismatic bottle. Blue-green. Usage scratches. Present height 14mm; thickness of rim 12mm; external rim diameter *c* 65mm. Pit M69.

8.6 Oil shale and cannel coal (illus 62)

by Fraser Hunter

8.6.1 Discussion

Bangles were commonplace in the Iron Age, and the disc bead also finds ready parallel (for example Traprain Law; Curle 1915, fig 27.1). The stratified bangle and the bead are from Phase III contexts, but the working debris confirms shale-working in Phase II (see Discussion). The bangle roughout and working debris demonstrate that such items were manufactured on site. More working debris was probably present but not recognized – recovery of this material in excavations is sadly deficient. While shale and cannel coal working has rarely been studied in detail, ongoing work by the writer shows that it was relatively common in East Lothian, being attested at North Berwick Law, Broxmouth, Craig's Quarry Dirleton and Traprain Law.

To investigate the raw materials used the objects were examined visually and analysed by X-ray fluorescence. With such a small group it is difficult to find patterns, but a range of materials was represented, mainly various oil shales with some cannel coal. The variety indicates exploitation of a range of sources. The raw material was available relatively locally – both oil shale and cannel coal occur in Carboniferous deposits on the coast south of Dunbar (Gibson 1922, 51–2; Greig 1971, 83, fig 14), although there has been no detailed study of their composition or working properties.

8.6.2 Catalogue

Artefacts

DB 78/273 Bangle portion, well-rounded D-section with circumferential and near-vertical manufacturing scars internally; extensive wear and post-depositional scratching, especially on exterior. L 33mm, B 9mm, H 12mm, internal D 70–5mm (13% survives). Cannel coal (markedly more organic than other items). Topsoil, unstratified.

DB79/681 Bangle fragment; tall lentoid section (now incomplete); vertical scars internally from manufacturing, externally well-finished. L 42mm, B 6mm, H 13mm, internal D 80–5mm (16% survives). Markedly laminar structure – oil shale. Pit M69 (MAY). Illus 62.

DB79/657 Flat disc bead, the edge straighter in one area where there is a flaw. Edges rounded, with some residual faceting; cylindrical perforation (D 3mm) with rounded edges, slightly oval from wear. 9.5 × 8.5 × 3mm. Polish obscures structure – analysis similar to bangle 681, probably oil shale. Pit M1, below rubble (MAC); ?boundary linked to House 8. Illus 62.

DB79/824 Whorl fragment? Broken disc, the partly-preserved edge forming a convex curve in section. Its size and material (a highly inorganic oil shale) suggests it is a whorl rather than a bead, as it would be heavy. Very worn after breakage. Original D 40mm. 23.5 × 19.5 × 6.5mm. Location uncertain.

Working debris

DB79/842 Bangle roughout. Disc with one face that of the natural cobble, the edges cut and chipped to rough circle. Central conical indentation on one side (D 10mm, 4mm deep), pair of similar indents (D 13 × 5mm, D 7 × 2.5mm) on the other (implying a mistake in initial layout). Abandoned perhaps because of spalling of the edges. D 112 × 106mm, H 13mm. Cannel coal or canneloid shale. House 2, post-hole in central area.

DB78/220 Fragment of probable working debris – corner removed from a squared block. Tabular fragment, the edges cut square and the corner facetted; the fractured edge is worn, but behind it the surface shows signs of an earlier attempt at removal, with initial cutting and pecking. Surface worn, implying it was residual. Shale (markedly different elemental composition from others). 46 × 28 × 10mm. Upper fill of Burial 2 (DAS).

8.7 Slag *by Andrew Heald*

8.7.1 Description

A total of 944.2g of slag was recovered. Visual examination allowed the material to be broadly categorized on criteria of morphology, density, colour and vesicularity (after Bachmann 1982; McDonnell 1986). However, each of the various production processes can create a wide range of slag morphologies depending on the temperature, duration and chemistry of the fuel, hearth linings and alloys used. Only tap slag and smithing hearth bottoms are truly diagnostic (of iron smelting and smithing respectively). Further elemental and mineralogical analyses would be necessary to classify other material more conclusively: this was not undertaken. The slag has been described and catalogued using common terminology (eg Bachmann 1982; McDonnell 1986): smelting slags; slag spheres; smithing slags; and fuel ash slag.

All of the slags are fractured and small. Such irregularly shaped slags can be produced by both iron smelting and smithing; differentiating through visual examination is difficult, and they are generally referred to as undiagnostic ironworking slags (see Starley 2000, 338). It is common for these to constitute up to 50% of a total site assemblage (Crew 1995). However, the morphology, density, colour and vesicularity allows some of the material to be classified more closely.

Two fragments have the appearance of smelting slags (SFs 550 and 596). One piece (SF 550) has a

distinctive 'ropey' flowed morphology with very low vesicularity, characteristics common on smelting slags allowed to run from the furnace (Starley 2000, 338). Two other pieces (SFs 668 and 669) may also be smelting slags. Three pieces (SFs 503, 518 and 525) appear to be smithing residues. One slag sphere (SF 533), surface-oxidized iron expelled during hammering of iron, was also found. When found in quantities slag spheres are usually indicative of *in situ* smithing. However, the minute amount recovered from Dryburn Bridge is insufficient to prove this.

Three pieces of vitrified fuel ash were found (SFs 546, 588 and 730), slag formed when material such as earth, clay, stones or ceramics is subjected to high temperatures (for example in a hearth). These need not be associated with ironworking.

8.7.2 Discussion

The assemblage from Dryburn Bridge is very small, and there are no excavated features or diagnostic slags to indicate *in situ* metalworking. Analysis of context does little to broaden the picture: all the slags are either unstratified or in secondary contexts (Table 13).

Though indicative of ironworking in the vicinity, presumably somewhere on the site, the presence of the material does not prove *in situ* metalworking. Iron slag is known from other Iron Age sites in East Lothian, such as Fishers Road West, Port Seton (Heald 2000); St Germains (Alexander & Watkins 1998, 249) and Broxmouth (Hill 1982a, 181, 188). However, discussion of intra- or inter-site differences is difficult as, like Dryburn Bridge, the quantities are small and derive from secondary or unphased contexts. That said, the Dryburn Bridge material is useful evidence for ironworking in the area in the earlier Iron Age.

8.8 Antler (illus 63) *by Fraser Hunter*

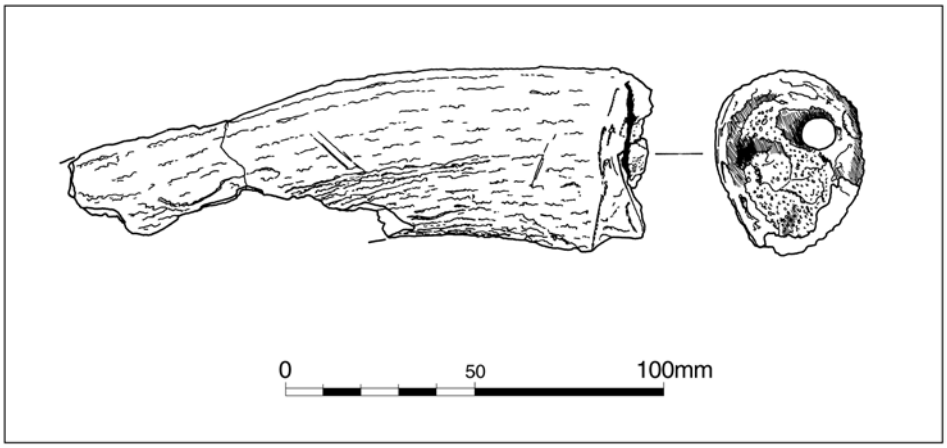
Two pieces of red deer antler were recovered from pit O48.

A substantial portion of a shed red deer antler (L 500mm, crown diameter *c* 50mm), in poor condition, with detached portions and worn edges (partly visible on illus 57). The bez and trez tines have been removed (the former apparently by chopping, the latter sawn), and there are scattered knife-cuts on the beam. The brow tine was attached when found but is badly damaged and now separate, the ends broken and worn. No wear traces or working marks are visible; the cancellous tissue is hollowed, but this probably arises from damage and subsequent conservation. In the absence of any clear working traces, its on-site interpretation as a pick cannot be sustained. It is necessary to be rigorous about this, as shed antlers stripped of their tines are too often identified as picks without firm evidence; yet this is often a stage in preparing the beam (generally the sought-after portion) for further working. The upper end is badly damaged, but there is a hint in one area that the end may have been cut square, removing the terminal tines. On the surviving evidence this looks like a red deer antler collected for raw material, partly prepared by removing most of the tines but abandoned before the beam was used.

More problematic is an unattached curved portion of beam (illus 63; L 150mm, W 48 × 39mm). This does not appear on the site photographs (eg illus 57) and does not seem to fit the shed antler. It is thus likely (although not certain) that it is a separate item. The body is badly damaged, but the intact end

Table 13 Distribution of slag (with mass in grammes)

Description of block	Context	Smelting slag	Undiagnostic ironworking slag – smelting?	Slag sphere	Undiagnostic ironworking slags – smithing	Fuel ash slag
House 2						
Cobble fill of ring-ditch	CGA		290.2			
Central floor area	CCR	118.3				
House 7						
Fence-line K5	KAE			0.1	211.0	
Fill of ring-ditch	KAA					7.6
Sheep burial cut through south side House 7	KEG					2.4
Other						
Curvilinear ditch O76	OBK	243.8				
Rubbish pit O48	OBH					8.8
Unlocated or unstratified	KMB?				62	



Illus 63 Antler fragment

is cut square with an off-centre cylindrical hole (D 10mm, min length 63mm) drilled into it; shallow hollows around this suggest earlier abortive drilling attempts. This suggests it was a handle for an item with a circular tang (and thus not a knife or similar bladed tool, as a circular tang allows too much movement in the handle).

8.9 Discussion of the artefact assemblage
by Fraser Hunter

8.9.1 Nature of the assemblage

The assemblage from Dryburn Bridge is dominated by pottery and coarse stone, with the vast majority of the material being essentially prosaic and functional. Ornamental or exotic items are rare and tend to come from later phases, notably the Roman glass and the penannular brooch hoop. Shale bracelets are the only ornamental items that can be firmly linked to earlier phases, with the roughout from House 2.

Among the coarse stone, querns predominate. The abundance of saddle-querns fits an earlier Iron Age date. The finds also show some evidence of craft activities: iron smelting and smithing (although no primary *in situ* material was located) and the manufacture of shale jewellery. The sickle emphasizes the agricultural basis of the site. The other notable feature of the assemblage is the evidence of Roman contact in the bottle glass (and perhaps the brooch; F Hunter, pers comm). This does not indicate the site was special or privileged in its latest phase: Roman items are relatively commonplace in southern Scotland, with most sites having access to some material. It has been argued that this was moderated through a hierarchical structure with powerful individuals or groups controlling access (Hunter 2001). The choice of the material, connected most probably with drinking and ornament, is typical: Roman finds were selected because of their appropriateness for local habits (Hunter 2001).

8.9.2 Taphonomy and deposition

Table 14 summarizes the occurrence of finds across the site. This is highly variable, and depends in large part on the nature of the surviving deposits: hollows and ring-ditches provide artefact traps safe from ploughing, while cobbled surfaces and packing are the main sources of reused coarse stone tools. Those houses represented only by post-holes have correspondingly sparse finds assemblages. This makes it unrealistic to compare the material from different houses, and it is best treated by phase or (more realistically) as a whole.

The bulk of the material is fragmentary and appears to have been discarded or reused. There is a broad negative correlation between features producing stone and those producing pottery, suggesting different depositional patterns – notably the selective reuse of stone in paving and packing. This is true of many of the querns, although some perhaps were set into paving or pits as a solid base for grinding (for example Houses 2, 7 & 8; but see reservations expressed by Dunwell in Section 7.4.4 and Cool in Section 8.2.1). The reuse of quernstones has potential symbolic as well as functional dimensions (eg Hingley 1992, 32), but this excavation pre-dated such concerns and there was no detailed recording of quern location, position, orientation and so on. Only with recurring patterns of placement can a strong argument for symbolic deposition be made. The differential distribution may be significant, with a marked concentration in House 2; however, this also has most coarse stone tools generally, suggesting it relates to greater reuse of stone. House 8 has a concentration of querns in the paving uncorrelated with other coarse stone, and here querns may have been preferentially selected; they are spread evenly across the paving rather than clustered (illus 32). Other ring-ditch houses show a similar pattern of large quantities of saddle-querns being deposited in the ditches (for example Douglasmuir, Kendrick

Table 14 Distribution of finds (object count) at Dryburn Bridge (excluding features with few finds)

Feature	Querns	Coarse stone	Pot	Metal	Glass	Slag
House 1			1	1		
House 2	13	24				x
House 2 later infill	2		5	1		
House 3	1	2	3			
House 7	5	3	1			x
House 8	6			1		
House 9		1				
Boundary a		1	3			x
Boundary b		1	3			
Rectangular structures			11			
Enclosure – inner		2	2			
Enclosure – outer			16			
Hillwash (CAC)			1	1		
Feature K2			2			
Feature M5				6		
Feature M69		2	5	1	1	
Feature O48	3	3	1			x
Feature O76	1		1			x

1995; Kintore, M Cook pers comm) and it is likely that this was not simply pragmatic.

Only with feature M69 can a strong case for structured deposition be made. As discussed in Section 8.4.2, the complete sickle fits a pattern of the deposition of agricultural implements, perhaps connected with rituals linked to the agricultural year. With the eye of faith it could be argued that the sherd of Roman glass from the same feature was significant, perhaps the disposal of a powerful and exotic token, but there is insufficient detailed contextual information to support this over more mundane fates. Of the other features with finds, it is hard to argue for structured deposition, with pit M5 and hollow O76 having only very fragmentary material. Pit O48 is more striking, especially in the quantity of coarse stone tools, both intact and broken. It may be a rubbish pit, but could be an example of the structured deposition of material as part of 'pit ritual', as attested most notably in Wessex (J D Hill 1995). Given the rarity of metal on the site, the presence of an iron ring in the central post-hole of House 1 may also be significant. While worth noting, a broader-ranging regional survey is required before the significance of these deposits can be assessed.

8.9.3 Regional patterns

Cool has noted how prosaic and restricted earlier Iron Age assemblages are in contrast to later ones in south-east Scotland (Cool 1982, 99), and more recent work has confirmed this. At Myrehead (Falkirk), for instance, the most striking finds (dagger fittings) came from a late Iron Age pit; with the exception once more of a shale bracelet, the assemblage was otherwise entirely functional (Barclay 1983). The same is true of Eildon Hill North, where the ornamental bronzework and glass is late Iron Age (Rideout *et al* 1992, 145–51). This is not an absolute: there are late Iron Age sites with poor surviving assemblages (for example Fisher's Road West; Haselgrove & McCullagh 2000, 30–9, 69), and earlier sites can have less prosaic finds (for example a stone ball and two discs from Douglasmuir; Kendrick 1995, 58). However, in general, the pattern seems to hold.

Some qualifications must be entered. The wide range of bone pins from Broxmouth shows that our view of ornaments is badly skewed by the general absence of bone (Cool 1982; Hill 1982a, 182–3). Ornaments are not unknown in the earlier Iron Age, with shale and cannel coal jewellery occurring regularly. However, these materials were widely available in the Lothians and their role was doubtless different from the more technically complex or exotic bronze and glass items. If they had a role beyond the ornamental, it was presumably in marking out identity not in terms of status but other affiliations such as kin, age or sex. Finally, the rarity of earlier Iron Age bronzework may in part stem from depositional bias; it seems there was no tradition of depositing such ornaments on settlement sites, in contrast to areas such as Wessex. Despite this, there does seem to be a change in the later Iron Age and Roman Iron Age; more ornamental material and a wider range of artefacts, including stone tools,

were being deposited. This may in part represent depositional habits but is also likely to reflect social changes in the use of material culture. These are as yet unstudied in Scotland, but may be related to similar trends noted in southern Britain (J D Hill 1995). The Dryburn Bridge data, while insubstantial, would support such a trend.

The Dryburn Bridge assemblage stands ready comparison with the material from Myrehead (Barclay 1983) and Douglasmuir (Kendrick 1995), with the stone showing an abundance of saddle-querns and cobble tools, and limited shale/cannel coal jewellery; the bulk of metal items, if present, come from late contexts. Clarke has noted a tendency for sites to have local peculiarities in their coarse stone (Clarke 1998, 389), and this is seen at Dryburn Bridge with the preponderance of hollowed or cupped stones whose function is unclear. Here we are seeing local practice and adaptation in action. In comparison to assemblages with a significant later Iron Age phase such as St Germains (Alexander & Watkins 1998) or the Dunion (Rideout *et al* 1992, 152–7) there is an absence not just of rotary querns but also balls, counters, discs and even spindle whorls.

The other material is more difficult to compare. The pottery assemblages are dominated by cooking vessels on most sites, although ongoing detailed study of the region's pottery by Cath McGill should reveal more subtle patterns; sadly, the Dryburn Bridge pot has been lost since excavation. The craft processes such as shale/cannel coalworking and ironworking are common on many sites, although they have not yet been synthesized on a regional level to look for trends and variations. The Roman items have been discussed above – Roman material is not uncommon in south east Scotland, but the quantities present do not indicate Dryburn Bridge was any form of power centre in its latest phase.

In summary, while outwardly unprepossessing, the Dryburn Bridge material can be used to investigate a series of issues about material culture and its uses in the southern Scottish Iron Age. While it may not answer many questions, it is a valuable assemblage to add to the debate.