
The pottery *by A Crowdy and D W Hall*

Introduction

The excavations by the Border Burghs Archaeology Project (BBAP) in Peebles and Kelso produced an important assemblage of medieval and later pottery, which has been combined for the purpose of this report with the results of a subsequent (1993–4) excavation carried out in Peebles by the Scottish Urban Archaeological Trust Ltd (SUAT). This combined report includes a site-by-site description of the pottery assemblages and finally an overall discussion of the implications of the assemblage as a whole.

Excavations in Kelso *by A Crowdy*

General Introduction

A total of 6,633 pottery sherds were recovered from the excavations in Kelso at 13–19 Roxburgh Street, Chalkheugh Terrace and Wester Kelso/Floors Castle, mostly of post-medieval and later date, with the exception of an important medieval group from Wester Kelso/Floors Castle Trench 3.

Field walking has in the past revealed a number of medieval pottery scatters from the greater Kelso area, mainly from around the sites of the former royal burgh of Roxburgh, Roxburgh Castle and south of the river Teviot, along its terrace at Springwood. The results of this field walking, has now been enhanced by excavations carried out by the BBAP at Springwood (Dixon 1998), which revealed three medieval homesteads and large quantities of probable locally made medieval Scottish White Gritty Ware.

The White Gritty Wares in this report are all treated as one type and, while the variation of inclusions is marked, no fabric division or provenancing has been attempted except as part of a wider White Gritty Ware research project, based at Glasgow University and funded by Historic Scotland (Will *et al* forthcoming). Most of the common Scottish White Gritty Ware forms were found in Kelso, in particular from Trench 3 at Wester Kelso/Floors Castle, where they were found sealed and associated with continental imports, which have provided valuable dating evidence. At 13–19 Roxburgh Street and Wester Kelso/Floors Castle Trench 2 the majority of the Scottish White Gritty Ware was residual, except for a small group found in the medieval terrace at Roxburgh Street, including enough to give a jug profile and an anthropomorphic face mask (Catalogue No 5). The fabric description for Scottish White Gritty is based on the Wester Kelso/Floors Castle Trench 3 assemblage.

The lack of sealed pottery groups and well defined stratigraphic evidence means that it is not possible to discern when the Reduced version of the White Gritty Wares appear, and what its relationship is to the main Scottish White Gritty industries. Often it is not possible to discriminate between the two, especially when they both show similar partial reduction and oxidisation. However evidence from the Kelso Abbey pit group would suggest that they run in tandem (Haggarty 1984).

The post-medieval Reduced Greywares in Kelso, like the rest of Scotland, are more commonly used for large storage vessels and jugs; their appearance is similar to the general class of Throsk-type Wares (Caldwell and Dean 1992). These wares are known to be part of the wider Scottish tradition and may have been produced at a local production site, although this has yet to be established.

Among the 17th- and 18th-century Red Earthenware pottery assemblages from Kelso is a notable group of Decorated Slipwares. At present only one slipware kiln site is known in Scotland at Westpans, just east of Musselburgh (G Haggarty pers comm), but a more likely source would be the known, but as yet unpublished, production site on the south bank of the Tweed at its estuary. Material from this location has been included in a pilot study funded by Historic Scotland and, until the Kelso material has been scientifically analysed, its provenance at present remains speculative.

Identification of fabric types

The pottery was sorted into fabrics by a x20 binocular microscope and examined by hand lens, in some cases aided by the use of thin sections. (At present, due to inability to make contact with the person who did this work, this data remains unavailable.) Fabric descriptions have been written for the majority of wares, but 19th- and 20th-century wares have been omitted.

Both the archive and the final report are divided into two sections: Scottish pottery and Imported pottery (English and Continental), with a distinction between medieval and post-medieval. All the fabric types not identified from other sites or kilns have been classed as unidentified, subject to future work.

1 13–19 Roxburgh Street, Kelso, 1983–4

A total of 2,528 sherds was excavated from this site, of which approximately 4% were medieval, 22% from

the late 17th-mid 18th centuries and 74% from the mid 18th century onwards.

The medieval pottery

Scottish White Gritty Ware (3%)

Fabric Description

Thickness: 30–100 mm

Texture: rough on cooking pots, generally smooth on jug inner surfaces.

Hardness: hard to very hard, almost vitrified on some storage jars, with everted and carinated rims with body sherds; fracture, irregular to finely irregular.

Colour (Munsell): outer surface, white 10YR 8/2, reddish yellow 5YR 6/6, very pale brown 10YR 7/4; core, grey 2.5YR n/6, reddish yellow 5YR 7/6, white 10YR 8/2, dark grey 2.5YR N/4; inner surface, white 10YR 8/2, reddish yellow 5YR 7/6, grey 2.5YR N/6, dark grey 2.5YR N/4, white 10YR 8/2.

Inclusions: quartz, fine to medium size, sparse amount; quartz, iron ore mica and the basic matrix, very fine to fine size, well sorted, abundant amount; quartz, coarse size, ill sorted, moderate amount; mica, very fine size, well sorted, moderate amount; quartzite, coarse to very coarse size, moderate amount.

Glaze: colourless, yellow, green, orange and brown.

Slip: was common in browns, reds and whites. All the vessels were wheel-made. Firing was in an oxidising atmosphere, while some sherds showed carbonised cores from incomplete oxidation.

The Scottish White Gritty Ware was not sub-divided, as previous research on this topic has suggested that the variability and palaeo-alluvium soils in its main inclusions is characteristic of boulder clay and not, therefore, a justification for assuming diverse origins for this type (Cox 1984; Crowdy 1986). A further reason for the variation in the amount of filler in the clay could be due to the deliberate sorting by the potter: cooking pots would demand a higher proportion of filler to clay to enhance its resistance to thermal shock when being constantly in contact with direct heat from the fire. Furthermore, the cooking pots and storage jars would be prone to shrinkage during drying and firing, and filler would, therefore, help to control this function by opening up the body, increasing porosity and reducing thermal shock.

Scottish White Gritty Ware was found in Phase 1, and in later phases where it is considered to be residual, the abraded condition of many of these sherds emphasising this point. The material from the medieval building terrace of Phase 1 was from a homogenous sample, and probably represents only one or two jugs. Forms identified overall from the assemblage were cooking pots/storage jars, and jugs. The jugs from the medieval terrace showed typical 13th/14th-century decoration with anthropomorphic facemasks, strap handles and small rod handles with a slash decoration, applied clay lines and pellets and incised wavy lines. One jug showed thumbing. No cooking pot/storage jar rims were found.

White Gritty Reduced Ware (31.1%)

Fabric Description

Thickness: 4–8 mm.

Texture: fairly hard, finely irregular fracture.

Colour: light grey 10YR 7/1 to grey 7.5YR N5 outer margin; grey 7.5YR N/5, to light grey 10YR 7/2 inner surface; occasionally there is a white patina underneath the outer glazed surface.

Inclusions: (this is only intended as a range), abundant very fine sorting of quartz, iron ore and mica in the basic matrix; quartz, fine to medium size, ill sorted, moderate to abundant amount.

Glaze: glossy dark olive green, to a lighter green.

Decoration: included clay strips, pellets and grooved lines.

Only jug forms were identified. Handles were strapped and thumbing onto the pot. One handle shows a potter's mark (Catalogue No 13) and one base sherd showed internal glazing.

Post-medieval pottery

Scottish Post-Medieval Reduced Ware (1%)

Vessel forms in this fabric include jugs and a possible cistern base (Catalogue No 20). Decoration includes combed and zigzag designs. These vessels are all wheel-thrown with knife-trimmed bases, and rilling marks are characteristic on their inner surfaces.

Scottish Post-Medieval Oxidised Ware (6%)

Vessel forms in this fabric include storage jars with handles and a single example of a tripod cooking pot. One handle shows stabbing marks and stacking marks and glaze drips were common on the underside of the bases.

These wares show strong Dutch influences and may be Scottish copies of continental imports, which could well have carried on unchanged until the 18th century, as seen at Norwich (Jennings 1981, 157).

Decorated Slipware (7%) (Cats 27–32)

Generally British slipwares of the 17th century show strong influences from Holland and Germany and, indeed, are the response of the home market for alternatives to the popular foreign imports. The shift in the production and trading patterns of the mercantile world in the post-medieval period are shown in the specialised manufacture and widespread distribution patterns of this pottery (Brears 1971). Metropolitan slipware from Essex is an example of this new industry and its dominance is noted at Newcastle, where it replaced the local wares in popularity during the 17th century (Ellison 1981, 150).

The slipwares from Kelso show no similarities to published types from other sites, both in this country or abroad (D Gaimster, H Janssen and H G Stephan, pers comm). The slipwares were found in an

assemblage of pottery from a series of pits dated from the mid 17th to early 18th century on coin and documentary evidence (see [Dixon and Perry](#), above).

Slipware

The Slipware forms appear in contexts dated to the late 17th century. Their fabric and finish are similar to the Glazed Red Earthenwares and Decorated Slipwares of the later period. The interior of the vessels has been covered with a white slip, then glazed to produce a distinctive yellow colour. The variety of forms includes pitchers, bowls and pancheons. The diameter of the bowl rims varies between 280–320 mm. The construction of these vessels was noticeably coarse and basic, with crude knife trimming and thickened bases. The storage jar forms are of a more standard construction than the earlier wares and display a more cohesive body, thinner walls and a more even application of slip. Clear lead glaze was commonly applied to the exterior of the vessel from the base up to the shoulder.

Sponged Slipware (5%)

The forms identified are bowl and storage jars.

Post-medieval

Imports, Continental

Stonewares

Frechen Bellarmine (Cats 22–24)

Bellarmine face mask and body sherds from the 17th century were identified ([Gaimster 1997](#), 208–23).

Westerwald Type Ware

One piece of possible Westerwald Stoneware was identified ([Gaimster 1997](#), 251–71).

Langerwehe

One small possible Langerwehe Stoneware handle was found ([Gaimster 1997](#), 186–90).

Regional English / Scottish Wares

The wares under this section comprise well established wares from various industrialised Scottish potteries. The Tin-Glazed Earthenwares may have been imported from various places prior to the production at the Delft factory in Glasgow in 1749. Both the forms and patterns of decoration in this assemblage have been paralleled by the material at the People's Palace Museum, Glasgow.

Brown Glazed Earthenware

The earliest of these wares appears in the late 17th-

or early 18th-century contexts at Kelso; they clearly precede the later proliferation of standardised brownwares in the 18th and 19th centuries. The earliest wares are storage vessels, while the later forms include various tablewares, such as teapots.

Slipware

These include Staffordshire-type Slipwares, with the notable slip trailing, pie crust rims (39) and press-moulded wares. Many variants of marbled, combed and trailed slip decorations were identified along with a few examples of Sgraffito Ware. Forms included plates and drinking vessels.

Other industrial wares

Other post-medieval fabrics found at this site were: Glazed Earthenwares; Creamware; Pearlware; Soft and hard paste Porcelain; Brown Stoneware (including large storage containers, and small ginger beer type bottles); White Salt-Glazed and Brown Stoneware.

2 Chalkheugh Terrace, Kelso, 1983–4

A total of 1,032 sherds of pottery was found, dating to the late 18th, 19th and 20th centuries (with the exception of two residual medieval sherds). The main wares were Glazed and Decorated Earthenwares, Decorated Creamwares, Tin Glazed Earthenwares and Stonewares.

3 Wester Kelso/Floors Castle Trench 2, 1984

A total of 242 sherds was found from this site, all of which were post-medieval, apart from ten pieces of residual Scottish White Gritty Ware.

Medieval

Scottish White Gritty Ware (4%)

These were generally much abraded, indicating that they were residual. A jug rim, strap handle and decorated body sherd were identified. Four bases, probably from cooking pot/storage jars were noted as having carbonised bases.

Post-Medieval

Local

Post-Medieval Reduced Wares (9%)

Most of these came from one storage vessel, which had a thickened base, 100–200 mm at the basal angle. The vessel was coarsely made with knife trimming and a stacking rim scar on the base. The

glaze was both on the interior and exterior of the vessel.

Post-medieval Oxidised Wares (10%)

There was a jug of a coarser fabric, but with the same characteristics. A very crude, flat, thickened storage jar base, glazed internally, a jug handle and a pipkin handle were noted.

Decorated Slip Ware (14%)

A small handle from an enclosed vessel was noted.

Other post-medieval fabrics from this site are Sponged Slipware (7%); Delft (8%); Creamware (5%); Brown Stoneware; White Saltglaze (5%); Brown Glazed Earthenware (13%); Sgraffito Ware; and Slipwares (12%).

4 Wester Kelso/Floors Castle Trench 3, 1984–5

A total of 2,831 sherds was excavated from this site, of which 92% was Scottish White Gritty Ware, 2% Reduced Greyware and the remaining 6% was post-medieval.

White Gritty Ware (2,665 sherds, 92%)

Due to the shattered nature of the assemblage no complete profiles of cooking pots, storage jars or jugs were identified, but comparisons between the rim, base and body sherds were undertaken. The rolled/beaded, everted and upright rims are diagnostic of the straight-sided cooking pot, common to Scottish White Gritty Ware, as are the thin, corrugated body sherds (30–50 mm), and the flattish right-angled bases (Brooks 1980; Cox 1984; Laing 1973). The proportion of sooting associated with these forms was high, in particular with the body sherds, and would seem to indicate that they were used for cooking. Of flat bases 66% were sooted, as were 100% of everted rolled rims. A base and rim form of a straight-sided cooking pot form (from the well) showed evidence of spalling and sooting, which probably occurred while being placed over direct heat. The straight-sided cooking pot form showed a higher degree of filler to fabric, matched only by the everted carinated rim forms, and associated body sherds. The advantage of coarsely filled fabric for cooking purposes has been mentioned above (see Fabric Description). Two sooted and thin corrugated body sherds showed pronounced roundness, which indicates that not all these cooking pots were straight-sided.

One rim form stands out as different (Catalogue No 51); in fabric it is coarser and more densely filled.

The clubbed rim forms had occasional lid seating and thumbing on the rims (Cats 85, 126). Glaze splashes and drips occurred on the bodies and bases. The sooting was significantly less on the bodies of

these forms and, probably, suggests their function was more commonly for storage.

The jug rims were generally upright, with variation in the rim form between upright and everted. The fabric was noticeably smoother and demonstrated the range of fabric and filler to form quite adequately (with the exception of some jug body sherds from the ditch). The handles were far coarser than the body fabric and were applied to the vessel by thumbing and slip at the rim and neck of the vessel. Decoration included pinched scales, applied pellets and strips, incised lines and an anthropomorphic facemask (Catalogue No 74). A few sherds showed interior glazing. The glazes, which partially covered the vessel, were translucent, clear yellow, orange brown and green. As mentioned above, it was difficult to discriminate between storage jars and jug bases, but thumbing was noted as being characteristic of the latter.

White Gritty Reduced Ware (49 sherds, 2%)

Only jug forms were identified.

Medieval imports

Developed Stamford Ware (Late 12th century) (1 sherd)

Fabric Description

Thickness: 5–8 mm.

Texture: smooth, hard with finely irregular fracture.

Colour (Munsell): core, white 10YR 8/2; inner surface, very pale brown 10YR 8/4.

Inclusions: sparse very fine rounded to subrounded quartz; moderate to sparse very fine rounded black and red iron ore; moderate very fine mica.

Kiln atmosphere: oxidising.

Glaze: green slightly patchy light and dark.

Decoration: incised lines around the shoulder.

Vessel type: jug, wheel-made with fine rilling marks. Identified by J G Hurst.

Yorkshire type Ware (4 sherds)

Thickness: 4–7 mm.

Texture: rough, fairly hard with finely irregular fracture.

Colour (Munsell): outer margin, light red 2.5YR 6/6; core and inner surface, grey 10YR 5/1.

Inclusions: abundant very fine to fine well sorted quartz; moderate fine well sorted black and red iron ore; dense compact matrix.

Kiln atmosphere: partial reduction and oxidisation.

Glaze: rich glossy dark green.

Decoration: included pellets and scales.

Vessel type: jug, wheel-made.

Unidentified English

Fifteen unidentified English sherds in six fabric types (see archive) were catalogued.

*Imports, continental**Unknown French (1 sherd)*

Thickness: 5 mm.

Texture: smooth, hard with a smooth fracture.

Colour (Munsell): core, white 10YR 8/1; inner surface, very pale brown 10YR 8/3.

Inclusions: the fabric was very dense with very fine quartz and black iron ore identified within the matrix.

Kiln atmosphere: oxidising.

Glaze: light green with blue line and dots of brown.

Decoration: pinched clay scales.

Vessel type: jug, wheel-made.

Andenne Ware (12th Century) (Verhaeghe 1983)
(5 sherds)

Thickness: 2–4 mm.

Texture: smooth, hard with finely irregular fracture.

Colour (Munsell): outer surface, pale yellow 2.5Y 8/4; core and inner surface, white 2.5Y 8/2.

Inclusions: abundant very fine rounded to subrounded quartz, sparse fine iron ore, moderate very fine mica; grass marks on surface noted.

Kiln atmosphere: oxidising.

Glaze: light yellow partially covering one sherd; a light slip on outer surface.

Vessel type: jug, wheel-made. Identified by J G Hurst.

Rhenish – Paffrath Ware (12th–13th century)
(1 sherd)

Thickness: 3.5 mm.

Texture: rough, very hard with finely irregular fracture.

Colour: grey 2.5YR N5/.

Fabric: near vitrification and very compact.

Inclusions: abundant very fine to fine rounded to subrounded quartz; grass marks on outer surface.

Kiln atmosphere: reducing.

Vessel type: cooking pot-storage jar? wheel-made. Identified by J G Hurst.

Discussion

Nearly all the Scottish White Gritty Ware forms at Floors Castle were represented by the large sample from the layer sealing the boundary ditch of Phase 1. Joining sherds from both this layer and from the upper levels of the well were found both for Scottish White Gritty Ware and a Yorkshire Type fabric. The remaining imports in this layer were unidentifiable, except for sherds from an Andenne vessel, which was also found in the fill of the pit of Phase 1. According to Verhaeghe, this ware was common in Scotland during the 12th century and was one of the earliest wares of relevance to reach Scotland (along with Pingsdorf and Paffrath Wares). It, apparently, had disappeared from the picture by 1200 (Verhaeghe 1983). Joining sherds of Scottish White Gritty ware forms were also found in the boundary ditch of Phase 1 and the fills of the stone-lined pit of Phase 2 which cut it.

The upper levels of the well appear to have been intermixed. The top three layers of the well show more variety in vessel form. The material from the Phase 1 pit had no diagnostic forms of Scottish White Gritty Wares and consisted only of body sherds. The joins in the pottery between the well, pit and their sealing layer would suggest that all these features were contemporary, while the Andenne Ware suggests at the earliest a 12th-century date for the pit.

Excavations in Peebles by D W Hall**4 Bridgewater***Introduction*

This excavation produced an assemblage of 2,292 sherds of pottery. This material has been identified by eye and is described by fabric using accepted names. No petrological examination has been carried out.

White Gritty Ware

This is the most common fabric in this assemblage (55%) and may represent a local product from an as yet unidentified source. Recent work has identified three potential production centres for this fabric in Lothian, Borders and Fife Regions (Haggarty *et al* 1984, 395; Hall 1997, 56). It may represent Scotland's earliest native pottery industry and in the Borders has been dated to the third quarter of the 12th century. This date is based on work at Kelso Abbey and at Jedburgh Abbey (Haggarty 1984; Haggarty and Will 1995). It has been found in Perth in association with 12th-century imported fabrics such as Stamford Ware, Andenne Ware and Pingsdorf Ware (Hall 1995, 954).

The vessel types in this assemblage are jugs and cooking pots with jugs being the most prevalent. Included amongst the cooking pots is an unusual form that has a pronounced ridge below the rim (Catalogue Nos 136, 142, 143 and 149). The other cooking pot rims forms are from globular vessels similar to those from Kelso (Haggarty 1984) and Jedburgh (Haggarty and Will 1995). A twisted rod handle from Phase 2 (Catalogue No 160) may suggest that the local potters were attempting to copy Yorkshire Type Ware jug forms.

White Gritty Reduced Ware

This material appears to represent a deliberately reduced version of the standard White Gritty Wares. It has been previously recognised in pottery assemblages from Kelso (see Crowdy, above), Eyemouth (Crowdy 1986) and Peebles, Cuddyside (see Hall, below). Recent analysis of the pottery assemblages

from Manpower Services Scheme excavations in Ayr has also identified a similar fabric variation (Franklin and Hall forthcoming). The sherds in this assemblage are all from jugs glazed dark green and there is at least one example of a bridge spout (Catalogue No 192).

East Coast Redware

Fifteen years of archaeological excavations in the Scottish east coast burghs have identified these fabric types as forming a tradition of native pottery production apparently dating from the 13th to the 15th centuries (Hall 1996, 126). Its presence in the Bridgegate assemblage may imply that it represents casual importation from areas that were producing these fabrics.

Yorkshire Type Ware

Vessels in these distinctively green glazed fabrics are the most common imports in the east coast burghs in the 13th and 14th centuries (McCarthy and Brooks 1988).

Low Countries Greyware

This fabric is a common find from 12th-century deposits in the Scottish east coast burghs. There are only two sherds present in this assemblage and they are both residual.

Low Countries Redware

This fabric begins to replace the earlier Low Countries Greywares from the mid 14th century onwards (Verhaege 1983, 25). There are only three sherds in the whole assemblage.

Rhenish Stoneware

These distinctive highly fired vessels begin appearing in Scotland from the mid 14th century (Hurst *et al* 1986).

Post-medieval Reduced Wares

This fabric type was first identified in excavations at Stirling Castle in the late 1970s (Haggarty 1980). It represents a late medieval transition from the Redwares described above and dates from the mid 15th to mid 18th centuries.

Discussion

As is often the case in medieval pottery groups from the Scottish burghs, the domination of the assemblage by an apparently local fabric, that is not tightly datable, makes dating very difficult. It has been suggested that the White Gritty Reduced Ware may represent a local variant of the common late medieval Reduced Greywares that are thought to begin in the late 15th century. However as White Gritty Reduced Ware is present at Bridgegate from Phase 1 onwards, it seems likely that it may be an earlier product. This fabric variation was also found in the pit group from Kelso Abbey in association with standard White Gritty Ware fabrics (pers comm. G Haggarty).

Imported wares make up less than 1% of the assemblage and are largely residual. The only imported fabrics which may serve as a date indicator are the Rhenish Stonewares. These first appear in Phase 2, which would suggest a date no earlier than the mid 14th century for this activity.

5 Cuddyside, Peebles

Introduction

The excavations at Cuddyside, Peebles produced an assemblage of 411 sherds of pottery, of both medieval and early modern date. This material has been examined by eye and subdivided into separate fabric types.

White Gritty Ware

This is the most common fabric type from this excavation, being represented by 310 sherds (75%). It varies in colour from white through white brown to pink. The most common vessel form present in this assemblage is the jug, of which there is a minimum number of 191, compared with only 12 cooking pots and three other vessels. Included amongst the jugs is a good example of a three-handled vessel, decorated with applied glazed strips (Catalogue No 207). Vessels with more than one handle have long been identified as a northern characteristic (Cruden 1952, 152) and the vessel from Cuddyside should probably be regarded as a local copy of a Yorkshire form. So few cooking pots are represented that it is very difficult to precisely identify the types of vessel form that are present, although there is a frilled rim from Phase 4 (Catalogue No 204) which might be a product of the Fife industry (Hall 1996, 127).

White Gritty Reduced Ware

This fabric is represented by 50 sherds in the assemblage and most commonly has a light brown interior surface with a grey core. It is glazed dark green on its external surface. Similar fabrics have been recovered from excavations in Eyemouth (Crowdy 1986), Kelso

Abbey (Haggarty 1984) and Jedburgh (Haggarty and Will 1995). There are seven joining sherds from a frilled jug base in Phase 2 that appear to have been re-used after the vessel had been broken. This base has internal smoke blackening and signs of heating on its external surface (Catalogue No 219).

Rhenish Stoneware

Stonewares from Langerwehe, Siegburg and Cologne first begin to appear in Scotland from about 1350 (Hurst *et al* 1986). There are only two sherds of this fabric and they may both be from vessels from the Siegburg kilns, which are datable from the mid 14th to 16th centuries. As some of the Reduced White Gritty jug forms (Catalogue No 219) may be copying these vessels, it seems likely that on this site a late 15th-century date for these two sherds is most likely.

Victorian and Early Modern pottery

There is a small group (31 sherds) of china, earthenware and stoneware.

Discussion

The medieval pottery from the earliest phase of activity on this site is almost exclusively White Gritty Ware. This would date Phase 1 between the 12th and 14th centuries and may indicate that this material was being dumped from elsewhere. The White Gritty Reduced Ware in Phase 2 is all from demolition deposits for Structure 1 and appears to indicate that this action dates to the late 15th century. A similar date is suggested for Phases 4 and 5 and it is only in Phase 6 that post-medieval material begins to appear. The domination of the White Gritty Ware assemblage by sherds from jugs rather than cooking pots may suggest a later date for this assemblage.

General discussion by D W Hall

This assemblage of pottery from the Scottish Borders helps to fill a gap in Scottish pottery studies. We are finally in a situation where we can now attempt a meaningful overview of Scotland's earliest native industry. Groups of White Gritty Ware have now been examined from the Borders, Fife, East Lothian and Ayrshire and patterns are beginning to emerge. The most obvious differences between these different groups of Gritty Ware are in vessel form, particularly as regards external influence.

The vessel forms from the Borders, Fife and Lothian would seem to owe a lot to an external Northern English influence, particularly from Yorkshire. The Gritty Ware assemblage from Ayr seems to exhibit a quite strong French influence, especially when the jug forms are studied. The presence of a Reduced Gritty Ware in the Borders can also be paralleled in Ayrshire. It would appear that the only vessel form made in this reduced version of the earlier Gritty Wares is the glazed jug. Sometimes (see Cuddyside) these vessels appear to be copying Rhenish Stoneware vessels.

The outstanding problem in Scottish medieval pottery studies is the lack of kiln sites. Although the apparent native Scottish fabrics for most of the country have now been identified, it will not be possible to take the subject any further forward until it is possible to construct a dated chronology for these fabrics. The only sure way of doing this is to locate and excavate some kiln sites and, in the process, use scientific dating techniques such as archaeomagnetism to accurately date their use.

Of most interest in this group is the pottery from Wester Kelso/Floors Castle Trench 3. This material appears to be coming from the deserted burgh of Wester Kelso and indicates that the survival of archaeological deposit in this area is good.

This assemblage is a very valuable addition to the corpus of Scottish medieval pottery from the Borders and should prove useful in the continuing study of the native pottery industry and its influences.

Pottery catalogue

13–19 Roxburgh Street, Kelso

White Gritty Ware (illus 50)

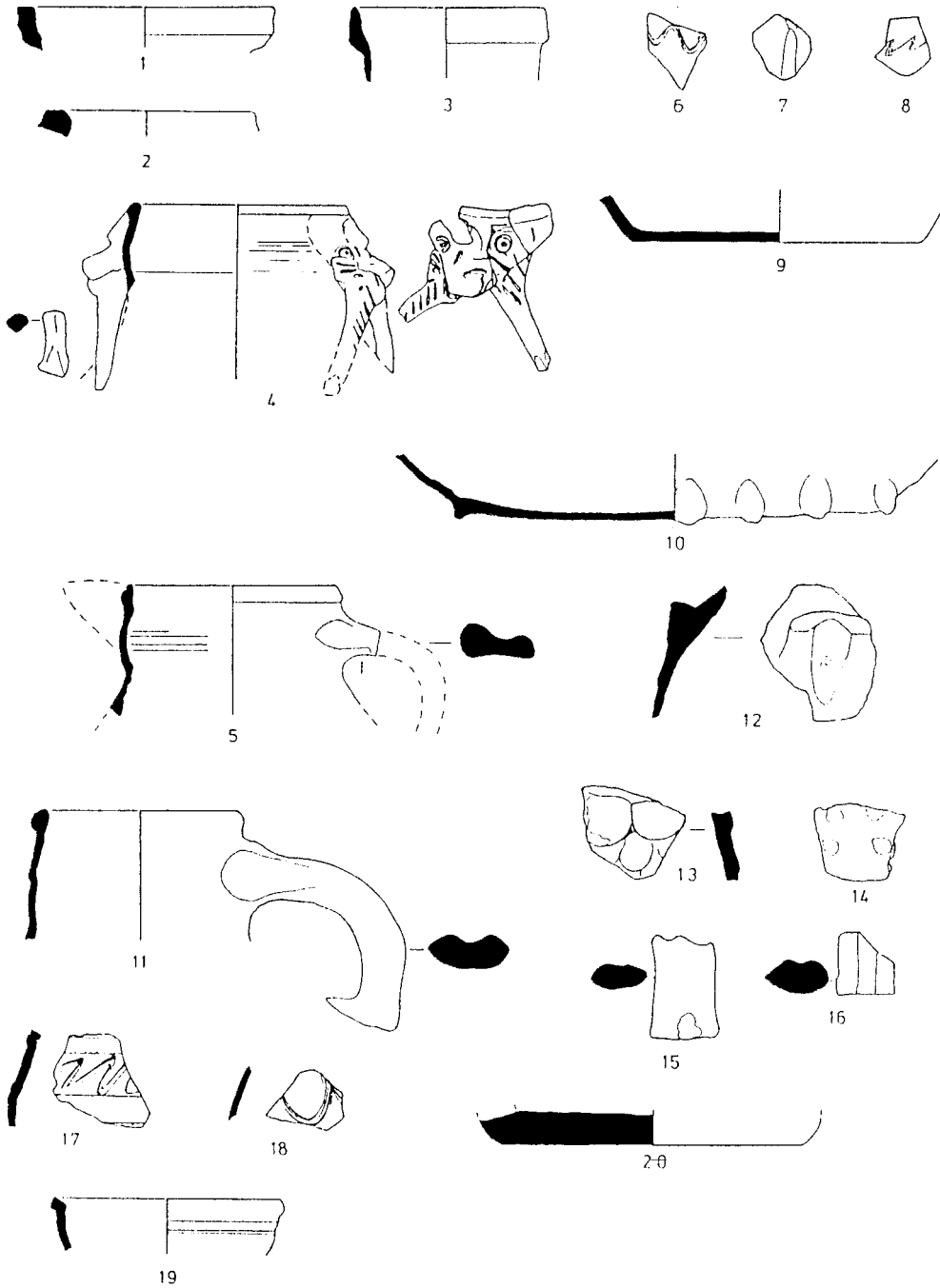
- 1 Jug rim, 100 mm diameter.
Grey fabric; interior grey, exterior reddish yellow with traces of olive glaze.
KL83 25 308
- 2 Jug rim.
Reddish yellow fabric with quartz inclusions; interior unglazed with white slip, exterior unglazed with traces of white slip.
KL83 333
- 3 Jug rim.
Reddish yellow fabric; interior unglazed buff, exterior dark red and traces of olive green glaze.
KL83 1336
- 4 Anthropomorphic jug, with facemask, 110 mm diameter.
Grey fabric with quartz inclusions, interior unglazed grey and buff, exterior partly glazed light green, unglazed surfaces.
KL83 1470
- 5 Jug rim and handle.
Grey fabric; interior unglazed grey, exterior partly glazed light green and orange. Reddish brown unglazed surfaces.
KL83 1470
- 6 Jug body sherd, combed wavy line.
Reddish yellow and grey fabric under the glaze; exterior glaze light olive green.
KL83 381
- 7 Jug body sherd with applied strip
White under exterior glaze and grey fabric; interior unglazed reddish yellow, exterior glazed olive green, strip in darker clay.
KL83 1102 315
- 8 Jug body sherd. Incised chevron design.
Grey fabric; interior unglazed reddish yellow, exterior glazed olive green.
KL83 1292
- 9 Storage jar/jug base, 160 mm diameter.
Reddish yellow and grey fabric; interior unglazed grey, exterior traces of slip and green glaze surface buff. Voids and drag grit marks prominent on the basal angle.
KL83 284
- 10 Thumbed jug base.
Grey and reddish yellow fabric; interior unglazed reddish yellow, exterior small splashes of glaze.
KL83 357

White Gritty Reduced Ware (illus 50)

- 11 Jug.
Grey fabric; mid grey unglazed interior, light green glaze on exterior. Three thumbbed markings at the top of the handle, patches of dark red slip showing mostly underneath the handle.
KL83 1336
- 12 Jug handle.
Mid grey fabric; unglazed interior, light green exterior glaze with small patches of brown. Potter's mark on the central groove of the handle.
KL83 1041
- 13 Jug body sherd.
Dark grey fabric with a white skim underneath the inner and outer surfaces. Light green glossy glaze with small patches of yellow and brown on both interior and exterior of vessel. Two distinct thumbbed markings on exterior.
KL83 1082
- 14 Jug body sherd with applied pellets.
Grey fabric with white skin under the glaze; exterior glaze, olive green.
KL83 1470

Post-Medieval Reduced Greyware (illus 50)

- 15 Thumbbed jug handle.
Mostly grey and reddish yellow fabric; red slip and slightly patchy olive green glaze with brown specks.
KL83 259
- 16 Jug handle.
Reddish yellow and grey fabric; red slip and partially glazed light olive green with orange and brown patches.
KL83 300
- 17 Jug, body sherd with incised zigzag decoration.
Grey fabric; interior grey unglazed, exterior olive green glaze with brown specks.
KL83 300
- 18 Jug, body sherd with incised spiral design.
Interior unglazed, exterior olive glaze with brown hue.
KL83 1109 322
- 19 Bowl.
Grey fabric; interior olive green with brown specks, exterior olive green glaze brown patches.
KL83 260
- 20 Cistern/storage jar base.
Grey and reddish yellow fabric; interior olive



Illus 50 13–19 Roxburgh Street, Kelso: 1–10 White Gritty Ware; 11–14 White Gritty Reduced Ware; 15–20 Post Medieval Reduced Greyware

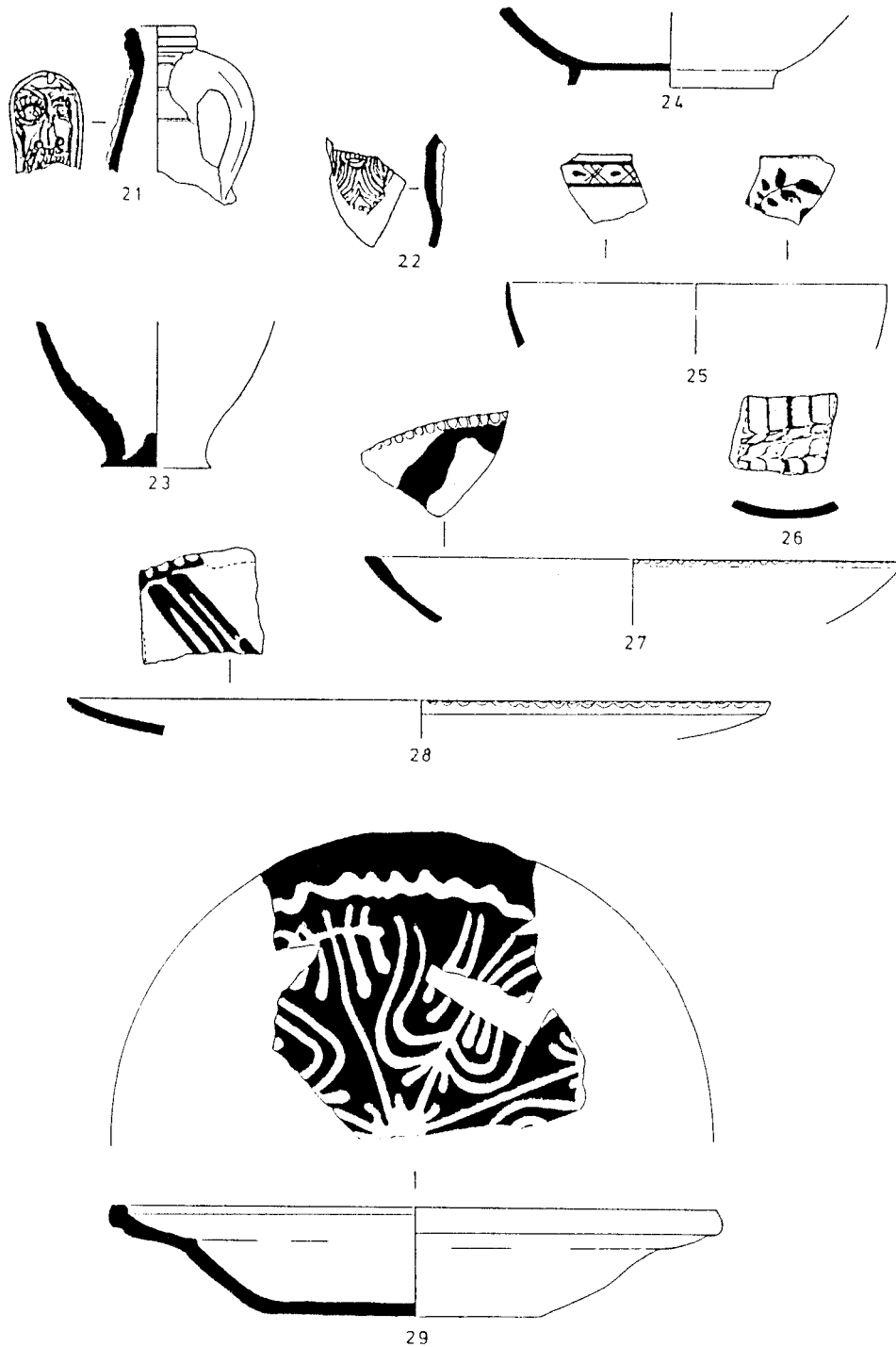
glaze, exterior slipped red, unglazed.
KL83 195 F53

Bellarmino Stoneware (illus 51)

21 Bellarmino facemask.
Grey fabric; light brown interior, dark brown 'orange peel' on exterior.
KL83 C5 13

22 Bellarmino facemask, incomplete.
Grey fabric; light grey interior, dark brown 'orange peel' on exterior.
KL83 326

23 Bellarmino.
Grey fabric; light grey fabric; very distinct rilling marks on the base and prominent kick, dark brown 'orange peel' on exterior, clear glaze on the base.
KL83 100



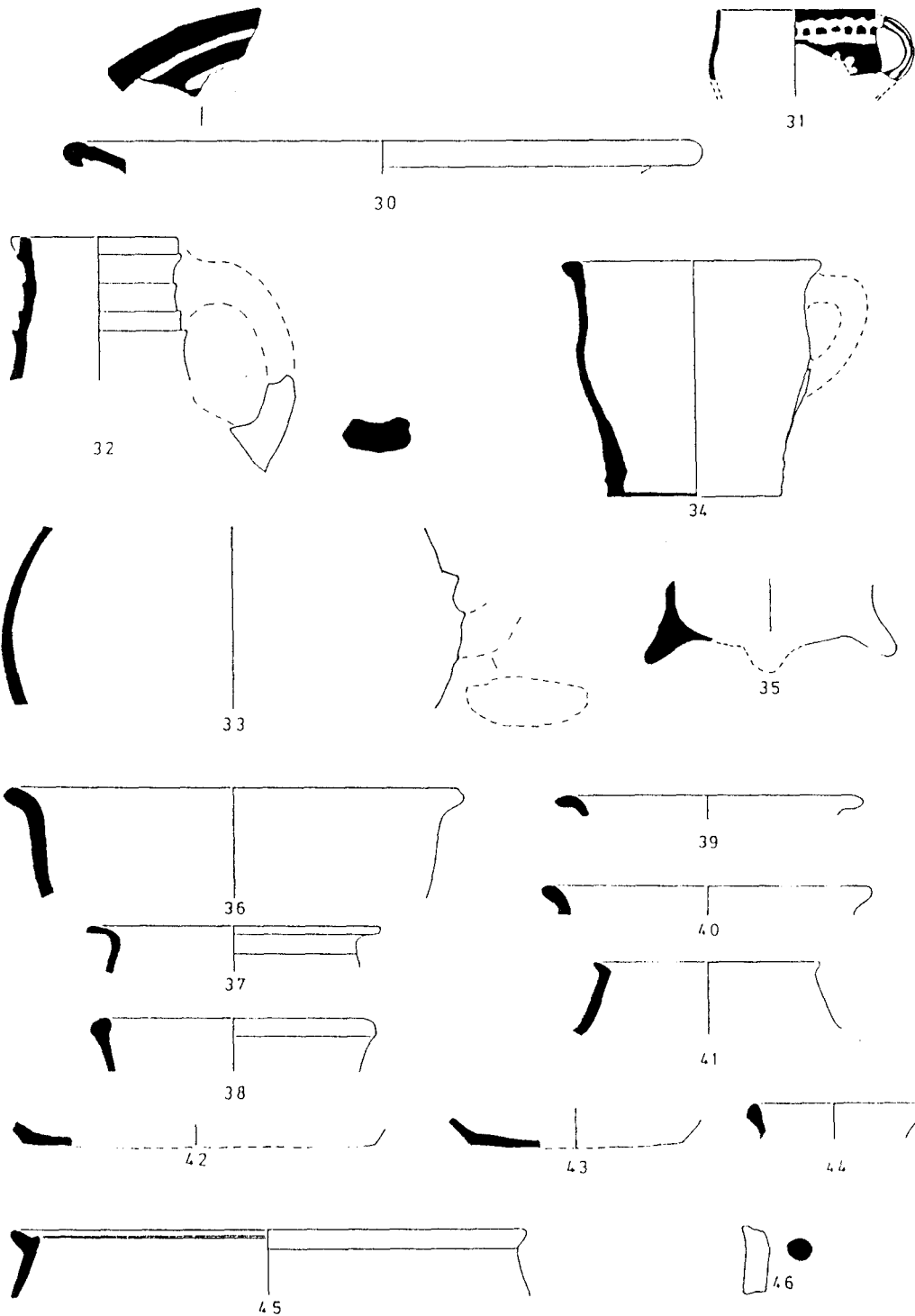
Illus 51 13–19 Roxburgh Street, Kelso: 21–23 Bellarmine Stoneware; 24–25 Delft; 26–29 Decorated Slipware

Tin Glazed Earthenware (*illus 51*)

- 24 Bowl.
Buff fabric; light blue glaze on interior and exterior.
KL83 53
- 25 Decorated bowl.
Pale orange fabric; light blue interior and exterior, pale orange band on interior rim and blue decoration on interior and exterior.
KL83 1077

Decorated Slipware (*illus 51 and 52*)

- 26 Bowl.
Dark red slip with occasional white streaks, brown and white slip on interior only.
KL83 93
- 27 Bowl.
Brick red fabric; dark red slip and white slip with clear glaze on interior, sooted exterior. Scalloped rim.
KL83 216



*Illus 52 13–19 Roxburgh Street, Kelso: 30–31 Decorated Slipware; 32–33 Earthenware; 34–41 Glazed Earthenware
Wester Kelso / Floors Castle Trench 2: 42–43 Glazed Earthenware; 44–46 Post Medieval Reduced Greyware*

- 28 Bowl.
Brick red fabric; dark red slip and white slip with clear glaze on interior, exterior unglazed. Scalloped rim.
KL83 246
- 29 Bowl.
Orange fabric; white trailed slip on the interior with transparent glaze over the top. Designs are

- floral.
KL83 1104
- 30 Bowl.
Buff fabric; small dark red inclusions, dark red slip with a trailed white slip design in quite high relief on the exterior.
KL83 387
- 31 Cup, 90 mm diameter.

Reddish yellow fabric; olive green on both surfaces, with trailed white slip.
KL83 301 40

Earthenware (illus 52)

- 32 Jug, 100 mm diameter.
Reddish yellow fabric; unglazed but traces of vitrified glaze over the spout and on the exterior.
KL83 329
- 33 Body of jug.
Handle has been slipped and thumbed onto the body.
KL83 300

Glazed Earthenware (illus 52)

- 34 Jug storage vessel, 140 mm diameter.
Reddish yellow fabric; dark red slip in patches and orange transparent glaze on interior, unglazed exterior, buff brown colour (very coarsely constructed?)
KL83 387
- 35 Cooking pot with feet, 130 mm diameter.
Reddish yellow fabric; orange glaze interior, exterior has red yellow slip and sooting.
KL83 389
- 36 Pancheon, 250 mm diameter.
Reddish yellow fabric; slipped interior with clear to green glaze, exterior buff unglazed.
KL83 387
- 37 Bowl, 160 mm diameter.
Reddish yellow fabric; clear glaze on the interior, staining in the glaze on the rim, exterior unglazed, reddish yellow.
KL83 CV 288 297
- 38 Bowl, 140 mm diameter.
Reddish yellow fabric; interior glazed light orange and over the rim, exterior slipped, dark red.
KL83 331
- 39 Bowl, 160 mm diameter.
Reddish yellow fabric and grey under the glaze; interior glazed dark green with brown patches, exterior unglazed, reddish yellow.
KL83 99
- 40 Bowl, 180 mm diameter.
Reddish yellow fabric; glazed interior, exterior unglazed, reddish yellow.
KL83 25
- 41 Bowl, 140 mm diameter.
Reddish yellow fabric with partial grey core; both surfaces glazed light green, but only traces remain.
KL83 26

Wester Kelso/Floors Castle Trench 2

Glazed Earthenware (illus 52)

- 42 Storage jar base, 100 mm diameter

Reddish yellow fabric; interior glazed light brown with green and brown admixture, exterior unglazed and very rough surface.
WK84 F66 22

- 43 Base of a bowl, 100 mm diameter.
Reddish yellow and grey fabric underneath the glaze; interior brown glaze, exterior unglazed, red slip.
WK84 F66 22

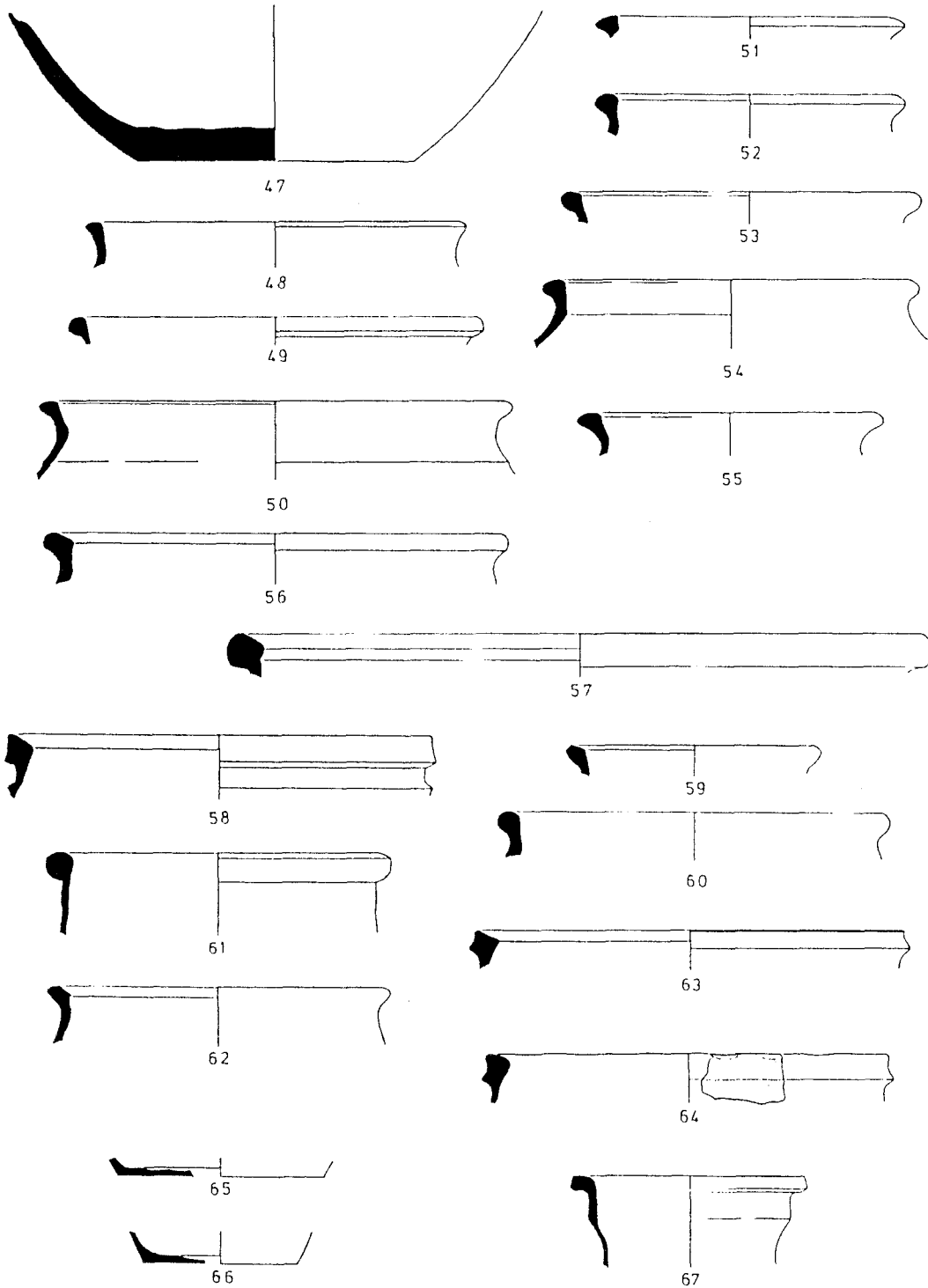
Post-Medieval Reduced Greyware (illus 52 and 53)

- 44 Jug rim, 90 mm diameter.
Reddish yellow fabric; interior light green glaze with brown patches, exterior red slip, glaze over rim.
WK84 16 39
- 45 Thumbled rim with lid seating, 290 mm diameter.
Grey fabric; interior olive green glaze, exterior red slip glaze over rim.
WK84 24 28
- 46 Handle.
Reddish yellow and grey fabric; patchy glaze olive green and red slip.
WK84 18 54
- 47 Base of cistern/heavy storage jar, 160 mm diameter.
A mixture of reddish orange and grey fabric; interior green glaze, exterior red slip and green glaze. Stacking scar marks and glaze on the rim.
WK84 29

Wester Kelso/Floors Castle Trench 3

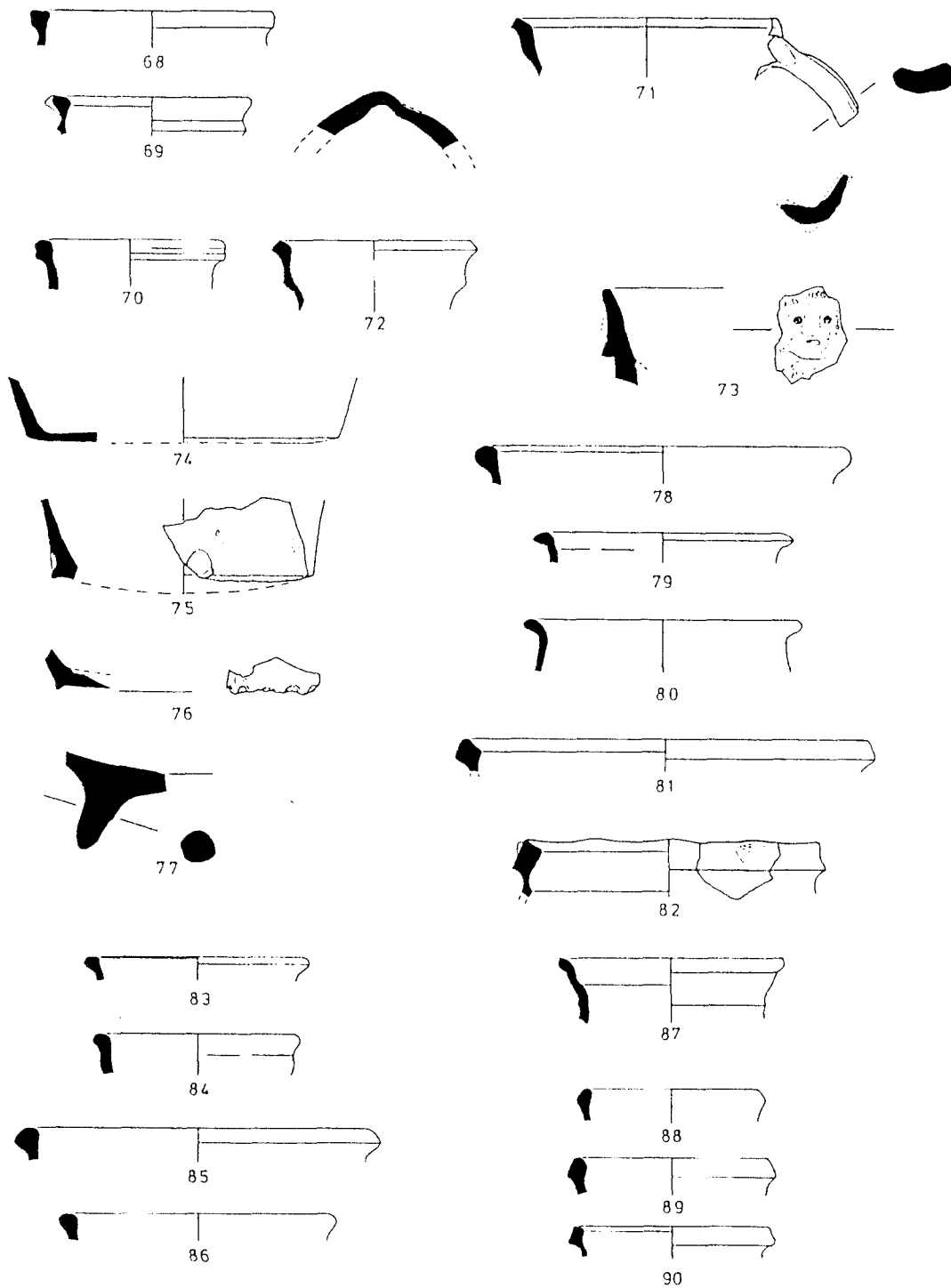
White Gritty Ware (illus 53–57)

- 48 Cooking pot rim.
FC84 Context 20; Phase 1
- 49 Cooking pot rim.
FC84 Context 20; Phase 1
- 50 Cooking pot with carinated everted rim.
FC84 Context 20; Phase 1
- 51 Cooking pot rim.
FC84 Context 20; Phase 1
- 52 Cooking pot rim.
FC84 Context 21; Phase 1
- 53 Cooking pot rim.
FC84 Context 21; Phase 1
- 54 Cooking pot rim.
FC84 Context 26; Phase 1
- 55 Cooking pot rim.
FC84 Context 26; Phase 1
- 56 Cooking pot rim.
FC84 Context 26; Phase 1
- 57 Cooking pot rim.
FC84 Context 26; Phase 1
- 58 Cooking pot rim.
FC84 Context 26; Phase 1



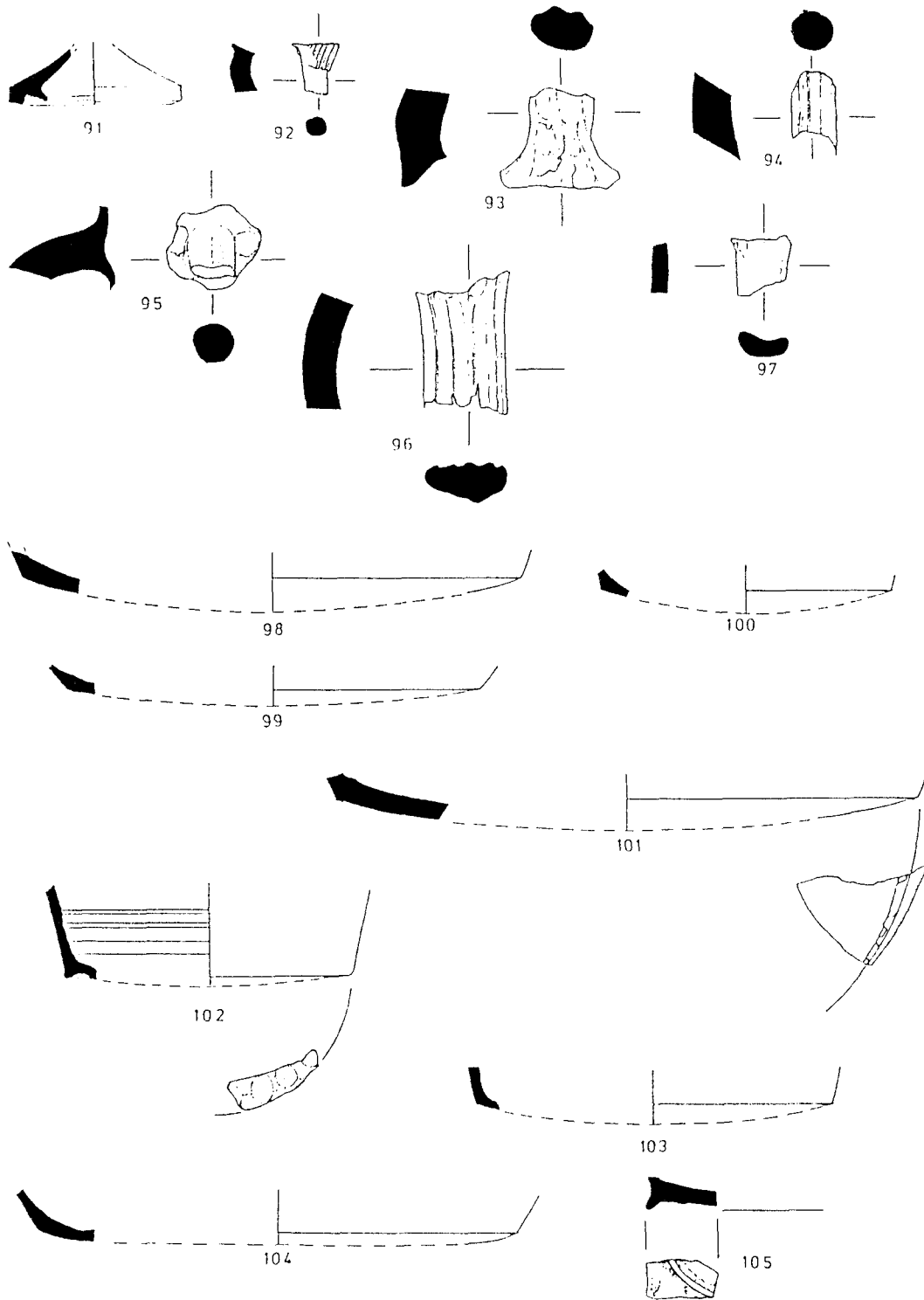
*Illus 53 Wester Kelso/Floors Castle Trench 2: 47 Post Medieval Reduced Greyware
Wester Kelso/Floors Castle Trench 3: 48-67 White Gritty Ware*

- | | |
|---|---|
| <p>59 FC84 Cooking pot rim.
Context 26; Phase 1</p> <p>60 Cooking pot rim.
FC84 Context 57; Phase 1</p> <p>61 Cooking pot rim.
FC85 Context 32; Phase 1</p> <p>62 Cooking pot rim.
FC85 Context 51; Phase 1</p> <p>63 Cooking pot rim.
FC84 Context 18; Phase 4</p> | <p>64 Frilled cooking pot rim.
FC84 Context 26; Phase 1</p> <p>65 Cooking pot base.
FC84 Context 20; Phase 1</p> <p>66 Cooking pot base.
FC84 Context 20; Phase 1</p> <p>67 Jug rim.
FC84 Context 21; Phase 1</p> <p>68 Jug rim.
FC84 Context 21; Phase 1</p> |
|---|---|



Illus 54 Wester Kelso/Floors Castle Trench 3: 68–90 White Gritty Ware

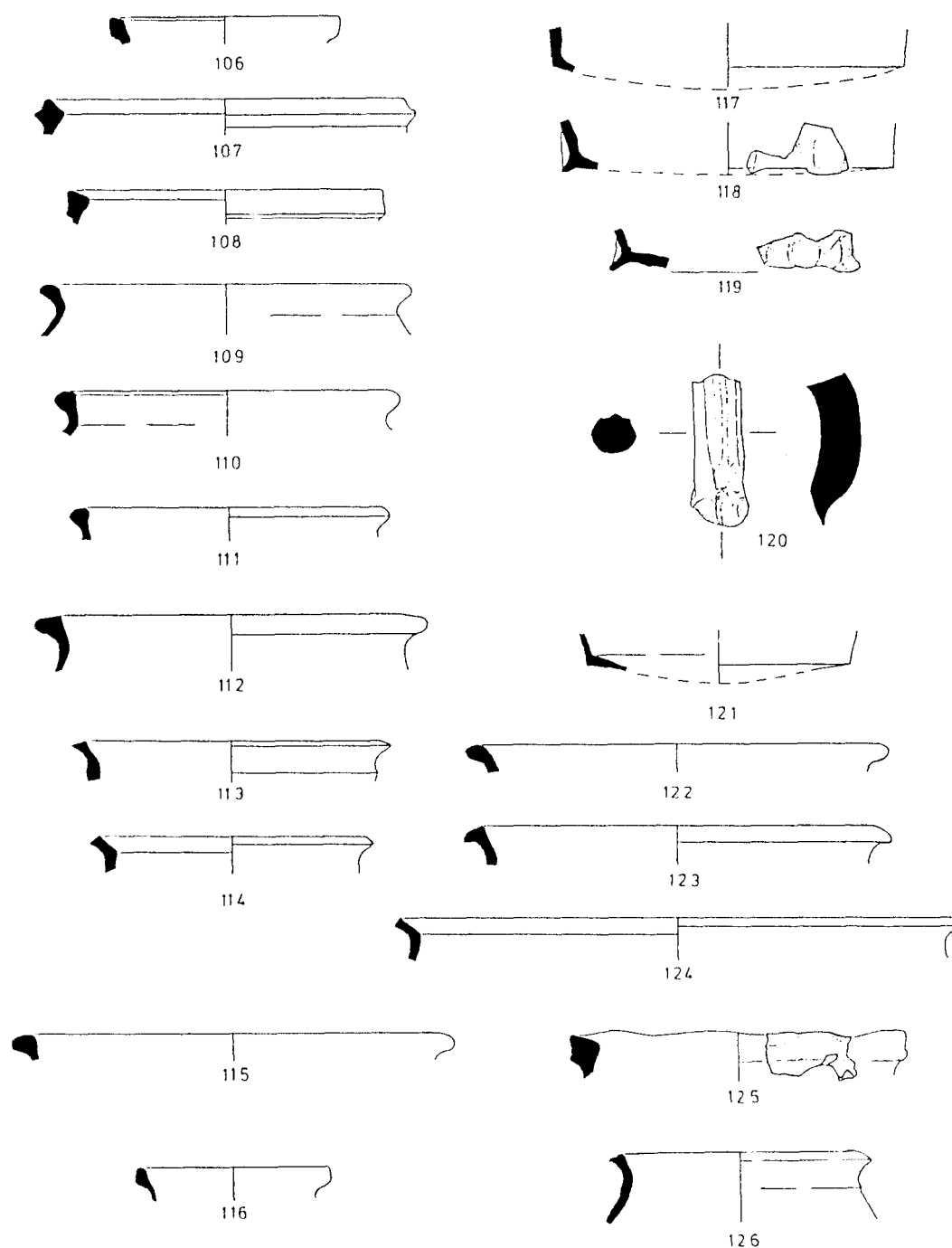
- | | |
|---|---|
| <p>69 Jug rim and spout.
FC84 Context 21; Phase 1</p> <p>70 Jug rim.
FC84 Context 26; Phase 1</p> <p>71 Jug rim and handle.
FC84 Context 26; Phase 1</p> <p>72 Jug rim.
FC85 Context 57; Phase 1</p> <p>73 Facemask.
FC85 Context 32; Phase 1</p> | <p>74 Jug base.
FC84 Context 21; Phase 1</p> <p>75 Jug base with thumb mark.
FC84 Context 21; Phase 1</p> <p>76 Thumbed jug base.
FC84 Context 26; Phase 1</p> <p>77 Tripod leg.
FC84 Context 21; Phase 1</p> <p>78 Cooking pot rim.
FC84 Context 13; Phase 2</p> |
|---|---|



Illus 55 Wester Kelso/Floors Castle Trench 3: 91–105 White Gritty Ware

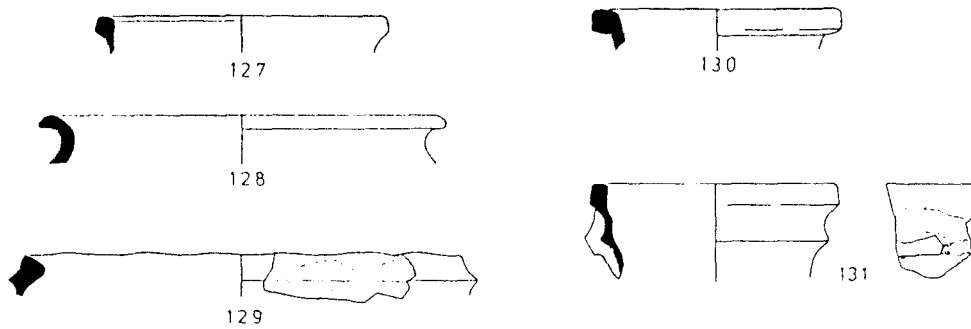
- 79 Cooking pot rim.
FC84 Context 13; Phase 2
- 80 Cooking pot rim.
FC84 Context 13; Phase 2
- 81 Cooking pot rim.
FC84 Context 13; Phase 2
- 82 Frilled rim.
FC84 Context 13; Phase 2
- 83 Cooking pot rim.
FC84 Context 25; Phase 2

- 84 Cooking pot rim.
FC84 Context 25; Phase 2
- 85 Cooking pot rim.
FC84 Context 25; Phase 2
- 86 Cooking pot rim.
FC84 Context 25; Phase 2
- 87 Jug rim.
FC84 Context 13; Phase 2
- 88 Jug rim.
FC84 Context 25; Phase 2



Illus 56 Wester Kelso/Floors Castle Trench 3: 106–126 White Gritty Ware

- | | |
|---|--|
| 89 Jug rim.
FC84 Context 25; Phase 2 | 95 Rod handle.
FC84 Context 13; Phase 2 |
| 90 Jug rim.
FC84 Context 25; Phase 2 | 96 Strap handle.
FC84 Context 13; Phase 2 |
| 91 Jug lid.
FC84 Context 13; Phase 2 | 97 Strap handle.
FC84 Context 13; Phase 2 |
| 92 Facemask fragment.
FC84 Context 13; Phase 2 | 98 Jug base.
FC84 Context 13; Phase 2 |
| 93 Rod handle.
FC84 Context 13; Phase 2 | 99 Jug base.
FC84 Context 13; Phase 2 |
| 94 Rod handle.
FC84 Context 13; Phase 2 | 100 Jug base.
FC84 Context 13; Phase 2 |



Illus 57 Wester Kelso/Floors Castle Trench 3: 127–131 White Gritty Ware

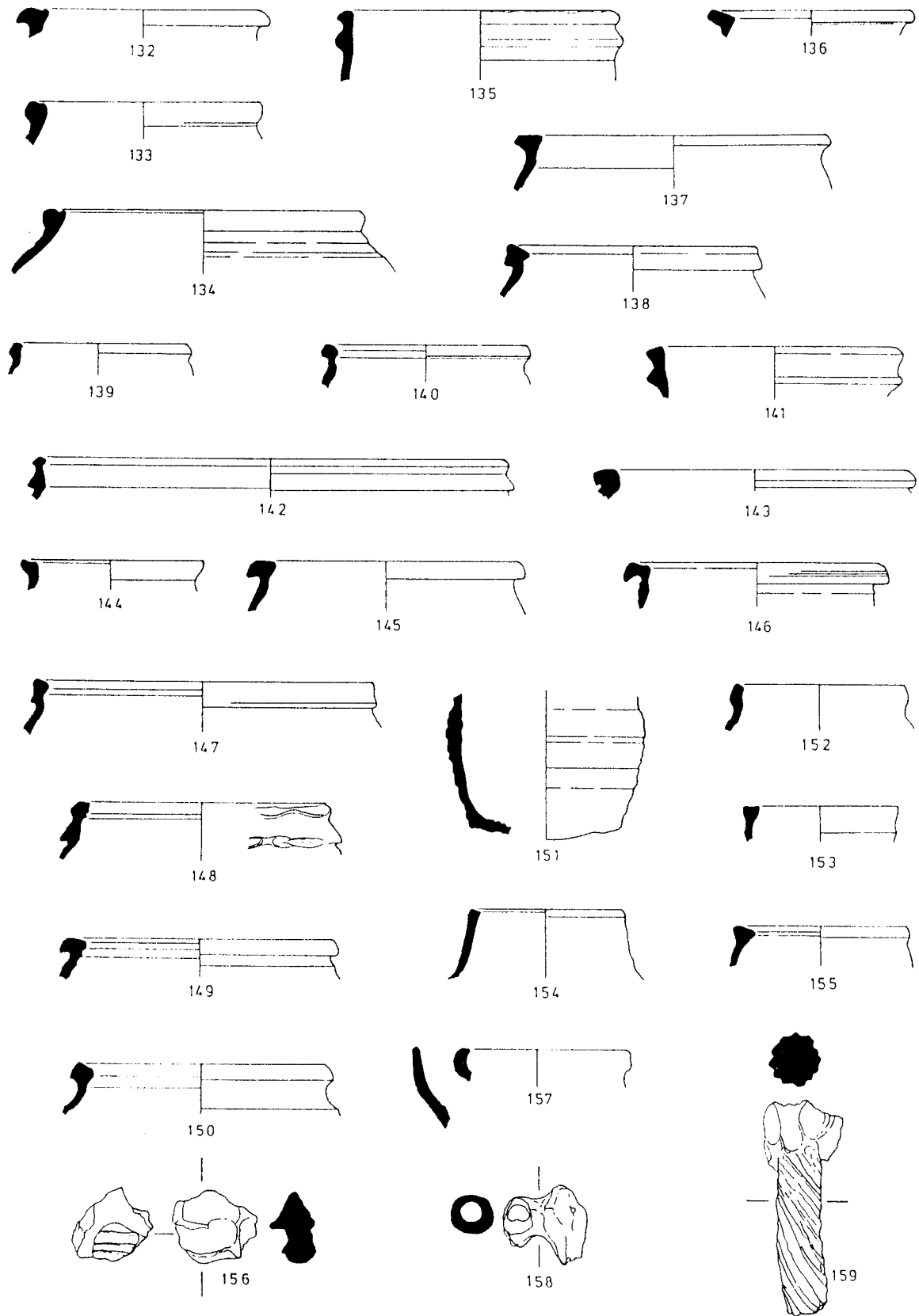
- 101 Jug base.
FC84 Context 13; Phase 2
- 102 Jug base.
FC84 Context 13; Phase 2
- 103 Jug base.
FC84 Context 25; Phase 2
- 104 Jug base.
FC84 Context 25; Phase 2
- 105 Thumbed jug base sherd with kiln scar.
FC84 Context 25; Phase 2
- 106 Cooking pot rim.
FC84 Context 8; Phase 3
- 107 Cooking pot rim.
FC84 Context 8; Phase 3
- 108 Cooking pot rim.
FC84 Context 8; Phase 3
- 109 Cooking pot rim.
FC84 Context 8; Phase 3
- 110 Cooking pot rim.
FC84 Context 13; Phase 3
- 111 Cooking pot rim.
FC84 Context 13; Phase 3
- 112 Cooking pot rim.
FC84 Context 13; Phase 3
- 113 Cooking pot rim.
FC84 Context 14; Phase 3
- 114 Cooking pot rim.
FC84 Context 14; Phase 3
- 115 Cooking pot rim.
FC84 Context 14; Phase 3
- 116 Jug rim.
FC84 Context 13; Phase 3
- 117 Jug base.
FC84 Context 8; Phase 3
- 118 Frilled jug base.
C84 Context 8; Phase 3
- 119 Frilled jug base.
FC84 Context 8; Phase 3
- 120 Rod handle.
FC84 Context 8; Phase 3
- 121 Jug base.
FC84 Context 8; Phase 3
- 122 Cooking pot rim.
FC84 Context 3; Phase 4
- 123 Cooking pot rim.
FC84 Context 3; Phase 4

- 124 Cooking pot rim.
FC84 Context 3; Phase 4
- 125 Frilled rim.
FC84 Context 3; Phase 4
- 126 Cooking pot rim.
FC84 Context 6; Phase 4
- 127 Cooking pot rim.
FC84 Context 6; Phase 4
- 128 Cooking pot rim.
FC84 Context 6; Phase 4
- 129 Frilled rim.
FC84 Context 6; Phase 4
- 130 Jug rim.
FC84 Context 3; Phase 4
- 131 Jug rim and handle junction.
FC84 Context 6; Phase 4

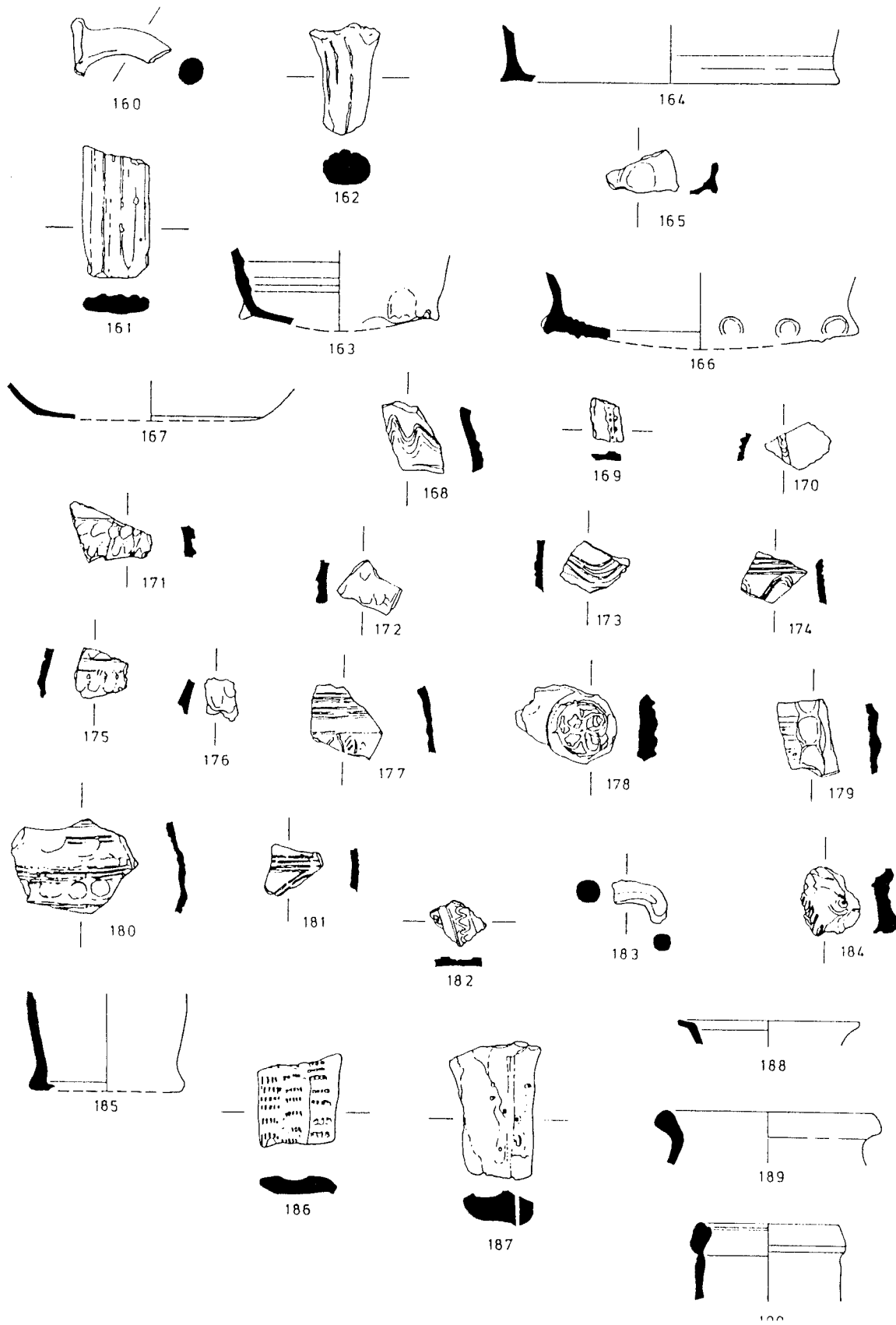
Bridgewater, Peebles

White Gritty Ware (illus 58 and 59)

- 132 Cooking pot rim.
PB86 Context 167; Phase 2
- 133 Cooking pot rim.
PB86 Context 191; Phase 2
- 134 Cooking pot rim.
B86 Context 191; Phase 2
- 135 Cooking pot rim with pronounced ridge and slight thumbing.
PB86 Context 191; Phase 2
- 136 Cooking pot rim.
PB86 Context 362; Phase 2
- 137 Cooking pot rim.
PB86 Context 362; Phase 2
- 138 Cooking pot rim.
PB86 Context 362; Phase 2
- 139 Cooking pot rim.
PB86 Context 389; Phase 2
- 140 Cooking pot rim.
PB87 Context 421; Phase 2
- 141 Cooking pot rim with pronounced ridge.
PB86 Context 361; Phase 2b
- 142 Cooking pot rim with pronounced ridge.
PB86 Context 361; Phase 2b

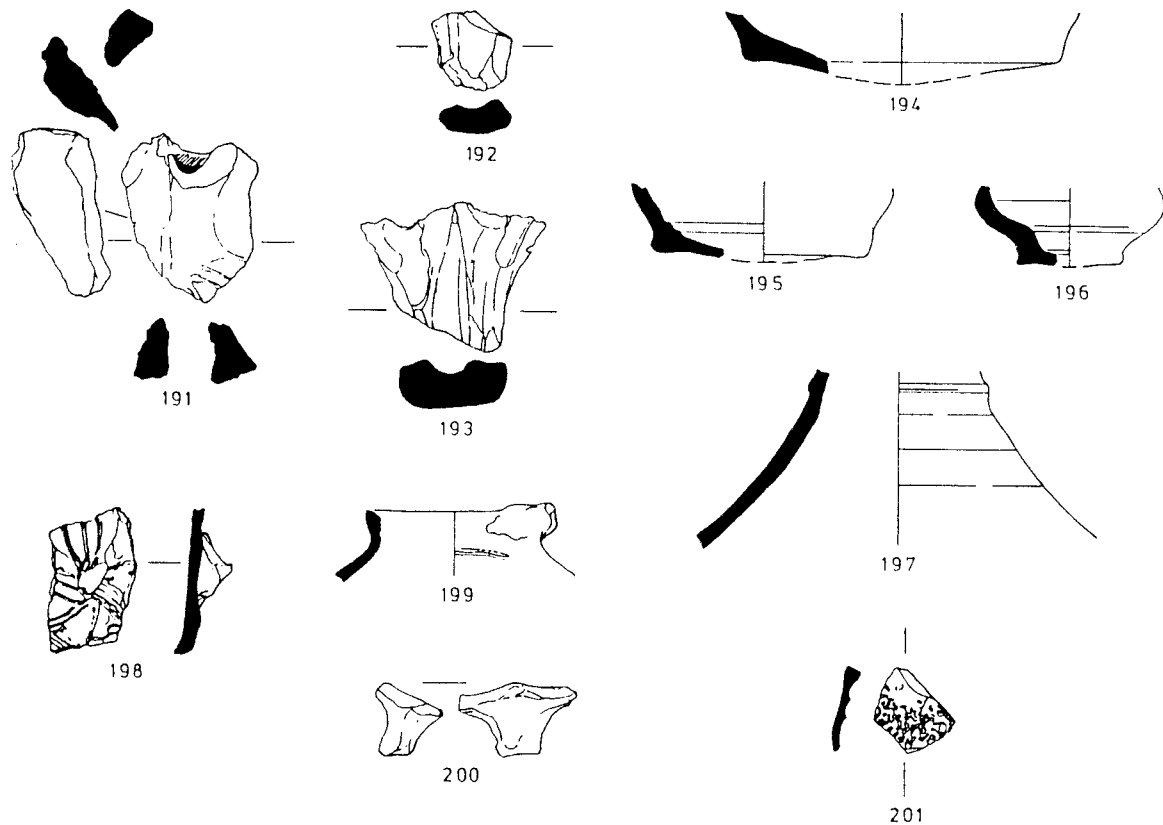


Illus 58 Bridgegate, Peebles: 132–159 White Gritty Ware



Illus 59 Bridgegate, Peebles: 160–184 White Gritty Ware; 185–187 White Gritty Ware; 188–190 White Gritty Reduced Ware

- 143 Cooking pot rim.
PB86 Context 361; Phase 2b
- 144 Cooking pot rim.
PB86 Context 171; Phase 3
- 145 Cooking pot rim.
PB86 Context 210; Phase 3
- 146 Cooking pot rim.
PB86 Context 149; Phase 3
- 147 Cooking pot rim.
PB86 Context 165; Phase 4
- 148 Cooking pot rim with pronounced ridge.
Context 001; Phase 5
- 149 Cooking pot rim.
PB86 Context 001; Phase 5
- 150 Cooking pot rim.
PB86 Context 001; Phase 5
- 151 Base and side wall from cooking pot.
PB86 Context 363; Phase 2
- 152 Jug rim externally glazed brown.
PB86 Context 389; Phase 2
- 153 Jug rim externally glazed light green.
PB86 Context 389; Phase 2
- 154 Jug rim externally glazed green.
PB86 Context 369; Phase 3a
- 155 Unglazed jug rim.
PB86 Context 149; Phase 4
- 156 Bridge spout from jug with fragment of applied decoration; externally glazed green brown.
PB86 Context 167; Phase 2
- 157 Bridge spout from jug externally glazed light green brown.
PB86 Context 171; Phase 3
- 158 Tubular spout from jug externally glazed light green.
PB86 Context 001; Phase 5
- 159 Twisted rod handle from jug externally glazed green brown.
PB86 Context 167; Phase 2
- 160 Rim and small rod handle from jug externally glazed yellow.
PB86 Context 363; Phase 2
- 161 Strap handle from jug externally glazed green brown.
PB86 Context 001; Phase 5
- 162 Rod handle from jug externally glazed green on a purple wash.
PB86 Context 001; Phase 5
- 163 Base sherd from jug with single thumbmark externally glazed yellow green.
PB86 Context 363; Phase 2
- 164 Base sherd from jug.
PB86 Context 381; Phase 2A
- 165 Frilled base sherd from jug externally glazed green.
PB86 Context 342; Phase 3
- 166 Frilled base sherd from jug externally glazed green with kiln stacking mark on base.
PB86 Context 059; Phase 4
- 167 Base sherd from bowl internally and externally glazed light green brown.
PB86 Context 362; Phase 2
- 168 Bodysherd from jug decorated with wavy lines externally glazed green.
PB86 Context 362; Phase 2
- 169 Bodysherd from jug decorated with applied notched strip.
PB86 Context 362; Phase 2
- 170 Bodysherd from jug decorated with applied notched strip externally glazed brown.
PB86 Context 363; Phase 2
- 171 Bodysherd decorated with applied scales and raised strip externally glazed green.
PB86 Context 363; Phase 2
- 172 Bodysherd decorated with applied scales externally glazed yellow green.
PB86 Context 389; Phase 2
- 173 Bodysherd decorated with incised lines externally glazed green.
PB86 Context 098; Phase 2A
- 174 Bodysherd decorated with incised lines externally glazed green.
PB86 Context 374; Phase 2A
- 175 Bodysherd decorated with applied scales externally glazed brown with green streaks.
PB86 Context 361; Phase 2b
- 176 Bodysherd decorated with applied scales externally glazed green.
PB86 Context 249; Phase 3
- 177 Bodysherd decorated with incised lines externally glazed green brown.
PB86 Context 369; Phase 3a
- 178 Bodysherd decorated with floral stamp externally glazed green.
PB86 Context 059; Phase 4
- 179 Bodysherd externally glazed light green with applied thumbed strip glazed brown.
PB86 Context 059; Phase 4
- 180 Bodysherd decorated with incised lines and fingermarks externally glazed green brown.
PB86 Context 059; Phase 4
- 181 Bodysherd decorated with incised lines externally glazed green.
PB86 Context 001; Phase 5
- 182 Bodysherd decorated with incised lines externally glazed green brown.
PB86 Context 001; Phase 5
- 183 Fragment of decorative arm externally glazed green.
PB86 Context 211; Phase 2A
- 184 Fragment from facemask externally glazed green brown.
PB86 Context 001; Phase 5
- White Gritty Ware (*illus 59*)**
- 185 Base sherd from jug.
PB86 Context 059; Phase 4
- 186 Strap handle externally glazed green brown and decorated with stabbed comb marks.
PB86 Context 374; Phase 2A
- 187 Strap handle from jug with stabbed holes externally glazed dark green brown.
PB86 Context 059; Phase 4



Illus 60 Bridgegate, Peebles: 191–198 White Gritty Reduced Ware; 199 East Coast Redware; 200 Low Countries Redware; 201 Rhenish Stoneware

White Gritty Reduced Ware (*illus 59 and 60*)

- 188 Rimsherd from jug internally and externally glazed green.
PB86 Context 227; Phase 2
- 189 Rimsherd from jug externally glazed dark green.
PB86 Context 325; Phase 2A
- 190 Rimsherd from jug externally glazed dark green brown.
PB86 Context 213; Phase 3
- 191 Bridge spout from jug externally glazed dark green.
PB86 Context 191; Phase 2
- 192 Skillet handle externally glazed dark green.
PB86 Context 122; Phase 3
- 193 Strap handle junction externally glazed green brown.
PB86 Context 318; Phase 3
- 194 Base sherd from jug externally glazed green.
PB86 Context 374; Phase 2A
- 195 Base sherd from jug externally glazed dark green.
PB86 Context 125; Phase 3
- 196 Base sherd from small, squat vessel externally glazed green.
PB86 Context 059; Phase 4
- 197 Neck and upper body from jug externally glazed

dark green.

PB86 Context 370; Phase 3

- 198 Bodysherd decorated with incised lines externally glazed dark green with fragment of applied arm.
PB86 Context 001; Phase 5

East Coast Redware (*illus 60*)

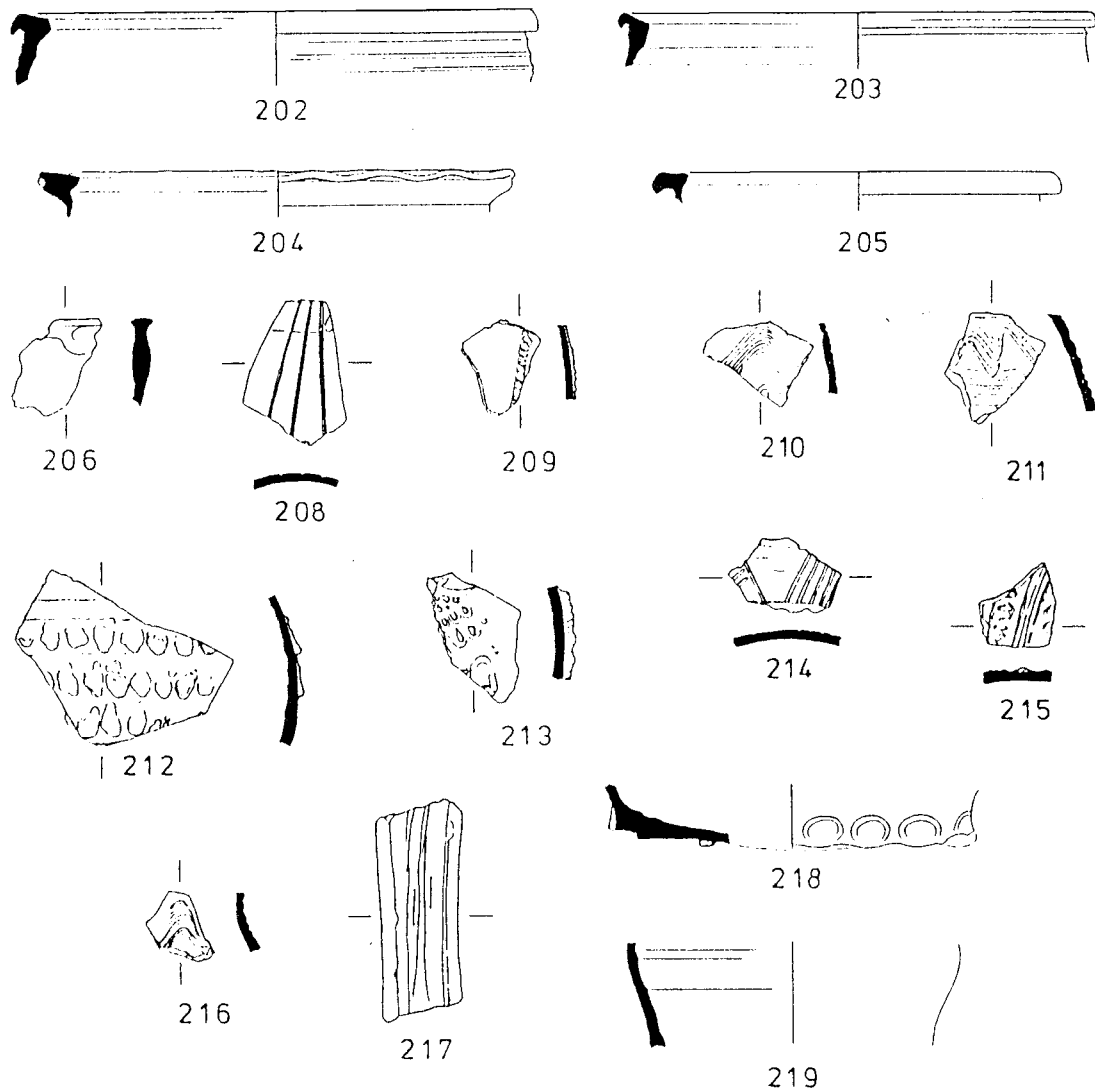
- 199 Rimsherd and handle junction from jug externally glazed green on a purple brown wash.
PB86 Context 367; Phase 3

Low Countries Redware (*illus 60*)

- 200 Base sherd and leg from tripod pipkin internally glazed dark green.
PB86 Context 059; Phase 4

Rhenish Stoneware (*illus 60*)

- 201 Bodysherd from *Bartmann* jug in Frechen Stoneware with external mottled brown 'tiger' salt glaze.
PB86 Context 271; Phase 3



Illus 61 Cuddyside, Peebles: 202–206 White Gritty Ware; 208–212 White Gritty Ware; 213–219 White Gritty Reduced Ware

Cuddyside, Peebles

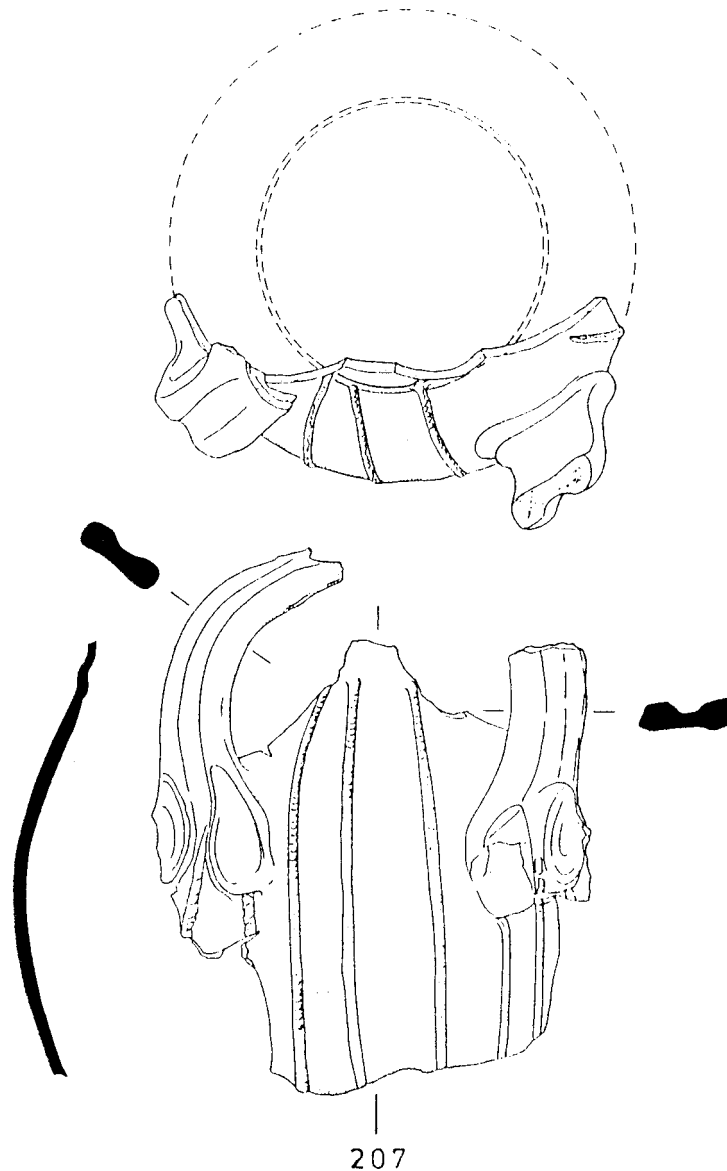
White Gritty Ware (*illus 61 and 62*)

- 202 Rimsherd from a cooking pot.
PB05 Context 8
- 203 Rimsherd from a cooking pot with patches of light green glaze.
PB05 Context 19
- 204 Frilled rimsherd from a cooking pot.
PB05 Context 12
- 205 Rimsherd from a jug with patches of green brown glaze.
PB05 Context 8
- 206 Bridge spout from a jug with traces of green glaze.
PB05 Context 8
- 207 Bodysherds from a three handled jug glazed brown decorated with applied notched strips glazed dark brown.
PB05 Contexts 8, 40, 41, 42, 43

- 208 Bodysherd from a jug glazed light green and decorated with vertical incised lines.
PB05 Context 8
- 209 Bodysherd from a jug glazed green brown and decorated with applied notched strip glazed dark brown.
PB05 Context 8
- 210 Bodysherd from jug glazed green with incised lines.
PB05 Context 41 (13)
- 211 Bodysherd from jug glazed green with applied strip glazed brown and incised decoration.
PB05 Context 41 (14)
- 212 Bodysherd from jug glazed green brown with incised wavy lines.
PB05 Context 41 (15)

White Gritty Reduced Ware (*illus 61*)

- 213 Bodysherd from a jug glazed green decorated



Illus 62 Cuddyside, Peebles: 207 White Gritty Ware

- | | | |
|-----|---|---|
| | with incised wavy lines.
PB05 Context 8 (9) | applied pellet glazed green brown.
PB05 Context 40 (12) |
| 214 | Bodysherd from jug glazed green with incised wavy lines.
PB05 Context 8 (10) | 217 Strap handle glazed green with vertical strips.
PB05 Context 8 |
| 215 | Bodysherds from jug glazed green brown with applied decorative scales glazed brown.
PB05 Context 40 (11) | 218 Thumbed base from jug glazed dark green.
PB05 Context 19 |
| 216 | Bodysherd from jug glazed green brown with | 219 Frilled base from jug glazed green brown.
PB05 Context 32 |

The artefacts

Artefacts from the excavations are described and discussed below. For each burgh, the artefacts report begins with brief summaries of the assemblages from each excavation. Following this is a select catalogue of the artefacts, organised by material and artefact type. Finds from the Kelso excavations are discussed together, whereas finds from Bridgegate and Cuddyside are discussed separately.

Within the catalogue, measurements are expressed to the nearest 1 mm, except where they are less than this, when they are generally expressed to the nearest 0.1 mm. Clay pipe stem bore diameters are expressed to the nearest 0.05 mm.

Artefacts from Kelso (illus 63 and 64) by A Cox

with contributions on the lithics by C Wickham-Jones
and on clay pipes by D Gallagher

Assemblage summaries

Roxburgh Street

The assemblage from this site contains a range of post-medieval costume fittings including three buckles, one with part of a leather strap attached to it (Catalogue No 3), a group of buttons and a gold ring (No 11). Iron artefacts from the excavation include an almost complete knife, its scales probably derived from red deer antler (No 20). Window and vessel glass and ceramic pantile fragments were also recovered.

Chalkheugh Terrace

The artefactual evidence from Chalkheugh Terrace mainly relates to the later phases identified at the site (Phases 2 and 3). Most notable is a group of bone buttons and a button backing disc. Two of the buttons (Catalogue Nos 26 and 28) came from Phase 2, but the remainder are from Phase 3, from deposits associated with the demolition (between 1859 and 1897, according to map evidence) of a house on the site.

Valuation rolls record that a tailor (J Cunningham) lived at No 56 Roxburgh Street from 1879 to 1882 and that a dress maker (J Davidson) lived at Nos 52–4 from 1891 to 1894. It is conceivable that the activities of these people were connected with the presence of numbers of buttons (and a copper alloy pin, No 10) at the site in its later phases, but this relies at least on the assumption that these people practised their trades in their homes rather than elsewhere. Other artefacts

from the excavation include an iron fork (No 19), a ceramic wig curler (No 41), clay pipes, and a quantity of 19th-century bottle glass.

Wester Kelso/Floors Castle

These excavations produced fewer finds than the other two Kelso sites. Notable among the assemblage are a copper alloy finger ring (Catalogue No 12), and tweezers (No 14), both from Phase 4, and a group of lithics derived from prehistoric activity in the area. An assemblage of clay pipes is also discussed (Nos 42–9).

Within the catalogue below, accession numbers prefixed by 'KEL' are those assigned by Roxburgh District Museum Service. Other accession numbers were assigned during initial post-excavation.

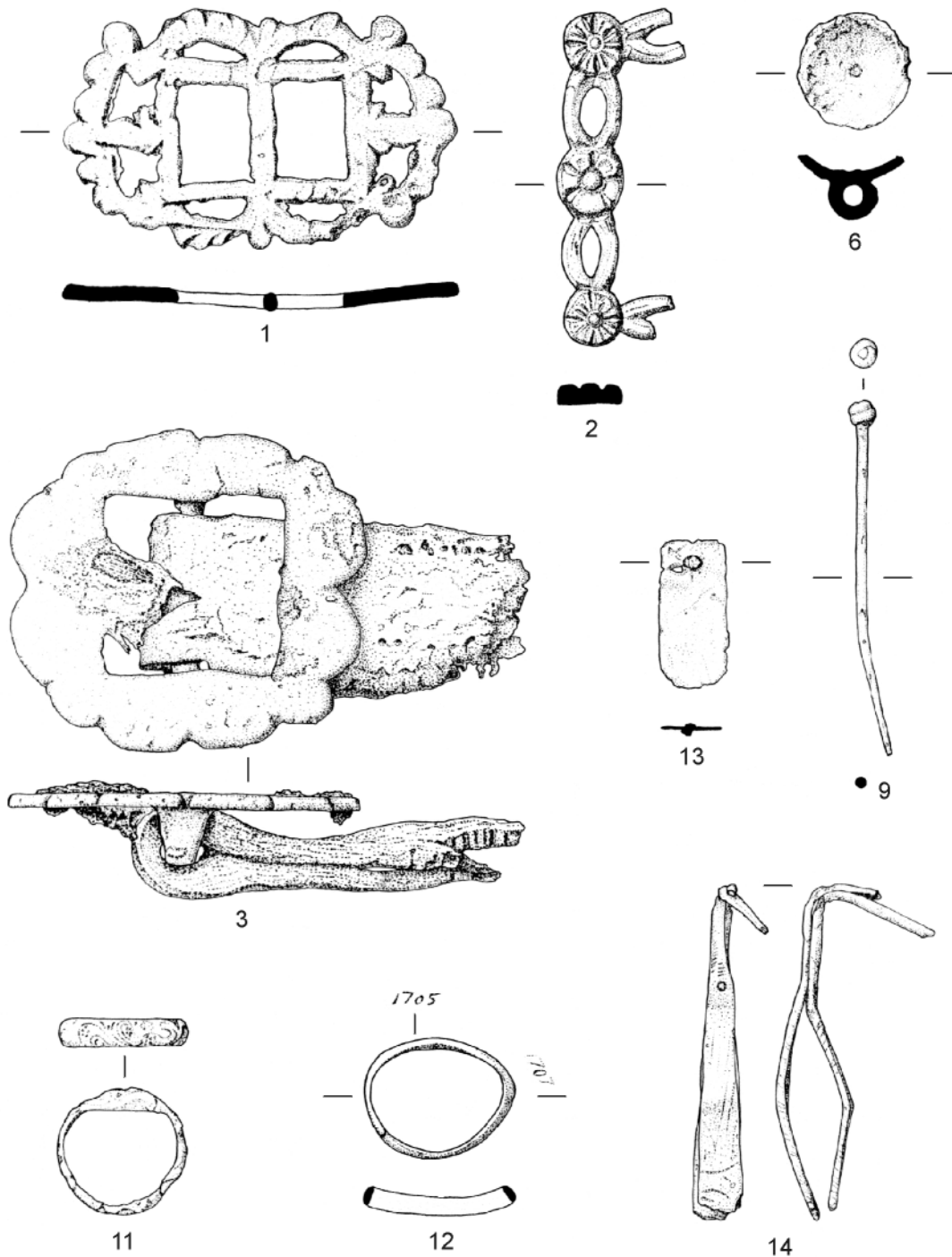
Copper alloy and gold objects

Artefacts of copper alloy include costume fittings, pins and tweezers. A gold ring (No 11) was also recovered, and this has been described together with the single copper alloy ring from the excavations.

A decorative, rectangular buckle with a complex openwork frame (No 1) was found in a levelling deposit at Roxburgh Street. Buckles of this general type date from the 17th century and were manufactured in a range of sizes. While smaller examples may have functioned as spur buckles, larger ones may have been used to secure girdles. Openwork buckles like this one often appear poorly finished, possibly because filing down the rough edges of each of the small apertures in the frame would have required a considerable investment of time and effort.

A buckle frame fragment found on a cobbled floor at Roxburgh Street (No 2) includes decorated, circular knops or bosses at various points around its rectangular frame. This type of decoration is consistent with an 18th-century date. Probably of 19th-century date, No 3 has a short length of leather belt attached.

- 1 **Buckle.** Length 58 mm; max width 36 mm; thickness 3 mm
Cast, double-looped, openwork buckle with an elaborate, lobate border surrounding a rectangular inner frame. The pin is missing. Crudely finished. Corroded.
Roxburgh Street; Context 1082; Phase 5
- 2 **Buckle frame.** Length 50 mm; width 18 mm; thickness 2 mm
Part of buckle frame with decorated circular knops or bosses at the corners and in the centre of one side, linked by openwork loops. The rear face is



Illus 63 Artefacts from Kelso: Copper Alloy and Gold: Nos 1–14, Scale 1:1

undecorated.

Roxburgh Street; Context 356; Accession No 436;
Phase 5

- 3 **Buckle with strap.** Buckle: Length 52 mm; width 46 mm; max thickness 9 mm. Strap: Length 53 mm; width 24 mm; thickness 4 mm
Buckle of sub-rectangular, lobate outline, with a recessed, central pin bar. A short length of leather belt or strap survives *in situ*, looped around the pin bar and stitched along both edges to form a double thickness. Part of the iron buckle pin also survives, although it is heavily corroded. Unconserved.

Roxburgh Street; Context 34; Accession No 218;
Phase 8

Several buttons were found at Roxburgh Street. Three buttons with plain, circular faces (including Nos 4 and 5) were found together in Phase 8 and are of 18th- or 19th-century date. Two of these (including No 4) have their eyes set within circular bosses, whereas in No 5 the eye appears to have been soldered onto the back of the button and is not enclosed by a boss. No 8 is of similar construction. Some of these buttons may have been cloth-covered. No 6 represents a component of a

two-piece button, the face of which is missing. File marks are visible on the back of this example, around the eye. A smaller and more modern type of button (No 7) was found in an extensive demolition or levelling deposit.

- 4 **Button.** Diameter 33 mm; thickness 9 mm
Button with a plain, circular face and a circular eye set within a boss. (Not illustrated)
Roxburgh Street; Context 79; Accession No 381a; Phase 8
- 5 **Button.** Diameter 27 mm; thickness 9 mm
Button with a plain, circular face and a circular eye. One part of the edge has broken away. (Not illustrated)
Roxburgh Street; Context 79; Accession No 381b; Phase 8
- 6 **Button.** Diameter 17 mm; thickness 9 mm
Concavo-convex component representing the back of a two-piece button, with a circular eye.
Roxburgh Street; Context 157; Accession No 81; Phase 8
- 7 **Button.** Diameter 14 mm; thickness 3 mm
Circular button with a broad, flat rim and a concave, recessed central area with four circular holes. The rim bears the legend 'BEST·RING·EDGE' and is painted black. (Not illustrated)
Roxburgh Street; Context 22; Accession No 195; Phase 8
- 8 **Button.** Diameter 20 mm; thickness 9 mm
Button with a plain, circular face and a circular eye. Corroded. (Not illustrated)
Roxburgh Street; Context 170; Accession No 395; Phase 8

Pins are common finds on medieval and post-medieval sites. Two types are represented here. No **9**, from Roxburgh Street, has its head formed by a coil of wire wound tightly around the top of the shaft. This example also bears linear scars on its shaft, formed during the wire-drawing process. Numbers of pins of this type have been recovered from urban excavations in Scotland, for example in Paisley and Perth (Cox 1996, 57), and an example was found in a 15th- to 16th-century phase of occupation at Kelso Abbey (Tabraham 1984, 13, Illus 10, No 11).

The largest of three similar pins from Chalkheugh Terrace, No **10** has a conical head made in one piece with the shaft. Pins of this type first appeared in the 19th century, when the manufacture of pins became fully automated (Tylecote 1972).

- 9 **Pin.** Length 51 mm; width of head 3 mm; diameter of shaft 1 mm
Pin with a roughly spherical head formed by a coil of wire. The circular cross-sectioned shaft is slightly bent and the point is missing.
Roxburgh Street; Context 330; Accession No KEL 825; Phase 5
- 10 **Pin.** Length 30 mm; width of head 2 mm; diameter of shaft 1 mm
Pin with a head of conical form and a bent, circular

cross-sectioned shaft. (Not illustrated)
Chalkheugh Terrace; Context 33; Phase 2

A gold ring with a decorative enamel coating on its exterior surface (No **11**) came from Phase 5 at Roxburgh Street. The enamel applied to the surface appears to occupy the recessed areas within a repeating pattern of foliate motifs. While predominantly a milky white colour, it also contains streaks of red and of blue or black coloration. The surface of the ring exhibits moderate wear, the enamel coating having worn away on parts of the surface, exposing the gold underneath. The context of this find indicates a 17th- or 18th-century date, although the possibility of an earlier date cannot be discounted.

Deposits sealing the Phase 3 activity at Wester Kelso/Floors Castle Trench 3 produced a copper alloy ring of early 18th-century date (No **12**). The outer surface of this ring is plain but two dates (1705 and 1707) have been inscribed onto the interior surface. A break in the ring had been carefully repaired.

- 11 **Ring.** External diameter *c* 19 mm; internal diameter *c* 16 mm; width of loop 4 mm
Gold finger ring with a loop of shallow D-shaped cross-section, decorated on the external surface with a stylised foliate pattern in relief. A decorative enamel coating has been applied to the external surface, occupying the recessed areas in the pattern. The enamel is predominantly of milky white coloration, with streaks of red and of blue or black enhancing the overall decorative pattern. Part of the loop is distorted.
Roxburgh Street; Context 344; Accession No KEL 793; Phase 5
- 12 **Ring.** External diameter *c* 19 mm; internal diameter *c* 17 mm; width of loop 3 mm
Finger ring of shallow D-shaped cross-section, distorted from its original circular outline. Inscribed on the inside of the loop are two dates, 1705 and 1707. Possibly a third date or other inscription has been worn down to the extent that it is illegible. The loop exhibits evidence of having been repaired.
Wester Kelso/Floors Castle Trench 3; Context 6; Accession No KEL 785; Phase 4

From Phase 3 at Wester Kelso/Floors Castle Trench 3, No **13** possibly represents part of a buckle or strap end plate. Also from this site, an incomplete pair of tweezers (No **14**) was recovered from a 19th-century gravel path, although this find is of medieval or early post-medieval date. It was probably incorporated in medieval midden material used in soil improvement and landscaping on the site in the 19th century. The tweezers were probably made from a single strip, folded into two. The two halves were then secured by a small copper alloy rivet at the junction of the arms.

- 13 **Riveted** plate. Length 21 mm; width 10 mm; thickness (including rivet) 2 mm
Rectangular plate with corners removed at one

end. A circular cross-sectioned rivet occupies a perforation near to the opposite end.

Wester Kelso/Floors Castle Trench 3; Context 8; Phase 3

- 14 **Tweezers.** Length 48 mm; max width of arms 7 mm

Tweezers with tapering, rectangular cross-sectioned arms and a slender shank, now distorted and broken. The arms bear linear scratches but are otherwise plain. Their edges have been filed. A small, circular copper alloy rivet secures the two sides of the tweezers at the junction of the arms.

Wester Kelso/Floors Castle Trench 3; Context 3; Phase 4

Lead alloy objects

No 15, from Roxburgh Street, is a rather crudely executed openwork mount which was possibly used to decorate a wooden or leather surface. Nos 16 and 17, both also from Roxburgh Street, represent evidence of lead-working on the site in its later phases, possibly associated with building construction or repair.

- 15 **Mount.** Height 33 mm; width 38 mm; thickness 3 mm

Openwork mount in the shape of a crown, surmounted by a cross at the apex. There is an irregularly-shaped, central perforation for a fixing nail. The object is now curved, but this probably represents accidental distortion. (Not illustrated) Roxburgh Street; Context 346; Accession No KEL 831; Phase 5

- 16 **Offcuts.** Largest: Length 139 mm; width 12 mm; thickness 2 mm

Two narrow offcuts, cut along both sides. The larger example tapers and bears transverse, linear scars from knife-trimming. Both offcuts are curled over at one end. (Not illustrated) Roxburgh Street; Context 167; Accession No 137; Phase 8

- 17 **Waste.** Larger fragment: Length 53 mm; width 31 mm; thickness 7 mm

Two irregularly-shaped pieces of once-molten waste. (Not illustrated) Roxburgh Street; Context 391; Accession No 424; Phase 6

Iron objects

A quantity of recent ironwork was recovered from these excavations, particularly from extensive garden soil and demolition deposits at the Roxburgh Street site. The artefacts recovered include rods, bars, straps (some perforated), drain pipe fragments, nails and other miscellaneous fragments. Most of the objects are heavily corroded. A selection of the earliest and most diagnostic finds is described below.

An axe head, found in demolition rubble overlying

the western end of Building C in Phase 6 at Roxburgh Street (No 18), has shallow lugs and a roughly oval eye. It is probably of late 18th- or early 19th-century date. The shape of axe heads varies according to the axe's function, although over the last two centuries there has been a decline in the number of specialised and regional variants. This particular example corresponds to the type known as a Kent axe (or broad hatchet), which is a general purpose type, used particularly for the rough shaping of wood. Recent examples have been provided with hickory handles.

Found at Chalkheugh Terrace, No 19 is a small, four-tined fork of 18th- or 19th-century date. The iron component is heavily corroded, and corrosion of the tang has caused a lengthwise split in the bone handle.

A scale-tang knife, possibly of late 17th- or 18th-century date, with a handle probably derived from red deer antler (No 20), came from Roxburgh Street. The incised cross-hatching on both scales probably served both a decorative and functional purpose, assisting the user's grip on the handle. Evidence of the former presence of an end-plate or finial, probably of non-ferrous metal, survives in the form of two iron rivets or pins, projecting from the handle terminal. Knife fragments of earlier date were recovered during excavations at Kelso Abbey (Tabraham 1984, 380, Illus 10, Nos 9, 33, 45 and 58).

Part of the casing from a plate lock, enclosing the remains of the bolt (No 21) was found at Roxburgh Street.

Species identifications of the bone and antler components of Nos 19 and 20 are by C Smith.

- 18 **Axe head.** Length 255 mm; max width of blade 135 mm; thickness 48 mm

Axe head with a roughly oval eye. Heavily corroded, and much surface detail, particularly on the bit, has been lost through lamination. (Not illustrated)

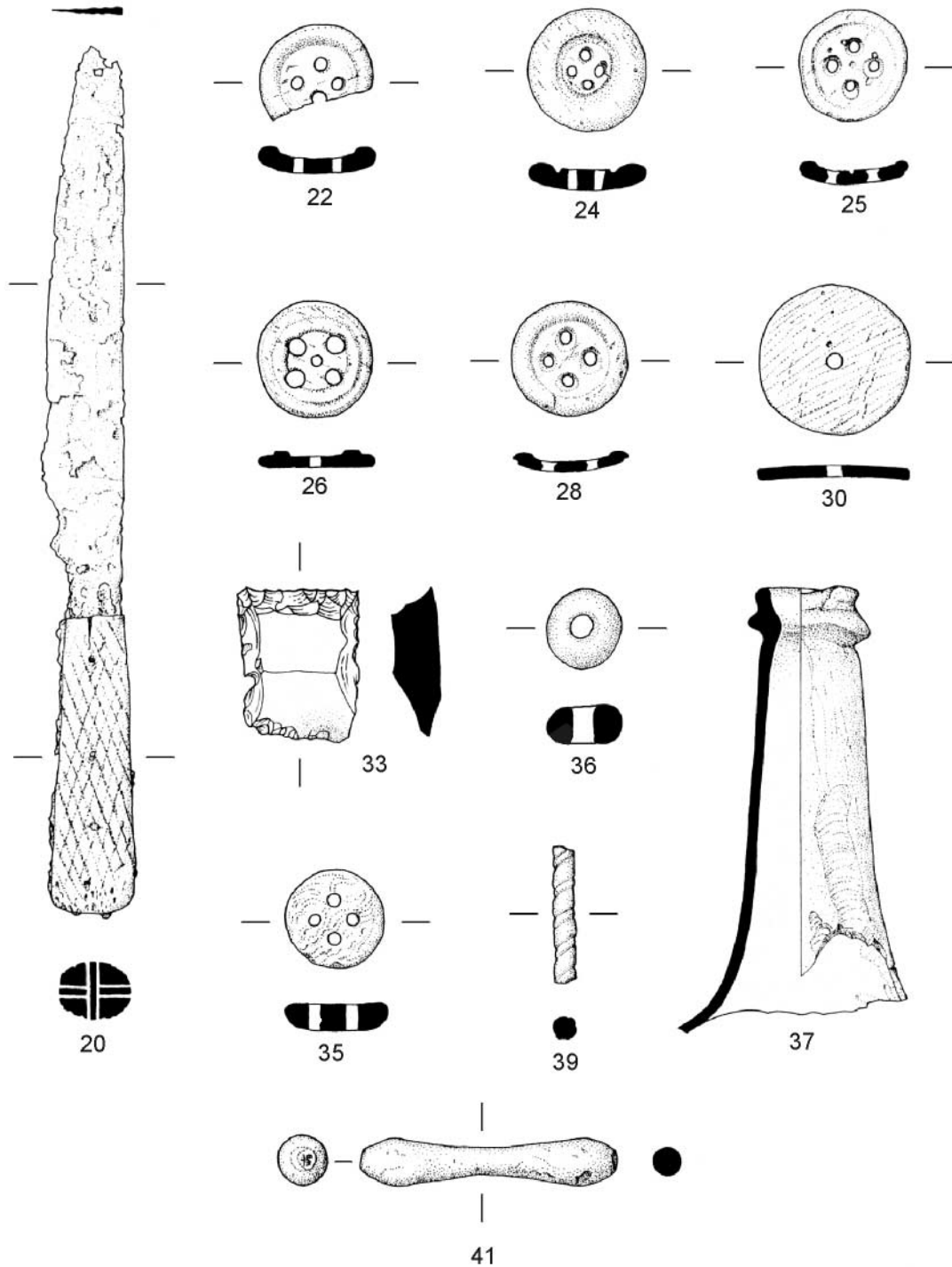
Roxburgh Street; Context 39B; Accession No 209; Phase 6

- 19 **Fork.** Length 139 mm; max width 17 mm; max thickness 14 mm

Heavily corroded four-tined fork with a whittle tang, inserted into a plain handle of tapering, sub-rectangular cross-section, derived from a large ungulate long bone shaft. (Not illustrated) Chalkheugh Terrace; Context 26; Phase 2

- 20 **Knife.** Length 253 mm; max width of blade 24 mm; max width of handle 25 mm; max thickness 20 mm

Scale-tang knife. The blade is straight-backed and the edge curves steadily upwards towards the missing tip. The tapering scales, probably derived from red deer antler, are secured to the tang by three iron rivets and are decorated by an incised pattern of diagonal cross-hatching. Two further rivets or pins projecting from the end of the handle indicate the former presence of an end plate or finial. The blade is heavily corroded. Unconserved. Roxburgh Street; Context 22; Accession No 133; Phase 8



Illus 64 Artefacts from Kelso: Iron, Bone, Flint, Shell and Glass: Nos 20, 37, 39 & 41 Scale 1:2; Nos 22, 24-26, 28, 30, 33, 35 & 36 Scale 1:1

21 Lock casing. Surviving length 113 mm; width 92 mm; thickness 29 mm

Incomplete casing from a plate lock, with the bolt in the unlocked position. Most of the internal mechanism is missing. Heavily corroded. (Not illustrated)

Roxburgh Street; Context 329; Accession No 630; Phase 5

Bone objects

Seven circular bone buttons (Nos 22-8) were found at Chalkheugh Terrace and Roxburgh Street. All of them could have been cut from either a long bone shaft or a mandible from a large ungulate (eg, horse or cattle), and all were turned on a lathe.

Of the five examples from Chalkheugh Terrace,

Nos **22**, **27** and **28** are of very similar form, with raised rims on their upper surfaces and four thread holes within a central, recessed zone. Nos 22 and 28 are almost identical, although there are several differences in the fine details of the thread holes. The holes in No **22** are slightly smaller, less countersunk and more uniform in size than those in No **28**. The arrangements of holes in both buttons are slightly off-centre, failing to respect the fine, circular turning marks produced by the lathe before the holes were drilled. In the case of No **22**, the holes are between 1 mm and 2 mm off-centre. Button No **27** is also of very similar form, but is a fractionally larger example and is more eroded. These minor differences between buttons of essentially the same type serve as a reminder of the variation which existed among all hand-made articles before manufacturing processes became more mechanised.

Two buttons from Roxburgh Street (Nos **23** and **24**) are also of a concavo-convex form, but have proportionally broader rims and smaller recessed zones than the group discussed above. No **23** is the larger of the two and its more widely-spaced thread holes exhibit evidence of greater use-related wear.

No **26**, from Chalkheugh Terrace, is a button of discoid form, with a narrow, raised band encircling a symmetrical arrangement of five thread holes. Buttons with five holes rather than four are generally considered to belong to the 18th century (Houart 1976, 23). The remaining buttons from Chalkheugh Terrace may be of 18th- or 19th-century date, and those found in later deposits on the site may have been associated with the activities of a tailor and/or dress maker living in the near vicinity in the second half of the 19th century (see discussion of finds from Chalkheugh Terrace, above).

Species identifications are by C Smith.

- 22 **Button**. Diameter 17 mm; max thickness 3 mm
Incomplete, circular button of concavo-convex form, with a raised, rounded rim on the upper (concave) face and four holes in the central, recessed area. The arrangement of holes is positioned slightly off-centre. Lathe turning marks are visible on the upper face of the button. It has broken across one of the holes.
Chalkheugh Terrace; Context 8; Accession No KEL 1947; Phase 3
- 23 **Button**. Diameter 20 mm; max thickness 3 mm
Circular button of concavo-convex form, with a broad, raised, rounded rim on the upper (concave) face and four holes in the central, recessed area. Lathe turning marks are visible on both faces. The edges of the holes exhibit signs of use-related wear. (Not illustrated)
Roxburgh Street; Context 80; Accession No 354/KEL 1951; Phase 8
- 24 **Button**. Diameter 18 mm; max thickness 3 mm
Circular button of concavo-convex form, with a broad, raised, rounded rim on the upper (concave) face and four closely-spaced holes in the central area. Small, linear pits on both faces represent

traces of trabeculae.

Roxburgh Street; Context 34; Accession No 508/KEL 1963; Phase 8

- 25 **Button**. Diameter 16 mm; max thickness 3 mm
Circular button of concavo-convex form, with a narrow, raised rim on the upper (concave) face and four holes in the central, recessed area. There are small indentations adjacent to the holes and lathe turning marks are visible on both faces.
Chalkheugh Terrace; Context 1; Accession No KEL 1942; Phase 3
- 26 **Button**. Diameter 18 mm; max thickness 2 mm
Circular button of discoid form with a narrow, raised band surrounding a symmetrical arrangement of five holes, the central one of which is smaller than the remaining four. The rear surface of the button is heavily scored and includes exposed trabeculae. Lathe turning marks are visible on the upper face.
Chalkheugh Terrace; Context 26; Accession No KEL 1946; Phase 2
- 27 **Button**. Diameter 18 mm; max thickness 3 mm
Circular button of concavo-convex form, with a raised, rounded rim on the upper (concave) face and four countersunk holes in the central, recessed area. (Not illustrated)
Chalkheugh Terrace; Context 3; Accession No KEL 1943; Phase 3
- 28 **Button**. Diameter 17 mm; max thickness 3 mm
Circular button of concavo-convex form, with a raised, rounded rim on the upper (concave) face and four countersunk holes in the central, recessed area. There is a slight variation in the size of the holes. (Not illustrated)
Chalkheugh Terrace; Context 85; Accession No KEL 1944; Phase 2

Button backing discs occur in a range of sizes, as demonstrated by recent finds in Perth and Ayr (Cox 1994, 484, Illus 9, No 45; Cox forthcoming). Some examples were clearly manufactured using a lathe, as they exhibit concentric turning marks. The two examples recovered here (Nos **29–30**), however, appear to represent cut discs, filed flat on both faces. The marks surviving from their manufacture are in the form of broadly-spaced file marks, in contrast to the fine turning lines evident on some of the buttons.

Zones of dark staining on both faces of No **30** are possibly due to the disc having been in contact with a corroding iron artefact in its burial environment.

- 29 **Button backing disc**. Diameter 19 mm; thickness 1 mm
Derived from a large ungulate long bone shaft or a mandible. Disc with a circular, central hole (diameter 2 mm) and broadly-spaced file marks on both faces. (Not illustrated)
Roxburgh Street; Context 167; Accession No 137; Phase 8
- 30 **Button backing disc**. Diameter 22 mm; thickness 1 mm
Derived from a long bone shaft or an antler beam.

Disc with a circular, central hole (diameter 2 mm) and file marks on both faces. Part of the disc is stained on both faces.

Chalkheugh Terrace; Context 8; Phase 3

The Lithics by C Wickham-Jones

13–19 Roxburgh Street

There were two pieces of flaked flint from Roxburgh Street: a small end scraper (No **31**); and a broken retouched flake (No **32**), possibly part of a ‘fabricator’. The end scraper is in good condition, but the other piece has been badly burnt and damaged.

Two pieces do not offer much information relating to an area that has undoubtedly seen human activity since prehistory. Chronologically, the end scraper could relate to any period of stone-using prehistory from the Mesolithic onwards. The retouched flake is slightly more specific, being of a type that tends to be more common in the Neolithic, though there are Mesolithic examples.

It is interesting that both pieces are retouched tools, but most likely they represent residual evidence of earlier activities (not necessarily of one period) on the site.

Wester Kelso/Floors Castle Trench 3

Thirty-six pieces of flaked stone were recovered from the excavations at Wester Kelso/Floors Castle Trench 3, all from medieval and later contexts. Fourteen pieces are of flint, 13 of chalcedony, and 9 of chert. All materials are likely to be locally derived and all are well represented in other lithic assemblages from the area (Wickham-Jones 1998). The make-up of the assemblage is as follows: three platform cores, seven chunks, 21 regular flakes, one blade, one gunflint, one pebble and two debitage flakes.

It is impossible to say much about such a small assemblage other than that it is likely to derive from earlier, prehistoric activity in the area. The cores (eg No **34**) are small blade cores that might be more at home in a Mesolithic context, as might the chalcedony blade, but none of the other pieces are period specific, with the exception of the gunflint. It is interesting that, with the exception of the latter, there are no retouched pieces in the assemblage, but this does not mean that none of the pieces was used, because work elsewhere has shown that tools were often made of unretouched pieces.

The gunflint (No **33**) must be considered as quite separate to the rest of the assemblage. It is made of a different, black, flint that was probably imported, and it bears the characteristic small scars from knapping with metal hammers. It clearly relates to quite different activity, and a much more recent period, from the other lithic artefacts. Gunflints were commonly made in the Brandon area of Suffolk, from which large quantities were exported between the late 17th century and the end of the 19th century. Scarring on the underside of the firing edge suggests that this piece had been used.

Discussion

Both sites confirm the long history of human settlement and activity in and around Kelso. More recent activity has clearly removed most of the prehistoric record from these particular sites, but the lack of recent excavation of well preserved prehistoric remains means that the finds are worth recording. The raw materials are typical of those used in this area in prehistory.

There are few formal, retouched, tools in the assemblages, and little debitage, but this is probably a reflection of the processes of survival and collection. The presence of cores and regular flakes, as well as the few retouched pieces, suggests that the material has resulted from the manufacture as well as the use of stone tools. Unfortunately, it is not possible to closely date this activity.

The gunflint (No **33**) is interesting, but more recent than the other pieces.

A full catalogue of the lithics is available in the site archive.

31 Retouched flake. Length 22 mm; width 18 mm; thickness 6 mm

Flint. Small end scraper with rounded scraping face and narrow ‘butt’. Macroscopic edge damage on left side of face. Corticated. (Not illustrated)

Roxburgh Street; Context 1104; Accession No 514; Phase 3

32 Retouched flake. Length 29 mm; width 22 mm; thickness 10 mm

Flint. Very badly damaged by burning, but remnant retouch visible along edges of broken chunky flake. Possible ‘fabricator’ type. Burnt. (Not illustrated)

Roxburgh Street; Context 332; Accession No 628; Phase 3

33 Gunflint. Length 23 mm; width 18 mm; thickness 7 mm

Flint. Classic gunflint. Mint condition.

Wester Kelso/Floors Castle Trench 3; Context 6; Phase 4

34 Core. Length 26 mm; width 23 mm; thickness 16 mm

Chalcedony. Small single platform core, worked round one side only, blade core. Mint condition. (Not illustrated)

Wester Kelso/Floors Castle Trench 3; Context 1; Phase 4

Shell button

A button derived from mother-of-pearl (No **35**) came from an unstratified context at Roxburgh Street. The edge of the button is more rounded on one face, probably a deliberate feature rather than being caused by wear. This face probably represents the back of the button. Made from white, deep-sea shells imported from Australia, the Philippines and Indonesia, mother-of-pearl buttons were made in France and England in the 18th and 19th centuries.

- 35 **Button.** Diameter 14 mm; thickness 4 mm
Circular button derived from mother-of-pearl, with four holes. The edge is more rounded on one face.
Roxburgh Street; Unstratified; Accession No 311

The glass

A small, globular bead (No **36**) was recovered from a topsoil deposit at Wester Kelso/Floors Castle Trench 3. It possibly relates to Phase 2 or Phase 3 activities at the site in the 17th or 18th century and was residual in the topsoil.

Fragments of window glass were recovered from all of the excavations, most numerous from Roxburgh Street. The earliest fragments from this site were found in deposits dated to the late 17th century and were among debris possibly associated with a destructive fire in 1684. A small number of fragments from later contexts include beaded or heat-rounded edges, but otherwise very few diagnostic features survive on these very small pieces. No window panes were recovered from the excavations.

A majority of the vessel glass recovered is from wine bottles. A minority of fragments is from bottles of squat form; most are from bottles of more cylindrical form. Fragments of beer bottles are also represented among the assemblage. One of 11 fragments of bottle glass from a Phase 8 soil deposit at Roxburgh Street, No **37** represents the neck and part of the shoulder of a wine bottle. No **38** is one of two fragments from rectangular bottles, recovered from an extensive deposit assigned to Phase 3 at Chalkheugh Terrace. Square and rectangular bottles, many of which were made to contain gin in the 18th and 19th centuries, were designed to fit easily into cases.

No **39**, from Phase 4 at Roxburgh Street, is possibly a wine glass stem. It is decorated by a spiralling double groove.

- 36 **Bead.** Diameter 11 mm; thickness 6 mm
Bead in the form of a flattened sphere, of translucent, pale orange to brown glass. The circular hole (diameter 3 mm) is positioned slightly off-centre.
Wester Kelso/Floors Castle Trench 3; Context 1; Accession No KEL 821; Phase 4
- 37 **Bottle neck.** Surviving depth 129 mm; external rim diameter 30 mm; internal rim diameter 22 mm
Neck and part of the shoulder of a wine bottle in green glass, exhibiting slight surface deterioration. A shallow, linear fracture on the surface of the neck follows the course of an elongated vesicle formed when the body of the vessel was blown.
Roxburgh Street; Context 22; Accession No 46; Phase 8
- 38 **Bottle base.** Surviving depth 44 mm; max width 62 mm
Base fragment from a straight-sided, rectangular bottle in almost clear glass with a pale blue tint. All edges are broken. (Not illustrated)
Chalkheugh Terrace; Context 8; Phase 3

- 39 **Stem.** Length 40 mm; diameter 6 mm
Circular cross-sectioned stem, broken at both ends, decorated by a spiralling double groove. An iridescent weathering patina has formed on the surface of the glass.
Roxburgh Street; Context 300; Accession No 592; Phase 4

Ceramic building material

Numerous fragments of curved ceramic roof tiles were recovered from 18th-century levels at Roxburgh Street. No complete examples were recovered, but the fragments appear to be from pantiles, and No **40** is typical of the prevailing fragment size and fabric type.

- 40 **Roof tile fragment.** Length 91 mm; width 84 mm; thickness 15 mm
Fragment from a curved roof tile in a moderately coarse, orange fabric, particularly sandy on the convex surface, containing small, linear voids. (Not illustrated)
Roxburgh Street; Context 1042; Phase 5

Ceramic object

Both men and women used wigs at different periods from the 16th century to the early 19th century. **Le Cheminant (1982)** discusses the development of wig curlers such as No **41**, which is of symmetrical form and made from pipe clay. Wig curlers were made in a range of sizes. This example from Chalkheugh Terrace lies near the upper end of the size range represented by a group of 18th-century wig curlers of similar form found at Colchester (**Crummy 1988**, 26). It bears a small stamp at either end, containing the initials WB.

- 41 **Wig curler.** Length 75 mm; max diameter 15 mm
Dumbbell-shaped, pipe clay wig curler, of circular cross-section. Each end bears a small, circular stamp bearing the initials 'W B'.
Chalkheugh Terrace; Context 8; Phase 3

Clay Pipes by D B Gallagher

The following report considers 91 clay pipe fragments from eight different contexts at Wester Kelso/Floors Castle Trench 3. Clay pipes from the other Kelso excavations are discussed elsewhere (**Gallagher 1987**). The date of this assemblage falls mainly in the 1660–1700 bracket, although Nos **44** and **45** may be of slightly later date. The two Patrick Crawford bowls are further examples of how this Edinburgh maker's products were popular in the Borders area. The two are from different moulds but bear the same basal stamp. The majority of the clay pipes are of Scottish origin with some material from north-east England and one bowl of a type common in north-west England. Examples from the latter area are uncommon in Scotland but

several examples are preserved in the Royal Museum of Scotland (Sharp 1984, 42).

- 42 **Polished bowl.** With wire-marked rim, mould-imparted P/C and castle basal stamp of possibly Type B4; 7/64'; Patrick Crawford, Edinburgh; 1670–90.
Wester Kelso/Floors Castle Trench 3; Context 1; Phase 4
- 43 **Bowl.** With partial milling, mould-imparted P/C with everted P, castle basal stamp; 7/64'; another Patrick Crawford bowl; date range as No 42.
Wester Kelso/Floors Castle Trench 3; Context 8; Phase 3
- 44 **Base of bowl.** With mould-imparted I/A and basal stamp of the portcullis type; 8/64'; Scottish, possibly a John Aiken of Glasgow, 1670–1730.
Wester Kelso/Floors Castle Trench 3; Context 3; Phase 4
- 45 **Base of bowl.** With mould-imparted W?I and partial impression of basal stamp of debased portcullis type; 7/64'; Scottish, 1670–1730.
Wester Kelso/Floors Castle Trench 3; Context 6; Phase 4
- 46 **Spurred bowl.** Burnished; 7/64'; a north-west England type, cf Rutter and Davey 1980, 219, fig 79.57; 1660–80.
Wester Kelso/Floors Castle Trench 3; Context 6; Phase 4
- 47 **Bowl and stem fragment.** With shallow heel; 7/64'; possibly 1690–1730. (Not illustrated.)
Wester Kelso/Floors Castle Trench 3; Context 1; Phase 4
- 48 **Bowl fragment.** With pronounced spur; 6/64'; an unusual form for a Scottish product, possibly from NE England, 1680–1720 (cf Parsons 1964, 236, fig 1, Type 7–8).
Wester Kelso/Floors Castle Trench 3; Context 8; Phase 3
- 49 **Stem fragment.** Double line of milling around circumference; 7/64'; this form of decoration is unusual on Scottish pipes but is found on a Patrick Crawford pipe from Advocates Close, Edinburgh (Edinburgh City Museums collection);
Wester Kelso/Floors Castle Trench 3; Context 1; Phase 4

Artefacts from Peebles (illus 65 and 66)

Assemblage summaries

Bridgegate

Finds from the tolbooth site include a variety of copper alloy costume fittings from Phases 2–5 and several pins, mainly from Phase 4 (Catalogue Nos 60–71). An iron spur buckle (No 80) and a knife blade with overlaid decoration (No 81), both of medieval date, are of particular interest. A collection of 454 fragments of

tobacco pipe, mainly from modern contexts (Nos 87–120), is also discussed.

Cuddyside

Artefacts recovered from the Cuddyside excavation include evidence for the melting of lead alloy, mainly from Phases 2 and 4. Also included in the assemblage is a group of iron objects, including a buckle from Phase 4 (Catalogue No 124) and a key from Phase 5 (No 126), and a perforated ceramic sherd (No 127).

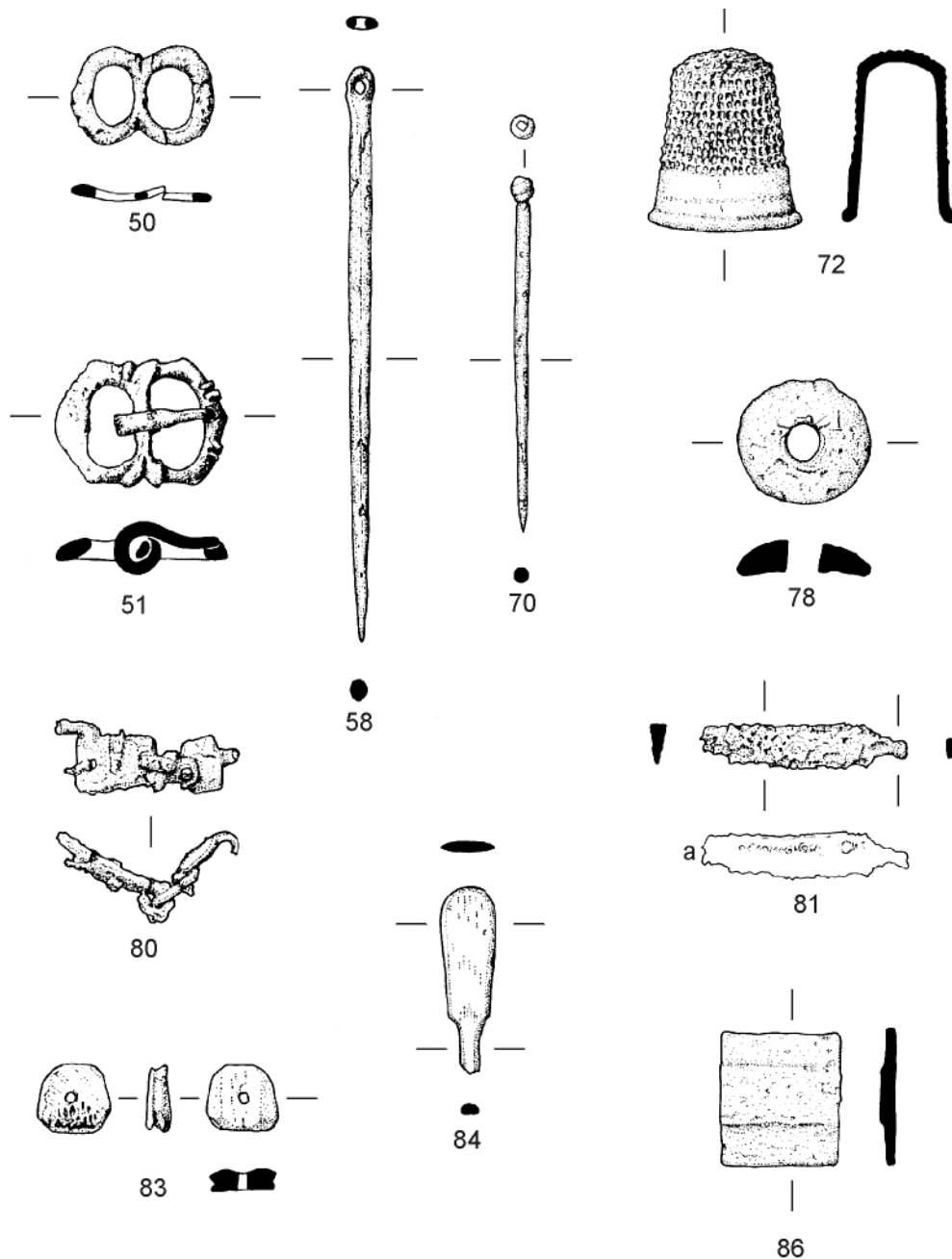
Artefacts from Bridgegate (illus 65)

Copper Alloy Objects by B Ford

Personal ornaments

Two buckles were recovered. No 50, from the post-tolbooth garden soil has a small oval double loop frame. No 51 is similar to a buckle found in a 16th-century context at Chelmsford, Essex (Cunningham and Drury 1985, fig 26, no 9). It was recovered from the fill of a pit associated with the demolition of the cinema in 1985. No 52 is probably a hooked clasp from a box or cupboard. It was recovered from topsoil. No 53, a sheet metal disc, was also found in post-tolbooth garden soil. It is the back of an 18th/19th-century composite button. No 54 is part of a buckle plate with a rectangular pin slot. It was recovered from a Phase 3 demolition layer over the path behind the tolbooth (Building 4). Nos 55–7 are tags for fitting at the end of laces of leather or textile to prevent fraying and to ease the lacing up of garments or shoes. Nos 55 and 57 both came from 13th/14th-century contexts, No 55 from a make-up layer in Plot B and No 57 from a floor layer in Plot C. No 56 came from the last occupation of the tolbooth.

- 50 **Buckle.** Length 20 mm; width 13 mm
Cast. Plain double-sided oval buckle. Pin missing. Traces of iron staining on central pin bar.
Plot C; Context 59; SF 48; Phase 5
- 51 **Buckle.** Length 24 mm; width 18 mm
Cast. Double-sided rectangular buckle with curved ends. Decorated with raised notches on three sides, one side plain. Copper alloy pin.
Plot A; Context 147; SF 16; Phase 5
- 52 **Clasp.** Length 62 mm; thickness 0.5 mm
Made from a thin sheet of copper alloy with tinning on the upper surface. Broken at one end. Hooked terminal at the other. (Not illustrated)
Plot C; Context 001; SF 28; Phase 5
- 53 **Disc.** Diameter 22 mm; thickness 0.5 mm
Made from a sheet. File marks on the underside. Central perforation. Diameter of hole 3 mm. (Not illustrated)
Plot C; Context 59; SF 46; Phase 5
- 54 **Strap-end.** Length 15 mm; width 15 mm; thickness 0.5 mm
Square sheet pierced by three holes. Diameter of holes 2 mm and 3 mm. Rectangular section cut



Illus 65 Artefacts from Bridgegate, Peebles: Nos 50, 51, 58, 70 & 72 Scale 1:1; Nos 78, 80, 81, 83, 84 & 86 Scale 1:2

away on one side. (Not illustrated)
Plot C; Context 281; SF 39; Phase 3

55 **Tag.** Length 18 mm
Made from a rolled sheet, broken at one end. (Not illustrated)

Plot B; Context 365; SF 59; Phase 2

56 **Tag.** Length 20 mm
Four fragments of tag end with part of leather thong *in situ*. (Not illustrated)

Plot C; Context 271; SF 50; Phase 3

57 **Tag.** Length 25 mm
Two fragments of a tag. Made from a rolled sheet with edges butting. Tapers to one end. The other end is open with a small rivet hole below the edge,

diameter of hole 0.5 mm. (Not illustrated)
Plot C; Context 356; SF 66; Phase 2

Textile equipment

Two needles were recovered from post-demolition garden soil over the tolbooth dated to the 18th/19th centuries. They are both made from rolled sheets. No 58 has a small circular eye. The other has a cut rectangular eye.

Twelve small pins with twisted wire and conical heads of a type usually classified as sewing pins were recovered. The pins fall into two categories by length. Four pins (Nos 68–71) are between 32 mm and 49 mm. Nos 68 and 70 were recovered from 15th- to

17th-century contexts. No **69** came from disturbed natural in the area of the tolbooth. No **71** was unstratified. All four pins are made from drawn wires with heads made by twisting wire around the top of the shaft. No **70** has a waisted shaft below the head as a result of stamping the head in place. The remaining eight pins fall between 15.5 mm and 26 mm in length. Seven pins (Nos **60** and **62–67**) all came from 18th/19th-century floor layers in the Post Office (Building 1). The remaining pin came from 20th-century post-tolbooth garden soil. Five of these pins have twisted heads, two have conical heads and one has the head missing. The conical head on No **65** has been made from a twisted wire stamped into a conical shape. **Tylecote (1972, 185)** has noted in his study of pins from Gloucestershire that pins with conical shaped heads were being introduced at the end of the 18th century. No **62** also has a conical head, although the head is in one piece with the shank; solid head pins like these were introduced at the beginning of the 19th century (*ibid*, 186). Three pins are tinned on both the shafts and heads. The remaining five are corroded, but may originally have been tinned. **Tylecote (ibid, 184)** in his study of late pins has noted that the majority of 18th- and 19th-century wire drawn pins were tinned.

Two thimbles were also recovered. Both are of the domed type for pushing the needle with the tip of the finger. They are almost certainly made of brass. Both are probably cast. They have small holes and were, therefore, used for fine sewing. No **72** has oval holes in concentric circles which are close set and sometimes lapping; these are probably machine-made. The top has irregularly placed circular holes, probably stamped, which would suggest a date post-1620 (**Holmes 1988, 3**). At the base is a large plain band, decorated with a lightly applied band of small dots. It was recovered from 15th- to 17th-century post-demolition dumping in Plot B.

No **73** has a plain lower section with a geometric border. Decorative motifs on thimbles were introduced in the 15th century and reached a peak in the 16th century, when the decoration of copper alloy thimbles began to decline due to the introduction of silver as a medium for manufacturing thimbles (*ibid*). The indentations on the walls are machine-made, which would suggest a date post-1620 (*ibid*). The indentations on the top have been stamped and are a combination of circles and triangles.

58 **Needle**. Length 80 mm; max width 3 mm

Made from a rolled sheet, flattened and stamped at one end to form the circular eye. Diameter of eye 2 mm.

Plot C; Context 59; SF 43; Phase 5

59 **Needle**. Length 48 mm; max thickness 3 mm

Made from a rolled sheet. The eye is a cut rectangle countersunk on one side. The tip is bent. (Not illustrated)

Plot C; Context 59; SF 53; Phase 5

60 **Pin**. Length 25 mm

Shaft has a circular cross-section. Head made from a small wire twisted twice around and stamped onto the top of the shaft. Shaft waisted below head.

Tinned. (Not illustrated)

Plot A; Context 5; SF 25; Phase 4

61 **Pin**. Length 18 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft. Shaft waisted below head. Tip missing. (Not illustrated)

Plot C; Context 59; SF 52; Phase 5

62 **Pin**. Length 26 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft and stamped. Waisted below head. (Not illustrated)

Plot A; Context 154; SF 18; Phase 4

63 **Pin**. Length 26 mm

Made from a wire with circular cross-section. Head missing. Tinned. (Not illustrated)

Plot A; Context 154; SF 19; Phase 4

64 **Pin**. Length 26 mm

Made from a wire with circular cross-section. Conical head with rounded top. Tinned. (Not illustrated)

Plot A; Context 154; SF 20; Phase 4

65 **Pin**. Length 16 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft. Tip missing. (Not illustrated)

Plot A; Context 154; SF 21; Phase 4

66 **Pin**. Length 19 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft. (Not illustrated)

Plot A; Context 154; SF 22; Phase 4

67 **Pin**. Length 32 mm; thickness 1 mm

Made from a wire with circular cross-section. The head is made from a wire twisted twice around the top of the shaft. Shaft waisted below head. Tip missing. (Not illustrated)

Plot A; Context 158; SF 17; Phase 4

68 **Pin**. Length 49 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft. (Not illustrated)

Plot B; Context 287; SF 64; Phase 3

69 **Pin**. Length 38 mm; thickness 1 mm

Made from a wire with circular cross-section, now bent. Head formed by twisting a wire twice around the top of the shaft. Very corroded. (Not illustrated)

Context 390; SF 49; Subsoil

70 **Pin**. Length 49 mm; thickness 2 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft. Head stamped. Shaft waisted below head.

Plot C; Context 450; Phase 3

71 **Pin**. Length 16 mm

Made from a wire with circular cross-section. Head made from a wire twisted twice around the top of the shaft then stamped into a flat conical shape. Tinned. (Not illustrated)

SF 26; Unstratified

- 72 **Thimble.** Height 24 mm
Made from a single sheet with concentric lines of dots. Slightly distorted.
Plot B; Context 125; SF 34; Phase 3
- 73 **Thimble.** Height 22 mm
Made from a single sheet with concentric rows of dots, and a geometric border below. The top is stamped with circles of dots and triangles with a central raised square. (Not illustrated)
Plot B; Context 210; SF 56; Phase 3

Vessels

Two fragments of sheeting are probably parts of vessels. No **74**, from 15th- to 17th-century dumping overlying Plot B, is part of the rim from a sheet vessel. No **75**, which is unstratified, is probably a repair piece.

- 74 **Vessel.** Thickness 2 mm
Three fragments of a sheet vessel. The rim is a slight thickening of the wall with triangular cross-section. (Not illustrated)
Plot B; Context 125; SF 35; Phase 3
- 75 **Sheet.** Thickness 0.5 mm
Fragments of two sheets held together with a 'paper-clip' rivet. (Not illustrated)
SF 63; Unstratified

Jetton or counter

No **76** is a jetton or reckoning counter from Nuremberg. It is probably of 17th-century date.

- 76 **Jetton or Reckoning Counter**
Nuremberg stock type. (Not illustrated)
Plot C; Context 472; SF 72; Phase 3

Lead Alloy Objects by B Ford

Three objects of lead alloy were recovered. No **77**, a cut sheet, was recovered from topsoil. It has been pierced by a number of rectangular shaped holes, probably made by stamping with a sharp bladed tool, such as a chisel. Nos **78** and **79** are probably both weights. They were recovered from Phase 2 contexts; No **78**, from a floor make-up layer in Building 2, Plot C and No **79** from a burnt layer over charcoal and slag dumps in Plot B.

- 77 **Sheet.** Thickness 3 mm
Two cut and two broken sides. Pierced with two rectangular holes. Three rectangular depressions. Now bent. (Not illustrated)
Plot C; Context 1; SF 30; Phase 5
- 78 **Spindle whorl or weight.** Diameter 37 mm
Conical, with slightly convex base. Pierced diameter of hole 9 mm.
Plot C; Context 356; SF 67; Phase 2
- 79 **Weight.** Diameter 55 mm; thickness 17 mm
Circular with remains of two iron plugs. (Not illustrated)
Plot B; Context 349; SF 65; Phase 2

Iron Objects by A Cox

Two iron artefacts of medieval date (Nos **80** and **81**) were recovered from Phase 2.

Medieval spurs were secured to the wearer's ankle by means of leather straps (leathers), fastened by a buckle like No **80**. Found in deposits associated with the demolition of Building 2 in Plot C, the buckle is accompanied by a small hook attachment, and both have their hooked terminals looped through a figure-of-8 spur terminal.

By the mid 14th century most spurs had two leathers, one passing above and the other below the foot, held to the spur terminals by means of hook attachments. The buckles were also attached directly onto the spur terminals, an arrangement which remained the fashion into the post-medieval period (Ellis 1995, 128). A buckle and hook attachment similar to No **80**, attached to part of a rowel spur with a single ring terminal and dated to c 1400, was found in London (*ibid*, 142, Illus 101, No 342b). It is likely that No **80** is of similar date.

Part of the blade of a whittle tang knife with overlaid silver wire decoration (No **81**) was found in a property boundary feature associated with the west wall of Building 1, the possible merchant's dwelling in Plot A (Phase 2). The building is likely to be of 14th-century date, based on pottery evidence, although it continued in use into the 20th century. Knives with overlaid decoration are rare finds in Scottish contexts. As the decorative wire on this example is visible on the blade surfaces only as tiny fragments of corroded silver, the decorative pattern, including two spirals, is more clearly visible on an x-radiograph of the object. This has been used as the basis for the illustration (illus 65, No **81a**).

The technique of overlaid decoration is described in detail by Theophilus in his 12th-century treatise *De diversis artibus* (Dodwell 1961). He firstly describes the method of producing a cross-hatched pattern of keying in the surface of an iron object. He then goes on to describe how very fine gold or silver wires were laid onto the surface of the iron with fine tweezers and struck gently with a small hammer, so that they stayed in position. Once the decorative pattern of wires was in place, the object was placed on live coals until it began to turn black and then struck carefully again with a medium-sized hammer so that the cuts were evened out. Any keying originally present on No **81** is now difficult to detect with certainty, as a proportion of the original surface of the blade has been lost through corrosion and lamination.

Overlaid decoration is present on three knives and two shears of mid to late 13th-century date from London (Cowgill *et al* 1987, 78–107). The decorative pattern of silver wire on one knife blade of early to mid 13th-century date (*ibid*, 80, Illus 55, No 14) is of similar style to that on No **81**.

- 80 **Buckle and hook attachment.** Overall length 51 mm; max width 20 mm; max thickness 11 mm
Buckle and hook attachment, with their hooked

terminals looped through the figure-of-8 terminal of a spur. The buckle (surviving length 39 mm) has a rectangular frame, only part of which survives, and an integral plate, terminating in a hooked bar. Of the buckle pin only the looped end survives. The hook attachment (length 21 mm) is rectangular-bodied and has a hooked terminal at either end.

Plot C; Context 233; Phase 2

- 81 **Knife blade.** Length 56 mm; max width 12 mm; thickness 4 mm

Blade fragment with a small part of the tang surviving. The blade has a straight back and a curving edge, rising steadily near the missing tip. Traces of corroded silver fragments on both faces of the blade and along its back indicate that the knife was decorated by overlaid silver wire. The decorative pattern on one face of the blade is revealed by x-radiography. Central to this pattern are two spirals, which may be repeated at either side, although the pattern becomes fragmented and obscured. Heavily corroded.

Plot A; Context 24; Phase 2

Bone Objects by A Cox and B Ford

Three bone objects were recovered. Found in a Phase 3 floor layer in the east room of the tolbooth (Building 4), No **82** is a small button. A roughly discoid piece recovered from a late-17th or early 18th-century garden soil (No **83**) possibly represents a backing disc from a cloth-covered button or a hilt- or end-piece from a cutlery or implement handle. The shallow groove across one face may be a natural feature of the bone, indicating that the object may have been cut from the anterior surface of a cattle metatarsal.

No **84**, the handle from a spoon, was recovered from the base of the 18th- or 19th-century oven in the Post Office (Building 1). Later bone spoons such as this one reflect the shape of metal prototypes (MacGregor 1985, 182). A complete spoon from Leafield, Oxfordshire has a handle of similar form (*ibid*, Fig 98).

Species identifications are by C Smith.

- 82 **Button.** Diameter 8 mm

Button with a circular face with a central depression. It is pierced by two holes. Derived from a large ungulate long bone shaft. (Not illustrated)

Plot C; Context 271; SF 51; Phase 3

- 83 **Button backing or end-piece.** Length 20 mm; width 19 mm; thickness 6 mm

Sub-circular piece, cut from a large ungulate long bone shaft, possibly from a cattle metatarsal. One face has a shallow groove running across its centre; the other is filed flat. Trabeculae are exposed on the filed face. A faceted groove has been cut into the edge of the object, and a circular perforation (diameter 2 mm) has been drilled approximately through its centre.

Plot C; Context 450; Phase 3

- 84 **Spoon handle.** Length 52 mm; max width 16 mm; thickness 3 mm

Part of a flat, lobate handle, derived from a large ungulate long bone shaft. The shoulders are sloping and taper to an oval cross-sectioned shaft. Most of the shaft and bowl are now missing.

Plot A; Context 5; SF 27; Phase 4

Stone Object by B Ford

A single object of stone (No **85**) was recovered from the Phase 2 demolition rubble of Plot C. It is a small cut disc which may have been a button.

- 85 **Disc.** Max diameter 18 mm

Cut from a pebble. Edges filed. Perforation slightly off-centre, partly cut from both sides. (Not illustrated)

Plot C; Context 237; SF 54; Phase 2

Leather by A Cox

A cut, rectangular piece of leather (No **86**) was found in the fill of a 19th-century feature in Plot C. This object may represent either an offcut from belt or strap manufacture or, perhaps more likely, a rectangular pad affixed to a firm surface of which it now bears an imprint.

- 86 **Rectangular offcut.** Length 34 mm; width 36 mm; thickness 2 mm

Offcut, trimmed along all four edges. A central band on one face stands slightly proud of the surrounding surface; otherwise the fragment is plain.

Plot C; Context 453; Phase 5

Tobacco Pipes by D B Gallagher

This report deals with 454 fragments of clay tobacco pipe and one of an iron pipe, recovered from 21 different contexts. The majority (75%) of the pipe fragments, including a large amount of residual early material, is from Context 1. The majority of the datable pre-1800 fragments belong to the period 1660–1720, with three bowls from c 1640–60. These pipes were mainly Scottish, the exception being two fragments of a northern English type (No 88). A large number of stems of ovoid section indicates the use of worn moulds (eg Contexts 80 and 233), possibly indicating a poorer quality pipe.

Pipes with a hatched field on one side of the bowl were a common form in 19th-century Scotland. Bowls with TW stamps were produced by all the major Scottish pipemakers during the late 19th and early 20th centuries. The meaning of the letters is unknown but it may originate with the work of Thomas White, whose TW maker's mark carried the same style of lettering with pronounced serifs (cf Nos **113–116**). The 19th-century marked stems are mainly from manufacturers

in Edinburgh/Leith (Thomas White & Co, P B Wilson and A Donaldson) but include at least two Glasgow examples (A Coghill and D McDougall). Stems by Thomas White of Edinburgh predominate. These are notable for their fine serif lettering. Three stems have T. W. & Co./EDINr in relief lettering; all are slightly different and it is likely that the marks were incised on each individual mould, unlike the later practice of punching the maker's name on a plate which was then applied to the surface of the mould.

The iron stem fragment (120) is an uncommon item. Whilst metal pipes have been recorded from as early as the late 16th century (David 1993), the small number of surviving examples suggests that only limited numbers were produced at any one time, for reasons that varied from status to durability (Atkin 1993).

The most diagnostic pieces are described below in the following order: brief description; stem bore in inches; possible date and source; site context. Pipe data for each context are available in the site archive.

Pre-1800

- 87 **Bowl**. Bottered, with indecipherable mould-imparted initials, partly missing, possibly W?; 8/64"; c 1640–70. (Not illustrated)
Context 001
- 88 **Spurred Bowl**. Of northern English type, possibly from Newcastle area (cf Oswald 1983, 186, type 6); 1645–60; 8/64". (Not illustrated)
Context 059
- 89 **Lower bowl fragment**. With mould-imparted P/C and poor impression of a castle basal stamp with flanking PC; a product of Patrick Crawford of Edinburgh (cf Gallagher 1987, nos 13–21); 1670–90. (Not illustrated)
Context 001
- 90 **Bowl**. With mould-imparted R/P or F, rim partly missing; no measurable stem bore; c 1670–1700. (Not illustrated)
Context 001
- 91 Two adjoining fragments of bowl. Heavily bottered rim, with well finished seams and a poor impression of a portcullis/castle type basal stamp; no measurable stem bore; c 1670–1700. (Not illustrated)
Context 059
- 92 **Bowl**. Poorly finished, with traces of mould-imparted letters, basal stamp of the portcullis type, groove on interior of bowl caused by clearing out of excess clay; no measurable stem bore; probably an Edinburgh product; 1670–1700. (Not illustrated)
Context 059
- 93 **Bowl**. With mould-imparted G/?C and portcullis type of basal stamp, bottered and careless partial milling; 7/64"; possibly an Edinburgh product; c 1670–1700. (Not illustrated)
Context 059
- 94 **Large Bowl**. With mould-imparted I/A, the I being recut on the mould; 7/64"; c 1680–1720 (cf Gallagher forthcoming, no 31). (Not illustrated)
Context 059
- Decorated Stem Fragments: Pre-1800*
- 95 **Stem fragment**. Burnished, with roller stamp; 7/64". (Not illustrated)
Context 059
- 96 **Stem fragment**. Decorated with double line of milling; 7/64". (Not illustrated)
Context 001
- Bowls: Post-1800*
- 97 **Tall spurred bowl**. With acanthus design on each seam. C/W in relief on spur; 5/64". (Not illustrated)
Context 001
- 98 **Spurred masonic bowl**, two adjoining fragments, one side with FRIENDSHIP LOVE & TRUTH in scrolls, other side with garlands, orb, hand and eye; 4/64". A fragment of an identical bowl was excavated from a pre-1856 context in Glasgow (Gallagher forthcoming, no 29). (Not illustrated)
Contexts 001 & 059
- 99 **Basal fragment**. With relief R/H on heel; 5/64". (Not illustrated)
Context 001
- 100 **Rear wall**. Of tall highly burnished bowl, finely milled; no measurable stem bore. The bowl shape is similar to that of porcelain pipes (cf Fresco-Corbu 1982, 27–36). (Not illustrated)
Context 059
- 101 **Sprigged bowl**. With relief BOBS and portrait of Field Marshall Roberts on left and Union Jack on right; 5/64". Roberts was Commander-in-Chief of the British forces in the Boer War from January 1900. (Not illustrated)
Context 001
- 102 **Bowl wall fragment**. With ball on turf, in relief. (Not illustrated)
Context 001
- 103 **Bowl fragment**. With relief heart of curvilinear outline; no measurable stem bore. (Not illustrated)
Context 001
- 104 **Spurred bowl**. With a faint mould-imparted TW on rear and hatched heart on right; 4/64". (Not illustrated)
Context 001 (2 examples)
- 105 **Spurred bowl**. With mould-imparted TW in oval frame on rear, relief pellet on each side of spur; 5/64". (Not illustrated)
Context 001
- 106 **Spurred bowl**. With mould-imparted TW in oval frame on rear, but with no pellet on the spur and with a double impression of TW in oval frame on rear; 4/64". (Not illustrated)
Context 001
- 107 **Wall fragment**. With (J)ONES MILE END in oval frame; London. (Not illustrated)
Context 001
- 108 **Plain bowl**. 4/64". (Not illustrated)
Context 001
- 109 **Plain bowl**. Slightly larger than above; 4/64".

(Not illustrated)

Context 001

- 110 **Lower bowl fragment.** Of a spurred pipe of early 19th-century form; 6/64". (Not illustrated)
Context 001

Marked Stems: Post-1800

- 111 A. COGHILL/GLASGOW; 4/64". (Not illustrated)
112 A. DONALDSON/BURNS CUTTY PIPE; 4/64".
The Edinburgh directories list A Donaldson as a pipemaker in Leith during the period 1858–67.
Context 001
113 T. W. & Co/EDINr in relief lettering; 4/64".
Thomas White & Co was active 1829–67, during which time it was the main Edinburgh pipe factory. (Not illustrated)
Context 001
114 (T. W. & Co/EDINr in relief lettering; 4/64". (Not illustrated)
Context 001
115 T. W. & (Co)/EDINr in relief lettering; 4/64". (Not illustrated)
Context 001
116 THOMAS WHITE & Co/EDINB(URGH); 4/64". (Not illustrated)
Context 001 (2 examples)
117 P. B. Wilson/LEITH; 5/64". Peter Wilson is recorded as a pipemaker in Leith, 1847–1902 (Gallagher and Sharp 1986, 12). (Not illustrated)
Context 001 (3 examples, one without Leith)
118 McDOUGAL(L)/GLASGOW. (Not illustrated)
Context 001
119 MY PIPE/.Y PIPE; 4/64". (Not illustrated)
Context 001
120 Stem fragment. Of an iron pipe; 8/64". (Not illustrated)
Context 001

Artefacts from Cuddyside (illus 66) by A Cox

The main components of the artefact assemblage from the excavation (PB05), other than pottery, are lead alloy and iron objects. The lead alloy is mainly represented by waste material, which mostly occurred in Phases 2 and 4. A group of iron objects from the site, though in poor condition, includes a number of intrinsically interesting examples. A perforated ceramic sherd found during the site evaluation (PB04), although possibly a residual find, may be among the earliest finds from the site.

Lead alloy objects

Evidence of the melting of lead alloy on the site is represented by a number of pieces of once-molten waste. Three pieces were recovered from a charcoal-rich deposit of clay sealing the base of a hearth in Structure 1 (Phase 2). Lead alloy waste was also present in the imported soils and a gravel deposit in Phase 4. At least some of this waste may be derived

from activities associated with the construction and repair of the late medieval buildings on the site.

A lead alloy object of roughly conical form (No 121) may represent a plug, used to repair stonework. Alternatively, it may represent an ingot, cast in a makeshift mould with a conical void. The upper surface is smooth and slightly concave, suggesting an unmodified casting.

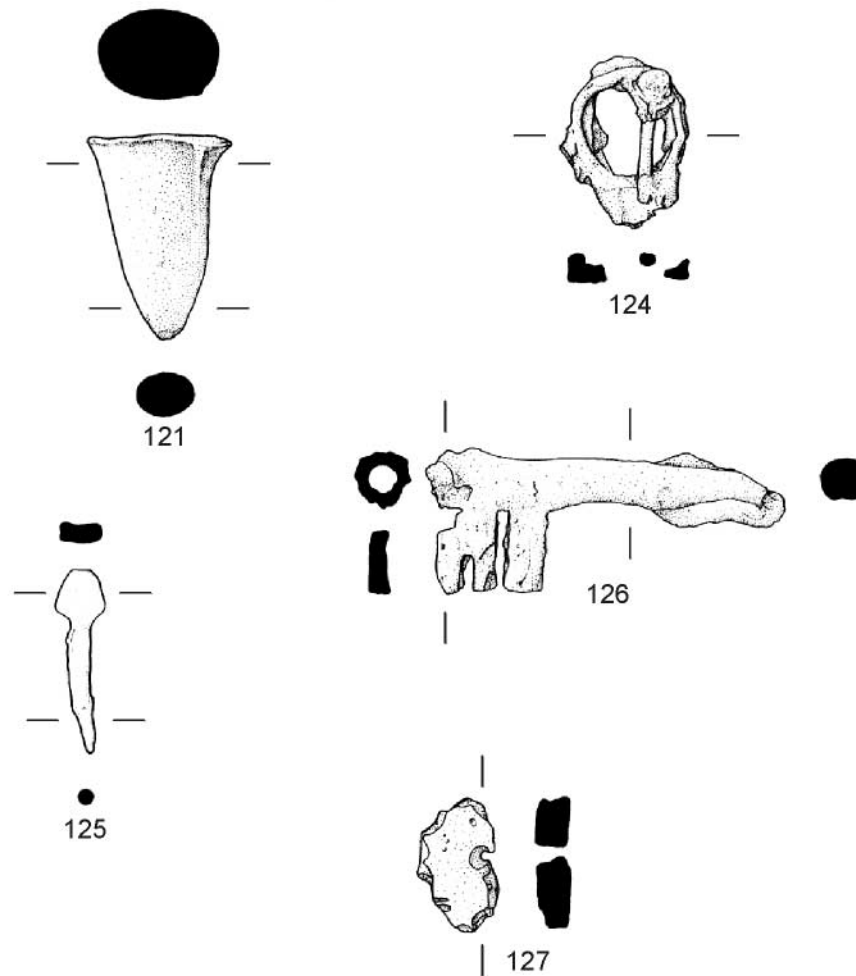
- 121 **Plug or ingot.** Length 49 mm; max width 37 mm; max thickness 31 mm
Plug or possible ingot of roughly conical form, with an oval cross-section. The upper surface is slightly concave.
PB05; Context 8; Find No 14; Phase 4
122 **Waste.** Length 47 mm; width 15 mm; thickness 6 mm
Irregular piece of once-molten waste with uneven surfaces. (Not illustrated)
PB05; Context 8; Find No 6; Phase 4
123 **Waste.** Length 173 mm; width 79 mm; thickness 3 mm
Irregular piece of once-molten waste with uneven surfaces. (Not illustrated)
PB05; Context 18; Find No 10; Phase 5

Iron objects

The condition of iron artefacts from the excavation was generally very poor, possibly due to the damp but aerated nature of the deposits in which the artefacts lay. Several of the objects came from possibly imported deposits and may, therefore, have been subject to weathering prior to their arrival on the site.

Part of a buckle (No 124) came from a possibly imported, silty deposit associated with the construction of the late medieval buildings. In this buckle, either the frame and the buckle plate were made as a single piece, or the buckle possibly incorporated a long stem. Buckles of the former type are found infrequently, but have been reported from medieval contexts elsewhere, for example at Grenstein, Norfolk, where a copper alloy example of uncertain date was found (Goodall 1980, 127, Fig 74, No 2). Buckles incorporating long stems were used to fasten spurs, with the buckle stem terminating in a loop for attachment to the terminal of the spur arm. In No 124, only a small part of the buckle plate or stem survives. It is perforated to accommodate the buckle pin, which was made from a separate strip of iron. A horseshoe nail of so-called 'fiddle-key' type (No 125) was recovered from the same deposit.

A cobbled surface in Phase 5 produced several iron nails and a fragment of a door key (No 126). X-radiography reveals that the shaft is solid along only part of its length, being hollow at the bit end, which may imply that the corresponding lock incorporated a pin over which the end of the key shaft fitted. No part of the key bow survives, making it more difficult to assign a date to it in typological terms. Associated pottery indicates a date in the 15th or 16th century.



Illus 66 Artefacts from Cuddyside, Peebles: Nos 121–127, Scale 1:2

- 124 **Buckle.** Length 45 mm; width 32 mm; thickness (disregarding corrosion) 8 mm
Roughly oval buckle including part of an integral buckle plate or stem. The rectangular cross-sectioned frame appears to have a fragment of another iron object attached by corrosion products to its underside. One end of the buckle pin, also of rectangular cross-section, is looped through a perforation in the buckle plate or stem. Heavily corroded.
PB05; Context 8; Find No 4; Phase 4
- 125 **Horseshoe nail.** Length 48 mm; width of head 13 mm; thickness of head 9 mm
Horseshoe nail with a sub-rectangular cross-sectioned shank and a fiddle key-shaped head.
PB05; Context 8; Find No 1; Phase 4
- 126 **Key.** Length 95 mm; depth of bit 22 mm; max width of shaft 13 mm
Key with a possibly hollow, sub-circular cross-sectioned shaft and a rectangular bit with three ward cuts. The shaft is broken at the bow end and the entire bow is missing.
PB05; Context 9; Find No 3; Phase 5

Ceramic object

A fragment of a perforated pottery sherd (No 127) was found during the site evaluation. The nature of the fabric and the glaze indicate a medieval date. The sherd appears to have been crudely trimmed to a circular shape, and may have functioned as a spindle whorl.

- 127 **Perforated sherd.** Length 33 mm; width 21 mm; thickness 9 mm
Sherd of pottery in a coarse, buff to orange fabric with a dull green glaze on one surface, with a single, tapering perforation (max diameter 5 mm). The sherd may have been trimmed to form a crudely circular object, approximately half of which survives. The object is broken across the perforation.
PB04; Find No 8; Unphased

Glass

A small assemblage of glass of early modern date, consisting of eight fragments of vessel glass and two of

window glass, was recovered, a majority of fragments coming from an extensive garden soil deposit.

Clay pipes

The clay pipe assemblage from the excavation came from make-up and topsoil deposits containing predominantly 18th- and 19th-century pottery. The assemblage consists of two bowl fragments, a single heel and stem fragment, two stamped stem fragments and 19 plain stem fragments. The stamped bowl fragment (No 128) and the two stamped stem fragments (Nos 129 and 130) are described below.

- 128 **Bowl fragment.** Depth, external rim diameter and stem bore diameter not measurable
Fragment representing approximately one third of a bowl of upright form. The front of the bowl bears a stamp which reads 'WILSON' with another word below, within an oval border. The stamp lies across the mould seam. (Not illustrated)
PB04; Context 1; Find No 11; Phase 6
- 129 **Stem fragment.** Length 43 mm; stem bore diameter 1.90 mm (5/64")
Stem fragment, stamped 'R B WILSON' on one side and 'FOOTBALL' on the other. (Not illustrated)
PB04; Context 1; Find No 12; Phase 6
- 130 **Stem fragment.** Length 29 mm; stem bore diameter 1.70 mm (4/64")
Stem fragment stamped 'TH. WHITE . . .' on one side and '[EDI]NBURGH' on the other. (Not illustrated)
PB04; Context 1; Find No 13; Phase 6

Coins by J D Bateson

Kelso 1983

The most interesting piece among the eleven coins recovered during the excavation is the Tower shilling of Charles I. Although the larger silver coins occur frequently in hoards, they are much scarcer as single site finds. Hoards show that large amounts of English silver circulated in Scotland during the 17th century, much of it brought north during the Civil War. Again the hoards show that some of this survived in circulation as late as 1680 and in view of the worn condition of this shilling it could have been lost well after 1650.

The more usual coin finds from Scottish 17th-century levels are the low value copper turners or twopences, of which six were found. These follow the pattern of issue for much of the century. The earliest is a specimen of James VI's 1623 issue, rather worn but probably deposited by 1630. The smaller, lighter turners of Charles I, struck between 1632 and 1639, are represented by two finds which were almost certainly lost before 1642 when the type was demonetised.

During the 1640s the king reverted to the larger format turner once more and after the Restoration Charles II issued similar turners from 1663 until 1668. The issues of the two reigns can be distinguished by the addition of a 'IP', for Charles II, after the CR on the obverse of the later coins. Corrosion makes it difficult to assign two of the turners found positively to either the 1640s or the 1660s, but a third example is clearly of the 1663 issue.

When the turner was introduced in 1597 by James VI, he took as the prototype the French double tournois and indeed the name turner is derived from this. Double tournois circulated in some numbers in Scotland during the 17th century and constitute a not uncommon find. Thus the specimen of Louis XIII, probably dated 1630, comes as no surprise and may have circulated up to the middle of the century.

During most of the first half of the 17th century the copper coinage of England consisted of a large variety of small copper farthings. However since Scotland was well provided for by her own prolific copper issues, few English farthings circulated here and they are rare as site finds. The recovery of this example, of the 1630s, may be due to the proximity of Kelso to the Border.

In addition to these earlier pieces, there is one of the large 'cartwheel' pennies of 1797. These cumbersome coins were quickly replaced and, though their circulation was limited, they were often kept as souvenirs – or weights as they weighed half an ounce – and loss probably occurred here sometime during the course of the 19th century.

Catalogue (not illustrated)

- 131 England, Charles I, shilling, 1635–6, Tower Mint, initial mark crown, worn, 5.09 gm (78.6 gr), 0°; cf North 1991, 2225.
KL83; Context 1458; Phase 4
- 132 Scotland, James VI, copper turner (twopence), 1623 issue, worn, corroded, 1.82 gm (28.1 gr), 90°; cf Burns 1887, 995(4).
KL83; Context 1106; Phase 3
- 133 Scotland, Charles I, copper turner (twopence), 1630s issue, slightly worn, corroded, ragged, 0.43 gm (6.7 gr), 180°; cf Burns 1887, 1042).
KL83; Context 334; Phase 3
- 134 Scotland, Charles I, copper turner (twopence), 1630s issue, wear uncertain, corroded, 0.72 gm (11.1 gr), na°.
KL83; Context 1111; Phase 4
- 135 Scotland, uncertain Charles I/II, copper turner (twopence), 1640s/1663 issues, details uncertain, corroded.
KL83; Context 100; Phase 4
- 136 Scotland, uncertain Charles I/II, copper turner (twopence), 1640s/1663 issues, details uncertain, corroded.
KL83; Context 1093; Phase 4
- 137 Scotland, Charles II, copper turner (twopence), 1663 issue, worn, 1.71 gm (24.4 gr), na°; cf Burns

Table 1 Coin sequence at 13–19 Roxburgh Street, Kelso

Phase	Cat No	Context No	Context Description	Coin
3	137	331	Pit fill	Charles II, turner, 1663
3	133	334		Charles I, turner, 1630s issue
3	132	1106	Pit fill	James VI, turner, 1623 issue
3	139	334		Charles I, Rose farthing, 1635/6–44
4	135	100	Destruction layer	Charles I or II, turner, 1640/1663
4	136	1093	Destruction layer	Copper coin, unidentified
4	134	1111	Destruction layer	Charles I, Stirling turner, 1632–9
4	131	1458	Floor surface	Charles I, silver shilling
5	140	356	Disturbed floor make-up	George III, penny, 1797
5	138	1091	Floor make-up	Louis XIII, copper tournois, 1630
6		48		Unidentified
6		55		Victoria, penny, 1873
6		71		Unidentified
7		25	Garden soil	Mary, billon half bawbee, 1542–58
8		53		George V, half penny, 1912
u/s			Spoil tip	George III, penny, 1799

1887, 1044.

KL83; Context 331; Phase 3

138 France, Louis XIII, copper double tournois,? 1630, worn, 2.41 gm (37.2 gr), 180°.

KL83; Context 1091; Phase 5

139 England, Charles I, Rose farthing, 1635/6–44, slightly worn, corroded, details unrecorded; cf Peck 1960, 328.

KL83; Context 334; Phase 3

140 Great Britain, George III, penny, 1797.

KL83; Context 356; Phase 5

141 Uncertain, probably a coin, no details visible.

KL83; Context 1458; Phase 4

examples of the latter type were recovered, all seemingly with little wear and, therefore, probably dropped before 1630.

Charles I issued a similar turner in 1629 and then rather dramatically changed the size and weight of this denomination. Some forty millions of these smaller, lighter turners were struck between 1632 and 1639. They swamped the Scots currency and turn up with great frequency as site finds. Demonetised in March 1642, they are unlikely to have still been in circulation by the end of that year. However the specimen from this site, with the rare trefoils rather than lozenges on the obverse, is early in the series and, given its lack of wear, may have been lost by the mid 1630s.

Peebles, Bridgegate site 1986

Although only five in number, this small group of coins, mainly little worn 17th-century copper turners, is of some interest.

The earliest, and sole 16th-century find, is however a billon hardhead struck in 1588. This specimen is from the larger November issue of that year. Such pieces are among the most common of the late 16th-century billon coins of James VI and frequently turn up as site finds. Apart from a very small issue of saltire placks in January 1594, this is the last of the prolific Scottish billon coins, which were replaced in 1597 by copper turners. However the billon may have survived in circulation for some time and, given the degree of wear on this find, it could well have been lost some time after 1600.

Apart from the introductory issue of 1597, James VI struck further turners in 1614 and 1623. Three

Catalogue (not illustrated)

142 Scotland, James VI, billon hardhead (twopence), 1588 (November), worn, buckled, 1.10 gm (17.0 gr), 30°; cf Burns 1887, 967 (3).
PB86; Context 271; Find No 45

143 Scotland, James VI, copper turner (twopence), 1623 issue, slightly worn, 1.41 gm (21.8 gr), 180°; cf Burns 1887, 995 (4).
PB86; Context 271; Find No 44

144 Scotland, James VI, copper turner (twopence), 1623 issue, slightly worn, corroded, 1.73 gm (26.7 gr), 90°.
PB86; Context 317; Find No 55

145 Scotland, James VI, copper turner (twopence), 1623 issue, wear uncertain, corroded, chipped, 1.80 gm (27.8 gr), na°.
PB86; Context 317; Find No 57

Table 2 Dating evidence for the Tolbooth, Bridgegate, Peebles (coins)

From Occupation Layers:

Context	Type	Issue Date	Cat No	Find No
floor layer 317	turner, James VI	1623	144	55
floor layer 317	turner, James VI	1623	145	57
floor layer 271	billon hardhead, James VI	1588	142	45
floor layer 271	turner, James VI	1623	143	44
floor layer 271	Scots penny	1623–5		38

Demolition and Post-occupation:

Context	Type	Issue Date	Cat No	Find No
top of demolished wall 63/295	bodle, Charles II	1660–77		1
top of demolished wall 291	turner, Charles I	1630s	146	47
top of gravel path 281	penny, James VI	1614–23		40
over stone drain in path, 474	reckoning token, Nuremberg	17th century	76	72
topmost demolition layer 451	bawbee, Charles II	1672		71
base of garden soil 450	bawbee, Charles II	1677		70
rubble 454 in pit, W room	penny, Victoria	186?		73

146 Scotland, Charles I, copper turner (twopence), 1630s issue, with trefoils under CIIR, slightly worn, 0.53 gm (8.2 gr), 180°. PB86; Context 291; Find No 47

The animal bone *by C Smith and D Henderson*

Introduction

Animal bones were recovered from three Borders sites excavated under the auspices of the Manpower Services Commission during the 1980s. These were 13–19 Roxburgh Street and Chalkheugh Terrace, Kelso, and Bridgegate, Peebles. Full reports on these assemblages, including the methods used in identifying the bones, are lodged in the site archive.

Bones from the Kelso sites were of fairly recent date, those from Chalkheugh Terrace dating to the 19th century, while those from 13–19 Roxburgh Street spanned the 17th to the early 20th centuries. Bones from Bridgegate, Peebles, which formed the largest assemblage from these sites, dated from the 13th to the 20th centuries.

13–19 Roxburgh Street, Kelso *by C Smith*

A small assemblage of animal bone was recovered from the site. The archaeological phases from which these bones came, Phases 3–8, were dated from the mid 17th century to the early 20th century. No bones were retrieved from late medieval Phases 1 and 2. Condition of the bones was variable; most of the material was poorly preserved, abraded or fragmentary, although occasional specimens were well preserved. Few anatomical measurements were thus possible.

The animal species recovered included (numbers of fragments in brackets) cattle (22), sheep/goat (48), pig (1), horse (4) and cat (3). In addition, one vertebra was thought to come from a dog and two long bone fragments from Phase 8 were most likely to have come from rabbit. Ribs and vertebrae of large ungulate (15) and small ungulate (11) as well as indeterminate mammal fragments (77) were also retrieved (see also [Table 3](#)).

Bones were most plentiful in Phase 6, dating to the later 18th to early 19th century. However it is not clear how much of the material had been redeposited from an earlier period, since most of the bones are from the small type of sheep and cattle associated with the medieval and post-medieval periods. In addition, where evidence of butchery has survived on the bones, it is clear that axes or cleavers were used rather than saws. Only in Phase 8 at Roxburgh Street was there any evidence of sawing, and that on only one bone, a large ungulate (cattle) vertebra.

Since the bone assemblage was of such a small size, it is difficult to draw many meaningful conclusions from the material. However sheep bones appear to have been more numerous than those of cattle (allowing for fragmentation) and it is possible that, as at the sites at

Chalkheugh Terrace, Kelso and Bridgegate, Peebles, sheep were actually the more plentiful species.

Chalkheugh Terrace, Kelso *by D Henderson*

A total of 787 fragments of bone was recovered from the excavation at Chalkheugh Terrace, Kelso, of which 455 pieces came from the skeleton of a foetal or neonatal calf.

Of the 332 fragments not associated with the calf burial, 206 were from sheep, 58 from cattle, 12 from pig, 17 from rabbit, 2 from horse, 1 from dog, 4 from bird (domestic fowl, *Gallus gallus*), 3 from fish (haddock, *Melanogrammus aeglefinus*, and *Salmo* species) and a further 29 fragments were not identifiable as to bone or species (see [Table 3](#)).

A count of minimum numbers of individuals also confirmed the presence of a greater number of sheep than of cattle, although given the small sample numbers, the true ratio of mutton to beef in the diet is impossible to estimate.

Very few measurable bones were recovered but, from single dimension measurements, it may be inferred that the domestic species were of a size comparable with modern animals. This is consistent with the 19th-century date of the site.

There was a fairly even distribution of bones from different parts of the carcasses of sheep and cattle, representing typical domestic midden deposits. The butchery marks on the bones are consistent with domestic use of butcher meat. Most of the butchery marks take the form of sawing or chopping marks on the diaphyses of long bones. Nearly all of the recovered vertebral bodies were longitudinally split; 32 of the 44 sheep vertebrae and four of the eight cattle vertebrae were sawn in half. Ribs were sawn off in a way that suggested they had been parts of meat chops.

Very little can be said about the ages at which the animals were killed since the sample is so small. However it is possible to say that sheep were killed at all ages from before one year old to prime meat age (over three years old) and that some animals were killed at a greater age. Evidence from loose teeth (a third molar and third premolar) indicate that a few sheep were killed and consumed at over five years of age. The evidence for cattle is more scanty, but it appears that they were also killed at all ages from neonate to fully mature.

A single deposit contained the nearly complete skeleton of a calf, either foetal or neonatal, but clearly unweaned. The absence of any cut marks on the bones confirms that this was the burial of a

Table 3 Numbers and percentages of food-forming mammals at Chalkheugh Terrace and 13–19 Roxburgh Street, Kelso, based on fragment count

	Chalkheugh Terrace		13–19 Roxburgh Street	
	n	%	n	%
Cattle	58*	20.9	22	29.3
Sheep/goat	206	74.1	48	64.0
Pig	12	4.3	1	1.3
Horse	2	0.7	4	5.3
Deer species				
Total	278	100.0	75	99.9

* indicates that bones from skeleton of foetal/neonatal calf are omitted

complete, unbutchered animal, possibly stillborn or unable to suckle.

Bridgewater, Peebles by C Smith

Dating and condition of the samples

Animal bones were retrieved from all phases of the site, which dated from the 13th century (Phase 1), through the medieval period (Phase 2, early 14th century; Phase 2A, mid 14th century; Phase 2B, late 14th century) to the post medieval and modern periods (Phase 3, early 15th-mid 17th centuries; Phase 3A, mid 17th-early 18th centuries; Phase 3B, early 18th century; Phase 3C, 18th century, and Phase 4, 18th-late 19th centuries). Although a small number of bones was recovered from the earliest phase (1), animal remains were most numerous in the post-medieval phases, associated with the town's tolbooth. The condition of the material was generally fair, although some bones had suffered from abrasion, erosion or relatively recent damage. However the fragments were all of reasonably large size and thus the number of bones which could be identified to species was high.

Relative frequencies of species

Bones of domestic mammals dominated the faunal assemblage from Bridgewater: cattle, sheep/goat, pig, horse, dog and cat were all recovered. In the case of sheep/goats, since no goat horn cores or metapodials were identified, it is likely that goats were absent, as these bones are highly diagnostic of species and can usually be confidently identified as either sheep or goat. Most, if not all, of the bones from this site are, therefore, thought to be from sheep.

Wild mammals were represented by the bones of red deer (*Cervus elaphus*), fallow deer (*Dama dama*), rabbit (*Oryctolagus cuniculus*) and, possibly, fox (*Vulpes vulpes*), although the last-named, represented by only a single bone shaft, was impossible to distinguish from dog. Bird species found at the site were domestic fowl (*Gallus gallus*), domestic or greylag

goose (*Anser anser*) and crow or large rook (*Corvus corone/frugilegus*).

The numbers of bones from each species are shown in Table 4, which shows that sheep/goats are the most consistently numerous species. An estimate of the minimum numbers of individuals present also bears this out. Sheep appear to have continued in importance through the medieval period (Phases 1 and 2), through the late medieval/post-medieval period (Phase 3) and on to relatively recent times (Phase 4) (see Table 5).

This is a notable result; work done on animal bone assemblages of medieval and post-medieval date from urban sites elsewhere in Scotland has tended to show the dominance of cattle over sheep, and has emphasised the importance of the hide trade to the medieval Scottish economy. However most of the published sites have, to date, been concentrated in the north-east of Scotland, within the burghs of Perth, Elgin, Aberdeen and St Andrews (Hodgson 1983; Hodgson and Jones 1982; Smith 1997). The assemblage from Peebles, therefore, appears to demonstrate a heavier reliance on sheep, which almost certainly reflects the importance of the wool trade to the Borders burghs.

In other respects, however, the frequencies of species recovered from Peebles Bridgewater resemble those of assemblages from the north-east of Scotland. Thus, the bones of pigs are poorly represented, their numbers being masked by the large quantities of sheep and cattle bones. Rearing of pigs appears to have been a cottage industry in Scotland until the present century. Although there are numerous documentary references to them in burgh statutes (mainly because of the nuisance they caused within the closed confines of the towns), pigs never had the economic importance enjoyed by sheep and cattle.

If pigs are infrequent, so too are wild game animals, such as deer. As noted above, the deer species found at the site were red and fallow; roe deer (*Capreolus capreolus*), which often occur in small numbers at north-easterly Scottish sites, were absent. A low uptake of venison is not unique to Peebles, however. It has been found that sites in Perth also provide little evidence that venison was hunted by, or otherwise available to, the medieval urban population (Hodgson

Table 4 Total numbers of animal bones at Bridgegate, Peebles by phase

	Phase										Total
	1	2	2A	2B	3	3A	3B	3C	4	5	
Cattle	4	28	30	45	44	55	38	8	137	6	395
Sheep/goat	1	45	41	71	51	156	116	39	255	8	783
Pig		4	1	2	6	5	6		27		51
Horse		5	3	4	2	18		1	21		54
Red Deer		7	1			1			1		10
Fallow Deer						1					1
Dog		1	1		1	21	1		12		37
cf Dog					2						2
Dog/Fox							1				1
Cat		4				3	1	1	1		10
Rabbit and cf Rabbit						1				1	2
Fowl and cf Fowl		1		2		2	2	1	3		11
Goose		1	1	1		1	1				5
Crow/Rook						1					1
Indeterminate Bird						1		1	2		4
Fish			2			2					4
Large Ungulate		16	13	23	13	30	39	12	104	7	257
Small Ungulate		5	9	24	18	27	28	10	82	4	207
Indeterminate Mammal	5	62	97	139	101	153	100	20	417	4	1098
Total	10	179	199	311	238	478	333	93	1062	30	2933

1983), although more northerly sites, for example in the burghs of Elgin and Aberdeen, have produced a higher proportion of deer bones (Smith 1998; Smith and McCormick 2001).

Age of animals at death

Study of the approximate age of the domestic livestock at slaughter can be used as a guide to patterns of animal husbandry, economic exploitation and even human dietary preferences.

In the case of cattle, at least 26.3% of the available long bones from post-medieval Phase 3 came from mature adults, while a further 42.1% were classified as immature or adult. In medieval Phase 2, however, more animals may have survived to older adulthood; here, 36.6% of the available long bones came from mature adults while 41.5% were either immature or adult. In both Phases 2 and 3, there is also evidence of small numbers of calves having been killed.

As regards the sheep at Bridgegate, the evidence of mandibular tooth eruption and wear pattern (after the methods of Payne 1973 and Grant 1982) shows that older animals were present. Thus one mandible from medieval Phase 2 came from an animal with heavily worn teeth, which in modern terms would indicate an

age between eight and ten years. The majority of the mandibles came from sheep which died at ages estimated between two and six years, although one lamb of between six and twelve months was found in Phase 3. On the basis of the long bone evidence, there appears to be a shift in the age distribution with time. Thus there is a higher proportion of adult animals in Phase 2, which diminishes in Phase 3, with a corresponding increase in the number of young animals killed. Some very young lambs, perhaps newly born, appear to have died in Phase 3. Young lambs were also present in Phase 4. This trend towards younger animals may reflect a move away from wool production towards a meat and dairy economy.

Evidence of butchery

During the 17th century, the burgh fleshmarket seems to have been located in close proximity to the site of the tolbooth in the Bridgegate: there is a reference in 1631 to 'ane flesche mercat in the clois of the new tolbuith' (Buchan 1925, 186), although there is some confusion over the location of the tolbooth (see Bridgegate, Documentary Evidence). However a new fleshmarket appears to have been built in the 'Bridgait' in 1671, where the fleshers were 'obleist to kill all thair beasts'

Table 5 Numbers and percentages of food-forming mammals at Bridgegate, Peebles, based on fragment count

	Phase									
	1		2*		3		3A, B, C		4	
	n	%	n	%	n	%	n	%	n	%
Cattle	4	80.0	103	35.9	44	42.7	101	22.8	137	31.1
Sheep/goat	1	20.0	157	54.7	51	49.5	311	70.2	255	57.8
Pig			7	2.4	6	5.8	11	2.5	27	6.1
Horse			12	4.2	2	1.9	19	4.3	21	4.8
Deer species			8	2.8			1	0.2	1	0.2
Total	5	100.0	287	100.0	103	99.9	443	100.0	441	100.0

2* indicates that Phases 2, 2A and 2B are combined, since all date to the 14th century

rather than on the public streets. Slaughter in full view of the public was common practice in medieval Scotland prior to the erection of fleshmarkets. It is, therefore, possible that some of the animal bones recovered during the excavation of the tolbooth site may have been associated with the 17th-century fleshmarket. There are few deposits reminiscent of butchery waste, however, with the exception of one from Phase 3, which included a few highly characteristic fragments of chopped distal humerus, femur head and proximal tibia. These small chopped fragments are 'butchers' chips', struck from the epiphyses of long bones during the accurate disjuncting of carcasses by the fleshers. Otherwise, there is a wealth of evidence for long bones having been chopped medio-laterally across the shafts and occasionally split open longitudinally for marrow extraction. However this commonly occurs when the meat is consumed by the purchaser, rather than as an initial part of the butchery process carried out by the fletcher. Thus, although knife cuts were also inflicted on many of the bones, these cut marks do not themselves prove that the bones were associated with any commercial practice.

It is notable that the incidence of the use of saws to dismember carcasses was not great, even in contexts associated with the early modern period. Instead, the preferred tool was, as at Scottish sites of both medieval and post-medieval date, the butchers' axe or cleaver. Although the numbers of sawn bones did increase in Phase 4, it was apparent that axes were still being used far more frequently than saws. Although it is possible that some of the bones in the later periods of the site may have been redeposited from the earlier phases, the 'medieval' butchery style in Phase 4 is still striking.

Distribution of bones over the site

Bones from all parts of the carcass were well represented, both high meat-yielding parts such as the vertebrae and upper parts of the limbs, as well as low meat-yielding parts such as the metapodials and feet.

There was thus little evidence that good quality cuts had been taken away from the site. However a fragmentary cattle head, which included the skull, maxillae and mandibles, was found in Phase 2, and may represent the discarded end product of medieval butchery. Other incidences of articulating bones from the same skeleton, at least in the case of cattle and sheep, were rare, since joints of meat originating from one animal can be dispersed far and wide. However in the case of horses and dogs, disposal is often different; one context in Phase 3 (190) contained, amongst the remains of meat-bearing animals, the partial skeletons of at least three dogs, as well as two horses. The dog skeletons were probably disposed of intact. However the horse remains consisted of only the carpals, tarsals, a patella and some teeth, which may indicate that the rest of the carcasses became food for either humans or their dogs. A horse phalange from Phase 3 does indeed show the characteristic marks of having been gnawed by a carnivore such as a dog (although it should be noted that many of the bones of cattle and sheep, whose meat was presumed to have been eaten by humans, have acquired dog gnaw marks). Preparation of horse meat for food is also indicated by knife cuts on the anterior surface of an equine patella, presumably inflicted on disjuncting the knee.

Size of animals

Anatomical measurements were made on the bones wherever possible, in order to provide some guide as to the sizes of the live animals from which they came. In the case of cattle, it is notable that none of the measurements from the medieval, post-medieval and early modern periods at Bridgegate are larger than those from medieval sites elsewhere in Scotland, and in particular, than the large medieval assemblage at 75–77 High Street, Perth (hereafter abbreviated as PHSE; Hodgson *et al* forthcoming). It should be noted that the Bridgegate sample sizes are fairly small, but there is little evidence to indicate any size difference in the cattle at this site between the medieval and

post-medieval periods, or even between the medieval and early modern period.

For sheep, a comparison of size ranges indicates that the majority of measurements are within the medieval PHSE ranges, with only a few exceptions (one femur in medieval Phase 2 is slightly larger). All sheep bones from the late medieval/post-medieval Phase 3 fall well within the range of the medieval Perth sample. There is some very slight evidence that in Phase 4 sizes were beginning to increase; one broader proximal radius measurement and two larger proximal femur measurements were noted. In addition, some bones from Phase 4 may indicate that body shape had begun to evolve into a more modern form: a group of three sheep metapodials are shorter and thicker in shaft diameter than the typically long, slim, medieval type found in the earlier phases of the site's history. Unfortunately these more recent metapodials are unfused bones from immature animals and therefore not measurable, but they appear to represent an animal, or animals, of stockier build than those found in the earlier periods.

The few horse bones that survived were mainly bones of the fore and hind feet, and thus gave no indication of stature. However as for the cattle and sheep, these bones were of small dimensions. The typical Scottish horse of the medieval and, probably, the post-medieval period appears to have resembled the Highland garron in stature, usually standing around 13 hands high, and with short, relatively stout cannon bones. The bones from Bridgegate probably came from such ponies.

No pig bones were of measurable quality or condition, but the medieval bones from Bridgegate probably came from the small, slim type of animal found elsewhere in Scotland at this period. As in the case of the early modern sheep, a change in pig body conformation appears to have taken place in Phase 4; an unfused radius, ulna and associated loose epiphyses were of very large breadth with respect to their length, and were thus untypical of the primitive, wiry type noted at other Scottish sites of medieval date.

Discussion

The animal bones from these three Borders sites have shown that assumptions based on material from urban excavations in the north-east of Scotland do not necessarily hold true for every other Scottish site. This is

particularly so for the evidence from medieval and post-medieval phases at Bridgegate, Peebles, where sheep bones dominated over those of cattle. Thus far, discussions of the pattern of animal exploitation in the medieval and post-medieval periods have relied on results from north-easterly sites, mainly towns, and have concluded that there the economy relied more heavily on cattle than on sheep. Although documentary sources such as the Exchequer Rolls of Scotland indicate that cattle hides were of great monetary value to the medieval economy, wool and woolfells brought in the greater revenue. The bones from Peebles provide the evidence to show that sheep, the producers of wool and thence textiles, play a far more important role than cattle in the Borders region. Other work on animal bone assemblages from sites in the Borders, at the fishing town of Eyemouth (Henderson 1986) and at Jedburgh Friary (P Dixon, pers comm) also confirm the place of sheep in the local economy.

The importance of sheep to the great Cistercian Abbey of Melrose is well documented, and before the Reformation the abbey owned or leased vast acreages of land in the Borders country, particularly in Ettrick Forest, Lauderdale, Teviotdale and the Lammermuir hills where sheep were pastured (Macleod 1995, 120). The Crown also owned flocks of sheep, which were grazed in Ettrick Forest during the 15th century. The wool was sorted and packed in the burghs of the Borders, particularly Selkirk, before being sent to the ports of Berwick and Leith for export to the Low Countries (Elliot 1995, 173). As well as raw wool, the skins of sheep with the wool attached, known as woolfells, were also exported. Since woolfells represent dead, rather than living, sheep, the by-products, mainly in the form of meat, must have been available to the people of the burghs where the animals were slaughtered. The sheep bones, therefore, are the surviving evidence of this thriving trade in wool and woolfells.

The type of sheep that produced this wool appear to have conformed to the small, spindly-legged medieval type found elsewhere in Scotland. They do not appear to have changed much from the early medieval period until at least the latter part of the 18th century, when conscious efforts were made by 'enlightened' landowners to improve them. At Bridgegate, there is some slight evidence that about this time, a new, shorter legged breed began to appear, although the vast majority of the sheep remained little changed in stature from the medieval period.

Environmental report

Botanical remains by *B Moffat and C Smith*

1 Pollen analysis of charred cereal residues from a corn-drying kiln at 13–19 Roxburgh Street, Kelso

Three samples were taken from the interstices of the floor-stones of the kiln from Phase 2 at 13–19 Roxburgh Street, Kelso and were prepared for pollen analysis by standard methods. Analysis of

Table 6 Pollen Types from the kiln at 13–19 Roxburgh Street, Kelso

Species	n	%
Grass and Cereal Pollen:		
Gramineae, undifferentiated	38	2.5
<i>Hordeum</i> type (barley)	781	52.3
<i>Triticum</i> type (wheat)	390	26.1
<i>Avena fatua</i> (wild oat)	21	1.4
Cerealia, undifferentiated	156	10.5
Total Cerealia	1348	90.3
Total Gramineae	1386	92.8
Herb Pollen:		
<i>Plantago lanceolata</i> (ribwort plantain)	3	
<i>Plantago major</i> (rat-tail plantain)	2	
Caryophyllaceae (campion family)	7	
Chenopodiaceae (goosefoot family)	8	
Compositae (Liguliflorae)	13	
Compositae (Tubuliflorae)	2	
<i>Polygonum sect. persicaria</i>	9	
<i>Rumex sect. rumex</i> (dock)	14	
<i>Rumex sect. acetosa</i> (sorrel)	5	
<i>Ranunculus</i> sp. (buttercup)	21	1.4
Labiatae, undifferentiated (mint family)	3	
<i>Teucrium scorodonia</i> (wood sage)	7	
Total Herb Pollen	94	
Tree Pollen:		0.8
<i>Alnus</i> (alder)	5	
<i>Betula</i> (birch)	7	
Total Tree Pollen	12	

n = number present

macroremains was not undertaken due to the compacted, agglutinated state of the samples.

Pollen grains, fern spores and septate fungal hyphae were identified in the samples. Amorphous charred matter was abundant.

Discussion

The pollen assemblage complies well with the interpretation of the structure as a corn-drying kiln, since the adherence of cereal pollen grains to harvested cereals has been widely recorded. There is no evidence that plants other than cereals were dried in the kiln. The range of cereals processed in the kiln is shown in Table 6. The use of the category ‘undifferentiated cereal’ was made necessary because of the presence of granular charred material irremovable from the microscopic slide, which precluded further identification of the pollen grains. The ratio of barley to wheat in the samples is broadly in the proportions 2:1. However this ratio may not directly represent the proportion of grains imported to the kiln, since the activities of the kiln workers (dumping, heaping, trampling, dowsing) would have dispersed the grains on the kiln floor.

The abundance of charred material (fragments of grain, husk, and stalk) indicates that drying of the grain may have progressed too far, allowing scorching to take place on the kiln floor. The scale of such an incident cannot be known.

The other, ‘contaminant’ pollens largely represent an array of weeds of field, field-edge and waste places. A few may have been harvested along with the cereals, in particular, wild oats, persicary, docks, goosefoots and composites. The remainder may have been introduced during storage of the grains. Wild oats and persicary are still considered nuisance species and are prime targets for herbicide advertisements in, for instance, ‘Farmers Weekly’, today.

2 Environmental Analysis of samples from 13–19 Roxburgh Street, Kelso

Wood and organic samples were subjected to environmental assessment. Of the wood samples, fragments from the following species were identified: birch (*Betula* sp.), hazel (*Corylus* sp.), oak (*Quercus* sp.), elder (*Sambucus* sp.) and ivy (*Hedera* sp.). Unidentified charcoal and ash (probably from coal) were also noted. Apart from occasional phytoliths of Festucoid type, that is, from grasses of the genus *Festuca* (fescue), and fragments of heather, no other plant macrofossils were identified in the samples (Table 7).

Table 7 Environmental Analysis of samples from 13–19 Roxburgh Street, Kelso

Phase	Context	n	Weight	Description and findings (pieces 5 × 2 × 2 cm are fully described) 'Loss upon ignition' = organic content (Org), see note*.
	1516			Org 1.59%/1.65%.
1	1065			Org 2.37%.
1	1349	3		Birch.
1	1470		0.25 kg	Org 2.01%.
2	343			Org 1.89%
2	351			Org 7.82%
2	371			Org 12.73%. Ash, wood (not identifiable) and charcoal. Fire residue.
2	378			Org 2.58%.
2	381			Org 2.99%.
2	382 628			2 birch. Org 4.13%.
2	409			Org 3.16%.
2	416			Org 2.36%.
2	1398		0.25 kg	Charcoal, coal, ash, mortar as dust.
2	1400A		0.1 kg	Org 4.62%.
2	1400B		0.1 kg	Org 5.33%.
2	1400C		0.1 kg	Org 3.57%. By weight all were 65–70% separable charcoal.
2	1415 559	1		Birch.
2	1416		0.15 kg	Wood charcoal and sand.
2	1416		0.15 kg	Org 0.7%.
2	1495			Org 1.09%.
2	1499		0.25 kg	Org 1.42%.
2	1526			Org 10.61%. Wood ash and charcoal. Fire residue.
2	1541 (106)			Rejected due to contamination.
2	1542			Org 2.72%.
3	1123 43	1		Oak.
3	1434 564			Birch.
3	1466		0.05 kg	Org 17.07%. Imported river shell sand. Shell too fragmented for identification.
3	1515			Org 0.61%.
3	1518 (71)			8 minute slivers of birch. Probably of a piece.
4	100	14		5 birch; 3 hazel; 3 ivy; 3 elder.
4	100 525	4		2 birch; 2 hazel.
4	300A		0.15 kg	Charred wood, comminuted and intermixed with clay. 2 sampled pieces were of birch.
4	1242	5		Fragments. All wood was birch. Posthole? Finer material charred. Fire residue.
4	1335		0.3 kg	Sand, wood and heather macrofossil charcoal.
4	1359 572	8		6 oak; 2 birch.
4	1372	3		Birch.
4	1374	5		3 hazel; 2 birch.
4	1438			Org 6.41%.
4	1464		0.25 kg	Wood charcoal and clay.
5	284 489	1		9 × 8 × 2 cm. Birch.

Table 7 (cont.) Environmental Analysis of samples from 13–19 Roxburgh Street, Kelso

Phase	Context	n	Weight	Description and findings (pieces 5 × 2 × 2 cm are fully described) 'Loss upon ignition' = organic content (Org), see note*.
5	315		0.15 kg	Charred wood, comminuted and intermixed with clay. Sampled pieces were: 2 hazel, 2 birch.
5	320 630			4 birch; 1 oak; 1 hazel.
5	330A			Org 0.66%.
5	340 596	4		4 birch.
5	356 576	1		Birch.
5	1042 439	1		Sliver of birch.
5	1077 2 (1 on bag)			Both hazel.
5	1463			Org 1.65%.
6	245		0.5 kg	No pollen or macrofossil assemblage. Org 4.0%. 'Sterile sub-soil'.
6	282		0.6 kg	No pollen or macrofossil assemblage. Occasional phytoliths of Festucoid type, 30% Org and abundant particulate charcoal. No indication of sewage. 'Dark soil'.
6	299		0.4 kg	Wood, well charred and decomposed, with few identifiable pieces. All 9 were birch, and probably of a piece.
6	353			Coal dust and ash included in clay.
6	1041		0.1 kg	Org. 2.7% No macrofossil, microfossil or charcoal assemblage. 'Sterile sub-soil'
6	1060		0.05 kg	Mixture of granular mortar, charcoal, coal and ash. Dust from rubble?
7	69 178	12		Rough slivers, largest 11 × 3 × 1 cm. All birch.
7	387 574	1		Birch.
8	22 167	1		1 planed and painted piece of wood, 3 × 2.5 × 1 cm. Oak. Coats: buff, under, and mid-brown.
8	57 199	4		Slivers, larges 4 × 1 × 0.5 cm. All hazel.
8	208 159	2		Birch. Some bark adhering. Largest 5 × 2 × 1 cm

n = number present

* General guide to significance of Organics values from this site:

Under 2%	sterile
c 2–5%	negligible
c 5–10%	minor
over 8%	worth intensified examination

3 Report on plant remains from Building A, Wester Kelso/Floors Castle Trench 2

Organic material, although generally scarce at this site, was found embedded in the floor levels of the cellar at Wester Kelso/Floors Castle Trench 2. Three lenses of agglutinated, blackened organic material (each providing samples of 6 g dry weight) from the cellar were subjected to examination. All residues which were found to be greater than 90% 'loss on ignition', and which, therefore, contained a significant amount of organic materials, were separated and examined. Pollen and spores were concentrated, and macroremains were disaggregated, using standard methods.

Both macro- and microremains consisted largely of bracken (*Pteridium aquilinum*). Eleven entire bracken fronds were separated, and on three of

these, sori were observed in a collapsed form on the underside of the fronds. (A sorus is defined as a small area on the abaxial surface of a fern lamina, concerned with the production of sporangia, the structures in which the spores are formed). In total 923 spores were noted. Four of these were from *Dryopteris filix-mas* (male fern); the remainder were all broken spores of *Pteridium*. In addition, seven pollen grains were identified: three from *Plantago lanceolata* (ribwort plantain), two from Gramineae (grasses), one from Cyperaceae (sedges) and one from Chenopodiaceae (goosefoot family).

Ferns found in these three lenses, from subterranean floor levels of the excavations, could not have grown and developed sori *in situ*, since the soil at and below the levels of the lenses was sterile and inorganic (less than 5% 'loss on ignition').

**Table 8 Environmental analysis of samples from a stone-lined pit at Wester Kelso/Floors Castle Trench 3
Species present in samples**

Species	Common name	n	%
Wetland taxa			
Lemnaceae	Duckweed family	1	
<i>Nymphaea</i> sp.	Water lily	1	
<i>Potamogeton</i> sp.	Pondweed	2	
<i>Phragmites</i> sp.	Reed	2	
Cyperaceae	Sedge family	58	
<i>Salix</i> sp.	Willow	33	
<i>Alnus</i> sp.	Alder	536	
Sub Total		633	38.6
Dryland and riparian taxa			
<i>Calluna</i> sp.	Heather	76	
Ericaceae, undifferentiated	Heather family	16	
Linaceae	Flax family	2	
Cerealia, undifferentiated	Cereal family	2	
Umbelliferae	Carrot family	10	
Rosaceae	Rose family	3	
<i>Filipendula</i> sp.	Meadowsweet	6	
<i>Rumex acetosa</i>	Sorrel	15	
<i>Plantago lanceolata</i>	Ribwort plantain	94	
<i>Plantago major/media</i>	Greater/hoary plantain	16	
Labiatae	Mint family	6	
Compositae (Ligulate)	Daisy family	92	
Compositae (Tubulate)		11	
<i>Artemisia</i> sp.	Mugworts	4	
Caryophyllaceae	Campion family	13	
Gramineae	Grasses	526	
<i>Pinus</i> sp.	Pine	24	
<i>Ulmus</i> sp.	Elm	1	
Coryloid	Hazel	26	
<i>Betula</i> sp.	Birch	57	
<i>Quercus</i> sp.	Oak	6	
Sub-total		1006	61.4
Total		1639	
Faunal remains			
<i>cf Fasciola hepatica</i> (ova)	Sheep liver fluke	19	
Trichoptera (larvae)	Caddis fly	2	

n = number of pollen grains

Table 9 Coal Samples from 13–19 Roxburgh Street, Kelso

Phase	Context	Sample	Condition	Age/Potential Age Range
1	1470	521	Poor	Middle Coal Measures
1	1336	640	Good	Lower, Middle & Upper Limestone Group
2	1528	557	Poor	Middle Coal Measures
2	1416	624	Barren	Unknown
2	1127	627	Fair	Scremerston Coal Group to Millstone Grit
2	332	628	Poor	Lower, Middle & Upper Limestone Group
3	1538	590	Almost Barren	Coal Measures
3	1097	613	Good	Lower, Middle & Upper Limestone Group
3	1103	638	Barren	Unknown

There is an abundance of field observation and ecological data on bracken, relevant in many respects to this site, namely its general distribution (Page 1982), the prolificacy of spore production (Rymer 1976) and bracken's status as a very extensive, aggressive and abundant, weedy species (Page 1982). An ethnobotanical review shows the diverse uses to which bracken has been put in historical times (Rymer 1976). Importation of bracken to this unnatural, sterile site, indicates an intended end-use; for example, conversion to potash, use as fuel, thatch, litter or floor covering, food or medicament (*ibid*). However this evidence is mainly anecdotal, highly uneven in quality and geographical cover, and difficult to quantify.

The presence of abundant frond and reproductive material and the absence of rhizomatous and burned material allow an appraisal of the probability of these end-uses at this site. Only fuel (unused), thatch or roofing (though without supports, and not of sod or turf), litter or floor covering (in this case, unused since no associated plant and animal species were evident) and packing (of some indeterminate stored commodity) need be considered. Since potash manufacture leaves a burned residue, which is absent at the site, this use can be discounted. Similarly, use as a food or medicament, while possible, cannot be proven. The purity of the plant material in the lenses indicates careful gathering for one of these specific purposes.

4 Environmental analysis of samples from a stone-lined pit at Wester Kelso/Floors Castle Trench 3

A total of 18 samples was obtained from the fills of a stone-lined pit from Phase 2 at Wester Kelso/Floors Castle Trench 3. Pollen analysis revealed the presence of a variety of plant species from both wetland and dryland taxa, as shown in Table 8. The nature of the deposits containing the wetland species indicated the presence of flood debris, either deposited naturally or dumped. Faunal remains consisting of

two possible larvae from caddis flies (Trichoptera) also indicate a freshwater habitat.

The remainder of the species represented in the samples were of grassland plants, typical of a low-growing sward. The incidence of ova, probably from the sheep liver fluke, *Fasciola hepatica*, indicates the presence of the host animal in the vicinity. These samples therefore indicate pastureland grazed by livestock, as well as, perhaps, waste ground, with no clear indicators of settlement.

Palynological Analysis of Coal Samples from Phases 1, 2 and 3 of the excavations at 13–19 Roxburgh Street, Kelso by G Armstrong (British Coal Scientific Services)

Upon maceration, the state of preservation of the spore assemblages was seen to vary quite considerably. Two of the samples were completely devoid of spore material, and another was almost barren. This may be because the rank of the coal is of a magnitude, which renders the spores unrecognisable, or that the coal has been burnt or subjected to weathering prior to burial. The variation in the state of preservation of the spore assemblages of the remaining samples may be the result of the inclusion, in the sample, of coal affected by one or more of the factors given above.

Samples from Contexts 1336 and 1097 comprise a single piece of coal so those species present in the spore assemblage with a range in time will enable the age of the coal to be precisely determined. The overlap in time, however, of long ranging species with short ranging ones means that some of the coal in the composite samples may be of an age equivalent in time to the upper or lower limits of the longer ranging species. In the case of one of the composite samples, therefore, a potential age range is given.

The table (Table 9) gives the age of the coal considered to be present in the samples, and it appears that in each phase coal may have been derived from the same sources.

Coal from the Scremerston Coal Group in the Middle Coal Measures is known to occur in the Northumberland Coalfield. All the coal excavated at Kelso may, therefore, have been derived locally if it outcrops at an accessible site.