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MEDIEVAL BERWICK-UPON-TWEED

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THE NORTHUMBERLAND town of Berwick-upon-Tweed lies on a small coastal peninsular on the northern bank of the river Tweed, bounded to the east by the dunes and shore of the North Sea, to the south by the flats of the river estuary and to the west by the river itself (fig. 1). Until late medieval times the town was the location of one of the most valuable urban centres and defensive positions ever to trouble both the thrones of England and Scotland. In both Border and national history Berwick's importance is unquestionable, not only through military strategy but also through maritime trade and association with a hinterland that embraced the fortunes of the great Border religious houses. Despite the town's nodal position in the wars between the two nations, its status as a port of international renown and its extensively documented history, it has remained a curiously unap-

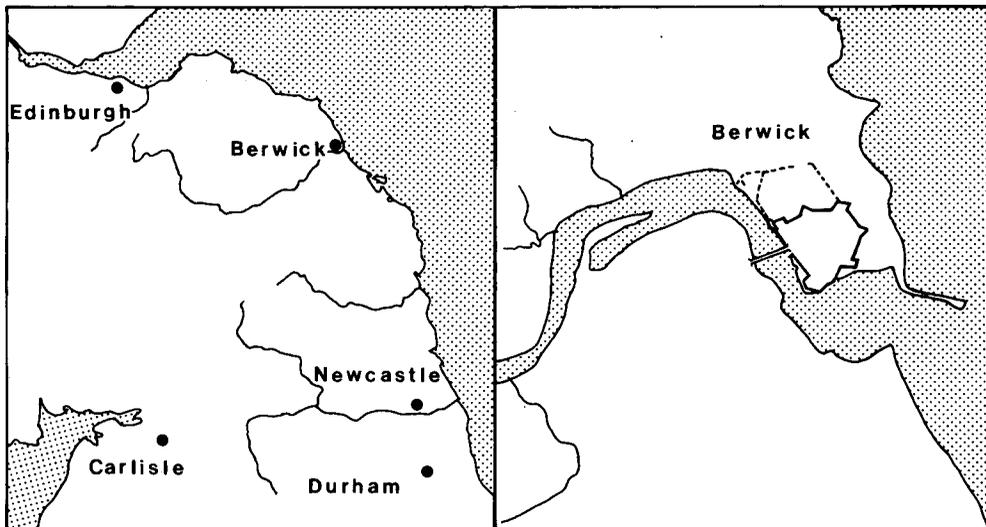


Fig. 1. Berwick-upon-Tweed, location map.

preciated source of archaeological potential especially at a time of increasing urban archaeological research.

Historically, Berwick has been the subject of three main works, all of which were written in the traditions of 19th century antiquarianism (Fuller, 1799; Sheldon, 1849; Scott 1888). They vary in value and in accuracy and show a natural tendency particularly in the case of Fuller to be concerned with the livelihood and prospects of the town in the centuries immediately before the date of writing. More general works on Border history (Ridpath, 1776) give perhaps a more accurate perspective of Berwick's medieval role but all rely heavily on the existence and credibility of other earlier sources. Valuable primary evidence survives from both countries and much of this has been usefully compiled (Bain, 1881; Anderson, 1908). In addition there is significant material relating to mercantile activity not only in Britain but also in the ports of Flanders and Germany where Berwick trade was active. Much of the secondary evidence is based either on specific events such as Jordan Fantosme's account of the wars of 1173-4 (Anon, 1840) or on more general compilations such as John of Fordun's Chronicle (Skene, 1872). Important sources also include the records of religious houses, particularly those in southern Scotland, for whom Berwick was a chief exit point for wool and hides and whose chronicles (for example Melrose and Lanercost) make frequent reference to the fortunes of the town. However, despite this wealth of documentary material, little analytical work has been carried out and many of those questions which rank among modern research priorities regarding the growth and evolution of the urban settlement remain unanswered.

There is, for example, little evidence for the reasons for the development of early Berwick, or indeed of the early defences and castle. Berwick's existence appears to have been first recorded in 1097 when King Edgar confirmed by gift to the Bishop of Durham "the village of Berwick with all its appurtenances" (Skene, 1872, 215). Before that time the town is recorded in several interesting (but historically dubious) sources including the *Orkneyinga Saga* which gives Berwick two references the earlier of which would appear to lie in the mid-11th century (Palsson and Edwards, 1978, 20 and 93). Other sources include the visit of a Pictish King in 872 (Scott, 1888, 1) and an observation regarding the town's strength in the earlier reign of Osbert (Fuller, 1799, 67). While this type of information is undeniably based on local tradition it cannot obscure the fact that the place-name *Berwick* is likely to be derived from Old English *berewic* "barley farm" denoting a grange or outlying part of an estate (Nicolaisen, 1976, 78) and may represent Anglian expansion northwards. This being the case, it is less easy to explain why the name *Berwick* representing an outlying dependency was used for a shire capital by the end of the 11th century (Barrow, 1973, 30). As an Anglian settlement it was too remote from any frontier between Scot and Angle to be strategic, but at the same time too close to Bamburgh, Yeavinger and Holy Island to develop in any royal or ecclesiastical way. Berwick's rise to importance may simply have been the geographical position in which it found itself when the Tweed became finally resolved as the boundary between England and Scotland. It would also perhaps account for

the need for the distinguishing epithets between North Berwick and South Berwick both of which had outgrown their "grange" functions (Nicolaisen, 1967, 76). Of the original nucleus from which this expansion developed little is known. Good harbourage was in itself not a valid attribute for expansion, but combined with the presence of approach roads and a bridge spanning the Tweed from the mid-12th century the criteria for a developing trading centre are likely to have been met. Later status as a Scottish burgh required more tangible attributes and were presumably found in the form of the castle and a more developed trading arena. The evolution of early Berwick must rest largely on theory and while the notion of an expanding and regulated market appears to emerge in later years, its precursor is likely to have been somewhat less sophisticated and in a Scottish context perhaps no more than a form of exchange and marketing (Duncan, 1978, 465). Little too is known of the nature of the goods trafficked and apart from surviving customs records it falls to maritime misfortune in the shapes of piracy, shipwreck or arrest to give any documentary glimpse of the cargoes carried and the ports of destination. Archaeology itself may provide more tangible evidence.

Berwick's growing position of importance would not only make adequate defences a necessity but also have the effect of transforming the settlement into one of political as well as economic significance. The construction of fortifications was inevitable yet despite the detailed attention given to Berwick's overall defences (Colvin, 1963) their dates of origin (and particularly that of the castle) have never been fully established. As a result the crucial relationship between the castle as an individual dominant and the associated urban centre has never been assessed. Exactly what effect the positioning and the manning of the castle had on the physical evolution of the town is still open to interpretation. The castle is first recorded in the reign of David and in 1297 was known to be sufficiently strong to have resisted capture by the Scots whereas the town was not (Ridpath, 1776, 144). The castle rather than the town appears to have been the focal point of attention from a political viewpoint and in common with other Border fortifications was a strategic pawn for the manoeuvres of the two monarchies. References to Berwick in the 12th century invariably emphasize its military function, usually within lists of fortifications held, for example by William (Anderson, 1908, 247) or restored by Richard (Anderson, 1908, 307). Later references tend to include mention of the town although it is difficult to assess what significance this may carry. By 1298 the town seems to have carried equal weight politically, the Exchequer Rolls recording:

"The Warden of the town (is) to be leader of this force at one time and the constable of the castle at another, as need be; but one shall always remain in charge of the castle and town till the others return" (Bain, 1884, II, 1022).

Certainly by the time of the treaty between the Scottish and English ambassadors for peace between the two countries in 1501 castle and town were invariably considered together although still mentioned individually.

It may be a pure reflection of Berwick's military importance that made the castle focal point of attention in earlier records. Any other argument dismisses too easily

the economic strength of the associated settlement and port. However, the fact that one of the largest and richest towns in Scotland should be defended by only a ditch and timber fencing at the time of Edward I's sacking in 1296 tends to emphasize the town's secondary status to the castle. Until 1482 Berwick passed back and forth between the two nations for varying periods of time but while the significance of the castle was the same for both parties, that of the associated settlement was clearly not. For Scotland the port of Berwick served a vast hinterland and was an economic necessity, but for England it was the possible *prevention* of trade through Berwick that could be achieved by taking the town. Additionally it enabled the English monarch to use the town as a supply base for military campaigns in the Borders and beyond. The two functions of Berwick could not have been more distinct and they introduce a further parameter into an already complex relationship between castle and town.

Equally problematic is the nature of the topography of the early town and the development and density of settlement. Little excavation has ever taken place either in the town or the immediate environs with the exception of work in the Spades Mire to the north-east (White, 1962–3). MacIvor's scholarly analysis of the defences (MacIvor 1965) was concerned more with the design of the Elizabethan works and is not strictly relevant here. Absence of archaeological attention has been to a large extent a reflection of Berwick's ability to avoid major redevelopment schemes which did much to cause problems of urban archaeology in other walled towns of early origin in the 1970's. The main reason for Berwick's success in pursuing a policy of preservation rather than of redevelopment is a direct consequence of traffic flow. Many walled urban areas, and particularly those derived from Roman times, still possess at least in part street plans evolved from the Roman or Early Medieval periods for which the walls or defences themselves were original conditioning factors in street alignment and direction. One product of this was often the channelling of traffic through the centre of the town following a tradition which either utilized a central thoroughfare between opposing gates or maintained an original approach access to a developed urban nucleus. In either case it was a tradition which retained the urban centre as a focal point of interest, commerce and traffic density.

Berwick's good fortune lies mainly in the fact that the street layout which survives today largely pre-dates the standing Elizabethan defences (commenced 1558) and hence the problems posed by access and through routes apply to a lesser degree than in towns where the defences had been conditioning factors from the very beginning. The town's fortifications are derived at least in part from earlier defences and fortifications and their imposition on an existing road network is obvious enough. The modern town plan (fig. 2) illustrates how these roads often bear little relationship to entry or exit routes to the intramural settlement—a fact self-evident to the visitor finding his way through the modern town, and a phenomenon inadvertently observed by an 18th century historian:

“It would give us pleasure could we say with truth that a proper attention to the laying out of the streets in a regular manner had been originally attended to. All of them are not only irregular, but intolerably ill-paved, while some others, though labouring under

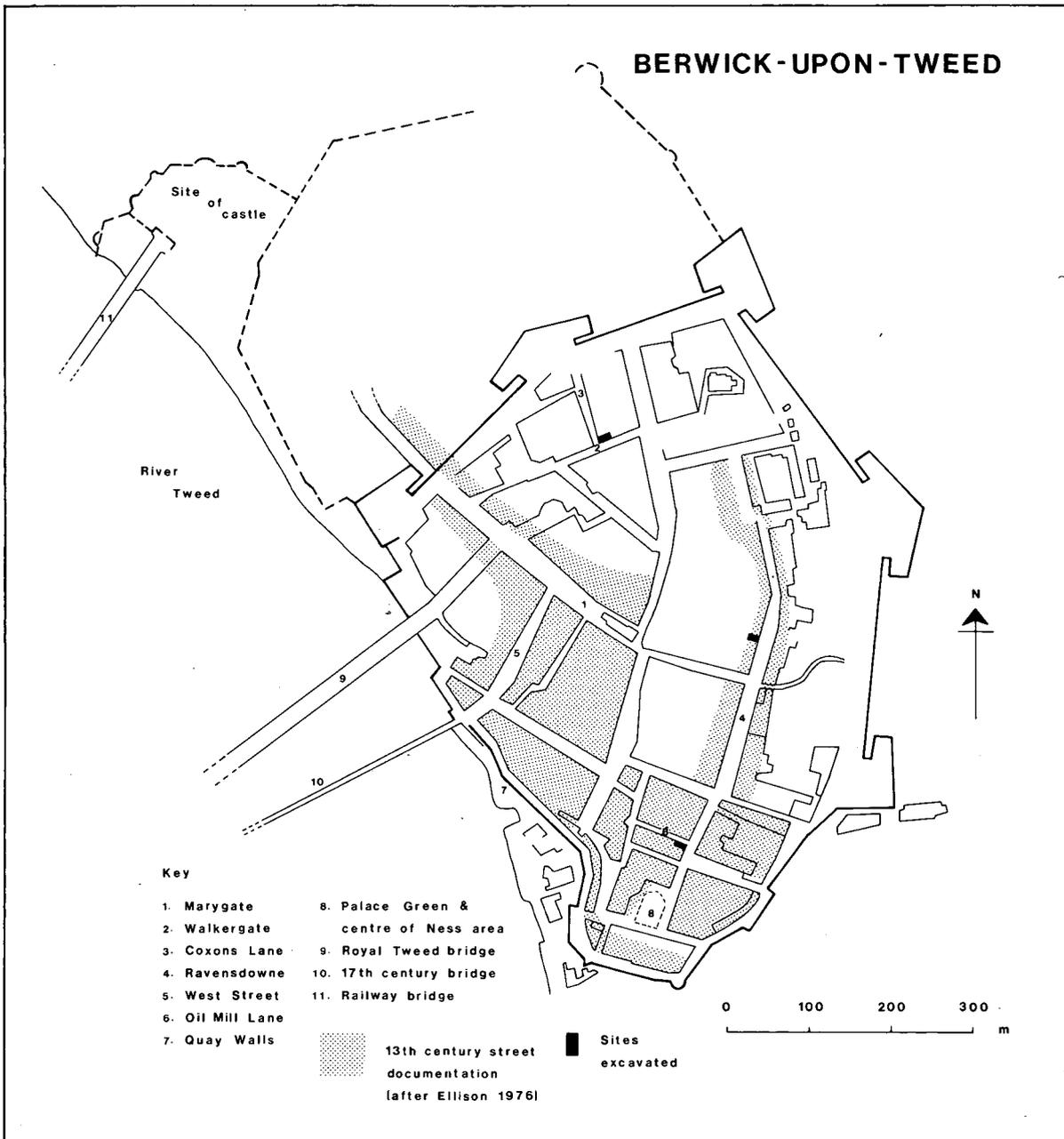


Fig. 2. Modern street plan of Berwick-upon-Tweed.

the same disadvantages, yet are sufficiently wide and commodious. The principle street, however, and one through which there is constantly a very considerable throughfare, is shamefully cramped at the bottom, by the town-hall being unjudiciously placed in the middle of it".

(Fuller, 1799, 39).

The 17th century bridge which leads from Tweedmouth on the south side of the river lies in the vicinity of the traditional medieval point of crossing. It provided an awkward method of access through to the town centre in Marygate (to which Fuller alludes) and was supplemented as early as 1928 by the Royal Tweed Bridge carrying the main trunk road through the north-west corner of the town. The result is minimal disturbance to the town nucleus by through traffic and a virtual guarantee that the urban centre (now a conservation area) survives without substantial change. The modern townscape is predominantly 18th century but still conforms to what is essentially a medieval street pattern.

Berwick's archaeological potential was first evaluated under the auspices of the Northern Archaeological Survey and particular attention was drawn to the manner of settlement evolution (Ellison, 1976). The general development of the mediaeval town was interpreted from dated street name documentation which indicated that the earliest *recorded* occupation (c. 1200) lay along the line of modern Marygate, between Marygate and the Tweed to the west and south-west and along the line of modern Ravensdowne as illustrated in figure 2. Later documentation showed the consolidation of areas between Marygate and Ravensdowne with additional expansion north of the modern walled area by the early 14th century. The earliest area of documented settlement therefore includes the traditionally "ancient" sectors of the town; the Ness, the "Palace" area and the present Tweed quayside. The evolution is understandable given that the likely reasons for early growth may have depended on harbourage, but by the early 13th century the evidence suggests that other factors had already made their mark. According to the street plan two focal centres are perhaps evident, that of modern Marygate to where attention appears to have shifted, possibly as a result of marketing development and the influence of the castle, and that of the Ness area where development seems to have been concentrated under different influences. In the absence of useful comparable evidence from other Scottish royal burghs it is difficult to say exactly what those influences were. Given that the trading nucleus is likely to have been centred around the Marygate area, it is conceivable that any royal or administrative sector of the town (including a mint) would provide a separate geographical point of interest. Whether this lay in the Ness area remains conjectural, although the street layout and indeed local tradition both suggest that it did so. The overall interpretation of Berwick's settlement is partly speculation and opportunities to test the hypotheses by excavation arose in 1975 and 1976.

Several small sites were made available for redevelopment and with kind permission of the District Planning Officer three were selected for investigation with funding provided by the Department of the Environment (Ancient Monuments). These were sited (fig. 2) on the north side of Walkergate in an area of documented mid-14th century settlement (Ellison, 1976, 157) and in Ravensdowne and Oil Mill Lane (Ness

Area) both of which could be documented to the early 13th century (Ellison, 1976, 156). The selection of these three sites was made partly in order to assess the early topography of the town and investigation clearly illustrated that while the earliest layers on the Walkergate and Ravensdowne sites were approximately 1.0 m and 0.75 m respectively below modern street level, those at Oil Mill Lane were considerably greater. Watching briefs on a Marygate development and during underpinning of a property on Quay Walls together with an engineers bore report on a West Street property confirmed that the original ground surface sloped much more steeply down towards the Tweed than the modern ground surface suggested. Towards the quayside undisturbed archaeological deposits are likely to lie approximately 5.0 m below the modern street level.

The three sites were selected on the grounds of their differing locations within the townscape and on the basis of known documented dates of settlement. Excavation was essentially of a trial nature to examine the depth and potential of archaeological deposits and to provide information regarding the feasibility of future investigation. With a combined open area of less than approximately 100 square metres it was neither intended nor possible to investigate entire structures or settlement complexes. Nevertheless the information gained was of considerable value, particularly with regard to the pottery types, and it permitted for the first time an assessment of Berwick's material remains in relation to the highly documented history. The individual sites are discussed below with their locations shown in figure 2. Observations from specialist reports are incorporated into the discussion with the full reports appearing as appendices. These include pottery, botanical remains and animal remains. Clay pipe fragments appeared only in the later and most disturbed horizons and could therefore offer little contextual contribution. They are however discussed in a separate appendix and constitute an important new eastern group. Significant recorded finds (RF) are listed and described separately and specific archaeological features mentioned in the text (F) are numbered on the appropriate illustrations.

Excavations at the junction of Walkergate and Coxons Lane (earliest surviving record 1336 and 1556 respectively) indicated that the archaeological horizons had suffered little destruction during 18th and 19th century building. There was, however, no evidence of earlier stone-built structures or for that matter any suggestion of intensive settlement in the area excavated. The earliest features consisted of pits with subsequent layers containing much residual and disturbed material. The ceramic evidence, for example, while yielding fabric types known from 13th–14th century contexts elsewhere was neither in the quantity nor relative sequence to suggest anything other than disturbed scatter. Absence of specific occupation was to some extent confirmed by animal remains (most frequently ox, sheep, pig and cod) which appeared in a similar scatter giving the impression of a general area of casual accumulation of deposits. The northern section of the excavated area (fig. 3) gives an accurate and typical reflection of the stratigraphy and features encountered. It indicates the minimal destructive effect of the modern building foundations still *in situ* and emphasizes a relatively simple matrix of layers for an urban site supposedly adjacent to a roadway since the 14th century. Stratigraphically the earliest feature was a clay-lined pit over

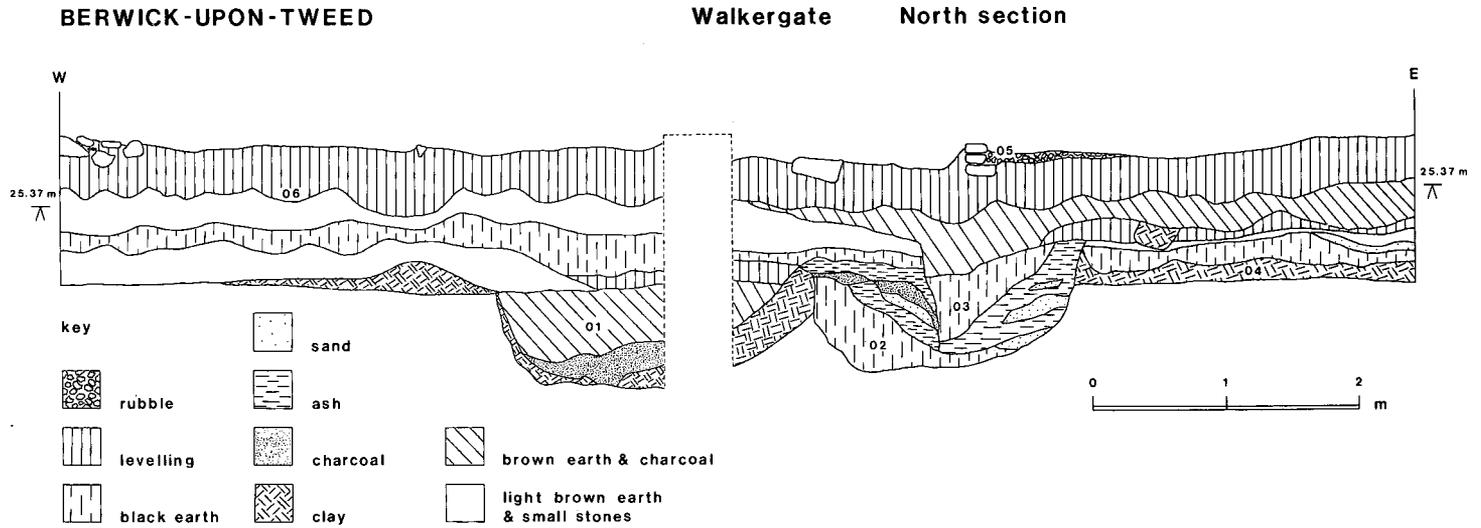


Fig. 3. Walkergate site. North section.

2.0 m in diameter (F 01) containing a charcoal spread and sealed by layers containing 13th–14th century pottery. To the east a clay pack (F 04) resting on natural had been fashioned to create a sub-rectangular depression approximately 15–20 cm in depth running obliquely into the section with an approximate width of 2.5 m. Rich black soil had accumulated within it but contained no datable material.

No function was apparent and there was no evidence of either domestic or industrial refuse. The feature had been cut by a later pit (F 02) which contained tip deposits of ash, sand and charcoal on a primary fill of black soil.

The only possible evidence of occupation on the site lay in a series of features (F 06) running parallel to Coxons Lane at the west end of the excavated area (fig. 4). Their generally well-defined shape and the presence of associated post-type

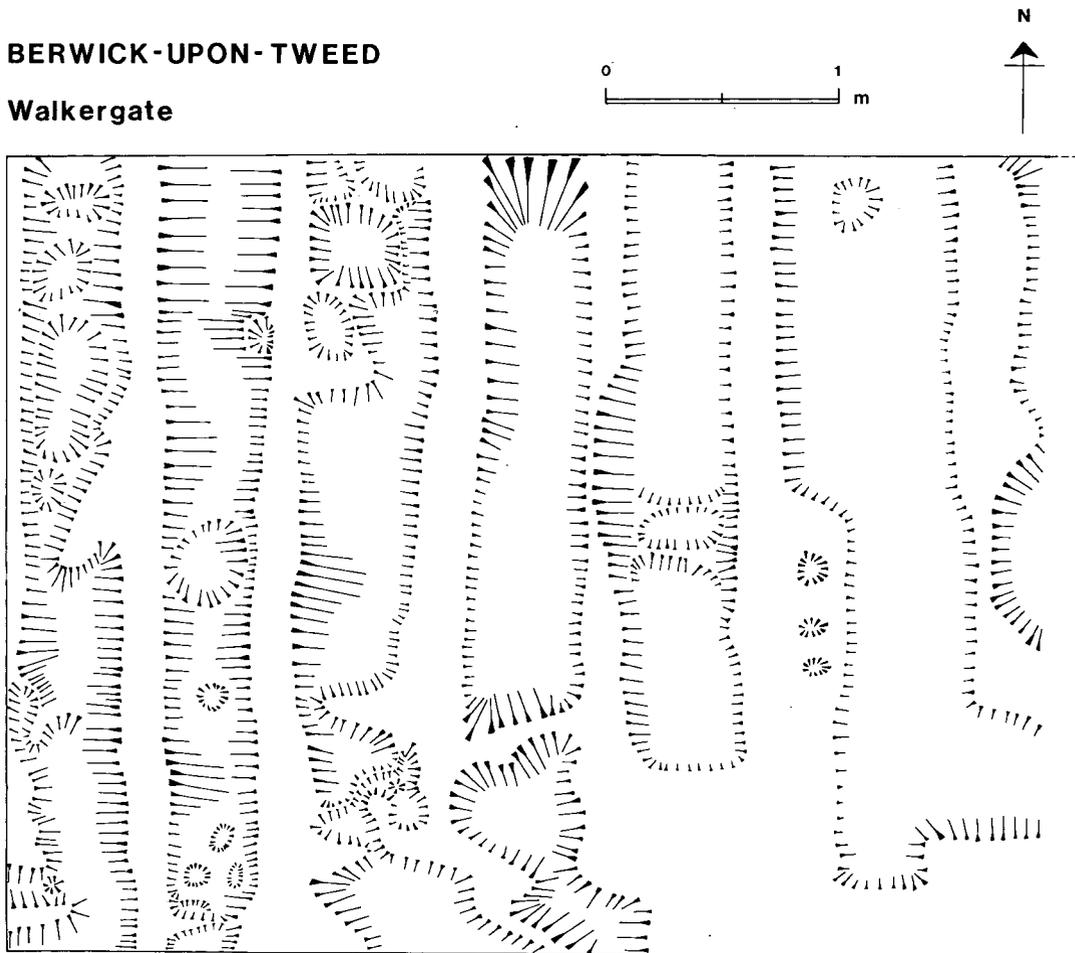


Fig. 4. Walkergate site. Beam impressions of Tudor(?) building.

features suggested that these were impressions left by a timber flooring. The possibility of ploughline marks was considered unlikely on the basis of both the regularity and clear definition of the features and on the improbability of ploughing action having taken place inside the town in the later medieval or early modern periods to which the features seemed to relate. Their direct alignment to both the roadways tended to confirm that they represented the foundation traces of a street-fronted property. An Elizabethan map of 1564 shows the site to have been built on at that time although a later map of the same reign indicates otherwise. The features had been severed to the east by disturbances which included a pit re-cutting (F 03) and there was no further evidence of the plot or any other contemporary activity. Subsequent layers contained much residual material and had probably been used as levelling fill for the modern structures. The whole area was of limited archaeological importance and in the absence of traces of consolidated early settlement may suggest that this particular sector of the modern town should not be of high priority for future investigation. The excavation yielded a number of non-ceramic finds the majority of which lay in disturbed fills but which nevertheless gave some glimpse into the town's past. The earliest datable object was a long-cross silver penny of Henry III (RF 07) likely to have been minted c 1250–1260. Later medieval metalwork included a copper alloy strap-end or buckle plate with incised border decoration (RF 27). The presence of a Nuremburg reckoning counter of Hans Krauwinckel (RF 02) from the late 16th century gave some insight into continuing trade relations with the continent in the post-medieval era.

The second site, on the north side of Ravensdowne, yielded equally negative evidence of medieval occupation. Again modern building foundations had barely disturbed earlier levels and what little stratigraphy there was remained virtually intact. As at Walkergate the material recovered appeared to reflect general refuse scatter and accumulation. Documentary evidence records the roadway there from the 12th century but is unspecific regarding settlement. The settlement nucleus of medieval Berwick lay further towards the Tweed with this particular site probably lying on an eastern approach. It is difficult to visualize the layout of the town prior to both Elizabethan and earlier Edwardian defences, but judging from the affinity between defence alignment and the alignment of the eastern part of modern Ravensdowne it is conceivable that the road may not be of a single phase. Excavation from the street frontage to some 10 m back failed to reveal any trace of activity, nor even pits, from the medieval period. The only surviving feature of note (F 07) probably belonged to the late medieval or early modern periods. It consisted of a sub-circular sump or drain opening about 1.0 m in diameter formed by flat stones some of which were fragments of a large quern (fig. 5). Two stone-capped channels led from it and a stone-flagged platform was situated adjacent to the opening. The channels themselves appeared to be unlined and were difficult to define and contained much evidence of animal movement. Intensive burning had taken place on the outer surface of the opening. Levelling fill for modern foundations lay immediately over the feature and the dating is largely conjectural. The finds throughout were generally unremarkable and consisted mostly of pottery fragments spreading between the 13th–14th centuries but without sequence. Of particular interest, however, was a rare Scottish copper penny

BERWICK-UPON-TWEED

Ravensdowne

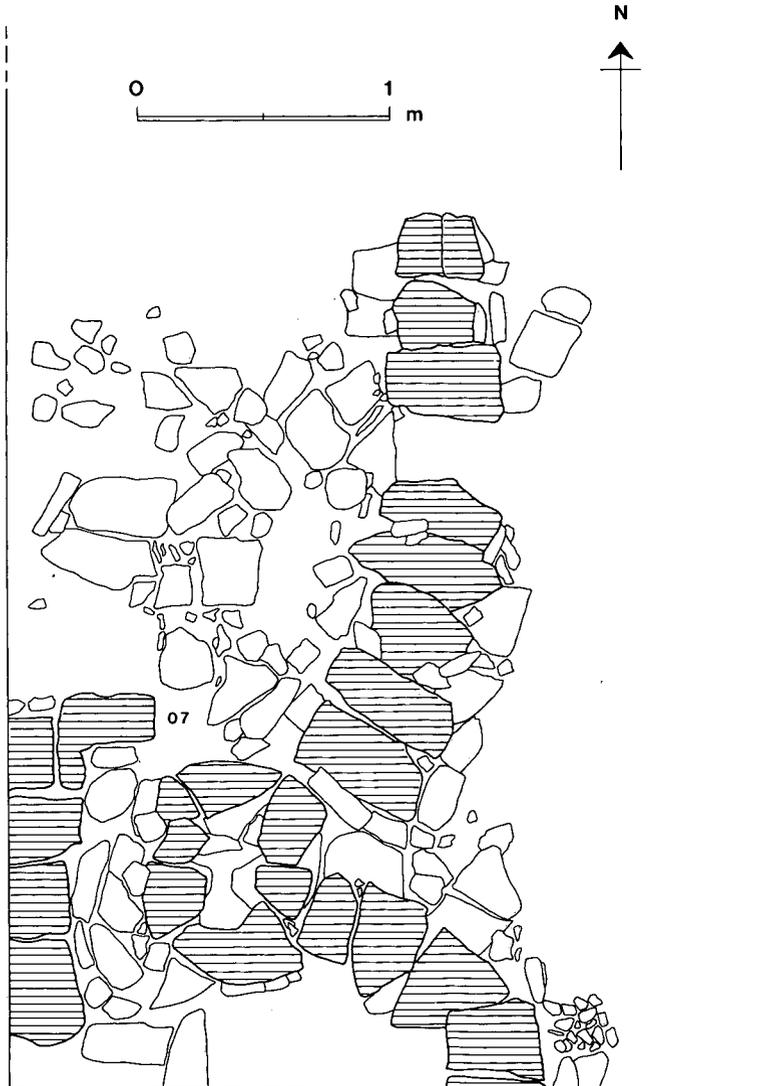


Fig. 5. Ravensdowne site. Late medieval/early modern sump feature.

of Bishop Kennedy of St. Andrews (RF 93) minted c 1452–80. This lay pressed beneath the stone feature and provided a useful *terminus post quem*. Stratigraphically the feature was the earliest on the site and the positioning of the coin effectively confirmed the absence of any activity there for the majority of the medieval period. If typical, the Ravensdowne evidence must therefore bring into question the extent of the eastern expansion of the medieval urban centre.

The Oil Mill Lane site lay in the likely heart of the medieval nucleus and was therefore considered to be potentially the most rewarding of the three excavations. A small strip of land had been made available for investigation allowing a trench of 10 × 2.5 m to be opened at the junction of Oil Mill Lane and Ravensdowne. As work commenced it soon became apparent that the nature of the archaeological deposits differed significantly from those of the other two sites both in concentrations of stratified material and in settlement remains. The site, however, was bounded on three sides by high walling and on the fourth side by an occupied dwelling and foundations. These conditioning factors together with the presence of sand and loose rubble deposits in the sections unfortunately prevented the site from being excavated to the earliest levels. Shoring was used but this eventually proved to be inhibitive for working in a confined space and the site was abandoned for reasons of safety some 2.5 m below modern street level. By that time however much important information had been extracted and a reasonable idea of the depth and nature of the deposits in that area of the town established. The largest and most awkward feature excavated was a medieval stone wall which ran the full length of the excavated area in the east section and which had presumably been positioned to respect the medieval street line now represented by Oil Mill Lane. It was not possible to expand the excavated area eastwards and hence the east section (fig. 6) illustrates the inside face of this wall in elevation. The west section (fig. 7) illustrates the stratigraphy to the rear of the walling and a baulk section (fig. 8) best indicates the relationship between the two. In common with the other two sites modern foundations had caused little disturbance to earlier deposits and a modern pipe drain (F 16) and stone pier foundations (F 17) for the 19th century linseed crushing mill had barely affected later medieval accumulations.

The earliest feature excavated before work was discontinued was a compressed layer of earth containing much charcoal, ash and evidence of burning (F 08). It lay above a consolidated base of clay, loam and sand and was interpreted as a floor layer. The structure to which it related was unclear from the small area examined although evidence did suggest that the walls were stone-footed. Associated in-substantial foundations (F 09) were visible in the baulk section but the general layout and size of the structure was indeterminable. However, the burning conditions which seemed likely to have caused the building's ultimate destruction had provided a well-preserved and remarkably large assemblage of botanical remains. These consisted chiefly of carbonized grain, legumes and nuts which may indicate the deliberate storage or perhaps drying of food. It seems not to have been a place of domestic habitation and there was no evidence of any hearths or even pits in the area examined. This was additionally confirmed by the overall paucity of animal remains in the relevant

BERWICK-UPON-TWEED Oil Mill Lane East section

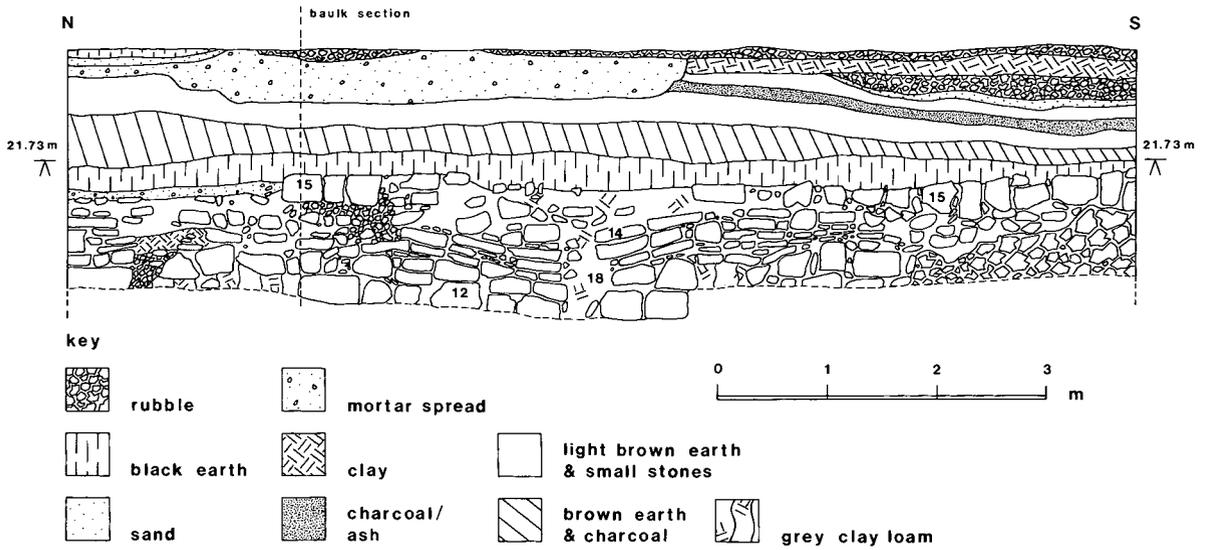


Fig. 6. Oil Mill Lane site. East section showing wall elevation.

BERWICK-UPON-TWEED Oil Mill Lane West section

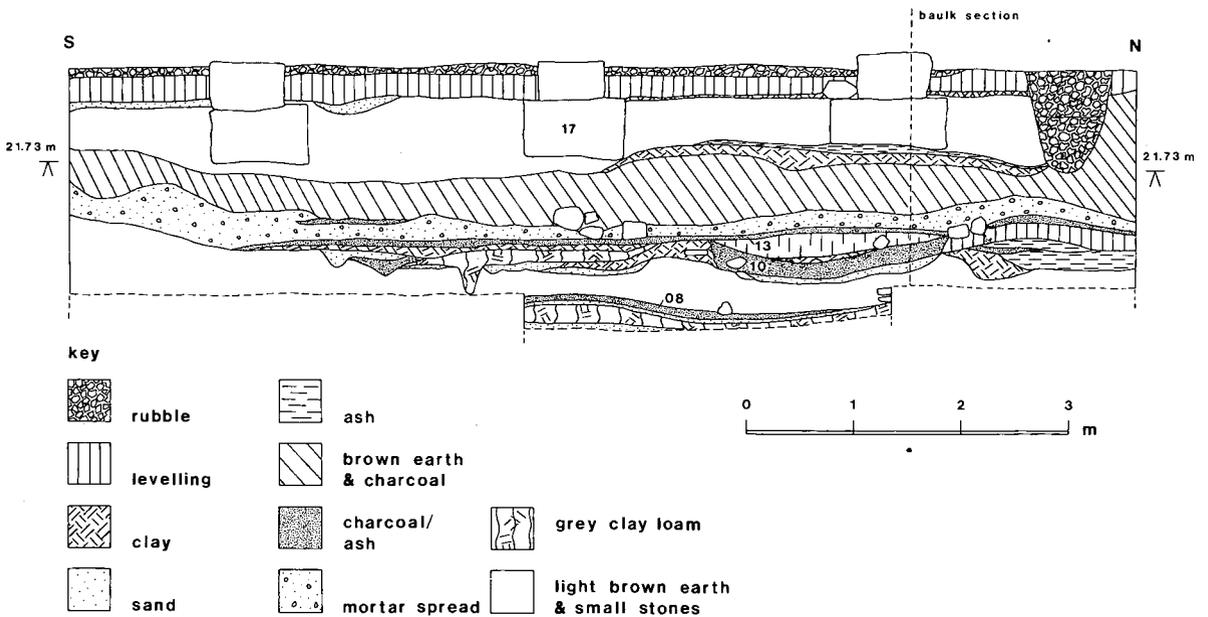
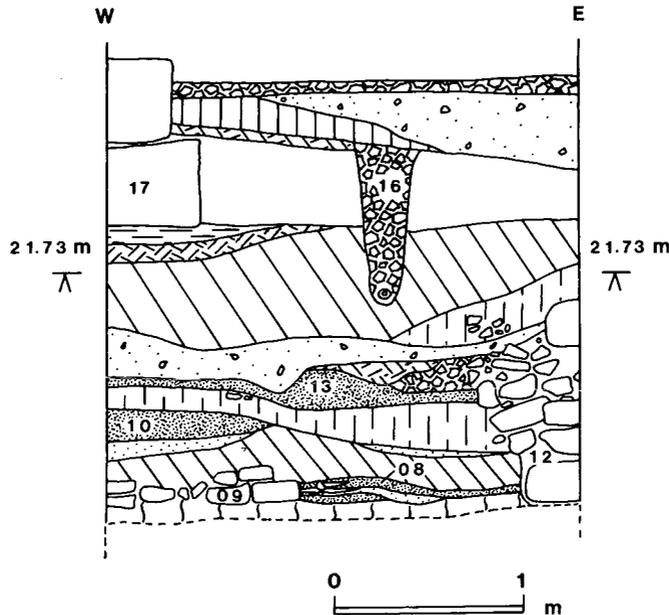


Fig. 7. Oil Mill Lane site. West section.

BERWICK-UPON-TWEED**Oil Mill Lane****Baulk section (south)**

**conventions as for east &
west sections**

Fig. 8. Oil Mill Lane site. South facing baulk section.

layers. The ceramic material recovered seemed to belong to a period within the late 12th—early 13th century and included “local” east coast wares and continental wares from the Low Countries (Low Countries Grey wares). Other finds were unremarkable but included a copper alloy penannular ring (RF 102) and a length of copper alloy chain with S-shaped links (RF 99).

After the destruction of the building useful stone appeared to have been removed and the foundations and flooring sealed by deposits of brown earth containing charcoal and patches of sand. There was no evidence of activity other than a series of amorphous pits most of which contained ash and charcoal. The largest and best defined of these (F 10) was approximately 2 m in diameter and 0.4 m in depth. Sand, ashes and black earth had been used as levelling material and their ceramic contents suggested that these were accumulative and not redeposited. These layers

also contained the greatest density of animal bone remains encountered during the excavation. Several objects of copper alloy were also discovered, including a bolt from a barrel padlock (RF 92). The levelling appeared to have been used as flooring base for a substantial stone-built structure whose eastern wall ran the full length of the excavated area. The wall foundation trench (F 12) had severed the earlier occupation level and the wall itself, although somewhat dilapidated, still stood to a height of about 1.0 m above its contemporary ground level. It was of dry-stone construction (F 14) with foundations of roughly squared blocks and was of local red sandstone throughout. There was little evidence of coursing in the upper construction where long flat slabs appeared to have been used in conjunction with a rubble fill. The face of the wall protruded approximately 0.3 m from the section—approximately half its estimated thickness. A possible opening, now partially collapsed (F 18) was evident in the centre of the section.

The size of the walling clearly implied a structure of some magnitude and certainly one which the area excavated was unable to define. An occupation layer had evolved internally and was of a type similar to that of the previous structure being of compressed charcoal and ash (F 13). Little disturbance had taken place other than by the destruction of the building which had effectively sealed the deposits, and there were no internal features identified other than patches of sand and ash or more heavily burnt areas. Again the botanical remains were abundantly well-preserved and the samples identified were likely to indicate an area of grain storage or drying. This observation for both structures strongly suggested that the site had been the traditional location of a specific activity. The preponderance of burning in both may point towards grain drying. Although neither structure had been excavated to anywhere approaching its total internal area, the identical interpretation of the botanical remains can be no coincidence. Equally the lack of domestic occupation suggested by the virtual absence of animal bones was the same for both.

The floor level itself could be broadly dated by ceramics to the period of the late 13th or early 14th century by the presence of imported polychrome wares from Saintonge and stonewares from Germany (Langerwehe types). The structure had had a relatively short life although the elevation of the east wall indicates a possible rebuilding (F 15) with heavier masonry. The east wall eventually collapsed inwards spreading mortar and rubble across the floor and the site remained unoccupied for the remainder of the medieval period. The continual presence of polychrome wares and the introduction of Dutch wares in the subsequent sealed deposits suggested that this destruction took place at some point in the first half of the 14th century. Subsequent layers showed no evidence of activity and appeared to have evolved undisturbed containing a quantity of badly preserved late medieval metalwork and a ceramic sequence leading through to the latter half of the 15th century. Strangely, there was no evidence of wares common to sites at the end of the 15th century (i.e. Cistercian ware)—a phenomenon which may reflect the changing face of the townscape or the fluctuating prosperity of its inhabitants at that time.

From the documentary evidence it seems clear that Berwick's location was ideally suited to capitalize on the benefits of the surrounding lands which were agriculturally

one of the most fertile areas in the Scottish Kingdom. When the town fell to Edward I in 1296 it was already a place of distinction having been a royal burgh since the reign of David, and in common with Roxburgh and Edinburgh, had its own mint. During the mid-13th century minting in Scotland tended to conform to the long-cross English issues (see RF 07) and Berwick's mint seemed to become increasingly more important in the issuing of what may have been designed as a coinage for Scotland (Duncan, 1978; 518). The importance of Berwick's mint was no doubt assisted by the strength of trade passing through the town and its likely status as Scotland's principal port. By 1286 the town was paying £2,190 annually for customs into the Scottish Exchequer—an amount estimated to be the equivalent of one quarter of that of all England. Berwick's associations with religious houses in the Borders were integral factors of this prosperity and trade. As a Scottish burgh in the Diocese of St. Andrews the town and its environs also held its own share of religious foundations (Cowan and Easson, 1976) the majority of which emerge in records of the 13th century. These included a house of Franciscans for whom a church was dedicated in 1244, a house of Dominicans endowed by Alexander II, houses of Augustinians and Carmelites from the later part of the 13th century with endowment and alms from Edward I, and a Cistercian Nunnery founded by David I. Two hospitals, St. Leonards and St. Mary Magdalenes, are recorded from the late 13th century (Cowan and Easson, 1976, 172). The concentration of religious houses is itself a reflection of Berwick's 13th century importance and such was its density of population and business that it was referred to as a second Alexandria in the Lanercost Chronicle (Maxwell, 1913, 156). Contact with Flemish traders who held their own headquarters in the town (the *Red Hall*) and later with traders from Germany was no coincidence and was an economic necessity in the export of wool from the Border estates. Much of the early trade was directed towards the cities of Flanders for whom the manufacture of cloth was a basic source of livelihood.

The extent and nature of this early trade can only be glimpsed from the documentary evidence, for example in the safe conduct afforded to Gervase le Cordwainer, a London alderman, who in 1229 shipped wool and hides to London, Flanders and Gascony in trade for wine for Berwick and elsewhere (Williams, 1963, 64). Wine bound for Berwick for use by the King of Scots and his people was also the cargo of Saladin of Dieppe who was permitted free passage by Henry III (Bain, 1881, I, 881). References inevitably dwell on matters of diplomacy or accident and the goods carried are rarely mentioned. Berwick's merchants tend to be recorded in situations of misfortune, for example in the arrest of John Ruffus's ship in Southampton and that of Hugh of Berwick in Winchelsea, both in the earlier part of the 13th century (Bain, 1881, I, 883 and 2383 respectively). Only snatches of information can be gleaned, for example in the permission given by Henry III to allow the Abbot of Boxle to send a vessel to Berwick to buy herrings (Bain 1881, I, 901) or in the complaints of the citizens of Berwick in 1294 regarding their grain shortage and the arrest of supply ships from abroad (Bain, 1881, I, 696). With the exception of the substantial export of wool and hides which to a large extent can be measured from records in the Exchequer Rolls, there is little recorded

evidence of other cargoes, ports of destination (other than in Flanders) or in the goods carried on return journeys. A port of such supposed importance is likely to have had wide ranging contacts beyond the Low Countries and the immediate continent, possibly as far as the Italian cities of Florence and Sienna whose merchants were active in the Scottish wool trade in the late 13th century. More tangible evidence may perhaps be provided by archaeological means and to some extent the direction of trade can be reflected in the ceramics from the stratified deposits at Oil Mill Lane. These yielded wares from the Low Countries with a date distribution in the 13th century. Additional support for continental trade came with Dutch white slipped jugs, Aardenburg types and perhaps more surprisingly with Saintonge wares (S. W. France) in both monochrome and polychrome. Local wares included native S. E. Scottish wares.

Berwick's capture by the English in 1296 is likely to have curtailed international trade, although there is some additional evidence to suggest that Flemish activity in the North Sea had already declined by that time (Duncan, 1978, 515). Certainly the control and blockading of other Scottish ports was likely to have affected the Scottish economy although it is difficult to point to this conclusively from the Berwick ceramic material. The Saintonge and certain Dutch wares have chronological distributions either side of 1296, but it seems clear that beyond the dated distribution of these types there was limited evidence of later continental imports. Exceptions were the stonewares from Germany (Langerwehe types) of the 14th–15th centuries which may reflect the strong documented evidence of the development of Scottish-German trade in the early 14th century (Dilley, 1957). At that time German merchants were successfully dominating the English and Baltic trade at the expense of the Flemings, although there is little evidence to illuminate their Scottish activities. In the early 14th century traders from Hamburg and Cologne were active in the trade of wool and hides and held their own house (the *White Hall*) in Berwick itself (Duncan, 1978, 515). A series of litigation documents referring to well-known German merchants of the time attest to the growth of trade between Scotland and Germany (Dilley, 1948) and the ceramic remains are likely to reflect this contact. Trade continued with Flanders at a certain level as illustrated in a document of Edward II sent to the King of Norway in 1316 requesting redress on behalf of certain of his Berwick merchants whose ship freighted with goods from Flanders had been driven ashore in Norway (Bain, 1887, III, 471). That the port was still viable is evident from the activities of Thomas of Coldingham, a merchant of Berwick, who successfully pursued his trade in the late 13th and early 14th centuries despite intense political interruptions. His local reputation appears to have been considerable, but there is little evidence of the prices his wool fetched overseas (Donnelly, 1980). By the time of his death in 1316 it would seem that the age of Berwick's maritime prosperity was beginning to decline and that the port took on a new role more strictly associated with English control of the Borders. A year later a document of Edward II gave safe conduct to merchants of Berwick on a journey through England to France for the purchase of corn and supplies for the munition of the town (Bain, 1887, III, 575).

Berwick's function appears to have moved towards one principally concerned with the maintenance of military forces and strongholds in the Border regions—a function which necessitated close control of the town's activities and its supply of provisions. Early 14th century references record the basing of engineers, carpenters and even money from the English Exchequer at Berwick (Bain, 1884, II, 1230) and supplies of weaponry to be sent up from Newcastle (Bain, 1884, II, 1759). A document of 1312 requested the men of Berwick to send victuals to the castle at Stirling (Bain, 1887, III, 242). Berwick acted as supply point for English garrisons in the Borders, dealing in horses, oats, wheat, dried fish and iron, all of which was carried or shipped from England to Berwick for transport northwards. This change in function is reflected ceramically and while the Oil Mill Lane stratigraphy showed the continuing of southern Scottish wares it also indicated a further direction of contact along the eastern English coast. The presence of Yorkshire wares for the first time, including Scarborough, Grimston and Humber types is a likely reflection of the movement of English supplies to Berwick. Documentary evidence also points to east coast contacts in Edward II's reign with the delivery at Berwick of salt-beef, salt-mutton and malt brought from Spalding (Bain, 1887, III, 444), wine and provisions brought from Boston (Bain, 1887, III, 452) and corn from Kings Lynn (Bain, 1887, III, 596). Later references show various supplies to have been sent from York, Kingston and Newcastle (Bain, 1887, IV, 323). While these routes and contacts indicate a new alignment of Berwick's trade direction, the continued presence of more local Scottish wares from 14th century excavated contexts suggest that the town was still serving a hinterland and was not totally divorced from a local trading environment.

Some effort appears to have been made to revive Berwick's prosperity by the introduction of twice-weekly markets in 1302. Further encouragement was given to traders during Berwick's brief return to Scottish hands in 1318 and even in 1327 the quantity of wool and hides passing through the town was approximately twice that of Aberdeen, the closest competitor (Stuart and Burnett, 1878, 74–80). Reports of the town's subsequent status being reduced to no more than that of a common market town by the mid-14th century are likely to be exaggerated, although there was a probable decline in prosperity and prestige. Wool trade suffered by the repeated invasions of the Borders and a gradual climatic deterioration in which the marginal lands of the southern uplands became agriculturally unviable (Parry, 1978, 113–6) furthered the local economic instability. Berwick's status was reduced even more and after continued political disturbance it never reverted to Scottish hands after 1482 and never regained its trading prestige and importance enjoyed as a Scottish burgh.

The three small excavations at Berwick were intentionally trial investigations. Not only do they confirm the survival of substantial undisturbed archaeological deposits (Oil Mill Lane) in the traditionally "ancient" sector of the town, but they also indicate the potential of further work for the understanding of the settlement evolution. The ceramic remains are especially significant and for the first time have presented tangible evidence of Berwick's local and international status. The problems

associated with trade, the castle, the town and the settlement nucleus belong mainly to the history of Scotland, not to England. It seems clear that the town's undisturbed horizons have much to offer towards a greater understanding of Scottish medieval urbanism.

ACKNOWLEDGEMENTS

The author is grateful to those specialists who contributed so significantly to the preparation of this report: Peter Davey (clay pipes), Alison Donaldson (botanical remains), Alison Goodall and Ian Goodall (metalwork), Stephen Moorhouse (pottery), Elizabeth Pirie (numismatics) and Tim Seller (animal remains). Nicholas Bogden and Francis Cowe gave considerable advice and help throughout and are especially acknowledged. The work would not have been possible without the kindness of the District Planning Officer, Mr. J. McDonald, and the encouragement of the late Miss Dorothy Charlesworth, Inspector of Ancient Monuments. The excavations were carried out on behalf of the Department of the Environment (Ancient Monuments), England.

APPENDIX I—SELECTED RECORDED FINDS (RF)*

With contributions on the numismatics by Elizabeth Pirie, and on the metalwork by Alison Goodall and Ian Goodall.

- 01 Coin. Scottish. Copper turner (2d), Charles I: second issue, 1632; mint mark uncertain. (Stewart, 1955, 237). Walkergate. Unstratified.
- 02 Reckoning counter. German, Nurnberg. Copper. Large fragment of stock type by Hans Krauwinkle; late 16th century. Walkergate. Unstratified.
- 04 Cylindrical bone toggle. Length 49 mm. Approximate diameter 9 mm. Two shaped depressions on surface. Walkergate. 16th (?) century context. Figure 9a.
- 06 Corroded fragment of copper alloy plaque or mount. Sub-rectangular, 55 × 40 mm. Walkergate. 16th (?) century context.
- 07 Coin. English. Silver penny. Henry III. *Long Cross*, Davi of London (...[AVION]...); Class uncertain: this moneyer known for IIIc—Vf (i.e. c. 1250–1260). Wt.: 1.39 gm. (21.45 gr.); oxidized. Die-axis: ↑ (?). The coin must have been worn before becoming oxidized. Walkergate. 16th (?) century context.
- 08 Copper alloy pin. Head missing. Length 40 mm. Walkergate. 16th (?) century context. Figure 10a.
- 10 Incomplete copper alloy penannular ring with tapering ends. Probably a finger ring. Maximum diameter approximately 23 mm. Walkergate. 16th (?) century context. Figure 10b.
- 11 Part of crushed copper alloy cylinder with overlapping edges. Length 24 mm. Estimated diameter 8 mm. Walkergate. 16th (?) century context. Figure 10d.

*Finds (non-ceramic) were recorded sequentially, numbers 01–36 (Walkergate) and numbers 50–104 (Oil Mill Lane and Ravensdowne). Those not listed here were generally highly fragmentary or poorly preserved. Their records are held with the remainder of the archive material.

- 13 Sub-rectangular object of worked bone approximately 12 × 9 mm and 4 mm deep. Central bored hole of diameter 4 mm. Walkergate. 16th (?) century context. Figure 10k.
- 17 Corroded iron sphere. Estimated diameter 60 mm. Weight 375 gm. Probably shot. Walkergate. 16th (?) century context.
- 19 Shaped pin shank (?) of copper alloy made from folded sheet metal. Linear length 45 mm. Walkergate. Late medieval context. Figure 9b.
- 21 Corroded iron nail with rounded or rectangular head and broken shank. Approximate length 58 mm. Walkergate. Late medieval context.
- 22 Corroded iron nail with rounded or rectangular head and broken shank. Approximate length 52 mm. Walkergate. Late medieval context.
- 27 Fragment of copper alloy strap end or buckle plate with incised border decoration. 21 × 15 mm. Walkergate. Late medieval context. Figure 10c.
- 28 Corroded iron heckle tooth. Length 134 mm. Walkergate. Late medieval context.
- 30 Copper alloy swivel loop with terminal knob. Length 22 mm. Maximum width 13 mm. Walkergate. Late medieval context. Figure 10f.
- 32 Glass vessel fragment. Decorated with two applied narrow trails of opaque white glass. Colourless. Walkergate. Late medieval context.
- 34 Corroded iron nail with rounded head. Length 42 mm. Walkergate. Late medieval context.
- 36 Corroded shank of iron nail. Length 52 mm. Walkergate. Late medieval context.
- 50 Coin. Scottish. Billon half-bawbee (3d). Mary. First period, 1542–1558; Edinburgh mint. (Stewart, 1955, 159). Oil Mill Lane. Modern context.
- 51 Coin. Scottish. Copper turner (2d), Charles I: second issue, 1632; mint mark uncertain. (Stewart, 1955, 237). As RF 01 above but with different reverse die. Oil Mill Lane. Modern context.
- 52 Coin. Irish. Copper farthing. Charles I. "Richmond" issue; mint-mark uncertain. (Seaby, 1970, 4524). Oil Mill Lane. Unstratified.
- 53 Reckoning counter. German, Nurnberg. Copper. Stock reverse type (*Reichsapfel*: ☉), but obverse worn and uncertain: possibly winged lion of St. Mark of Venice; legends uncertain (? nonsense): maker unnamed but possibly Hans Krauwinkel (cf. Barnard, 1916, 79); mid-late 16th century. Oil Mill Lane. Unstratified.
- 54 Copper alloy rim fragment of vessel. Oil Mill Lane. Late medieval context. Figure 9c.
- 56 Copper alloy needle, broken through eye and lacking point. Length 63 mm. Oil Mill Lane. Late medieval context. Figure 9d.
- 57 Fragment of worked bone handle, probably from knife. Oval section. Length 82 mm. Oil Mill Lane. Late medieval context. Figure 9e.
- 58 Worked bone implement with point. Length 73 mm. Oil Mill Lane. Late medieval context. Figure 9f.
- 61 Copper alloy U-shaped strip with perforated ends. Width 13 mm. Oil Mill Lane. Late medieval context. Figure 10e.
- 62 Crushed copper alloy strap end(?) with part of strap surviving. 20 × 20 mm. One plate has ornamental groove around margin. Oil Mill Lane. Late medieval context. Figure 10h.
- 63 Fragment of copper alloy sheet. Perforated. Oil Mill Lane. Late medieval context. Figure 9g.
- 64 Copper alloy strap end with two outer plates separated by a spacer. Length 54 mm. Oil Mill Lane. Late medieval context. Figure 9i.

- 65 Fragment of lead sheet from roofing. Two nail holes with impressions left by nail heads. Oil Mill Lane. Late medieval context. Figure 9h.
- 73 Semi-cylindrical copper alloy looped strap end from strap distributor. Length 44 mm. Oil Mill Lane. Late medieval context. Figure 9k.
- 79 Fragment of copper alloy rod of length 30 mm. Oil Mill Lane. 14th (?) century context. Figure 10g.
- 86 Fragment of gilt copper alloy strap end plate with one large-headed rivet surviving. Approximately 30 × 20 mm. Oil Mill Lane. 14th (?) century context. Figure 10j.
- 87 Copper alloy drop handle. Length 54 mm. Oil Mill Lane. 14th (?) century. Figure 9j.
- 92 Copper alloy bolt from barrel padlock. Spine incomplete and springs missing. Oil Mill Lane. 13th/14th century context. Figure 10i.
Coin. Scottish. James II–III: ecclesiastical issue (c 1452–1480). Copper penny of Bishop Kennedy of St. Andrews. Obv.: IACOBVS DEI GRA REX; orb tilted upwards and to right, no rosette in centre. Rev.: CRVX PELLIT OIE CRM (sic); cross in quatrefoils but no annulets in spandrels. Wt: 1.39 gm. (1.24 gr); die axis: ↖ This seems to be a mule of the Stewart variety IIa (obverse, his illustration 97) and III (reverse). Rare (Stewart, 1955, 140). Ravensdowne. Late medieval context.
- 98 Corroded iron heckle tooth. Broken. Length 96 mm. Oil Mill Lane. 12th/13th century context.
- 99 Length of corroded copper alloy chain with elongated S-shaped links. Oil Mill Lane. 12th/13th century context. Figure 10 1 (from X-ray).
- 102 Copper alloy penannular ring with overlapping ends. Diameter 33 mm. Oil Mill Lane. 12th/13th century context. Figure 9 1.
- 103 Bone mount or plate 50 × 28 mm with geometric openwork decoration. Oil Mill Lane. 13th/14th century context. Figure 9m.

APPENDIX II

Animal Remains by T. J. Sellar, Department of Pure and Applied Biology, Imperial College, London.

The Berwick excavations yielded 1,396 fragments of animal remains from the Walkergate and Oil Mill Lane sites. No remains were recorded from Ravensdowne. The general state of preservation was good and enabled a high identification rate (83.2%). Disturbance on the Walkergate site prevented any detailed phasing and the small size of the sample from both sites precludes any further analysis here. Data relating to individual species identified is available in the excavation archive.

Walkergate

Total sample 495. Identified 402 (81.2%). Ox (*Bos sp.*), sheep (*Ovis sp.*), pig (*Sus sp.*), rabbit (*Oryctolagus cuniculus*), chicken (*Gallus sp.*), cod (*Gadus morhua*).

Oil Mill Lane

Total sample 901. Identified 759 (84.2%).

<i>Phase</i>	<i>Identified</i>
<i>12th century and earlier</i>	Ox (<i>Bos sp.</i>), sheep (<i>Ovis sp.</i>), cod (<i>Gadus morhua</i>).
<i>12th/13th century structure</i>	Ox (<i>Bos sp.</i>), sheep (<i>Ovis sp.</i>), pig (<i>Sus sp.</i>), Deer (Red) (<i>Cervus elephas</i>), rabbit (<i>Oryctolagus cuniculus</i>), chicken (<i>Gallus sp.</i>), cod (<i>Gadus morhua</i>), invertebrates.

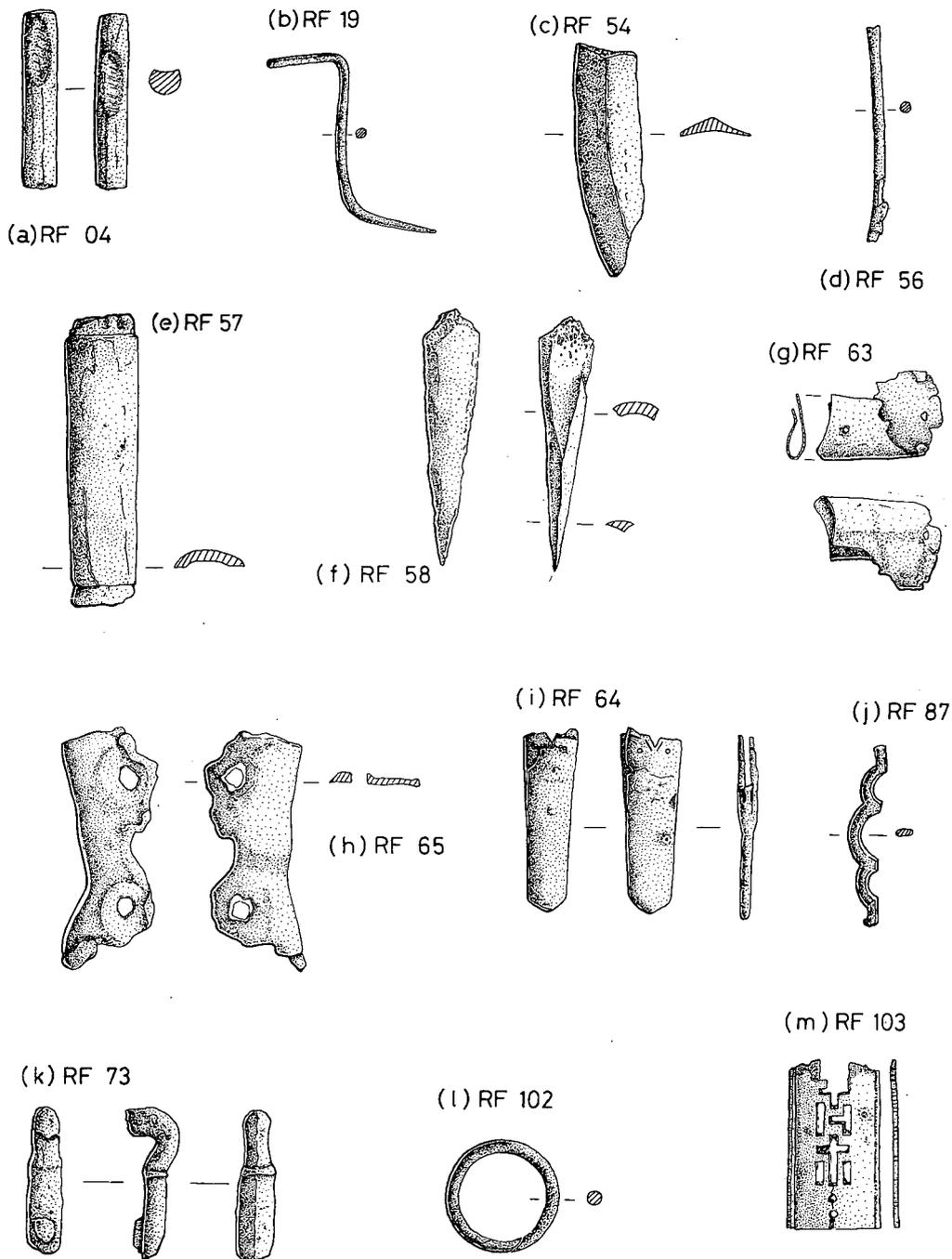


Fig. 9 Selected recorded finds. Scale $\frac{1}{2}$.

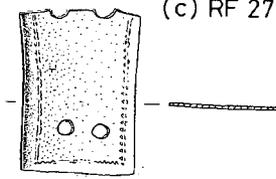
(a) RF 08



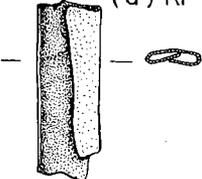
(b) RF 10



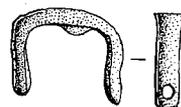
(c) RF 27



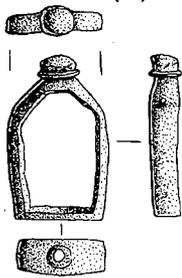
(d) RF 11



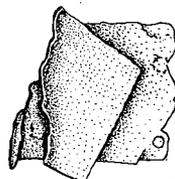
(e) RF 61



(f) RF 30

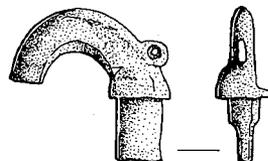


(g) RF 79

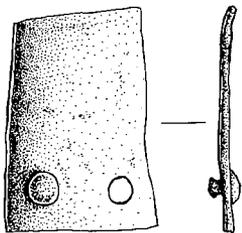


(h) RF 62

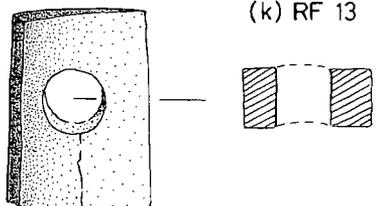
(i) RF 92



(j) RF 86



(k) RF 13



(l) RF 99

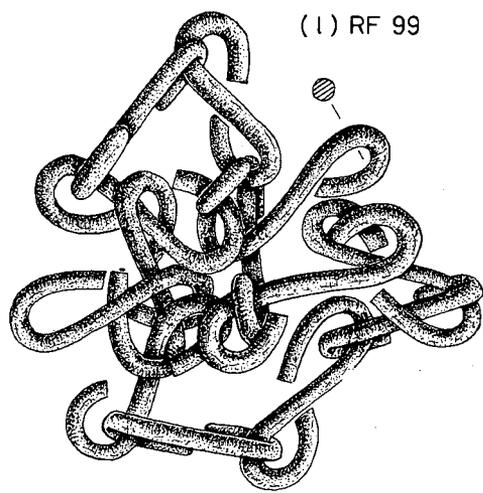


Fig. 10. Selected recorded finds. Scale $\frac{1}{2}$ (a-j, l); $\frac{2}{3}$ (k).

13th/14th century structure	Ox (<i>Bos sp.</i>), sheep (<i>Ovis sp.</i>), pig (<i>Sus sp.</i>), horse (<i>Equus sp.</i>), deer (<i>Cervus elephas</i>), rabbit (<i>Oryctolagus cuniculus</i>), chicken (<i>Gallus sp.</i>), cod (<i>Gadus morhua</i>).
Later Medieval	Ox (<i>Bos sp.</i>), sheep (<i>Ovis sp.</i>), chicken (<i>Gallus sp.</i>), cod (<i>Gadus morhua</i>).

APPENDIX III

Botanical Remains (Oil Mill Lane) by Alison M. Donaldson*Sample from flooring of 12th/13th century structure*

<i>Avena</i> sp (Oats)	c. 1000 grains
(all those with remains of flower bases were <i>A. sativa</i> L, the cultivated oat)	
<i>Hordeum</i> sp. (Barley)	19 grains (hulled)
<i>Triticum aestivum</i> s.l. (Wheat)	3 grains
<i>Corylus avellana</i> L. (Hazel)	4 nuts (broken)
<i>Pisum sativum</i> L. (Pea)	6 seeds
<i>Spergula arvensis</i> L. (Corn Spurrey)	11 seeds
<i>Rumex acetosella</i> L. (Sheep's Sorrel)	2 nutlets
<i>Urtica urens</i> L. (Small Nettle)	1 achene
<i>Stellaria media</i> (L.) Vill. (Chickweed)	1 seed
<i>Cirsium</i> or <i>Carduus</i> sp. (Thistles)	1 achene (broken)

The bulk of this material was carbonized grain, legumes and nuts and seems to indicate deliberate storage or perhaps drying of food. The other seeds present are common weeds of cultivation and likely contaminants in a seed crop. *Spergula arvensis*, the corn spurrey, indicates sandy, acid soils in the region. Seeds of this species are themselves edible.

Sample from flooring of 13th/14th century structure

As this sample consisted of several thousand carbonized seeds, it was agreed that a species list should be drawn up with only an estimate of the relative abundance of the different taxa.

<i>Avena</i> sp (Oats) incl. <i>A. sativa</i>	grains	xxxx
<i>Hordeum</i> sp (Barley) (hulled)	grains	xx
<i>Stellaria media</i> (L.) Vill. (Chickweed)	seeds	xxx
<i>Chenopodium album</i> L. (Fat Hen)	seeds	xx
<i>Brassica rapa</i> L./ <i>nigra</i> (L.) Koch (Turnip/Black Mustard)	seeds	xx
<i>Atriplex hastata</i> L./ <i>patula</i> L. (Orache)	seeds	x
<i>Polygonum aviculare</i> L. (Knotgrass)	fruits	x
<i>Rumex, crispus</i> T. (Docks)	nutlets	x
<i>Sinapsis arvensis</i> L. (Charlock)	seeds	x
<i>Tripleurospermum maritimum</i> (L.) Koch ssp <i>inodorum</i> (L.)		
Hyl. ex Vaarama (Scentless Mayweed)	achenes	x
Gramineae (Grasses)	caryopses	x
<i>Calluna vulgaris</i> (L.) Hull	shoots	x

Oats are again the commonest grain and the sample probably represents grain storage or drying. Weeds of cultivation are again represented. The seeds of *Chenopodium album* are

themselves edible. The *Brassica* seeds fall somewhere between modern reference material of *B. rapa* and that of *B. nigra* and they could be an early cultivated or wild variety of either. They could represent either weeds of cultivation, contaminants in a cereal crop or the drying of seeds prior to the preparation of mustard or oil, or simply storage. The heather is unlikely to have been growing near the crops and was probably flooring or constructional material which became incorporated into the sample.

Sample of possible thatch/matting from 13th/14th century structure

Dicotyledonous stems	very abundant
Gramineae stems (grass or cereal)	few
<i>Triticum aestivum</i> s.l. (Wheat)	3 grains
<i>Chenopodium album</i> L. (Fat Hen)	3 seeds
<i>Polygonum aviculare</i> L. (Knotgrass)	1 fruit

Although there were a few pieces of grass or cereal stem, the bulk of the material was crushed stems with some secondary (woody) thickening. This rules out the grasses, sedges, reeds and all other monocotyledons. The width of the medullary rays rules out the other common thatching and flooring material, heather (*Calluna vulgaris*). The stems of the two dicotyledonous weed species present are unlikely to get as thick and woody as this material. This material could have been used as thatch/flooring although it does not contain most of the usual species.

APPENDIX IV

Clay Pipe Fragments by P. J. Davey, Institute of Extension Studies, University of Liverpool

The Walkergate and Oil Mill Lane sites produced 176 fragments of clay tobacco pipe from 9 contexts. The collection includes 28 bowls or fragments of bowl and 148 stem sections (table 1). Considering the size of the excavations this is a small number and limits the usefulness of the pipes as a means of understanding contemporary contexts (cf Davey, 1981). This difficulty is extenuated by the fact that most of the layers containing the pipes are rubble deposits or subsoils and not structural sequences contemporary with the loss of the pipes. It is still possible however, to make some useful comments about the dating of the pipes and to make some preliminary general statements about the nature of pipe importation and use in Berwick.

The Pipes in Context

A. *Walkergate*. The earliest layers relating to the destruction of the (?)Tudor structure contained three fragments of 17th century date. Associated but later disturbed contexts produced 49 pieces consistent with a deposition date of c. 1700, based on the latest two fragments (figure 13a and 13b). The remaining bowls and Dutch decorated stems (cf below) were probably made between 1610 and 1640. The stem bore date of 1652 ± 15 probably reflects a mean between these two elements.

The subsoils on the rest of the site produced a more mixed group and, with 118 fragments, is by far the largest from the excavations. The major element belongs to the period 1580–1640 (cf figure 11a), with a secondary group dating from 1680–1710 (e.g. figure 12c and 12d). In addition there is at least one 19th century bowl and some narrow stem bores

TABLE 1 Table of clay tobacco pipes from Berwick-upon-Tweed.

WALKERGATE AND

Contexts	9	8	7	6	5	4	S	B
Rubble			1		4	1	5	1
Subsoil		30(2)	50(14)	21(3)	6	2	100	9
Destruction 2 (Total)	}	2(1)					1	1
		1(1)	18(4)	14(1)	3	3	33	6
Destruction 1 (Total)	}	1(1)	20(5)	14(1)	3	3	34	7
			1					1
		1	2				1	1
		1	2				2	1
Walkergate Total	1(1)	51(7)	67(15)	24(3)	13	3	141	18
Modern Rubble	}	1(1)		1			2	
			3(2)	1	1		4	1
		1					1	
Oil Mill Lane Total	1(1)	4(2)	1	2			7	1
Berwick Total	2(2)	55(9)	68(15)	26(3)	13	3	148	19

to go with it. This suggests that pipe deposition occurred during two distinct 17th century phases, one early and the other late in the century, and had finished by 1710. A minor disturbance seems to have occurred in the early years of the 19th century, probably in the period 1800–1840.

The 18th century foundations and rubble produced a total of 6 fragments of which the single bowl is of early 19th century date. Four of the stems are probably of the same date on the basis of bore size and clay type. The remaining stem (7/64") appears to be a "residual" of 17th century type.

B. *Oil Mill Lane*. Only 8 clay pipe fragments were recovered from three contexts on this site—a bowl (fig. 11c) of 1610–1640 and 7 stem fragments all probably of 17th century date.

The Pipes Themselves—Chronology

Taking all the pipes together, the bulk of the material is of 17th century date, with a major group belonging to the period 1600–1650 (e.g. fig. 11 a–h, fig. 12 e–h). A smaller, though significant, amount of late 17th century and early 18th century finds are also in evidence. Only two bowls and a handful of stems are of later date and probably represent early 19th century disturbance or renewed activity on the site.

OIL MILL LANE

U	T ¹	T ²	T ³	Binford	Bowl form	Figure	Comments
9	19	6 109	6 118	1667 ± 15	1800-1840	11a, 12b-g 11f, 12a 11b, d, e, h, 12h, 13a-b	Mainly 19th century Mixed
	1	2	2		1580-1840		
	6	39	39		1610-1680		
	7	41	41	1610-1700			
				1652 ± 15	1610-1700	11c	Consistent c. 1700
		1	1		1610-1640		
		2	2		1610-1640		
		3	3				
9	26	159	168	1661 ± 15	1610-1840		
	1	2	2		1620-1650	11g	
	2	5	5				
	1	1	1				
	3	8	8		1620-1650		All 17th century
9	29	167	176				

9-4—Stem bore measurements in $\frac{1}{64}$ "

()—No. of burnished examples

S—No. of stems measured

B—No. of bowls measured

U—Unmeasurable fragments

T¹—Total no. of burnished fragments

T²—Total no. of measured bores

T³—Total no. of clay pipe fragments

Binford—Bore date (cf. Oswald, 1975, 92-95)

Bowl form—Date Range

Figure—Illustration no. (figures 11-13)

Comments—Re. consistency or special items

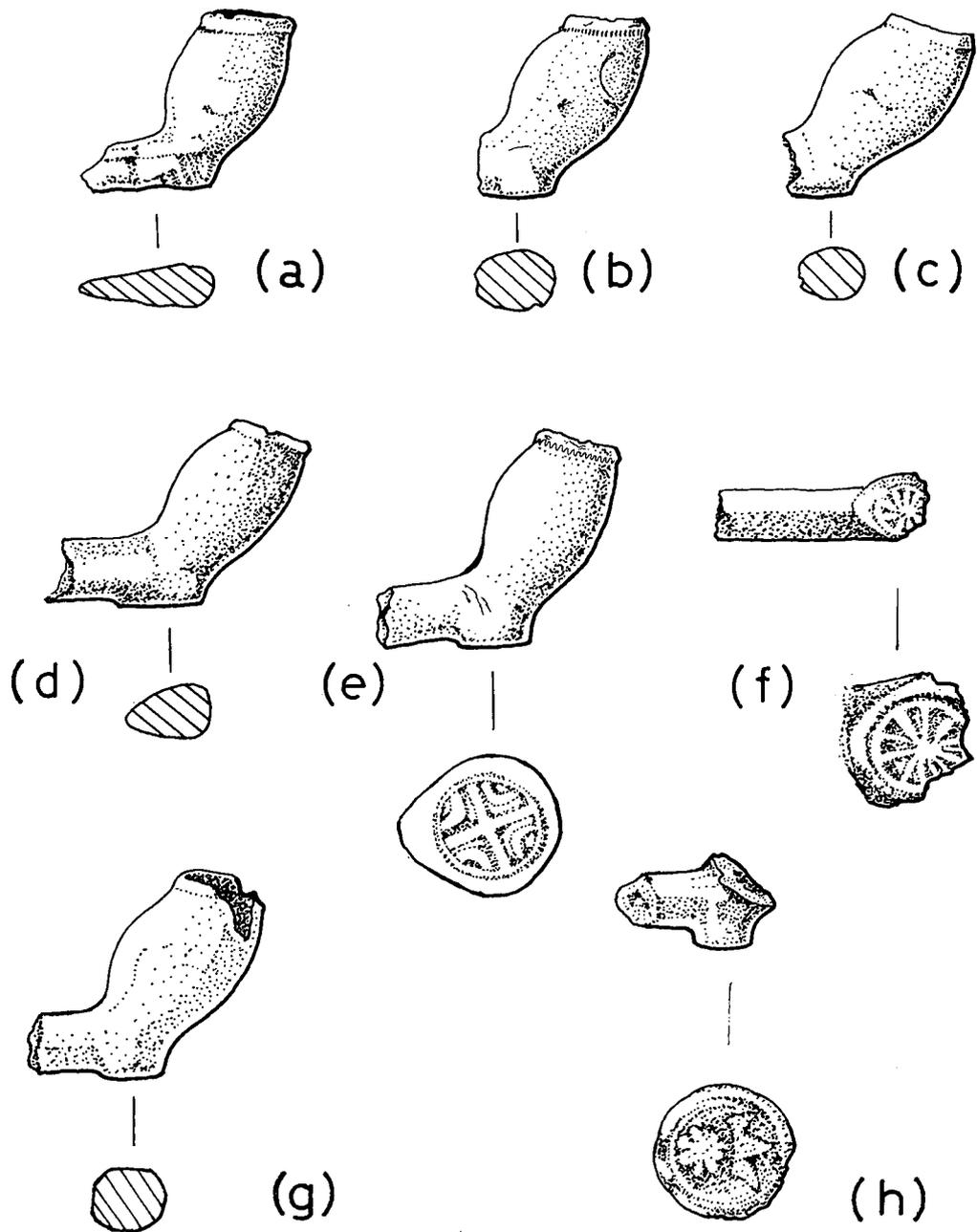


Fig. 11. Clay pipe fragments, scale 1.1. Stamps at 2.1.

SOURCES

There are three main sources for the pipes found at Berwick: Holland, Scotland and North-East England. London may also have made a contribution during the early period (but cf below).

Holland

There are a number of problems in the identification of Dutch pipes, especially in the early 17th century, to which many of the Berwick examples belong (Atkinson and Oswald, 1972). In the early days the forms and fabrics used in Holland were very close to those used in London, so that without specific marks it is not always possible to distinguish the two. If the most minimal view is taken of Dutch influence in Berwick the following groups are certainly of Dutch origin:

1. Bowls with identifiable Dutch marks (e.g. fig. 11e and 11h).
2. All finely executed fleur-de-lys marked stems on soft, burnished stems. These can be compared very closely with many examples in Holland (cf Friederich, 1975, Duco, 1981) and are quite different from British versions (e.g. fig. 12 e-h).
3. All very highly burnished stems. This finish was produced by the use of a small agate mounted on a wooden handle and often involved 30 or 40 strokes of the tool in the circumference of the stem of the pipe. British burnishing such as can be seen on the probable Gateshead example (cf fig. 12d) is usually much more crudely applied, with far fewer, much broader strokes.

On this basis an absolute minimum of 22 stems are Dutch (12.5% of the total) and 4 bowls (14.3%). That this must be an under-estimate is suggested by the fact that a number of the Dutch bowls and decorated stems are not burnished. The 4 bowls (fig. 11 a-d) are the main remaining problem. They can all be paralleled in Holland and fairly well in London. On the basis of the rest of the material of this date being Dutch and the lack of London marks it would seem most probably that these bowls are also of Dutch origin.

Scotland

Two bowls are of Scottish type and are probably derived from the Edinburgh area, 1660-1690 (fig. 12b and 12c).

North-East England

Six bowls and two decorated stems can be identified from this area. Three of the bowls, marked GC on the heel, may have been made by a Newcastle maker 1660-80 (fig. 12a). The remaining examples (cf fig. 12d, 13a and 13b) are probably of Gateshead origin. There is no evidence for manufacture in Berwick itself.

DISCUSSION

This group of finds provides a valuable first insight into pipe uses and sources in Berwick. There are too few fragments for any clear idea of the detailed chronology involved to be deduced, or for the pipes to be used for the interpretation of the relative status of the occupants of the sites concerned (cf Davey, 1981, 75-76). The validity of the remarks made

here will need to be assessed against the evidence of much larger groups from a number of well stratified post-medieval sites from the area.

What appears clear is that the Dutch dominated the northern North Sea pipe trade during the first half of the 17th century. Significant groups from this period have already been published from Hartlepool (Brown and Gallagher, 1980) and Stirling Castle (Davey, 1980) and the writer is in the process of completing reports on much larger concentrations from Aberdeen and Scalloway Castle, Shetland. In the major centres in England outside London, such as Norwich, Chester and Lincoln, the pipe industry was already becoming well established by the 1620s and Dutch penetrations seem slight. By contrast smaller centres, particularly the ports in northern Britain, seem to have fallen into the Dutch commercial sphere. During the latter part of the 17th century, however, the situation changes dramatically. All the identifiable pipes are from either north-east England or the Edinburgh area and none are Dutch. It may well be that the Dutch wars with England, although forcing many East Indiamen to take northern routes, also inhibited their calling at British ports. If this was the case, it appears that the trade, once lost, was never recovered.

ACKNOWLEDGEMENTS

The writer is grateful to Don Duco, Lodewijk van Duuren and Eddie Nijhof for help with the identification of the Dutch material and to Adrian Oswald for much information and advice.

Figure 11

ILLUSTRATIONS OF CLAY PIPE FRAGMENTS

- a. Bowl, probably Dutch; partially milled rim and bottered mouth. Left side of stem damaged. $\frac{7}{64}$ ". 1580–1620. (cf Friederich, 1975, 103, Afb. 17.3 where he gives a date of 1615; also Atkinson and Oswald, 1969, 7–9, Type 3, 1580–1610).
- b. Bowl, probably Dutch; completely milled rim and bottered mouth; good quality finish. $\frac{7}{64}$ ". 1610–40. (cf Friederich, *ibid*, Afb. 17.14 which he dates to 1632; also Atkinson and Oswald, *ibid*, Type 5, 1610–40).
- c. Bowl, probably Dutch; as b. above, milled on the front only. $\frac{7}{64}$ ". 1610–40.
- d. Bowl, probably Dutch; bottered mouth, not milled. $\frac{8}{64}$ ". 1610–40. (cf Friederich, *ibid*, Afb. 17.16 which he dates to 1618; also Atkinson and Oswald, *ibid*, Type 4, 1610–40).
- e. Dutch bowl, probably from Amsterdam; neatly finished with good quality milling; glossy orange outer surface. A relief heel-mark in the form of a ?Coptic cross in a circle. $\frac{8}{64}$ ". 1620–50. (cf Friederich, *ibid*, Afb. 17.14 and p. 71 which he dates to 1618; also Duco, 1981, 248, no. 109, 1630–50). There is another example in the Berwick material, $\frac{8}{64}$ ".
- f. Relief wheel-mark heel-stamp, probably Dutch; light "polish". $\frac{7}{64}$ " 1610–40. (cf Duco, *ibid*, 247, no. 73; Atkinson and Oswald, *ibid*, fig. 3, no. 2, 1600–30; Friederich, *ibid*, 100, no. 87, which he dates to 1625).
- g. Dutch bowl, possibly from Leiden; partially milled $\frac{8}{64}$ ". 1620–50. (cf Duco, *ibid*, 251, no. 133).
- h. Fragment of Dutch bowl and heel, possibly from Amsterdam; burnished; heel stamp in relief showing a crowned star within a circle. $\frac{7}{64}$ ". 1620–50. (cf Duco, *ibid*, 247, no. 74; Friederich, 1972, 82, top line, third left, which he dates to 1637–45).

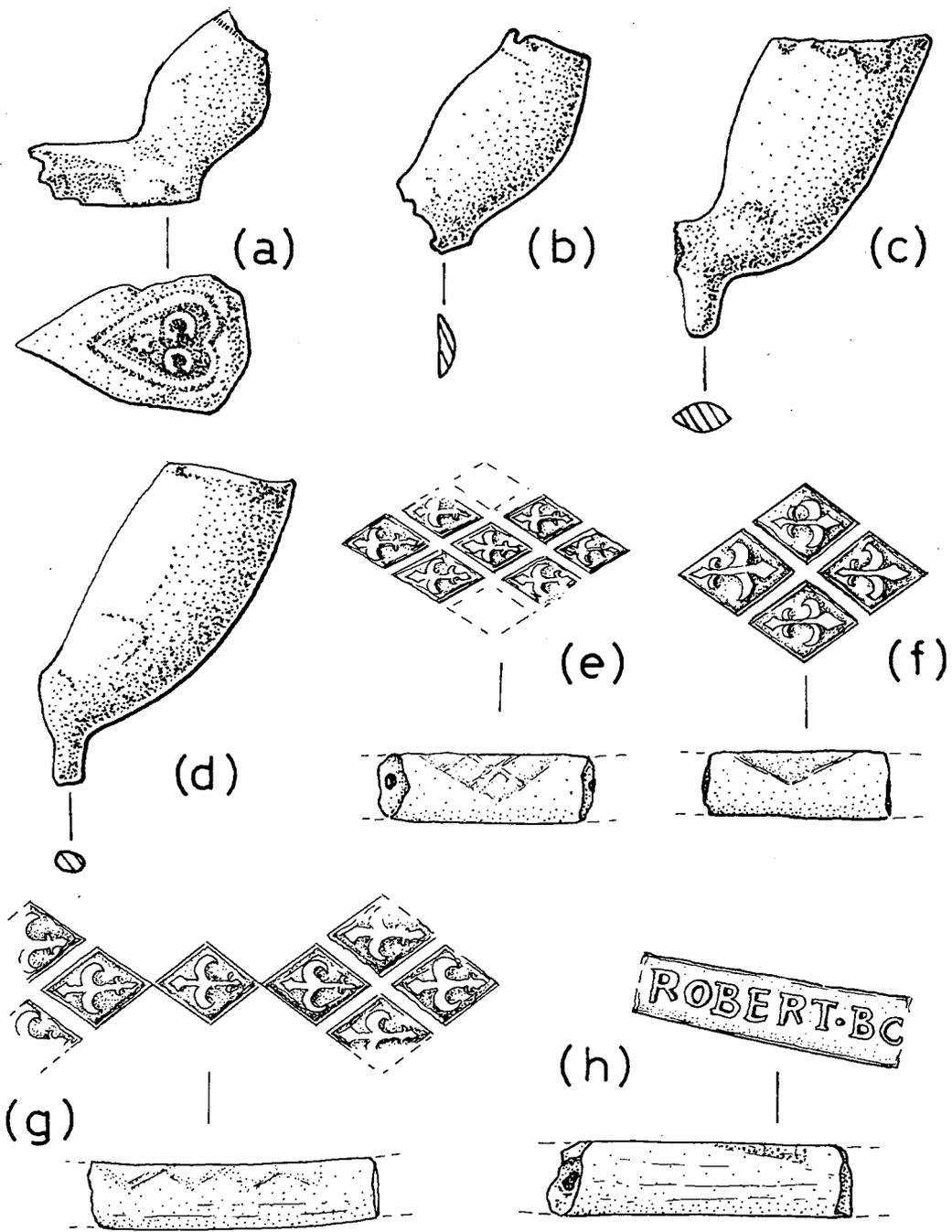


Fig. 12. Clay pipe fragments, scale 1.1. Stamps at 2.1.

Figure 12

- a. English bowl with expanded heel and pronounced convexity at the back; milled and bottered. A relief heel stamp shows the letters GC over a star in a heart-shaped frame. $\frac{8}{32}$ ". 1660–80. (cf Oswald, 1979, 175, who discusses the 17 examples in the Black Gate pit in Newcastle). It seems that the stamp was the mark of a maker from southern England who moved, first to London and then to the north-east. There are two other examples in the Berwick material, $\frac{7}{64}$ " and $\frac{8}{64}$ ".
- b. Bowl, probably from the Edinburgh area; crudely trimmed and finished. 1660–80. (cf Lawson, 1980, 172).
- c. Bowl, probably from Edinburgh; poorly executed milling on the front only, bottered mouth, roughly burnished. Indecipherable and damaged heel stamp. 1670–90. (cf Davey, 1980, 48–49, no. 9 Stamp probably an erased version of the Edinburgh Castle mark, cf Lawson, *ibid*, 173, D–M).
- d. Large spurred bowl of north-east English type, probably from the Gateshead area; bottered, milled on the front only. $\frac{7}{64}$ ". 1680–1710. (cf Brown and Gallagher, 1980, 26, fig. 4, no. 24; Parsons, 1969, Type 6). There are two other examples in the Berwick material; both $\frac{6}{64}$ ".
- e–g. A variety of Dutch fleur-de-lys stem stamps, 1620–50.
 - e. A single stamp applied seven times; not burnished. $\frac{7}{64}$ ".
 - f. A single four-part stamp, applied over a burnished surface. $\frac{7}{64}$ ".
 - g. A four-part stamp, from a different die from f. above, applied twice. A single fleur-de-lys stamp, similar to e. above applied last over the centre. $\frac{7}{64}$ ". (cf Duco, *ibid*, 107–122).
- h. Stamped Dutch pipe stem with the name ROBERT BO. in relief. $\frac{2}{84}$ ". 1630–50. The mark of Robert Bon, an Englishman, who was working in Rotterdam 1627–43 and Schiedam 1644–52. (cf Duco, *ibid*, 261, no. 270, and p. 331).

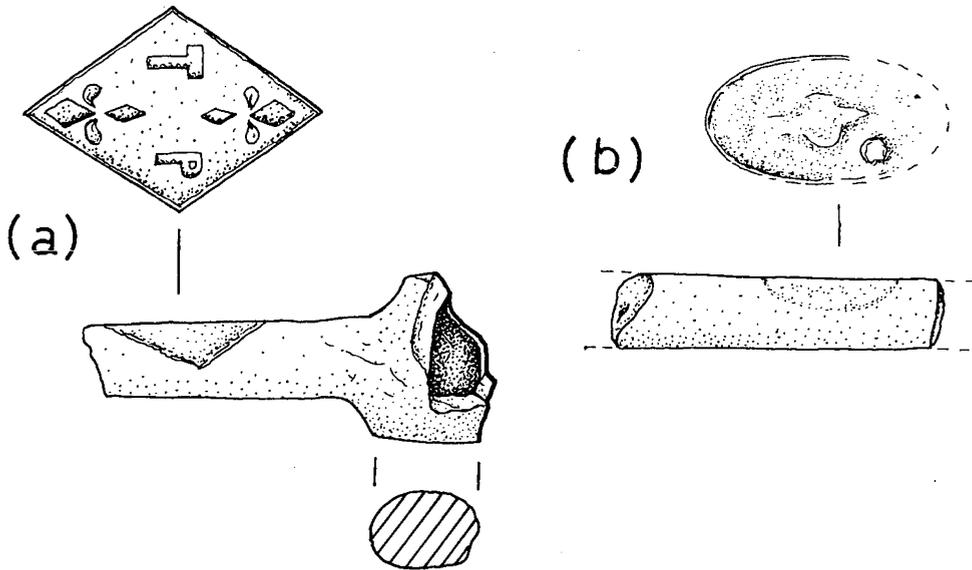


Fig. 13. Clay pipe fragments, scale 1.1. Stamps at 2.1.

Figure 13

- a. Bowl, heel and stem fragment, probably from the Gateshead area; crudely burnished. A lozenge stem stamp in the form of two fleur-de-lys, one above the other, and the initial TP on either side. $\frac{8}{84}$ ". 1660–80. (cf Brown and Gallagher, *ibid*, fig. 2, nos. 22–23).
- b. Stem fragment with very faint oval stem stamp, with a fleur-de-lys in the centre. Probably made in north-east England. $\frac{7}{64}$ ". 1660–1700. (cf Brown and Gallagher, *ibid*).

Note: numbers in $\frac{x}{y}$ " refer to stem bore diameters, where measureable.

APPENDIX V

The Pottery by Stephen Moorhouse

The pottery from Oil Mill Lane, Walkergate and Ravensdowne is the first medieval pottery to have been produced from controlled excavations in Berwick-upon-Tweed, and indeed little other medieval pottery is known from the surrounding area.

The Oil Mill Lane site yielded an undisturbed stratified sequence of material and although large quantities of pottery were recovered from Walkergate and Ravensdowne, these two sites also produced 15th century coins (Mary I and James II respectively) lying on, or close to natural. As the pottery was 13th and 14th century in date from both, and the sherds were mainly small and abraded with few vessels being represented by more than three sherds, it seems likely that both sites were heavily disturbed during the late medieval period. Most of the pottery types present at these two sites also occurred in the Oil Mill Lane sequences and in order to avoid any unnecessary duplication only the material from that site is published here.

Berwick was an important port throughout the medieval period, being in Scottish hands until 1296 after which date it has remained, with a few short exceptions, an English possession. While under Scottish rule the town was an important religious and commercial centre, but in English hands was used more as a depot for supplying outlying bases in southern Scotland. Berwick's wide-ranging links are reflected in the pottery, much of which is very fragmentary with many vessels represented by small single sherds as demonstrated in table 2. While some of the pottery types present have been recognized many have not and this is particularly true of the decorated jugs of Type 3 which almost certainly come from many different centres in Scotland and along the east coast of England. The material is presented here as a record of what was found rather than as a lengthy discussion in the hope that it may encourage work on medieval pottery in the area. A more detailed account of the types found would not be strictly relevant here and is more correctly suited to the study of early ceramics *per se* than with the general fortunes of the early town.

Method of Presentation

The illustrations give all the variations in form and decoration for each type within each group. The type definition gives a detailed breakdown of the pottery, the forms produced and the illustrated vessels of that type. Table 3 gives the location of the sherds for each illustrated vessel and gives evidence for use. A star in column 9 indicates that the peculiar sooting features on the vessel are mentioned in the text under "Sooting" (see below). The statistical information for all the types from each group is set out in table 2. This is arranged in approximate chronological order and for each entry gives the number of pots represented and the number of sherds representing them. As many of the vessels are represented by a single sherd it was not

13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
1:5	1:1													
	1:1													
		1:2	1:5											
			1:1	1:3	4:22	5:21 6:18	4:23 2:21							
		1:5			1:1		1:1							
			1:1	1:1	1:1	1:1	1:1	1:1						
		2:2			1:1	15:33	1:1	13:27	3:5					
		1:1	1:1	1:1	1:1	8:8	1:1	30:42	1:1	3:3	1:1	9:9		
		1:2			1:1			20:28						
		1:2			1:1	1:1		10:13					1:1	
					1:1			1:1						
						3:3		2:2	1:1			1:1		
						2:2		4:4	1:1	5:5	1:1	1:1		
										1:1				1:2

possible to quantify the various vessel forms throughout the sequence. This is attempted in the type definitions.

Associations

Sequences of material from urban deposits present their own problems. Restricted continual occupation introduces much residual material into successive phases of a tenement and the Oil Mill Lane site is no exception. Table 2 shows that some contexts contained many sherds, each from different vessels, while others contained near complete vessels suggesting that at least these groups might be contemporary. The problem of material being contemporary within the same deposit is made even more difficult as circumstances dictated that only part of the historic tenement could be examined. The relevance of the associated types within each deposit and their relative qualities should be assessed against the numbers of sherds present for each vessel as shown in table 3. The sequence needs to be seen against other large stratified deposits of material from Berwick. The type of pottery found at Oil Mill Lane might reflect restricted types of occupation, a suggestion strengthened by the presence of many vessels with sooting and residues.

Types Present and their Development

The significance of the Oil Mill Lane material cannot be fully appreciated until further work is carried out on the documentation to identify the medieval occupants of Oil Mill Lane and until the material can be seen in the context of locally-produced medieval pottery in the Berwick area. The sequence offers a contribution to the latter in that the jugs of Type 1 and the successive forms of Type 19 appear to represent locally produced material. The quality of the two forms of jars of Type 2 suggests that they were also locally produced. Berwick's role as an important port in attracting a wide range of pottery types makes it somewhat difficult to identify local types, especially considering that this is the first large excavated group from the area.

Dating

Although the Oil Mill Lane site was stratified it contained little internal dating evidence. The coins were either from the upper modern levels or were unstratified and the dating evidence must come from the pottery itself. As these are the first stratified sequences of pottery from the region, the coarsewares are of little assistance and dating has to rely on imports from Europe and elsewhere in the British Isles. The earliest floor level contained large parts from a blue grey ladle (no. 15). The end of the sequence probably lies somewhere before the end of the 15th century, for none of the recognized typefossils of the late 15th century are present, notably Raeren stoneware and Cistercian ware. The upper levels had been disturbed and the Frecken stonewares were stratified below Siegburg and Cologne stonewares. The only intermediate dating comes from the polychrome vessels of the later floor (nos. 153, 154) which might date the group to the late 13th or early 14th centuries. Although no. 154 is complete as drawn, no. 153 is a small single sherd, and, as a stratigraphically earlier group contains Langerwehe type stonewares (nos. 119, 148), even this association may be doubtful. Although dating evidence is dubious, the group provides an important sequence of pottery, and with reservations, useful associations in the groups.

Uses of the Pottery

Many parts of a pottery vessel can reveal evidence for its use. Due to the fragmentary nature of much of the Oil Mill Lane material the evidence is limited to *sooting* and *residues*.

TABLE 3 Pottery information table from Oil Mill Lane.

Illust. No.	Pottery Type No.	Number & Location of Sherds	Residues	Sooting				
				Internal	External	Upper	Lower	Any Variants
1	2	3	4	5	6	7	8	9
	1	2-DG; 3-CZ	*					
	2	2-DG						
	3	2-DE						
	4	1-DG						
	5	1-DG						
	6	1-DG						
	7	1-DG						
	8	3-DG	*					
	9	1-DG						
	10	1-DG			*		*	
DD	11	5-DD						
	12	1-DD						
	13	1-BP; 1-CP; 1-CY; 1-DG; 1-DD			*		H	
	14	1-DD; 1-DA						
	15	2-DD						
	16	3-BX; 15-CJ; 2-CY; 1-DC; 2-DD						
	17	2-DD						
	18	13-DD	*		*		H	
DC	19	1-DC; 1-DA; 2-CZ	H					
	20	1-DC; 1-DF			*	*		*
	21	1-DC; 1-CP			*		H	
	22	1-DC; 1-DB; 1-CY			*		H	
	23	2-DC			*	*	H	
	24	1-DC						
	25	1-DC						
	26	1-DC						
	27	4-DC; 2-CY						
	28	3-DC; 1-DG	H					
	29	1-DC						
	30	1-DC						
	31	1-DC						
	32	1-DC						
	33	2-DC						
	34	1-DC						
	35	2-DC			*		H	
	36	5-DC; 2-DD						
	37	4-DC						*
	38	2-DC						

Illust. No.	Pottery Type No.	Number & Location of Sherds	Residues	Sooting				
				Internal	External	Upper	Lower	Any Variants
1	2	3	4	5	6	7	8	9
	39	9 1-DC						
	40	9 1-DC						
	41	9 1-DC; 1-CP	*					
	42	9 1-DC						
	43	5 1-DC						
DB	44	1 14-DB						
	45	1 1-DB	*					
	46	1 1-DB						
	47	1 3-DB						
	48	1 1-DB						
	49	1 1-DB						
	50	2 1-DB						
	51	2 2-DB		*	*			*
	52	2 2-DB; 2-CP			*		*	
	53	3 1-DB						
	54	3 3-DB						
	55	3 1-DB						
	56	7 1-DB; 2-CO; 2-CS; 2-CY						
	57	9 1-DB						
DA	58	2 2-DA						
	59	2 1-DA			*	*		
	60	2 1-DA						
	61	8 2-DA; 1-BD						
CY	62	1 2-CY	*					
	63	1 4-CY			*			*
	64	1 1-CY						
	65	1 1-CY						
	66	1 1-CY	*		*	*	H	
	67	1 1-CY						
	68	1 1-CY						
	69	3 1-CY						
	70	3 1-CY						
	71	4 5-CY						
	72	4 1-CY						
	73	2 2-CY						
	74	18 2-CY; 1-BU; 1-BX; 1-CE; 2-CJ; 2-CO; 1-CP; 1-BD						

	Illust. No.	Pottery Type No.	Number & Location of Sherds	Residues	Sooting				
					Internal	External	Upper	Lower	Any Variants
	1	2	3	4	5	6	7	8	9
CZ	75	1	1-CZ						
	76	2	1-CZ			*	*	H	
	77	2	1-CZ						
	78	2	1-CZ			*		H	
	79	2	1-CZ	H		*	*	H	
	80	2	1-CZ			*		*	
	81	2	2-CZ						
	82	2	1-CZ						
	83	2	1-CZ						
	CS	84	1	2-CS					
85		1	1-CS						
86		1	1-CS						
87		2	4-CS						
88		2	1-CS						
89		2	1-CS						
90		2	1-CS						
91		2	1-CS			*	*		
92		2	1-CS						
93		2	1-CS						
94		2	1-CS			*	H		
95		2	1-CS			*	H		
96		5	1-CS						
97		3	1-CS						
98		3	1-CS						
99		3	3-CS						
100		3	1-CS						
101		3	1-CS						
102	6	3-CS		*					
103	7	5-CS							
104	9	1-CS							
105	9	1-CS							
106	13	4-CS; 1-BQ							
CI	107	2	1-CI						
	108	2	3-CI						
	109	3	1-CI; 1-CN						
	110	22	1-CI						
	111	8	1-CI			*	*		*
	112	7	7-CI	H					

	Illust. No.	Pottery Type No.	Number & Location of Sherds	Residues	Sooting				
					Internal	External	Upper	Lower	Any Variants
	1	2	3	4	5	6	7	8	9
CN	113	3	1-CN						
CR	114	6	1-CR						
	115	6	1-CR						
	116	6	1-CR						
CO	117	3	1-CO						
	118	6	21-CO						
CM	119	16	5-CM						
CH	120	7	1-CH						
CK	121	4	1-CK						
BX/BW	122	2	1-BW; 1-CP						
	123	3	1-BX						
	124	3	1-BX						
	125	3	1-BW						
	126	3	1-BW; 5-BX						
	127	3	1-BX						
	128	4	3-BX; 1-BV						
	129	4	3-BX						
	130	4	3-BX						
	131	7	1-BX						
	132	7	19-BX; 1-BW			*			*
	133	7	1-BX			*		H	
	134	7	1-BW; 1-BX						
	135	18	8-BX; 3-CP			*			*
	136	19	2-BW; 2-BU						
	137	19	1-BX			*	H		
	138	19	1-BX			*	H		
	139	19	1-BX						
140	19	4-BW; 7-BX; 1-CS			*		H		
141	19	1-BW							
142	19	1-BW			*	H			
143	19	4-BX							
144	19	1-BW			*		H		
145	19	1-BW							
146	?13	1-BX		H				*	

Illust. No.	Pottery Type No.	Number & Location of Sherds	Residues	Sooting				
				Internal	External	Upper	Lower	Any Variants
1	2	3	4	5	6	7	8	9
147	20	29-BX						
148	16	2-BX						
BU	149	3 1-BU; 1-CE						
CE	150	7 7-CE						
CJ	151	4 29-CJ						
	152	4 18-CJ						
	153	15 1-CJ						
	154	15 5-CJ						
	155	19 2-CJ; 16-BU	H					
BU	156	10 2-BU; 2-BT; 1-BW						
	157	21 1-BU; 7-BS						
BT	158	19 2-BT						
BR	159	7 1-BR						
	160	14 1-BR						
	161	19 9-BR						
	162	7 3-BR						
	163	19 1-BR						
	164	19 1-BR						
	165	19 1-BR						
	166	3 1-BR						
	167	19 1-BR						
	168	19 1-BR						
	169	6 1-BR						
	170	11 1-BR						
	171	11 1-BR						
	172	7 1-BR						
	173	2 1-BR						
	174	18 2-BR						
	175	3 1-BR						
	176	4 1-BR						
BQ	177	2 1-BQ						
	178	7 1-BQ						
	179	4 1-BQ						

Illust. No.	Pottery Type No.	Number & Location of Sherds	Sooting					
			Residues	Internal	External	Upper	Lower	Any Variants
1	2	3	4	5	6	7	8	9
BO 180	16	1-BO						
CP 181	2	1-CP			*	*		
182	2	1-CP			*	*		
183	8	1-CP						
184	7	1-CP						
185	15	1-CP						
186	14	1-CP						
187	14	1-CP						

Sooting

The method of heating a vessel can often leave distinctive evidence in the areas of the pot covered by burning. Two jugs (nos. 132, 135) are partially sooted under the base suggesting that they may have been used for mulling wine. The well-documented use of charcoal during the Middle Ages for heating is suggested by two vessels whose bases are sooted underneath terminating in a clean line just above the base angle (nos. 37, 111). At least 8 vessels were heavily sooted internally, three of which are illustrated (nos. 51, 102, 146). A variety of suggestions can be made for their possible use, ranging from a container for fire to a receptacle commonly used in the Middle Ages for a treatment which purported to cure piles. As most of the vessels are represented by only a few sherds it is impossible to say how many of the jar forms were partially sooted. Such information can be used to suggest that culinary vessels were used once and then discarded. Many of the jar forms had heavy external sooting to the rim (e.g. nos. 20, 51, 63), which might suggest that these vessels were suspended in boiling water while their contents were being heated. This was a common method of heating ingredients in the medieval period and one which allowed only the vessel rim to be affected by carbon deposits. The sharp distinction between sooted and non-sooted areas of the rim top on some jars suggests that lids had been used. As the only pottery lids on the site were to fit jugs (nos. 12, 53, 97) the covers may have been in other materials.

Residues

Many vessels had internal residues from their former contents. They can be broken down visually into two groups although chemical analysis will almost certainly reveal different constituents and hence different functions for the vessels. The largest group contained a dull greasy incrustation on the inside of the vessel with some heavier deposits. Illustrated vessels exhibiting this are:

No.	Type	Form	No.	Type	Form
1	1	jug	62	1	jug
19	1	jug	75	1	jug
33	4	jug	79	2	jar
41	9	jug	112	7	jug
45	1	jug	155	19	jug

The illustrated vessels with this deposit reflect the distribution of the residue throughout the entire Oil Mill Lane group. It is found mainly in jugs and in particular in those of Type 1 where 25 contained the encrustation. The other residue was in the form of a mauve powdery substance found on the inside of two vessels, one of which is illustrated (no. 66). The other was a jar of Type 2, similar in form and size to no. 63. The rim is heavily sooted externally.

Holes in Pots

Pottery vessels were occasionally adapted to uses other than those for which they were bought. One such vessel can be recognized from Oil Mill Lane. A hole has been bored in the shoulder of a Type 2 jar (no. 122) and the vessel has broken across the hole—a not infrequent point of fracture when the bored hole has weakened the body. The hole has been carefully bored and an external bevel created. Such holes or fractures can be easily mistaken for pick or trowel marks created during excavation, but genuine holes have dirt embedded in the surface of the bevel or chamfer, as is the case with this example. Vessels with holes pierced after firing are not uncommon and many purposes may be suggested, although in this particular example there is insufficient surviving evidence.

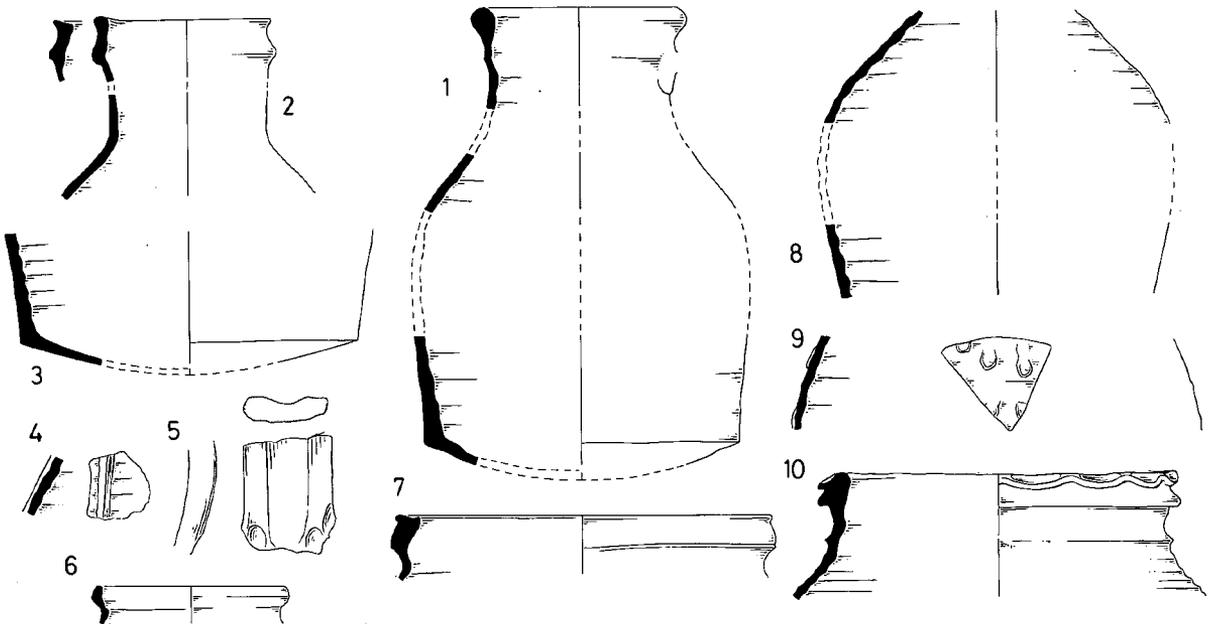


Fig. 14 Berwick-upon-Tweed: Pottery (¼); 1-10 (DG).

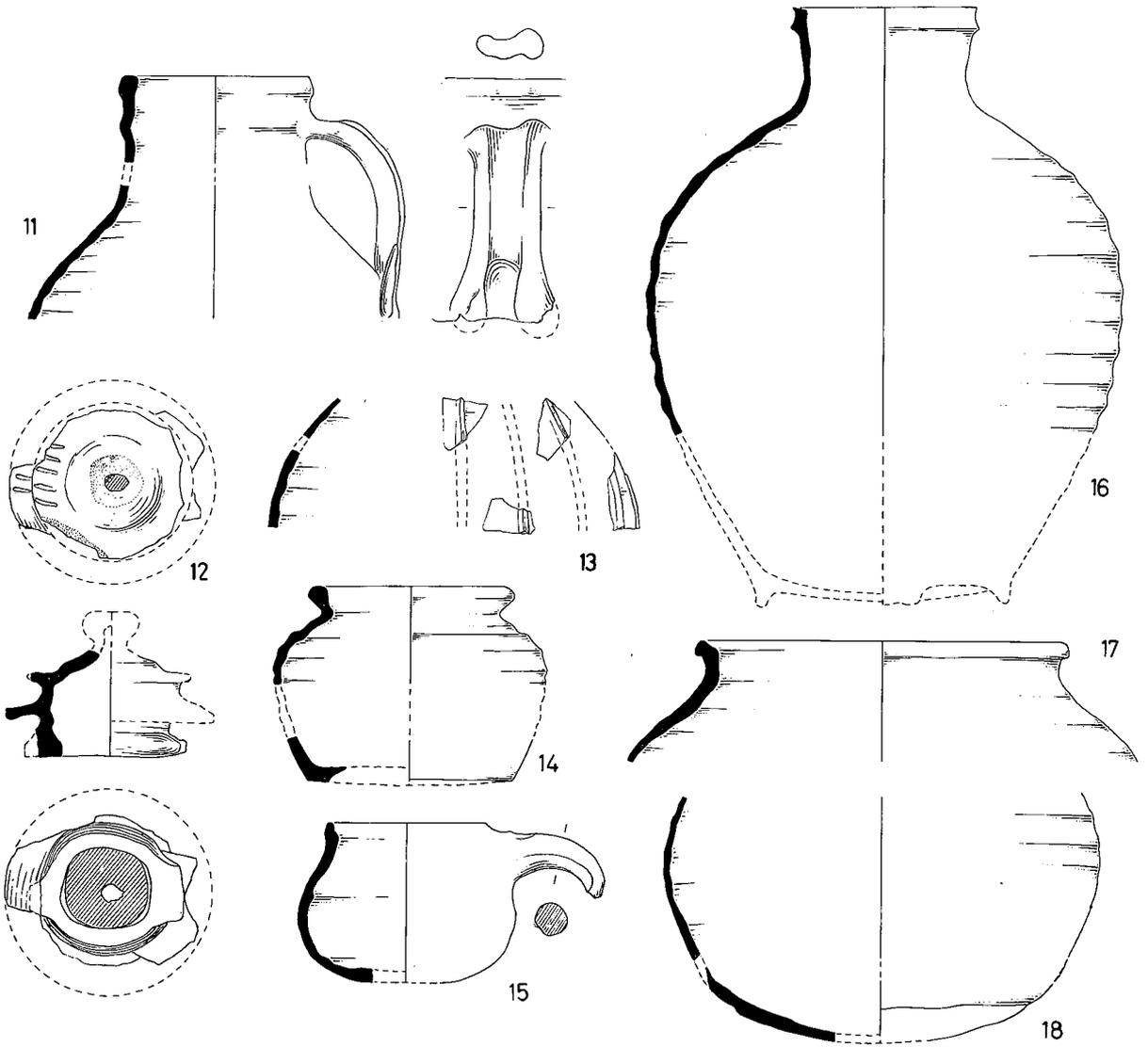


Fig. 15. Berwick-upon-Tweed: Pottery (4); 11–18 (DD).

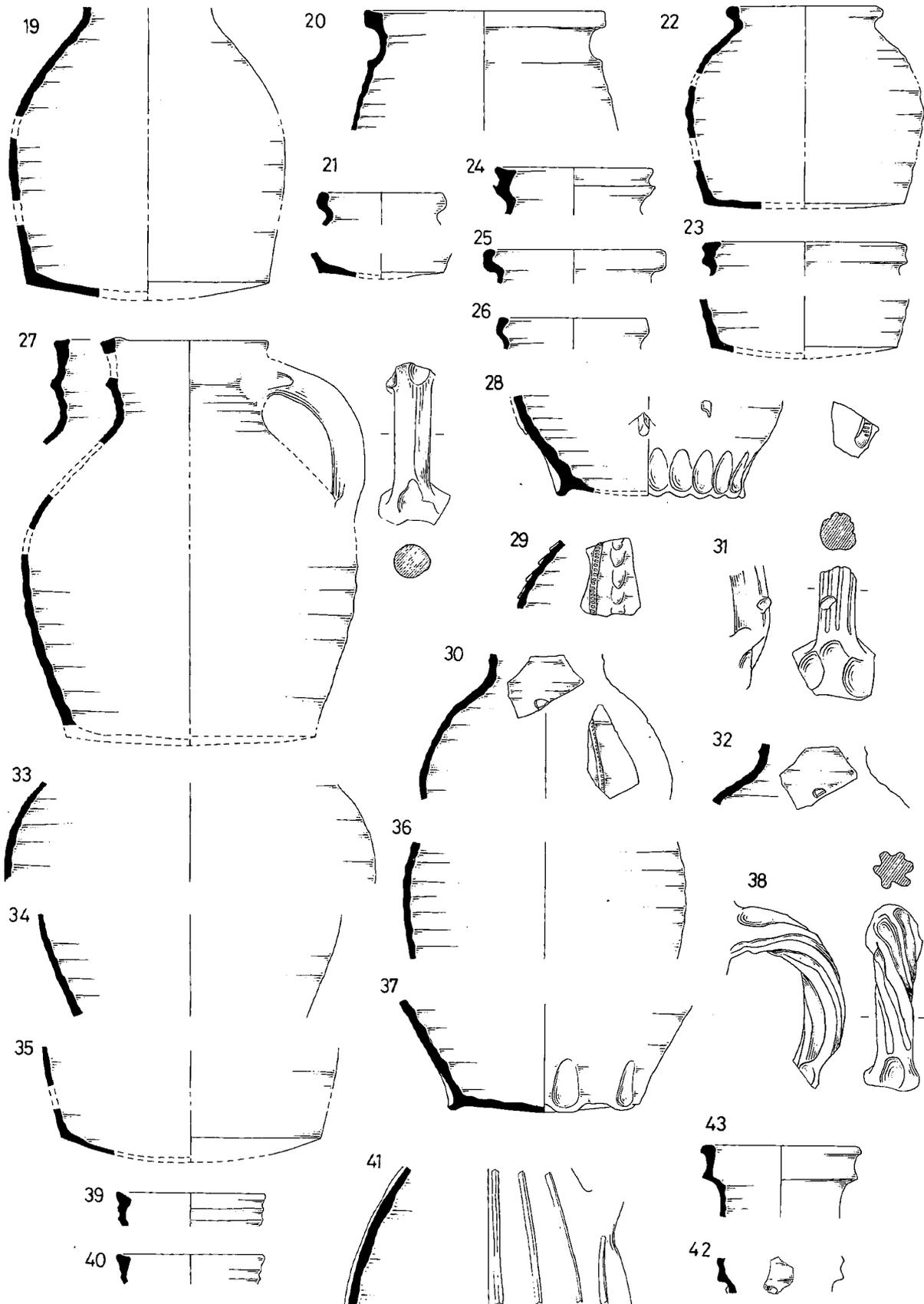


Fig 16. Berwick-upon-Tweed: Pottery (1/4); 19-43 (DC).

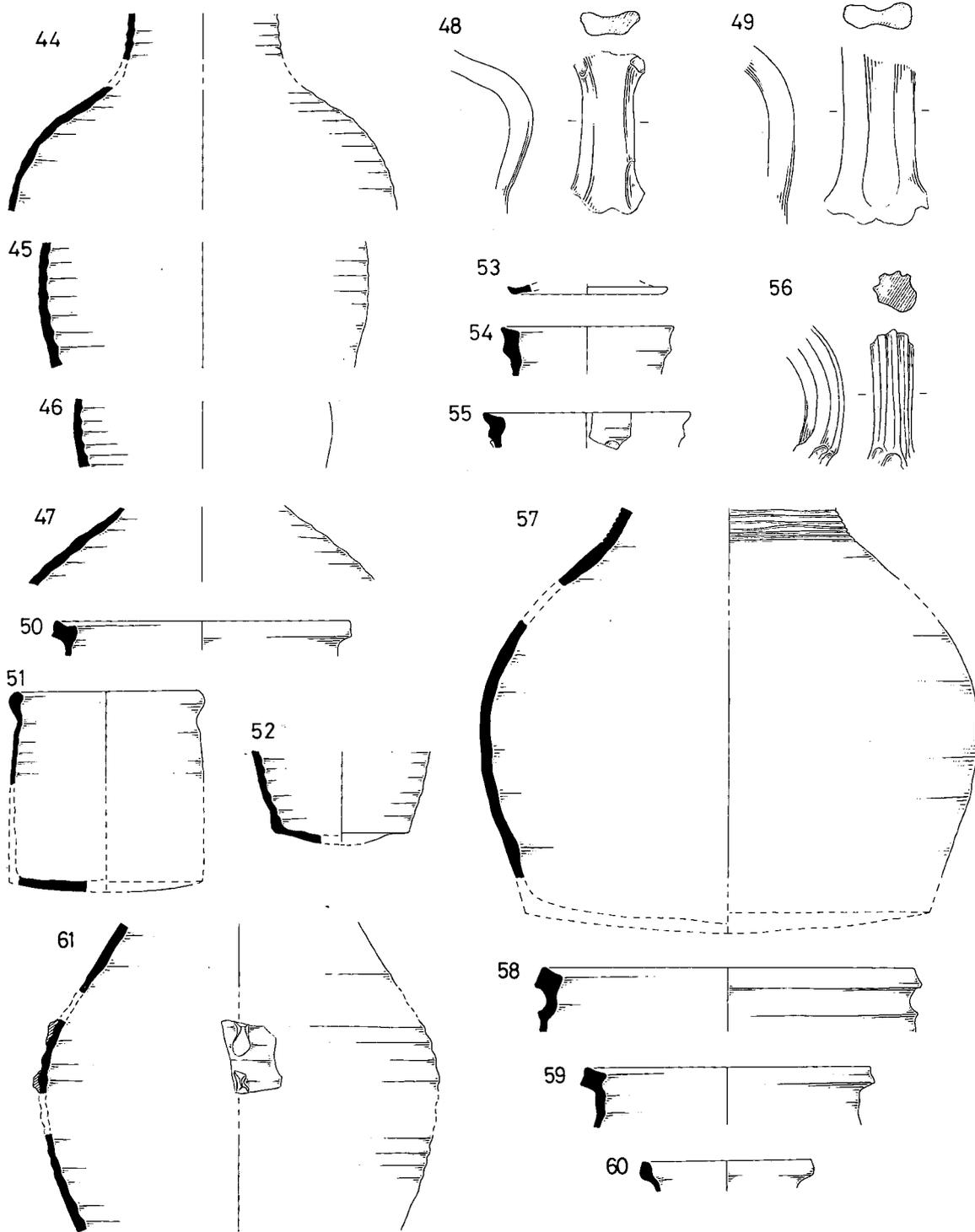


Fig. 17. Berwick-upon-Tweed: Pottery ($\frac{1}{4}$) 44-57 (DB); 58-61 (DA).

POTTERY TYPE DEFINITIONS

Type 1. Common name: none

A hard fired fabric with pimply though smooth surfaces oxidized to various shades of light brown to pink with a blue grey core. Glazes are usually sparse, watery and light olive green in colour, occasionally with bright orange mottling. Decoration is rare, but consists of body coloured applied pellets (no. 9) and vertical applied strips of body coloured clay or red firing clay (no. 4). One moulded relief face mask with a beard formed by incised lines and a hand stroking the beard occurred (no. 86).

Forms: restricted to a distinctive jug form (nos. 1, 19) with a characteristic rounded upright rim and broad plain strap handles (nos. 48-9).

Illustrations: Nos 1-2, 11, 19, 44-9, 62-8, 75, 84-6

Type 2. Common name: none

A fine grained lumpy fabric which is oxidized to varying shades from dull white to buff. When highly fired the fabric reaches near stoneware consistency and the surfaces become a dull light brown colour. The vessels of this type are of very high quality potting. All are unglazed. No vessel of this type had a splash of glaze suggesting that they were fired in separate kilns from the contemporary jugs.

Forms: a variety of jar forms, but two shapes predominate. The most common is a wide mouthed jar with a sharp carination on the shoulder below an angular rim, and invariably closely spaced well-defined throwing grooves on the body (e.g. no. 87). The other is smaller, with a characteristic upright recessed rim and vertical sides to the body (e.g. no. 66). Other forms occur (e.g. nos. 22, 26) but far less commonly.

Illustrations: 3-5, 8-10, 20-6, 50-2, 58-60, 73, 76-82, 87-95, 107-8, 122, 173, 177, 181-2.

Type 3. Common name: none.

A hard, fine grained sandy fabric, usually buff in colour but can be reduced to light grey. The smooth surfaces are covered with a glossy green glaze often with yellow mottling on the edges. A range of applied decorative motifs are used, mainly body coloured.

Forms: always high quality jugs. Most of the vessels are represented by small single sherds but they suggest a wide range of forms which almost certainly come from a number of centres along the east coast of England and Scotland. In view of the fragmentary nature of much of the material, a number of distinctive jug types may be included under a general umbrella heading. Many are probably from Yorkshire, and the Scarborough kilns are well represented (nos. 12, 31, 53, 55, 97, 99-101, 113, 117, 126, 149). Further work on locating the sources for the jugs of this type is required.

Illustrations: 6-7, 12, 27-32, 53-5, 69-70, 97-101, 109, 113, 117, 123-7, 149, 166, 175.

Type 4. Common name: Low Countries grey ware.

A very hard-fired sandy fabric always reduced to varying shades of grey. Always unglazed. Occasionally decorated with incised annular grooves on the shoulder with raised cordons. One vessel (no. 128) is exceptional in having a smooth, glossy, near-black outer surface with close spaced rough raised ridges on the shoulder.

Forms: mainly distinctive jugs (e.g. no. 16) but a few jar forms were present of which only one (no. 17) was capable of illustration. One ladle (no. 15) occurred.

Illustrations: 15-18, 33-6, 71-2, 121, 128-30, 151-2, 176, 179.

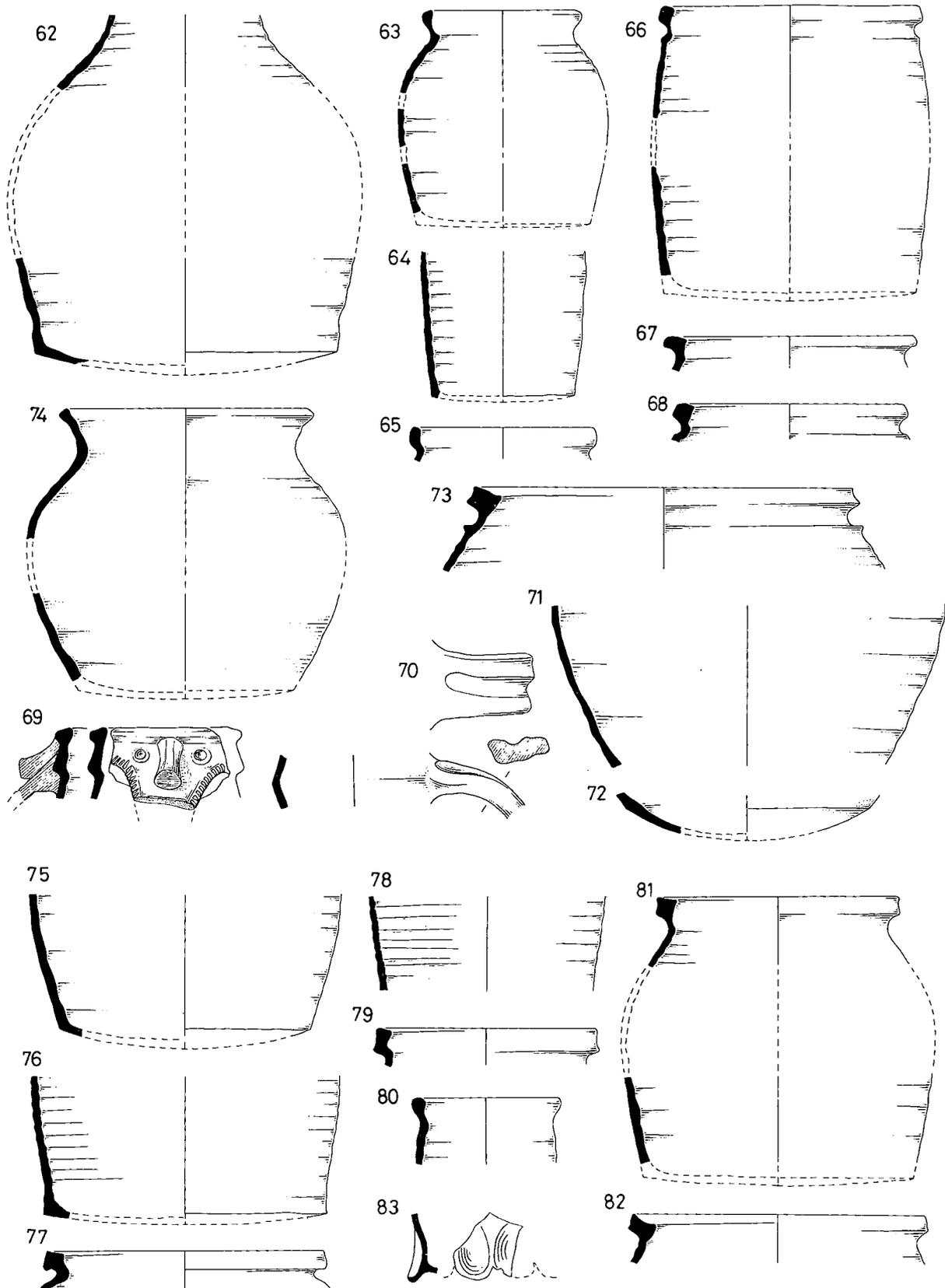


Fig. 18. Berwick-upon-Tweed: Pottery ($\frac{1}{4}$); 62-74 (CY); 75-83 (CZ).

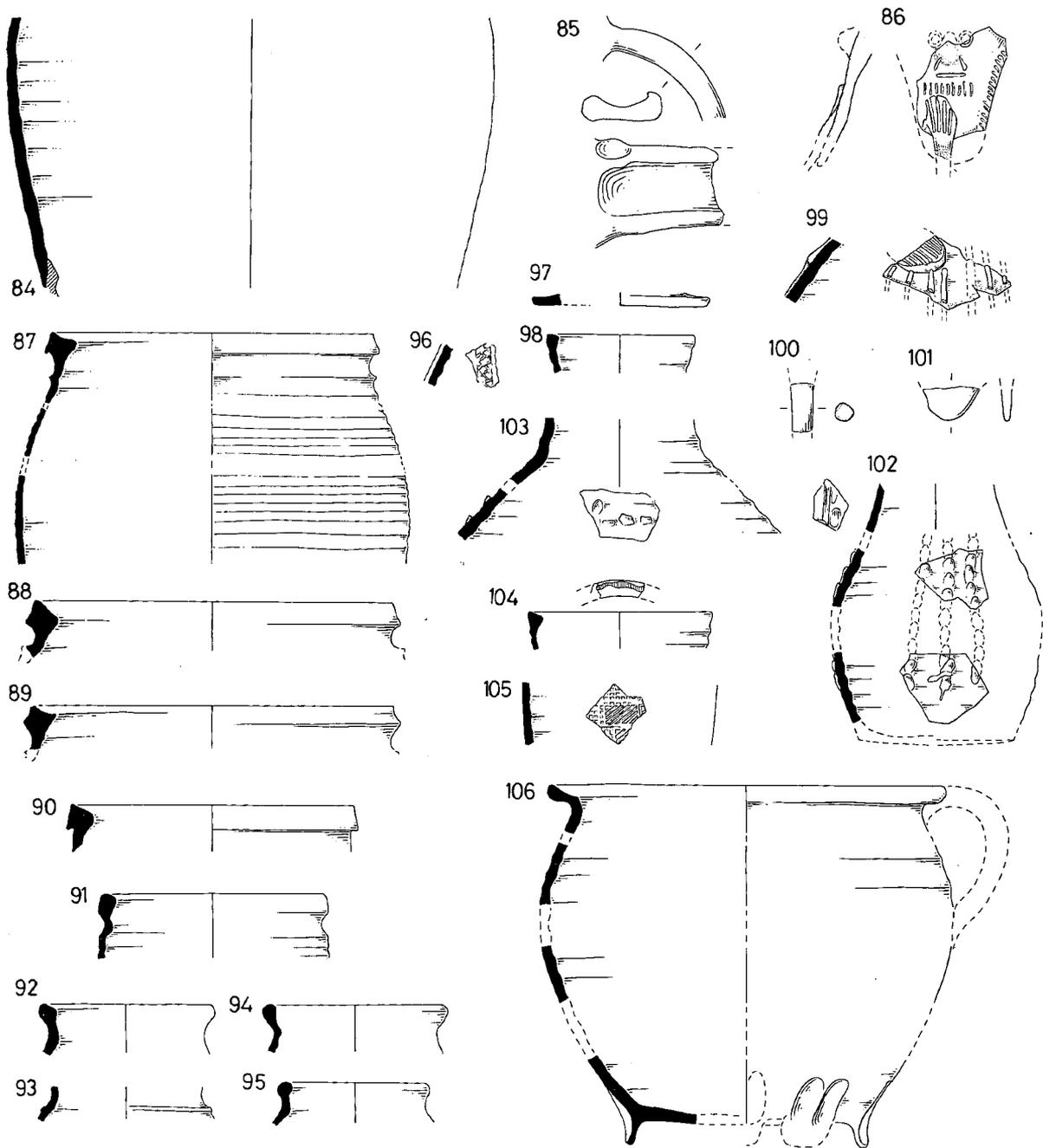


Fig. 19. Berwick-upon-Tweed: Pottery ($\frac{1}{4}$); 84-106 (CS).

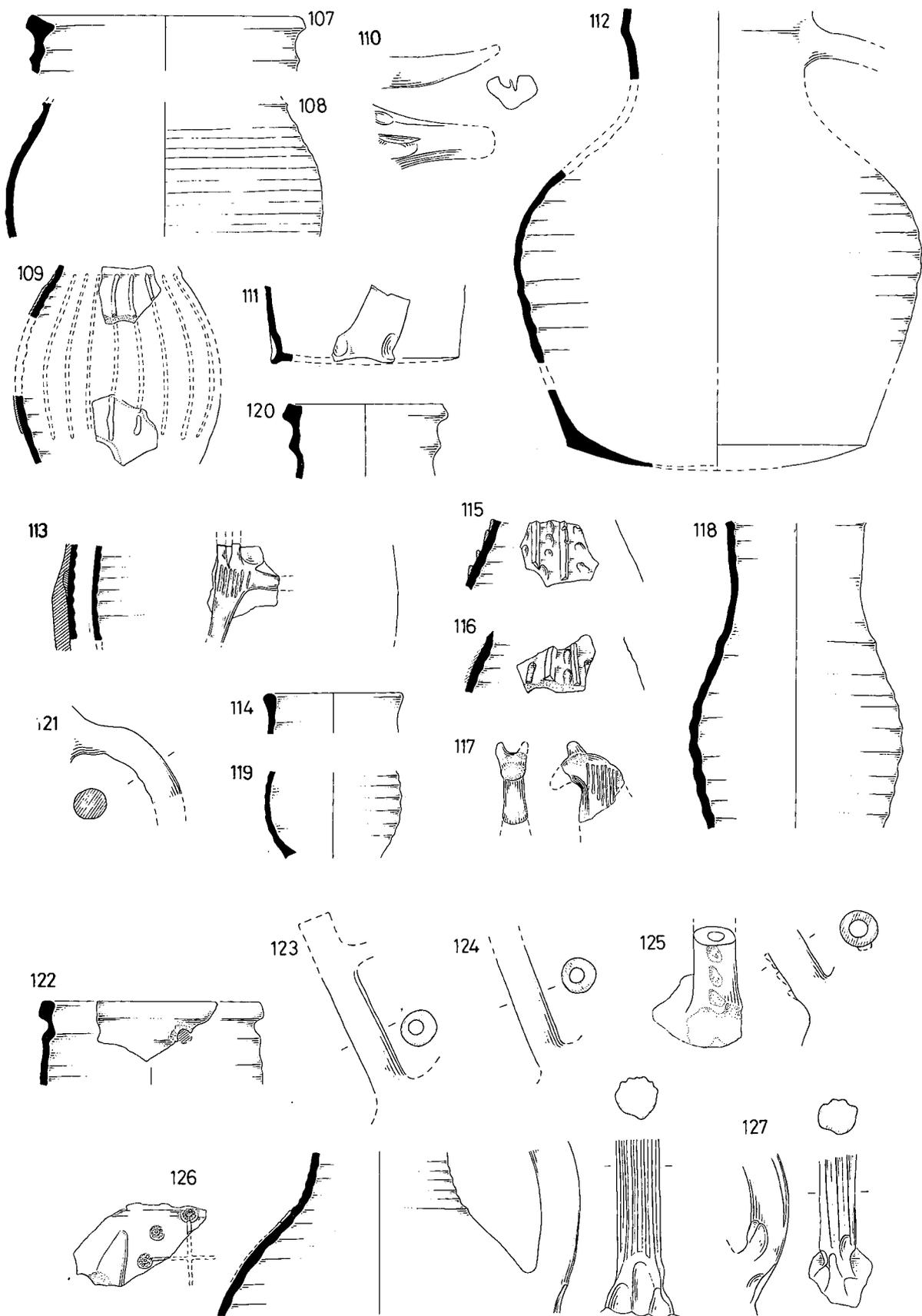


Fig. 20. Berwick-upon-Tweed: Pottery ($\frac{1}{4}$) 107–112 (CI); 113 (CN); 114–116 (CR); 117–118 (CO), 119 (CM); 120 (CH); 121 (CK); 122–127 (BX/BW).

Type 5. Common name: Dutch jugs.

A fine grained sandy thin bodied fabric, light brown in colour and covered externally with a glossy light brown coloured glaze. No. 13 is decorated with white finely executed vertical strips showing a light watery yellow below the lead glaze.

Forms: jugs.

Illustrations: 13, 43, 96.

Type 6. Common name: none.

Thin bodied fine sandy fabric with pimply surfaces. Body colour usually dull buff sometimes with a blue grey core. Decoration is usually applied and glazes are glossy green, or occasionally yellow in colour. Most of the decoration is body coloured (e.g. no. 115), but occasionally red firing clay is used (e.g. no. 116, shown with horizontal shading on the drawing). In general the fabrics of Type 6 are slighter coarser than those of Type 3 and the forms are different. As with Type 3, many of the vessels are represented by single small sherds and probably come from a number of centres.

Forms: where recognized, always high quality decorated jugs.

Illustrations: 102, 114–16, 118.

Type 7. Common name: none.

Thick bodied crudely made sandy fabric always reduced to a grey in colour. Glazes are generally thick and dark green in colour. Decoration is rare. Apart from the distinctive incised designs of the Grimston jugs (e.g. nos. 131, 184) an unusual decorative technique is used on no. 131; a toothed knife has been used to create facets on the lower part of the jug. Many of the vessels are reminiscent of the Grimston products (e.g. nos. 131, 184) but other centres are probably involved here.

Forms: always jugs.

Illustrations: 37–8, 56, 103, 112, 120, 131–4, 150, 159, 162, 178, 184.

Type 8. Common name: none.

A thin very hard fired coarse grained fabric fired light pink when oxidized and occasionally light grey when reduced. Glazes are a sparse dull light green colour.

Forms: jugs of indeterminate form.

Illustrations: 61, 111, 133.

Type 9. Common name: Aardenberg ware.

A hard fired fine sandy fabric oxidized bright red in colour with a blue grey reduced core coated externally with white slip and covered with glossy light green glaze. Glazed all over internally a glossy deep brown colour. Decoration normally of red coloured clay. No. 41 has brown coloured vertical strips.

Forms: decorated jugs.

Illustrations: 39–42, 57, 104–5.

Type 10. Common name: none.

Fine grained sandy fabric always reduced to varying shades of grey, with smooth outer surfaces. Glaze is usually dark green.

Forms: always jugs, but the sherds are too small to suggest their form.

Illustrations: 10, 156.

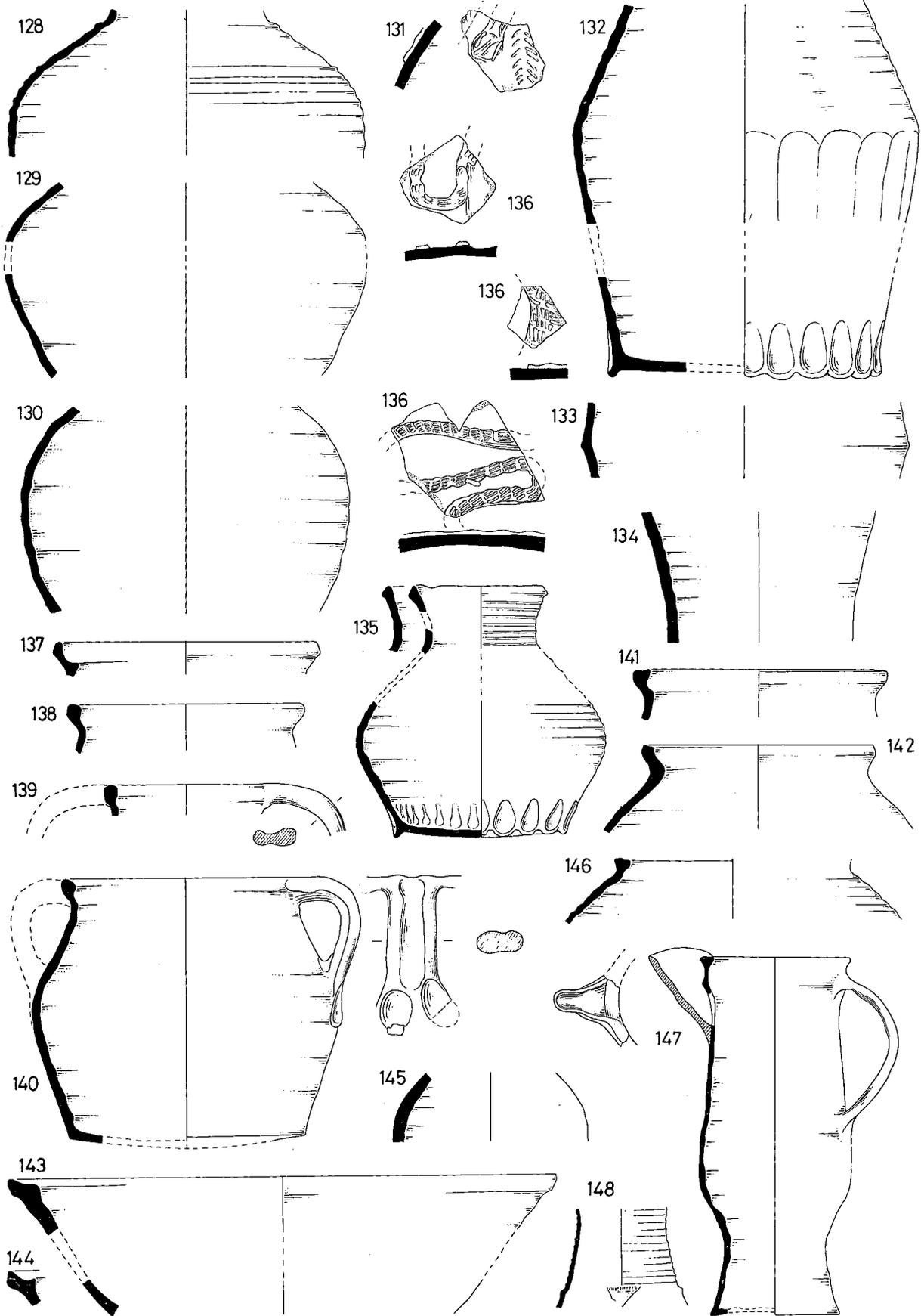


Fig. 21. Berwick-upon-Tweed: Potter ($\frac{1}{4}$) 128–148 (BX/BW).

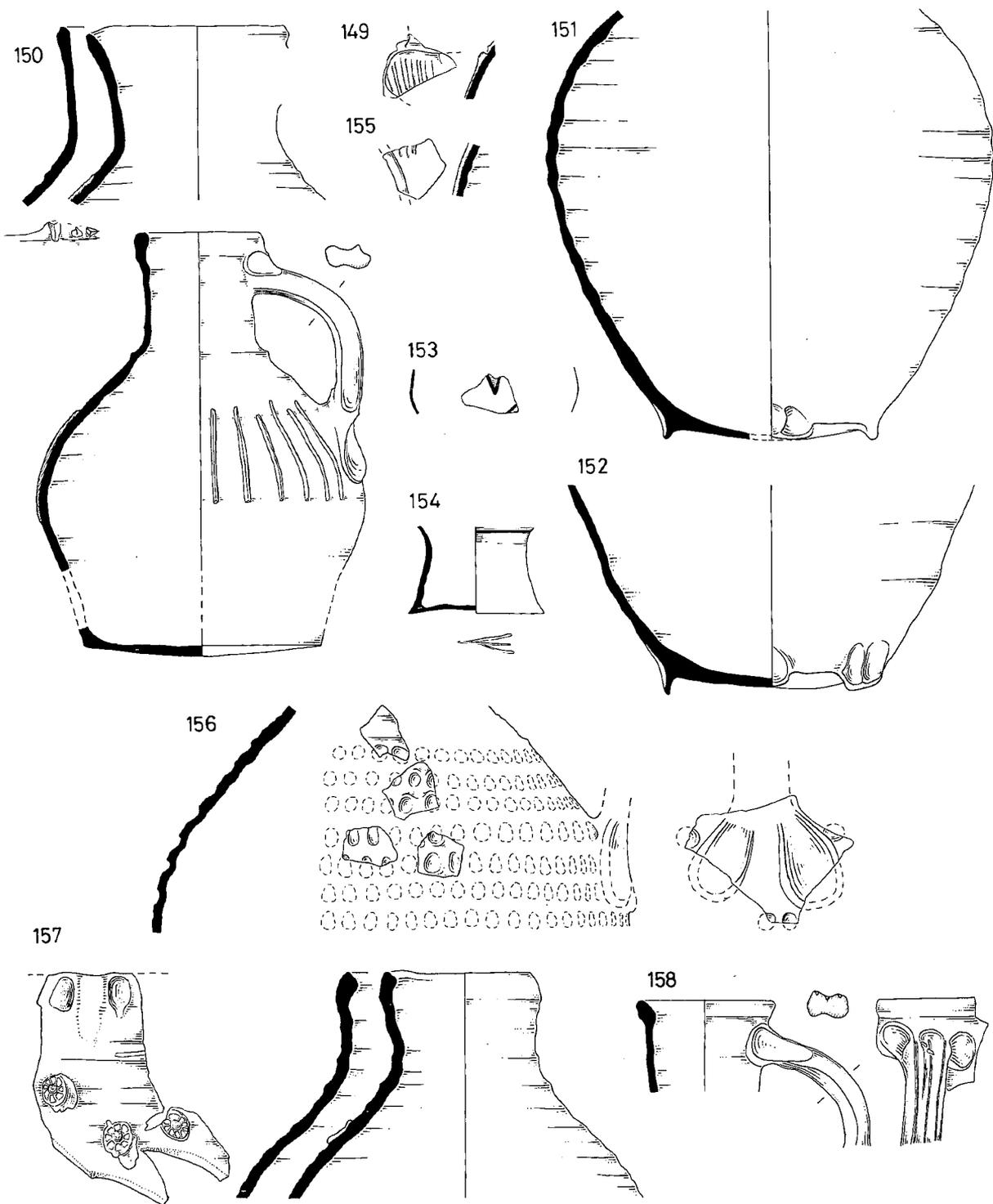


Fig. 22. Berwick-upon-Tweed: Pottery (½); 149 (BU); 150 (CE); 151–155 (CJ); 156–157 (BU); 158 (BT).

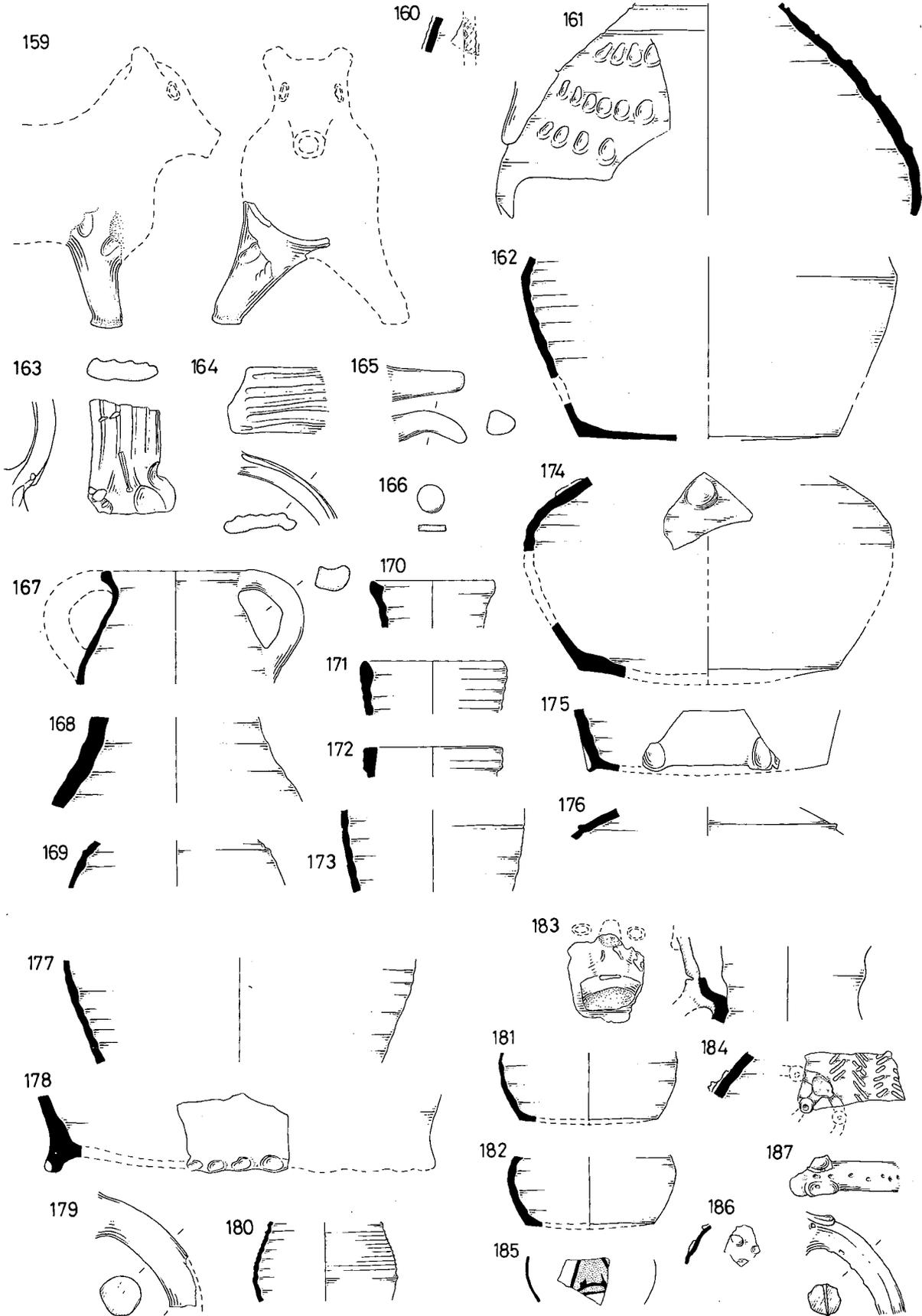


Fig. 23. Berwick-upon-Tweed: Pottery (‡); 159–176 (BR); 177–179 (BQ); 180 (BO); 181–187 (CP).

Type 11. Common name: none.

Very fine smooth hard fired fabric, dull brick red in colour, having the appearance and consistency of a modern plant-pot fabric. Characterized by a thin creamy slip covering most of the upper half of the jugs, with splashes below. Covered in a watery dull lime green glaze. One decorated sherd shows body coloured pellets.

Forms: only two vessels were present and both were jugs.

Illustrations: 170-1.

Type 12. Common name: none.

Fabric similar to that of Type 2 but harder fired and finer grained. Fired to dull white to buff in colour.

Forms: variety of jar shapes, but all vessels were represented by small sherds.

Illustrations: none.

Type 13. Common name: Dutch culinary vessels.

Hard fired coarse sandy fabric fired to varying shades of brick red. No. 106 is glazed a glossy mottled orange and dull green on the rim. No. 146 has an external sparse metallic purple glaze and may be from the Rhineland.

Forms: culinary vessels.

Illustrations: 106, 146

Type 14. Common name: Northern French jugs.

Hard fired, very fine grained white fabric with smooth surfaces, covered with glossy light yellow glaze. No. 160 is a coarser fabric with rouletting on a raised strip and covered with a glossy mottled apple green glaze.

Forms: jugs.

Illustrations: 160, 186-7.

Type 15. Common name: South-Western French Polychromes

Very thin hard fired smooth creamy fabric. Painted decoration covered with thin clear glaze.

Forms: distinctive jugs.

Illustrations: 153-4, 185.

Type 16. Common name: Langerwehe stonewares.

Fine grained light grey stoneware with matt purple wash.

Forms: various forms of jugs.

Illustrations: 119, 148, 180.

Type 17. Common name: none.

Fabric similar in texture and appearance to that of Type 2 jugs, but harder and with sand additions. Covered all over internally and splashed outside with glassy deep green glaze.

Forms: all bowls.

Illustrations: none.

Type 18. Common name: none.

Thin fine grained very hard fabric, brick red margins with grey core.

Forms: only three vessels present and all were jar forms.

Illustrations: 74, 135, 174.

Type 19. Common name: none.

Thick fine sandy fabric oxidized to a dirty brick red colour with consistent blue grey core. The fabric and glaze is similar to that of Type 1 vessels. Types 1 and 19 may be successive coarseware traditions in the Berwick area.

Forms: mainly double handled jars. At least two bowls were present (nos. 144–5) and no. 145 may come from the globular body of a roof finial. A near complete jug has body coloured vertical strips (no. 156), but jugs were generally rare. A curfew may be represented by no. 136. The top has combed applied white strips and is covered with a glossy watery lime green glaze, and the underside is smoked. The forms in this type suggest a break in the ceramic tradition in the area which conforms to the national picture where a change in all aspects of the industry reflected social and economic changes during the later Middle Ages.

Illustrations: 136–45, 155, 161, 167–8.

Type 20. Common name: South-Western French Monochromes.

Fabric as for Type 15 but jugs covered with a glossy deep green glaze.

Forms: all jugs apart from no. 147. Other vessels represented by single sherds.

Illustrations: 147.

Type 21. Common name: none.

Thick hard fired pimply surfaced fabric reduced to a light grey colour, covered externally with dull lime green glaze. No. 157 is the most complete and has a rosette stamp glazed a glossy purple colour.

Forms: jugs.

Illustrations: 121.

Type 22. Common name: none.

Fabric similar to Type 21 but always oxidized to varying shades of dull pink with blue grey core and covered with glossy deep olive green glaze. Undecorated.

Forms: distinguished from Type 21 by a different form of jug.

Illustrations: 110.

Type 23. Common name: none.

Thick bodied fine sandy hard fired fabric consistently reduced to a dark grey colour. As a result external glazes are a glossy dark green in colour.

Forms: large globular jugs.

Illustrated: none.

Type 24. Common name: Frecken stonewares.

Illustrations: none.

Type 25. Common name: none.

Thick bodied fine sandy hard fired fabric oxidized dull pink with dull buff coloured surfaces. Covered sparsely with a glossy water lime green glaze. Undecorated.

Forms: large heavy jugs.

Illustrations: none.

Type 26. Common name: Sieburg stonewares.

Illustrations: none.

Type 27. Common name: Cologne stonewares.

Illustrations: none.

TABLE 4. Oil Mill Lane matrix showing key features.

BJ	BK	BL	BM	BN	Modern rubble features (F 17)
		BP			
		BO			
		BQ			
	BS		BR		
		BT			
	BU		BV		
	CA	BZ	CJ		
	CE		BY		
		BW			
		BX			
		CF			
	CG	CM	CH	—	13th/14th century structure (F 13)
	CN	CR	CO		
		CI			
	DH		CS		
		CT			
	DH		CS		
		CT			
	CY		CZ		
	DB	DF	DA		
		DC			
	DE		DD	—	12th/13th century structure (F 08)
		DG			

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