
EXCAVATIONS IN THE MEDIEVAL BURGH OF PERTH 1979-81

EDITED BY P HOLDSWORTH

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EXCAVATIONS IN THE MEDIEVAL

BURGH OF PERTH 1979-1981

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INTRODUCTION PHILIP HOLDSWORTH

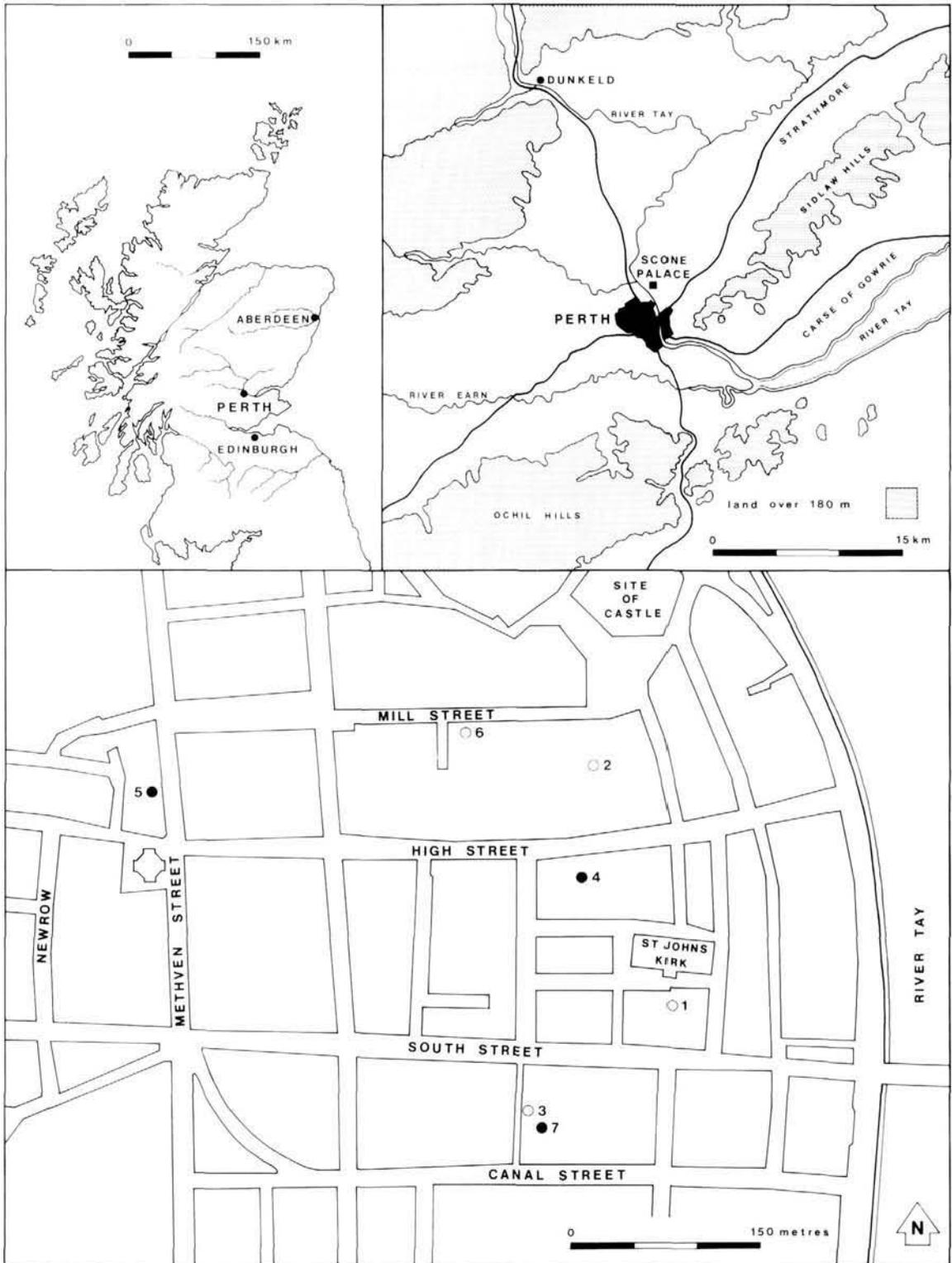
The preparation of this report began in 1980, since when many changes have taken place to both the organisation and individuals involved. In 1982 the name and constitution of the employing body was altered from the Urban Archaeology Unit to the Scottish Urban Archaeological Trust Ltd. The Urban Archaeology Unit was founded in 1978 and was administered by the Society of Antiquaries of Scotland. The Unit was based first in Falkirk and later at Blackness Castle on the Firth of Forth. The excavations reported on in this volume all took place under the auspices of Mr WJ Lindsay who was Director of the Unit, and of its successor the Trust, until his resignation in 1983.

The Scottish Urban Archaeological Trust Ltd has a Council which regulates its business. The Chairman of the Council is Mr J C Murray of Aberdeen Art Gallery and Museums. The Council decided to transfer the headquarters of the Trust in 1983 from Blackness Castle to Perth where a Field Office had existed for some years. This move was considered to be appropriate because Perth was where the largest and greatest number of excavations had taken place.

By the end of 1984 none of the excavation supervisors, or those responsible for initiating post-excavation work, for the sites in this report were still employed by the Trust. This absence of continuity resulted in many problems and delays in production. Furthermore, a number of significant changes were made to the contents and structure of the report in the early years of its preparation which have resulted in a number of anomalies within the published text. Two sites which at the outset of post-excavation work were to be included in this volume are now to be published elsewhere; they are the Mill Street and Whitefriars sites. Consequently most specialist reports refer to material from Mill Street and from Whitefriars as these reports were prepared before the decisions affecting the content of this volume had been taken. The report on the Clay Tobacco Pipes (5:17) includes material recovered from every excavation in Perth up to 1982, and all finds reports include material from watching briefs up to 1983.

To distinguish the Canal Street excavation reported on here from that at an adjacent location which has already been published (Blanchard 1983), the sites have been designated as Canal Street I (Blanchard 1983) and Canal Street II (Spearman 2:3 below) in this report.

Throughout this report reference is made to the as yet unpublished excavation which took place between 1975-1977 at the High Street in advance of development by Marks and Spencer. The site was named Perth High Street Excavation (abbreviated to PHSE) and was excavated by Mr NQ Bogdan for the Perth High Street Excavation Committee. The work was funded by the then Department of the Environment and by the Manpower Services Commission. As it remains unknown how the site is to be published references to it in this report are by the name of the author of the contribution which is referred to and the abbreviation PHSE. For example, Hilary Murray has prepared a specialist report on the types of buildings which can be inferred from the structural evidence and this would be referred to as (Murray PHSE). In the bibliography this reference is cited as Murray, HK PHSE The Buildings. Full reference to the unpublished excavation report can be found under Perth High Street Excavation.



ILL 1 : Perth location maps and position of sites excavated up to 1981. The solid circles indicate excavations described in this report. (1) St Annes Lane (2) Perth High Street excavation (3) Canal Street I (4) Kirk Close (5) South Methven Street (6) Mill Street (7) Canal Street II.

1 GEOLOGICAL AND HISTORICAL BACKGROUND

LM BLANCHARD AND L ROSS

The city of Perth lies on the right bank of the River Tay 25 miles upriver from its mouth. Geologically it is situated within the Midland Valley of Scotland, not far south of the Highland Boundary Fault.

The underlying rocks are lavas and sediments of the Lower Old Red Sandstone of the Devonian Age. The bedrock is however only exposed on the adjacent hills and is overlain by up to 70 m of complex quaternary estuarine deposits in the vicinity of Perth. This depth of deposits is due to the silting of deep river channels, cut during periods of very low sea level in glacial times. Borehole evidence from the Perth area (McManus 1972) has shown that the deposits represent numerous former river channels and many phases of estuarine erosion and deposition. As yet no distinct buried soils have been located in excavations within the burgh, but the uppermost levels of non-archaeological deposits are frequently mottled with organic material and root holes. No detailed study of these deposits has been made but they possibly represent the beginnings of floral colonisation of the flood plain of the Tay before the founding of the burgh. Alternatively the absence of a buried soil could be explained by deliberate manual stripping down to natural silts as suggested by Spearman (see 2:2 South Methven Street). The nearest outcrops of bedrock to Perth were probably at Craigie, SW of the burgh, and at Kinnoull on the E side of the River Tay. These sites may have provided stone for the more prestigious townhouses and public buildings within the burgh. Locally available stone was used for such artefacts as whetstones (see 5:5). Coal may have been obtained from Fife (Blanchard 1983) but other minerals, especially precious metals, were probably imported.

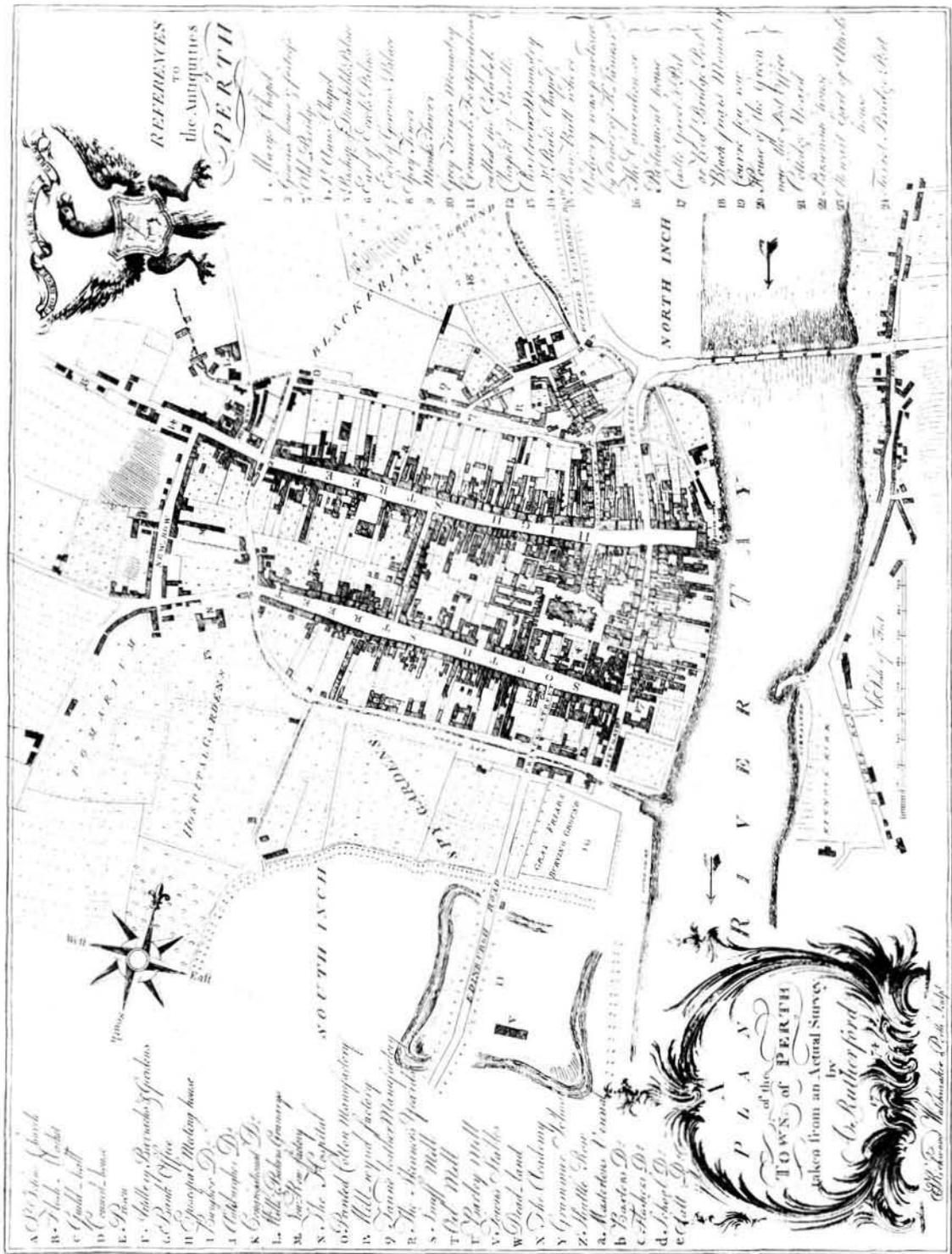
The paucity of minerals was offset by the wealth of raw materials from agricultural sources. The immediate environs of Perth were low lying, marshy lands forming the ideal habitat for willow or alder carr which must have provided much of the raw material for the medieval wattle dwellings. There were probably some local woodlands providing structural timbers but the area was not densely forested in the medieval period and most of the larger timbers probably came from the Highland areas.

Perth is situated amongst some of the most fertile arable farmland in Scotland. The valleys of Strathmore and Strathearn and the Carse of Gowrie all provided Perth with its cereal crops and the nearby slopes of the Sidlaws and Ochils were ideal for pasture lands. The wealth of the area was shared by the burghs of Forfar and Dundee but these were some 20 miles distant and did not seriously affect the rural economy of Perth.

The specific location of the burgh reflects its dependence on trade (Ill 1). The River Tay is tidal at Perth and, at high tide, deep enough for shipping access, while at low tide shallow enough to ford. Thus Perth lay at a strategic point on the N-S trade routes. The importance of this stretch of the river as a crossing point had long been appreciated although the precise site of the crossing itself had changed. Previously the main crossing point of the river may have been slightly further N near the junction of the River Almond and River Tay. Certainly there was a Roman fort, Bertha, at this point. This ford may have been partly responsible for the siting of the major Dark Age centre at Scone. The stretch of river between Perth and Scone was only navigable at certain times of year and this was probably the main reason for Perth being positioned 2 miles downstream of Scone.

Perth is one of the earliest Scottish burghs and was given its first charter by David I (1128-1153) although the document does not survive. There is no evidence to suggest that there was any pre-charter occupation on the site and it remains for archaeology to solve this problem.

The early occupants of the town probably settled in the Watergate area along the river bank but the town soon expanded to include Skinnergate and Kirkgate which formed the route from



ILL 2 : A plan of the town of Perth by A Rutherford 1774

St John's Kirk to the Castle . At some point, certainly before 1150, the High Street was established at right angles to those streets named above and, probably at a later date, the parallel South Street was built. Two of the sites in this volume, Kirk Close and Canal Street, were in this central area which was established by 1200.

The town was defended by the 12th century but the nature and exact position of the early defences have still to be established by archaeology. The post-medieval defences are shown on the Rutherford map of 1774 (Ill 2) and excavations at Mill Street (McGavin 1980, Bogdan and Wordsworth 1978) and at South Methven Street (Spearman 2:2) have confirmed that this was a defensive line by the early 14th century. The defences probably consisted of a stone wall and a wet ditch.

A number of major features lay outside the town walls. After the castle had been washed away in the floods of 1209, the lands were gifted to the Dominicans who established a friary c1240. Other orders established near the town were the Carmelites, Carthusians and the Franciscans. There were also two extra-mural suburbs, one at New Row outside the High Street Port and the other at the Skinnergate Port N of the burgh.

The harbour at the foot of the High Street and the adjacent Tolbooth were essential for the prosperity of the burgh and Perth soon became a centre for trade across the North Sea. It exported woollens, fleece and hides and occasionally salted salmon, rabbit skins and woollen cloth, and in return received luxury goods and wine (Stavert 1982).

Although Perth was not a capital of Scotland, it was an important political centre and frequently figured on the itinerary of the king. Until the establishment of a permanent capital at Edinburgh, General Councils and Parliaments were sometimes held in the Dominican Friary or the burgh Tolbooth (Stavert 1982).

Perth remained a rich and influential Scottish burgh throughout the medieval period.

2 THE EXCAVATIONS

2:1 KIRK CLOSE, 86-100 HIGH STREET

LM BLANCHARD

INTRODUCTION

The redevelopment of 18th-century buildings at 86-100 High Street (NGR NO 118236) by DCI Holdings Ltd. of Glasgow meant that parts of four properties were available for excavation and thirteen weeks were offered to examine the site. The developers intended preserving the High Street facade of the properties and therefore archaeological work was confined to the rear of the property, Kirk Close.

The area available lay 15.5 m to the S of the 18th-century building line and about 4.5 m to the W of the line of Kirk Close, an access connecting St John's Place with the High Street (Ill 3). The close is shown on the 1774 map of Perth, drawn by Rutherford (Ill 2).

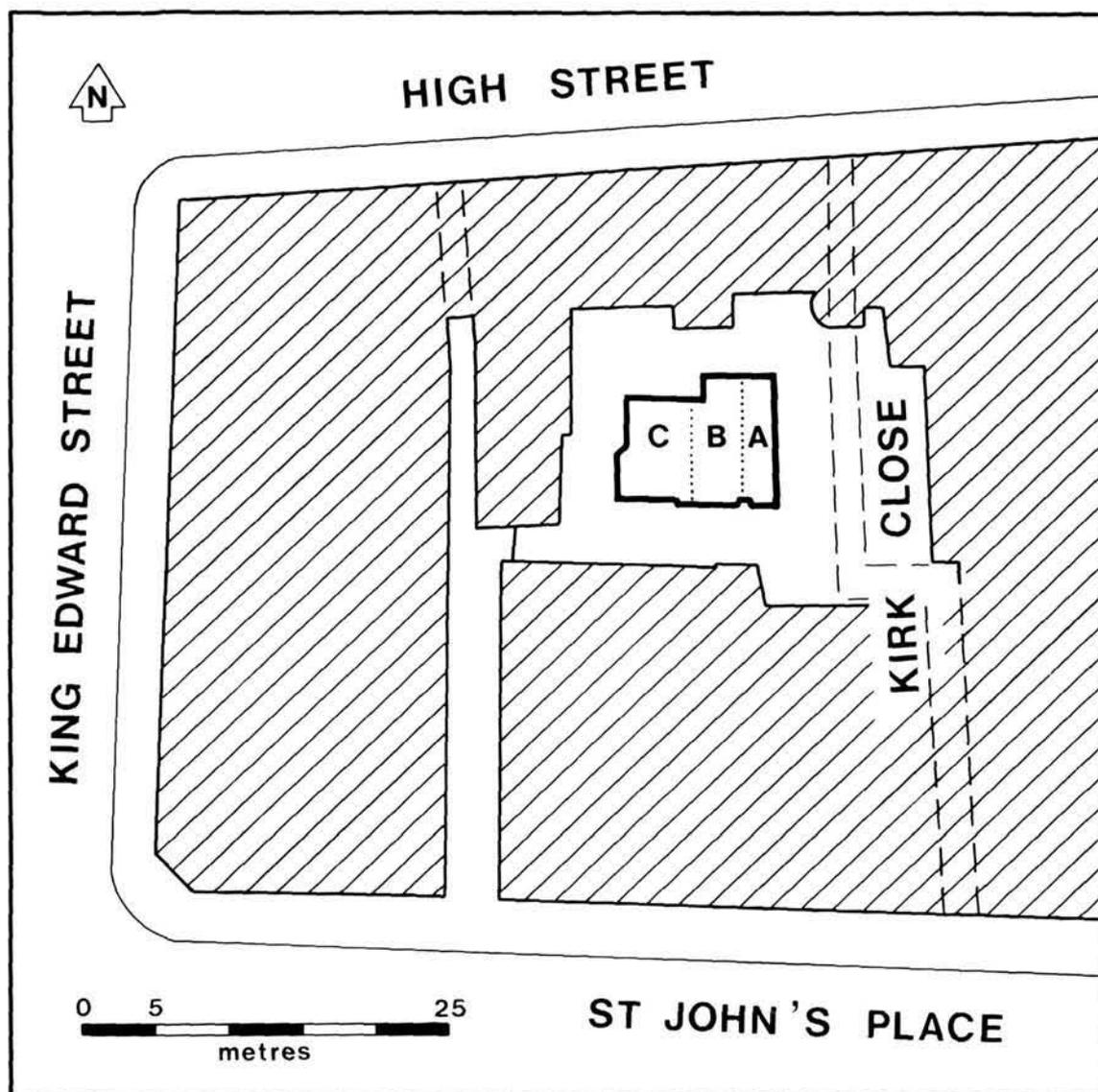
Several archaeological discoveries have been made close to the site. The first was in 1921 when workmen discovered a coin hoard on a construction site immediately to the S of the excavation at 16 St John's Place. Mr T MacLaren, the Burgh Surveyor, investigated the area and discovered the well-preserved foundations of a timber structure, medieval pottery and other artefacts, some of which are in Perth and Kinross Museum and Art Gallery (Peoples Journal 5.2.1921; Perthshire Constitutional 2.2.1921). In 1975, archaeologists working on the Perth High Street Excavation (PHSE) found medieval pottery in a pipe trench to the S of 76 High Street and in 1979 more medieval pottery was recovered from a trench to the N of 102-104 High Street. The site was also close to the excavation at 75-95 High Street (PHSE) at the N side of the street.

The standing buildings on the site were surveyed by the Royal Commission for Ancient and Historic Monuments of Scotland (RCAHMS ref PT 6662-4, PTD 366/1-5). The excavation record has been deposited with the National Monuments Register for Scotland and the finds are stored in Perth and Kinross Museum and Art Gallery.

THE SITE

The aim of the excavation was to examine the undisturbed backlands of medieval properties in order to consider backland use and building construction techniques, particularly of the later medieval period. These were the levels which had suffered most from cellar disturbance at the PHSE site.

The area of excavation measured approximately 11.0 m × 9.0 m and was to include the full width of one of the 18th-century properties together with parts of both adjacent plots. The site was excavated to a depth of c 1.30 m below the modern ground surface c 6.80 m O.D. In the limited period of time allowed for excavation it was not possible to reach natural and at least 1.5 m of deposits remained unexcavated. A few additional days at the end of the excavation became available and this time was used to illuminate specific problems relating to the structures and certain areas were excavated to a slightly deeper level. These areas will be made clear in the site description. For recording purposes the site was divided into two areas: Area 1 contexts commenced at 1000 and Area 2 contexts commenced at 2000.



ILL 3 : Location map of Kirk Close, 86-100 High Street

The site has been divided into periods numbered I to VI, each new period corresponding to a major change in a continuous sequence of occupation. The excavated area is believed to contain parts of three medieval properties, plots A, B and C. As each structure was used independently of the adjacent one, stratigraphic links between the properties are scarce. The linking of the periods across the site to each of the plots is tenuous.

Many of the deposits on this site contained a large amount of organic material which was usually well preserved. Frequently it was possible to identify plant remains such as heather and hazelnuts by eye. The soil content of these deposits was usually sandy silt and often a fine gravel was present. They were rich in finds such as pottery sherds, bone fragments, leather and textile. The texture was compact and dense; however, vertical timbers found in these levels rarely had post-pits which suggests that the deposit was originally fairly plastic and that the density resulted from compression by the overburden. Excavation of these deposits caused problems as they were all very similar and differences in texture tended to be localised. Changes in context numbers for this material were often arbitrary and related to trowelling spits rather than archaeological layers. A detailed analysis of macro-plant

remains from selected samples is presented in Chapter 6:3. In general these layers appear to be midden and contain a mixture of cleared out floor material and animal dung.

The original site context and finds accession numbers have been retained in this report. The key to conventions used on plans and sections is on Ill 40 (p83; fold out for use throughout Chapter 2). A catalogue of the excavated features is available in microfiche at the back of the volume (tables 1-11; 1A4- B4).

THE EXCAVATION

PERIOD I : SUMMARY (Ill 5, 9)

This period has been dated by the pottery types to the 13th and 14th centuries. The excavated area appears to have contained parts of three medieval properties. At the E side of the site was Plot A, occupied by S2 which, because it had carefully made floors and an internal latrine, appears to have been a domestic building. Botanical analysis (of 2092 and similar later material) indicated that the rich organic material to its N and S was a midden and stock-yard composed of domestic debris and animal dung. At the S there was no detectable boundary between the midden on Plot A and that on the adjacent Plot B. Plot B, the central plot, was occupied by midden at the S and further N by a roofed, probably domestic building (S3). S3 was bounded on its E by a gravel path which also formed the W edge of Plot C, the western-most plot. At the S end of Plot C was a small hearth, probably used for cooking, and at the N end was the timber building S4. This was probably used both as a dwelling house and a cobbler's workshop.

PERIOD I : STRATIGRAPHY

This level consisted of layers and features which were exposed in the final days of excavation and many features were not fully excavated.

In the NE corner of the site were thick black layers of organic material and silty loam (2116 and 2160). A sub-rectangular area (2140) filled with organic loam (2113) was defined in this material but not excavated. Lying to the N of this deposit were two post and wattle structures S2 and S3. The junction of these two structures was destroyed by later features and so their exact relationship to each other is not known. A re-cut feature (2103/2069) was also partially destroyed. It was a post-hole and although it may have been associated with either of the structures its position suggests it was most likely part of S2 and therefore it is described more fully with S2. Both structures had internal levels of sand or clay with decayed organic material on their surfaces. S2 had an internal timber-framed cess pit. Lying to the N of S2 was a layer of structured organic material (2092).

Even less excavation of this level took place at the W side of the site where only a narrow E-W section was cut. Here the earliest excavated layer (1143) consisted mainly of small pebbles set in sand which separated S2 from another post and wattle structure S4. This building had a large stone hearth and internal layers of sand and clay with some decayed organic material. To the S of S4 was a layer of silty sand (1144) which tipped gently down towards the S limit of excavation. On the surface of this layer was a depression filled with burnt clay and sand (1137) and layers of ash and charcoal (1160-3). Cutting these layers was feature 1136 which remained open until Period II.

STRUCTURE 2 DESCRIPTION

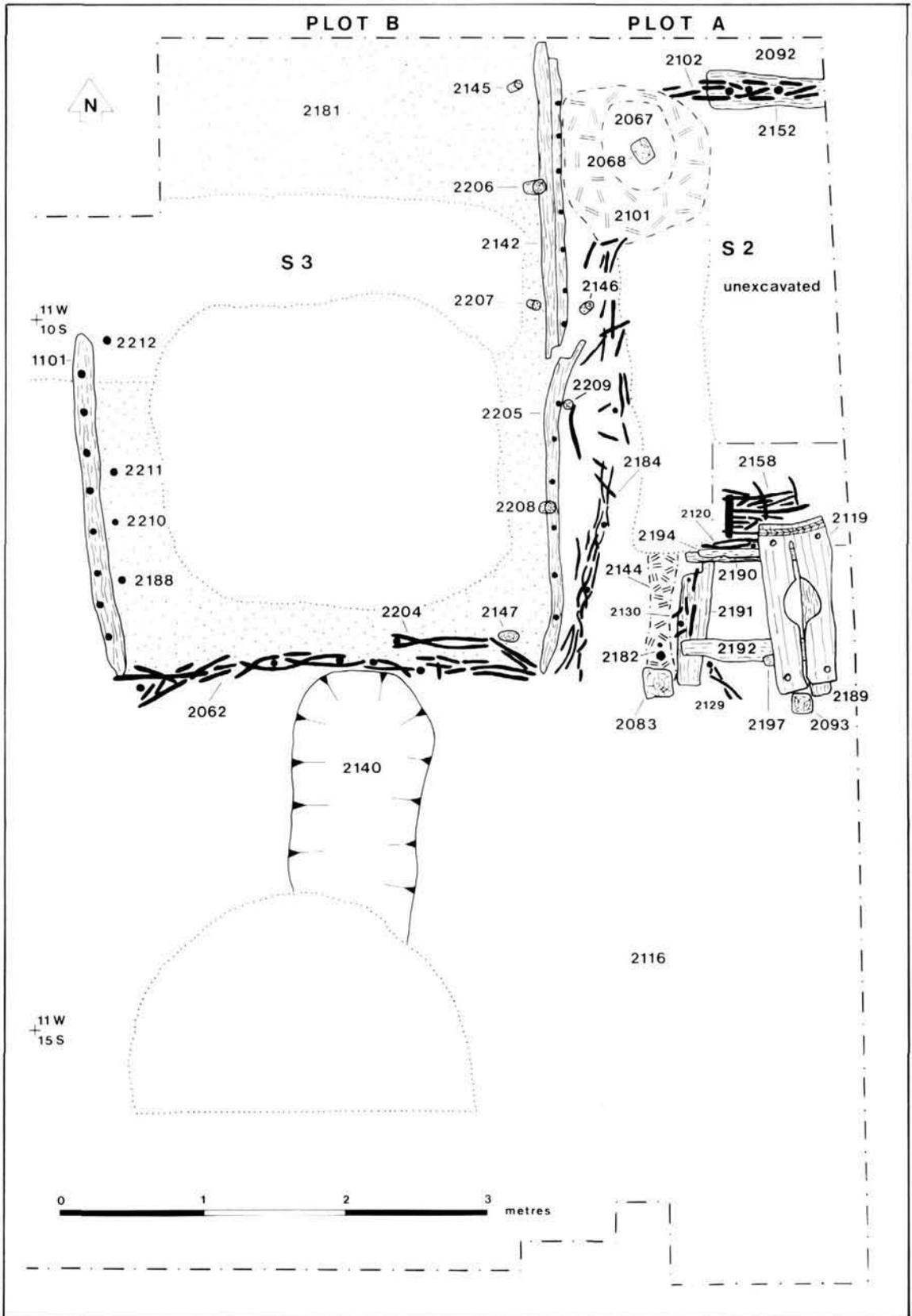
S2 lay partially outside the excavated area and its W side had been destroyed by a later feature. On its S side, S2 was limited by two vertical posts (2083 and 2093) which had been pushed directly into the ground. 2083 was probably a corner post and running N from it was a band of clay (2144) and fragmentary stake and wattles (2182) which had been destroyed at its N end by a later feature. N of this was feature 2103 filled with structured organic material and clay (2101). It was cut by a second feature (2069, filled with 2067 which was similar to 2101) which contained three large stones packed round a central post (2068). This feature was presumably a post-hole from which the post had been removed and subsequently replaced. Unfortunately a later gully had destroyed the relationship between it and the rest of the structure. *The similarity of the post-hole filling to that of the gully means that its place in the stratigraphic sequence is doubtful and it is described only in this period.* The ground-sill (2152) formed the base of the N wall and continued E under the main section. It was set into a shallow slot (2163) which was not excavated. The beam had been roughly squared and holes had been bored into its upper surface. The stake and wattle wall (2102) had been inserted in the ground-sill and the feature had been clad by a thick layer of clay (2079).

CESS PIT (Ill 6, 7, 8)

Shortage of time meant that it was not possible to complete the excavation of the interior of S2 and work concentrated



ILL 4 : Kirk Close, general view looking S: Periods I, II, III and IV



ILL 5 : Kirk Close, Plots A and B. Plan of Period I

on its S end where a timber framed pit (2123) and a short length (c 0.70 m) of the associated layers were studied in detail. The major timbers from this feature were retained and most of them had notches and pegholes not compatible with their final position in the pit and therefore they were obviously re-used. They were all oak with the exception of 2196 which was apple.

Feature 2123 consisted of a pit (2187) and a timber frame. The pit was slightly larger than the frame and continued E under the main section. The large timber (2195) noted in the main section did not appear to have a useful function within the feature and it probably belonged to an earlier, unexcavated period of use.

The frame of the pit appeared to have two main phases of construction.

Phase A

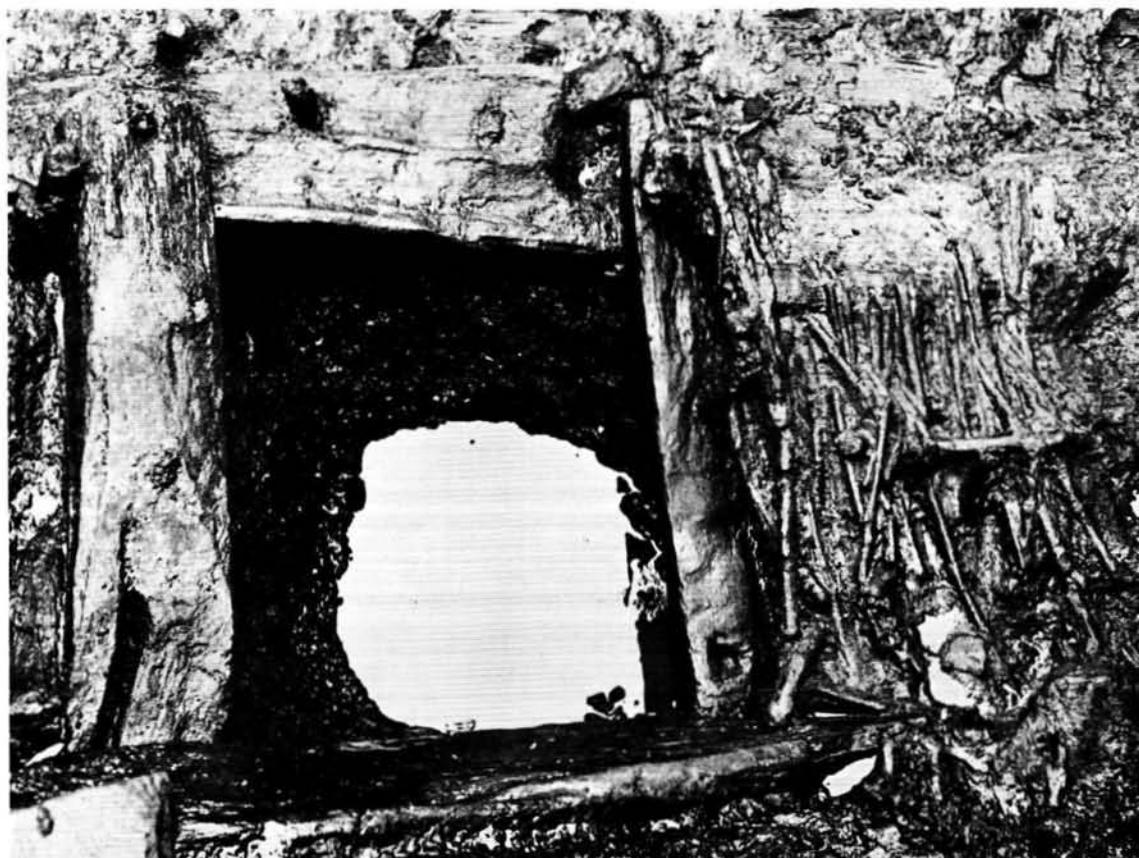
Four main timbers formed a frame around the upper part of the pit. 2191 lay against the W edge of the pit and it was obviously the first timber to be inserted. 2190 and 2192 were then placed against the N and S edges respectively. 2190 continued E under the main section. The W ends of both these beams overlapped 2192 securing it to 2191. The fourth timber (2189) was then placed at the E side of the feature. Its lower surface was notched to fit neatly over 2190 at the N and its S end rested on 2192. As only the SW and NE corners interlocked the framework was lop-sided. Two stakes (2169 and 2170) lay N-S across beam 2192 and they had slumped into the pit. A short timber (2194) lay at an angle

from the top edge of 2189 and sloped down from the top of 2189 with 2197 resting on 2192 and 2193 lying just to its S. These timbers were broken.

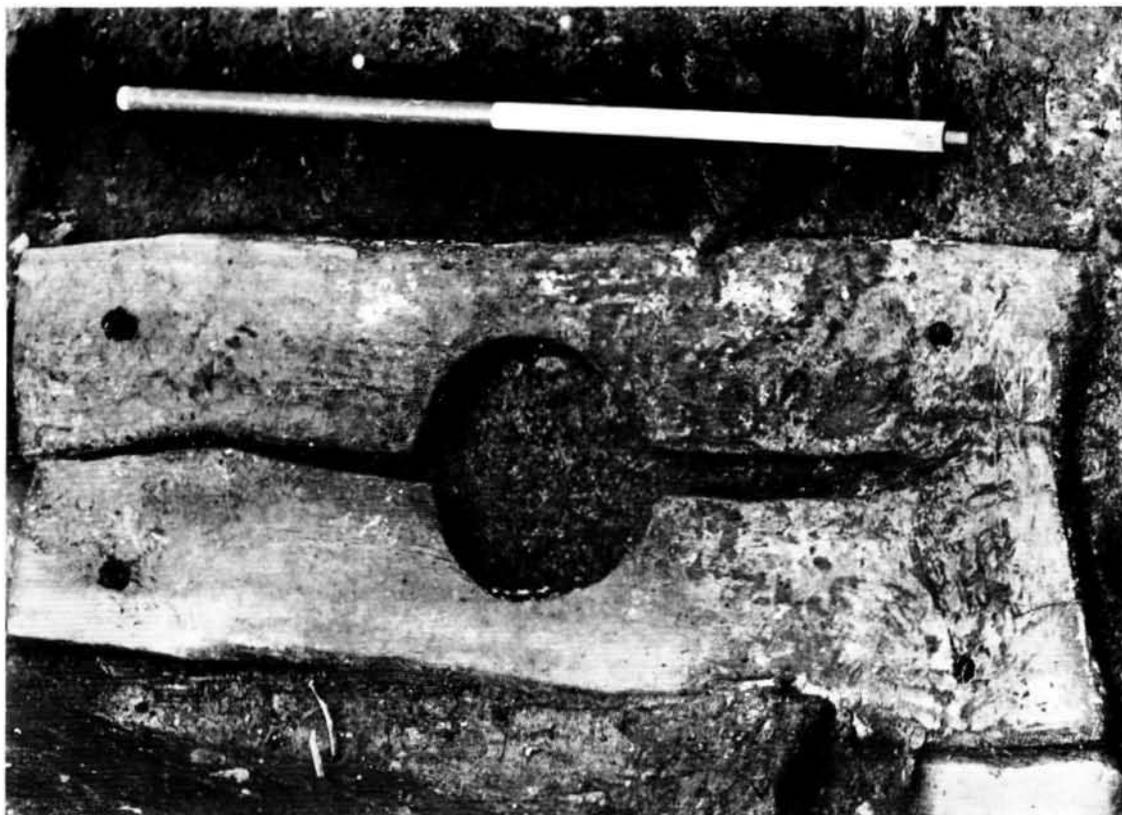
Phase B

A horizontal wattle screen (2166) had been laid down at the N side of the feature. It had been covered by a layer of clay, (2165) with organic material (2164) on its surface. The top edge of the pit frame was only c 0.6 m above the level of the screen. Lying above the organic layer 2164 was a replacement horizontal screen (2158) with layers of silt, sand and organic material, (2162, 2157, 2137 and 2136) on its surface. This screen lay just over the edge of the timber (2190) the N side of the pit frame. Three flimsy wattle fences had then been inserted into the edge of the frame. A fence (2120) with clay cladding (2115) had been fixed into 2190 and cut through horizontal screen 2158. Fence 2130 overlaid beam 2191 and fence 2129 cut across the SW corner over 2192; both were covered with clay (2131). Overlying the E half of the feature was a rectangular oak plank (2119). This rested at an angle, sloping down from the top of 2189 on the wattle fence (2115) and its lower edge rested on beams 2190 and 2192. The plank, interpreted as a toilet seat, had a large central hole, a small peg hole in each corner and a band of crudely incised decoration at the N end.

The pit was filled with a succession of brown organic layers (2172, 2134, 2107 and 2128). These contained large quantities of moss. It was impossible to relate these layers to the two stages in the construction of the timber frame with



ILL 6 : Kirk Close, Plot A. Feature 2123, a pit looking W: Period I



ILL 7 : Kirk Close, detail of lavatory seat, feature 2119: Period I

the exception of 2107 and 2128 which had spread over the edge of the pit frame. A large number of beetle carapaces were clustered round the pit edge.

STRUCTURE 2 INTERPRETATION

This structure was heavily disturbed but its full length of c 4.0 m was recorded. If the estimates of plot widths are correct then the maximum width of the building could have been c 6.0 m E-W in which case the structure lay at right angles to the plot.

There were two load-bearing posts at the S corner and possibly a third at the NW corner. The substantial N wall was also probably load-bearing and presumably this structure was roofed. Other posts along the W wall may have been destroyed. No trace of an entrance was found. The internal cess pit suggests that the building had primarily a domestic function.

It is unfortunate that the earliest phases of the cess pit were not removed. The pit (2187) was much wider than the surviving frame. This suggests that the latrine was originally larger and the signs of use on the timbers tend to confirm this. The small planks, replaced by stake and wattle fences at the top of the frame, were probably unsuccessful attempts to provide a level platform for the toilet seat. The holes in each corner of the seat suggest that in an earlier phase of use it had been pegged into place. The seat covered only half of the pit and it is possible that there had been a second seat lying adjacent to, and W of, the surviving one. The two associated wattle screens provided a raft over a worn and probably wet area by the cess pit and were an integral part

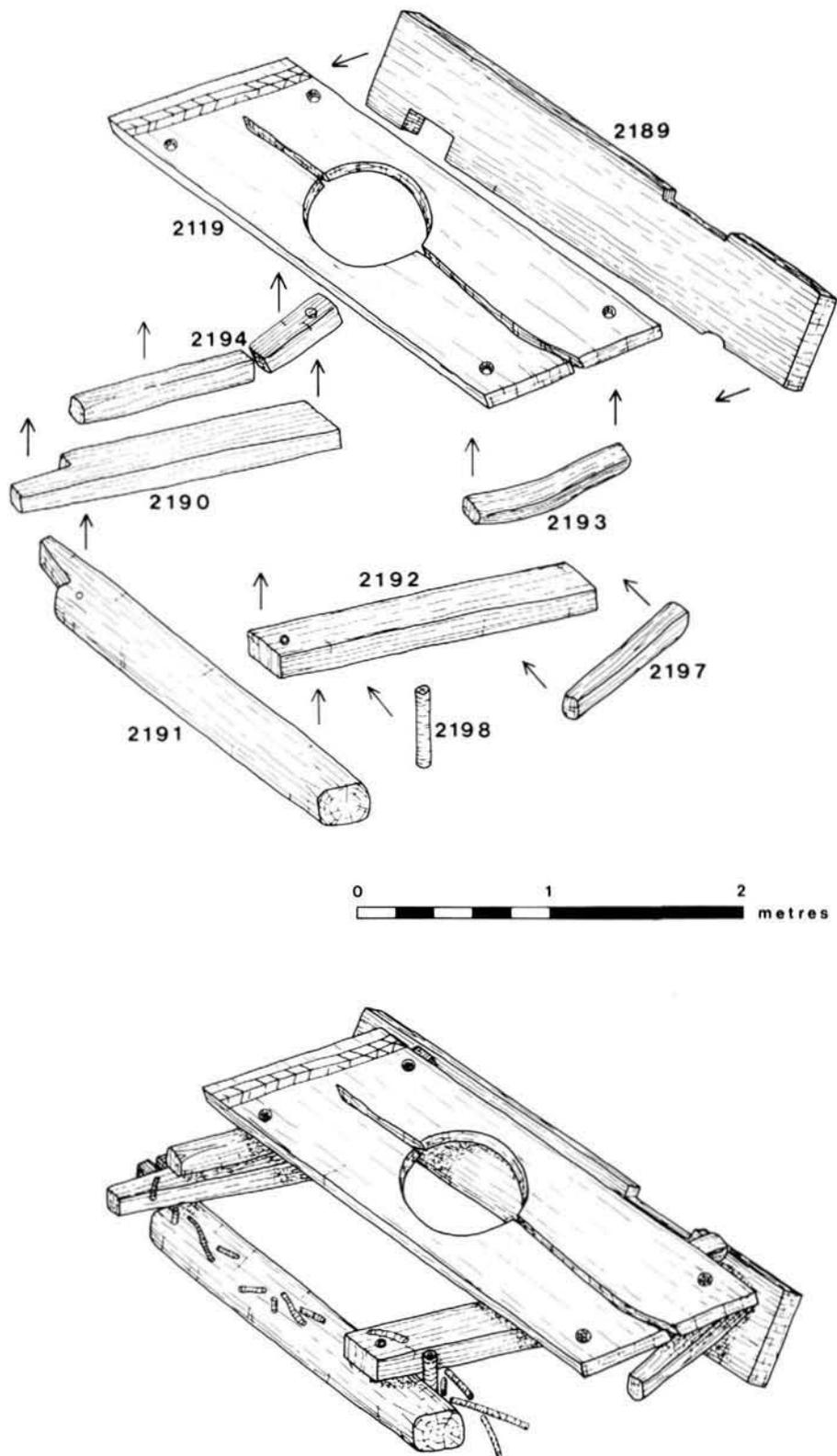
of the floor levels. Structures 2 and 3 are believed to have been separate free-standing structures but they may have been two rooms of one building.

STRUCTURE 3 DESCRIPTION

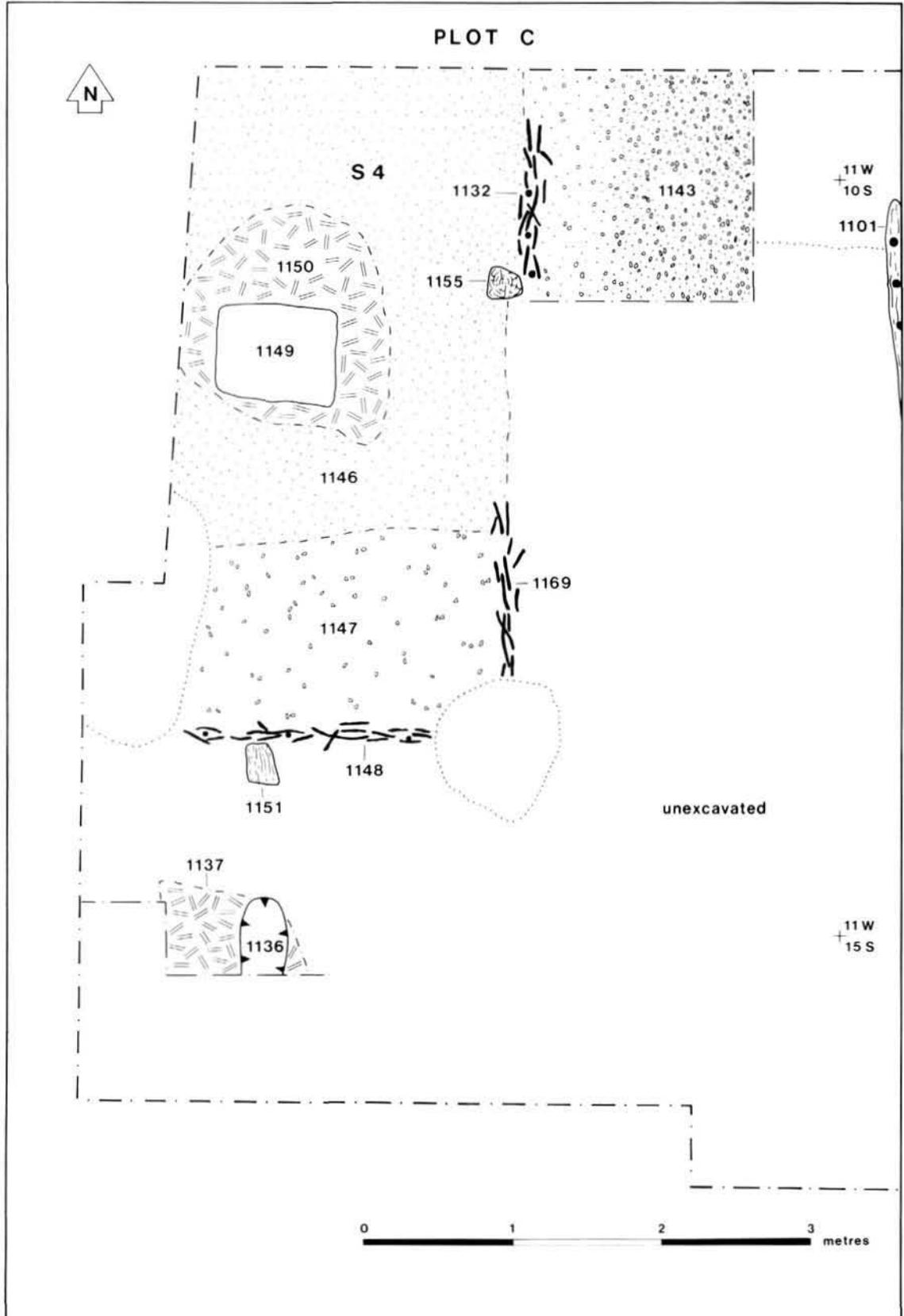
S3 was defined on its E side by two contiguous ground-sills (2142 and 2205). These had been trimmed of bark and branches and both ends of 2142 and the N end of 2205 had been fashioned into half-lap joints. At the junction of the two beams the joints formed a socket c 0.10 m square. Four vertical posts (2145 and 2206-8) were set c 0.10 m to the W of this wall and were inclined slightly towards it. Just E of the wall were two more posts (2146 and 2209). Layers of clay and peat (2126 and 2127) ran along the E edge of the wall and set in them was a stake and wattle wall (2184) which was fragmentary particularly at its N end. It may have pre-dated the structure.

The S wall was constructed of stake and wattle (2062) and there was a short length of internal stake and wattle (2204) and a free-standing post (2147) at the E end. This post was slightly inclined towards the S wall.

The wattles at the W end of wall 2062 rested on the S end of a N-S oak ground-sill (1101) with regularly spaced holes cut into its upper surfaces. The area to its N had been destroyed by a later feature. Approximately 0.05 m E of the sill were four randomly spaced wooden stakes (2188, 2210-2212) which were sealed by the earliest excavated internal layer of S3 (2181) of structured organic material and sand. Over-lying it was a layer of clean sand (2151) with amorphous organic material (2150) at its S end.



ILL. 8 : Kirk Close, exploded and assembled views of feature 2123: Period I



ILL 9 : Kirk Close, Plot C. Plan of Period I

STRUCTURE 3 INTERPRETATION

The three ground-sills recovered from this structure were all c 2-3 m in length. As the structure continued N beyond the limit of excavation it is likely that the E and W walls were originally based on at least three contiguous ground-sills giving an estimated N-S dimension of c 7.0 m or more. This is quite compatible with post and wattle buildings excavated elsewhere in Perth (Murray PHSE). S3 was probably a roofed structure and five internal and two external posts were recovered from the E side of the building. It is likely that the E and W walls were load bearing. The absence of posts in the S and W walls makes hypothetical reconstruction of this building impossible. The four light pegs just inside the W wall may have served as a temporary support during construction work. The spacing of the stake-holes in two of the ground-sills was uniform, whereas in the third (2142) the spacing was narrower. This could indicate a re-used replacement timber, or there could have been a need for a slightly stronger N section of wall. The half-lapped joints on the ends of the E ground-sills may also be evidence of re-use. There was a possible socket at the junction of the two E ground-sills but this was more likely to be the result of an accidental shift in position of the sills rather than a setting for a vertical post. The remnant of a fence along the outside of the E wall was probably a survival from an earlier unexcavated phase or perhaps the remains of a double wall.

The filling of the robber trench (2139, 2071: see Period II below) of the E wall of S2 suggests that the wall had originally been clad with clay. As only the ground-sill of the W wall survived it is impossible to say whether this wall had been weatherproofed. No cladding was detected in the S wall so this may have been left open for ventilation.

Although S2 and S3 are believed to have been separate free-standing buildings, the evidence for the W wall of S2 is tenuous and the structures could have been two rooms of one house.

PERIOD II : SUMMARY (Ill 10, 11)

This period has been tentatively dated at early- to mid-14th century on pottery evidence. The S end of Plots A and B continued in use as a dump for domestic rubbish and probably as a stockyard. On Plot A, S2 had been shortened and partitioned and its cess pit had gone out of use. It was probably a domestic building but there was some evidence for vegetable oil production either within the building or nearby.

On Plot B, S3 was temporarily out of use and the gully (2139) along its E side, with its lower filling of wattle and clay, was probably a robber trench for the E wall of S2. It seems odd that the two ground sills were not robbed in antiquity as they were substantial timbers surviving in excellent condition up to the time of excavation. The upper filling of the gully was probably a levelling dump.

The gravel path along the W side of S3 continued in use and the layer of decayed wood on its surface may have been waste from nearby wood-working.

On Plot C, S4 was still in use with minor internal changes and was probably a cobbler's workshop. The area to the N of S4 was probably a yard.

STRUCTURE 4 DESCRIPTION

The S wall of S4 was of charred stake and wattle (1148). A short fragment of timber (1151) lay just to the S of the wall line. Wall 1148 was truncated at its W end by a later feature. Another later feature had destroyed its E end and its junction with (1169) the E wall. This E wall consisted of a decayed stake and wattle which survived for a short length and its line was continued by another decayed stake and wattle wall (1132). A vertical post (1155) was situated just W of wall 1132. This post may have also been associated with earlier unexcavated phases of S4.

The earliest internal layer recovered (1147) was organic material, which occurred only in the S part of S4. N of this was clean sand (1146), and sandy clay (1142). Set in these layers was a burnt rectangular stone block (1149) which had been partially covered by layers of burnt sand and clay and ash (1150 and 1165-1168).

STRUCTURE 4 INTERPRETATION

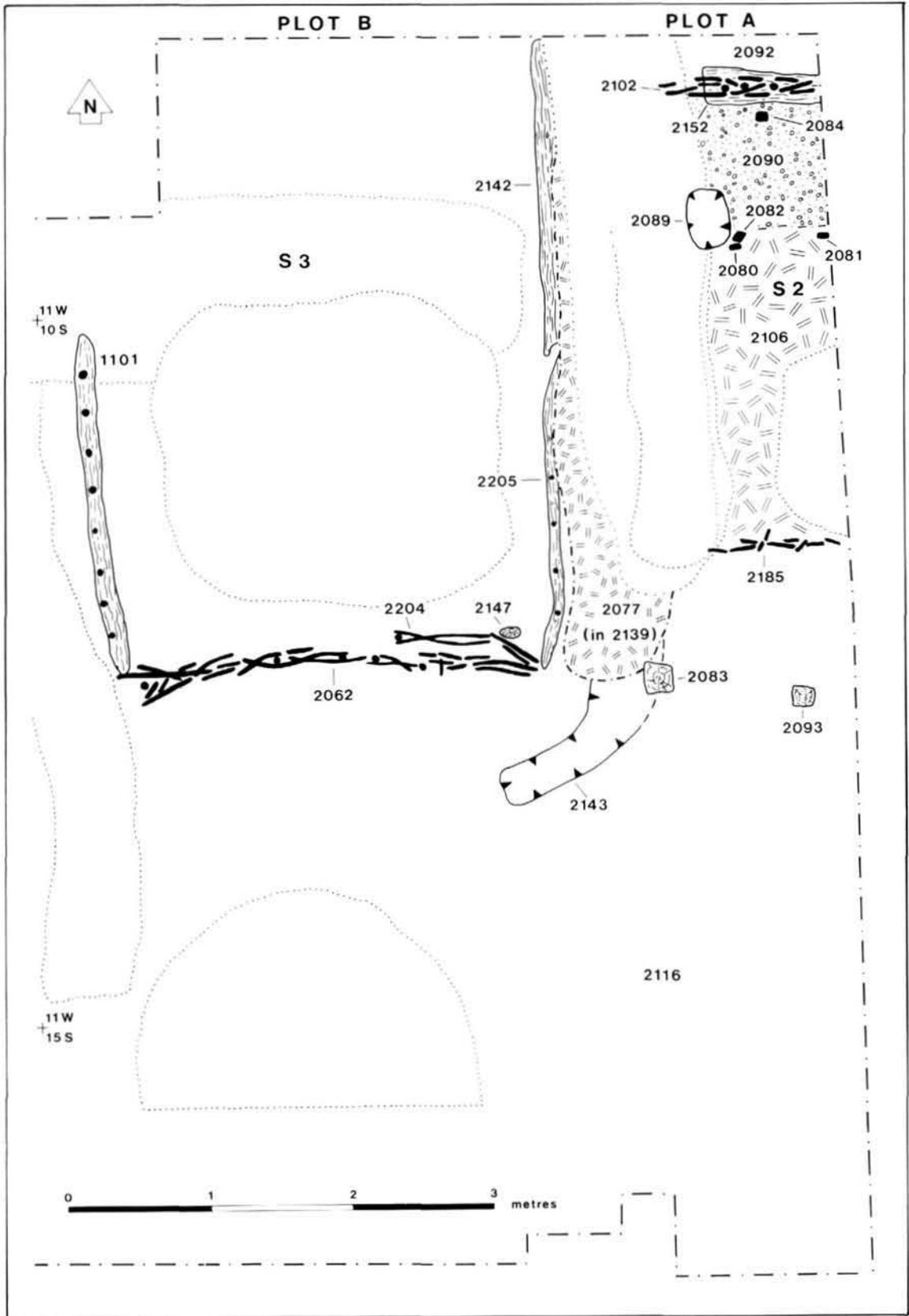
There was no evidence on which to base an estimate of the complete dimensions of S4 but, if estimates of plot widths are correct, the maximum E-W dimension is unlikely to have been greater than 5.0 m. One substantial load-bearing timber was recovered in the E wall and it is probable that the two later features cutting the S wall were robbed post-holes (see Period II S4, below). This suggests that the structure was originally roofed. The break in the E wall adjacent to the path may have been an entrance. The building was probably partitioned but the difference in layers at the N and S ends of the structure was the only evidence for this. The S area was narrow and had an earth floor and may have been a corridor or store cupboard or stabling area for animals. The N floor was of sand and more typical of internal deposits. The large burnt stone formed the base of a hearth.

The charring on the S wall of S4 may have been the result of hot embers from the external hearth being raked up against the fence. It may however have occurred in a later phase.

PERIOD II : STRATIGRAPHY

The midden deposits on Plots A and B already described in Period I were still present. On Plot A, S2 was occupied but had been shortened and its cess pit had gone out of use. The

area of the former cess pit was covered by a layer of black organic material (2091) and posts (2093 and 2083) protruded through it and now lay approximately 1.0 m S of S2.



ILL. 10 : Kirk Close, Plot A. Plan of Period II

Outside and W of S2 was an irregular gully (2143) which curved round the SE corner of S3. It was filled with layers of structured peat (2138, 2112 and 2104). This was the earliest of a sequence of gullies along the junction of Plots A and B and it was so badly disturbed that its original dimensions were impossible to determine. It was cut by a second gully (2139) which had a gently sloping W side. Its upper layers were cut away by later features and therefore its original dimensions could not be determined. Gully 2139 was filled with (2118 and 2094) clay with abundant wattle fragments and (2077) clay with organic material. These layers partially overlaid the E ground-sills of S3. The gravel path on Plot B had been overlain by a layer of decayed wood (1138). On Plot C the S end of the area was covered by a layer of amorphous organic loam (1121) which filled the earlier feature (1136). S4 was still extant but had undergone some internal changes.

STRUCTURE 2 DESCRIPTION

The S limit of S2 was wattle (2185) (no stake survived) which was covered with clay cladding (2186). There was a light internal division, c 2.20 m further N, represented by the roughly squared posts (2080-2082). The S part of S2 was covered by a layer of organic material and clay (2106) with a build-up of more organic material; there were wood chips (2078) on its surface and posts 2083 and 2093 were still extant. To the N of the stakes was a layer of gravel (2090) on which layers (2099, 2097 and 2085) of organic material were deposited. These were covered by a layer of sand (2074) on the surface of which was organic material (2075). Cutting these layers was a post (2084) and further S a small hole (2089) filled with clay (2088).

STRUCTURE 2 INTERPRETATION

At this period the cess pit had gone out of use and S2 had been shortened and partitioned. Load bearing posts were rare but only a small section of the structure survived. Feature 2089 may have been a robbed post-hole. It is also possible that posts 2083 and 2093, now lying c 1.0 m to the S of the building, helped support an overhanging roof. Samples from the floors of this structure suggest it was primarily a domestic building but there was some evidence of flax/Brassica seed

PERIOD III : SUMMARY (Ill 12,13)

This period has been dated by pottery to the early- to mid-14th century. The coins are considerably earlier than the pottery, being c 1225.

On Plots A and B, the midden, and S2 and S3, continued in use although by this time S2 was probably a roofed structure but may have been a shelter or open work area. S3 had been rebuilt and may have jointly served as a dwelling and animal byre.

The narrow feature, 2111, along its W side was probably a drain for the gravel path and yard which covered the W side of Plot B and the whole of Plot C.

processing or storage (layers 2106 and 2085). It could be that the narrow N room was a store and that processing took place in the S end of the structure. Alternatively, the material could have been waste from a nearby industrial area which in this context had been re-used as floor bedding. The occupation debris (2078) contained wood chips which may have been remnants from the erection of the partition or perhaps bedding material.

STRUCTURE 4 DESCRIPTION

The S and E walls of S4 survived at this level but there were some internal changes. At the NE end of S4 were two features (1145 and 1141) both filled with sandy clay (1140) which had spread over much of the interior of S4. On its surface were the patchy layers 1139, 1128 and 1133. A layer of sandy clay (1124) covered the entire internal area of S4 and on its surface near to the W section was an area of burnt sandy clay (1130, c 0.80 m in diameter). It was overlain by layers of ash (1158 and 1159), but its upper layer (1157) contained burnt clay. Against the S wall of S4 was sand (1164) with a layer of clay (1134) above it and 1126, another layer of clay, both were c 0.02 m deep and less than 1.00 m across.

Two slightly later features (1129 and 1179) cut the S wall of S4. 1179 (c 0.21 m deep) was filled with structured organic material (1152) and 1129 was filled with silty clay (1178).

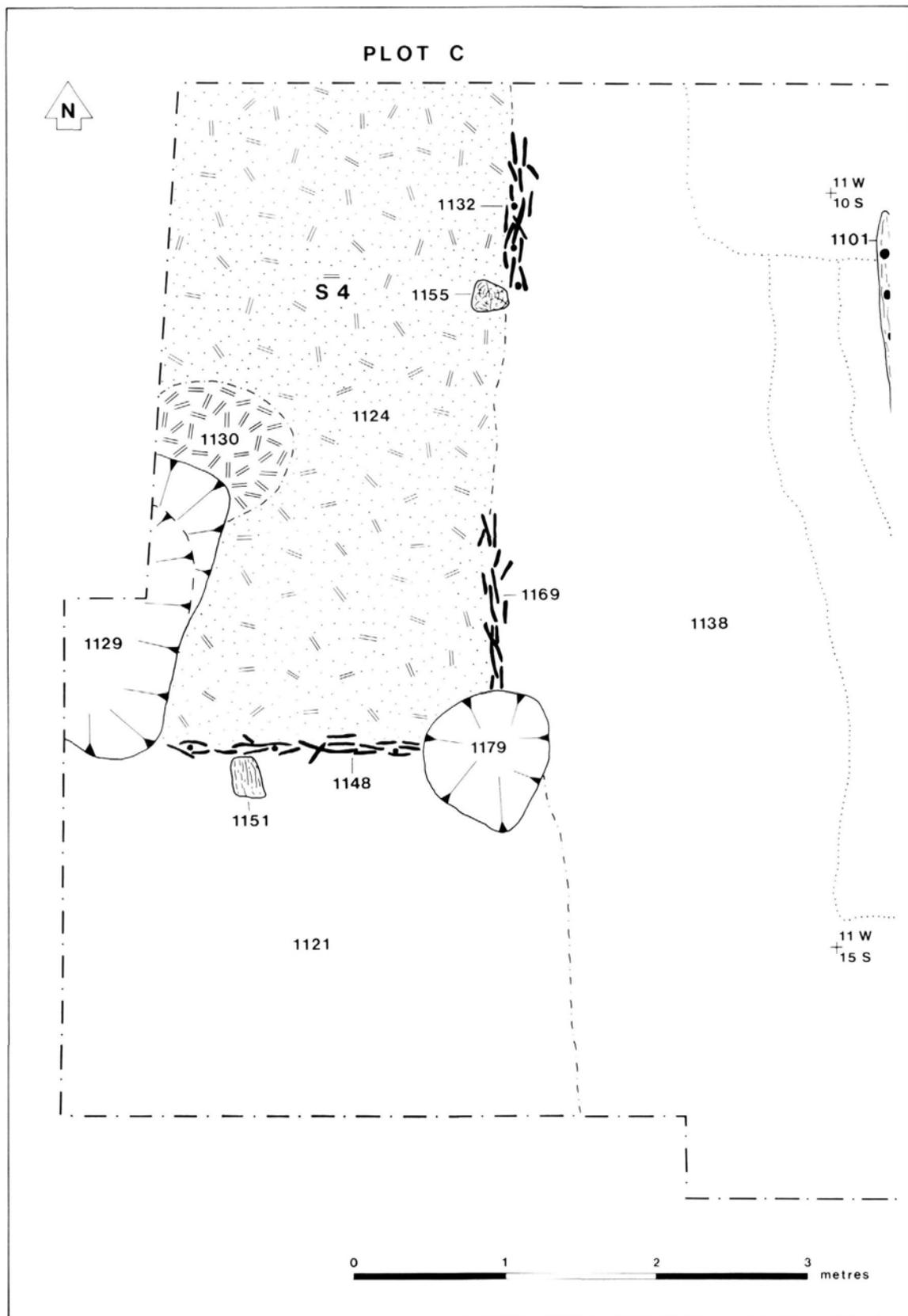
STRUCTURE 4 INTERPRETATION

This period was the final phase of use of S4. There were no signs of any structural changes to the building but there had been some internal accumulation of occupation debris, a re-flooring of the structure and the stone hearth of Period I had been replaced by a clay hearth. Botanical analysis of the patchy floor deposit (1128) (see 6:3) suggested that there had been an intermediate burning phase not noted on excavation. This supposed burning may account for the charring of the S wall and the patchy nature of the floor material suggests that the burnt debris had been cleared out before the structure was re-floored with sandy clay (1124). Botanical analysis of a slightly later occupation deposit (1126) suggested that the structure had been swept relatively clean, although ample material survived to indicate that this building was still in use as a cobbler's workshop.

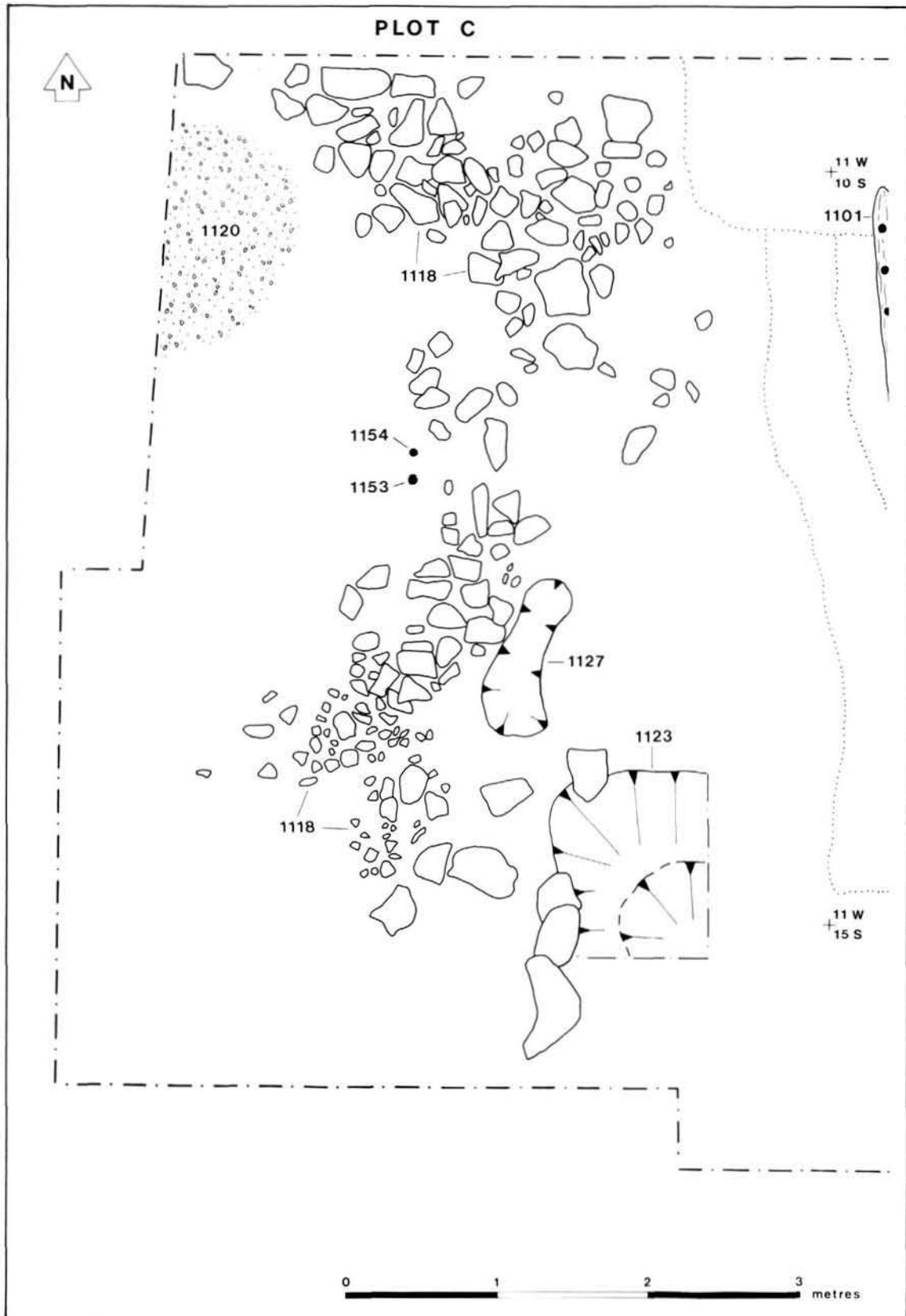
PERIOD III : STRATIGRAPHY

The general black organic deposits described in Periods I and II were also found to the S of Plots A and B. On Plot A, S2 although fragmentary, still remained and the posts from Period I (2083 and 2093) still existed to the S. To the N of the structure was a layer of organic material (2050).

The W side of S2 had been cut by a trench (2132). This feature was square in section and filled with a mixture of clay and structured organic material (2051). The trench was not clearly defined as its filling was similar to both the earlier gully, (2103; see Period I above) and later features which had



ILL 11 : Kirk Close, Plot C. Plan of Period II



ILL. 12 : Kirk Close, Plot C. Plan of Period III

partially destroyed it. The gully was partially sealed by layer 2065 spreading over from S2.

On Plot B, S3 had been partially rebuilt and new internal layers deposited. Over the E edge of the gravel path belonging to Period II were layers of fine silty clay (2110 and 2072) and fibrous organic material (2114) in a narrow shallow depression (2111). This was badly disturbed by a later gully and is not illustrated. The gravel path had been covered by a further layer of gravel with wood shavings (1121).

Feature 1181 (c 0.30 m deep) was filled with organic silt (1135). It was overlain by a layer of grey clay (1125) which had a depression (1123) on its surface. Plot C was then overlain by an irregular spread of flat stones (1118) (Ill 12) which were set in dark brown silty clay (1117). These layers were cut by feature 1127 (c 0.18 m deep) which was filled with silty loam (1119) and spread over much of Area 1. There was a small patch of gravel (1120) against the W section. The whole of Plot C and the gravel area of Plot B was then covered by a spread of decayed wood (1115). There were two stakes (1153 and 1154) inserted into this layer.

STRUCTURE 2 DESCRIPTION

The surviving evidence for S2 during Period III was very limited and consisted only of the N wall (2102 constructed in Period I) and a thick layer of clay (2055) which was covered by a layer of silty clay (2065). A gully (2132) ran along the W edge of the clay floor. It cut the Period II levels of S2 but was partially sealed by 2065.

STRUCTURE 2 INTERPRETATION

As the N wall was the only surviving wall of S2 during Period III the interpretation of the structure depends on the function of the gully (2132). This gully was so heavily disturbed by a subsequent similar feature that its interpretation was very difficult. The wattle and clay in its filling suggest that it may have been the robbing of the Period II W wall and it could also have doubled as a foundation trench for a replacement W wall. The layer of clay may have been an internal floor

PERIOD IV : SUMMARY (Ill 14, 15, 16)

The use of the N and S ends of Plots A and B as an external midden continued during this phase. The screen in the SE corner had probably been dumped from elsewhere. On Plot A, S2 had gone out of use and the pit cut into its floor may have been used as a rubbish dump for a general clearance of domestic rubbish from the structure before or just after demolition. The walls of S2 had been levelled by this phase and it is possible that the gully along its edge was a robber trench for the W wall which had been filled with domestic rubbish. It is not known why the gully extended beyond the N wall (of S2). The layer of twigs and organic material that covered S2 was probably demolition debris from the roof and walls of the structure.

On Plot B, S3 had also gone out of use and the wattle from its W wall had been removed. The central pit post-dated the removal of the W wall but there is a possibility that the S and E walls were still standing, probably in a derelict condition forming a rough shelter around the pit.

The gully (1099) probably acted as a drain for the gravel path which still existed at the W side of Plot B. The area at the S end of Plot C was probably external, either a garden or yard. N of S1 the sand layer (1054) was more difficult to interpret as all the layers above it had been scraped away by modern disturbances. It may have been part of another structure or an external working surface.

S1 was probably a roofed domestic building.

surface and therefore S2 was possibly a roofed building or at least a shelter.

It is however possible that 2132 was the robbing of the W wall which was never rebuilt and that the N wall (2101) had been levelled by this period in which case the clay layer (2055) would have been an outdoor working surface.

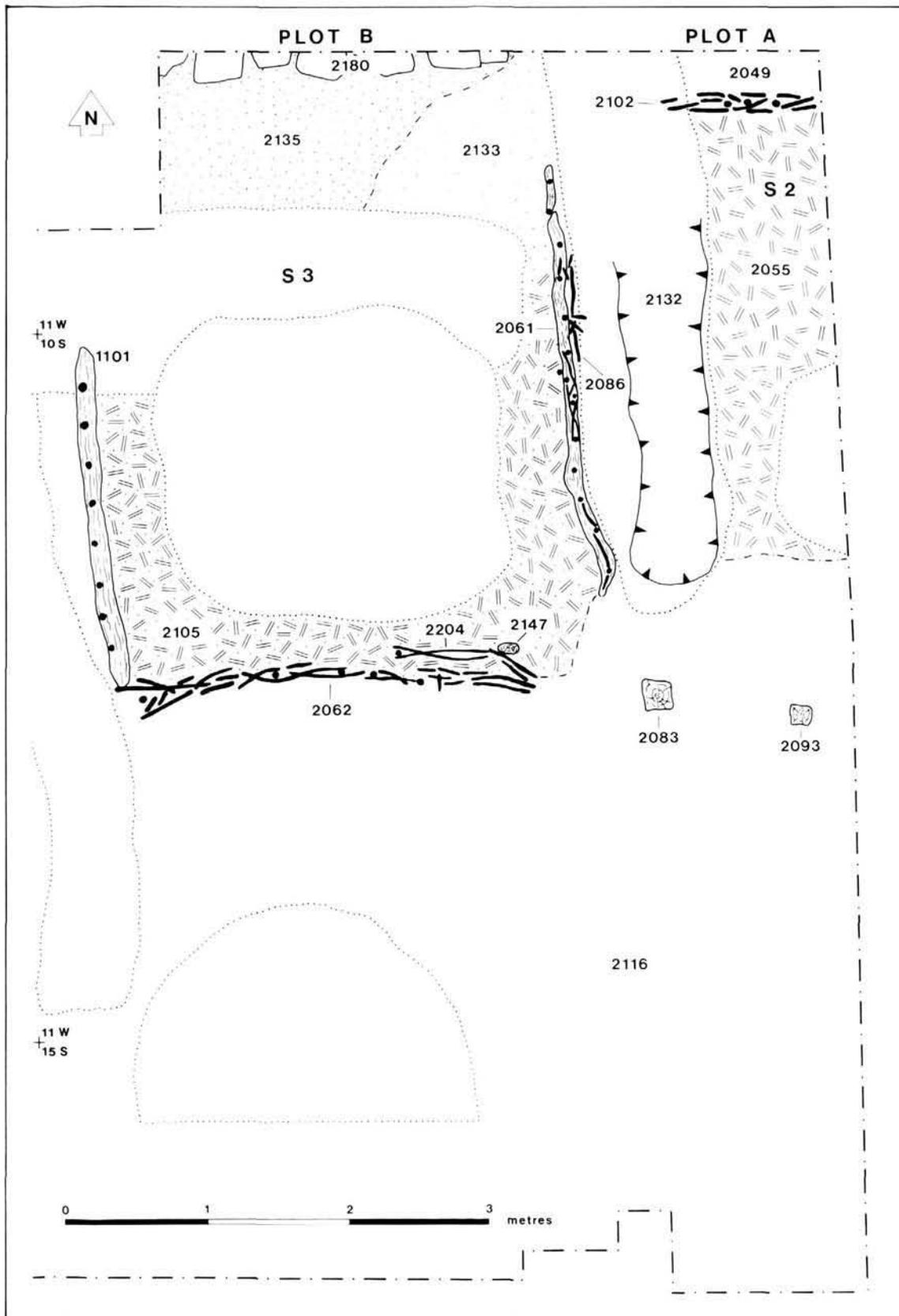
STRUCTURE 3 DESCRIPTION

At this level the S and W walls of S3 remained unchanged but the E wall had been replaced by a single alder ground-sill (2061) which had regularly spaced stake-holes cut into its upper surface. Lying over the beam was a scatter of clay (2060) and wattle fragments (2086).

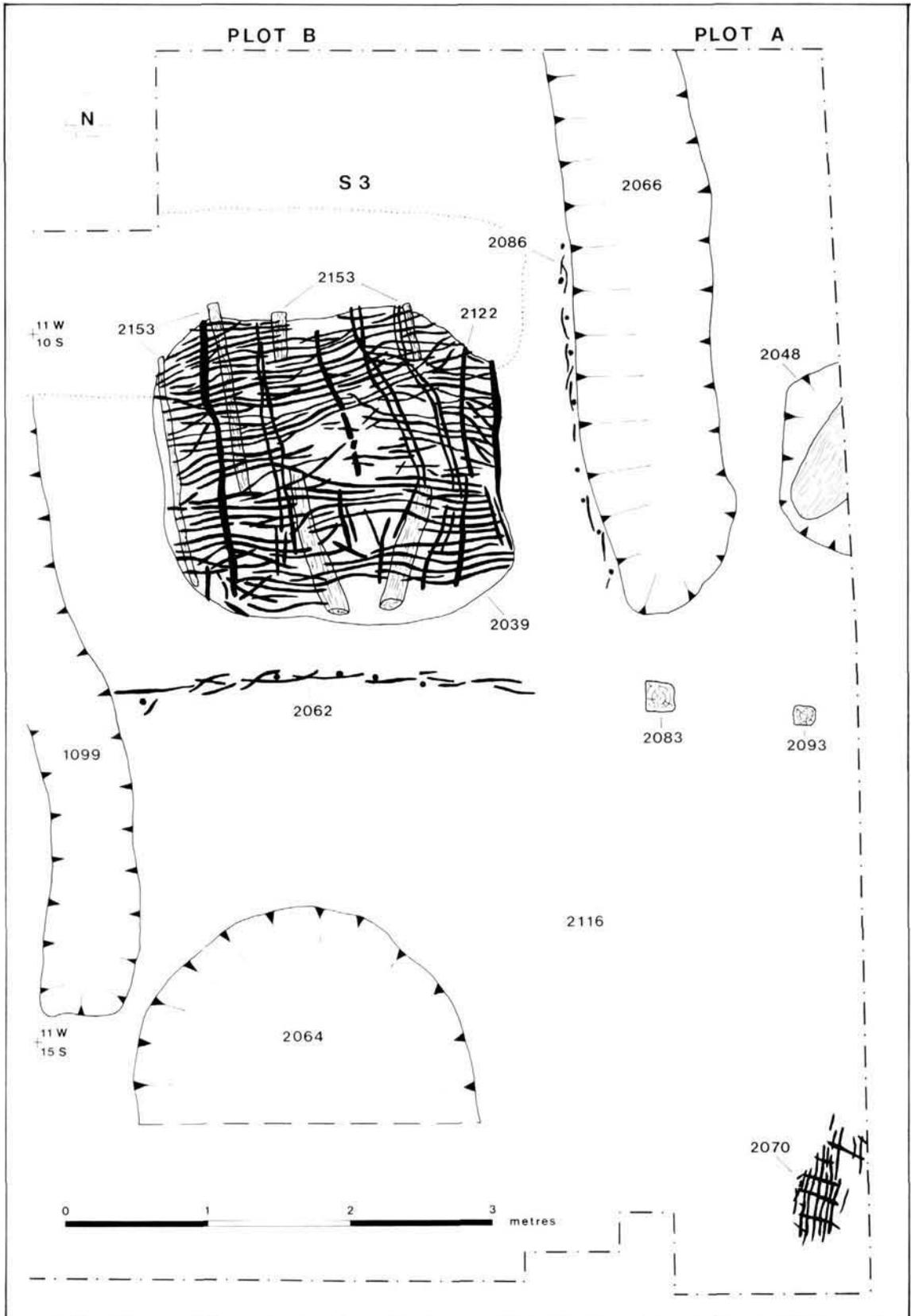
There was no trace of a partition wall in this structure but there was a difference in internal layers at the N and S ends. The S layers were sand and organic material (2105) overlain by sandy loam (2096). At the N were two layers of organic material with some sand (2133 and 2135), the latter also contained decayed sandstone. A layer of sandstone roofing flags (2180) protruded through the N section.

STRUCTURE 3 INTERPRETATION

The W wall of S3 had been replaced by a lighter construction but the new wall was weather-proofed so it seems likely that S3 was roofed, probably with a light material, and that the roof weight was borne by the walls. The difference in flooring at the N and S ends of the structure suggests that there was an internal division which was subsequently destroyed. The presence of clean sand in the floors at the S end of the structure suggests a domestic use for this area whereas the more organic material and possible stone flagging at the N end could suggest use as an animal byre.



ILL 13 : Kirk Close, Plot A. Plan of Period III



ILL 14 : Kirk Close, Plots A and B. Plan of Period IV

PERIOD IV : STRATIGRAPHY

The organic levels at the S of Plots A and B were still being deposited in Period IV, but in the SE corner of the excavation was a horizontal wattle screen (2070) covered by a patch of structured organic material (2047). The two posts (2083 and 2093) were still standing through the organic levels (Ill 15). A vertical sided pit (2064) cut the organic layers. For safety reasons only its N side was excavated. The fill was (2063, 2036 and 2053) composed mainly of amorphous organic material, loam and some woodchips.

S2 had by now gone out of use and its W side had been cut by an irregular gully (2066) which was filled with a layer of clay and structured organic material (2052). A pit (2048) cut the E side of Plot A and lay partially outside the excavated area. It contained (2046 and 2045) structured organic loam and sandy clay. The pit also contained a massive oak timber and two wooden bowls (Structural Wood Catalogue 107 in archive and The Wood Objects, Catalogue 125 and 126).

The whole of Plot A had then been overlain by structured organic material containing twigs (2023).

On Plot B the S and E walls of S3 were still extant (2062 and 2086 respectively) but at the W side a layer of silt had built up over the ground sill (1101). The extant walls bounded pit 2039. This had been cut by a gully (1099) which was shallow over the sill beam and which deepened to the W. The feature was filled with gravel (1071) and clayey silt (1098).

To the W of this gully was a layer of gravel (1113) c 0.30 m thick which had been overlain by a scatter of small stones and grey ash (1109). On the E side were large sandstone blocks (1104) and small patches of gravel (1103).

At the S end of Plot C was a hollow (1122) filled with blue-grey clay and soil, c 0.05 m deep (1111), a layer of sand and clay (1110), fine silt (1097), and sand and clay patches (1083). S1, a stone and timber structure, lay to the N of this hollow and further N still was a layer of clean sand (1054).

STRUCTURE 1 DESCRIPTION

The earliest layer associated with S1 was a 0.20 m thick layer of silt which was covered by three layers of sand (1107, c 0.20 m thick; 1100, which also contained organic material; and 1088, clean sand). Twelve random stake-holes (1096) cut one of the sand layers. These layers were overlain at the S, E and N edges respectively by alignments of stones (1180, flat stones up to 0.30 m across; 1089, stone blocks roughly 0.20 m³; and 1053, irregularly shaped stones). A decayed compressed timber overlaid the alignment 1089. It was rotted to a brown stain at the S end but was slightly more solid at the N end. Traces of a timber overlying stones 1053 were seen in the W main section but they did not survive on the excavated area. There was only one room in S1, S1a.

PERIOD V : SUMMARY (Ill 17, 18)

Plots A and B were divided by a fence made up of fragmentary wattle and some re-used timber. The E-W trench across the rear of the plot was not fully excavated but analysis of layer 2027 showed it to contain a large amount of dog hair and it has been suggested that most of Plots A and B were used as a domestic midden and stockyards. Small posts (2213-2216) may have been tethering posts for stock.

The gravel path at the E side of Plot B was still in use and on Plot C, S1 had been enlarged to form a two-roomed structure and then rebuilt. In phase (a) it was probably a roofed domestic structure with two rooms but in phase (b) the one room may have been a work shed or animal byre.

STRUCTURE 1 INTERPRETATION

It is not possible to estimate the N-S dimensions but if estimates of plot widths are correct then S1a has a maximum E-W dimension of c 3.0 m.

The layers of sand and silt under the walls of S1 were probably a levelling dump laid down prior to the construction of the walls with the upper sand layer as a floor surface. The E walls of the structure were probably set in ground-sills resting on a light stone foundation. Only one ground-sill survived and that in a badly decayed condition. It is impossible to state whether the superstructure was post and wattle or planked but the Perth tradition of post and wattle structures (PHSE) makes this type of construction more likely.

The floor of the structure was clean and was probably an internal surface. No load bearing timbers were found but the structure was almost certainly roofed and the walls may have sustained the roof weight.

PIT 2039

A large vertical-sided, sub-rectangular pit (2039) had been cut through the upper floor levels of S3. At its base was a layer of heather and structured organic material (2056), and overlying this was a large horizontal wattle screen (2122) which had slumped into the pit. It rested on four large poles (2153) which had broken and lay at an angle down the sides and across the base of the pit. These poles had notches and nails which suggest they were re-used and two of them had been shaped into blunt points. All but one had been stripped of bark. A second layer of heather (2057) lay over the hurdle and the pit had then filled up with layers of amorphous peat and structured organic material (2037, 2076, 2038 and 2125). The wattles were identified as willow, alder, hazel, birch, elm and apple tree.

Botanical analysis of the fill (2125) suggests that this pit was backfilled with domestic debris but its primary function is not clear. The hurdle originally covered the pit and could have been to protect its contents. Alternatively the hurdle might have been used as a sieve for some industrial process. The variety of wood used in the hurdle suggests that it was constructed from scavenged wood from a number of sources.



ILL. 15 : Kirk Close, Plot B. Feature 2122, a wattle screen, within feature 2039, a pit, looking S. Period IV

PERIOD V : STRATIGRAPHY

By this period Plots A and B (not illustrated) were covered by thick layers of organic material and the two plots were separated by a fragmentary N-S fence line (2025), made up of an assortment of stakes, planks, and barrel staves. The majority of these timbers were oak and had been re-used in this fence. It had been packed with amorphous organic material (2020), clay (2028), and flat stone slabs (2017). Along the E side of the fence on Plot A were layers of structured organic loam (2016 and 2029). At the W side, on Plot B, were layers of amorphous organic material (2020, 2034 and 2022). Cutting these layers was an E-W trench (2032) which continued beyond the S limit of the excavated area. It was filled with mainly organic debris (2030, 2031, 2026 and 2027).

At the W side of Plot B, in phase (a), was a layer of gravel (1066) which was overlain by a band of amorphous organic soil (1065). This was replaced by gravel (1061) in phase (b). Its E edge had been cut by a gully (2042) which contained layers of pebbles, sand and clay (2040 and 2041).

Four vertical posts (2213-2216) were set in this feature (not illustrated). Another layer of gravel (1061) had subsequently been deposited on Plot C.

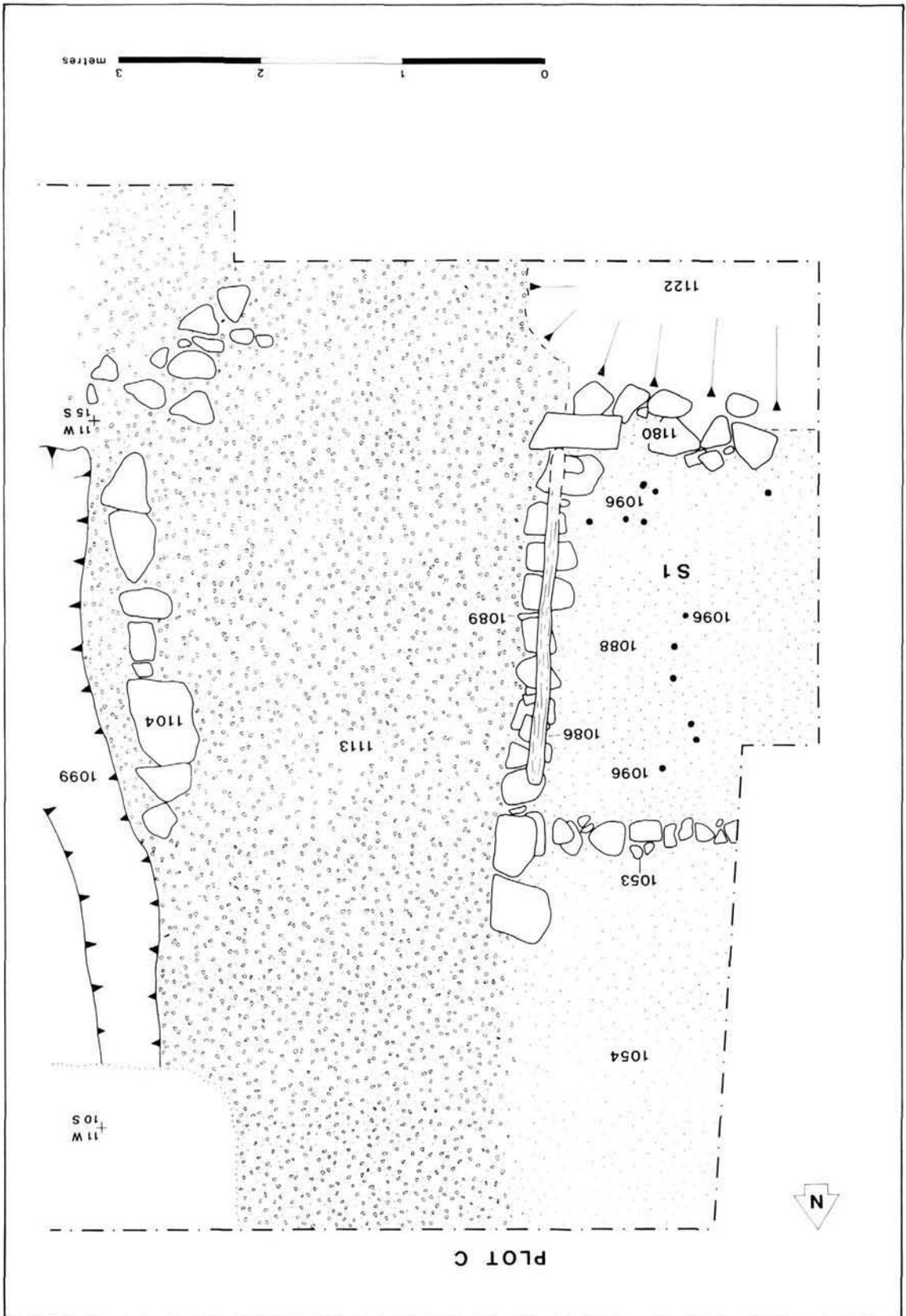
On Plot C, S1 was still standing and had been enlarged to form a two-roomed L-shaped structure. During this period there were two phases of re-building of S1.

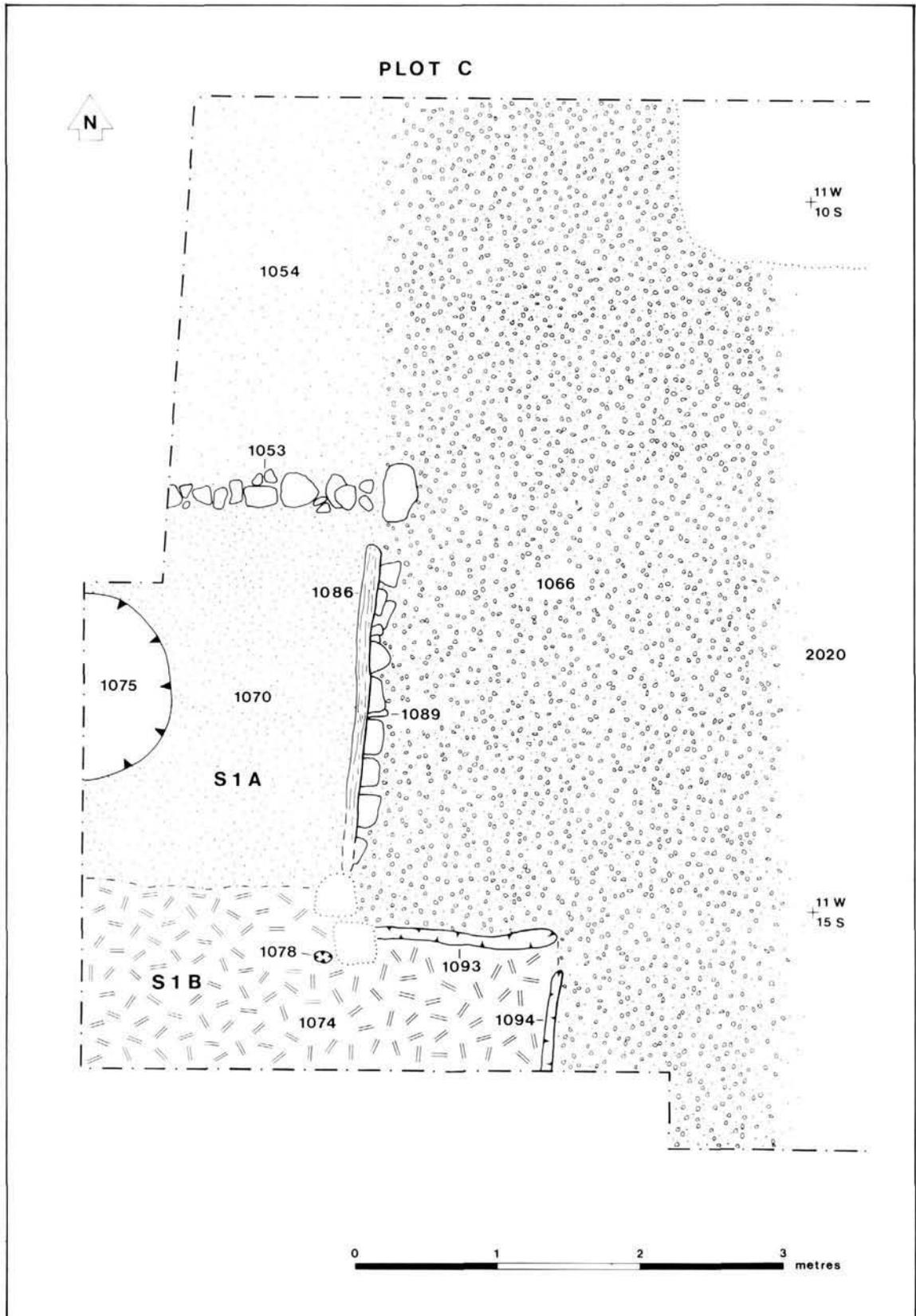
N of S1 the deposits had been scraped away by later features.

STRUCTURE I PHASE (a) DESCRIPTION

During this period S1 had been extended to form an L-shaped two-roomed structure. The two rooms were coded S1a and S1b respectively and had two phases of occupation, (a) and (b).

S1a was still bounded by 1086 and 1053, but its interior was covered by a layer of sand and rotted wood fragments





ILL 17 : Kirk Close, Plot C. Plan of Period V Phase A

(1070) cut by a vertical sided pit (1075) c 0.36 m deep. It was filled with layers of sand and amorphous organic material (1076, 1077 and 1085).

There was no surviving boundary between the two rooms but there was a change in internal layers. S1b was bounded on the E by a short length of timber (1095) largely rotted out leaving a void (1094). To its N was a similar void (1093) with no surviving trace of timber. The internal area was covered by a sand layer (1083) which had a layer of silty clay (1074) with a stake-hole (1078) cut into its surface.

STRUCTURE 1 PHASE (a) INTERPRETATION

S1 had been extended to form a two-roomed building. S1a was largely unaltered except that a new floor had been laid down covering the remnants of its S wall. The difference in the internal layers of the two rooms suggests that there had been a room division but no trace of it survived. The walls of both rooms were set in timber ground-sills resting on a light stone foundation. Again a construction of stake and wattle seems the most likely interpretation. Analysis of occupation debris (1070) showed it to be a typical floor bedding but heavily eroded. The botanical evidence suggests that room S1b was open (see 6:3) but the well-made floor and excavated walls make this unlikely.

STRUCTURE 1 PHASE (b) DESCRIPTION

The stones (1053) at the N end of S1 were still extant. S1 was bounded on its E by a decayed wooden beam (1059) which rested on the earlier beam (1089; see Period Va). The S end of the beam terminated at a circular feature (1067,

c 0.67 m deep). It was filled with decayed wood (1068) and packed with gravel and clay (1069). The interior of S1 was covered by a layer of sand and silt (1058, 0.10 m deep) and patches of sand with wood and shell (1045). A shallow feature (1048, c 0.07 m deep) lay partially under the E section; it was filled with charcoal dust and ash (1049). A layer of oat straw (1043) had been deposited on the surface of 1058 and partially sealed 1049.

The division wall between the two rooms was a horizontal decayed ground-sill (1063) packed with clay. Its line was continued by a second ground-sill (1080) which rested on a light stone foundation (1087). The junction of these two sills was cut by a feature (1082, c 0.24 m deep) which was largely void but contained some traces of rotted wood. There was no surviving E boundary to S1b. The interior at the E end of S1b was covered by a layer of stone slabs (1072) which were partially overlain by a layer of silt (1073).

STRUCTURE 1 PHASE (b) INTERPRETATION

The structure still had two rooms during this phase. There had been major structural alterations; most of the walls had been rebuilt and the structure refloored. There were also the remains of a partition wall between the two rooms which had also been founded on a ground-sill set on a stone footing. The two features (1082 and 1067) were probably post-holes for roof supporting timbers at the junction of the two rooms. Analysis of the occupation debris (1042/1043) showed it to be comprised of typical domestic floor material and feature 1048 was probably a domestic hearth.

It is possible that S1b was open at its E end adjacent to the gravel path. This room may have been an open work shed, animal byre or even cart shed.

PERIOD VI : SUMMARY (Ill 19,20)

Plots A and B continued to be used as a midden throughout the whole of Period VI. The N-S trench cutting through Plot A may have been a foundation for a much later, possibly post-medieval, stone wall.

The division between Plots B and C was still maintained by a gravel path and S1 was probably used as a dwelling and a bakery. S1, both at this time and in Period V, was of a somewhat superior construction to S2, S3 and S4 with its use of stone foundations and clean sand floors which had little evidence of churning by animals. The oven in room B was large, measuring 2 m × 0.70 m and may have been of commercial size and the path was wide enough to take carts on to the High Street.

It seems possible that the occupier of S1 was a wealthy baker, and the mace head (Catalogue 29; Ill 21) found on the floor of the building might suggest that he had property worth defending. He may even have been of burgess status.

PERIOD VI : STRATIGRAPHY

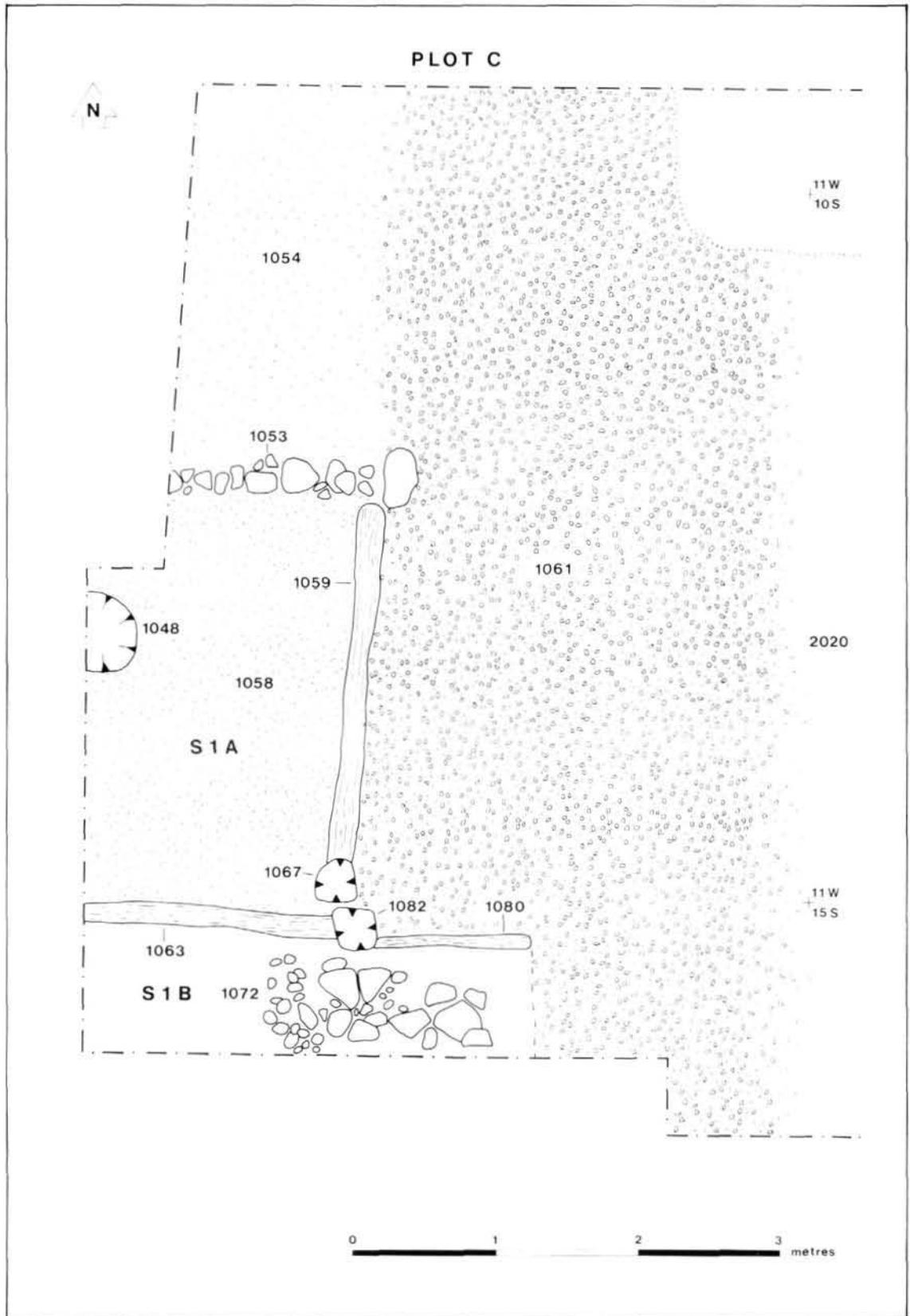
The boundary fence between Plots A and B had gone out of use and a massive dump of organic material (2005, 2007, 2010, 2009, 2021, 2019, 2018 and 2008) had built up. These layers survived mainly at the S end of the area.

At the E side of Plot A was a N-S trench (2014) which lay partially under the main section. The fill (2011, 2013 and 2024) was composed mainly of clay. At the W side of Plot B was a fragment of a grooved timber (1112) which lay at the side of a gravel layer (1030). This gravel had a layer of silty clay (1011) on its surface and at its S end a deposit of organic soil with gravel (1044) had built up.

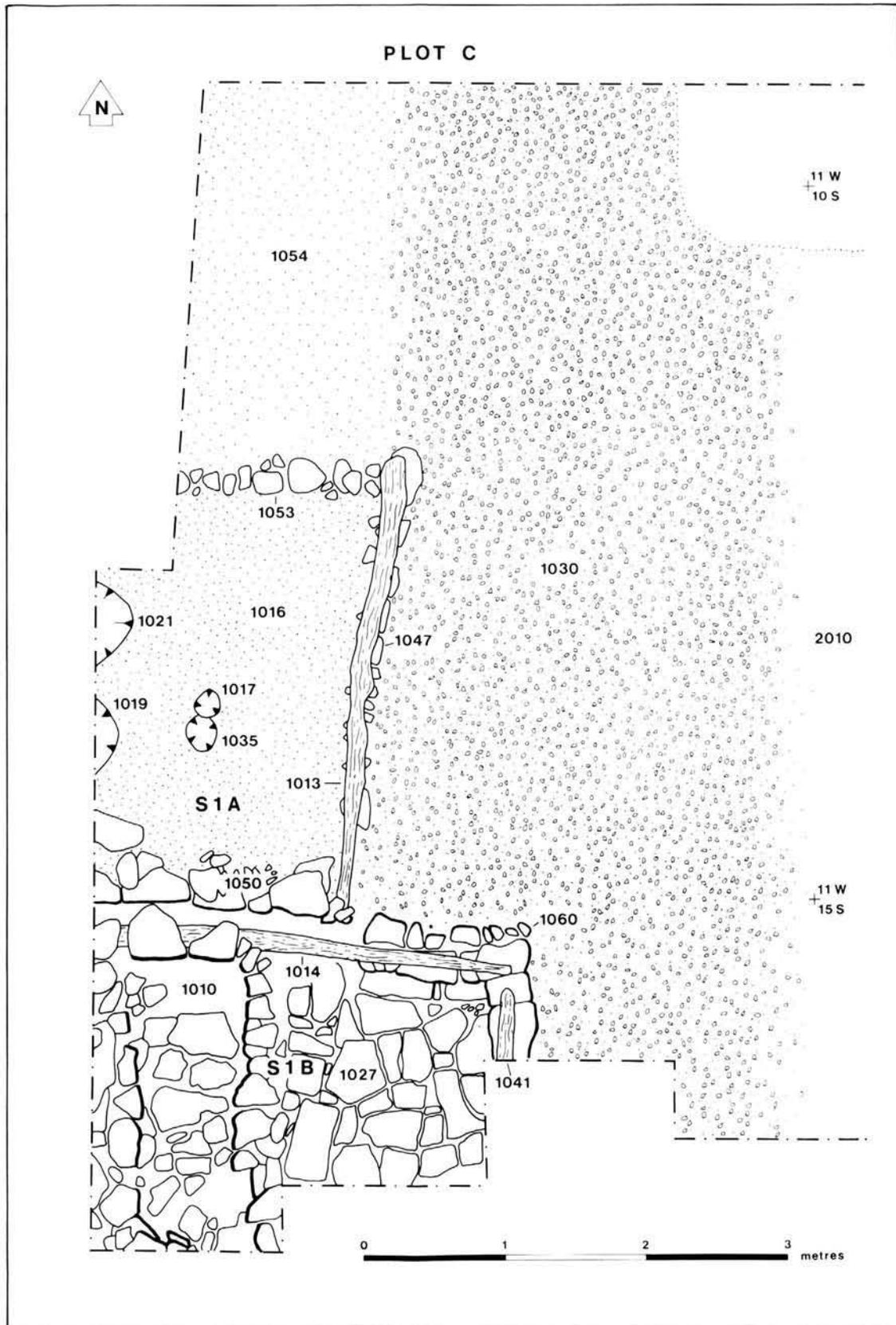
On Plot C, S1 was in its final phases and had been partially rebuilt. It soon went out of use and the area of S1 was covered by a deposit of silt (1031) with a small stack of roofing flags (1032) and some rubble (1024).

STRUCTURE 1 DESCRIPTION

The stone footing (1053) still formed the N boundary of S1a but the E and S walls had been renewed. The E wall consisted of a light stone foundation (1047) packed with clay and silt



ILL 18 : Kirk Close, Plot C. Plan of Period V Phase B



ILL 19 : Kirk Close, Plot C. Plan of Period VI

(1040) and resting on them was a decayed horizontal beam (1013). The interior of S1a was covered by a layer of clay and straw which was overlain by (1038) a patchy layer of silty clay. A shallow feature (1033, c 0.05 m deep and 0.30 m across) lay largely under the W section. It was filled with a layer of burnt clay and sand (1034). The whole interior of S1a was then overlain by clean sand (1016) which had patches of silty clay with decayed wood on its surface (1003 and 1008). A series of shallow features cut this layer. 1021 (c 0.15 m deep) was filled with ash and clay (1022). Feature 1019 (c 0.07 m deep) was filled with (1020) sand, ash and clay. 1035 (c 0.20 m deep) was packed with angled stones (1037) and had a central filling of decayed wood and soil (1036). A circular feature (1017, c 0.18 m deep) contained the lower half of a ceramic pot which was filled with corroded iron.

The division wall between S1a and S1b was a stone foundation packed with clay and silt (1050) which was more substantial than the equivalent boundary in an earlier phase. S1b was bounded on its N and E by a light L-shaped stone foundation (1060) bonded with clay (1062). On the E foundation was a decayed beam (1041) and on the N foundation a similar beam (1014) which continued to the W section.

A layer of stone slabs (1039) set in silt, covered the E end of S1b. These had been overlain by gravel (1056) and organic material (1057). The W side was covered by a thin layer of silt (1026). A second layer of stone slabs (1027) set in gravel (1028) had been deposited at the E side of the structure.

STRUCTURE 1 INTERPRETATION

Although the walls of S1 had been largely rebuilt the technique of construction had not changed.

There were two small domestic hearths in S1a which served as living quarters at this time. The sunken pot had probably contained useful implements but they had corroded beyond recognition.

S1b was the industrial end of the structure with its possible commercial bread oven and adjacent paved working surface. The foundations of the building suggest that there was an E wall for S1b but an entrance to the gravel path would have been necessary. This may have lain just outside the excavated area.

A few roofing slabs were found in the layers immediately above this structure. It seems unlikely that the walls of this building could have supported a stone roof.

OVEN (Ill 20)

At the W side of S1b was a sunken stone-lined feature (1010) which was c 0.60 m deep. The stones were packed with clayish silt layers (1009 and 1012). The feature was filled with charcoal and ash (1007) which was under two layers of burnt clay and daub (1156 and 1004) and silty clay with burnt daub (1001). Together these features formed an oven, 1030.

The fact that the stones were not burnt suggests it was a low temperature oven, probably suitable for baking. This suggestion is strengthened by the lack of nearby industrial waste and by documentary evidence for bakers at a later date (17th century) (Milne 1891). Three iron bars from the filling of the oven were possibly part of a fire grate (Catalogue 114, 115 and 116).



ILL. 20 : Kirk Close, Plot C. Feature 1030, an oven, within building S1, looking E. Period VI

DISCUSSION

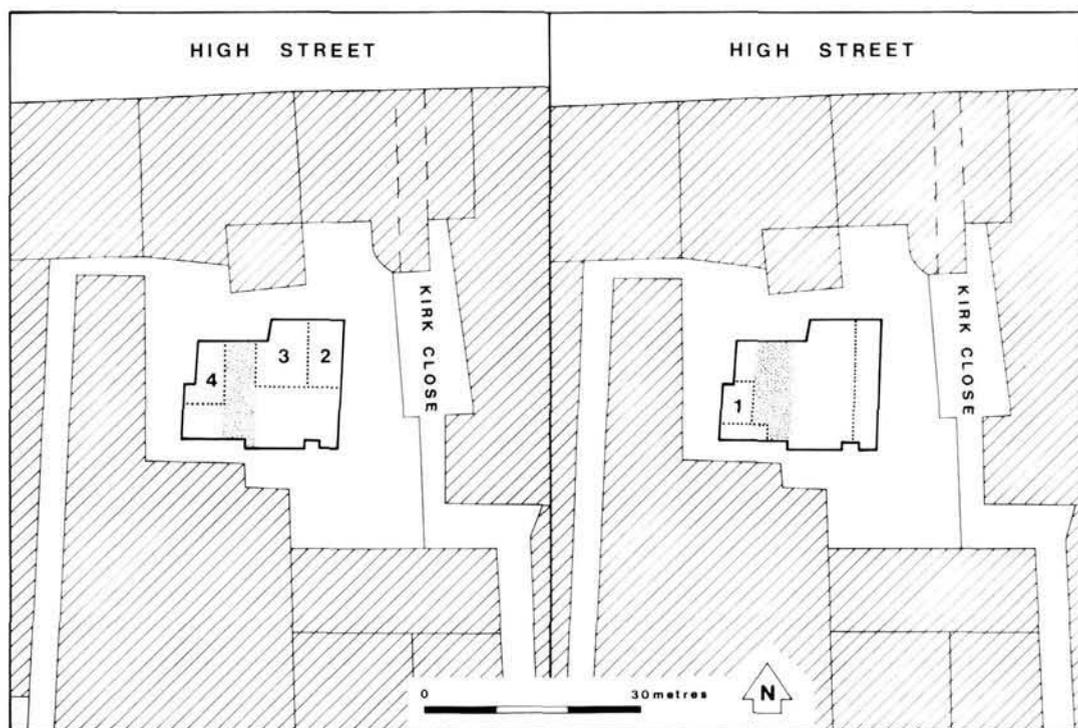
DATING

The excavated levels at Kirk Close have been divided into periods for convenience of description. However, each division does not constitute a major change in use of the site to which a precise date can be ascribed. Instead, as in most households today, repair and reconstruction was a piecemeal process. For example, the replacement of the floor in S4 would not necessarily be carried out at the same time as the rebuilding of a wall in S2, so assigning a precise date to each period would be an artificial process.

The dating of Kirk Close has been based on pottery and other artefacts, most of which came from the middens and yards and therefore from secondary contexts. These mostly date to the 14th century.

The timber building from the site cannot be used as dating evidence, however, elsewhere in Perth similar types were in use from the 13th century onward.

Some timbers have been retained for future dendrochronological dating. These were almost certainly re-used and establishing their felling date is unlikely to have any real bearing on the date of the structures. Instead the timbers are more likely to be of use in establishing a local dendrochronological sequence.



ILL 21 : Kirk Close, outline of excavated structures in relation to 19th-century property divisions

SITE TOPOGRAPHY (Ill 21)

The excavated area lay some 22 m S of the High Street and therefore formed part of the innerlands or backlands associated with the medieval High Street. A number of N-S paths, wall lines and fences were excavated and their relationships illustrate that there was a marked continuity of the medieval

lines through to the 19th-century property divisions. If this continuity is assumed to be true for the line of Kirk Close and for the property to the W of the site then it can be deduced that the excavation covered parts of three medieval properties, Plots A, B and C.

There is a problem in determining whether the path belonged to Plot B or C. If the path is considered with Plot C then Plot C was an extremely wide property, about 7.5 m, and Plot B narrow, about 3.5 m. It is therefore more likely that the path was part of Plot B, giving two properties about 5.5 m wide. However, in its latest phases the path was wider and may have been jointly owned. This is possibly confirmed by the fact that at certain levels renewal of the path was contemporary with the rebuilding of S1 on Plot C.

This suggested layout gives three properties of average width 5.5 m-6.5 m. No E-W property divisions were recovered.



ILL. 22 : Kirk Close, mace head, catalogue No 29. From floor of building S1 Plot C: Period VI.

FUNCTION AND STATUS

Throughout the earliest excavated periods the site was intensively used but by the end of Period III two of the structures had gone out of use and were not replaced.

With incomplete structures it is difficult to assess their status, although the quality of workmanship and internal features can provide clues. The surviving fragments of S2 were fairly well constructed with load bearing timbers of oak and the building was provided with an internal latrine also built of expensive oak wood. S2, certainly in its earliest phase, may have been occupied

by a burgess. In contrast the adjacent S3 was built using only softwoods and internally it seems likely that the domestic quarters may have been shared with animals, suggesting a relatively poor occupier.

On Plot C, S4 was obviously lived in by a cobbler who appeared to use the structure as both living and working quarters with a separate animal byre at one end.

S4 was replaced by S1, again of superior construction, with its stone foundations and bread oven of commercial size. A mace-head (Catalogue 29) was found on the floor of this structure. This suggests that perhaps the occupant had duties of watch and ward within the burgh and that the baker was relatively wealthy and may have been a burgess.

The artefacts from the site are mainly domestic objects such as knives, wooden bowls and pottery, and with the exception of the silks do not point to any particular social class. The silks, fine though they once were, may have been handed on to successively poorer dependents.

The excavated area was a densely occupied 14th-century domestic and small scale industrial area whose residents were closely tied to the rural economy, relying heavily on local agricultural produce for raw materials as well as husbanding their own livestock.

The documentary evidence for the later history of the site has not been researched, but, a more general study of the James VI Hospital Rental Books (Milne 1891) indicates that several 17th-century properties in this vicinity were occupied by bakers, perhaps continuing a tradition established by the 14th century.

2:2 29-30 SOUTH METHVEN STREET

RM SPEARMAN

INTRODUCTION

The area redeveloped by the Clydesdale Bank (NGR NO 115236) lay just to the W of the medieval burgh between the line of the town lade, which is now culverted beneath South Methven Street, and Mill Wynd. It is immediately NW of the position once occupied by the medieval Turretbrig Port formerly one of the main entrances to the burgh and now buried below the junction of High Street and South Methven Street (Ill 23). The area of Mill Wynd is known to have been the location of the burgh mills from at least the 18th century. The presence of mills at Perth has been recorded since the mid-12th century but their exact position is uncertain (*RRS I*, no 57). To the S of Mill Wynd the area of New Row (formerly Barker Row) is believed to have been a late medieval suburb of the burgh although the date of its initial occupation is uncertain. The association of this area with the name Barker Row may suggest that it was the site of the medieval tannery (Perth and Kinross District Archive, B59/13/5 p1041).

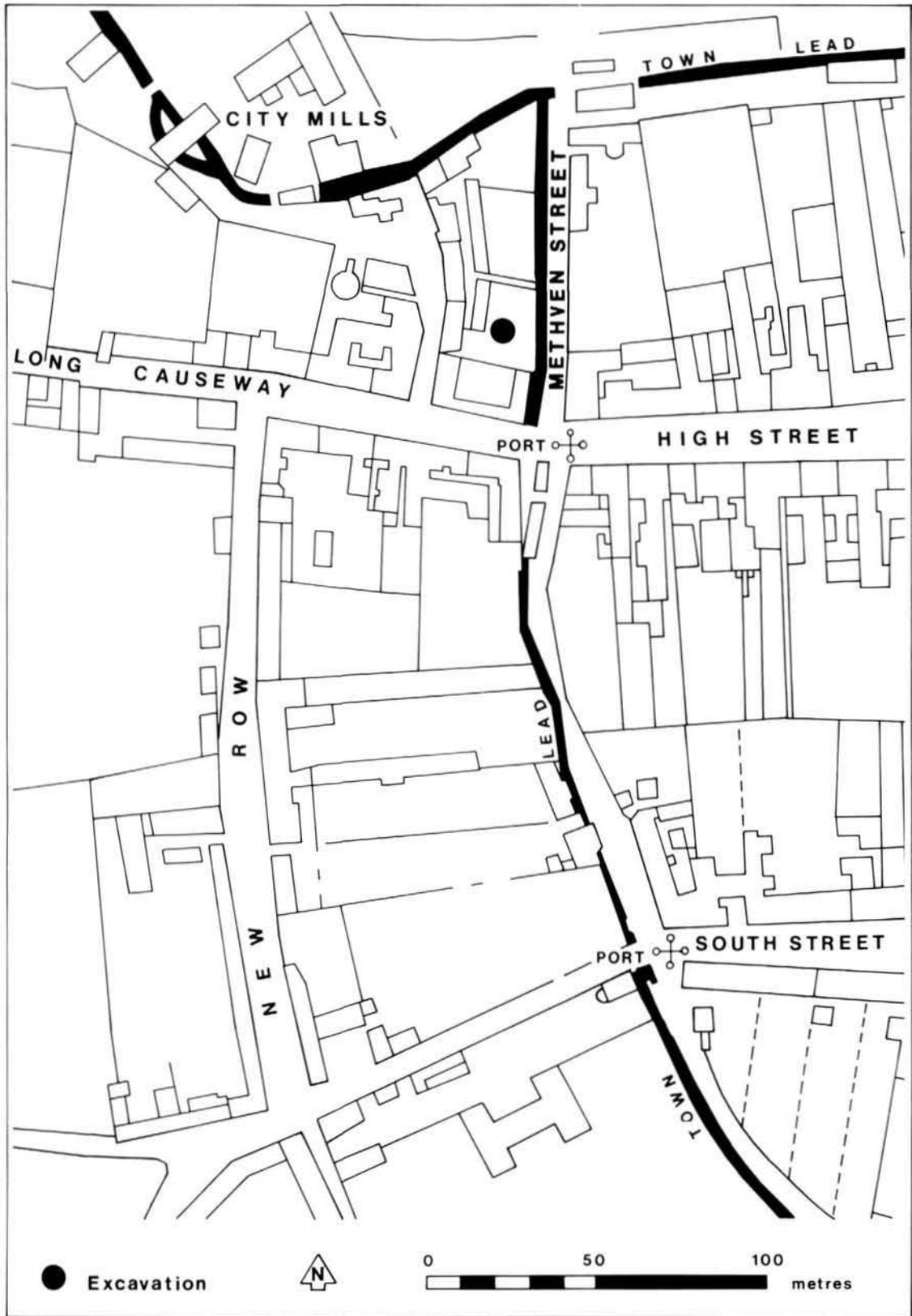
The site was excavated between 15th November and 14th December 1979. Unfortunately both the time and the areas available were limited by the requirements of the contractor. The adjacent early 18th-century building known as Hal o' the Wynd's House, which was to be incorporated in the redevelopment, was surveyed by the Royal Commission on Ancient and Historical Monuments, Scotland.

The excavation records and the building survey (ref PT 6216-6228 PTR 39/1) are stored in the National Monuments Record of Scotland. The excavated finds are stored in Perth and Kinross Museum and Art Gallery.

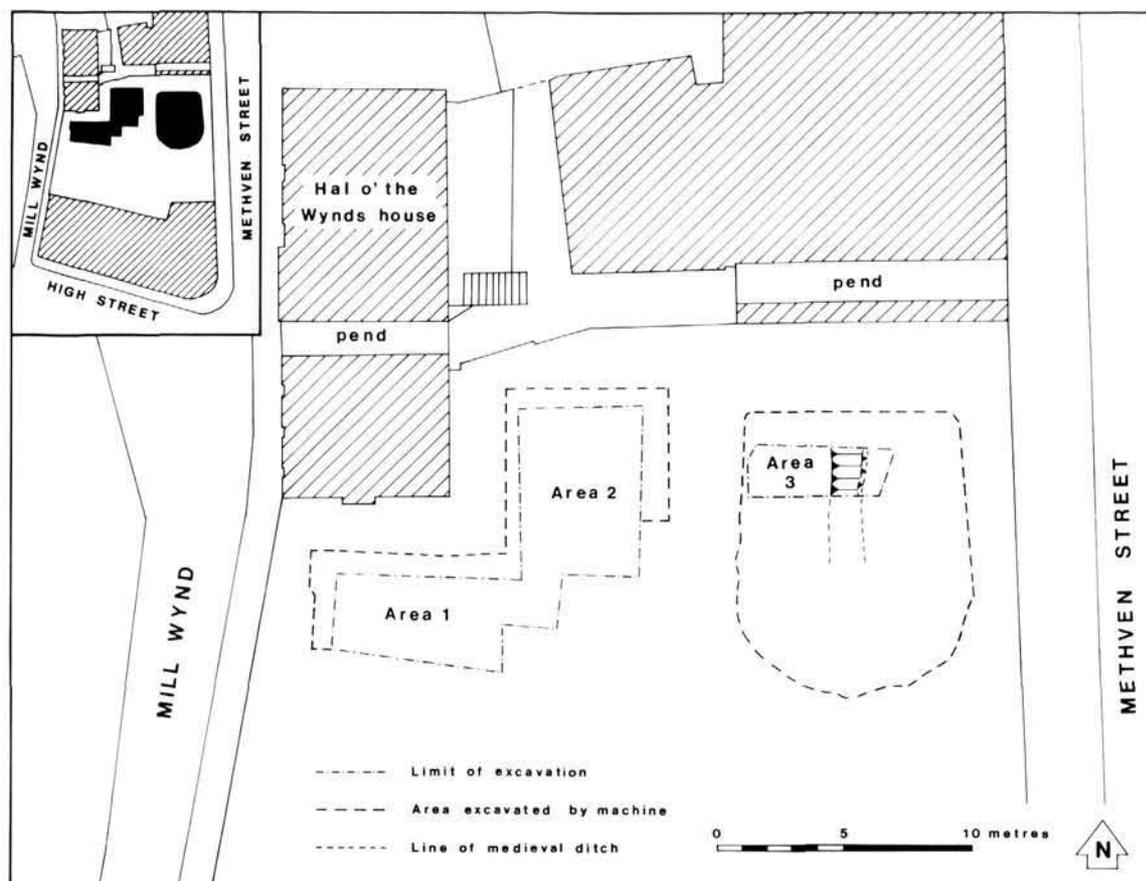
THE SITE (Ill 24)

Three areas were opened by machine to remove recent demolition rubble and modern and post-medieval dumps of cultivated soil; this exposed the levels of medieval occupation. Area 1 was 3 m × 7 m and lay immediately S of Hal o' the Wynd's House, fronting onto Mill Wynd. Contexts from this area are prefixed 1. Area 2 was 7 m × 5 m and lay to the E of Hal o' the Wynd's House. Part of this area was later extended S to relate the stratification of Areas 1 and 2. Contexts from Area 2 and its extensions are prefixed 2. Area 3 consisted of a much deeper trench 12 m × 9 m created by the removal of petrol storage tanks adjacent to South Methven Street. The sides of this trench were stepped for reasons of safety. Contexts from this area are prefixed 3. Other than their prefix the contexts are as numbered on site.

The same layers were observed in both Areas 1 and 2 and therefore the same period divisions apply to each area; they are discussed together in this report. The periods have been numbered I to IV, earliest to latest. This division into periods corresponds to structural changes and the dumping of cultivation soil on the site. Deposits in Area 3 were, except in the very latest levels, quite distinct from the rest of the site and could only be approximately related to the period divisions of Areas 1 and 2. Area 3 is therefore discussed separately and its stratification divided into Periods A to C, Period C being comparable to Period IV in Areas 1 and 2.



ILL 23 : Plan of the western suburb of Perth showing course of town lead (after Rutherford) and location of South Methven Street excavation



ILL 24 : Location map of 29-30 South Methven Street

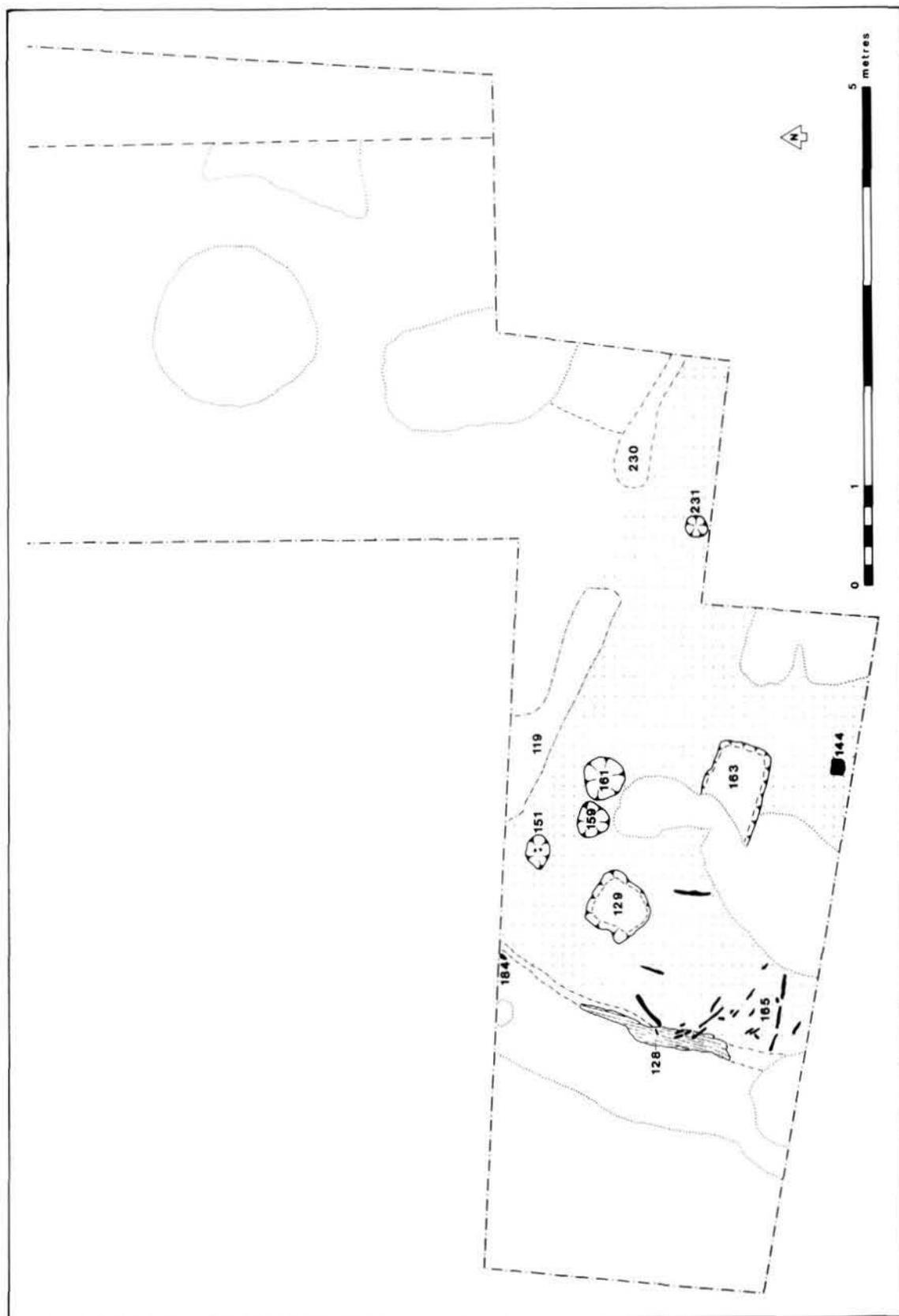
THE EXCAVATION

AREAS 1 AND 2

At different times the soils in Areas 1 and 2 had been stripped off down to the natural yellow and grey fluvial sands and silts. In Area 1 this disturbance was immediately followed by medieval occupation, while in Area 2 subsequent occupation was of post-medieval date. These two disturbances meant that no complete original soil profile survived and it is possible that the finds and features discovered in these areas may not represent the earliest occupation in this part of the town. Features either truncated by these disturbances or dug immediately after them have been placed in the period to which the deposits which sealed them have been assigned. In Area 1 they have therefore been described under Period I, but in Area 2 some potentially earlier features have, to avoid possible contamination of the previous periods, been placed in Period III.

PERIOD I : SUMMARY (Ill 25)

A number of features were found truncated by or dug immediately after a general stripping of soil from Area 1. Certain of these have been interpreted as evidence for a structure, S1, which had been constructed directly on the natural sands and silts. Associated with the use of this structure were a number of internal and external layers and features. Only one fragmentary feature is thought to pre-date the stripping of soil from Area 1.



ILL. 25 : 29-30 South Methven Street, Areas 1 and 2, Structure 1. Plan of Period I

The pottery recovered suggests a 14th-century date for the occupation of S1. Unfortunately no datable evidence was recovered from a possible pit base (163) which may have been truncated by the scraping prior to the construction of S1. As only part of two of the walls of structure S1 were recovered its full dimensions remain unknown. That it was a roofed building rather than a fenced occupation area seems likely given the compact and regular nature of the floor layers except in the vicinity of the possible N wall entrance. Post 144 may represent a roof support but if so, it is a secondary feature of the structure. Corner roof supports may have existed outwith the excavation. The function of S1 appears to be domestic with no obvious industrial use. There was a high quantity of carbonized cereal present in the botanical sample from this structure (see 6:3 Botanical Remains).

PERIOD I : STRATIGRAPHY

A sub-rectangular feature (163) was exposed at the same level as the general truncation of Area 1. Its filling was a distinctive mottled mixture of natural silts and grey humic loam. The depth of this feature and the presence of loam distinguish it from the other features exposed at this level and also from the layers of soil. It seems probable that this feature was originally dug from a higher level and had been truncated during the general stripping of top soil from the area. Unfortunately no finds were associated with this feature.

Also exposed at this level were three shallow circular features (159, 161 and 231) which were all filled with dark, ashy silts comparable to those in the layers of floor trample which sealed them. As these features also reflect the line of the N wall of S1 it seems likely that they were related to the construction or early use of S1 and that they were cut from this level. The only finds from these three features were two sherds of White Gritty pottery (Pottery Catalogue 101 and 260), giving only a broad medieval date for the contexts.

A partly decayed timber ground-sill (128) was set in a shallow slot aligned N-S which had been cut directly into the natural sands and extended across the width of Area 1. The shape of the timber could no longer be discerned. A single stake (184) survived against the N edge of excavation within the foundation trench for the sill. In the vicinity of the timber sill were a number of twig fragments (165). These features were interpreted as the remains of the W wall of S1. The twig fragments were too scattered to have been the remains of collapsed walling or hurdling although they may have been construction debris. They may, therefore, be circumstantial evidence that this was a stake and wattle construction. Both the timber sill and the twig fragments were too poorly preserved for species identification.

Two shallow linear slots (119 and 230) filled with grey silt survived in the natural sands and silts to the E of the sill (128) and at right angles to it. Any junction between the W of these two slots (119) and the sill, was however, outwith the excavated area. Both slots were on the same alignment

but were separated by a break of 0.8 m. Each slot had suffered considerable disturbance at the end of this period by the intrusion of two later and slightly wider slots (185 and 237; not illustrated), so that only the lowest part of the original slots survived. Although no trace of wood or wood staining remained in the bases of the original slots they must have contained ground-sills for the N wall of S1. The later slots were probably robber trenches. Within the confines of the W and N walls of S1 was a build up of fine compact layers of ash and silt. Adjacent to the break between the N wall slots (119 and 230) these layers showed some disturbance. This break may represent an entrance to S1, but no evidence for an actual door frame survived the later robbing.

The principal internal feature was a hearth (129) which had been in use as the floor deposits had built up. The hearth had not been placed on a stone or clay pad and had burnt the natural silts on which it rested. Two other features were also found to be contemporary with the use of S1. Against the N wall an oval feature (151) had been cut through one of the later floor spreads to take two stakes (153 and 181). A large partly decomposed post (144) had also been dug through this floor spread adjacent to the S edge of the excavation. Other than the level from which they had been constructed these two features do not seem to be related.

The only deposits associated with the exterior of S1 to survive were a number of patchy layers of light midden and gravel spreads along the S edge of Area 2 and in its S extension.

No archaeological deposits were associated with the W side of S1 and it may be that any such deposits were removed during alterations to the W wall of the structure early in the next period. This absence of layers to the W of S1 makes identification of a period for a gully (102) in that area extremely difficult as it too was cut directly into natural sands and silts. The subsequent close association of this gully with S2 suggests that it fits better in Period II. However, the original digging of this gully may well have been earlier.

PERIOD II : SUMMARY (Ill 26)

The ground-sill structure of Period I was replaced by a new post-built construction, S2, laid out on the same alignment as S1 but extending slightly further W. Adjacent to the W wall of this second structure was a large water gully.

The position of the N wall of S2 on exactly the same alignment as that of the previous structure strongly suggests continuity of occupation between Periods I and II. The pottery evidence is of the 14th or possibly early 15th century and is comparable to that of Period I. The construction of S2 would not appear to simply represent the replacement of one building by another. The new structure

is of a post rather than sill beam construction and is quite possibly larger than its predecessor. That it too was a roofed building is suggested by the fine laminations of the floor deposits, although again any corner roof supports lay outwith the excavation. Two features (123 and 125) may indicate the removal and replacement of an internal roof support. It is even possible that the compacted ground of another feature (141) represents evidence for another roof support. The hazardously close association of S2 with a water filled gully (102) along with its internal tank-like lined pit (122) may suggest that it was more than just a domestic building.

PERIOD II : STRATIGRAPHY

A row of five posts (136 to 140) aligned N-S had been driven into the ground 0.8 m farther W of the W wall line of the earlier S1. These timbers were badly rotted and although they were joined by an irregular line of decomposed fragments of wood (104) it was not possible to discern whether this line represented planking or woven wattle. These features can be interpreted as the remains of the W wall of S2. They may represent an increase in length of the building of 0.8 m or alternatively a realignment of the earlier structure, S1.

Dug into the filling of the robbing slots (185 and 237) for the N wall of S1 were at least three post-holes (115, 143 and 238). No trace of any associated wattle or planking survived between these features because of disturbance at the end of Period II by an irregular E-W linear feature (176; not illustrated). The alignment of these three post-holes and feature 176 suggests that they represent in turn the post construction and robbing of a N wall to S2.

Within the confines of these two walls the remains of S1 were sealed by a large dump of clean, compact, olive coloured clay and silt. This deposit had built up against the W wall of S2, but its relationship with the N wall had been destroyed by later robbing. Several spreads of extremely compact baked clay, ash and gravel then built up over the main clay floor of S2. None of these layers showed any sign of disturbance in the area where there had been a break and possible entrance in the N wall of S1. Hence, while the position of the new posts in the N wall of S2 do not specifically contradict the continued presence of an entrance it seems unlikely that it had been retained.

Within S2 and contemporary with the deposition of the floor layers was an irregular feature (123) and a compacted circular shallow feature (141). Both of these were filled and sealed by a compact mixture of clay and midden which formed the last floor within S2. Cut through this floor and into feature 123 was a post-hole (125). Feature 123 may have been dug to remove a post prior to the refurbishment. The compacted hollow (141) may be a post-pad but if so it does not appear to have been replaced.

Other internal features included a hearth (157) which like the hearth in S1, had been kindled directly on the earth floor and had burnt into it. This hearth was later partially cleaned out and the resulting hollow lined with clay to form a second hearth (106; not illustrated). Adjacent to these hearths and against the S edge of the excavation was a pit

(122). This was a large feature and for reasons of safety it was not possible to excavate it fully. Augering established that the pit had been backfilled with midden rubbish to a depth of at least 1.5 m. The sides of this feature were vertical and impressed with fragments of decayed planking. The feature therefore seems to have been timber lined. Given the unstable nature of the natural sands and silts, a lining would have been essential if the pit were to have been used for any length of time. As the primary fillings of this feature were not excavated its function remains in doubt, however, the possibility of it being a tank or some other container seems most likely.

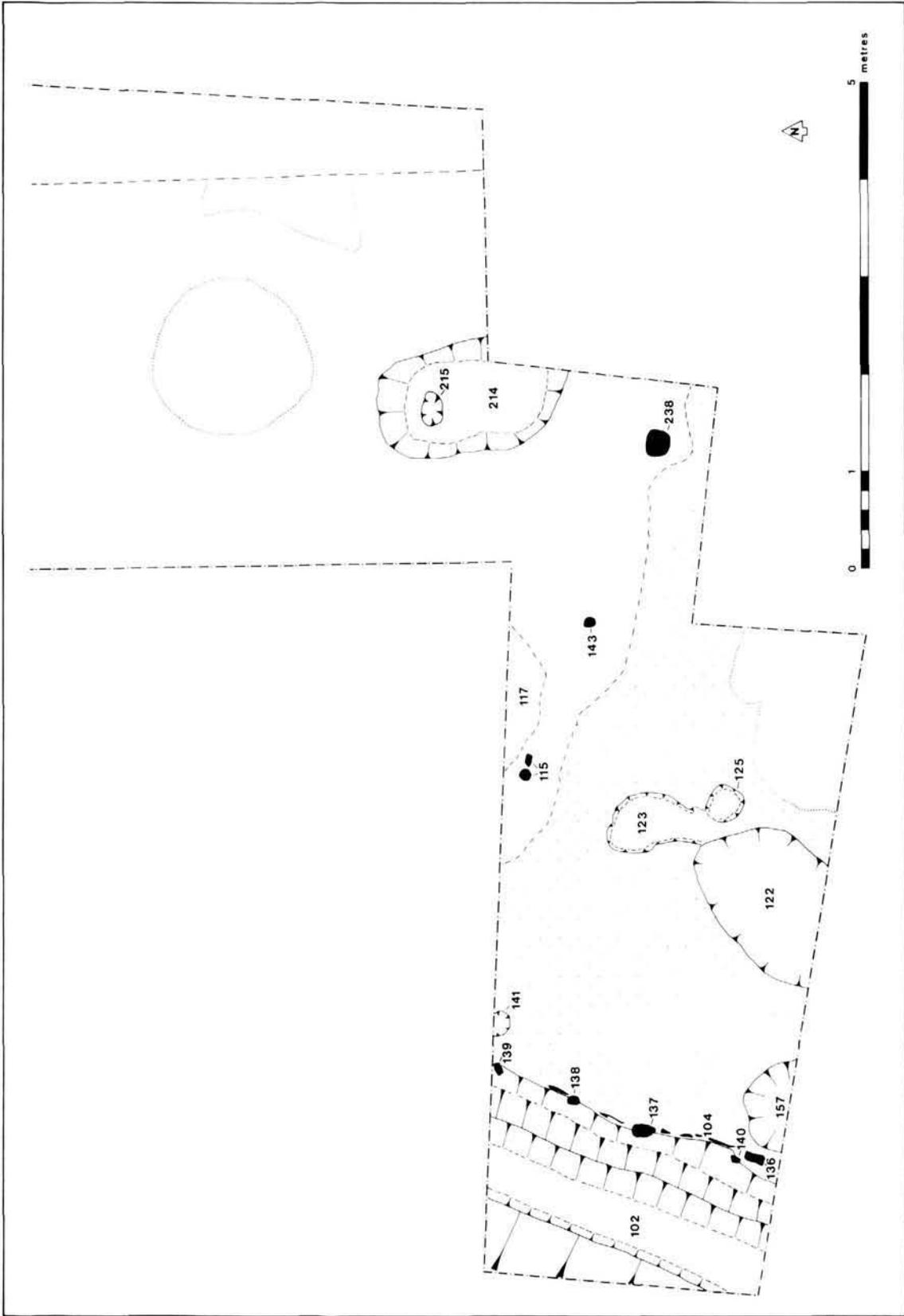
A substantial gully (102) occupied the area between S2 and the W edge of excavation. The sides of this gully had collapsed making it impossible to determine the original upper width of the feature, although its base was 0.5 m wide. The erosion of this gully also undermined the W wall of S2 which may be reflected in the two-stage nature of the infill of the gully. The primary filling was clay and sand. The secondary filling was highly organic silty midden. This may have included part of the collapsed S2. The nature of the primary filling and sides of the feature indicate that the gully had been water-filled. Insufficient length of the gully was excavated to determine if there had been running water, but originally the gully does not appear to have been particularly dirty. However, in contrast, the midden in the later filling of the gully left the water stagnant and polluted. Another result of the erosion of the sides of the gully is that it is not known whether the feature was originally dug in Period I or II, as no layers relating to the cut of the gully remain. It was, however, in use during the life of S2 and was abandoned along with the collapse or demolition of that structure.

To the N of S2 a layer of silty clay survived in the S extension to Area 2. Through this layer was dug a sub-rectangular pit (214) in the base of which was a shallow circular feature (215). The pit was filled with gravel and brown silt. Feature 215 in the base of the pit may have been all that remained of a timber lying against or set in the side of the pit. The large quantity of gravel and its fine silt matrix would suggest that, at least in its final form, the pit had been used as some type of soak-away. It may even be that the deposition of so much gravel relates more to the gravel spreads of Period III and that the filling of this pit may relate to Period III rather than Period II activity.

PERIOD III : SUMMARY (III 27)

Extreme shortage of time meant that it was impossible to excavate this already disturbed level entirely by hand and it was decided to remove the remaining deposits by machine. Consequently part of the information concerning this period was only recovered in section.

The main features surviving from Period II had been infilled and a possible further building, S3, erected. Medieval features in Area 2 which had been truncated by post-medieval Period IV activity



ILL 26 : 29-30 South Methven Street, Areas 1 and 2, Structure 2. Plan of Period II

have been included in this period although they survive only as unrelated feature bottoms.

It is quite possible that there was a third period of building in Area 1, but the evidence for S3 is slight. It may be that S3 was no more than a fenced and floored yard. Dating evidence is scarce, but a 15th-century date seems likely. As a result of post-medieval scarping in Area 2 there is no stratigraphical evidence for the dating of the lined pits and hearth to the N of S3. Pottery dating is also minimal. It is difficult to attribute any specific function to these features as their fillings are the result of rapid erosion rather than primary use or backfilling.

PERIOD III : STRATIGRAPHY

The robber trench (176), the gully (102) and the tank or well (122), from Period II were all levelled with light rubble, clay and sand (111, 114 and 187; not illustrated). On a line 1.0 m further W than the W wall of the previous structure, S2, rotted timber features (183 and 186) were noted in the N and S sections respectively. Against these two features had been laid a large dump of clean clay, giving the appearance of a new floor layer. No layers of occupation trample survived over the N part of the clay floor but slumping into an earlier deep feature (122) against the S edge of Area 1 meant that some lenses of occupation debris survived later disturbance and it seems likely that they originally extended across the whole floor of S3. A substantial hearth (172) of burnt stone, clay and ash, had been constructed in the hollow created by the slumping. Burnt material also filled hollows (147 and 142) in the SW corner of Area 1. These two hollows may have been dug either for disposing of debris resulting from the demolition of the hearth or more probably for use as rake-outs during the life of the hearth. This hearth seems to have been far more elaborate than any of the previous hearths but unfortunately very little survived and therefore it can be attributed no special function.

After the hearth had gone out of use activity in the SW corner of Area 1 continued. A broad slot-like feature (166) extended into the excavated area from the E. This was disturbed by a shallow scraping (134) which had been filled with clay. Associated with this scraping were a post-hole (146) and two stakes (149 and 150). Interpretation of these last three features is extremely difficult as there are no related features noted within S3 and they presumably relate to activity outwith the excavated area. During this period Area 2 had been completely scarped away by Period IV disturbance and only a few lenses of gravel and cobbling (226-228 and 131) survived in the S extension to the area, indicating that a path or more

substantial yard may have been associated with S3. As noted in the Period II description, the back filling of pit 214 may relate to the deposition of these gravels as the filling was almost entirely of gravel.

All that remained of the features elsewhere in Area 2 were the lower parts of originally deeper features which had been truncated by a later stripping of soil (see Period III). The bottom of three apparently large features (208, 212 and 224) were excavated. Feature 208 was circular in plan and its flat base was ringed with a narrow slot. The sides of feature 212 had collapsed making its original shape difficult to discern. Two post-holes (236 and 239) were discovered in the base of this feature. Constant collapse of the sides of the feature prevented its complete excavation. 224 appeared as a rectangular feature extending E beyond the edge of Area 2. All three features were flat bottomed and filled with clean collapsed natural sands and silts. They can probably be interpreted as pit bases. The features in the bases of pits 208 and 212 perhaps supported linings for the pits. A lining must have been essential for features of their size to remain open in this sub-soil. It seems likely that all three pits had been lined, and that these linings had been salvaged causing the subsequent collapse of the sides of the pits.

In the NW corner of Area 2 was what may have been a further pit (210) but for safety reasons this was left unexcavated. Subsidence into this feature had been utilized for a large clay-lined hearth (220). Only part of the hearth was excavated and so its function remains unknown, although its size suggests other than a domestic use.

Other features surviving in this area included a square post-hole (225) and a circular hollow (205) which may also have been the base of a post-hole. A linear slot (206) extended from the E edge of excavation. No relationship could however be demonstrated between these apparently structural features.

PERIOD IV : SUMMARY

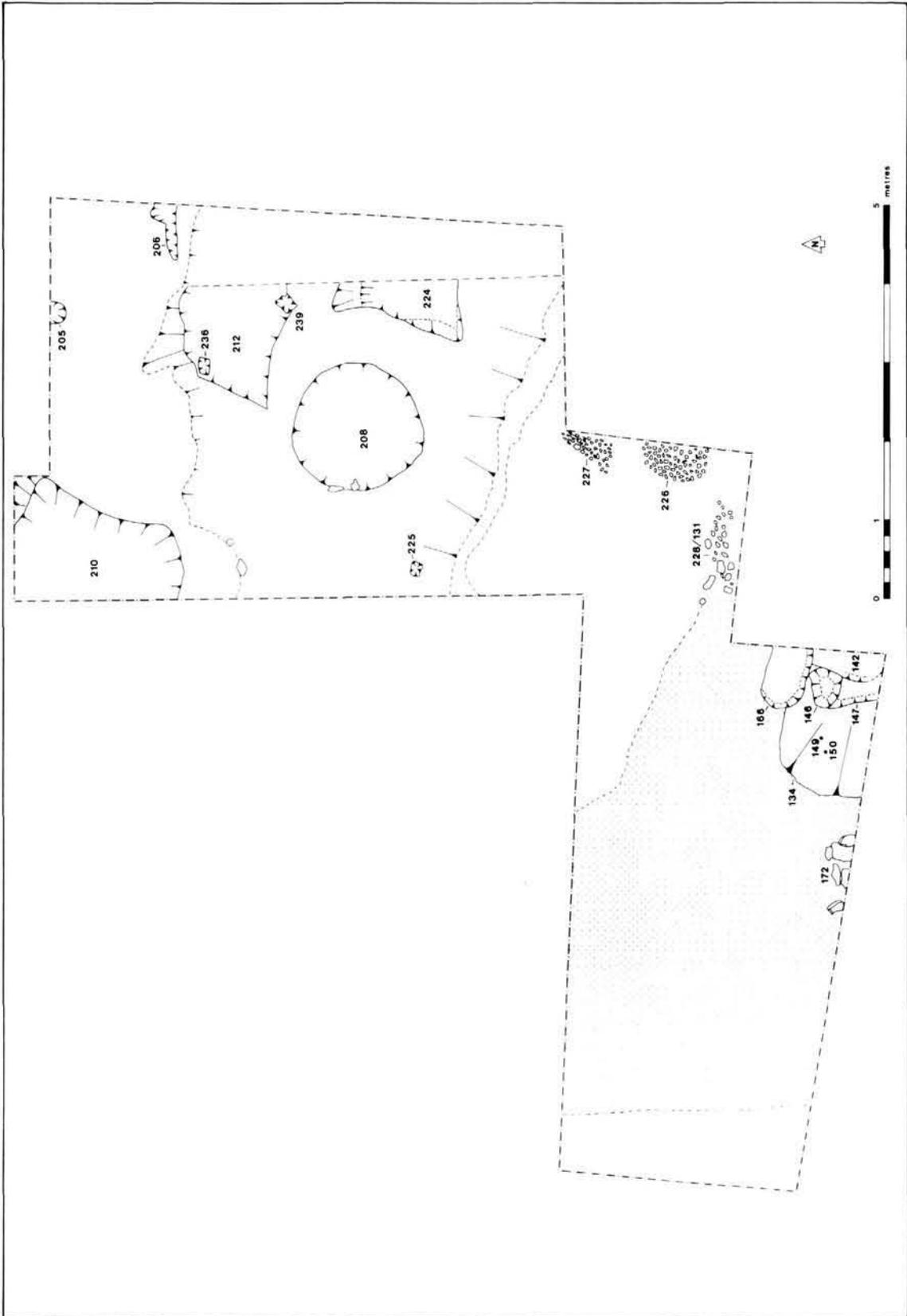
During this period there was large scale stripping of deposits followed by dumping of loam. This may have been connected with either the building of Hal o' the Wynd's House or the culverting of the town lade, perhaps as levelling material. These activities took place in the 18th and 19th centuries.

PERIOD IV : STRATIGRAPHY

There were few surviving medieval deposits in Area 2 and it is likely that the area had been deliberately stripped. The natural had been scarped forming an E-W hollow in the centre of Area 2. The sides of this hollow were weathered and lenses of silt and sand accumulated.

Subsequently both the hollow and the rest of Areas 1

and 2 were filled and covered with a thick deposit of uniform humic loam to an average depth of c 0.1 m. This loam was not mixed with the natural and appears to have been dumped in a single operation. A similar soil build up had occurred in Area 3, Period C, where a very substantial quantity of comparable loam has been interpreted as a stage in the



ILL 27 : 29-30 South Methven Street, Areas 1 and 2, Structure 3. Plan of Period III

deliberate filling in of part of the town ditch. Finds from both groups of loam include a high proportion of residual early pottery which could not be derived from the occupation discovered in Areas 1 and 2. It seems likely therefore that both loams were derived, at least in part, from within the town and were most probably deposited at much the same

time if not in the same operation.

No further features were recorded in Areas 1 and 2 until modern rubble debris sealed the site. At the E end of Area 1 this debris went deep enough to obscure possible further structures, but elsewhere the site seems to have been given over to cultivation, or left waste.

AREA 3 : SUMMARY (Ill 28)

This deep area had been badly disturbed by foundations for petrol storage tanks. Consequently it was only possible to work at the N end of the area. The 4.0 m deep sides of the area were stepped for safety reasons. A 2.0 m wide trench was excavated against the N section of the area which demonstrated the survival of a further 1.0 m of archaeological deposits in the NE corner of the area. With such limited excavation, interpretation of the archaeological record rests heavily on the section. The major feature in this area was a massive ditch lying parallel to South Methven Street. It was at least 5 m deep and was probably originally waterfilled. It had then filled up with tips and dumps of soil. Excavation of this area had eventually to be abandoned after the whole trench flooded.

While there is very little doubt that this is the outer edge of the W defensive town ditch, the refurbishments noted below are but two of a long series in the history of the ditch. What little pottery there is from the earliest period of ditch fill (Period A) is probably of a late 14th-century date. Evidence for the dating of the secondary ditch fill (Period B) is also limited to a few sherds of pottery which are tentatively dated to the 15th century.

The final period of activity (Period C) noted in section appears to represent a major change in the use of the ditch. The dating of these deposits is complicated by a large proportion of early sherds of pottery, but these must have been residual, and it seems that much of this soil was derived from within the town. The true date of these deposits was late 18th to 19th century and they may have been dumps of soil levelling the area near the lade which was being culverted at this time.

A large number of horn cores was recovered from the ditch filling. This suggests that horn working was being carried out nearby, work normally associated with the tanning of leather. This debris is the only indication from the site of the supposed leather working in the Barker Row/New Row area.

AREA 3 : STRATIGRAPHY

PERIOD A: PRIMARY DITCH FILLINGS

These deposits (306-309, 311, 312, 316-318 and 320-322) consisted of dark brown silts and sands with a high organic content. The bottom layers (307-309, 311 and 316-318) were all horizontally stratified and rested on heavily gleyed natural sands and silts. They could have been the earliest fillings of the ditch but as a complete profile of the ditch could not be recovered, this cannot be confirmed. A number of large irregular stones were found within these layers but they did not form any consistent feature; however, they may suggest that construction in stone was taking place nearby.

The botanical evidence confirms that the lowest excavated fillings of the ditch (318 and 316) were water lain deposits which, on the basis of the species represented, appear to have been relatively unpolluted. Samples from the slightly later fillings (311, 309 and 307) imply that the ditch had become somewhat drier and that there was also a gradual increase in the amount of domestic refuse reaching the ditch.

Over these organic deposits two layers (306 and 312) of silt and clay with lenses of organic material had built up over a period of time. The main constituent of these two layers was sandy silt and would seem to indicate that the ditch was

beginning to silt up with natural soils eroded down from the sides. The presence of further gleying suggests that the ditch was once again wet.

Two possible stake-holes (321 and 322; not illustrated) were noted to the W of the fillings below the floor of the petrol tank foundations.

The initially clean ditch water followed by a gradually increasing rubbish content as suggested by the botanical evidence may account for the changes in the water level of the ditch. However, an alternative explanation for changes in water level may be that the main flow of water was being diverted down the N town lade, possibly to power mills. Unfortunately without a full ditch profile it is impossible to fully understand its use as a water channel.

PERIOD B : SECONDARY DITCH FILLINGS

These lenses of soil (301-305, 313-315 and 326-330) with the exception of the sand lenses, 302, 328, all contained varying amounts of mortar, ash and silt. They had been laid down in a cut across the top of the previous siltings (Period A) and may represent a widening of the ditch. On



ILL. 28 : 29-30 South Methven Street, N section of Area 3

the W side they are associated with a number of unmortared stones (330). For reasons of safety it was not possible to fully examine these stones but they may represent the base of a revetment to the outer edge of the widened ditch. The mortar does not seem to be connected with these stones which were not bonded, but such a substantial quantity of mortar would suggest that there had been major masonry constructions in the vicinity.

PERIOD C: FINAL FILLING

Disturbing the upper levels of mortar was a substantial deposit of rubble and sand (325) which in the E section of the area included a spread of roughly laid stones. What remained of the ditch was then filled in with a massive dump of garden soil (319, 323 and 324) which may be equivalent to the Period IV garden soil discovered in Areas 1 and 2.

DISCUSSION

This is the first and only excavation to date of a Perth suburb. The discovery of 15th-century occupation beyond the legal and defensive limits of the burgh is of considerable importance. However, the conditions under which the excavation had to be conducted, and the lack of any comparable evidence from elsewhere in the suburb, inevitably means that the excavation raises more questions than it answers.

Archaeological information from the site falls into two categories; the defences discovered in Area 3, and the occupation of the structures in Areas 1 and 2.

The W town ditch, part of which was discovered in Area 3, must have been a formidable defensive feature. It was about 5.0 m deep and with ample room for a width of up to 20.0 m before the first burgage plots of the High Street were constructed. The ditch was fed by a lade from the River Almond and subject to flooding and tides from the River Tay. There was no trace of a palisade or wall associated with the ditch. If such a feature was present, it would have lain under or on the E side of South Methven Street. However, the quantity of stone and mortar recovered from within the ditch may suggest that masonry work or demolition had taken place in the vicinity of this part of the ditch. Whether or not this debris relates to town walls, the port and bridge, or some other building work remains entirely unknown.

The 14th-century date attributed to the finds means that it is probable that the general line of the Area 3 ditch was that of the defences constructed at the command of Edward III in 1336 and paid for by the prior of Saint Andrews, and abbots of Lindores, Balmerino, Arbroath and Coupar Angus (*Chron Pluscarden*, IX, 219; *Chron Fordun*, II, 355). Moreover it seems likely that this was on the line of the defences noted in 1306 (*Chron Pluscarden*, IX, 177). How much earlier this line of defence came into use is far from clear. From documentary evidence Professor Duncan (1975, 468) has made a case for the burgh having two ports on this line as early as 1180 but this view has been questioned.

Although a 14th-century date has been suggested for the W ditch the other defences around the town were not necessarily constructed at the same time. The lade which supplied the water for the ditch may have been originally constructed to service the Kings Mills.

The occupation discovered in Areas 1 and 2 has been dated on the pottery evidence to the 15th century. However the stripping of top soil prior to the construction of S1 means this was not necessarily the first occupation in this part of the suburb. Nevertheless the lack of any residual pottery in and around these structures strongly suggests that this was the first significant occupation of the area. A 15th-century date is compatible with the majority of documentary references to settlement W of the town. References to the same property in 1330 and 1414 specifically mentioned Markarrow and Barkerrow respectively, and there is little doubt that the street now known as New Row was occupied in the 14th and 15th centuries (*Arbroath Liber*, 7, 8, 52, 107, 202, 361).

The name Barkerrow suggests the proximity of a tanning industry, however no evidence of tanning was recovered from Areas 1 and 2. Occupation of these areas in Period II and III may have been related to some other industry requiring a plentiful supply of water. The problems of date and location of the Kings Mills at Perth have already been noted, but the occurrence of surprising quantities of grain in and around S1 and S2 may suggest that the area was already involved with the working of grain by the 15th century, possibly in brewing. The repeated appearance of roofing tiles and in Period III masonry rubble may imply that larger buildings were on hand.

2:3 CANAL STREET II RM SPEARMAN

INTRODUCTION

The site lay on the S side of the medieval burgh between South Street and the town ditch and lade (NGR NO 118234). The original medieval properties had fronted onto South Street which remains the principle street in the area. However, during the second half of the 19th century domestic housing as well as a number of industrial yards were constructed along Canal Street, which was gradually being developed over the old town lade. Between these two streets the area from Ropemaker's Close to Cow Vennel had been designated for re-development. In the winter of 1978-79 a proposal for a multi-storey car park prompted a limited trial excavation (Canal Street I) immediately to the E of Ropemaker's Close (Blanchard 1983). The main purpose of that work was to sample the nature and depth of deposits in what was then a little understood part of the burgh. The majority of deposits were garden soils. During the medieval period these had been cut by numerous pits and in the 16th to 17th centuries a stone-founded building with yard was constructed (Blanchard 1983, 489-519).

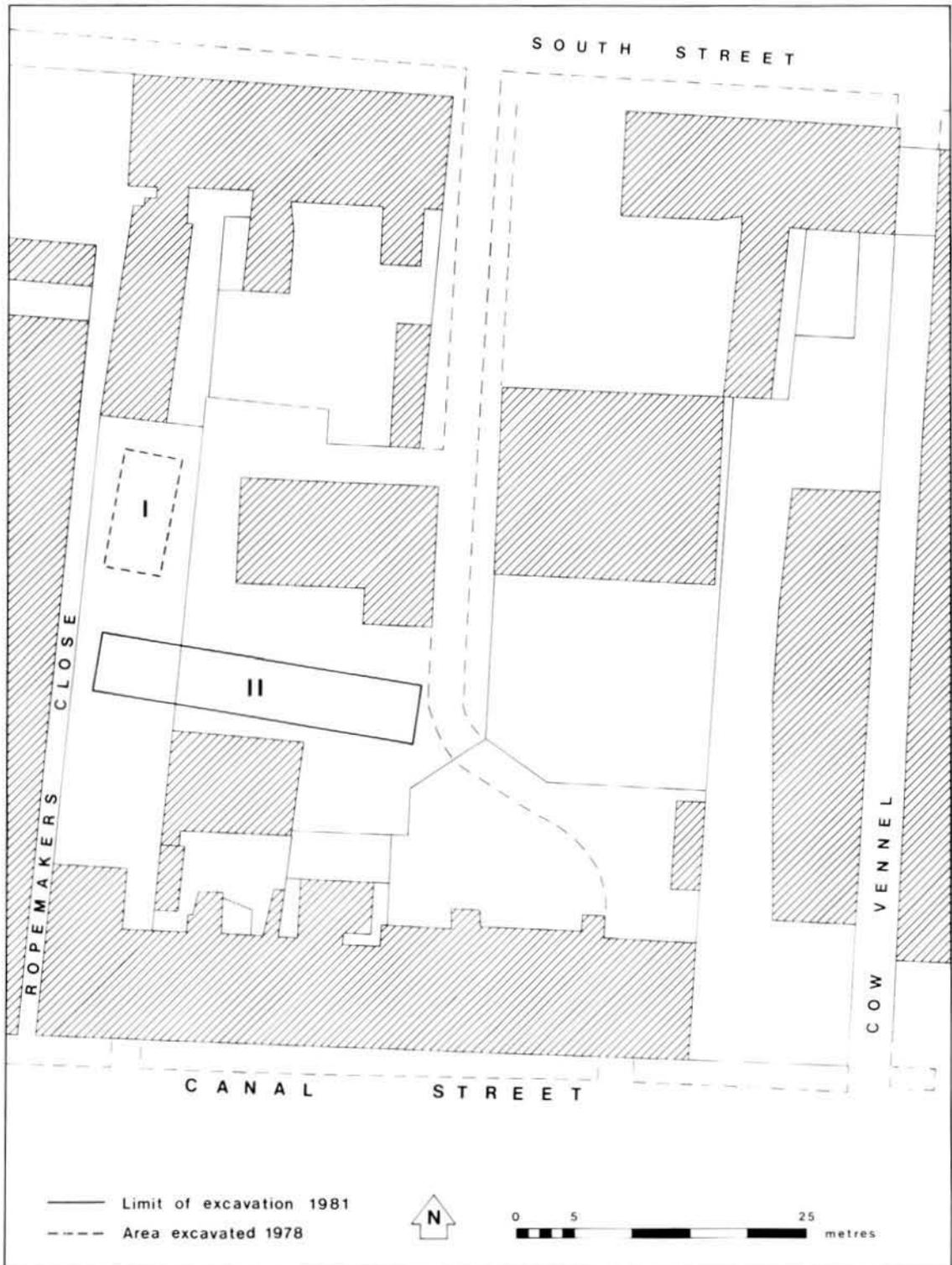
In 1980-81 the proposed car park was redesigned to include a supermarket and outline planning permission granted. Negotiations with the developers lead to permission for a programme of hurried excavations between 7th September and 20th November 1981. Adjacent buildings were surveyed by the Perth Building Survey.

The site archive is located in the National Monuments Record, and finds from the excavation are in Perth and Kinross Museum and Art Gallery. The drawings from the survey of adjacent buildings are in the National Monuments Record (PT 6062-5, PTD 344/1. PTR 3711).

HISTORICAL BACKGROUND

A major problem in understanding the early development and expansion of Perth lies in the dating and importance of South Street. The origins of this street are not clear although its presence is hinted at twice during the second half of the 12th century. The first was between 1165-1169 when North Street was specifically mentioned, suggesting perhaps the existence of a corresponding South Street (*St Andrews Liber*, no 213-16). The second reference of 1177-87 records the presence of a toft belonging to the Abbey of Arbroath 'between the two ports' which again suggests the existence of the now familiar double street system of North (High) Street and South Street (*Arbroath Liber*, no 10). The relationship of these two references to the 'New Burgh' of William the Lion mentioned in a charter (*RRS II*, no 278) of a slightly later date 1178-1191, is obviously impossible to prove from the documentary sources alone. The possibility exists that South Street was part of William the Lion's 'New Burgh' and this fits well with the first direct reference to South Street itself which is William son of Ketail's quit claim of 1211-1215 (*Scone Liber*, no 97).

It may be tentatively suggested then that South Street was in existence by the second half of the 12th century and it may have been laid out and occupied at the end of that century or at the beginning of the next. But these documents must be used with considerable caution and in any case show little of the actual process of occupation. It has not been possible to research the 13th/15th-century evidence for the occupation of South Street and instead work has concentrated on establishing a firm understanding of properties and occupiers in the late 16th and 17th centuries which, it is hoped,



ILL 29 : Location map of Canal Street II

will form the basis of work on earlier records (Smith and Spearman; *Report on the Rental Books of King James VI Hospital, Perth. 1891* Perth & Kinross District Archive).

Analysis firmly places the site in the group of twenty-five properties between Candlemaker's Close and Cow Vennel. By the 17th century the number of properties recorded by the time of the James VI Hospital Rentals had fallen to twenty indicating that some property amalgamation had taken place. Analysis of the cartographic evidence suggests that this was particularly evident around Ropemaker's Close which was probably an inserted feature.

A sample of the occupations of the inhabitants of these twenty properties in the late 16th and 17th centuries can be gleaned from the Rentals of the James VI Hospital which reveals that between Candlemaker's Close and Cow Vennel there are recorded: fifteen fleshers, eight maltmen, three merchants, three glovers, three tailors, two provosts, two burgh clerks, one dean of guild, one notary and one minister. The Rental books are a minimal sample, not an exhaustive record of burgesses, but it is interesting to note that the fleshers concentrated around Cow Vennel and the maltmen around Meal Vennel. The area of the excavation was the residence of the majority of the other professional people mentioned.

THE SITE (III 29)

The areas available for examination were determined by the requirements of the developer so that although part of the South Street frontage was threatened the demolition and building schedule made it impractical to excavate a shored trench in that area. It was therefore decided to excavate a section across several different properties, including part of Ropemaker's Close, followed by a trench examining the relationship of these properties to the south defences of the town. This was the first opportunity to check on an area where properties may have been amalgamated and where a right of way, Ropemaker's Close, might have been inserted into the town plan at a later date. Given the limited time available the success of such work relied heavily upon prior knowledge of soil conditions gained in the Canal Street I excavation.

It was intended that work should take place in two stages in the period between demolition and construction. The first to involve the sectioning of those properties E of Ropemaker's Close before the surrounding buildings were demolished, and the second the examination of the defences and Ropemaker's Close itself. The first stage of the excavation was completed on schedule, but at the end of that time the developers withdrew from their programme of work. Although Perth and Kinross District Council did go on to demolish the buildings the threat of disturbance of archaeological deposits no longer existed. It was therefore decided to postpone further excavation until the pattern of redevelopment in the area was clear.

The 1978-79 Canal Street I trial trench was positioned 5 m N of the 1981 excavation. Canal Street II was 28 m × 5 m and aligned across three known post-medieval properties. Initially a 0.5 m spit was removed, using a JCB with ditching bucket, to expose Victorian features which were then cleaned by hand and recorded as exposed. A further 0.5 m of post-medieval garden soil was then machined off at which depth the excavation proceeded by hand. For safety reasons the excavation was stepped in on all sides at this depth, reducing the hand excavated area to 26 m × 3 m. Natural subsoil was reached at a depth of about 2.2 m below the modern ground surface.

The original context and find accession numbers have been retained throughout this report. The context numbers used in the text always refer to a layer or the cut of a feature; a list of the fillings of each feature is contained in Table 57 mf (1: D1-5) and a full catalogue of features is available in Tables 12-56 (1: B5-C11). Context numbers were prefixed 2 to distinguish them from the Canal Street I contexts which were prefixed 1.

During the course of the excavation different plots were recognised; these were demarcated by features such as gullies which had been frequently recut hence destroying many of the stratigraphic relationships across the site. An added complication was that certain plots had undergone several changes of use whilst others had a single prolonged activity. To make the excavation report easier



ILL 30 : Canal Street II, general views, looking W

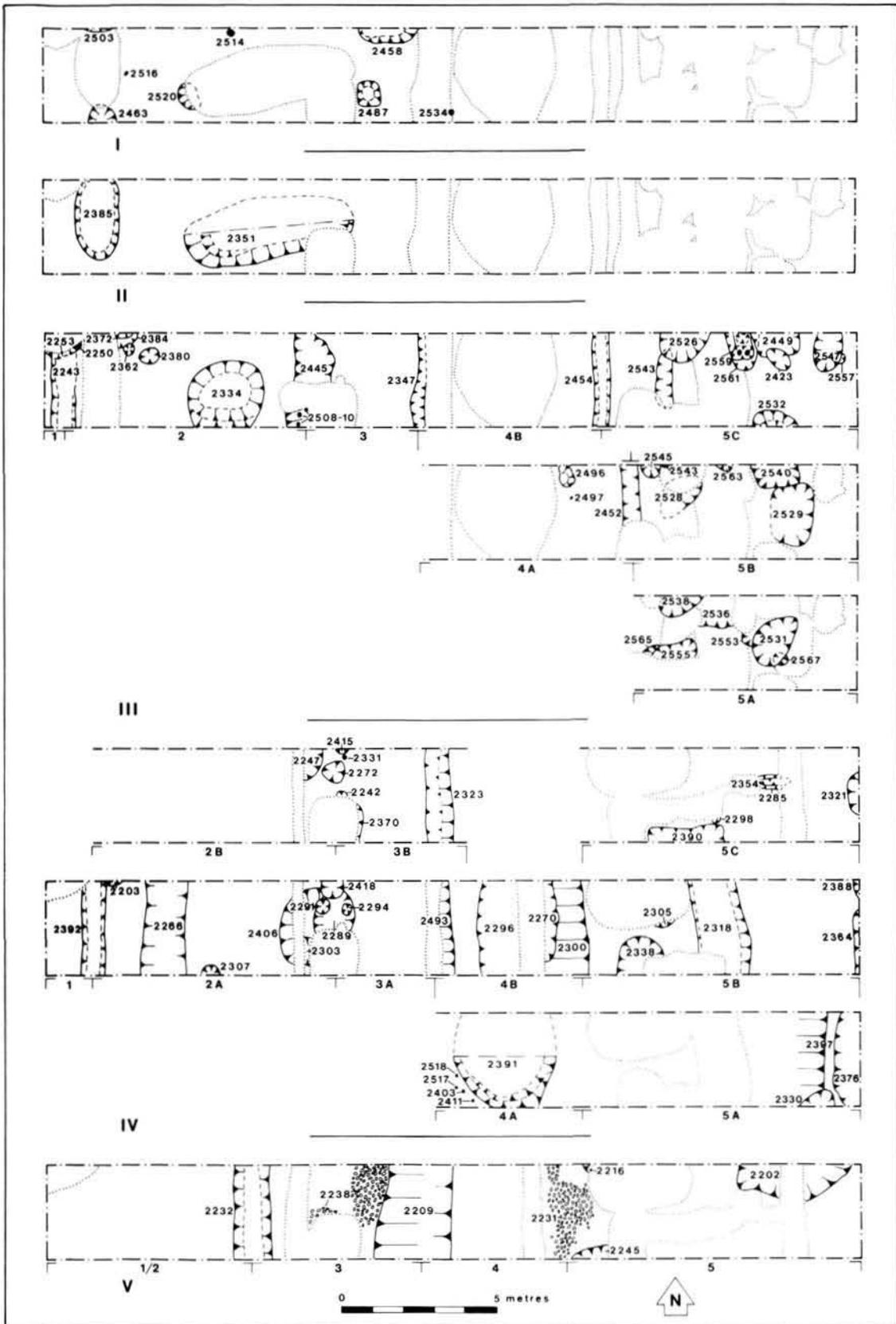
to understand individual plots have been described separately but within ten major cross site periods. Certain plots had discrete phases within the period divisions. As area boundary features relate to the plots on either side of them a convention has been established whereby only the E boundary is described within any plot. There are no boundary features in the first two periods of the site so that for Periods I and II there are no plot subdivisions.

It must be emphasised that the cross site period divisions from Period III onwards are only intended to provide a convenient means of comparing approximately contemporary activity across the site. The stratigraphical evidence for these period changes is summarized (Table 58 mf; 1: D6) and identifiable cross site connections are also recorded in the text and period matrices. Where distinctive soil units at the W end of the site allows comparison with the Canal Street I excavation, these have also been recorded (Table 58 mf; 1: D6 and in the text).

THE EXCAVATION

PERIOD I : SUMMARY (Ill 31)

Surviving the cuts of later deep features were isolated islands of old ground surface. This soil was mixed in with the natural sand and clay subsoil suggesting root action and possible spade, rather than ard, cultivation. Appearing in the natural were a number of posts and pits indicating early structures and occupation.



ILL 31 : Canal Street II, plan of Periods I-V

The appearance of natural in this trench was very similar to that found in the 1978 trial excavation (Blanchard 1983). In that excavation deliberate stripping of top soil was suspected as natural and all primary features were sealed by a distinctive layer of ash so that no trace of a natural soil profile survived. Comparable ash was absent from Canal Street II as a separate layer, although such ash was present in the Period II features. It is not possible, therefore, to determine whether or not top soil had been stripped from Canal Street II also as the absence of a natural soil profile may simply have been the result of later tillage of the old ground surface.

Timber related features were discovered in Phase I of the 1978 trial excavation giving an impression of limited occupation of light structures and early agriculture. Dating evidence was absent from Canal Street I and in Canal Street II limited to one fragment of pottery from the latest filling of a feature (2463) and two sherds from the top of a post-hole (2534) which are ascribed to the 12th or 13th century.

PERIOD I : STRATIGRAPHY

As a result of numerous deep features cut from later levels only isolated islands of possible old ground surfaces survived. These consisted of clay loam mixed to varying degrees with the natural subsoil of sand and clay. The patchy nature of this mixture suggested more than just the root action which was apparent. No clear ard marks were discovered although possible spade cuts were noted.

Exposed in the natural were a number of features which may have been truncated by later features and cultivation. In the E half of the site these truncated features were so fragmentary and intercutting that any evidence for their original level of excavation had long since been removed.

Demonstrably early features at the E end of the excavation have been discussed under Period II. The fragmentary features in the E end of the site are discussed under Period III; in theory the stratigraphic evidence does not allow them to be securely placed in Period II.

Near the W end of the trench two features (2463 and 2503) were excavated against the S and N edges of the site respectively. Both were filled with dirty natural silts and clays flecked with charcoal. The level from which they were cut was obscured by a Period II pit (2385). As only part of these

features were excavated it is difficult to be certain about their type and function. They may have been pits comparable to the Period II examples which in turn cut them. The position of these features may be significant and this is discussed under Period II.

To the E of these two features were a number of possible post-holes and driven posts. Two sub-rectangular features (2487 and 2520) were filled with compact silty clay. The former of these contained a robber trench (2456). The second feature (2520) was cut away to the NE and retained no evidence of a later internal cut. Both features appear to have been for posts which, in the case of 2487 at least had been removed. Three further posts (2514, 2516 and 2534) were also uncovered directly on natural in this part of the site. These had no feature cuts and they had been driven directly into the ground. Possibly related to these features was a shallow cut (2458) against the N edge of excavation. This was filled with compact silty clay, similar to that in post-holes 2487 and 2520. The position of this feature makes its interpretation difficult, although it is possibly a setting for a stone or short timber beam.

PERIOD II : SUMMARY (Ill 31)

Cultivation resulted in a slightly greater depth of tilled soil which sealed and possibly truncated the timber related features of Period I. Dug through this soil were two large pits.

Evidence for occupation during this period comes from the artefacts and food debris in the two pits. No structural remains were noted. The ash from the pits is of importance as it helps to relate the stratification of Canal Street I and II. Similar ash was discovered as a layer in Canal Street I (1197) Period II. That this ash only survived in the two pits of Canal Street II may be explained by subsequent cultivation in the area of the excavation during Period III. As noted in the discussion of Period I, however, the absence of a general layer of ash sealing the Period I features means that it is impossible to determine whether or not the old ground surface had been truncated.

Dating of these levels to the 13th century in Canal Street I rested upon North French and Scarborough wares from pits at the end of Period II. Only one non-diagnostic sherd of White Gritty pottery came from the ash layer 1197. A 13th-century date might have been put on the few sherds of White Gritty and Perth Local pottery recovered from the fill layers of this period and the later silting of the two large pits. But in the primary fillings of both pits were two sherds of possibly 12th to 14th-century date (Pottery Catalogue 354). Hence although the cultivated soils and later fillings of the pits contained later pottery the original digging of these might possibly be as early as 12th century.

PERIOD II : STRATIGRAPHY

A slightly humic sandy clay (2273, 2377, 2450, 2502, 2523 and 2541) survived as patches across the whole site with an average depth of about 0.1 m. Incorporated into this material were flecks of natural clay subsoil. This soil appears to have been cultivated and not only sealed features of the previous period but may have resulted in their truncation.

Dug though layers 2377 and 2502 were two pits (2351 and 2385). Pit 2351 was a large feature which had suffered some erosion of its sides. Its primary filling consisted of substantial quantities of collapsed and washed down natural. The later fillings were lenses of fine ash interspersed with further silted natural. The fine ash incorporated small amounts of domestic rubbish and carbonized food and there were in addition one fragment of metalworking debris and a piece of clay mould. The sterility of the primary filling of this pit makes it difficult to be certain of its original purpose. It was open for some time before any debris started to accumulate and its original use may have been as a quarry for natural sands and gravels.

The sides of pit 2385 were also eroded. There were no major collapses but the primary filling of the pit was clean natural. This was followed by a complex sequence of brown ash lenses above which were clean sands and silts. Botanical analysis of the ash lenses indicated, as with pit 2351, the presence of carbonized food and also in this case of burnt peat.

The position of the pit may have been significant when considered in conjunction with the two Period I pits (2463 and 2503) which it cuts, for this feature reflects the position of gullies dug at the beginning of Period III (2243) and Period IV (2392). This may be more than a chance connection and too little of the Period I pit was recovered to confirm a pit alignment. Nor did any alignment of early pits appear in Canal Street I so this pit may have been another quarry for natural sand and clay. The primary filling of 2385 was a clean sandy silt unlike the two Period I pits (2463 and 2503) which contained charcoal flecks.

PERIOD III : SUMMARY (Ill 31)

During Period III a number of gullies were dug aligned N-S at intervals of about 7.0 m, except one which was 3.5 m from its neighbours. As explained in the introduction these gullies were re-dug or replaced in approximately the same positions during the subsequent history of the site. They are discussed under the description of the area to the W.

The gullies subdividing the site appear to have been dug, with the exception of replacement gully 2454, either at the same time, or in close succession. When allowances are made for their different degrees of erosion and truncation they are all of similar size and, in so far as a three metre length can indicate, of parallel alignment. Gully 2452 between Plots 4 and 5 had limited erosion and silting, so it must have been backfilled soon after its original excavation. As such, its width, 0.7 m, is probably the most representative of the original widths of these gullies. The spacing of the gullies is also quite regular: Plots 2, 4 and 5 originally being 7 m wide and Plot 3 being about 3.5 m wide.

The concentration of activity in Plot 5 during this period is such that for simplification of description it has been divided into three phases (A, B and C). The pattern of occupation was, however, continuous. The main features were numerous intercutting pits in which only rarely did any depth of filling survive undisturbed. Where the fillings remained they were typically first a degree of natural subsoil silting, sometimes followed by lenses of dark humic silt, and then a dump of loam, often mixed with re-excavated material. The pits seem to have been for the disposal of domestic rubbish and possibly cess.

Interspersed amongst these pits were a number of post-holes and slots which had contained timbers. In some cases these structural features were contemporary with adjoining pits, as for instance, slot 2543 and pit 2526, in Plot 5, phase C.

The relationship between activity in Plot 5 and the boundary gullies 2452 and then 2454 is of considerable interest. At least part of the phase A occupation in what was to become Plot 5 predates the laying out of the gullies. Hence when gully 2452 was dug it soon seems to have been relocated further W. This would be in favour of the occupiers of Plot 5 and to the detriment of anybody in Plot 4.

The dating of this period and especially of Plot 5 is difficult. Cultivation of the areas both in this period and later means that any finds from general layers are possibly intrusive. As these garden loams are also the main pottery bearing fillings of the gullies, few finds from these features can be regarded as well stratified. The time span represented by the intercutting pits of Plot 5 is also difficult to judge with no good stratigraphic subdivision and a potentially high degree of re-deposited finds. Moreover, once again, a major constituent of these pit fillings was garden loam. Pottery dating is therefore restricted to a small number of sherds from primary siltings which give a basic 13th-century date. In contrast the bulk of pottery from the period gives a 14th-century date. The date

of the original laying out of the gullies, however, remains a problem, but this may have taken place in the late 13th century.

Another notable group of finds from this period includes the metalworking mould and slag fragments from Plots 2, 3 and 5. These are fully discussed in the metalworking debris report (5:14). The occurrence of a small quantity of such debris from the Period II pit (2351) may suggest that there was continuity of metalworking between Periods II and III. There may have been little passage of time between the filling in of the Period II pit and the start of Period III, with sinkage into the pit continuing during Period III.

PERIOD III : STRATIGRAPHY

PLOT 1

The gully which marked the E limit of Plot 1 was to move further to the E in later periods. During Period III the size of Plot 1 was therefore smaller than in later periods. A gully (2243) ran along the W edge of excavation. This was disturbed to the E by a subsequent gully and partially truncated by later cultivation. Only its primary silting survived, which was a mixture of natural subsoil and slightly more humic cultivated soils. The N end of this gully which was badly disturbed by a much later pit, cut through two features (2250 and 2253). Feature 2253 was slightly wider than the gully but filled with the same mixture of silts. Cut into this feature was a post-hole (2250) filled with a slightly coarser silt. All these features had similar fillings. Although Feature 2253 may have been the remains of an earlier pit, a more likely explanation, in view of the close connection between the filling of this feature and the gully is that it was only a slight widening of the gully. Despite the silting of the sides of both the pit and the gully, they do not appear to have been water-filled.

PLOT 2

The large pit of the previous period (2351) was sealed by a slightly humic loam (2349) which may be compared to Layer 2368, in Plot 3 of this period. Cut through Layer 2349 was a gully (2445/2489), which formed the E boundary of Plot 2, and was some 7 m from the W boundary gully (2243). Due to sinkage into the earlier pit (2351) and because of later intrusive features, the centre and E side of the gully (2445/2489) had been destroyed. What remained of its primary filling was a silt derived from natural subsoil, followed in the N half of the gully by silt and collapsed loams. Three stake-holes (2508-2510) were noted in the S half of this gully. Further possible stake-holes existed in the N half but could not be positively identified because the floor and sides of the gully had slumped. It seems that after the silting up of this gully its line was maintained by means of a light fence.

Within Plot 2, continued sinkage into the earlier pit (2351) resulted in a hollow (2334) which was partially infilled with a compact layer of silty clay and pebbles. This was followed by a covering of more humic loam which later cultivation blended with the general area layer (2349).

Against the N edge of excavation was a post-hole (2384) containing a post-pipe (2372). This feature was cut away to the W by a later gully and to the S by a contemporary post-hole (2362). No post-pipe remained in this latter post-hole as two stones used for packing had collapsed during the removal or rotting of the post. A neighbouring shallow feature (2380) possibly a post-pad, may have been associated with these two posts. It was filled with a slightly more compact and lightly coloured loam than the surrounding deposit.

PLOT 3

Features of Period II were sealed by a slightly humic cultivated loam (2368) comparable to 2349 in Plot 2. Cut through this layer was a gully (2347). This feature formed the E boundary of Plot 3 some 3.5 m from the gully to its W (2445/2489). The NE side of Gully 2347 was destroyed by a later gully while its full depth had been truncated by subsequent cultivation. Its primary filling consisted of silted natural subsoil with pockets of humic loam that had collapsed from the sides of the gully.

PLOT 4A

Cut into the cultivation soil of Period II was a gully (2452) which formed the E boundary of Plot 4 during phase A of this period. This gully was located about 7.0 m from the W boundary gully of the area (2347). On its E side this gully cut a Plot 5 pit (Period III, phase A, Pit 2555). The filling of this gully was unusual in that it was not the result of silting but a single compact dirty loam flecked with clay. The gully seems to have been filled in shortly after its original excavation.

Within the area defined by these two gullies was a post-hole (2496) near the N edge of excavation. No post-pipe survived and a slight disturbance to the N may have been the result of the removal of the post. Just S of this post-hole was a stake-hole (2497). Both of these features were truncated by cultivation of the area in phase B of this period.

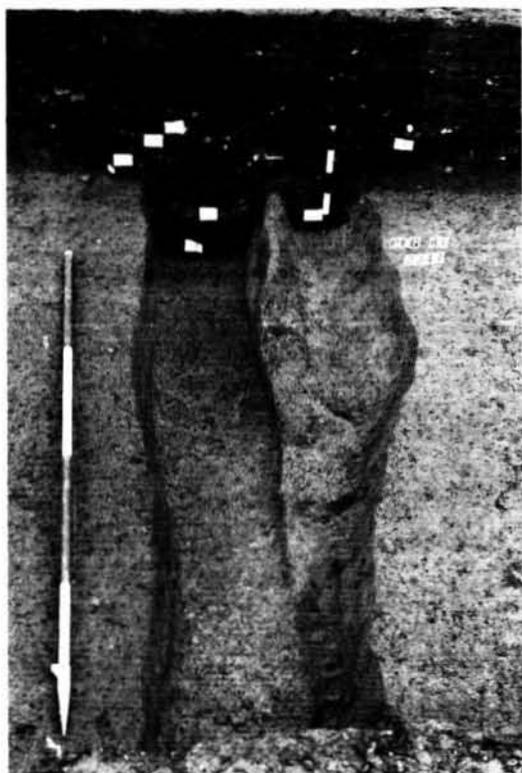
PLOT 4B

The rapid and possibly deliberate filling of Gully 2452 was followed by the digging of a new gully (2454) 1.0 m further W. The primary filling of this gully was the more usual silting of natural subsoil followed by the silting and collapse of more humic soil. The only activity within the area during this phase was cultivation resulting in a layer of humic loam (2421) which truncated the internal features of Plot 4, phase A.

PLOT 5A

Only isolated patches of the earlier cultivation layer (2541) survived the repeated digging of pits in this area. The features of the phase survived only as basal remnants and were in turn cut by phase B and C features of this period. The level from which these features were dug is therefore unknown. It is possible that some of the features of this phase belong to Period II rather than Period III, but they have been assigned to Period III.

Dug from a higher level into the natural subsoil was a possible post-hole (2553). The filling of the feature was a



ILL 32 : Canal Street II, Feature 2347, a gully, Plot 3, looking S; Period III

mixture of charcoal-flecked silty clay and loam. No post impression remained. Slightly SE of this post-hole was a similar feature (2567) with a filling of silt derived from the surrounding natural. Both of these possible post-holes were partly cut away by the bottom of a pit (2531) filled with a dirty sandy natural followed by lenses of dark silty clay.

To the NW of these features was the base of a further possible pit (2536) extending beyond the N edge of excavation. This pit was heavily truncated and cut away to the E and W by later features. What fillings remained consisted of lenses of dark silty clay.

To the SW of this pit two more features (2555 and 2565) appeared in the truncated natural. Pit 2555 cut away the W side of 2565, and both were cut away to the S by later pits. Both features were filled with silted natural and humic loam. The angle of the silting in Feature 2565 indicated that this was also once part of a larger feature such as a pit.

N of these two features was another pit bottom (2538) extending N beyond the area of excavation. Again, only the lowest filling of the pit survived, a sandy silt flecked with clay.

PLOT 5B

No evidence of any gully to partner that of the W limit of the area was recovered. The E edge of excavation was, however, about 7.0 m from the original W boundary gully (2452) and any E boundary may have lain outwith the trench. The intensity of occupation during phase B was similar to that during phase A.

A pit (2529) cut through the E part of a phase A pit (2531) and post-hole (2567). Only the lower part of this pit survived, filled with horizontal lenses of loam and silted subsoil which became increasingly charcoal-flecked. Immediately N of Pit 2531 was another pit (2540) which

extended N beyond the area of excavation. Truncated by later features, its remaining fillings were composed of dark lenses of charcoal-flecked loam and silted subsoil.

W of this pit was a possible post-hole (2563) which continued N beyond the area of excavation. This was dug into an earlier phase A pit (2536). Its filling was a mixture of lenses of loam and natural subsoil. No evidence for any post-pipe existed and a slight step in the W side of the features may indicate that any post had been removed. S of this possible post-hole was a narrow slot (2569). This was filled with a dark charcoal-flecked loam. The depth of these two cuts may indicate that they were the remains of large features.

NW of this slot was a further pit (2528). This was cut away by later features to the N and W so that little of its original shape survived. Its remaining depth was filled with a dark loam flecked with natural clay. Three mortared stones were recovered from this pit. N of this pit were two features (2543 and 2545) which continued beyond the N edge of excavation. Feature 2543 cut the E edge of the earlier feature (2545). Both were filled with dark loam and silted natural subsoil.

PLOT 5C

Against the S edge of the trench was a pit (2532) with a primary filling of mixed loam and natural clay. The secondary filling of the pit was a dump of cleaner loam.

NW of the pit (2532) was a slot (2491) aligned N-S which was cut away to the N and S by later pits. Its original length is unknown. The feature was filled with a gravelly loam. Immediately N of the slot was another pit (2526) which continued beyond the N edge of excavation. The filling of this plot also consisted of lenses of dark loam and clay with a number of small pebbles (about 20% of the filling). The basic similarity of the filling of these two features may indicate that they were related, but any firm stratigraphical relationships had been destroyed.

E of these two features was an irregular feature (2561) extending S from the N edge of excavation. In the base of this feature was a slot (2529) aligned N-S and filled with a very compact dark loam. It retained at its S end, two post pipes of 0.16 m diameter. A possible third post may have been removed from against the N edge of excavation where the base and filling of the slot were disturbed. The filling of the main feature (2561) was a lighter loam with lenses of silting. It seems likely, therefore, that this represents the construction (2559) and removal (2561) of a length of fencing.

Destroying the E side of the removal cut (2561) was another pit (2449/2586) which extended beyond the N edge of excavation. The pit was filled with a large dump of loam and some silting of natural on its E side. Cutting the S side of this pit was a possible post-hole (2423). No sign of any post-pipe remained and the feature had been filled with a compact clay loam.

E of the previous pit were a pit and post-hole (2547 and 2557). The post-hole (2557) was filled with clay-flecked loam with no sign of a post-pipe. The W side of the post-hole was cut away by Pit 2547, which extended S from the N edge of excavation. The primary filling of the pit was a silting of natural subsoil followed by a dark humic silt. This was in turn sealed by further natural sands and clay with a final dump of loam.

The later features of this phase were cut through a deposit of mixed soil which itself sealed earlier features. This deposit consisted of the upcast of numerous earlier features such that the upper edges of features dug through it were difficult to identify. The area was further disturbed by cultivation. After attempting to dig these soils stratigraphically they were finally removed in a series of shallow spits. (In the W side of Plot 5, these spits were numbered, 2477, 2512, in the central area, 2419, 2420, 2447 and in the E side, 2462, 2494).

PERIOD IV : SUMMARY (Ill 31)

During Period IV, the Period III gullies were replaced resulting in a shift of Plots 2 and 3 about 1 m E, while Plot 5 in contrast shifted about 1 m W, thus reducing the width of Plot 4 to about 5 m. The re-digging of the gullies on either side of Plot 3 resulted in Plots 2 and 3 being divided into phases A and B. A massive pit or well in Plot 4 predated the Period IV digging of the boundaries for that area so that the pit is phased A with the gullies being phased B. Similarly the digging and re-digging of the E boundary of Plot 5 and the appearance of major intercutting features within the area have resulted in Plot 5 being divided into Phases A, B and C during this period.

In all areas the transition from Period III to IV was marked by some form of cultivation. In Plot 4 there was also a major quarry pit or well. The size of this feature negated the need for any boundary markers and these do not appear until the next phase of this period when cultivation was resumed in Plot 4.

In the early stages of this period even Plot 5 was given over to cultivation. Interestingly, it is during this phase of relative inactivity that the E boundary to Plot 5 was observable within the excavated area. With a subsequent return to more intense usage later in this period the E boundary moved further to the E so that it lay outwith the excavated area. Activity in Plot 5 during phase B involved the casting of non-ferrous metals. Numerous fragments of slag, scrap metal and broken moulds from the casting of large vessels were recovered. Although no furnaces were recovered there was a large amount of burnt debris in Plot 5, phase B. It seems likely that the large trench-like feature (2318) with its heavily trampled ash floor was used in this work but no explanation has been found for its detailed function.

The mould fragments and slags from Plot 5, phase C, may be residual from the previous phase in that area. However, the presence of structural features as well as a major clay lined tank, indicated that Plot 5 was still being intensively occupied.

The cultivation of all of these areas at some time during this period and later, means that the problems of dating layers and associated features first noted in the discussion of Period III, continues with a possibly high degree of contamination from both earlier and later periods. The pottery from this period has been placed in the mid-to-late 14th century and it might be safest to take a late 14th-century date as a terminal date for Period IV.

It appears that after a period of relative quiet in which the original boundary gullies had all but disappeared, the properties were carefully re-defined. Associated with this new lease of life it is interesting to note that there begins a general increase in the number of finds from this period on, suggesting a possible increase in the material wealth of the inhabitants of this part of Perth. It should be noted that the use of land purely for cultivation is no real guide to the success or failure of the land occupiers, as the presence or absence of modern gardens indicated.

PERIOD IV : STRATIGRAPHY

PLOT 1

The previous gully (2243) had become silted over and finally sealed with a layer of tilled soil and midden (2180). Cut through this layer, just E of its predecessor, was a new gully (2392). To its E this gully dug through the main tilled loam of Plot 2 (2179). The primary filling of the gully was a dark silt which botanical analysis has indicated could be unstructured, decomposed organic material (see 6:3 Botanical Report). This was covered with a build up of less humic silts followed by larger units of collapsed loam comparable to Layers 2180 and 2179 on either side of the gully. This resulted in an increase in width for the upper levels of the gully to 1.2 m. This seems to have been caused by cultivation at the edges of the features rather than just gradual silting.

This gully overlies and respects the much earlier pit alignment discussed in Periods I and II. It also aligns well

with the gully (1266) excavated in Canal Street I to the N and which was placed in Period III.

PLOT 2A

The previous period was sealed in this area by a substantial 0.25 m depth of tilled loam and midden (2179, 2281 and 2292). The E gully of the area was replaced by a boundary fence slightly further E. The position of the new boundary matched the E shift of the W gully of Plot 2, so that the area maintained its 7 m width (W boundary discussed under Plot 1). As had been the case at the end of Period III, the boundary between Plots 2 and 3 was again constructed from timber. Unfortunately the S half of this was largely removed by a later pit. In the filling of the Period III gully was a series of intermittent shallow depressions cut by two Period IV post-

holes (2291 and 2294). Each post-hole was filled with a loose loam.

Another post-hole on the Period IV boundary line was 2418 which extended beyond the area of excavation. This was filled with a dark charcoal-flecked silt followed by two fillings of heavy clay-flecked loam. No trace of any post-pipe fell within the excavated portion of this feature. The possibility, must, therefore remain that this was in fact only the end of an open slot, extending N, which had been eventually back-filled. However, in view of the fact that neither 2291 nor 2294 contained post-pipes, 2418 is most likely a post-hole. The shallow depressions (2406, 2289 and 2303) were the result of the slumping of the Period III gully into a Period II pit (2351).

Within Plot 2 the main feature was a rough hollow (2266) aligned N-S on the W side of the area. The hollow was filled with a loam flecked with burnt clay containing mortar in its upper 0.1 m. There was, however, no clear cut for this feature and it may be that this represents the tillage into the general layer of loam of a dump of burnt clay and mortar. If so, it is notable that the tillage of such soils could result in disturbance of the ground to a depth of up to 0.3 m. Equally, therefore, it could be the near total destruction of a feature of less than 0.3 m depth.

Two other features (2203 and 2307) survived on either side of this hollow. They were both filled with a silted loam. The first of these to the W of the hollow lay against the N edge of excavation above where a post (2384) had been erected in the previous period. It seems likely that a post had continued in use from the previous period while the tilled loams which divide the two periods built up around it. The base of the post rotted *in situ* leaving a ghost outline (see Period III above) and the remainder was removed in this period resulting in 2203. The second feature (2307) lay to the E of the hollow against the S edge of excavation. While no clear evidence as to its function remained, it may also have been the result of the removal of a post.

PLOT 2B

Dug into the filling of the Period III E boundary to Plot 2 was a series of features. The northernmost of this series was a post-hole (2415) filled with a clay-flecked loam and having no trace of any post-pipe. S of it was a stake-hole (2331) which had rotted *in situ* and further S was a post-hole (2272) filled with clay-flecked loam and also a sizeable stone, 0.22 m across, which may originally have been part of a post-packing. Completing this line of posts was another post-hole (2242) which was filled with a dark charcoal-flecked silt.

Possibly related to these features was an indeterminate feature (2370) filled with silty sand, which had largely been destroyed by a later pit. Along with the post-hole (2242) and stake-hole (2331) it had been cut from the general tilled layer of Plot 3, phase B (2278) and possibly related to a repair of the E boundary of Plot 2.

Within Plot 2 at this time was another indeterminate feature (2247) filled with a loose pebbly loam. The feature continued beyond the N edge of excavation and its W side was removed by a later feature. Its function remains unknown.

PLOT 3A

Features of the previous period were sealed by a substantial build-up of tilled loam. This soil was removed in two spits, the lower of which (2308) has been designated phase A and the upper (2278) phase B.

A new gully (2493) was dug immediately E of the Period III E boundary to Plot 3. This was not as great a shift as took place with the W boundary of this area in Period III and the joint effect was to slightly reduce the width of Plot

3 to 3 m. The W side of this gully, and hence its relationship with the internal layers of Plot 3, had been removed by the subsequent phase B gully of this period. To the E, Gully 2493 cut the main layer (2314) of Plot 4, phase B in this period. Gully 2493 was filled with silted natural subsoil and in its N quarter some darker loam.

PLOT 3B

The E boundary of Plot 3 was replaced slightly to the W by a new gully (2323) effectively reducing the width of Plot 3. Because the W side of 2323 had been removed by a later feature there was no clear relationship between 2323 and the layer of loam within Plot 3. The primary fillings of this gully (2323) were of dark silt, including some clay and small fragments of rotted stone. This was followed by a cleaner deposit of natural clay with lenses of darker silt. The gully was then broadened to the E, so returning to the line of 2493. This re-cut was filled with loam.

PLOT 4A

There were no remains of any gullies defining Plot 4 during this phase of Period IV. The area was entirely occupied by a large pit (2391) dug through a garden loam (2400). For reasons of safety and also because of the time involved only the S half of this feature was excavated and of this only the SE quadrant was fully emptied. Its primary fillings were almost wholly composed of natural subsoil which had collapsed and washed down from the sides of the feature. Within these sands and silts were small quantities of more organic debris which botanical analysis has revealed to be debris from a largely peat-fuelled fire. In addition there were a few wetland plant species. Subsequent fillings were also largely composed of natural subsoil although with lenses of loam that were most probably derived from the surrounding tilled soils (2400).

As the pit was only partially excavated any interpretation is tentative. Its plan area had almost certainly been increased by the weathering back of edges, as demonstrated by the quantity of natural soils in the filling. The original profile of the feature must then have been lost, despite the apparently clean and often vertical edge excavated in the S half of the feature. Some explanation of this curious situation and possibly of the original profile of the feature was found in its filling. Several complete blocks of lensed natural were excavated near the base of the feature lying at right angles to their original bedding planes which could be seen in the side of the feature. They had become detached from the sides of the feature and fallen through 90 degrees into the pit. This implies that the pit had been bell-shaped allowing the side to collapse in blocks back to a vertical edge. Although this profile may have been the result of differential weathering from water percolation, the same effect would have been achieved by the deliberate quarrying of the sands found at the lower levels of the pit. The presence of water on the bottom of the feature at 2.3 m OD, raises the alternative interpretation that this was a crude well, but while this may have been a secondary function of the feature it seems more likely that this was primarily a quarry pit.

Around the SW quadrant of the pit were four stake-holes (2403, 2511, 2517 and 2518). Any other stake-holes to the SE of the pit may not have survived the erosion of the pit edges while yet others may have existed below sinkage fillings on the N half of the feature. The stake-holes may represent an attempt to fence off the pit.

PLOT 4B

The E boundary of this area was formed by a much disturbed gully (2300) the remaining filling of which was a silty clay.

The W side of this gully was destroyed by sinkage into the phase A pit of this period (2391). To the E, the gully cut the main loam layer of (2374) Plot 5, phase B. The location of this gully was about 1.0 m W of its predecessor in Period III, which, with the E shift of the area's W boundary, had the effect of reducing the width of the property from about 7.0 m to about 5.0 m.

Within the area there was major subsidence into the previous period pit (2391). The E and W sides of this subsidence were numbered 2270 and 2296 respectively. The loam (2296) blended with another layer of loam (2314) suggesting, as did the rough N-S alignment of the subsidence soils, that tillage had begun in phase B despite the uneven ground level.

PLOT 5A

The mixed soils and features of the previous period were sealed by a series of cultivated loams, the lowest of which (2397 and 2408) formed a N-S band along the E side of the area. Dug through these loams was the E boundary gully of Plot 5 (2376) which ran along the E edge of excavation. This gully provides the first definite width for Plot 5, which, with the W shift of the gully between Plots 4 and 5 was 8.0 m. The filling of gully 2376 consisted of a mixture of collapsed loam and silts.

Contemporary with this gully was a small pit (2330) filled with clay, bone and charcoal-flecked silts. The main soil matrix for both of these features was clearly the cultivation loams of Plot 5 itself. The band of loam (2397 and 2408) referred to above, seemed to separate the main section of cultivated soil in Plot 5 (2356 and 2375) to the W from the gully 2376 which was sealed with a slightly different loam (2348). The loam band (2397 and 2408) may represent a change in the cultivation of Plot 5 with this strip of ground being used for a path.

PLOT 5B

The E boundary of this area was possibly re-dug during this phase with two deep slots (2364 and 2388) almost flush with the E edge of excavation being all that was recovered. These two features were both filled with a dark loose loam heavily flecked with charcoal. If these features were the remains of the E boundary of Plot 5 then the area had been enlarged once again.

Within Plot 5, continued cultivation resulted in loams (2342 and 2374) over which was spread a layer of charcoal and coal debris (2587). A large trench (2318) was cut through these layers. The primary fillings of this trench consisted of 0.4 m of compact lenses of silt mixed with large quantities of coal, charcoal, ash and clay. The base of the trench was flat and the appearance was, therefore, of a heavily trampled work floor, with these lenses only slightly built up against the E and W sides of the trench. Botanical analysis of these ashes indicated only minimal carbonized domestic debris. Subsequent fillings also contained a high proportion of burnt ash and charcoal, but were in the main clays and silts. The final filling was a mixture similar to the primary filling and may represent a second period of use or, more probably, a deliberate cleaning up of the area with any surrounding debris being used to make up the surface of the trench.

A similar range of fillings was recovered from a pit (2338) against the S edge of the site. Its primary filling was composed of a charcoal and organic silt, flecked with clay and pebbles as well as several large stones. Botanical analysis of this material indicated a slightly higher proportion of domestic to industrial debris than was the case in Trench 2318. This was followed by a dump of ash and silt apparently tipped in from the N. A cleaner silting then followed and finally,

as with the trench above, there was a filling of dirty charcoal-stained loam.

A smaller feature (2305), cut away to the N by a later pit, survived in the centre of Plot 5. This may have been a post hole, but too little remained for positive identification. Its filling consisted of further charcoal-stained loam, flecked with burnt clay.

PLOT 5C

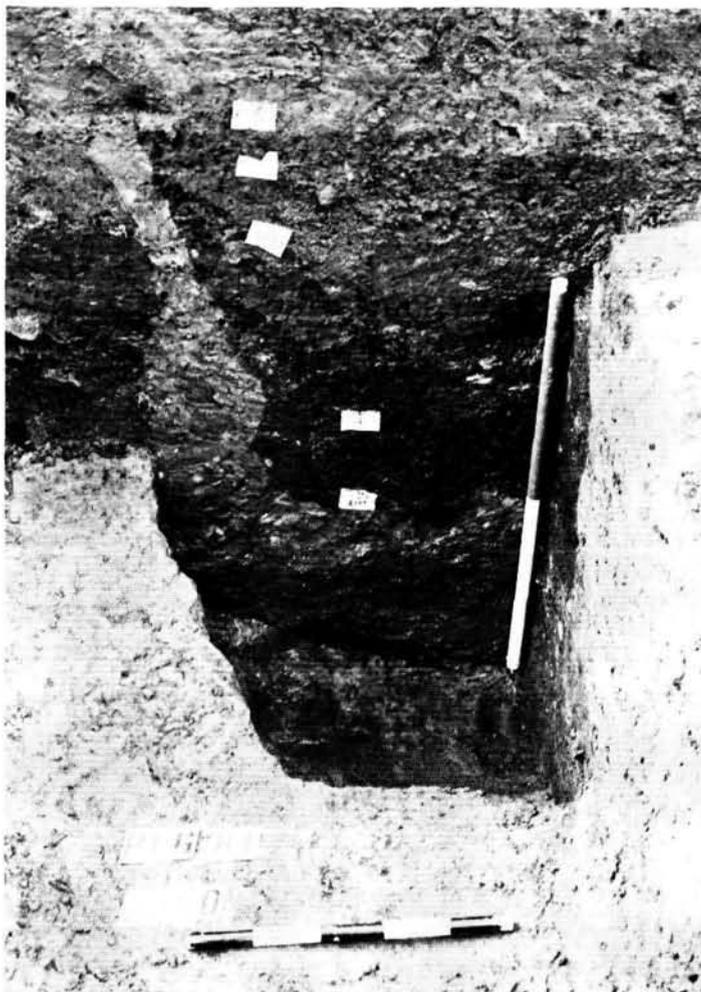
The previous features were sealed by layers (2263, 2268 and 2301) which consisted of dark charcoal, ash and burnt clay-flecked loam. These layers were disturbed by contemporary and later features so that they survived only as isolated units of soil. Moreover it is likely that they were part of a patchy levelling up of Plot 5 rather than continuous periods across the whole area.

No clear trace of the E boundary to Plot 5 was recovered during this phase, and the previous gully had been buried by Layer 2301. The only feature in this phase which overlay the line of the earlier gullies was an indeterminate feature (2321). This feature was filled with a sandy silt which included, as with the associated layers, a number of burnt clay fragments and charcoal flecks. So little of the feature was recovered that its function could not be determined. Whether or not this feature was part of the E boundary of Plot 5, it appears that the plot width was being increased.

The main feature within Plot 5 during this phase was a large pit (2390) which extended beyond the S edge of excavation. The primary filling of this pit consisted of a silting of natural subsoil flecked with charcoal. Over this was constructed a lining of clean clay which was, in places, as much as 0.35 m thick, built up from horizontally laid blocks of clay. In its W half this clay had become heavily gleyed. Along its N edge the lining had buckled away, creating a void which had gradually silted up. The first filling within this lining was a dark organic silt, flecked with charcoal and clay. Botanical analysis of this material indicated that the pit had been open collecting a range of weed seeds with some silting of debris from the surrounding dirty loams. This filling was followed by a more clayey silting, most probably derived from the clay lining itself. Finally the pit was filled up with a dark, charcoal-rich silt, and covered with a slightly cleaner silty sand. The preservation of the botanical material from the first filling within the lining of the pit would suggest that this had been used as a tank to contain liquid. There is no evidence to suggest any function beyond that of a carefully constructed tank.

There was no surviving evidence of a structure associated with this pit other than a partially cut away post-hole (2298) at the NW corner of the clay lining. This was filled with a dark silty clay.

The only other feature in Plot 5 during this phase was an E-W slot (2285/2354). This was disturbed at both ends by later features so that its full length was lost. It was a double cut feature with a lower narrower slot (2354) filled with gravel and patches of charcoal, sealed by a broad upper slot (2284) filled with a distinct mixture of coal, gravel, ash and burnt clay. The slot was then levelled up with a dark sandy silt. This double sequence of cuts is best explained by an initial cut (2354) to take a ground sill, which was then removed by Cut 2284. The sill had been set on gravel and may, as indicated by the presence of charcoal, have suffered fire damage. Unfortunately no trace of the level from which a sill beam might have been laid survived. As a result the sill has been phased by its probable demolition to phase C, although it may have been constructed as early as phase A of this period. The structural significance of such a wall or fence is impossible to assess as no other aligned structural features were recovered in this period, although they might have been destroyed by later features. The only possible related feature was the post-hole (2298) discussed above.



ILL 33 : Canal Street II, feature 2390, a pit, Plot 5c, looking S: Period IV

PERIOD V : SUMMARY (Ill 31)

The major change in the layout of the site in Period V is the probable amalgamation of Plots 1 and 2. Whilst this interpretation is offered on the basis of observed evidence it should be borne in mind that a property boundary may have existed during Period V but outside the excavated area. Another possibility is that any boundary may have been marked by boundary stones forming a line of sight leaving no recognizable archaeological evidence.

However, the case for an amalgamation of the two areas is supported by the fact that through to modern times there has been only one property between Ropemaker's Close and the properties numbered 3 and 4 in this report. The most probable date for such a change in land division would seem therefore to have been during Period V as no further distinction between Plots 1 and 2 was recovered.

The boundary gully between Plots 3 and 4 in this period had a mixed history. The construction of a yard or path in Plot 3 and the presence of debris from a domestic hearth both in Area 3 and in the gully are clear indications that occupation had replaced cultivation. However, the subsequent erosion of the boundary gully which undermined part of the yard indicated that this occupation was in decline or had ended.

Plot 4 continued as a garden but the construction of quite a robust path, presumably in conjunction with Plot 5, is a significant change of use for what must otherwise have been an under-

used and possibly disputed strip of ground. The few layers of loam in Plot 5 during this period are incidental to the dumping of debris in and to the S of a depression (2262). Cultivation of the area was short lived and later a crude yard surface was constructed.

The dating evidence for this period consists largely of mid- to late 14th-century pottery. As such, it is not distinct from that of Period IV and a late 14th-century date seems likely.

PERIOD V : STRATIGRAPHY

PLOT 1/2

There was no trace of any boundary between Plots 1 and 2 in this period. It may have fallen outwith the excavated trench but as it did not re-appear in later periods it seems likely that Plots 1 and 2 had been amalgamated. From this period on this part of the trench is therefore termed Plot 1/2. The previous gully between Plots 1 and 2, along with associated layers and features, was sealed by a layer of tilled loam (2177) flecked with midden material and fragments of clay. Dug through this loam was the E boundary gully of Plot 1/2 (2232) filled with a clayey silt and some gravel. No other features were recovered in Plot 1/2.

PLOT 3

The features of the previous period were sealed with a loam (2176). Dug through this loam, and because of considerable erosion at times merging with it, was the E boundary gully of Plot 3 (2209). The history of this gully was considerably complicated by its near total erosion. Its final width of 2.5 m centred slightly to the W of the previous gully, but its primary filling consisted of a distinctive ridge of charcoal and ash 0.8 m wide, along the central axis of the hollow. Botanical analysis of this material indicated that this was most probably waste from a domestic hearth although a quantity of burnt lime (possibly mortar) was also present. This deposit and the sides of the gully were then covered with a fine layer of charcoal dust and carbonized straw or grass followed by dark silty clay containing a number of pebbles. The latter were more probably derived from a gravel spread lying to the W and described next. Against the N edge of excavation the filling of this gully also included lenses of cleaner clay. Finally the hollow was filled with a dark loam. The width and fillings of this feature may, to a large extent, be explained by this division of land being abandoned in the subsequent period. It may well be that the erosion of the sides of this feature had begun by the end of Period V. The curious ridge of debris may therefore be a better guide to the original width of the gully than the finally eroded dimensions.

A gravel spread (2238) survived as an L-shape in plan although its original extent was probably greater. Not only was a large quantity of gravel found in the eroded gully, but subsequent tilled loams contained a far higher proportion of pebbles than other tilled soils on the site. As the original distribution of these gravels has been lost it is not clear whether or not this represents a path or yard.

The ground to the S of these gravels was largely removed by a later pit, but surviving to the E of that pit was a patch of dumped charcoal and ash (2282). This ash had been deposited cold and both it and the primary filling of gully 2209 may have been a dump from a domestic hearth.

PLOT 4

Plot 4 continued to be cultivated during this period with the build up of further loam (2181). This loam was defined to the W by the boundary between Plots 3 and 4, (Gully 2209). The relationship of this loam to the E boundary of Plot 4 was removed by a later gully. However, built up over the level of the loam was a gravel path (2231) which defined the E limit of Plot 4. The W side of the path was disturbed by later features. The central line of the path was located directly over the line of the earlier E boundary to Plot 4 so that the width of the area was unchanged during this period. The path consisted of a coarse gravel set in a dirty clay and mixed with midden trample.

PLOT 5

The E part of this area was separated from the rest of the site by later features. Stratigraphical connections across this division were, however, possible because of very distinctive soil units. The general layer in the E part of Plot 5 was present during this period. Overlying the loam in this part of the trench was a large shallow feature (2262) which continued into the W half of Plot 5 and N beyond the limits of excavation. This feature was filled with several lenses of dark brown loam followed by lenses of charcoal and gravel rich clays. All of these lenses appear to have been tipped in from the E. The cause of this is unknown, though the subsequent debris appears to have been derived from hearths and floors.

To the S of Feature 2262 were further tips from the E which included a high proportion of charcoal and coal along with fragments of burnt clay (2100/2235, 2228, 2236, 2239 and 2286). These did not form a discrete feature but were closely comparable to the lenses in Feature 2262.

W of these tips was a more substantial layer (2227) of dark loam over which lay a further dump of silty clay (2328). Separated from these two layers by later features were two fragmentary features (2216 and 2245) which were cut away to the E and which extended N and S respectively from the area of excavation. To the W these features encroached upon the cobbled path which divided Plots 4 and 5. 2216 survived only as a truncated cut filled with loam. The level from which this feature was originally cut has now been lost and whilst it may date to Period IV it has been included in Period V. 2245 was filled with a silty clay. It is securely stratified in Period V. The function of both 2216 and 2245 is unknown.

PERIOD VI : SUMMARY (Ill 34)

Plots 1 and 2 remained amalgamated and there seems to have been a path down the E side of Plot

1/2 on which were scorch marks from two hearths. The major alteration of plot layout in this period is the combining of Plots 3 and 4. This is a clear cut case of amalgamation. The boundary between Plots 3 and 4 had considerably eroded in Period V. These two areas were then cultivated as one plot. The stratification in Plot 5 during this period has been divided into phases A and B. During phase A the construction took place of a building with stone foundations. It had a clay floor and an entrance to the N. In phase B a turf and stone wall was constructed on the W side of the doorway and at right angles to the wall in which the entrance was located. That this was the only area of Canal Street II to produce firm structural evidence so far back from the South Street frontages is consistent with the high level of activity which had taken place within that area in the past. The foundations of this building were closely comparable to (and pre-dated) those of a structure discovered at the N end of the 1978 Canal Street I excavation (Blanchard 1983). Broad but relatively shallow foundations of large irregular stone blocks were used in both cases, suggestive of quite a large building. However, neither building produced any quantity of demolition rubble. In Canal Street I this was explained by its probable removal for building material with which to construct the Cromwellian Citadel, but the extensive search for building stone that went on at that time cannot explain the lack of even small rubble from the demolition of this earlier building. An alternative explanation for the Canal Street II structure is that the foundation stones were the base of a timber-framed building. Such a structure could have been substantial and, to judge from the fragments of glass associated with its construction, even contained glazed windows.

With so little of the interior of the structure within the excavated trench it is difficult to be certain of its function. As with the structure in Canal Street I, a major pit was located just outside the entrance. In this case the contents of the pit seem to have been the equivalent of a modern coal shed but it is not known whether this fuel was for domestic or industrial use. It may even be that the contents of this pit were the sweepings out of a coal shed.

Pottery dating gives an overall late 14th- or 15th-century date with Plot 5 possibly a little earlier than Plots 1/2 and 3/4. Plot 3/4 also produced a poorly preserved coin (Catalogue 181) which has been dated to 1371-90. A coin (Catalogue 180) dated to the late 1470's was recovered from Pit 2133. Because of the disturbed nature of the garden loams their dating is suspect and is slightly later than that of sealed contexts. The period probably terminates in the 15th century. Other finds from this period were mainly concentrated in Plots 3/4 and 5, with Plot 1/2 being very unproductive.

PERIOD VI : STRATIGRAPHY

PLOT 1/2

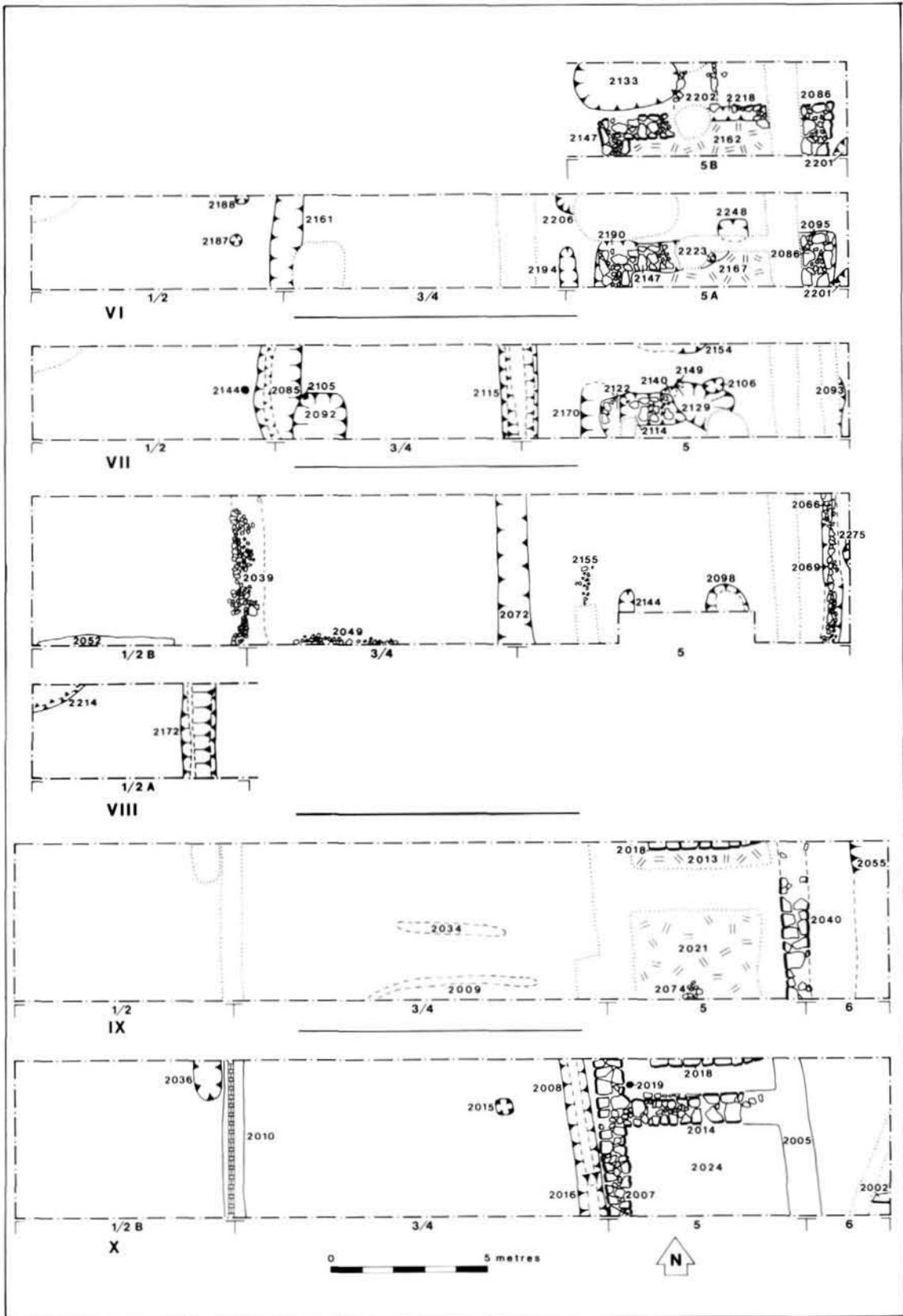
The features and layers of the previous period were separated from Period VI by a distinctive layer (2199) which ran down the E side of Plot 1/2, and also by a small lens of loam (2212) within the area. Layer 2219 consisted of a silty clay which appeared to have been lightly trampled and was not incorporated in the contemporary and subsequent cultivation of the area. Two scorch marks (2187 and 2188) were discovered on the surface of the layer (2199). Both marks were defined by an outer ring of baked brown soil within which lay soils burnt yellow to orange. No ashes were associated with these scorch marks and either they had been partially cleaned off or less probably the heat had been contained in a fire pot.

The E boundary of Plot 1/2 was redefined by a gully (2161) located about 1.5 m E of the boundary of the previous period. This marked a return to the original position of the boundary between Plots 2 and 3. This gully was recut in the next period so that its relationship with the internal layers of Plot 1/2 was lost. However, to the E, the gully cut the loam soils of Plot 3/4 which was combined in this period. The gully was filled with a mixture of dark silts and loams from the adjacent gardens.

PLOT 3/4

The Period V gully (2209) was not replaced in this period or at any later date. Instead Plots 3 and 4 appear to have been combined as a tilled garden. In this period the tilled loams were removed as two spits (2146 and 2166). The relationship between these layers and the E boundary of the area was removed by later gullies. To the W the upper of these two layers (2146) was cut by another gully (2161) (see Period VI, Plot 1/2 above).

The E extent of Plot 3/4 was defined at this level by two features (2194 and 2206) on the same alignment as the earlier path between Plots 4 and 5. Both features were dug from a layer of trample (2211) over the earlier boundary path, and were filled with a clayey silt. Although on the same alignment they were separated by a gap of 1.1 m and the full width of 2206 had been removed subsequently. Both features were in turn sealed by the debris and trample from the digging of this pit in Phase b of Plot 5 during Period VI. It seems likely that these features, or possibly the trample (2211), reflect the continued use of this line as a boundary between Plots 3/4 and 5. What is less certain is the boundary. The S of the two features (2194) ended in line with the N wall of a structure (S1) erected in Plot 5 at this time. It may be that the shallow



ILL 34 : Canal Street II, plan of Periods VI-X

slot related directly to the structure in Plot 5, possibly as the base of a light lean-to. Equally, Feature 2206 may be the remains of a shallow pit. Nevertheless the gap between these two features effectively gave access from the structure to the old path-way which maintained the division between Plots 3/4 and 5.

PLOT 5A

Although the E and W sides of this area were divided by a later feature it is possible, as in the previous period, to correlate the two halves of Plot 5 confidently.

Within Plot 5 a substantial dump of clay (2167) sealed the subsidence into earlier features against the S edge of the site. This clay was used both as the base for a substantial structure (S1a) and as its internal floor. Cutting down along the W and N sides of this clay was an L-shaped foundation trench (2190). Within this foundation trench were two irregular features (2312 and 2413; not illustrated) both about 0.35 m deeper than the general depth of the foundation trench and filled with a compact mixture of loam and clay. These two features appear to have been caused by further subsidence into the soft filling of lower features. Within the foundation trench were the foundation stones (2147). These stones were badly disturbed by later robbing as well as further subsidence into the features below. In the main the remains of the wall consisted of a single course of large sandstone blocks, but along the W side of the foundation trench sufficient depth remained for a second course of stones bonded with a pink clay, and with smaller stones in the interstices.

A comparable foundation trench (2095) containing further clay-bonded foundation stones (2086) lay to the E of the clay dump (2167). No direct relationship survived between this foundation trench and wall and the N and W walls of S1. The similarity of trench width, masonry and bonding, as well as stratigraphical position indicate that this was part of the E wall of S1a. There was a gap of at least 2.5 m between the N and E walls of S1a. The E side of the gap is accounted for by later features. The W side, although disturbed by subsequent robbing, retained two possible timber related features. On the S side of the gap, and within the SE corner of the foundation trench (2190) was a possible post-hole (2223). This was filled with a sandy silt. On the N side of the gap was a sub-rectangular feature (2248) in which lay a large flat stone, 0.53 m x 0.39 m, wedged with smaller stones. The upper filling of the feature was loose but below the stones the ground had been compacted suggesting that this was a support for an upright timber. Whether or not these features were for scaffolding or part of the permanent structure is unknown. The gap in the N wall of S1a does appear to have been deliberate and, although the evidence is incomplete, most probably formed an entrance to the structure itself.

N of S1a and encroaching into the possible entrance in its N wall was a mixed layer (2183) of silty clay flecked with charcoal and bone debris. This layer sealed the foundation trenches (2190 and 2095) and represents a distinct division between the two phases of construction (S1a and S1b). N of this layer was a cleaner spread of loam (2096) over the Period V large depression (2262).

W of S1a lay more heavily trampled sandy silt (2211) which, with the possible boundary features (2206 and 2194), are described under Plot 3/4 above. It should be noted that the function of Slot 2194 may relate to a lean-to type extension to S1a.

PERIOD VII : SUMMARY (III 34)

The E boundary gully of Plot 1/2 was redug on the same alignment as the earlier Period VI gully. Within that area cultivation continued. The E boundary of Plot 3/4 was moved about 1.0 m W

In contrast to the build up of occupation soils to the N and W of S1a no internal debris was noted as clearly relating to the first phase of construction and use of the structure. This may have been because any floor deposits could not be distinguished from those of the next phase in this period.

To the N and E of the E wall of S1a (2086) and cut by its foundation trench was a layer of tilled loam (2080). Stratigraphically, this cannot be the same loam as numbered 2096 in the main part of Plot 5 although it may be the origin of that material. There is, therefore, a difference between the soils on the E side of Plot 5 from those in the main part of the area. There may be many explanations for this, but the possibility that this change in soils is a reflection of the E limit of Plot 5 should be borne in mind.

Dug through this layer of loam was a feature (2201) which lay in the extreme SE corner of excavation. Only a small part of this was recovered, which was filled with steeply angled lenses of silted loam. The relationship between this feature and the E wall of S1a was unfortunately removed by later robber pits for that wall. Although the available evidence is slight, this seems to have been part of a large pit which was contemporary with the life of S1a.

PLOT 5B

Dug through the external layer (2183) of the earlier phase in this period were alterations to S1a. The gap in the N wall was filled in, with small stones (2168) set in a shallow foundation trench (2218). This infilling was not as substantial as the earlier walling and there was no sign of clay bonding. The interior side of this later foundation trench was overlain by a floor trample (2162) composed of charcoal-flecked silty clay. The S face of the stones (2168) was however disturbed by later robbing. The relationship between this layer and the stones themselves was therefore restricted to only the SE corner of the infilling and this may be a misrepresentation of the full length of the stone infilling. It seems probable that this foundation trench and stone line represents a door sill rather than the blocking of the previous entry.

At right angles to the N wall of S1b, and respecting the entrance to the structure was an earth and stone bank (2202). This consisted of a bank of mottled soil, possibly incorporating turves, revetted with a line of stones on either side. Unfortunately the junction between it and the N wall of S1b had been removed by later robbing. Its appearance was of a carefully constructed earth wall which provided either a buttress to the N wall of the structure or some division within Plot 5.

To the W of this earth bank was a large pit (2133) the digging of which produced a spread of mixed loam and midden (2184) which sealed the previous phase A division between Plots 3/4 and 5. The primary filling of the pit consisted of a silting of clays eroded from its side, making the profile of the pit difficult to identify. The pit was then filled with a distinctive deposit of unburnt coal. This was sealed by a compact mixture of clay and sand. The remainder of the pit was filled with further rich deposits of coal and also charcoal, all without any sign of ash or cinder. It seems to have been used, somewhat curiously, as a fuel store. This seems a rather labour intensive method of storage and the possibility of a more normal coal yard to the N of the excavated area should not be ruled out. The layers surrounding the pit were not, however, notably rich in coal.

of the previous boundary line resulting in a further expansion of Plot 5. A large rubbish pit was dug in the SW corner of Plot 3/4.

The only major alteration in use was that the earlier structure in Plot 5 was abandoned and activity in the area appears to have temporarily declined. Following the build up of a cultivation soil in Plot 5 and the subsequent robbing of the earlier structure, substantial quantities of midden were redeposited into the robber cuts. This midden which extended into the boundary gully between Plots 3/4 and 5, as well as two features against the N edge of excavation in Plot 5, suggests that there was once again a higher degree of activity at this end of the site.

Dating of this period rests on both ceramic and numismatic evidence. The pottery is basically comparable to that of the previous period. Three coins were recovered from the midden material deposited at the end of the period in Plot 5. These were two pennies of James III dated to c 1482 (Catalogue 178 and 179) and a half-penny of David II or Robert II dated to c 1370-80 (Catalogue 177). These are consistent with the pottery in suggesting a late 15th-century date for the end of the period.

Other finds from this period included an increase in the number of mould fragments from Plots 3/4 and 5. While these fragments may be residual from Period IV the increased quantity both of moulds and scrap bronze would make this unlikely.

PERIOD VII : STRATIGRAPHY

PLOT 1/2

The previous E boundary to Plot 1/2 had silted up and the boundary (2085) was re-dug on the same alignment. This was dug through the tilled loams (2088 and 2164) within Plot 1/2 which sealed the deposits of the previous period. To the E gully 2085 cut through the general loam layer (2111) in Plot 3/4 of this period. The original profile of this gully was partially obscured by erosion of its sides, which was especially marked along its E edge. Some hint of the original cut survived along the base of the gully as a U-shaped slot filled with a distinctive deposit of silty clay. Over this slot the gully widened out and was filled with silted loams flecked with midden material, charcoal, coal, ash, bone and shell. It is possible that this widening of the gully represents a re-cutting of an originally narrow gully, or even the removal of a fence set in that narrow gully; if so the original narrow slot must have been very short lived.

The only other feature within Plot 1/2 at this time was an isolated post-hole (2144). This was filled with a loose silty clay similar to the surrounding tilled loams. The filling had presumably accumulated after the post had been removed.

W of this post-hole was a further layer of loam (2178) apparently truncated to the W by later cultivation. At the time of excavation this was taken to be the W edge of material cast up from the digging of Gully 2085, and forming a low bank (comprising layers 2088, 2164 and 2178). However, this would be stratigraphically unlikely and a more probable explanation would seem to be a reduction of the ground area under cultivation in the subsequent period (see N main section, Ill 35mf 1: D7-8).

PLOT 3/4

The features and layers of the previous period were sealed by a layer of tilled loam (2111). Dug through this loam was a deep gully (2115) which defined the E boundary of the area. This was located about 1.0 m W of the previous E boundary reducing the width of Plot 3/4 to 7.0 m. Gully 2115 was the earliest feature to demonstrate a marked change in depth which resulted from its base sloping to the S. The primary filling of this gully consisted of silted loam with a large (about

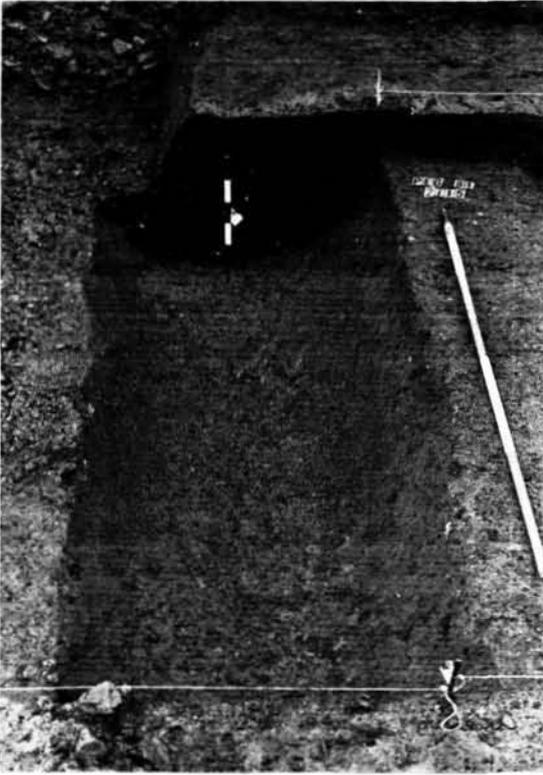
25%) proportion of small pebbles. These pebbles may have been derived from an earlier (Period V) gravel path partially truncated by this gully. This filling was followed by a deposit rich in charcoal, coal, ash, shell, bone and burnt clay. The remainder of the gully was filled with silted loams most probably derived from the cultivation of the interior of Plot 3/4.

In the SW corner of Plot 3/4 at this time a large pit (2092) was dug. This extended S beyond the edge of excavation. To the W this pit cut away part of the boundary gully (2085) between Plots 1/2 and this area. The primary filling of this pit was composed mainly of ash from a domestic hearth which, according to botanical analysis, was largely fuelled with peat. This was sealed by a dump of cleaner clayey silt and there followed further deposits of ash and charcoal rich debris. The bulk of the pit was then filled with a dump of loam within which was a possible post-hole (2105). This was located in the NW corner of the pit, 0.5 m below its lip. It seems to have been a driven post, in use during the back-filling of the pit. Intruding on the excavated area was a feature (2592) which was dug through the general loam layer (2111) of this period and filled with further loam, heavily flecked with charcoal and small pebbles.

PLOT 5

The structure of the previous period was demolished and the area was given over to cultivation. The remains of the structure and subsidence into the adjacent pit were sealed by a layer of loam which, because of its patchy survival, was variously numbered (2073, 2082, 2091, 2094 and 2580). Cultivation in this area was then interrupted by the removal of many of the remaining foundation stones of the structure.

The E wall of the former structure was robbed from a shallow trench (2093). This was disturbed by later features so that its full extent was lost, but it clearly continued N beyond the limit of the structure noted in Period VI above. The trench was filled with a silty clay rich in charcoal, ash, shell, bone and other midden material. While the irregular N edge of this feature may simply have been caused by a search for additional stones there is also the possibility that some form of light fence or wall did originally continue the



ILL 37 : Canal Street II, feature 2115, a gully, Plot 3/4, looking S: Period VII

E line of S1. The evidence is, however, too fragmentary for any clear decision on this point.

The robbing of the N wall began with the digging of a pit (2129) which was located over the middle of the former wall line. The edges of this feature were compacted and disturbed by the removal of the wall stones. It was filled with two distinct groups of material. The first was interleaved silty clay and sandy material that was quite unusual for the site. This was followed by a more typical shallow covering of loam. On the N side of the pit were three features (2106, 2140 and 2149). Although the first two were cut by the robber pit while the third apparently cut the pit, all three features could, in view of the irregular nature of the pit's edge have been contemporary. They were all probably post-holes connected with the robbing of the earlier wall and each was filled with loose loam.

A N-S slot (2170) had been dug down to the foundations of the W wall of the structure. This extended N beyond the line of the previous building. The slot was then broadened by means of a further cut (2122) over the wall to facilitate robbing of the stones. Both the original slot and its extension were filled with compact loam flecked with charcoal, coal and bone fragments.

The robbing of the W foundation stones was then connected to the original robber pit by a further trench (2114) used to remove the remains of the N wall of the structure. This robber trench was then filled with a silt followed by a dump of midden rich loam similar to that filling the robber slots over the W foundation stones.

Against the N edge of the excavation were two features which just intruded on the area of the site (2154 and 2589). One was filled with a dark loam, while the other contained midden rich loam. These were consistent with the proportion of midden material filling the other features of the area in this period, but their function remains unknown.

PERIOD VIII : SUMMARY (III 34)

As described in the general introduction to this site the trench was stepped in for safety reasons. Hence in this period there was an increase in the area of excavation.

Two minor alterations to the area divisions within the trench occurred in this period. The boundary between Plots 1/2 and 3/4 was temporarily shifted 2.5 m W of the previous boundary gully. This was then replaced by a path on much the same alignment as the boundary marker of the previous period. These two changes in the boundary have been divided into Plot 1/2 phases A and B respectively. The presence of two gullies and then a raised path may suggest that conditions at this time were becoming boggy. This theory is further supported by the use of the boundary gully between Plots 3/4 and 5 as a drain and the first appearance of a stone box drain, between Plots 5 and 6. A similar drain was recovered at this period in Trench A to the N where it is phased VI.

The argument for a division between Plots 5 and 6 rests largely on stratigraphical differences rather than actual soil changes. In accepting these differences it should be pointed out that this isolated part of the site may have been effectively divided since Period V, but that no firm dividing feature was recovered.

PERIOD VIII : STRATIGRAPHY

PLOT 1/2A

At the start of this period the earlier cultivation soils (2088 and 2178) were preserved from disturbance by the build up of a layer of midden (2087). This was well compacted material and appears to have formed a path down the edge of Plot

1/2. This distinct layer was brought to an abrupt halt along its W edge by continued cultivation within the middle of Plot 1/2. The division between cultivation and path was so clear that it was originally given a context number (2099). That the layer of midden may originally have extended further W was indicated by flecks of comparable clay and shell found



ILL 38 : Canal Street II, feature 2172, a gully, Plot 1/2a, looking N: Period VIII

in the tilled soils (2150 and 2173) which made up the centre of Plot 1/2. The distribution of this broken up midden material suggests a depth of cultivation disturbance for the area at this time of about 0.2 m

Also dug through this layer of midden trample was a boundary gully (2172). This was located about 2.5 m W of its predecessor a change which may have been designed to define the path between this and the remains of the previous silted up gully (2085). The primary filling of this gully consisted of a silting of loam with some midden material. It was followed, however, by a further deposit of midden material (2071) which filled up the gully and extended to the E of it as a layer of trample. The lack of significant weathering of the gully edges would suggest that this feature was relatively short lived and the secondary filling of the midden may even have been deliberate filling.

Located in the NW corner of the excavation was a large feature (2214) which for reasons of safety was not bottomed. The feature was filled with lenses of loam, pebbles and silt flecked with clay. Its primary function is difficult to determine because of its restricted excavation. However, its upper filling and profile suggest a large steep-sided pit. The top 0.2 m of this feature was destroyed by cultivation in phase A of this period but the crude outline of the feature was distinguished by remnants of the pit filling in the upper tilled loams.

PLOT 1/2B

Over the trample filling the phase A gully a well-laid broad stone line (2039) was constructed. As a result of machine removal of a later feature on this alignment the edge of this stone line was partially disturbed. It consisted of a wide single course of mixed stones faced with a line of irregular stone.

This feature was tentatively interpreted as a raised path but there was no trample midden on its surface to confirm this. It could have been a turf bank. These stones marked the E boundary of Plot 1/2 which had therefore reverted to its position of the previous period.

Activity within Plot 1/2 during this phase was restricted to further cultivation resulting in another loam layer (2051) through which a single large feature (2052) had been dug. The upper part of 2052 was filled with a dark silt, but because of the stepping in of the trench it was left unexcavated.

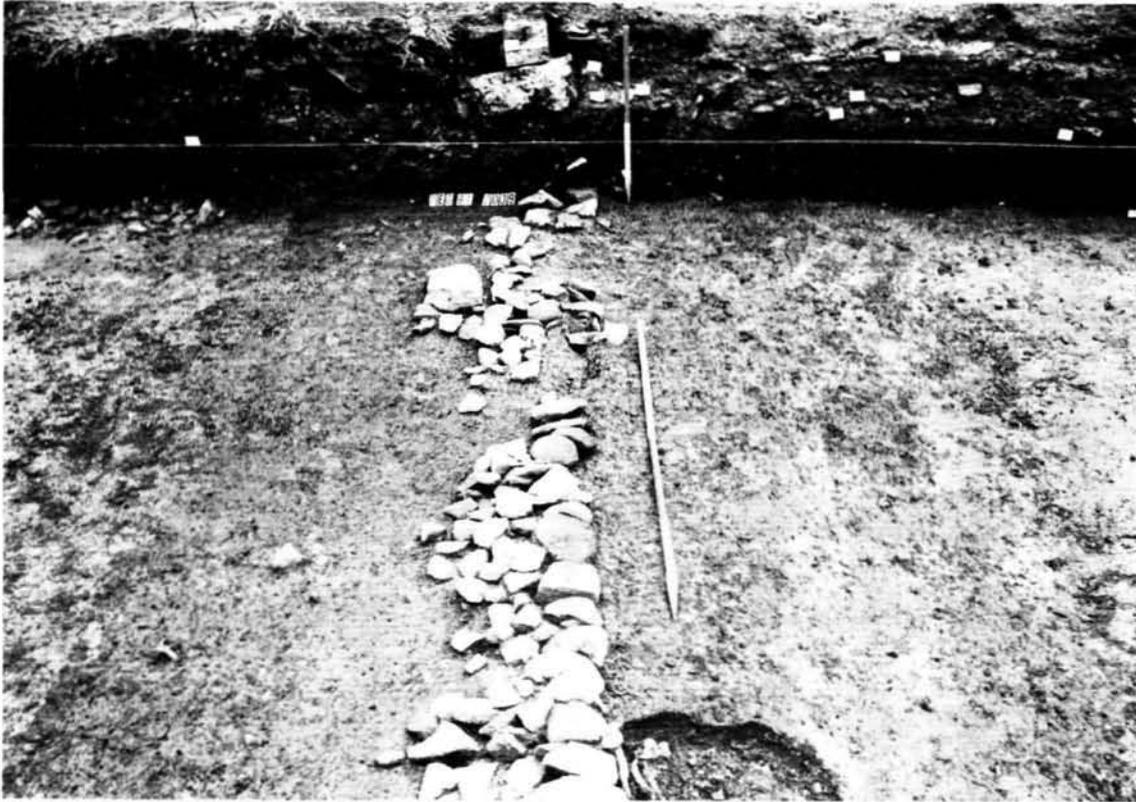
PLOT 3/4

Features and layers of the previous period were sealed by the build up of a further humic loam (2053). Dug into this was a new gully (2072) located directly above its predecessor. This feature also had a sloping base, dropping 0.1 m from N to S. The primary filling of 2072 was 0.2 m of river-washed cobbles in a clayey silt. Over this was loam and midden material of bone, shell and charcoal. This gully is the only example on site where there had been a deliberate attempt to improve the drainage qualities. To the E this gully cut the general loam layer of Plot 5 (2078).

The only feature within Plot 3/4 at this time was a rubble filled cut (2049) against the S edge of the excavation. This feature was left unexcavated because of the stepping in of the sides of the trench.

PLOT 5

Within Plot 5 the ground was once again given over to cultivation resulting in the build up of loams (2077, 2078 and



ILL. 39 : Canal Street II, feature 2039, a stone alignment, Plot 1/2b looking S: Period VIII

2079). Associated with this build up of loam was the W edge of the path of cobbling (2155) set in a silty sand (2165). These stones sealed the robber trenches from the previous period but were in turn disturbed by cultivation so that they only survived in the centre of the trench. The stones seem to have formed the centre line of a path, but little trace of any trample over their surface survived subsequent cultivation.

Set in these loams was a stone drain (2066) in a foundation slot (2069). This drain was taken to be the E boundary to Plot 5 as it maintained the line of the earlier building and defined slight soil differences to the E and W. The W side of the drain was partially damaged by later features. The drain was of box construction using sandstone slabs. It had become choked with clean fine silty clay.

Cut through the filled loams of Plot 5 and against the S edge of the excavation was a circular pit (2098). The sides of this feature were horizontally stepped in half way down, where it reached an earlier clay deposit. It was filled with a clayey loam which became siltier towards the base. The stepped sides of this feature suggest that it originally contained a lining or collar around its upper half. However, no

impression of a lining was discovered on the sides of the pit and it may be that the difficulty of digging through the earlier clay caused the original excavators to reduce the size of their pit.

W of pit 2098 was a tapered slot (2124) which had a V-shaped cross section. This was filled with a mixture of silt and loam. Little can be said about this feature as it extended S out of the excavated area.

PLOT 5/6

As noted in the description of Plot 5, it is possible that the drain (2066) reflected the boundary between Plots 5 and 6. To its E the drain cut through a clayey loam (2083). This loam was part of a general layer of cultivated soil in Plot 6 and was not the same as the tilled soil in Plot 5.

Dug through 2083 against the edge of excavation was a large feature (2275) filled with loam flecked charcoal and burnt clay. This feature might have been the edge of a pit.

PERIOD IX : SUMMARY (Ill 34)

The features and layers of this period were exposed by machine, cleaned, recorded, and then removed by machine.

No E boundaries were recovered for Plots 1/2 or 3/4 although these may have been unrecognizable, given the techniques of excavation used, or removed by later features. The boundary between Plots 5 and 6 was maintained by the wall of a major structure (S2a) on Plot 5. The only other features noted in Period IX were two irregular slots in Plot 3/4.

The substantial build up of loam in Plots 1/2 and 3/4 during this period can be equated with a similar deposit of loam (1082) in Trench A where it was placed in Period VII and dated to the 17th/early 18th centuries (Blanchard 1983). The dating of this period from Trench B finds is however frustrated by its excavation by machine. The finds were not securely stratified although a late 17th to 18th century date would be acceptable for them. The dating of S2a is likewise frustrated by its lack of formal excavation. A structure was recorded on this spot by Rutherford in his map of 1774. While this may possibly have been S2b it is more likely that the structure dates to the 19th century (see Period X below). It may be that S2a was that surveyed by Rutherford and that Period IX can be placed in the 17th to 18th centuries.

S2a is also the main evidence for the subdivision of the trench into areas at this time. The distinctive floor deposits of the building did not extend into Plot 3/4 to the W while the E wall of the structure defines the division between Plots 5 and 6. The presence of a path down the E side of that wall as suggested on the description of Plot 6 is strengthened by the illustration of such a path on Rutherford's plan. The function of S2a, however, remains, unclear. The coal and cinders could have built up over a considerable period of time and be derived from a quite small fire which was not necessarily domestic. The building illustrated on Rutherford's plan appears to have been part of an extension to a large warehouse.

PERIOD IX : STRATIGRAPHY

PLOT 1/2

The only activity in this area during Period IX was its continued use for cultivation, resulting in a further tilled loam (2050). There was no archaeologically recognizable division between Plots 1/2 and 3/4 at this time and in section the cultivated soils of both areas meet over the stones of the previous path. The surviving evidence suggested that 2050 over-lapped the loam in Plots 3/4.

PLOT 3/4

A similar picture of inactivity appears for this area during Period IX. No E boundary to the area was recovered although it may have been swept away by later features. The only activity within the area was its cultivation which produced another tilled loam (2022) which merged with, and was under, the tilled loam of Plot 1/2. Two ephemeral features (2009 and 2034) appeared in the tilled loam. Both were E-W slots and may have been cultivation marks. However, they could have been structural features disturbed by cultivation.

PLOT 5

Plot 5 was defined in this period by S2a, a yard or building with walls surviving on its E and N sides. Additional walling may have existed to the W but was entirely removed by later features. The E wall had been levelled to the ground so that

only its foundation trench (2041) survived. The N wall of S2a was also set in a foundation trench (2076) but survived above ground level. The remnants of S2a had been incorporated into S2b (see Period X). The only feature relating to the erection of the walls of S2a was a stone pad (2074) against the S edge of the excavation. These stones were compacted into the ground below and it seems likely that they had borne the weight of scaffolding. Overlying this feature and the foundation trenches for the walls was a compact layer of clay (2021/2075) covered with crushed coal and cinders (2013). These were probably floor levels.

PLOT 6

The boundary between Plots 5 and 6 was quite clearly defined by the E wall of S2a. Separated from this wall by a later feature, but probably originally cut by it, was a compact layer of clay (2064). Overlying the outer edge of the wall was a spread of sand (2070). The E side of the clay layer (2064) was disturbed by a feature (2055) which ran along the E edge of excavation. Only the N end of this feature was excavated. It had steep sides, a flat base and contained mixed loam which had no signs of silting. It could have been a boundary gully between Plots 5 and 6, however the E wall of S2a made a more effective boundary. The filling of the feature was not weathered and was similar to the cultivation edge noted in Period VIII, Plot 1/2. The feature may mark the start of cultivation to the E leaving room for a path between Plots 5 and 6.

PERIOD X : SUMMARY (Ill 34)

The features of this period were exposed by machine, cleaned, recorded and removed by machine.

The earlier boundaries were maintained in this the last period of occupation examined by the excavation and they demonstrate a substantial continuity of property layout from medieval through to modern times.

Activity in Plot 1/2 corresponds to that discovered in Period VIII of Trench A where large quantities of 19th-century pottery kiln debris and wasters were recovered. A small quantity of this

debris was recovered from phase A in Plot 1/2 during this period. No sign of the kiln itself was discovered.

Structure S2b in Plot 5 was of similar construction to the adjacent 19th-century building surveyed by Perth Building Survey and appears on the 1863 OS plan of the site. By this time Plots 1/2 and 5, if not 3/4 as well, were part of the newly established properties fronting onto Canal Street.

PERIOD X : STRATIGRAPHY

PLOT 1/2A

This area was used as an industrial yard. The initial layer was of clay (2033, 2035, 2038) which was then sealed by a spread of compact crushed coal (2031) and more clay (2032). The layers of this phase appear only in section (Ill 35mf 1: D7-8).

PLOT 1/2B

The previous yard was sealed by a dump of rubble (2030). Through this a substantial brick wall (2010) was constructed with concrete foundations. The alignment of this wall was exactly that of the Period VIII stone path. Within the property defined by this wall the yard was re-established with a build up of clay and coal spreads (2027, 2028 and 2029). A pit (2036) which contained the remains of an articulated bovine skeleton, was dug through these layers.

PLOT 3/4

The E boundary of this area consisted of the W wall of a substantial structure in Plot 5. The area continued to be cultivated resulting in a loam layer (2001). Cut through this layer were remains of various modern features. The most substantial was a box drain (2008) which ran down the E edge of the area into a stone-lined sump (2016) against the S edge of excavation. Also against the very S edge of the trench was a possible pit (2048) filled with dark loam, (not illustrated). In the middle of the property was a shallow post-hole (2015) filled with rotten wood.

PLOT 5

The area was occupied during this period by a two-room

building (S2b) the walls of which formed an 'H' in plan. These walls were set in a continuous foundation trench (2017). The E wall (2005) derived additional support from being built on the slightly broader wall of S2a. All the walls were of well-mortared sandstone and bonded together, although the cross wall (2007) was slightly wider than the two end walls. The N room was enclosed by the retained N wall (2018) of S2a from the previous period. Against this wall a large quantity of cinders (2020 and 2024) had been dumped. The only feature within this room was a post-hole (2019) set in its SW corner. There was no apparent access between this room and the S room of S2b. The S room was bounded to the S by a further wall (2025) which just appeared in the S main section. No connections between this wall and the side walls of the structure were recovered but it was of similar construction. The floor of the S room may have been of timbers resting on a low step on the inside of its wide walls.

S2b was then demolished with a resulting spread of smaller rubble (2012) sealing its remains. The area was then given over to recent gardens.

PLOT 6

The previous period was sealed by a layer of clayey loam (2046 and 2058). Through this was constructed a stone wall (2002) set in a foundation trench (2057) in the SE corner of the site. To the S of the wall was a paved floor (2045; not illustrated) over which had been dumped a large quantity of ash (2044). Cutting across the area was a rubble filled drain (2062). All of these features were then sealed by a spread of demolition rubble from the adjoining structure through which were cut a number of services.

CONCLUSIONS

The repeated cultivation of this site has caused considerable difficulties for its archaeological excavation and interpretation. These difficulties must be borne in mind when conclusions are being drawn about the results of the excavation.

The easiest means of summarising the extent of cultivation is to examine the N main section (Ill 35mf, 36mf; 1: D7-10). The layers of tilled loam range in depth from about 0.1 m in the early levels to about 0.4 m in later times. Occasionally the stratification on site, as well as inclusions in the layers, were distinctive enough to permit identification of individual phases of tillage, for example, Period VIII, Plot 1/2, phase A. In these cases, and on average across the section, cultivation seems to have been about 0.2 m deep. There does seem to have been an increase in depth of cultivation from Period VI onwards. This may have been caused by any number of factors ranging from an

increased time span for each period to changes of land use and/or agricultural techniques. It may be that the amount of midden material, as distinct from just ashes, increased significantly from Period VIII. While this could have been because of the proximity of animal byres and human occupation, it seems likely that some of the increased depth was because of greater use of the deliberate spreading of midden material. Only in the natural subsoil of Period I were any potential cultivation marks noted, giving the impression of spade rather than ard cultivation. In addition there is a hoe head (Catalogue 93) from Period II. Botanical evidence is largely restricted to carbonized seeds and although indicating the presence of cultivated plants, these remains are scarce and may have been imported.

The damage to the stratified sequence of deposits resulting from this cultivation and from substantial worm action ranges from a blurring of soil distinctions through to the truncation of deeper features and presumably the total destruction of shallower cuts. Stake-holes, for instance, could not be expected to survive, indeed they only occurred on site if conditions were unusually favourable as in the boundary between Plots 2 and 3 during Periods III and IV. A whole range of structural information has been lost in this way resulting, amongst other things, in the possibly false impression that boundaries between plots consisted of gullies rather than fence lines. Recognition of damage to large features was to some extent dependent on the distinctiveness of their fillings. The upper 0.2 m of Pit 2144 in Period VIII, Plot 1/2, was identifiable before any definite cut edge appeared because of its higher clay content. However as the normal constituent of features on site was yet more tilled loam, their truncation is virtually impossible to prove.

The dating of the site had, in addition to the complexity of dealing with six different plots, two basic problems. Firstly, the layers of loam inevitably contained a high proportion of residual material. Moreover where midden manuring is suspected all types of artefacts could have been imported onto the site. Additional contamination could occur where cultivation continued through to the next period with the digging in of later material. Secondly, excavation of the site proceeded by the removal of layers where recognizable, or failing that, in spits of soil until changes were apparent. Inevitably any features sealed by tilled loams were, as discussed above, possibly truncated so their original level of excavation had been lost. If so, their correct stratigraphical date would in fact be later than it appeared. Table 58mf (1: D6) is an attempt to summarise such chronological information as appears to be relatively secure.

The principle features of the site, the boundary gullies, undoubtedly suffered from the effects of cultivation. Fortunately, however, they can normally be placed in a secure stratigraphical position. Not only do they usually form part of a sequence of gullies, but each gully may relate to two different plots, thereby doubling the likelihood of some of its original level of excavation surviving. The fillings of these gullies normally consisted of an initial rapid silting of the gully's sides until a stable angle of rest was reached. This was followed by more gradual erosion and infilling, but in most cases the gully was sufficiently eroded to allow cultivation right across its line after which it was replaced and the next period of occupation began. The only example of extreme erosion of a gully was that between Plots 3 and 4 in Period V. This gully was not maintained as the two plots became amalgamated in Period VI.

The effect of these gullies was to divide the site into up to six different stratigraphical plots. By Period IX and X it is quite clear that these plots corresponded to the different properties owned by burgesses of the burgh. Tracing the repeated and often accurate replacement of these gullies leaves little doubt that they were medieval property boundaries. With two notable exceptions between Plots 3/4 and 5 in Periods VII and VIII, their fillings and bases show no sign of them being used as drains.

Although individual examples such as 2172 between Plots 1/2 and 3/4 in Period VIII were small enough to have held sill-beams, as a group and individually there is no indication of the gullies having been structural. They would obviously have been of little use in restraining livestock and their significance is almost wholly that of a cheap long term property marker. Such gullies are a common feature of medieval urban excavations, with examples from Aberdeen (Murray J C 1982). Documentary references also occur in which boundary gullies are mentioned as for instance in the 15th-century division of orchards between Andrew Fraser and the Franciscans of Perth in which Fraser was to maintain the gullies (*Perth Blackfriars*, 86).

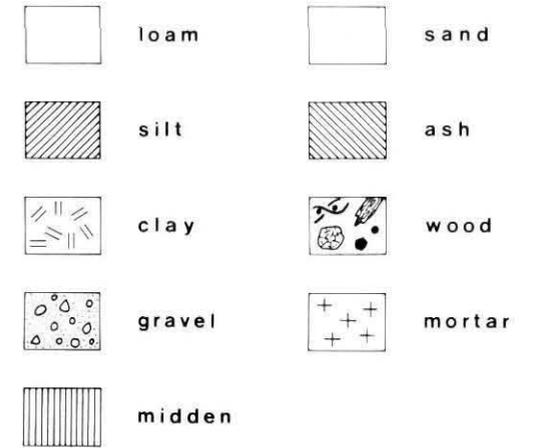
The division of properties was not solely represented by gullies. On occasions the boundary line was maintained with a path, fence or, in the case of Plot 5, the walls of a structure. It is difficult

to tell whether the paths were equally well used by both adjacent properties. Some paths were located entirely within one plot, for instance that in Period V, Plot 3, while others such as that between Plots 4 and 5 in the same period, were positioned evenly between properties. It seems, at least from their variable positioning, that the use and maintenance of these paths depended upon individual circumstances. On the whole a similar picture emerges from the positioning of the gullies. Occasionally though, a pair of gullies was replaced as a set on either side of a property, as in the case of Period IV, Plot 3, phases A and B. However, in the main, it is not clear which property was responsible for which of its two boundaries.

An exception to this is the initial laying out and digging of the gullies in Period III. This was done with considerable regularity and all the appearance of a pre-determined plan, imposed and then rejected as it was in the case of Plot 5. The simultaneous and regular siting of these property boundaries is one of the major features of this site, suggesting very strongly that the laying out of properties in this district of the town was part of a planned development.

The site was excavated in the expectation of it being part of a larger programme of work which would have looked more closely at activities in individual properties, and also examined Ropemaker's Close and the S defences of the town. It stands well on its own as a demonstration of the importance of sampling across the pattern of occupation before pronouncing on the history and importance of any district of a town. The excavation of individual properties is essential if we are to understand how the various parts of a property were used. Nevertheless it is only necessary to compare the radically different levels of activities in the adjoining properties 4 and 5 of this excavation to realize how misleading it is to extrapolate from the history of one property even to that of its neighbours.

Finally it is only by the position, identification and location of a number of properties that it is possible to relate archaeological evidence to the broader historical framework of cartographic evidence to burgess plots and documentary references to burgesses.



ILL 40 : Key to section drawing conventions

3 THE EXCAVATED BUILDINGS

3:1 THE EXCAVATED BUILDINGS LM BLANCHARD

A group of seven buildings is discussed in this report. Six were constructed primarily of timber whilst the surviving evidence for the seventh, from Canal Street II, was entirely of stone and the structure could have been either a stone or a timber-framed building.

TIMBER BUILDINGS

The timber buildings are the second such group excavated in Perth. The first group, twenty-two timber and clay buildings, was excavated at the High Street between 1975-77. Dr Hilary Murray has studied these structures and this report relies heavily on her exhaustive discussion of the PHSE buildings (Murray PHSE). Rather than repeat a substantial part of Murray's research, this report confines itself mainly to comparisons with three major excavated groups of Scottish urban medieval buildings, that is the PHSE buildings, the Aberdeen buildings (Murray 1980; Murray 1982 and Murray PHSE) and the Inverness Castle Street buildings (Wordsworth 1982).

The structural evidence considered here is that of South Methven Street S1 and S2, and Kirk Close S1 to S4. There is insufficient evidence to discuss South Methven Street S3 as a building. These structures all date from the late 13th to the 15th centuries and form an interesting contrast to those excavated at High Street which were predominantly 12th and 13th century in date.

PLAN FORM

Full discussion of the plan form is impossible as estimates of dimensions can be made of only two of the structures. *Kirk Close S2 is estimated at c 4.4 m x 5.0 m which is almost square. This is somewhat unusual for Perth. Kirk Close S3 is estimated at c 7.0 m x 3.5 m which comes much closer to the dimensions of several of the more complete PHSE structures which had excavated widths of 3.0 m to 4.5 m and lengths of 6.0 m to 8.0 m. Two of the Kirk Close buildings, S3 and S4, could have been units in a tenement building running through to the High Street frontage.*

Kirk Close S1 and S2 had partition walls whilst in S3 and S4 there were differences in flooring materials which suggested different functional areas within the structure. Each of these structures had a large and a small room. The smaller area appears more likely to have been for animals or storage and the larger room was probably living or working quarters.

CONSTRUCTION

Almost all the structures fall into either Murray Group 1b, stake-and-wattle with free-standing posts, or Group 1d, stake-and-wattle set in a ground-sill. The exception was Kirk Close S1 where a light stone foundation formed a base for a decayed ground-sill which could have supported either a plank or wattle wall. Wattle walls are the most common in Perth and Aberdeen but examples of plank walls are known from both

towns and several have been excavated in Inverness. A stray timber (context 1112) from the midden in Kirk Close Period VI had a central groove. Although its original function is not known it may have been from the demolition of a nearby plank-walled building.

The long walls of Kirk Close S3 and probably Kirk Close S2, were set on sill-beams (Ill 41). It was these walls which had the most conclusive evidence for heavy clay cladding (Ill 42). It could be that the combination of the ground-sill, wattle and cladding gave sufficient strength to hold a wall-plate which would have borne much of the roof weight.

The ground-sill of Kirk Close S1 was supported on a light stone foundation, presumably to prevent rotting and perhaps give additional support. It is interesting to note that the ground-sills of S2 and S3 which were set directly into the midden survived to the present day whereas the S1 ground-sill which had been set in gravel had rotted to a brown stain. S1 had been partially rebuilt four times and it is impossible to tell whether this was due to a failure of the construction technique or because of changes in use or ownership of the building.

In most of the structures there were some additional free-standing posts which could have helped to support a roof. These were regularly spaced in the E wall of Kirk Close S3 and in the only excavated wall of South Methven Street S2. Unfortunately the Kirk Close posts were not matched by posts in the opposing wall. There is, therefore, insufficient evidence to attempt reconstruction of the roof frames of these buildings.



ILL 41 : Kirk Close, Plot A, N wall of Building S2: Period I

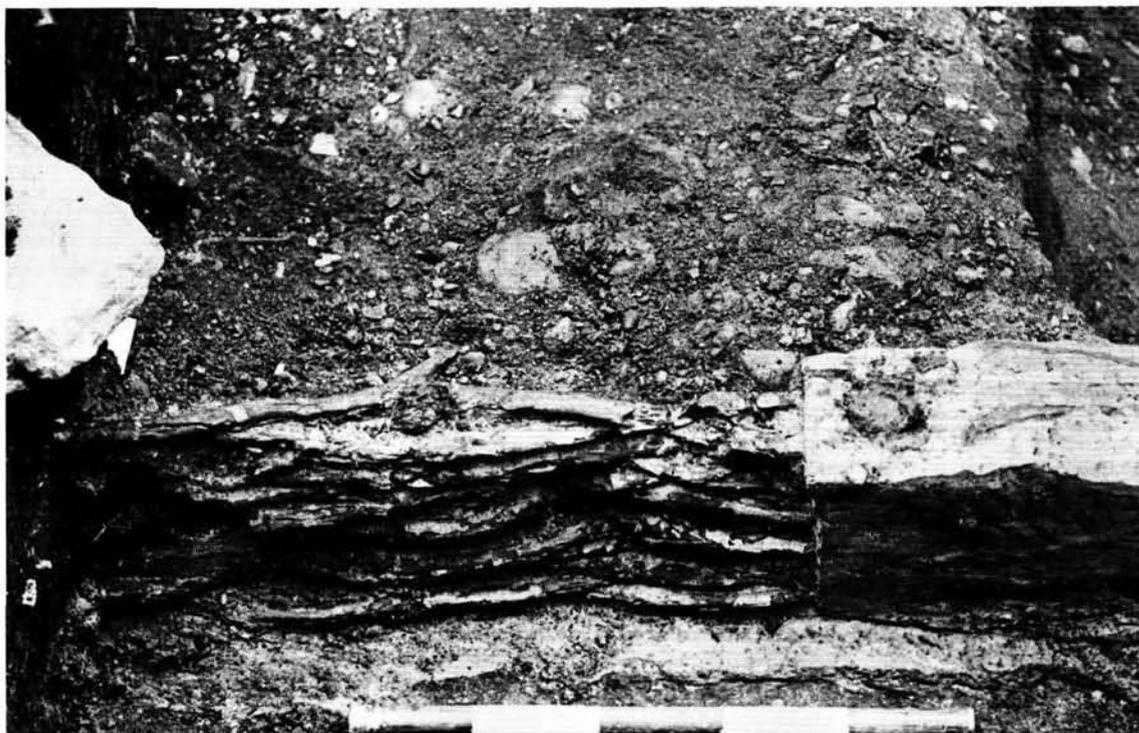
ROOF MATERIAL

There is no definite evidence for the roofing material of any of the buildings. The middens at Kirk Close contained straw and chaff, heather and bracken, all of which would have been adequate. At Inverness there was slight evidence to suggest a thatch of grasses. Although stone roofing slabs were found on the floor of S3 and above the destruction levels of S1 at Kirk Close it is unlikely that these buildings could have sustained the weight of a stone roof.

CLADDING

In Kirk Close S2 and S3 traces of clay cladding survived and selected samples were analysed for botanical remains. The cladding consisted of clay with lenses or lumps of organic material with a very similar content to the midden and floor deposits elsewhere on the site. The samples were poorly mixed which could suggest accidental inclusion of organic material.

Murray suggests that dung, mud, peat or turf cladding might have been present but not always recognized on



ILL 42 : Kirk Close, Plot B, E wall of Building S3 looking S: Period III

excavation. This could well be the case with some of the buildings considered here but Kirk Close S3, for example, had clay cladding on its E wall but not on its S wall. It seems unlikely that cladding would have been recognized in one wall and not in the other, or that two different cladding materials would be used in one building; the S wall, therefore, was probably left free of cladding, perhaps as ventilation for livestock. This is exactly the same as building CO in Aberdeen, St Paul's Street, where it was also suggested that the clay daub denoted the living area (Murray 1982, 69)

FLOORS

The floors of most of the larger rooms of the buildings were sand, clay or silt. The smaller rooms had different floors, for example, gravel in Kirk Close S2, stone slabs in Kirk Close S1, and an organic earthen floor in S4.

Analyses of selected samples from the thin layers of occupation debris on the main floor surfaces indicate that most of the floors were covered by litter, usually bracken, heather or cereal straw. There was also food waste such as shell and bone fragments and waste from domestic and industrial processes conducted in or nearby the building such as carbonized oats, leather fragments, flax and brassica remains. In most of the structures there were several clean floor levels separated by thin bands of decayed litter. Whilst some of these re-floorings can be related to repairs or partial re-building this is not always so and the new floors could have been laid down to raise the internal level of the building above that of the adjacent path or midden. This would have allowed better drainage and also kept some of the outside filth from entering the buildings.

In Kirk Close S2 wattle rafts had been inserted into the floors in the area of the latrine, probably for extra strength around a soggy area.

DOORS

There was no evidence for doors in any of these structures. Murray suggests that either wattle or straw mat doors could have been used and at Inverness a sizeable section of a possible plank door was excavated.

CANAL STREET II BUILDINGS

Fragments of a structure with stone foundations were excavated at Canal Street II. This building lay largely outside the excavated area and only its width, c 7.6 m, could be ascertained. The heavily robbed walls were clay-bonded and set in foundation trenches. This, together with the tentative evidence for timber scaffolding, suggests that the building was a weighty structure of possibly two or more storeys (see also Murray 1982, 73; Murray PHSE).

The floors of the structure were of locally occurring clay silt with occupation debris on the surface. There was a possible entrance in the N wall.

Theoretical reconstruction of this building is impossible. It could have been either an entirely stone-built house or a timber-framed building. The lack of demolition rubble makes the excavator favour the latter suggestion and its 14th/15th century date adds weight to this alternative. Old prints of Perth show that timber-framed buildings were common in Perth and one, the 17th-century Kinnoull Lodging in the Watergate survived until its demolition in 1966 (Stell 1980).

CONCLUSION

This group of structures has filled a gap in our knowledge of urban buildings in Scotland and when considered with other excavated buildings in this country there is now a good corpus of evidence for buildings from the 12th century onwards.

HEARTHES

Several of the buildings had hearths and the incomplete plan of the other structures may account for their apparent lack of hearths. The hearths were simple fire areas set directly on the floor, into a clay-lined hollow or on a stone slab. They were probably for both warmth and cooking. Only one structure, Kirk Close S1, had an oven and this was probably a commercial baking oven.

PITS AND MISCELLANEOUS FEATURES

Several buildings had small internal pits or hollows contemporary with their occupation. Unfortunately most of these were backfilled with domestic rubbish and it is impossible to determine their original function. Two pits were timber-lined but neither of them were fully excavated. It has been suggested that Pit 122 at South Methven Street was a tank or container and Pit 2123 (S2) at Kirk Close was certainly the cesspit for a latrine.

Latrine pits have been found at Perth, Inverness and Aberdeen, but the Kirk Close one is an excellent example with its jointed timber lining and a decoratively carved seat. It is fairly unusual in that it lay within the buildings whereas more frequently they lie a short distance away. Only B18 at the PHSE site had an attached latrine. Parallels for the timber seat can be found at Kings Lynn (Clarke & Carter 1977, 374, fig 174 No 88) and York (Hall 1984, 126-7) although neither was decorated.

A number of floors had stake-holes cut into their surfaces. No pattern could be determined for any of these features.

FUNCTION

It has already been suggested that the four Kirk Close buildings contained both working and living areas and possibly areas for livestock. Whilst the evidence is not so conclusive the same is probably true for the South Methven Street buildings. The excavated material suggests that all these structures belonged to practising craftsmen.

Murray has defined a range of wattle techniques in the excavated Scottish burghs. The basic form is wattle set directly into the ground. The introduction of ground-sills in the c 13th century is followed by the slightly later use of stone foundations for a ground-sill. The later date for ground-sills is borne out by this group of buildings, although, as Murray warns, function and status may affect construction methods. For example at South Methven Street a building with a sill-beam foundation was replaced by a wattle structure.

Excavated evidence for buildings of the 15th to 17th centuries in Perth is still rare and the gap may be partially filled by the "Parliament Hall" excavated at PHSE and reconstructed as a fine stone town house (Bogdan and Wordsworth 1978).

Perth, and indeed Scotland, still lacks sizeable medieval urban dwellings which could be ascribed to the merchant burgesses (except for PHSE B18). This could be a direct result of lack of excavation on the main street frontages. However it may be that our expectations of Scottish houses are too high and that grand houses were rare before the 16th century.

3:2 STRUCTURAL TIMBERS A CRONE AND J BARBER

This report discusses the structural timbers from Kirk Close which was the only site to produce a large number of well preserved timbers. A more detailed report is retained with the unpublished archive.

The sampling of the wood from Kirk Close was hurried and incomplete, bad weather and lack of time preventing total recovery or the operation of a coherent sampling strategy. Most of the structures continued under the main sections and could only be partially investigated. The picture is further confused by the retrieval of wood from unexcavated contexts which were the earliest observed in the stratigraphic sequence.

DISCUSSION

WATTLE

The wattle screens on this, as on many medieval sites, constituted the main use of woodland products (Table 59). However, the wattles sampled do not give evidence of a coppicing cycle. In a well-regulated system of coppicing, cropping would take place at regular intervals (typically four to eight years in the medieval period; Rackham 1980, 137) and, even allowing for a certain amount of flexibility one would expect peaks to occur in the annual ring count indicating the length of coppice cycle whereas the Kirk Close material varied in age from two to eighteen years with no significant peaks. Size rather than age as the decisive factor in the choice of wattles might explain the age range of the Kirk Close material but the variation in size displayed by the samples militates against this interpretation. The withies varied in diameter from 8-25 mm and the sails from 25-50 mm, the maximum variation often occurring within a single hurdle. The total sample is too small to allow for generalizations but the evidence, such as it is, suggests that these are the product of *ad hoc* cropping of isolated coppiced trees, possible even of hedge-row trees, rather than the standardized output of well regulated woodland.

LARGE TIMBERS

Table 60 shows the proportion of species represented in the large timbers from the site. Oak and alder between them account for some 72% of the total. The remaining species

TABLE 59 STRUCTURAL WOOD, THE WITHIES. RELATIVE PROPORTION OF SPECIES (%), KIRK CLOSE

Species	No.	%
<i>Corylus avellana</i> (hazel)	43	52.5
<i>Alnus glutinosa</i> (alder)	14	17.1
<i>Betula</i> sp. (birch)	8	9.7
<i>Salix</i> sp. (willow)	8	9.7
<i>Ulmus</i> sp. (elm)	6	7.4
Pomoideae	3	3.6

TABLE 60 STRUCTURAL WOOD, THE TIMBER. RELATIVE PROPORTIONS OF SPECIES (%), KIRK CLOSE

Species	No.	%
<i>Quercus</i> sp. (oak)	31	50.8
<i>Alnus glutinosa</i> (alder)	13	21.3
<i>Betula</i> sp. (birch)	4	6.6
<i>Fraxinus excelsior</i> (ash)	4	6.6
<i>Ulmus</i> sp. (elm)	3	4.9
<i>Corylus avellana</i> (hazel)	3	4.9
Pomoideae	2	3.3
<i>Salix</i> sp. (willow)	1	1.6

are of little importance given that only one to four pieces of each occurs. Both the property fence 2025 and S2 were built mainly of oak, whereas S3 contained a wide range of species.

Species other than oak were used either in the round or roughly squared. In contrast the oaken timbers were normally rather more fully converted. This is, of course, consistent with the observation that virtually all the oak timbers give evidence of re-use. Estimation of the diameters of the trees from which the timbers came suggested that the non-oak species lay in the range of 50-200 mm diameter. Some of the oak timbers were also from small trees of this size range but the majority are from rather larger trees averaging, perhaps, some 0.4 m.

The oak timbers, then, are clearly significantly different from the remainder and ought to be considered separately. The remainder consists, in the main, of alder which constitutes almost 50% of the non-oak species. This wetland tree was probably readily available along the Tay valley and the alder wattles, which make up the hurdle found S of S2, may be the product of waterside pollards. The willow and birch are probably from the same environment and, while

ash and elm trees require rather better soil conditions, the examples recorded here are small and need represent no more than hedge-row trees.

It is neither necessary nor indeed possible, therefore, to see these non-oak timbers as the product of a woodland, much less of a well-managed woodland. The preparation of the timbers is minimal in most cases and rather rough where it does occur. This quality of preparation is consonant with their representing the gleanings of the town's environs and, in the case of the *Pomoideae* identifications, probably of the town itself. (The *Pomoideae* group covers apple, pear, quince and hawthorn and identification to exact species relies on macroscopic characteristics which often do not survive.)

The oak, on the other hand, is clearly derived from forest grown trees of some size. Their preparation as timbers was more extensive and of far better quality than that of the remainder. It is interesting to contrast the very finely dressed faces of the oak planks with the crudely chopped taper of their lower ends made to facilitate their re-use. The former indicates their earlier usage in larger and more impressive structures than those located at Kirk Close.

CONCLUSIONS

By the Middle Ages most woods and forests either belonged to the Crown or were in private ownership, and their most prized timber product was the oak, valued for its durability and dimensions. Oaks were often gifted to institutions (Rackham *et al* 1978) or privileged individuals but only the wealthiest could afford to buy them. Where oak occurs at Kirk Close it has been re-used and it was probably gleaned from the demolition of wealthier, more prestigious properties, possibly those fronting onto a main street. It appears that the availability of suitable timbers determined the construction of the excavated buildings.

The whole wood assemblage from Kirk Close is suggestive of gleaning and scavenging. The lack of evidence for a system of woodland management does not deny the existence of one. Rather it suggests that the builders of the Kirk Close structures did not have access to the woodlands which originally supplied the oak timbers. Consequently the wood was probably gathered from a variety of sources, including stands of trees bordering the Tay, hedges and wayside trees.

4 POTTERY NL MACASKILL

WITH J BRITTAIN AND C SCOTT AND CONTRIBUTION BY
J HURST

INTRODUCTION

This report covers the medieval pottery from the excavations at Kirk Close, South Methven Street and Canal Street II. The catalogue of illustrated material also includes several comparative sherds from watching briefs in the burgh and from excavations at Mill Street. Full publication of the pottery from Mill Street must await the completion of the archaeological report.

Analysis of the Fabrics

The illustrated sherds have been grouped according to fabric type, sub-divided by site and further by vessel type, sherd type and period. Catalogue numbers of illustrated sherds by site and period are listed at the end of this chapter in Table 61.

Quantification

Sherd count and minimum vessel count have been used to quantify the pottery. The sherd counts by period for each site are in Tables 62mf (1: D11-12), 63mf (1: D13) and 64mf (1: E1-2); the minimum vessel count by period for each site is in Ill 43.

Description

Colour descriptions are approximations. Descriptions of frequency and size of inclusions use the following terms: for frequency, occasional (less than 5 per 25 mm²), moderate (5 to 15 per 25 mm²) and abundant (over 15 per 25 mm²); for size, small (up to 0.1 mm), medium (0.1 mm to 0.75 mm) and large (over 0.75 mm).

SCOTTISH WARES

PERTH LOCAL (1-200)

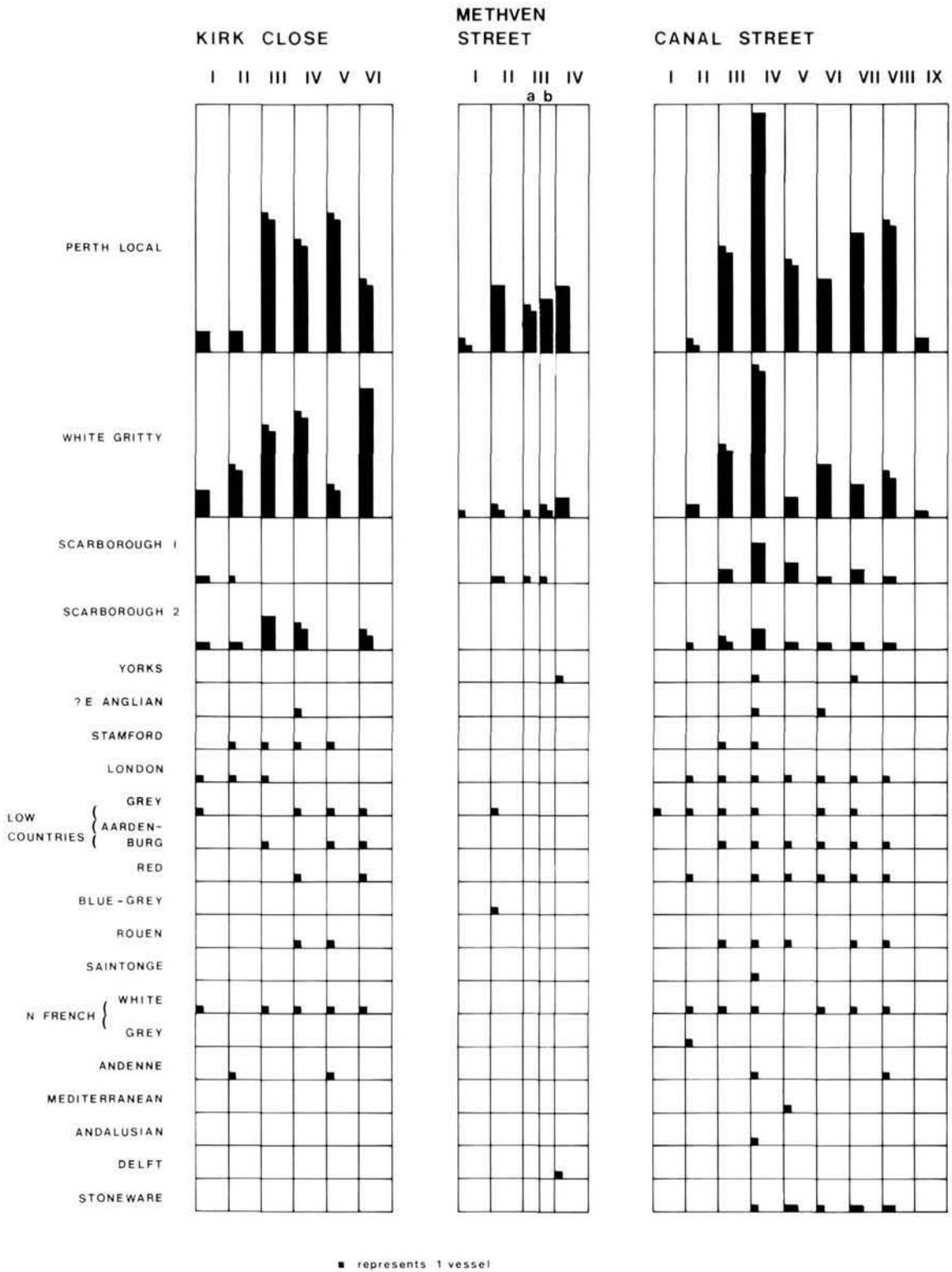
Fabric

The Perth Local fabric is normally medium hard with a smooth texture and an even fracture. It has a fine-grained micaceous clay matrix with inclusions consisting of occasional to moderate sub-angular grains of quartz and/or feldspar. Also present are particles of black, and sometimes red, iron ore, along with, in some cases, occasional other unidentified rock fragments. Its colour is typically buff to orange when oxidised and grey when reduced.

Although no kiln sites have so far been discovered in Perth or the surrounding area, the presence of large numbers of sherds in one fabric provides strong circumstantial evidence

for the existence of a prolific local pottery industry in the medieval period. Sherds in this fabric have been in the majority on nearly all the medieval sites so far excavated in Perth. It was first identified on a site at Kinnoull and was at that time given the common name 'Kinnoull Ware' (Stevenson & Henshall 1957). Within Perth it has been found on excavations at St Ann's Lane (Thoms 1982) and PHSE (Haggarty PHSE); outside the burgh it has been identified at Huntingtower and Elcho Nunnery (both unpublished material). In the report on the Scottish Urban Archaeological Trust's first site in Perth, Canal Street 1978, it was given the common name Perth Local (Scott and Blanchard 1983).

The cooking pots and the majority of the jugs were wholly oxidised. Partial reduction, particularly of the interior,



ILL 43: Pottery. Minimum vessel count by period, Kirk Close, South Methven Street and Canal Street II

was common in the jugs. Wholly reduced sherds make up less than 10% of the total in 13th- to 14th-century levels but this proportion rises to between 30% and 40% in the 15th-century levels.

White, off-white or cream slip was commonly applied to the internal and external surfaces of cooking pots. It was usually dilute and thinly applied, often resulting in a mottled or patchy appearance, although in many cases this may have been caused by soil conditions after deposition.

The jugs usually had a lead glaze on most of their external surfaces, the final colours varying from orange through to light green, yellow-green or orange-green on the oxidised vessels and dark green on the reduced ones. Many were covered with white slip before glazing, which lightened the final colour. Brown or, less commonly, dark green speckling occurs in the glaze on most of the vessels due to the presence of iron particles from the body or copper particles in the glaze. The glaze was commonly splashed on to the upper body, shoulder and outer handle surfaces but rarely on the base or at the rim. In the kiln the jugs were commonly stacked upside down, as runs on the necks and splashes on the bases are common. Stacking scars are uncommon and those which do occur are small.

The application of slip, both by itself on cooking pots and under glaze on jugs, appears to have been more common in the 13th and 14th centuries. The proportion of sherds from slipped vessels decreases in the 15th century. By itself, however, this is not an absolute dating criterion as unslipped vessels do occur in early contexts and slipped ones turn up in later levels, although of course these could be residual.

Vessel Types

Jugs: Most of the sherds in Perth Local are from wheel-thrown jugs and cooking pots. Jugs are nearly always in the majority, even in the earlier periods, and the proportion of cooking pots tends to diminish in the later levels. Other vessel types represented in small numbers include bowls, dripping trays, platters and colanders.

Because the material is so fragmentary it is impossible to be definitive about the range of sizes and forms which were manufactured, but the typical Perth jug appears to have been between 300 mm and 400 mm in height (Ill 44). Wide variations exist, including a squatter, rounder form (40 and possibly 46) and a narrower, almost cylindrical form (36).

Most of the jug necks are cylindrical, often with an angled or rounded ridge (9, 17, 29, 134); a small proportion are splayed, with a wider rim than neck (123, 130, 136). The full range of rim forms from these sites is illustrated (I-34, 85-95, 118-156, 205, 206, 208, 215). Despite the variations, most of the forms are essentially similar but some deviant forms do occur such as 208 and 124, which resemble a French rim-type (eg 368). There appears to be a tendency for thickening to be less pronounced in later (post-14th century) rims.

With few exceptions, the jug rim diameters fall within the range 80 mm to 120 mm. Most of the jug necks have ridges or cordons where they join the shoulder and there are sometimes one or more cordons further down the shoulder.

Apart from a few examples of bridge spouts, mostly fragmentary (45, 208), all the jugs from these sites had pulled spouts.

Over 95% of the jug-handles from these sites are strap forms, most of which have a single thumbled vertical groove. Several of the grooved strap-handles have vertical incisions on their outer surfaces (56), probably intended to prevent distortion during drying or firing. Variations include plain straps (16), ribbed straps (53, 159) and doubled grooved straps (157). A small plain strap has decorative incisions (98).

Plain, ribbed and ridged rod-handles also occur in small numbers (5, 60). There is a single unusual example of a grooved rod form (61) and a single twisted ribbed rod form (216). A bodysherd has two grooved strap-handles applied

at diagonal angles with single thumbled lower junctions and some fingered decorations (165). No direct parallels have been found for this form although three-handled jugs have been found on other Scottish sites.

Knife-trimming of basal angles occurs on occasional sherds from both jugs and cooking pots. It is most common on the later, thicker jugs (176). Several of the jugs were fire-blackened.

Most of the jugs had rounded or 'sagging' bases, sometimes splayed and sometimes, in about 10% of cases, with thumbing. Completely flat bases did occur but they are rare. The thumbing occurs in various patterns: single, separate impressions (50, 101); in groups (63); and, probably, closely spaced all the way round, although the size of the sherds makes this difficult to confirm. One example from Kirk Close is thumbled round the circumference of the basal surface (62).

It appears that, in use, the jugs were not commonly placed on hard level surfaces as there are only a few cases where the thumbing would have been sufficient to provide stability. Although the rounded basal form must have been inconvenient at times for the user, its advantage to the potter was that it was much less likely to crack during drying or firing. Several fragments came from splayed, frilled bases (177) which may have been imitative of the form of stoneware vessel imported from the Rhineland (375, 376).

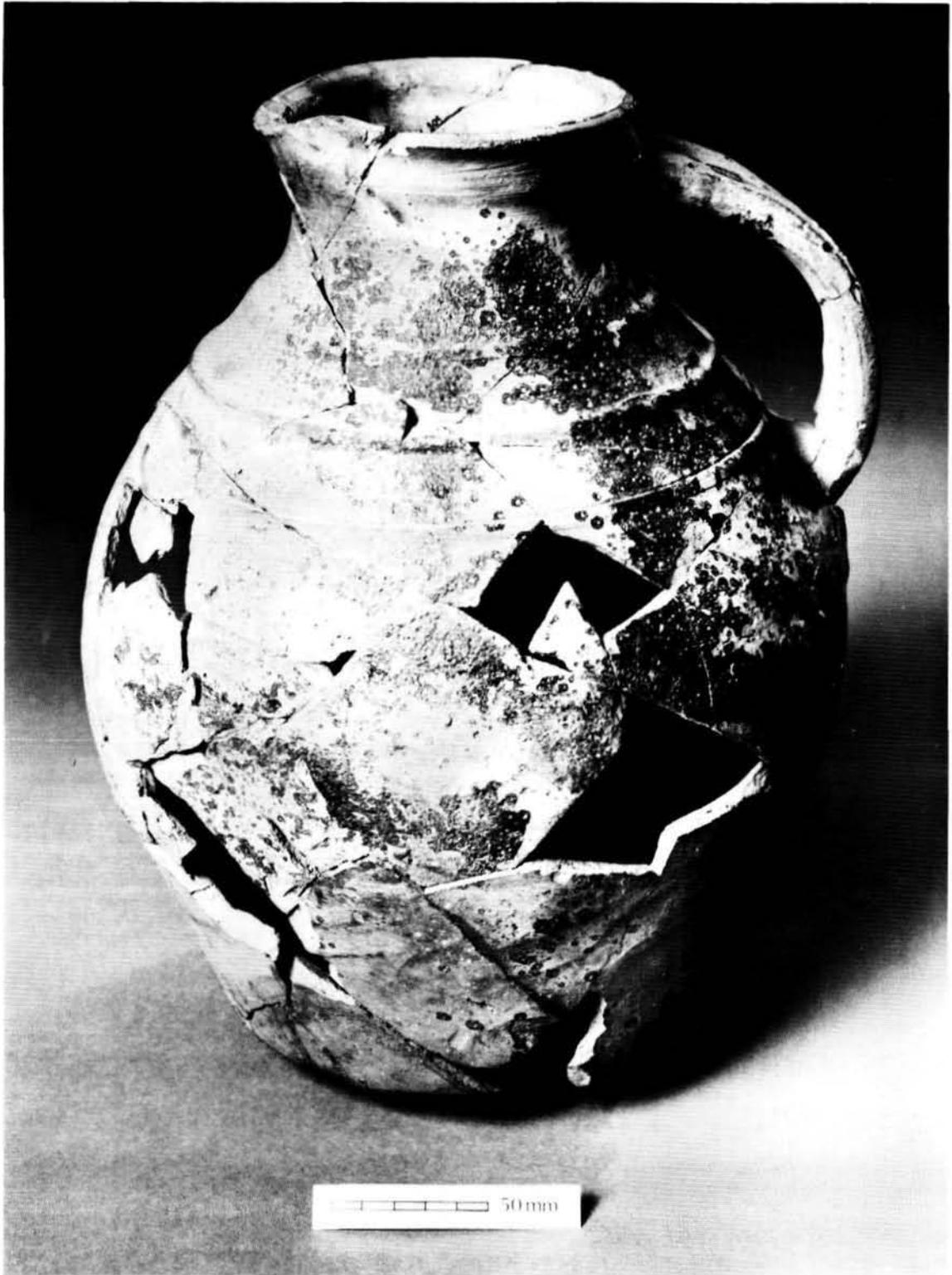
The decoration on the Perth jugs, commonly confined to the shoulder area, is of various types: incised lines, applied pellets, lines, bands and bars in various patterns and combinations; and occasional stamped or incised applied pads and embossed patterns. Incisions were scored on to the body with a single prong (169), a treble-pronged instrument (47) or a small comb (167). The applied decoration is almost always in the same fabric as the body except for two fragmentary examples from Kirk Close with pellets and notched lines in a fine white clay (not illustrated). In many cases, the applied decoration has been coloured red-brown before glazing, apparently by the application of a ferruginous wash (46, 171). Some of the incised (38, 169) and applied (210) examples are parts of elaborate pictorial designs. There were also examples of decorative rods (11, 45, 52, 53) and face masks (54, 207, 217).

Cooking pots: Although vessels of this type are commonly called 'cooking pots', they were not necessarily used for cooking (Moorhouse 1981, 114-6). Most of the pots represented here undoubtedly were, however, as they have external blackening ranging from slight discolouration to thick burnt sooty layers suggesting prolonged and repeated exposure to fire.

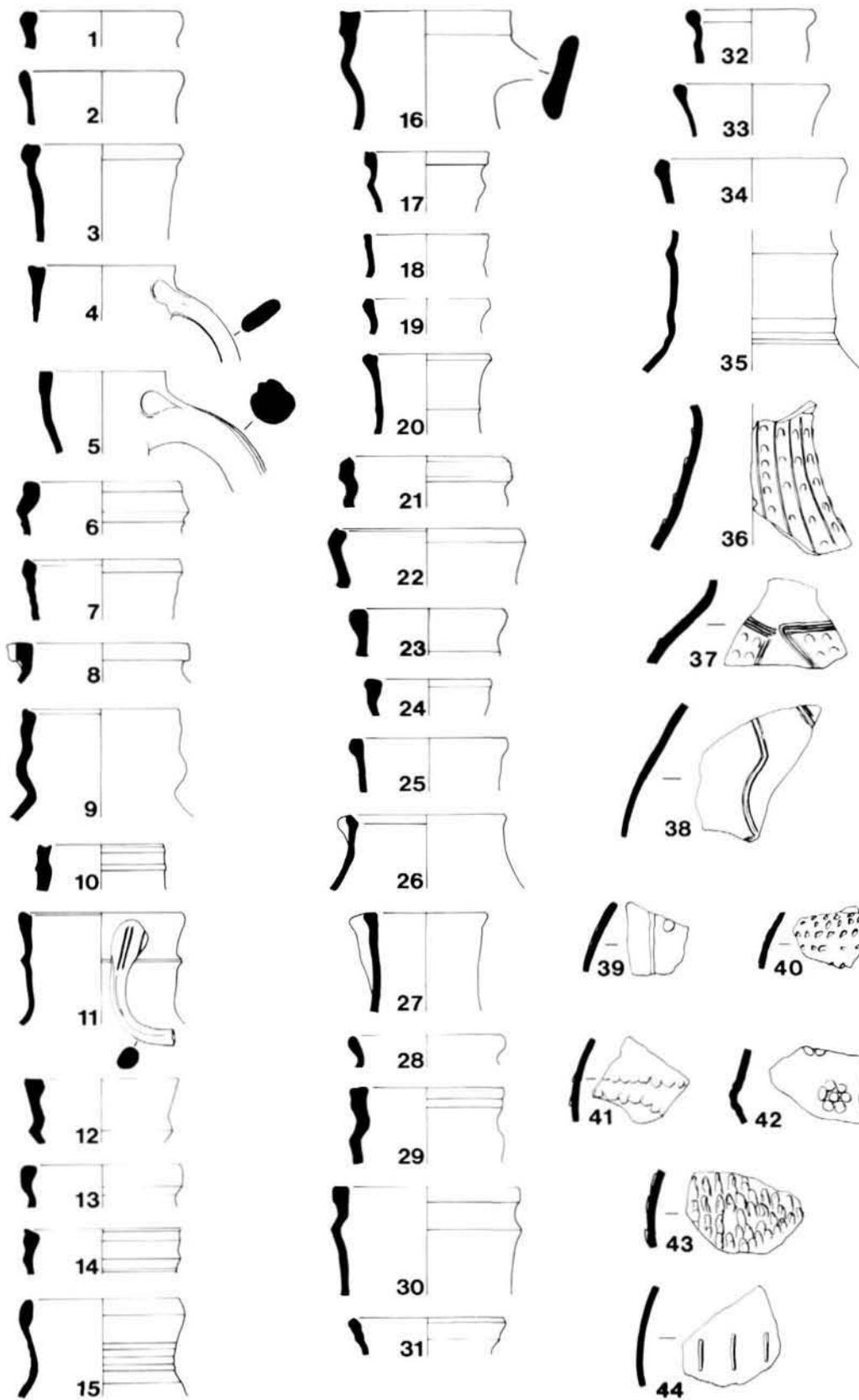
There is only one complete profile which is unstratified (220). The rest of the pots are represented by plain basal sherds, bodysherds, occasional handles and a wide variety of rimsherds. The commonest form appears to have been a squat, rounded or carinated jar-like vessel with an angled rim with substantial squared or rounded thickening. The heights of the vessels can only be guessed at, but there is a wide range of rim diameters from 70 to 200 mm. Some of the vessels at the lower end of this range must have had such a small capacity that their culinary usefulness would have been very limited.

In some of the larger vessels, the form of the angled rim is such that it may have served as a lid seating (218). Although no ceramic lids have been recovered, it is possible that other materials, such as wood, were used for this purpose. Some of the cooking pots had handles but, once again, the fragmentary nature of the evidence makes estimation of their numbers impossible. Most are strap-forms affixed directly to the rim (79, 218). Occasional handles which may have come from skillets or pipkins were also recovered (219, 124) and there is one sherd which is probably a pipkin foot (82).

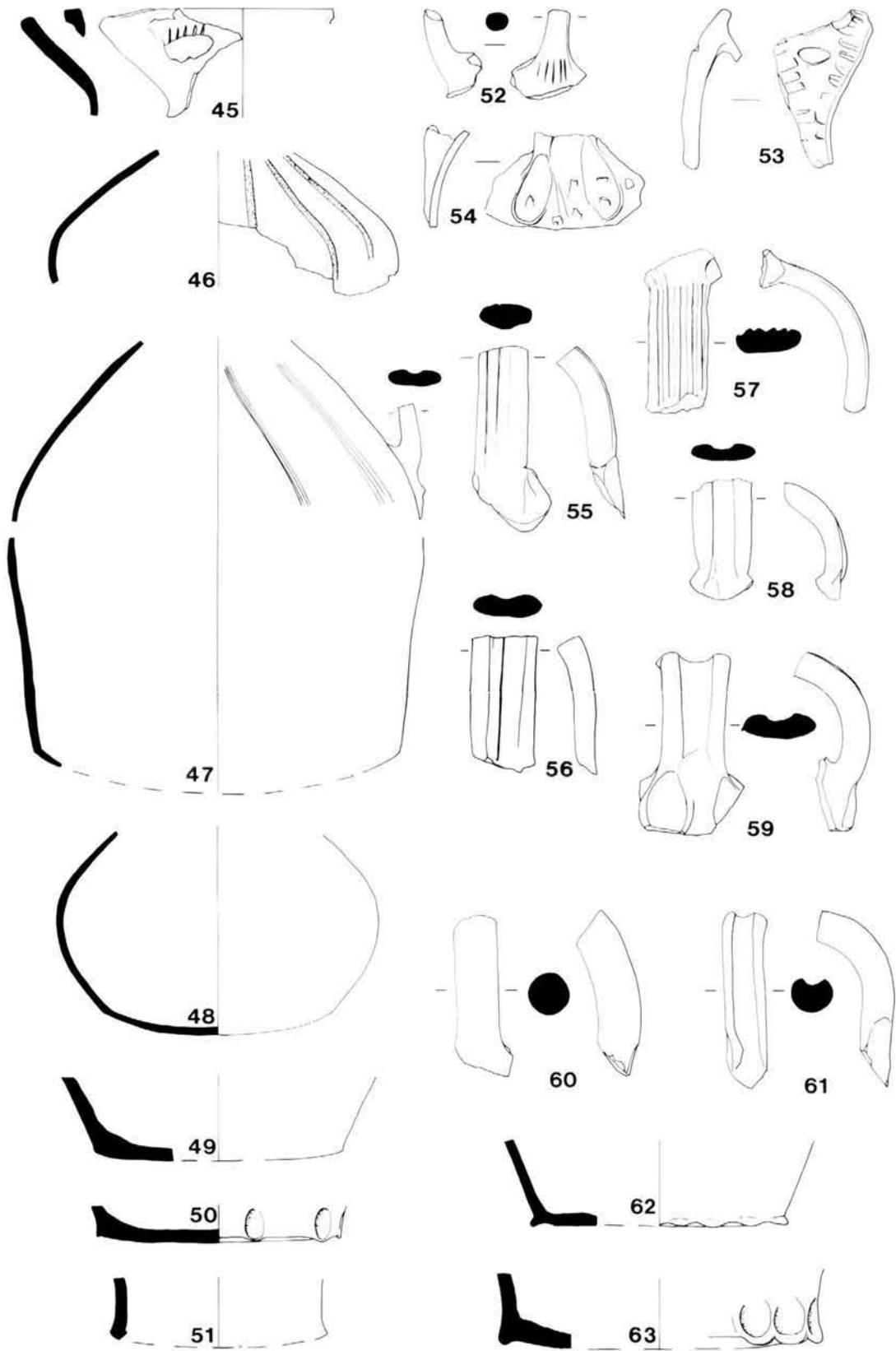
Other vessel types: There were rim sherds from two colanders (203), parts of a large bowl (204) and fragments



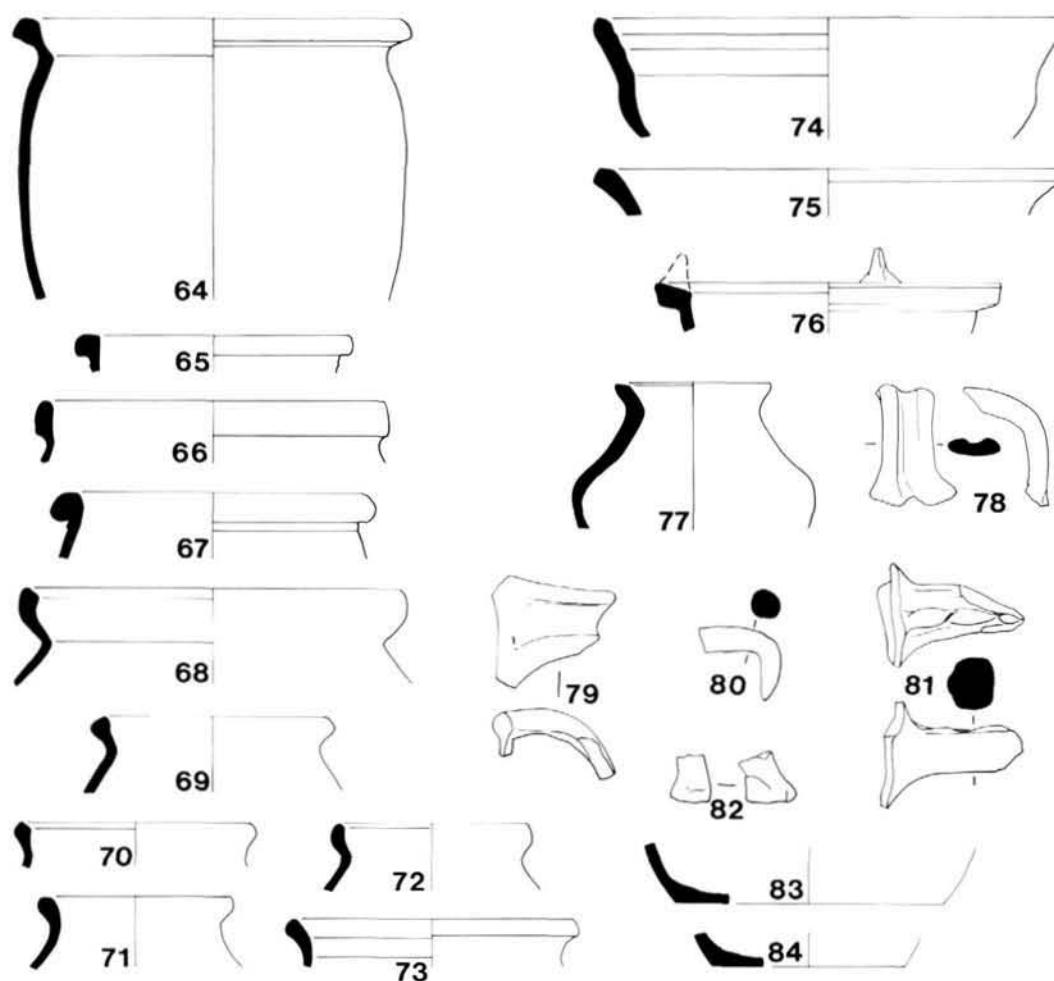
ILL 44 : Medieval pottery. Perth local ware jug: Catalogue No 206



ILL. 45 : Medieval pottery. Perth local ware from Kirk Close. Scale 1/4



ILL. 46 : Medieval pottery. Perth local ware from Kirk Close. Scale 1/4



ILL. 47 : Medieval pottery. Perth local ware from Kirk Close. Scale 1/4.

of platters and dripping trays. A bowl-type vessel from Kirk Close has a clay protrusion attached to the rim, probably so that it could be used as a chafing dish (76).

WHITE GRITTY (221-300)

The second most common type of pottery used in medieval Perth was White Gritty Ware, a Scottish East Coast tradition. A kiln site at Colstoun, East Lothian, has been excavated and the assemblage derived from it studied in considerable detail (Brooks 1980). It is probable that similar wares were being manufactured at a number of different sites with access to white-firing clay. The fact that sherds of this type have been recovered in substantial numbers from medieval levels in Ayr, in the SW, indicates that the tradition was not restricted to the E of the country (W Lindsay, pers comm.).

Fabric

The fabric of these sherds is not uniform but there are certain common factors. It is normally medium hard to hard with a slightly uneven fracture; it is off-white in colour, varying to pale grey or cream, often with pale orange surfaces. The clay matrix is quite fine and micaceous and contains moderate to abundant quartz grains of varying sizes, along with red and black iron ore, sometimes in large quantities, and other

unidentified rock fragments. There is considerable variation in the size and frequency of the inclusions.

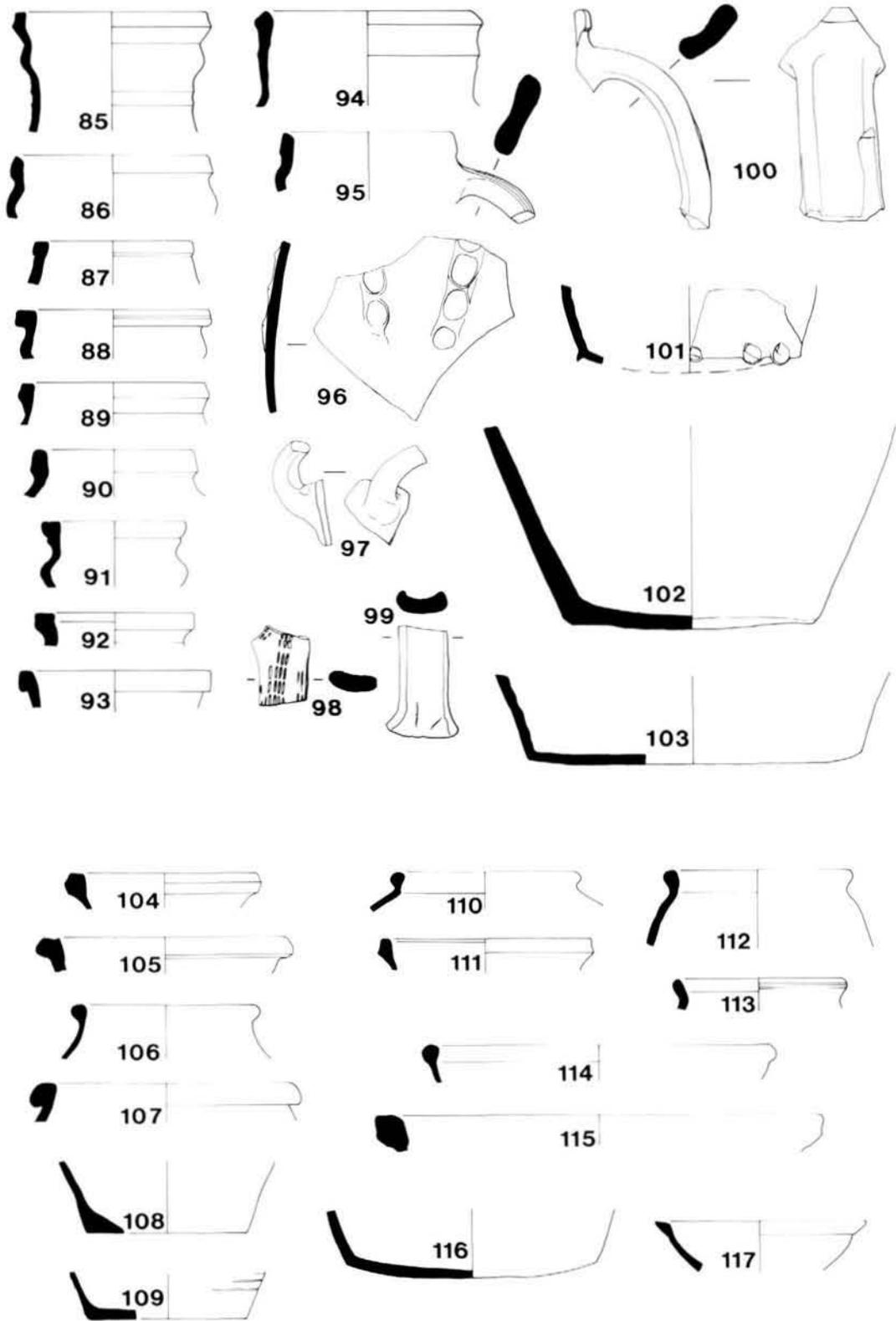
The degree of reduction or oxidation of this type of clay is less obvious than it is in the case of reddish clay like that used for Perth Local. There does, however, appear to have been some variation in the firing, once again probably more accidental than deliberate. Many of the sherds are reduced to a light or medium blue-grey at the core or inner surfaces. Darker greys are uncommon but do occur.

The jugs had a lead glaze, commonly coloured green, varying to yellow-green or dark green, which was splashed on the body surfaces, avoiding the rim, neck and basal surfaces. Runs and accidental splashes indicate that firing took place while the jugs were stacked upside down. Stacking scars, usually small, are occasionally present. Many of the sherds contain large quartz grits which give a slightly pimply appearance to the surfaces.

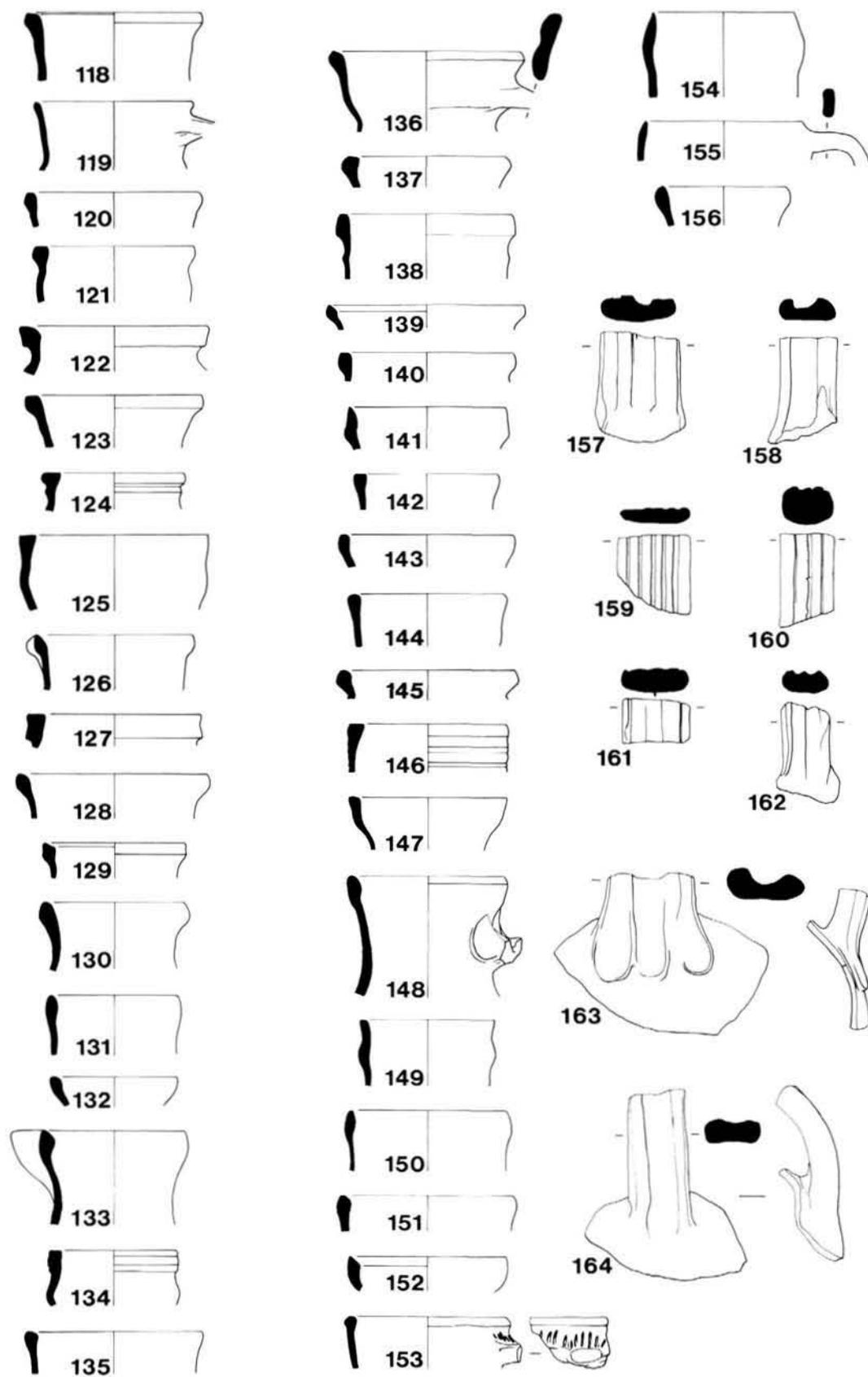
Vessel Types

Jugs: Most of the sherds recovered are from jugs and cooking pots. The proportion of cooking pots to jugs is higher than in the local ware but only on Kirk Close do the former consistently outnumber the latter.

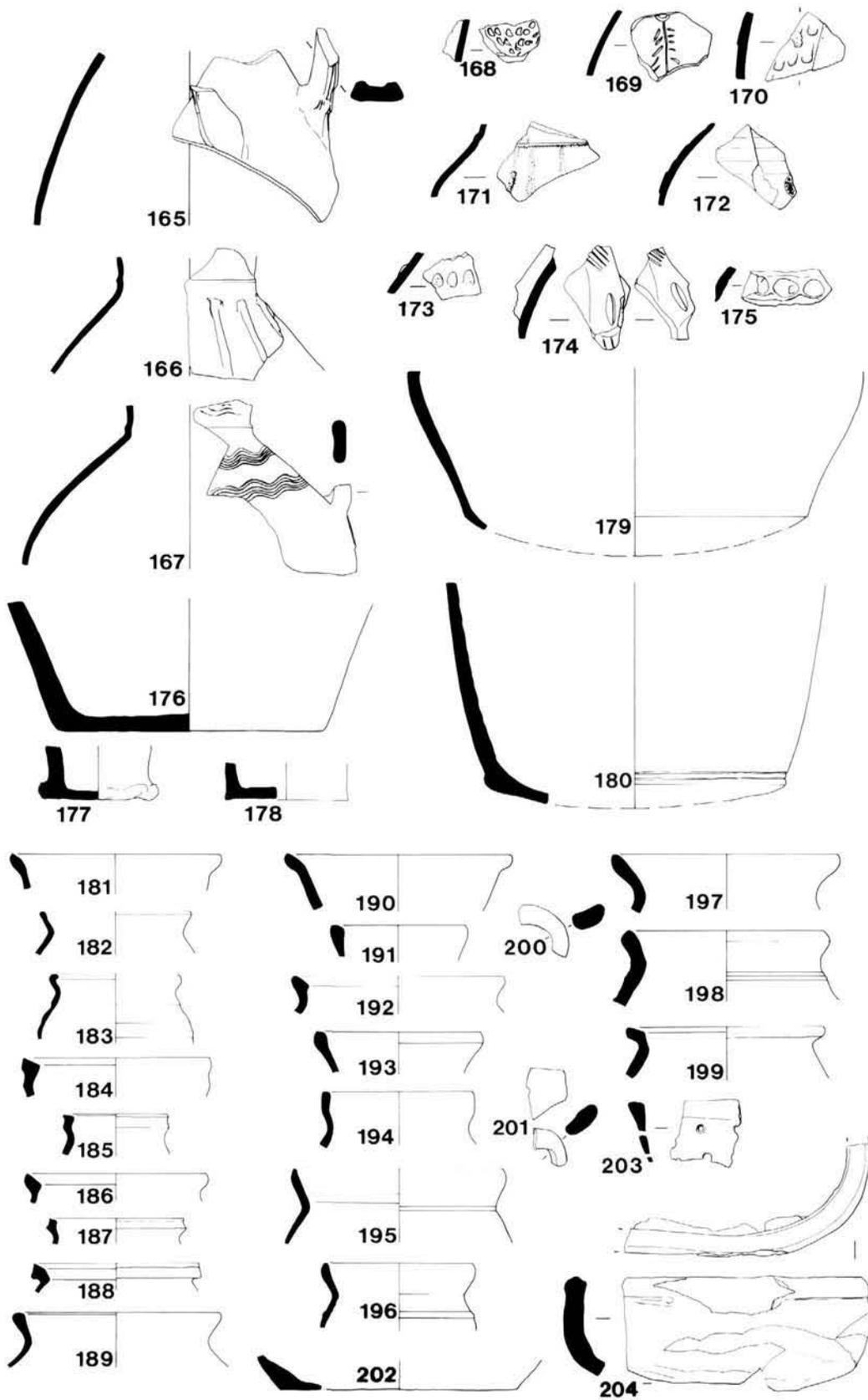
Only one complete jug profile could be reconstructed, (288). The basic form seems to have been similar to that of the Perth Local jugs which are ovoid with cylindrical or



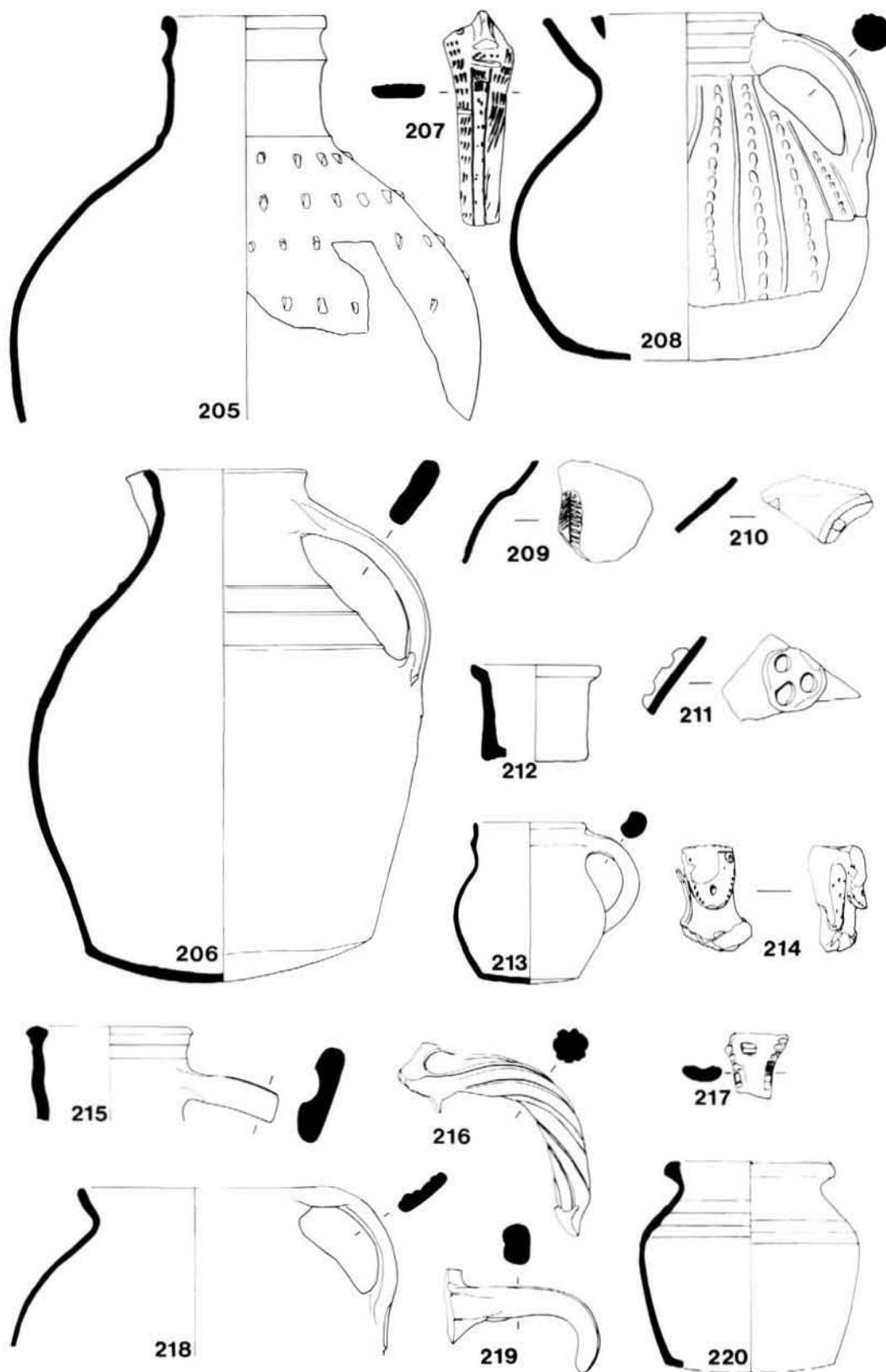
ILL. 48 : Medieval pottery, Perth local ware from South Methven Street. Scale 1/4



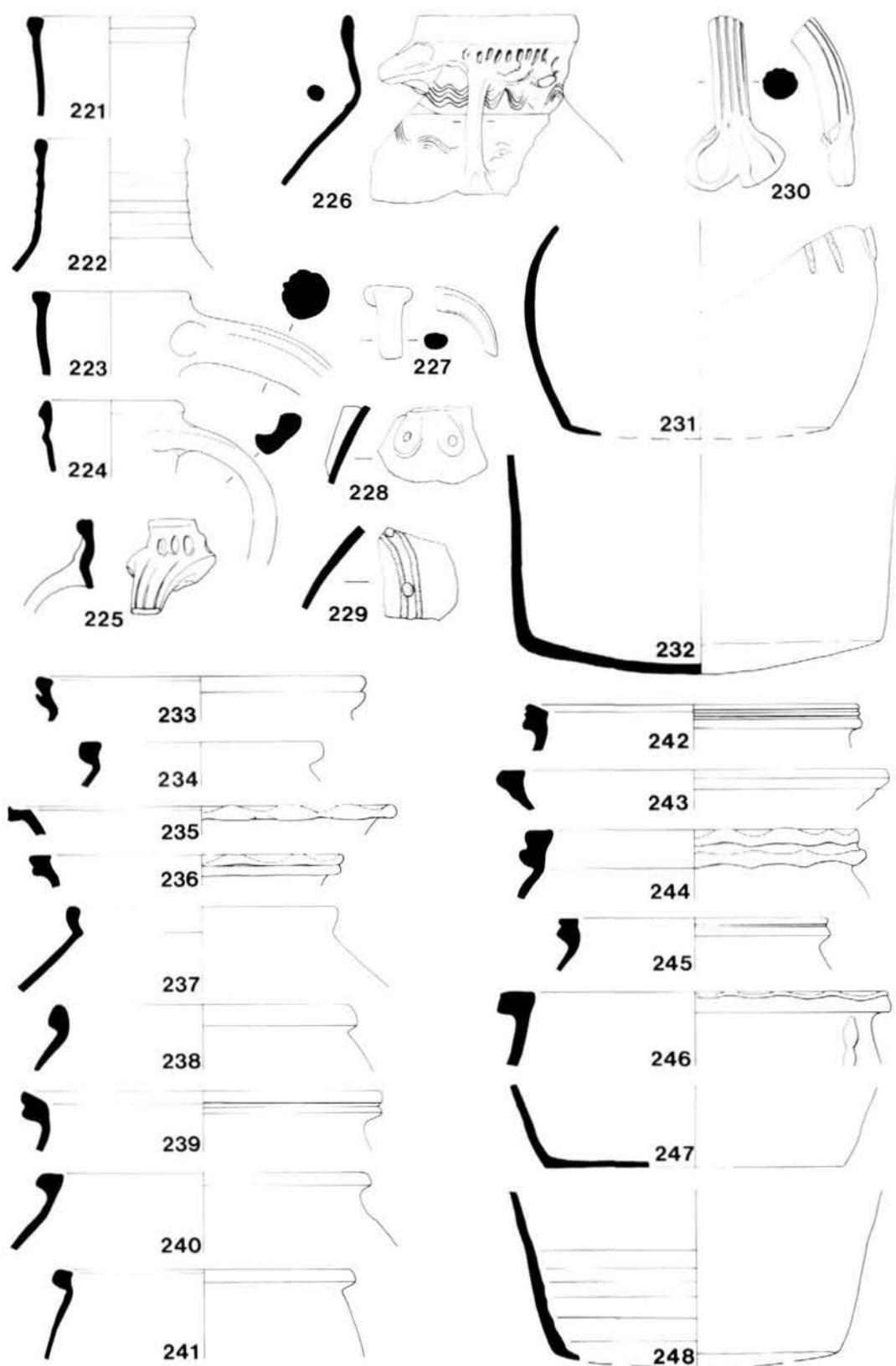
ILL 49 : Medieval pottery. Perth local ware from Canal Street II. Scale 1/4



ILL. 50 : Medieval pottery. Perth local ware from Canal Street II. Scale 1/4



ILL. 51 : Medieval pottery. Perth local ware from Mill Street (205-214) and 1-5 High Street watching brief (215-220). Scale 1/4



ILL. 52 : Medieval pottery, White Gritty ware from Kirk Close, Scale 1/4

conical necks. The average height of the vessels is hard to estimate but probably was in the range 250 to 350 mm.

Nearly all the jug rims are upright with squared or rounded thickening, sometimes beaded and sometimes almost collared. The necks are largely cylindrical and sometimes splayed. Angled neck ridges occur but are less common than on the Perth Local jugs. There is commonly one cordon at the neck-shoulder junction although in some cases two or three are present. All the vessels represented here had pulled spouts, with the exception of one untypical small vessel from Mill Street with a tubular spout (293). Rim diameters are within the range 80 to 120 mm but tend to be smaller than those of the Perth Local jugs.

The strap form is the most common type of handle, either plain, grooved (224, 250) or ribbed. Some are incised (287, 290), one has a decorative thumbled vertical strip (289) and one small example has decorative incisions (273). Ribbed and ridged rod-handles were also used on these jugs and appear in both early and late periods (223, 230). The upper and lower junctions of the jug handles are usually attached by thumbing (223, 228) but plain attachments also occur (223, 230, 287).

Most of the jug bases in this fabric are plain and rounded. There are a few fragmentary examples of basal thumbing.

The most common type of decoration consists of applied lines, sometimes in the body clay but more commonly in a dark brown, iron-rich clay. These are most often applied vertically on the jug shoulders and body (231, 298) but occur in various other patterns as well (229, 292). In some cases the darker clay is applied in pellets and blobs (228). Incised

(293), combed (226) and stamped (271) decoration also occur but in small numbers. Many of the shoulder cordons of the jugs have been notched (288), sometimes by rouletting.

The influence of Scarborough Ware is apparent on these jugs in the incidence of decorative rods (226), and face masks (254, 272). There is one unusual example of decorative straps having been applied between rim and shoulder (225).

Cooking pots: There are no complete profiles of cooking pots from these sites. From the rim, body and basal sherds, however, it appears that the vessels were commonly globular or 'barrel-shaped' and came in a range of sizes. The heights of the vessels cannot be satisfactorily estimated but the rim diameters range from 120 mm to 280 mm.

A wide variety of rim forms occur, most of which are more decorative than those of the Perth Local cooking pots. The full range of types is illustrated (233-246, 258-262, 274-286, 294, 295). Many of the rims are parallel in the Colstoun assemblage (Brooks 1980, nos 199, 151, 139, 140, 159, 145, 133 and 151). The frilled or 'pie-crust' decorative types are distinctive and typical of this ware (244, 294), as are the thickened rims with single, double or triple grooving (239, 242). Only a few handles were recovered (297). One example of body decoration is present: a thumbled vertical applied strip (246). Both flat and rounded basal forms occurred, with the latter predominating.

Other Vessel types: Large pipkins were represented by a tubular handle (257) and a leg. There is no other evidence of this form in medieval levels although it is possible that some of the rim and body sherds came from this type of vessel. One skillet handle was recovered (300).

ENGLISH WARES

SCARBOROUGH WARE (301-341)

Scarborough Ware vessels, mainly decorated jugs, make up the third largest pottery group in use in medieval Perth. Unlike the European and other English imports which were present but were probably not traded in quantity over a long period. The Scarborough Wares appear to have been imported in large numbers and widely marketed simultaneously with, and probably prior to, the local wares. This situation is paralleled in Aberdeen (Murray J C 1982) and Scarborough Wares have also been recovered from medieval sites in Inverness (MacAskill 1982a), Kirkwall (MacAskill 1982b), Elgin (Lindsay, pers comm), St Andrews (SUAT forthcoming a), Inverkeithing (MacAskill 1983) and Stirling (Lindsay, pers comm).

On the basis of work on kiln sites, Scarborough Ware has been subdivided by Farmer (1979) into two distinct fabric types: Phase I which is soft, sandy and usually pinkish in colour; Phase II which is hard, buff or off-white and smooth, sometimes with sandy inclusions. Farmer dates the Phase I fabric to between c 1150 and 1225 and Phase II fabric to between 1225 and c 1350. This dating has, however, been the subject of some controversy (Farmer *et al* 1982).

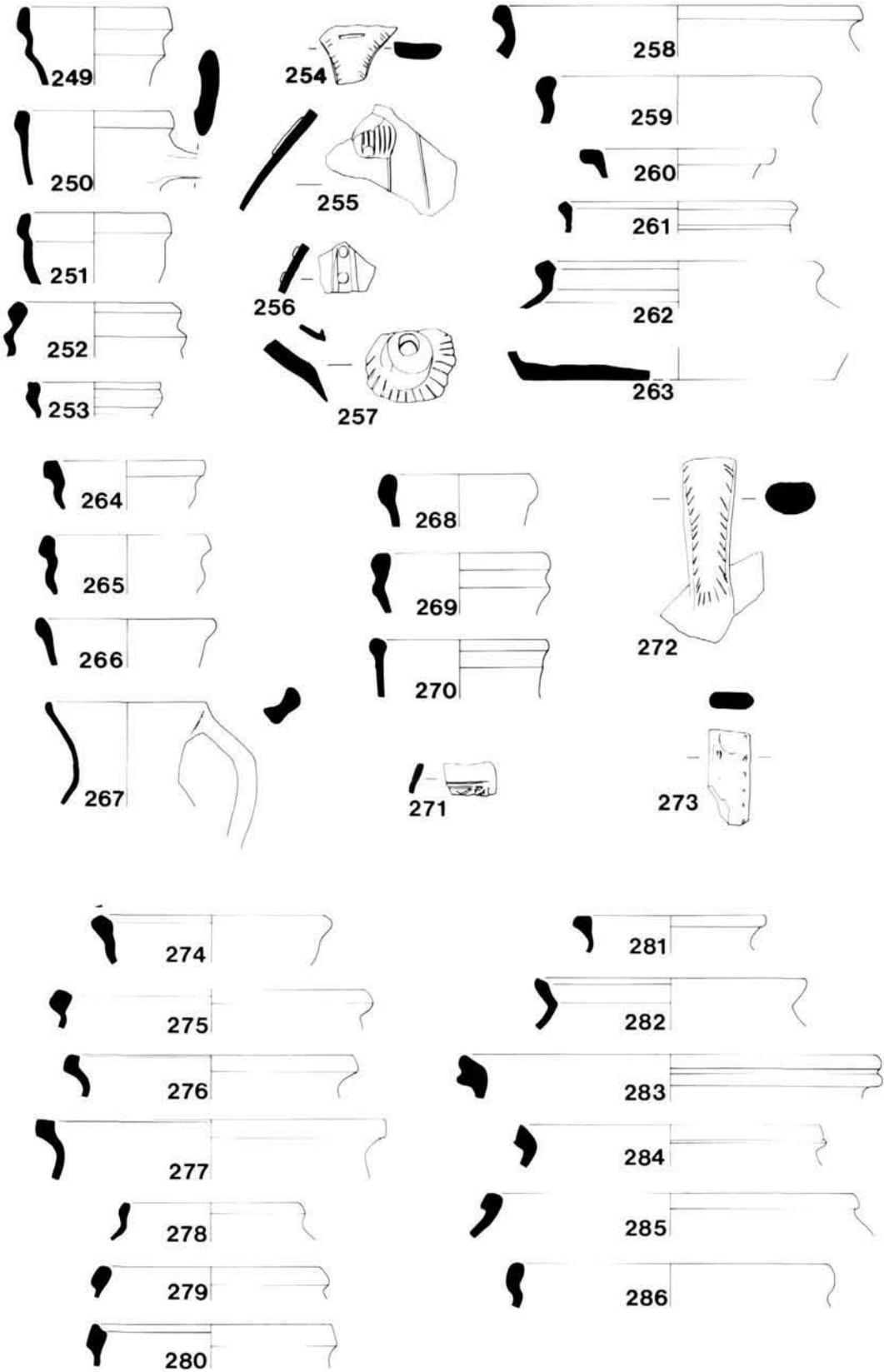
Both fabric types were recovered from these excavations in Perth but Phase II predominated. In the analysis of the sherds, some difficulties were experienced in dividing up the sherds according to Farmer's published descriptions of the two fabrics, so it is possible that there are some cases of mis-identification. Most of the sherds are from jugs which had the lustrous dark green glaze which is characteristic of Scarborough Ware. There are also examples of orange and orange-green glazing, however, sometimes decorated with lines or streaks of dark green.

Anthropomorphic Knight Jugs with their complex applied decorative treatment, are represented by six fragments, including a knight's head (316) and parts of two shields (315, 335). A rimsherd (334) has a notch on its inner surface for the locking lid which is characteristic of these jugs and there are also two fragments from lids (336).

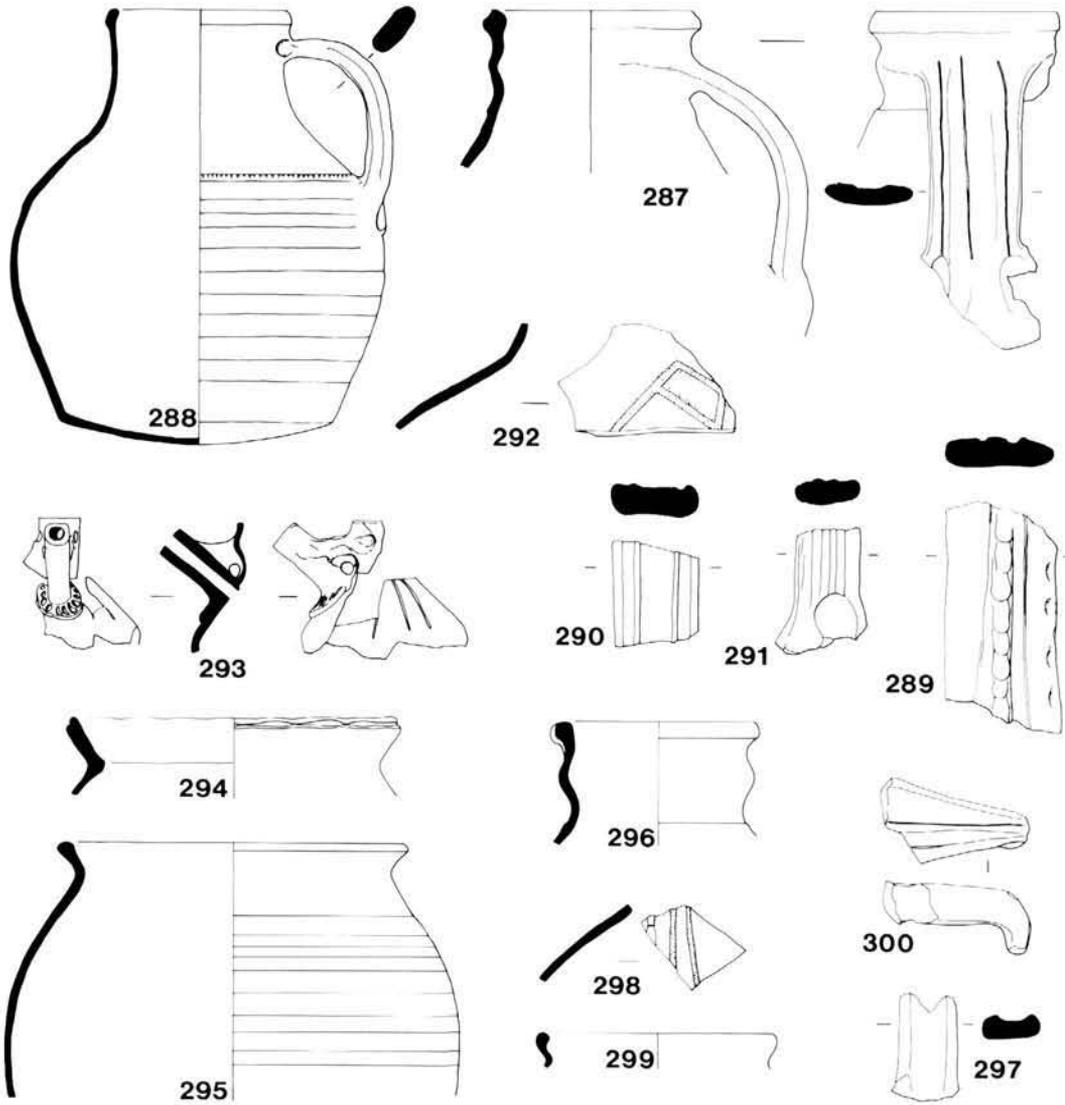
The decoration on one of the jug bodysherds (313) is the only known occurrence of both a wheat ear and a raspberry embossed on the same vessel (Farmer, pers comm). Two decorated fragments from Mill Street had glaze extending over part of their broken surfaces which suggests that the jugs might have been wasters.

From Kirk Close there were two fragments from aquamaniles: the rear end of a ram-type vessel from Period IV (320) and a leg-sherd from Period V from a similar, or possibly the same, vessel (319). There is also part of a bowl with internal and external dark green glaze (338), and a spout fragment from a large oval or round dish (321).

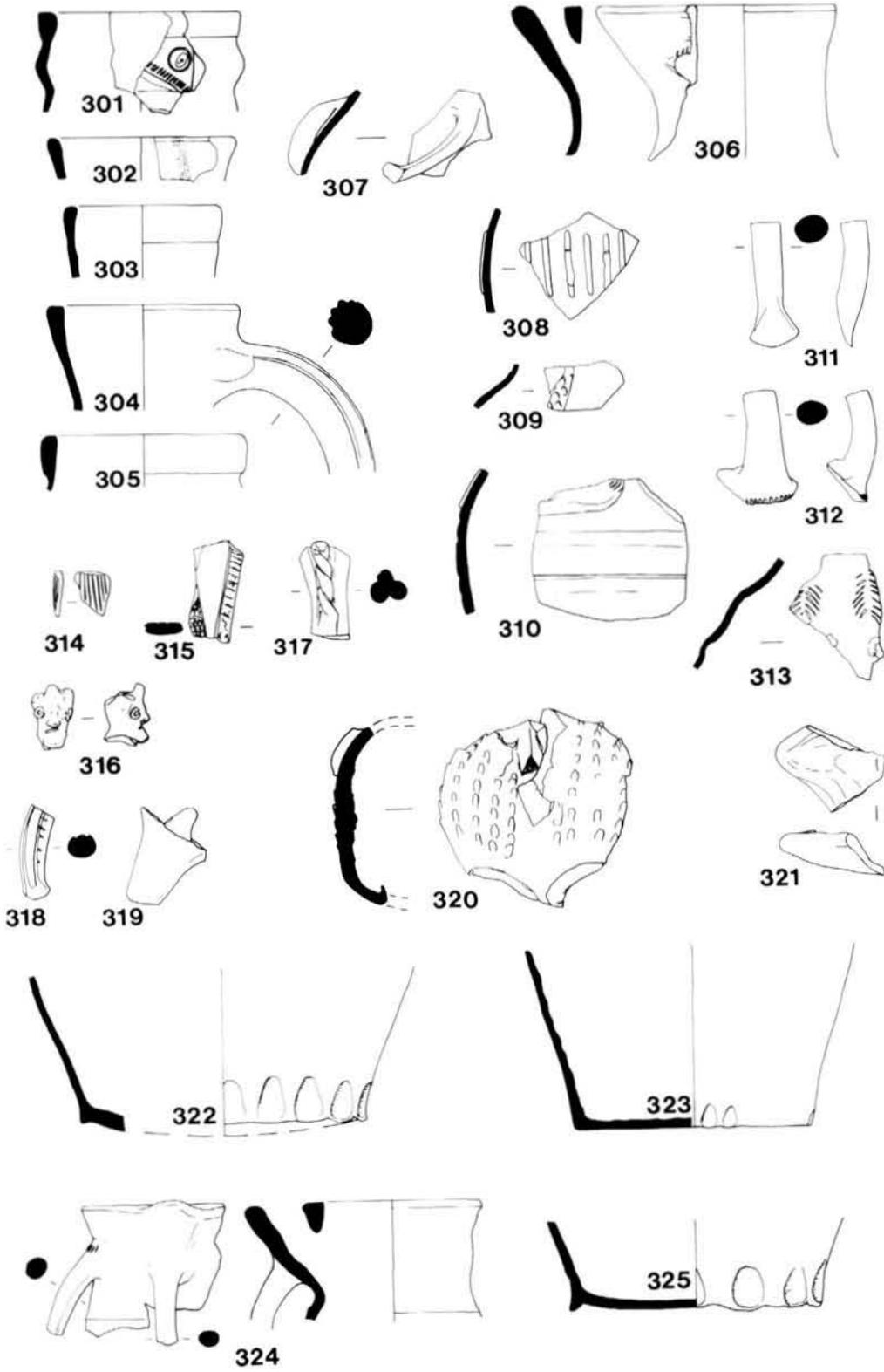
Accepting Farmer's dating of the two fabric types, there are no problems with their occurrence on Kirk Close or South Methven Street. Substantial amounts of the Phase II fabric must be residual and there are residual Phase I sherds in Period IV of South Methven Street, but this is to be expected. On Canal Street II, however, there is a large quantity of the Phase I fabric in the periods which undoubtedly post-date its supposed production period, occurring alongside the Phase II fabric. These Phase I sherds may be interpreted as being residual, and some may have been mis-identified, but the quantity remains uncomfortably large and, while not contradicting Farmer's dating, it lends weight to the argument that some revision is required.



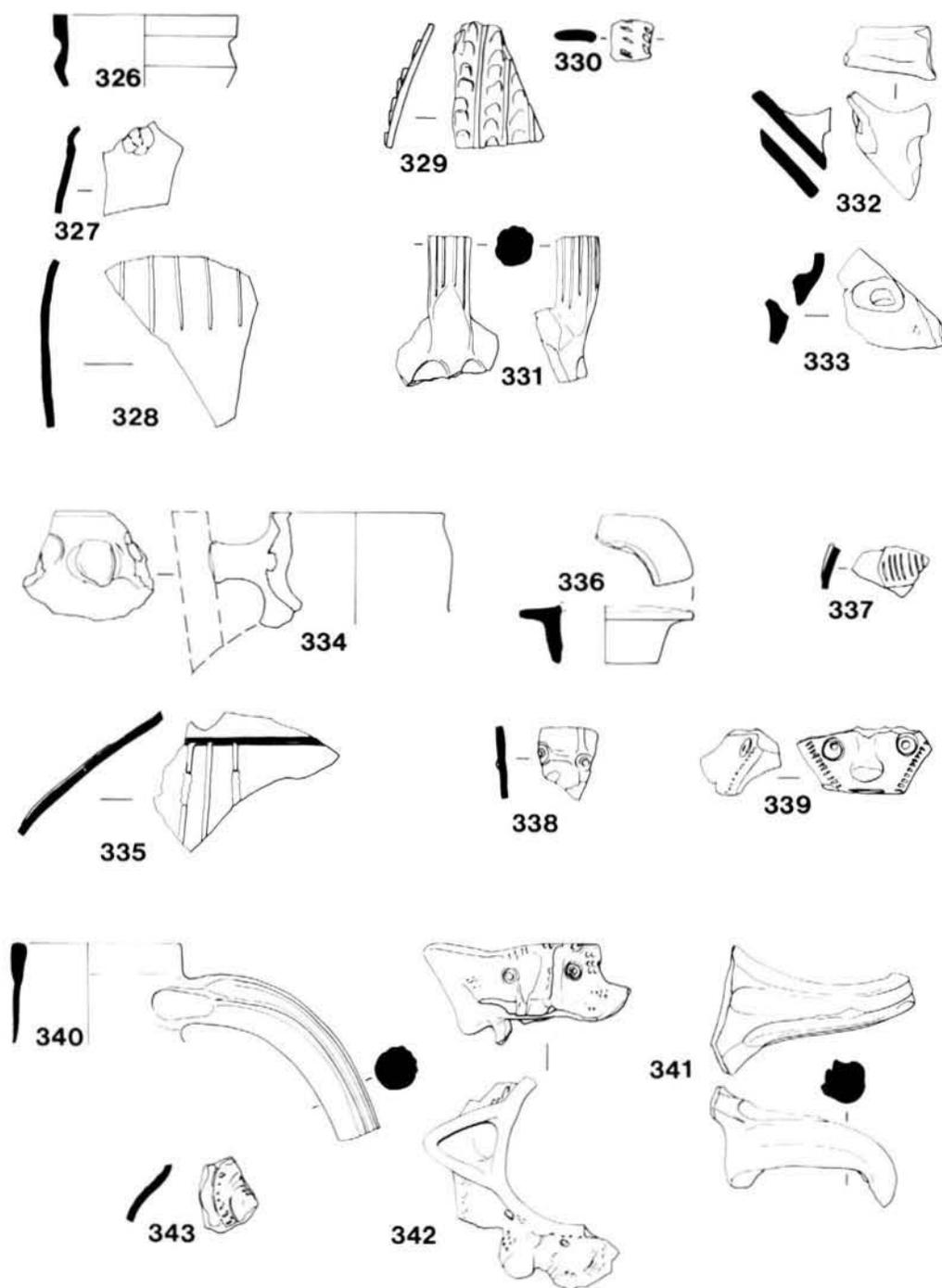
ILL. 53 : Medieval pottery. White Gritty ware from South Methven Street (249-263) and Canal Street II. Scale 1/4



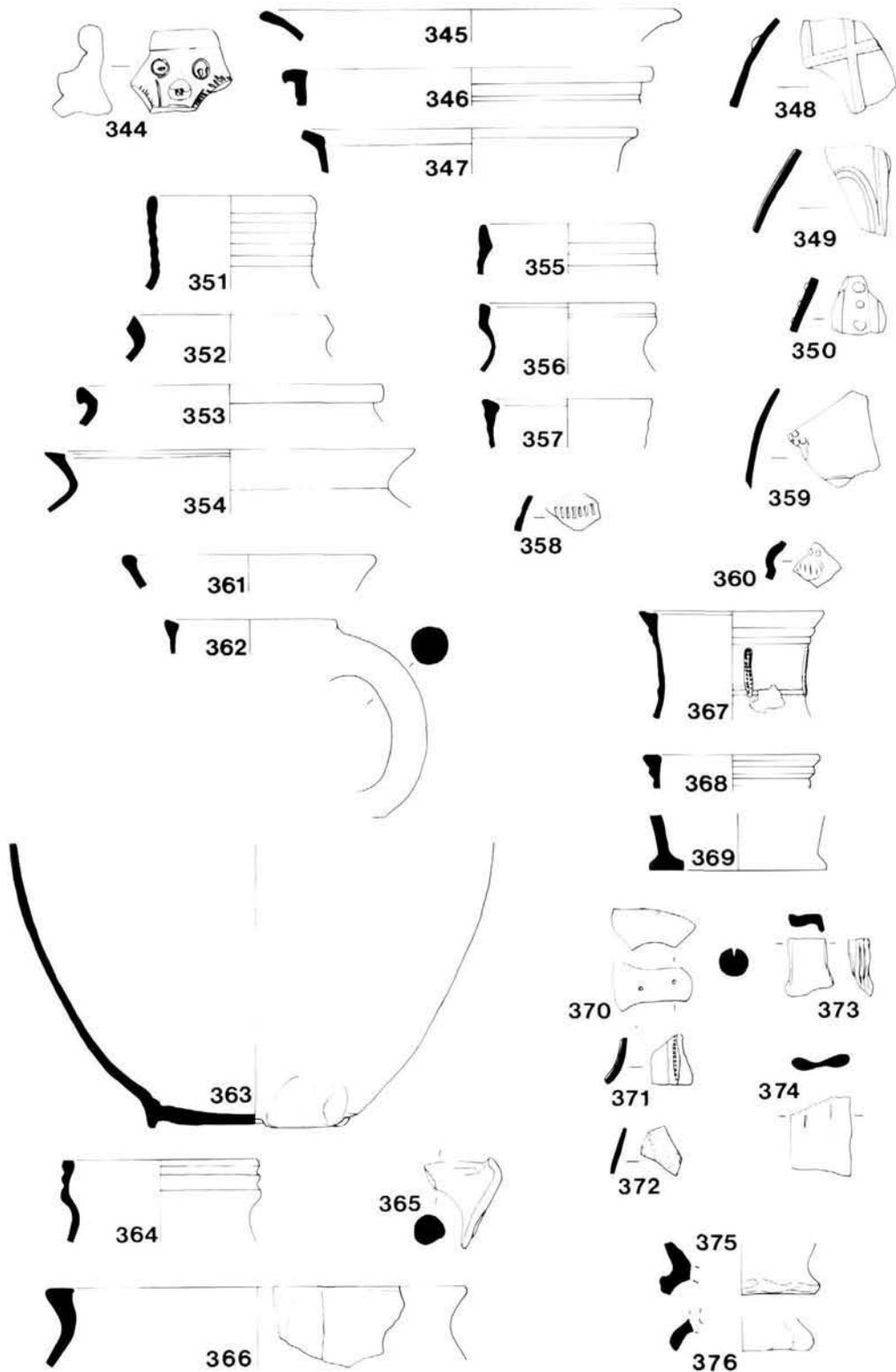
ILL. 54 : Medieval pottery. White Gritty ware from Mill Street (287-295) and 1-5 High Street watching brief (296-300). Scale 1/4



ILL. 55 : Medieval pottery. Scarborough ware from Kirk Close (301-323) and South Methven Street (324-325). Scale 1/4



ILL. 56 : Medieval pottery. Scarborough ware from Canal Street II (326-331), Mill Street (332-339), King Edward Street (340) and 1-5 High Street watching brief (341), Yorkshire ware from 1-5 High Street watching brief (342) and South Methven Street (343). Scale 1/4



ILL. 57 : Medieval pottery. Grimston ware(?) from Kirk Close (344). East Anglian ware(?) from Kirk Close (345) and Canal Street II (346-347). London ware from Kirk Close (348-349) and Canal Street II (350). Low Countries greyware from Kirk Close (351), South Methven Street (352-353) and Canal Street II (354). Aardenburg type ware from Canal Street II (355-356 and 358-360) and 1-5 High Street watching brief (357). Low Countries red ware from Canal Street II (361), 1-5 High Street watching brief (362) and Kirk Close (363, 364). Rhenish blue-grey ware from South Methven Street (365). North French grey ware from Canal Street II (366). Rouen ware from 1-5 High Street watching brief (367, 370), Canal Street II (368) and Kirk Close (369, 371). Saintonge ware from Canal Street II (372-373). Mediterranean ware from Canal Street II (374). Stoneware from Canal Street II (375-376). Scale 1/4

YORKSHIRE WARES (342-343)

The distinction between Scarborough Wares and wares from other parts of Yorkshire is not always obvious and it is possible that some of the bodysherds which have been counted as Scarborough Ware are in fact from elsewhere in the region. Several sherds have been positively identified as Yorkshire types. These include a decorated body fragment and a face mask (342) which are copies of Scarborough Ware (Farmer, pers comm). There is also a fragment of a green-glazed strap-handle in a hard sandy fabric and a fragment of a York Seal jug (343) dating to the 13th century. As usual on these jugs, the inscription is meaningless.

UNGLAZED E ANGLIAN WARES (345-347)**Fabric**

Medium hard to hard with an uneven fracture and slight lamination; gritty matrix with abundant small to medium sub-angular quartz inclusions. Colour varies from buff-orange with grey core to grey and grey-brown. Unglazed.

Vessel types

Cooking pots and ?bowl: These are very similar to Low Countries wares but have been tentatively identified as being of E Anglian origin. They are similar to wares found in Aberdeen (Murray, J C 1982, Fabrics 22-25) and probably have a date range in the 12th and 13th centuries.

STAMFORD WARE (Not illustrated)**Fabric**

Medium hard, fine with an even fracture; moderate quantities of small quartz grains and occasional red and black specks,

probably iron ore. Colour is white to off-white. Pale green external glaze.

Vessel types

Probably jugs: Pottery from Stamford in Lincolnshire was widely traded during the 11th, 12th and 13th centuries. The types represented here, commonly referred to as 'Developed Stamford Ware' and classified as Fabrics B and C by Kilmurry (1980) have a date range from the mid-12th century to the mid-13th century, when production of Stamford Ware ceased.

LONDON-TYPE WARES (348-350)**Fabric**

Medium hard and sandy with an uneven fracture; finely gritted matrix with abundant small sub-angular to rounded quartz grains and other rock fragments. Colour is orange to red-brown, often with grey core. Pale glaze, dark green or brown, often mottled over body surface and pale yellow-cream over applied strips and dots in finely gritted white fabric.

Vessel types

Jugs. Sandy wares from the London area have a date range from the mid-12th century to the mid-14th century. Most of the fragments here are of the type referred to as 'Rouen copy' and probably date to the 13th century.

EUROPEAN WARES

LOW COUNTRIES: GREY WARES (351-354)**Fabric**

Medium hard to hard with even, slightly laminated, fracture; fine matrix with abundant small to medium quartz and occasional mica. Colours are brown-grey or grey with dark grey surfaces. Unglazed.

Vessel types

Pitchers, cooking pots: The cooking pots in this fabric probably date from the mid-12th to the mid-14th century; the pitchers date largely to the early 14th century, possibly as early as 1300. Several of the bodysherds in this group are not certainly identified as their fabric is untypical.

LOW COUNTRIES: AARDENBURG-TYPE (355-360)**Fabric**

Medium hard with a sandy matrix; moderate to abundant small quartz grains and occasional red and black inclusions, probably iron ore. Colour is orange-red, often with a grey core. Commonly slipped white under a red-brown, green or yellow glaze.

Vessel types

Jugs: The sherds from Canal Street II, although from six different archaeological periods, may be from as few as three vessels, broken and scattered. The body decoration is typical;

355 and 356 are probably from a jug with two rows of large and small embossed decorations (cf Dunning 1976, 189, no 3). The date range is from c 1250 to 1325 (Verhaeghe 1983, 27).

LOW COUNTRIES: RED WARES (361-364)**Fabric**

Typically medium hard and sandy; abundant small sub-angular quartz grains and red iron ore inclusions. Colour varies from orange to orange-red, sometimes with a grey core; brown or brown-green glaze; some sherds have a grey surface, possibly slip.

Vessel types

Jugs, cooking pots, skillets: Most of the sherds in this group have been identified by Verhaeghe as being 'possible to probable Low Countries Ware'. Most of them probably date to the first half of the 14th century although some may be as late as the 15th century and some as early as the mid-13th century.

RHENISH 'BLUE-GREY' (365)**Fabric**

Hard, fine matrix with abundant small to medium quartz/feldspar grits and occasional unidentified rock fragments; colour is white with dark blue-grey surfaces, slight metallic sheen. Unglazed.

Vessel type

Ladle: This type of pottery, sometimes known as Paffrath after one possible production centre, was made in the lower Rhineland during the 11th, 12th and early 13th century.

?N FRENCH GREYWARE (366)**Fabric**

Medium hard, sandy matrix with abundant small to medium quartz *grits* and occasional unidentified rock fragments; slightly laminated; colour is grey with very dark grey surfaces.

Vessel type

Cooking pot: These sherds, probably from a single vessel, may be either N French or W Flemish and probably date to the 11th/12th century (Verhaeghe, pers comm).

N FRENCH (Not illustrated)**Fabric**

Medium hard, fine matrix with occasional to moderate small quartz inclusions and occasional red and black grains; green external glaze, often mottled.

Vessel types

?Jugs: Some of these may be from the SW of France as most are fragments and the fabrics are not clearly distinctive.

FRENCH: ROUEN (367-371)**Fabric**

Medium hard, fine matrix with occasional to moderate small quartz grains and unidentified red and black inclusions; off-white or light grey with yellow-green external glaze, red-brown over slipped areas.

Vessel types

Jugs: These distinctive decorated jugs should date to the late 12th or 13th century.

FRENCH: SAINTONGE POLYCHROME (372-373)**Fabric**

Hard and fine with only a few small red inclusions; off-white with pale green external glaze over black painted lines.

Vessel type

Jug: This should date to the late 13th or early 14th century.

ANDENNE WARE (Not illustrated)**Fabric**

Medium hard, fine matrix with moderate small quartz inclusions; white with yellow-green external glaze.

Vessel types

Jugs: These have been identified by Verhaeghe as probable Andenne products. They should date to either the 11th or 12th centuries.

ANDALUSIAN LUSTREWARE (Not illustrated) J G HURST**Fabric**

Sandy pink-brown core with buff surfaces, small dark schist inclusions.

Vessel type

Dish (small rim fragment): Tin glaze inside and out, crackled inside, rough outside with small inclusions, unusual pale blue overall colouring inside and out. Pale lustre decoration inside comprising a wide then a narrow band above a possible foliage pattern; outside, a wide lustre band with narrower bands below.

This sherd is too small to determine closely its shape and decoration but the schist inclusions, and pale blue and pale lustre colouring, suggest an Andalusian source. Alan Vince has examined the sherd and confirms that it includes tabular fragments of reddish-brown schistose metamorphic rock which Mannoni has shown (1972) characterise the Spanish Andalusian wares made at Malaga and clearly differentiate them from Valencian wares. Since my corpus of Spanish imports into Britain was published (Hurst 1977b) the difficulty of differentiating many problem pieces and especially small fragments which are undiagnostic art historically, has been resolved by thin-sectioning (Vince 1982). In most Andalusian sherds, the small dark inclusions may generally be seen with the naked eye, and certainly with a binocular microscope. These differences have recently been further refined by neutron activation analysis (Hughes and Vince 1986).

Shape and Decoration

Besides the hollow-ware jugs, vases and albarelli (Hurst 1977b, 83, fig 27) the two main Andalusian open types are deep curved-side bowls (Hurst 1977b, 78, fig 25) and straight-sided dishes (Hurst 1977b, 80, fig 26), both with footrings. The Perth fragment is a rim from this last type, a straight-sided dish. The internal decoration is too fragmentary to reconstruct the pattern but the lustre border of thick and thin lines is typical of Andalusian open wares (Hurst 1977b, 78, fig 25). The small piece of lustre decoration below these lines suggests that the border panel consists of a foliage pattern (Hurst 1977b, 78, fig 25 no 1) rather than arabic writing (Hurst 1977b, 80, fig 26) or interlaced arcading (Hurst 1977b, 86, fig 28) which in any case is usually blue. The outside decoration of a wide lustre band, with narrow bands below, is more common on bowls (Hurst 1977b, 78, fig 25 nos 1-2) rather than dishes, which more usually have either an outer thin band (Hurst 1977b, 80, fig 26) or thick bands only (Hurst 1977b, 86, fig 28 no 20).

Date

It is hard to date this small sherd since, although Andalusian lustreware is most common in the 13th and 14th centuries, production continued, in parallel with the 15th-century Valencian lustreware, until the fall of Granada in 1492. Late 15th century examples were found at Southampton and in the mid-15th-century deposit at Sluis, the port of Bruges, in Belgium (Hurst & Neal 1982, 91 & 88, fig 3 nos 51-2). Other English finds suggest use, if not manufacture, into the early 16th century (Hurst 1977b, 84) so this dish could have come to Perth at the same time as the other wares in this deposit.

Spanish imports to Scotland

There is only one other Andalusian lustreware sherd so far recognised in Scotland. This also came from Perth and was found on an excavation at Kinnoull Street. It is the footing from a straight-sided bowl very similar to the vessel represented by the rim from Canal Street II (Hurst 1977b, 80, fig 26).

Examples of 15th-century Valencian lustreware have been found on four sites, with some possible sherds from Linlithgow as yet unconfirmed. These comprise flanged bowls from Melrose (Hurst 1977b, 91, fig 30 no 31) and Shore Brae, Aberdeen (Brooks & Haggarty 1982, 174), a small sherd from a large flanged bowl from Whitefriars, Perth (Hall *et al* forthcoming) and a jug from Elgin (Lindsay forthcoming a).

In addition there are quite a few unglazed Merida-type

wares from Scottish sites (Thoms 1983, 254).

The recent increase in urban excavation in Scotland has greatly increased the incidence of Spanish lustreware imports to Scotland. As recently as 1977, these were represented by a single example from Melrose. Andalusian lustreware is so far only recognised from Perth but the fact that there are now Valencian lustreware sherds from Aberdeen, Perth and Elgin shows that the previous lack of Spanish imports resulted from insufficient excavation rather than their failure to reach Scottish sites in the medieval period.

MEDITERRANEAN WARE (374)

Fabric

Hard, fine with occasional small quartz grits. Colour off-white with patchy white tin glaze.

Vessel type

?Jug: The single strap-handle sherd in this fabric is of Mediterranean origin and of 13th-14th-century date. Similar

wares have been found at Sandal Castle, in W Yorkshire (Moorhouse 1983).

STONEWARES (375-376)

Fabric

Very hard, fine with few inclusions, light grey to grey-brown.

Vessel type

Jugs: Both Siegburg and Langerwehe stoneware are present in small quantities from the Canal Street II site. Both should date to the 14th or early 15th century, although it is possible they could be as early as the late 13th century. Larger amounts of Rhenish stoneware came from the Mill Street site and a full discussion of the significance of these wares to the history of ceramic use in Perth will be included in the final report of that site.

UNIDENTIFIED WARES

POSSIBLE SCOTTISH (377-382)

Fabric 1 (377-381)

Medium hard to soft, fine grained micaceous fabric with moderate quartz/feldspar grains and various dark inclusions such as red and black iron ore.

Vessel types

Jugs, bowls: The individual sherds are described in the

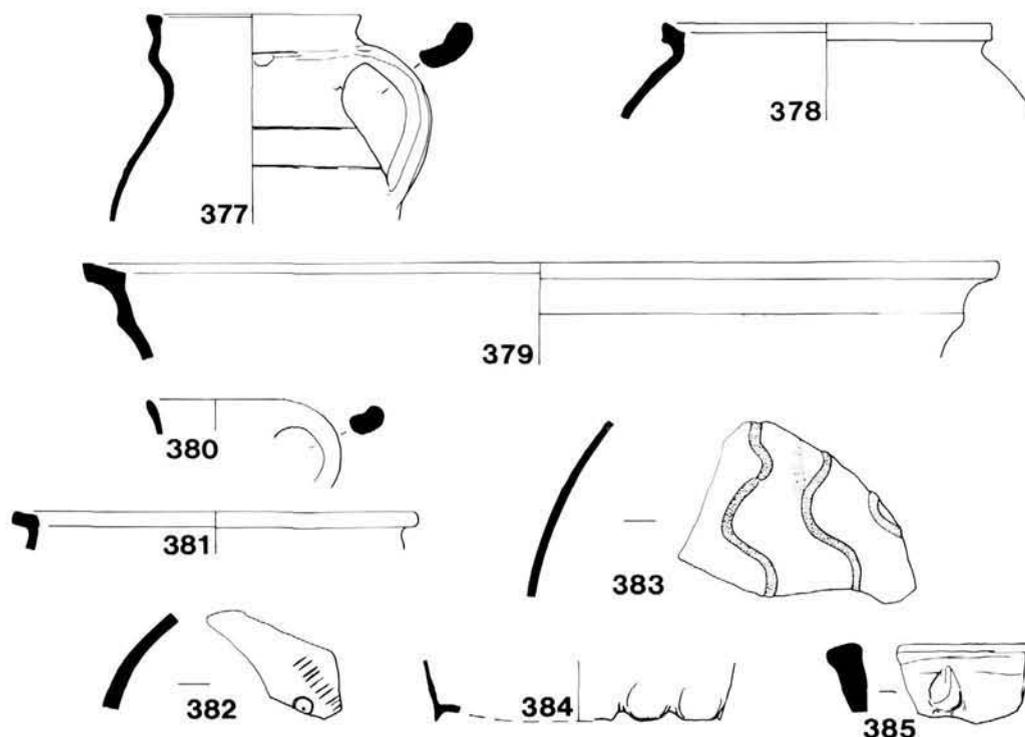
catalogue. Their fabrics are similar but not identical, 380 is considerably grittier than the rest.

Fabric 2 (382)

Hard, highly fired, fine matrix with moderate/medium quartz grains, medium grey.

Vessel types

?Jugs, bowls: Other unidentified wares are described in the catalogue, numbers 383 to 385.



ILL 58 : Unidentified wares from Kirk Close (377-384) and Canal Street II (385). Scale 1/4

DISCUSSION

Because of the lack of primary dating evidence and the likelihood that much of the material is residual, the dates mentioned here are tentative and subject to revision. The forthcoming publication of a well-dated 12th-century group from King Edward Street and later groups from Mill Street and Meal Vennel will clarify the Perth ceramic sequence.

The Perth Local wares are similar to local wares from Aberdeen, Elgin and Inverness and similar material has been found as far away as Kirkwall in Orkney (MacAskill 1982b). Their production was well established by the mid-13th century.

White Gritty wares were also common in mid-13th century Perth. They are part of a geographically extensive tradition which is the subject of continuing study. Recent reports on major groups from Kelso Abbey (Tabraham 1984) and Eyemouth (Crowdy 1986) have extended our knowledge of its range and diversity.

By Period III of Canal Street II, dated to the 14th or possibly the late 13th century by a sherd of Siegburg stoneware, Perth Local makes up over 60% of the pottery recovered, with White Gritty at around 30%. Similar proportions of the two wares are present in Period I of Kirk Close which also yielded Scarborough Phase II and 13th-century Low Countries Grey Ware. These proportions of the two major Scottish wares appear to have remained fairly constant throughout the 14th and into the 15th century.

The number of cooking pots in the two fabric types was roughly the same but jugs were far less common in Perth Local. The White Gritty cooking pots tended to be larger and were sometimes decorated, whereas the Perth Local ones were always plain. The Perth Local jugs seem to have been larger on average and had a wider range of decoration. The proportion of cooking pots in both fabrics had declined by the 15th century while jugs continued to be manufactured.

The importation of Scarborough Ware probably began in the early 13th century, late in Phase I of the Scarborough industry. It rapidly became the most common imported ware, making up 5-10% of the sherds recovered in most of the 13th- and 14th-century levels.

The small quantities of London, Yorkshire, possible Grimston and E Anglian wares suggest casual importation rather than regular trade.

The most common European imports were from the Low Countries. Sherds from Grey Ware cooking pots are present in the early levels of Canal Street II. Most of the Grey Ware sherds from later levels are from broad-shouldered pitchers of the 14th century. The highly decorated Aardenburg wares first appear in Period III of Canal Street II and Period III of Kirk Close, late 13th or 14th century. Other Low Countries red wares appear as early as Period II of Canal Street II, although represented by only a single fragment, and are present in small quantities throughout the Periods of that site and in Periods IV and VI of Kirk Close. Verhaeghe's exhaustive paper on Low Countries imports to Scotland (Verhaeghe 1983b) was based in part on examples from these sites. He concludes that although the Low Countries wares were:

. . . a more or less regular feature of the Scottish pottery scene . . . (they had) . . . only limited importance and played no major part (in it).

Small numbers of French and Spanish wares were also recovered. In the 14th and 15th centuries, stonewares from Langerwehe and Siegburg were imported, although their quantity and significance is not clear from the groups examined here. Preliminary work on the Mill Street pottery, along with evidence from Canal Street I (Scott & Blanchard 1983), suggests that during the late 14th and early 15th century these were the dominant European imports.

CATALOGUE OF ILLUSTRATED MATERIAL

The illustrated sherds are grouped according to fabric type, subdivided by site. A brief description of each sherd is given followed by its context and period.

SCOTTISH WARES

PERTH LOCAL**Kirk Close (Ill 45, 46, 47)**

- 1 Jug rim. Buff-grey with grey core.
Context 2163; Period I A.
- 2 Jug rim. Buff-grey to grey; external dark green glaze.
Context 1121; Period III C.
- 3 Jug rim. Buff; green external glaze. Context 2077;
Period II B.
- 4 Jug rim and strap handle. Orange-buff with external
green glaze.
Context 2049; Period III A.
- 5 Jug rim and ridged rod-handle. Orange-brown with
light grey core and darker external heatskin; external
orange-green glaze.
Context 2110; Period III B.
- 6 Jug rim. Orange-buff with grey internal surface; traces
of green-orange external glaze.
Context 2133; Period III B.
- 7 Jug rim. Orange-buff with external slip traces and
blackening.
Context 2135; Period III B.
- 8 Jug rim. Buff-grey.
Context 1119; Period III C.
- 9 Jug rim. Blue-grey to dark grey; spots of dark green
glaze.
Context 1120; Period III C.
- 10 Jug rim. Orange-buff.
Context 1114; Period III C.
- 11 Jug rim with applied decorative rod. Grey-brown with
dark grey core; external orange-green glaze.
Context 2059; Period IV A.
- 12 Jug rim. Orange-buff; external orange-green glaze.
Context 2071; Period IV A.
- 13 Jug rim. Orange-buff exterior, dark grey interior;
traces of external green glaze.
Context 2023; Period IV A.
- 14 Jug rim. Blue-grey, darker externally; traces of
external orange glaze.
Context 2038; Period IV B.
- 15 Jug rim. Buff to grey-brown; external orange-green
glaze.
Context 1111; Period IV C.
- 16 Jug rim and strap-handle. Orange to light grey; green
glaze.
Context 2021; Period VI A.
- 17 Jug rim. Buff; traces of off-white slip and spots of
external orange glaze.
Context 2016; Period V A.
- 18 Jug rim. Grey-buff.
Context 2033; Period V B.
- 19 Jug rim. Orange-buff with reddish external heatskin;
splashes of orange external glaze.
Context 2033; Period V B.
- 20 Jug rim. Orange-buff; external orange-green glaze.
Context 2022; Period V B.
- 21 Jug rim. Buff with light grey core; spots of external
orange-green glaze.
Context 2033; Period V B.
- 22 Jug rim. Buff with reddish heatskin; internal and
external splashes of green glaze.
Context 2030; Period V B.
- 23 Jug rim. Buff with a grey interior; external spot of
green glaze and blackening.
Context 1071; Period IV A.
- 24 Jug rim. Buff-orange with light grey core; internal and
external off-white slip.
Context 1091; Period Vb C.
- 25 Jug rim. Buff-grey with grey core; internal and
external off-white slip and trace of external orange
glaze.
Context 2024; Period VI A.
- 26 Jug rim. Orange-buff; internal orange-white slip and
external orange-green glaze; slight blackening.
Context 1004; Period VI C.
- 27 Jug rim. Orange-buff; external orange glaze.
Context 1004; Period VI C.
- 28 Jug rim. Orange-buff; internal off-white slip; external
orange-green glaze.
Context 1011; Period VI C.
- 29 Jug rim. Buff with grey core; spots of external orange
glaze.
Context 1000/2000; Unstrat.
- 30 Jug rim. Buff-grey; internal and external white slip;
green external glaze.
Context 1000; Unstrat.
- 31 Jug rim. Blue-grey with medium grey core; spots of
green glaze.
Context 2000; Unstrat.
- 32 Jug rim. Buff; traces of white slip and external green
glaze.
Context 2000; Unstrat.
- 33 Jug rim. Buff-orange.
Context 2000; Unstrat.
- 34 Jug rim. Buff.
Context 1015; Period modern.
- 35 Jug neck. Orange-buff to grey; external orange-green
glaze.
Context 1121; Period III C.
- 36 Jug neck with applied line and fishscale decoration.
Dark grey; external dark green glaze.
Context 1121; Period III C.
- 37 Jug bodysherd with incised linear and applied fishscale
decoration. Blue-grey; external brown-green glaze and
internal blackening.
Context 2125; Period IV B.
- 38 Jug bodysherd with incised decoration. Orange-buff
with grey core; external green glaze.
Context 2050; Period III A.
- 39 Jug bodysherd with applied line and spot decoration.
Grey external green glaze.
Context 2033; Period V B.
- 40 Jug bodysherd with notched decoration. Grey-buff;
external yellow-green glaze.
Context 1003; Period VI C.
- 41 Jug bodysherd with applied fishscale decoration. Light
grey; external green glaze. Context 2016; Period V A.

- 42 Jug bodysherd with embossed berry-cluster decoration. Buff to grey; external orange-green glaze with some smoke blackening. Context 2011; Period VI A.
- 43 Jug bodysherd with applied pellet decoration. Dark grey; external green-brown glaze, abraded surface. Context 1114; Period III C.
- 44 Jug bodysherd with applied bars. Grey-buff; external green glaze. Context 2009; Period VI A.
- 45 Jug bridge spout and junction of decorative rod. Grey to dark grey; orange-white internal slip; external green to orange-green glaze; blackened. Context 2022; Period V B.
- 46 Jug bodysherd with applied strip decoration. Orange-buff; thin off-white slip or wash internally; external green glaze and brown applied strips. Context 2022; Period V B.
- 47 Jug body with part of strap handle. Grey-buff with light grey core; external green glaze. Context 2036; Period IVb.
- 48 Jug body. Orange buff with light grey core in places. External off-white splashes of slip or decayed glaze. Context 1017; Period VIa C.
- 49 Jug basal angle. Buff with grey core. Context 2023; Period IVa.
- 50 Jug basal angle sherd with thumbled decoration. Buff-grey; heatskin, spots of orange glaze and external blackening. Context 2021; Period VI A.
- 51 Jug basal angle sherd. Buff-grey; external patchy green glaze. Context 1011; Period VI C.
- 52 Jug bodysherd with lower junction of decorative rod. Grey-buff; external orange-green glaze. Context 2058; Period V B.
- 53 Decorative face-mask. Orange-buff with brown-speckled orange glaze. Context 1119; Period III C.
- 54 Lower strap-handle junction from jug; applied decorative fishscales; grey; internal white slip traces; external orange-green glaze. Context 2030; Period V B.
- 55 Jug strap-handle. Buff-orange; grey core; external green, brown-speckled, glaze. Context 1061; Period V C.
- 56 Jug strap-handle. Buff-orange to light grey; external green, brown-speckled glaze. Context 2016. Period V A.
- 57 Jug strap-handle. Buff-orange to dark grey; external traces of off-white slip; external orange-green glaze with dark brown speckling. Context 1071; Period IV A.
- 58 Jug strap-handle. Orange; dark heatskin and orange-green glaze. Context 1004; Period VI C.
- 59 Jug strap-handle. Orange to light grey; darker heatskin and yellow-green glaze. Context 1007. Period VI C.
- 60 Jug rod-handle. Buff-grey to grey core; traces of orange-green glaze. Context 2016; Period VA.
- 61 Jug rod-handle with groove. Orange-brown with grey core; orange-green glaze on inner surface. Context 2033; Period V B.
- 62 Jug basal angle with thumbing on lower surface. Buff-orange with light grey core; reddish heatskin and orange glaze on exterior rim. Context 2021; Period VI A.
- 63 Jug basal angle with thumbing. Buff-grey; external green glaze. Context 2050; Period III A.
- 64 Cooking pot rim and body. Orange; internal and external cream-white slip. Context 1141; Period II C.
- 65 Cooking pot rim. Grey-buff. Context 2133; Period III B.
- 66 Cooking pot rim. Grey. Context 1119; Period III C.
- 67 Cooking pot rim. Orange-brown; internal and external off-white slip; external smoke blackening. Context 1117; Period III C.
- 68 Cooking pot rim. Buff; some external blackening. Context 1117; Period III C.
- 69 Cooking pot rim. Buff; internal and external off-white slip; external blackening. Context 1107; Period IV C.
- 70 Cooking pot rim. Orange-brown; internal and external blackening. Context 2038; Period IV B.
- 71 Cooking pot rim. Grey-buff. Context 2005; Period VI A.
- 72 Cooking pot rim. Orange-brown with grey internal surface; internal and external off-white slip; external blackening. Context 2022; Period V B.
- 73 Cooking pot rim. Buff with light grey core; external off-white slip and blackening. Context 1011; Period VI C.
- 74 Bowl rim. Buff-grey with dark grey core; internal green glaze. Context 1108; Period IV C.
- 75 Cooking pot rim. Orange buff; some external slip traces. Context 1000; Unstrat.
- 76 Cooking pot rim with applied lug on rim. Orange-brown with light grey core; internal and external yellow-green glaze with poor adhesion; external burning. Context 1076; Period Va C.
- 77 Cooking pot (? or Jug) rim. Brown to medium grey; external green glaze. Context 1000; Unstrat.
- 78 Cooking pot handle. Orange-brown; heavily blackened with occasional splashes of orange-green glaze. Context 2056; Period IV B.
- 79 Cooking pot rim and handle. Buff with grey core; traces of external off-white slip and spots of orange glaze. Context 1071; Period IV A.
- 80 Cooking pot (? pipkin) handle. Orange-brown to pale grey; orange-red heatskin and splashes of green glaze. Context 1117; Period III C.
- 81 Cooking pot (probably pipkin) handle with thumbled applied strip decoration. Orange-brown to grey; reddish heatskin; dark green glaze. Context 2059; Period IV A.
- 82 Pipkin leg? Orange-brown with light grey core; red heatskin; orange-green glaze. Context 1017; Period VIa C.
- 83 Cooking pot basal angle; internal and external slip and external blackening. Context 1119; Period III C.
- 84 Cooking pot basal angle. Orange-buff; internal and external slip and external blackening. Context 1054; Period IV C.

South Methven Street (III 48)

- 85 Jug rim. Orange-buff with blue-grey core; external green glaze. Context 121; Period II.

- 86 Jug rim. Orange-buff with grey core; spots of green-brown glaze.
Context 101; Period II.
- 87 Jug rim. Buff-grey with light grey core; spots of orange glaze.
Context 101; Period II.
- 88 Jug rim. Buff-orange; green external glaze spots.
Context 101; Period II.
- 89 Jug rim. Buff to medium grey; internal and external blackening.
Context 107; Period II.
- 90 Jug rim. Orange with dark grey core; external green, yellow-speckled glaze.
Context 107; Period II.
- 91 Jug rim. Orange-brown with grey core; external green-brown glaze.
Context 101; Period II.
- 92 Jug rim. Orange-brown with light grey core.
Context 101; Period II.
- 93 Jug rim. Buff-orange to light grey; external green glaze.
Context 101; Period II.
- 94 Jug rim. Orange-brown to light grey; external green glaze.
Context 101; Period II.
- 95 Jug rim and strap handle. Orange-brown exterior and grey interior; external green glaze.
Context 101; Period II.
- 96 Jug bodysherd with thumbled applied band. Orange with grey core and reddish heatskin; external green glaze.
Context 100/200; Unstrat.
- 97 Jug bodysherd with part of small handle; body is grey, handle is orange, external green glaze.
Context 200; Unstrat.
- 98 Jug? handle with incised decoration. Orange-brown with grey core; green glaze.
Context 100/200; Unstrat.
- 99 Jug strap-handle. Orange with grey core; green-brown glaze.
Context 101; Period II.
- 100 Jug strap-handle and rim fragment. Orange to blue-grey; orange-red heatskin and external green glaze.
Context 100/200; Unstrat.
- 101 Jug basal angle with decorative thumbing. Buff-orange with grey interior surface; spots of orange glaze.
Context 204; Period I.
- 102 Jug basal angle and body. Orange to light grey; external green glaze.
Context 305; Area 3; Period C.
- 103 Jug basal angle. Buff-orange to grey; some external green glaze.
Context 228; Period III A.
- 104 Cooking pot rim. Buff-orange; internal and external slip traces.
Context 107; Period II.
- 105 Cooking pot rim. Buff-orange; internal white slip.
Context 105; Period II.
- 106 Cooking pot rim. Orange; internal and external off-white slip.
Context 101; Period II.
- 107 Cooking pot rim. Buff-orange; slight reddish heatskin.
Context 107; Period II.
- 108 Cooking pot basal angle. Buff; slight blackening.
Context 208; Period III B.
- 109 Cooking pot basal angle. Orange-red with blue-grey core; internal and external off-white slip.
Context 101; Period II.
- 110 Cooking pot rim; orange-buff with dark grey core; internal and external blackening.
Context 107; Period II.
- 111 Cooking pot rim. Orange-buff to grey.
Context 216; Period III B.
- 112 Cooking pot rim. Orange; internal off-white slip; external blackening.
Context 120; Period II.
- 113 Cooking pot rim. Orange to dark grey; external orange green glaze; internal and external blackening.
Context 120; Period II.
- 114 Cooking pot rim. Orange-buff; external blackening.
Context 107; Period II.
- 115 Cooking pot rim. Buff-orange; external blackening.
Context 107; Period II.
- 116 Cooking pot basal angle. Orange-buff; external blackening.
Context 101; Period II.
- 117 Bowl rim. Orange to grey; darker orange heatskin; internal and external green glaze.
Context 200; Period IV.
- Canal Street II (Ill 49, 50)
- 118 Jug rim. Orange-buff with light grey core; internal off-white slip; external green glaze.
Context 2477; Period III 5C.
- 119 Jug rim with strap handle junction. Orange-buff; external green glaze.
Context unknown.
- 120 Jug rim. Orange-buff; internal and external white slip; external green glaze.
Context 2159; Period VI 1/2 filling of gully 2161.
- 121 Jug rim. Orange to light grey; external off-white slip; external green glaze.
Context 2462; Period III 5C.
- 122 Jug rim. Orange-buff; external white slip; external spots of green glaze.
Context 2462; Period III 5C.
- 123 Jug rim. Orange-buff with light grey core; internal and external off-white slip.
Context 2491; Period III 5C filling of gully 2493.
- 124 Jug rim. Orange; external spots of orange-green glaze.
Context 2278; Period IV 3B.
- 125 Jug rim. Orange with grey core; external green glaze; stacking scar.
Context 2357; Period IV 4A filling of pit 2391.
- 126 Jug rim. Orange-buff; internal and external off-white slip; external spots of orange glaze.
Context 2408; Period IV 5A.
- 127 Jug rim. Buff-grey to light grey; external traces of yellow glaze.
Context 2378; Period IV 4A filling of pit 2391.
- 128 Jug rim. Orange-buff; internal and external white slip; external green glaze.
Context 2269; Period IV 4B filling of feature 2270.
- 129 Jug rim. Orange; external orange-green glaze.
Context 2255; Period IV 4B filling of sinkage 2296.
- 130 Jug rim. Orange; internal off-white slip; external green-orange glaze.
Context 2408; Period IV 5A.
- 131 Jug rim. Orange to pale grey; external light green glaze.
Context 2322; Period IV 5B filling of trench 2318.
- 132 Jug rim. Orange with grey core; external orange-green glaze.
Context 2336; Period IV 5B filling of pit 2338.
- 133 Jug rim. Orange with reddish heatskin; external green glaze.
Context 2322; Period IV 5B filling of trench 2318.
- 134 Jug rim. Orange-buff; external green glaze.
Context 2225; Period V 1/2 filling of gully of 2232.
- 135 Jug rim. Orange; external green glaze.
Context 2224; Period V 4.

- 136 Jug rim and strap-handle. Orange to grey; external green glaze.
Context 2240; Period V 5 filling of feature 2245.
- 137 Jug rim. Orange with light grey internal surface; external off-white slip; external orange glaze spots.
Context 2088; Period VII 1/2.
- 138 Jug rim. Orange-buff to light grey; external green glaze.
Context 2246; Period VI 5A filling of post-pipe 2248.
- 139 Jug rim. Orange; external spots of orange glaze.
Context 2166; Period VI 3/4.
- 140 Jug rim. Orange; external white slip and spots of yellow glaze.
Context 2246; Period VI 5A filling of post-pipe 2248.
- 141 Jug rim. Orange-buff; external spots of green glaze.
Context 2095; Period VI 5A.
- 142 Jug rim. Orange-buff.
Context 2189; Period VI 5A filling of feature 2190.
- 143 Jug rim. Orange.
Context 2193; Period VI 3/4 filling of gully 2194.
- 144 Jug rim. Orange-buff to light grey; internal off-white slip; external orange glaze.
Context 2111; Period VII 3/4.
- 145 Jug rim. Orange-buff; internal and external off-white slip.
Context 2131; Period VII 3/4 filling of gully 2115.
- 146 Jug rim. Orange-buff.
Context 2091; Period VII 5.
- 147 Jug rim. Orange with reddish heatskin; external green glaze.
Context 2128; Period VII 5 filling of pit 2129.
- 148 Jug rim with strap-handle junction. Orange with reddish heatskin; external orange-green glaze.
Context 2094; Period VII 5.
- 149 Jug rim. Orange-brown with light grey core; external spots of yellow-green glaze.
Context 2090; Period VII 5 filling of trench 2114.
- 150 Jug rim. Orange-brown to light grey; reddish heatskin; external spots of orange-green glaze.
Context 2120; Period VII 5 filling of trench 2122.
- 151 Jug rim; orange; external orange glaze.
Context 2150; Period VIII 1/2A.
- 152 Jug rim. Orange; reddish heatskin.
Context 2053; Period VIII 3/4.
- 153 Jug rim and small handle junction; orange-brown to light grey; internal off-white slip traces; external orange-green glaze.
Context 2068; Period VIII 3/4 filling of gully 2072.
- 154 Jug rim. Orange with reddish heatskin; external green glaze.
Context 2065; Period VIII 5 filling of drain 2066.
- 155 Jug rim and small handle junction. Orange, external green glaze.
Context 2065; Period VIII 5 filling of drain 2066.
- 156 Jug rim. Orange-buff.
Context 2030; Period X 1/2A.
- 157 Jug strap-handle. Orange-buff to light grey; reddish heatskin; orange-green glaze.
Context 2085; Period VII 1/2.
- 158 Jug strap-handle. Buff-orange with blue-grey core; reddish heatskin; green glaze.
Context 2373; Period II filling of post-hole 2351.
- 159 Jug strap-handle; orange to orange-buff; darker orange heatskin; green glaze.
Context 2150; Period VIII 1/2A.
- 160 Jug strap-handle; buff-orange with dark grey core; traces of green glaze.
Context 2462; Period III 5C.
- 161 Jug strap-handle. Orange-buff with grey core; green glaze.
Context 2166; Period VI 3/4.
- 162 Jug strap-handle. Orange-buff; abraded green glaze.
Context 2116; Period VII 3/4 filling of gully 2115.
- 163 Jug strap-handle with lower junction. Orange with medium grey core; reddish heatskin; external light green glaze.
Context 2322; IV 5B filling of trench 2318.
- 164 Jug strap-handle and lower junction. Orange with grey core; green-orange glaze; some blackening.
Context 2178; Period VII 1/2.
- 165 Jug bodysherd with two handles attached. Orange with light grey core; external green glaze.
Context 2315; Period IV 5C filling of pit 2390.
- 166 Jug neck and bodysherd with applied strip decoration. Medium grey; external green glaze.
Context 2199; Period VI 1/2.
- 167 Jug neck and bodysherd with wavy combed decoration. Orange-brown; external cream-coloured slip; external traces of pale orange-yellow glaze.
Context 2197; Period V 3 filling of gully 2209.
- 168 Jug bodysherd with applied stabbed decoration; orange-brown; external green glaze.
Context 2041; Period IX 5 foundation for wall 2040.
- 169 Jug bodysherd with incised decoration; light grey; external green glaze.
Context 2119; Period VII 3/4 filling of gully 2115.
- 170 Jug bodysherd with applied decoration; light grey; external green glaze, darker over decoration.
Context 2198; Period V 3 filling of gully 2209.
- 171 Jug bodysherd with applied decoration. Light grey; external orange-green glaze, dark green over applied strips.
Context 2182; Period V 3 filling of gully 2209.
- 172 Jug bodysherd with applied and stamped decoration. Grey; external green to brown glaze.
Context 2280; Period IV 2 filling of hollow 2266.
- 173 Jug bodysherd with applied pellet decoration. Orange; external green glaze.
Context 2166; Period VI 3/4.
- 174 Unidentified sherd, probably part of decoration from a jug. Orange to light grey; reddish heatskin; orange-green glaze.
Context 2095; Period VI 5A foundation trench to wall 2086.
- 175 Piece of thumbled applied jug decoration. Orange-buff; external orange-green glaze.
Context 2068; Period VIII 3/4 filling of gully 2072.
- 176 Jug base. Buff to orange-buff, grey in parts; external traces of green glaze.
Context 2317; Period IV 5C filling of pit 2390.
- 177 Jug base. Orange-buff to light grey; external orange-green glaze covering walls and basal surface.
Context 2340; Period IV 5B filling of pit 2338.
- 178 Jug base with abraded bottom; light grey; external yellow glaze.
Context 2264; Period IV 4A filling of gully 2300.
- 179 Jug base; brown-orange to light grey; blackened exterior.
Context 2419; Period III 5C.
- 180 Jug base. Orange exterior, light grey interior; orange-red heatskin; external orange-green glaze.
Context 2322; Period IV 5B filling of trench 2318.
- 181 Cooking pot rim. Orange; internal and external off-white slip; external orange glaze.
Context 2529; Period III 5B.
- 182 Cooking pot rim. Buff; internal and external off-white glaze.
Context 2530; Period III 5A filling of pit 2531.
- 183 Cooking pot rim and shoulder. Brown; internal white slip; blackened interior and exterior.
Context 2281; Period IV 2A.
- 184 Cooking pot rim. Orange-buff with grey core.
Context 2254; Period IV 2 filling of hollow 2266.

- 185 Cooking pot rim. Orange; internal and external white slip; some blackening on the exterior. Context 2281; Period IV 2A.
- 186 Cooking pot rim. Orange-buff; external spots of orange glaze; some external blackening. Context 2408; Period IV 5A.
- 187 Cooking pot rim. Orange-buff; internal and external off-white slip; internal and external blackening. Context 2269; IV 4B filling of feature 2270.
- 188 Cooking pot rim. Buff-orange; internal and external off-white slip; some sooting. Context 2314; Period IV 4.
- 189 Cooking pot rim. Orange; reddish heatskin; external light green glaze. Context 2313; Period IV 5B filling of trench 2318.
- 190 Cooking pot rim. Orange-buff; grey core; frazzled yellow internal glaze. Context 2322; Period IV 5B filling of trench 2318.
- 191 Cooking pot rim. Orange; internal and external white slip; external green glaze splashes. Context 2207; Period V 3 filling of gully 2209.
- 192 Cooking pot rim. Buff-grey; blackened. Context 2166; Period VI 3/4.
- 193 Cooking pot rim. Orange-buff; internal and external white slip; same external green glaze. Context 2159; Period VI 1/2 filling of gully 2161.
- 194 Cooking pot rim. Orange with grey core; reddish heatskin; internal green and orange glaze. Context 2119; Period VII 3/4 filling of gully 2115.
- 195 Cooking pot rim. Orange-buff; internal and external green glaze. Context 2089; Period VII 3/4 filling of pit 2092.
- 196 Cooking pot rim. Orange-brown; internal and some external orange glaze; blackened. Context 2120; Period VII 5 filling of trench 2122.
- 197 Cooking pot rim. Orange; internal and external orange-green glaze. Context 2096; Period VII 5A.
- 198 Cooking pot rim. Orange with grey core. Context 2173; Period VIII 1/2A.
- 199 Cooking pot rim. Buff-orange; darker heatskin; external spots of orange-green glaze. Context 2068; Period VIII 3/4 filling of gully 2072.
- 200 Small handle from ? cooking pot. Orange to medium grey; external orange-green glaze. Context 2182; Period V 3 filling of gully 2209.
- 201 Small handle from ? cooking pot. Orange-buff. Context 2193; Period VI 3/4A filling of gully 2194.
- 202 Cooking pot basal angle. Orange; external off-white slip with some blackening. Context 2207; Period V 3 filling of gully 2209.
- 203 Colander rim. Orange-red to grey; internal traces of off-white slip; external brown-green glaze. Context 2166; Period VI 3/4.
- 204 Part of oval bowl; knife-trimmed. Orange with reddish surfaces; internal green glaze. Context 2023; Period VIII 3/4 filling of gully 2072.
- 208 Jug with applied line and scale decoration. Orange; external orange-green glaze; brown over decoration. Context 657.
- 209 Jug bodysherd with embossed decoration. Grey-brown; external dark green glaze. Context 546.
- 210 Jug bodysherd with applied decoration. Grey-brown with external green glaze, dark brown over applied strips. Context 276.
- 211 Jug bodysherd with thumbled applied pad. Orange; external orange-green glaze. Context 424.
- 212 Small vessel. Buff to reddish buff with patches of grey. Context 234.
- 213 Small vessel. Buff; internal off-white slip; external orange-brown glaze. Context 655.
- 214 ? Roof furniture fragment in shape of stylized head. Grey to buff-orange; green glaze. Context 276.
- Watching Briefs (Ill 51) 1-5 High Street**
- 215 Jug rim and handle. Orange to medium grey; external orange-green glaze. Context 700.
- 216 Jug handle. Orange-buff to grey core; external light green glaze. Context 500.
- 217 Part of decorative face mask. Orange-buff; orange green glaze. Context 1500.
- 218 Cooking pot rim, body and handle. Orange-buff; internal orange-green glaze. Context 1500.
- 219 ? Skillet handle. Orange to light grey; reddish heatskin; orange-green glaze. Context 1200.
- 220 Cooking pot. Orange; some external white slip; blackened by burning. Context 1000.
- WHITE GRITTY**
- Kirk Close (Ill 52)**
- 221 Jug rim. Off-white with traces of pink on surfaces; external dark green glaze. Context 2050/2077; Period II B.
- 222 Jug rim. Off-white with pale orange surfaces; external light green glaze. Context 2052; Period IV A.
- 223 Jug rim and handle. Off-white to grey; external green glaze; internal blackening. Context 2023; Period IV A.
- 224 Jug rim and handle. Off-white; external traces of green glaze. Context 1100; Period IV C.
- 225 Jug rim with decorative strap. Off-white to grey; green external glaze. Context 1000; Unstrat.
- 226 Jug rim and neck with decorative rods. Pale grey; external yellow-green glaze discoloured to brown in places. Context 1004; Period VI C.
- 227 Jug handle. Cream-white with dark grey core and pale orange surface; light green glaze. Context 1011; Period VI C.
- 228 Lower junction of jug handle. Off-white; external green glaze, brown over applied pellets. Context 2022/33; Period V B.
- Mill Street (Ill 51)**
- 205 Jug rim and body with applied pellet decoration. Buff-orange to grey; external green glaze. Context 655.
- 206 Jug. Reddish buff to grey; splashed external dark green-brown glaze, varying to light green and yellow in patches; circular orange area surrounded by glaze patch on base where jug has been stacked in kiln. Context 309.
- 207 Decorative face mask, very probably from 208. Orange; external orange-green glaze. Context 657.

- 229 Jug bodysherd with applied decoration. Off-white; external green glaze, brown over applied lines and pellets.
Context 2022/33; Period V B.
- 230 Jug handle. Off-white; green glaze.
Context 2033; Period V B.
- 231 Jug bodysherd with applied decoration and part of lower handle junction. Off-white with medium grey core; external green glaze, brown over applied strips.
Context 2012; Period modern.
- 232 Jug base. Off-white with dark grey to black internal surfaces; pale orange heatskin; external light green glaze.
Context 2033; Period V B.
- 233 Cooking pot rim. Off-white with medium grey core.
Context 1121; Period III C.
- 234 Cooking pot rim. Off-white; externally blackened.
Context 2054; Period III A.
- 235 Cooking pot rim. Medium grey, may be variant or different fabric type.
Context 1119; Period III C.
- 236 Cooking pot rim. Off-white.
Context 1119; Period III C.
- 237 Cooking pot rim. Cream-white with grey core.
Context 1098 and 1102; Period IV C.
- 238 Cooking pot rim. Off-white with blue-grey core.
Context 1098 and 1102; Period IV C.
- 239 Cooking pot rim. White with pale orange surface; external blackening.
Context 2023; Period IV A.
- 240 Cooking pot rim. Off-white with pale orange surface; internal and external yellow-green glaze.
Context 2036; Period IV B.
- 241 Cooking pot rim. Off-white with pale orange surfaces; some external blackening.
Context 2037; Period IV B.
- 242 Cooking pot rim. Off-white to grey with pale orange surfaces.
Context 1053; Period IV C.
- 243 Cooking pot rim. Off-white with orange surface; internal green-yellow glaze.
Context 2016; Period V A.
- 244 Cooking pot rim. White with grey core and pale orange surfaces; external green glaze.
Context 2022; Period V B.
- 245 Cooking pot rim. Off-white with medium-grey core.
Context 1000/2000; Unstrat.
- 246 Cooking pot rim and body with applied thumbed decorative strip. Off-white with light grey core and pale orange surfaces; spots of green-yellow glaze; some blackening.
Context 1000/2000; Unstrat.
- 247 Cooking pot base. Off-white; internal and external blackening.
Context 2133; Period III B.
- 248 Cooking pot base. White with blue-grey internal surface and pale orange external surface; blackened.
Context 1085; Period Va C.
- South Methven Street (Ill 53)**
- 249 Jug rim. Off-white with blue-grey core; external yellow glaze.
Context 100/200; Unstrat.
- 250 Jug rim and strap-handle. Off-white with blue-grey core and pale orange surfaces.
Context 212; Period III B.
- 251 Jug rim. Off-white with grey core and pink-orange skin; external yellow patches of glaze.
Context 212; Period III B.
- 252 Jug rim. Off-white to grey; external traces of yellow-green glaze.
Context 100/200; Unstrat.
- 253 Jug rim. Off-white to grey.
Context 207; Period I.
- 254 Part of decorative face mask. Off-white with blue-grey core and pale orange surface; yellow glaze.
Context 100/200; Unstrat.
- 255 Jug bodysherd with applied decoration. Off-white with pale grey core; external dark green glaze.
Context 306; Area 3; Period B.
- 256 Jug bodysherd with applied decoration. Off-white; external green-yellow glaze, brown over decoration.
Context 201; Period II.
- 257 Part of tubular handle from ?pipkin. Off-white; external yellow-green glaze.
Context 100/200; Unstrat.
- 258 Cooking pot rim. Off-white to blue-grey; blackening round upper surface.
Context 202; Period IV.
- 259 Cooking pot rim. Off-white to grey; slight external blackening.
Context 2026; Period III A.
- 260 Cooking pot rim. Off-white.
Context 1060; Period I.
- 261 Cooking pot rim. Off-white to blue-grey.
Context 100/200; Unstrat.
- 262 Cooking pot rim. Off-white with blue-grey core.
Context 100/200; Unstrat.
- 263 Cooking pot base. Pale to dark grey.
Context 107; Period II.
- Canal Street II (Ill 53)**
- 264 Jug rim. Cream-white with pale grey core.
Context 2385; Period II.
- 265 Jug rim. Cream with slightly darker surfaces; external spots of cream-green glaze.
Context 2385; Period II.
- 266 Jug rim. Off-white with pink interior surface; external traces of mottled green glaze.
Context 2462; Period III 5C.
- 267 Jug rim, neck and handle. Cream to blue-grey; internal and external blackening.
Context 2345/2278; Period III 3, 2345 = filling of gully 2347.
- 268 Jug rim. Off-white with slightly darker surfaces; some internal smoke blackening.
Context 2397; Period IV 5A.
- 269 Jug rim. Off-white; external spots of pale green glaze.
Context 2327; Period IV 3B, filling of gully 2323.
- 270 Jug rim. Off-white; external green glaze traces.
Context 2225; Period V 1/2, filling of gully 2232.
- 271 Jug bodysherd with impressed decoration. Off-white; external green glaze.
Context 2051; Period VIII 1/2 B.
- 272 Jug bodysherd with piece of beard decoration. Off-white with blue-grey interior surface and pale orange external surface; external pale green glaze.
Context 2356; Period IV 5A.
- 273 Jug handle fragment with incised decoration. Off-white; pale green glaze.
Context 2408; Period IV 5A.
- 274 Cooking pot rim. Cream to grey.
Context 2363; Period III 2.
- 275 Cooking pot rim. Off-white with pale grey core; blackened external surface.
Context 2349; Period III 2.
- 276 Cooking pot rim. Off-white; blackened externally.
Context 2281; Period IV 2A.
- 277 Cooking pot rim. Off-white.
Context 2398; Period IV 4A, filling of pit 2391.
- 278 Cooking pot rim. Off-white.
Context 2255; Period IV 4B, filling of sinkage 2296.

- 279 Cooking pot rim. Off-white; slight external blackening.
Context 2397; Period IV 5A.
- 280 Cooking pot rim. Cream to pale pink with medium grey core.
Context 2332; Period III 2, filling of trench 2318.
- 281 Cooking pot rim. Off-white to grey.
Context 2177; Period V 1/2.
- 282 Cooking pot rim. Cream; blackened exterior.
Context 2233; Period V 3, filling of gravel path 2238.
- 283 Cooking pot rim. Cream-white with pale orange surfaces; slight external sooting.
Context 2198; Period V 3, filling of gully 2209.
- 284 Cooking pot rim. Off-white to dark grey.
Context 2246; Period VI 5A, filling of post-pipe 2248.
- 285 Cooking pot rim. Off-white; external pale orange surface.
Context 2088; Period VII 1/2.
- 286 Cooking pot rim. Off-white with pink external surface and medium grey core.
Context 2169; Period VII 5, filling of slot 2170.
- Mill Street (Ill 54)**
- 287 Jug rim, neck and handle. Cream-white with blue-grey core; external splashes of green glaze.
Context 657 and 621.
- 288 Jug. Off-white with external pink tinge; external patches of pale yellow to green glaze.
Context 304.
- 289 Jug strap-handle. Off-white with medium-grey core and orange-red surface; yellow-green glaze.
Context 177.
- 290 Jug strap-handle. Off-white; green glaze.
Context 288.
- 291 Jug strap-handle with lower junction. Off-white; yellow-green glaze.
Context 276.
- 292 Jug bodysherd with applied decoration. Off-white; external green glaze, brown over applied decoration.
Context 285.
- 293 Small jug body, rim and spout. Off-white with light grey core; external green glaze.
Context 288.
- 294 Cooking pot rim. Off-white to grey.
Context 632.
- 295 Cooking pot rim. Off-white to grey; external blackening.
Context 632.
- Watching Briefs (Ill 54) 1-5 High Street**
- 296 Jug rim. Grey-white with a dark grey core; pale orange heathskin; external dark green glaze.
Context 500.
- 297 Strap-handle from a cooking pot? Off-white.
Context 400.
- 298 Jug bodysherd with applied decoration. Off-white; external green glaze, dark brown over applied strips of reddish clay.
Context 400.
- 299 Jug rim. Off-white.
Context 500.
- 300 Skillet handle. Off-white to grey; patches of pale yellow to green glaze and slight blackening.
Context 300.

ENGLISH WARES

SCARBOROUGH WARE

Kirk Close (Ill 55)

- 301 Jug rim with part of face mask. Buff with pink-white core; external green glaze.
Context 1114; Period III C.
- 302 Jug rim. Buff with white core; external green glaze.
Context 2023; Period IV A.
- 303 Jug rim. Brown interior; white core; external green glaze.
Context 2022; Period V B.
- 304 Jug rim and handle. Grey to light grey; external green glaze.
Context 2033; Period V B.
- 305 Jug rim. Brown with external green glaze.
Context 2008; Period VI B.
- 306 Jug rim with bridge spout and junction of decorative rod. Light brown with grey core; external green glaze.
Context 2033; Period V B.
- 307 Jug bodysherd with applied decorative 'arm'. Brown with external green glaze.
Context 1121; Period III C.
- 308 Jug bodysherd with applied decorative bars. Brown interior with white core. External green glaze.
Context 2118; Period II B.
- 309 Jug bodysherd with applied decoration. Brown with external orange to green glaze.
Context 2033; Period V B.
- 310 Jug bodysherd with applied decoration. Orange interior; pink core; external green glaze.
Context 2033; Period V B.
- 311 Decorative rod. Pink with external green glaze.
Context 2016; Period V A.
- 312 Jug bodysherd with applied decorative rod. Orange with external green glaze.
Context 1071; Period IV A.
- 313 Jug bodysherd with embossed decoration. Orange with external green glaze.
Context 1016; Period VI C.
- 314 Fragment of applied decoration. Pink with green glaze.
Context 1121; Period III C.
- 315 Fragment of decorative beard. Grey core; external dark brown to green glaze.
Context 2038; Period IV B.
- 316 Decorative knight's head from knight jug. Grey with green glaze.
Unstrat.
- 317 Fragment of decorative beard. Grey with green glaze.
Context 1000; Unstrat.
- 318 Fragment of decoration. Grey with green glaze.
Context 2033; Period V B.
- 319 Leg from zoomorphic aquamanile. Grey with green glaze.
Context 2022; Period V B.
- 320 Rear end of ram aquamanile. Grey to dark grey; external green glaze.
Context 1108; Period IV C.
- 321 Pouring lip from bowl. White with internal green glaze and external blackening.
Context 1114; Period III C.
- 322 Thumbed jug base. Light brown interior and dark grey core; pink exterior with spots of green glaze.
Context 1119; Period III C.

- 323 Thumbed jug base. Light brown interior; off-white core; dark grey exterior; some thin external orange glaze; some black deposit on internal basal surface. Context 2098; Period III B.

South Methven Street (III 55)

- 324 Jug rim with bridge spout and decorative rods. Orange with external green glaze. Context 100; Unstrat.
325 Thumbed jug base. Light brown with grey core; external green glaze. Context 101; Period II.

Canal Street II (III 56)

- 326 Jug rim. Orange with grey core; external green glaze. Context 2462; Period III 5C.
327 Jug bodysherd with embossed decoration. Orange; external green glaze. Context 2180; Period IV 1.
328 Jug bodysherd with applied decoration. Orange; external green glaze. Context 2278/2181; Period IV 3B.
329 Jug bodysherd with applied decoration. Light grey; external green glaze. Context 2333; Period III 2, filling of sinkage 2334.
330 Fragment of decoration. Orange; external green glaze. Context 2313; Period IV 5B, filling of trench 2318.
331 Rod handle with lower junction. Orange; external green glaze. Context 2255; Period IV 4B, filling of sinkage 2296.

Mill Street (III 56)

- 332 Tubular spout from jug. Pink with external green glaze. Context 238.
333 Jug bodysherd with part of tubular spout. Orange; external lustrous yellow-orange glaze with green-brown stripes. Context 725.
334 Jug rim with support for tubular spout and part of notch where lid would have fitted. Pink to grey-white; external green glaze. Context 249.
335 Jug bodysherd with applied decoration. Pinkish-orange; external green glaze. Context 691.
336 Jug lid. Brown to pink; external green glaze. Context 530.
337 Bodysherd with applied, incised decoration. Orange; external green glaze. Context 541.
338 Decorated bodysherd from bowl or platter. Orange; internal and external green glaze.

- 339 Decorative face-mask. Pink; green glaze. Context 191.

Watching Briefs (III 56)

- 340 Jug rim and part of ribbed rod-handle. Grey to white; external green glaze. King Edward Street/High Street; Context 001.
341 Skillet handle. Orange to pink-white; green glaze. 1-5 High Street; Context 100.

YORKSHIRE WARES (III 56)

- 342 Jug rim with bridge spout and face mask. Light brown to grey; external green glaze. 1-5 High Street; Context 300.
343 Jug bodysherd with part of York seal, decorative stamp. Off-white; external green glaze. South Methven Street; Context 200.

POSSIBLE GRIMSTON (III 57)

- 344 Decorative face mask. Grey with green to brown glaze. Kirk Close; Context 2006; Period modern.

UNGLAZED E ANGLIAN? (III 57)

- 345 Bowl rim sherd. Grey. Kirk Close; Context 2057 Period IV B.
346 Cooking pot rim sherd. Grey. Canal Street II; Context 2343; Period IV 5B, filling of pit 2338.
347 Cooking pot rim sherd. Red-brown interior; grey core; brown exterior. Canal Street II; Context 2160; Period VI 1/2, filling of gully 2161.

LONDON (III 57)

- 348 Decorated bodysherd. Brown to red-brown; glaze orange over body, yellow over decoration. Kirk Close: Context 1000; Unstrat.
349 Decorated bodysherd. Red-brown; glaze green over body, yellow-green over decoration. Kirk Close; Context 1121; Period III C.
350 Decorated bodysherd. Brown with grey core; glaze green and brown. Canal Street II; Context 2225; Period V 1/2, filling of gully 2232.

EUROPEAN WARES

LOW COUNTRIES GREY (III 57)

- 351 Jug rim. Grey. Kirk Close; Context 2018; Period VI A + B.
352 Jug rim. Grey. South Methven Street; Context 101.
353 Cooking pot rim. Grey. South Methven Street; Context 107.
354 Cooking pot rim; handmade and wheel-finished. Grey surfaces, brown core. Canal Street II; Context 2394; Period II, filling of pit 2351.

LOW COUNTRIES AARDENBURG TYPE (III 57)

- 355 Jug rim. Orange; glaze yellow over white slip. Canal Street II; Context 2177; Period V 1/2.
356 Jug rim. Orange; glaze green over white slip. Canal Street II; Context 2198; Period V 3, filling of gully 2209.
357 Jug rim. Orange; green glaze over white slip. 1-5 High Street; Context 500.
358 Jug bodysherd with rouletted decoration. Brown with yellow glaze over white slip. Canal Street II; Context 2356; Period IV 4A.

- 359 Jug bodysherd with embossed decoration. Orange; green glaze over white slip.
Canal Street II; Context 2089; Period VII 3/4, filling of pit 2092.
- 360 Jug bodysherd with embossed decoration. Orange-brown with grey core; green glaze.
Canal Street II; Context 2131; Period VII 3/4, filling of gully 2115.

LOW COUNTRIES RED WARE (III 57)

- 361 Bowl rim. Orange; orange internal glaze.
Canal Street II; Context 2053; Period VIII 3/4.
- 362 Jug rim and handle. Orange.
1-5 High Street; Context 1100.
- 363 Jug base and body with thumbing. Orange with traces of orange glaze.
Kirk Close; Context 1004; Period VI C.
- 364 Jug rim. Brown to orange; green glaze.
Kirk Close; Context 1121; Period III C.

RHENISH 'BLUE-GREY' WARE (III 57)

- 365 Handle and rim from ladle. Grey-white with blue-grey 'metallic' surfaces.
South Methven Street; Context 107; Period II.

N FRENCH GREYWARE ? (III 57)

- 366 Cooking pot rim. Blue-grey with light grey core.
Canal Street II; Context 2440; Period II, filling of pit 2438.

FRENCH: ROUEN (III 57)

- 367 Jug rim. White; external cream-brown glaze, red-brown over washed areas.
1-5 High Street; Context 500.

- 368 Jug rim. White; external light green glaze.
Canal Street II; Context 2088; Period II A.
- 369 Jug base. White with grey core; external green glaze.
Kirk Close; Context 1038; Period VI C.
- 370 Rod-handle, pierced. White; brown to light brown and cream glaze.
1-5 High Street.
- 371 Jug bodysherd with applied rouletted decoration. White; external yellow to brown glaze.
Kirk Close; Context 1103; Period IV C.

FRENCH: SAINTONGE POLYCHROME (III 57)

- 372 Jug bodysherd. White; external cream glaze with grey-brown stripes.
Canal Street II; Context 2278; Period IV 3B.
- 373 Strap-handle. White.
Canal Street II; Context 2350; Period III 2.

MEDITERRANEAN WARE (III 57)

- 374 Jug strap-handle. Off-white with patchy white tin glaze.
Canal Street II; Context 2181; Period V 4.

STONEWARES (III 57)

- 375 Basal angle from a Siegburg jug. Light grey; external clear glaze with a slight orange tinge.
Canal Street II; Context 2363; Period III 2.
- 376 Basal angle from a Siegburg jug. Light to medium grey; external light brown glaze; blackening around basal circumference.
Canal Street II; Context 2336; Period IV 5B, filling of pit 2338.

UNIDENTIFIED (III 58)

- 377 Jug rim and handle. Brown; external light grey wash.
Kirk Close; Context 2113; Period I B.
- 378 Cooking pot rim. Buff; internal and external cream slip, thicker on interior.
Kirk Close; Context 1000; Unstrat.
- 379 Rim of large bowl (diameter is estimated). Red-brown to brown.
Kirk Close; Context 2050/52; Period III A.
- 380 Rim of small jug. Brown to orange; external green and brown glaze.
Kirk Close; Context 2016; Period V A.
- 381 Rim, folded, from ? cooking pot. Orange to light brown; internal orange-green glaze.
Kirk Close; Context 2054; Period III A.
- 382 Bodysherd from ? jug with incised decoration; distorted. Grey to grey-brown; dark green-brown external glaze; traces of internal white slip.
Kirk Close; Context 1000; Unstrat.
- 383 Bodysherd from ? jug. Green-grey speckled interior; grey core; external light brown speckled glaze with brown stripes.
Kirk Close; Unstrat.
- 384 Base from ? jug. Orange-brown to brown; yellow-green external glaze.
Kirk Close; Context 1138; Period II C.
- 385 Rim from ? bowl. Gritty fabric. Grey-brown.
Canal Street II; Context 2198; Period V 3, filling of gully 2209.

TABLE 61 POTTERY CATALOGUE NUMBER BY SITE AND PERIOD

Kirk Close		Canal Street II	
I A:	1	II:	158, 264, 265, 354, 368
I B:	377	III 2:	274, 275, 280, 329, 373, 375
II B:	3, 221, 308	III 3:	267
II C:	64, 384	III 5A:	182
III A:	4, 38, 63, 234, 379, 381	III 5B:	181
III B:	5, 6, 7, 65, 247, 323	III 5C:	118, 121, 122, 123, 160, 179, 266, 326
III C:	2, 8, 9, 10, 35, 36, 43, 53, 66, 67, 68, 80, 83, 233, 235, 236, 301, 307, 314, 321, 322, 349, 364	IV 1:	327
IV A:	11, 12, 13, 23, 49, 57, 79, 81, 222, 223, 239, 302, 312	IV 2A:	183, 185, 276
IV B:	14, 37, 47, 70, 78, 240, 241, 315, 345	IV 2B:	172, 184, 366
IV C:	15, 69, 74, 84, 224, 237, 238, 242, 320, 371	IV 3B:	124, 269, 328, 372
V A:	17, 41, 56, 60, 243, 311, 380	IV 4:	188
V B:	18, 19, 20, 21, 22, 39, 45, 46, 52, 54, 61, 72, 228, 229, 230, 232, 244, 303, 304, 306, 309, 310, 318, 319	IV 4A:	125, 127, 178, 277, 358
V C:	55	IV 4B:	128, 129, 187, 278, 331
Va C:	76, 248	IV 5A:	126, 130, 186, 268, 272, 273, 279
Vb C:	24	IV 5B:	131, 132, 133, 163, 177, 180, 189, 190, 330, 346, 376
VI A:	16, 25, 42, 44, 50, 62, 71, 351	IV 5C:	165, 176
VI B:	305	V 1/2:	134, 270, 281, 350, 355
VI C:	26, 27, 28, 40, 51, 58, 59, 73, 226, 227, 313, 363, 369	V 3:	167, 170, 171, 191, 200, 202, 282, 283, 356, 385
VIaC:	48, 82	V 4:	135, 374
South Methven Street		V 5:	136
I:	101, 260	VI 1/2:	120, 166, 193, 347
II:	85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 99, 104, 105, 106, 107, 109, 110, 112, 113, 114, 115, 116, 253, 256, 263, 325	VI 3/4:	139, 143, 161, 173, 192, 203
III A:	103, 259	VI 5A:	138, 140, 141, 142, 174, 284
III B:	108, 111, 250, 251	VII 1/2:	137, 157, 164, 285
IV:	258	VII 3/4:	144, 145, 162, 169, 194, 195, 201, 359, 360
Area 3B	255	VII 5:	146, 147, 148, 149, 150, 196, 286
Area 3c	102	VII 5A:	197
		VIII 1/2A:	151, 159, 198
		VIII 1/2B:	271
		VIII 3/4:	152, 153, 175, 199, 204, 361
		VIII 5:	154, 155
		IX 5:	168
		X 1/2A:	156

5 FINDS

INTRODUCTION

The Finds described and illustrated here were mainly recovered from the excavations at Kirk Close, South Methven Street and Canal Street II. However, identifiable finds from watching briefs undertaken up until 1982 have also been included. The majority of these were collected during observations at the Council Chambers, 1-5 High Street (see Archive).

In sections 5:1 to 5:13 a continuous number series has been used throughout. The catalogue has been ordered by material type and within this, where possible, the objects have been grouped according to their function. Each functional group begins with a discussion which is followed by the individual catalogue entries. The catalogue entry is then followed by details of the site; its name, the context in which the object was found, its accession number and, where stratified, by a period number referring to the period as designated in the various excavation reports.

Sections 5:14 to 5:17 have been ordered independently by their individual authors but, where possible, they exhibit the same format as sections 5:1 to 5:13.

Catalogues have been produced in microfiche listing all contexts from which finds were recovered. These are arranged by period and, within period, by area for South Methven Street (Table 66mf; 2:B2-10); by period and, within period, by plot for Canal Street II (Table 67mf; 2:B11-F9); and by period and, within period, by plot and structure for Kirk Close (Table 65mf; 1:E3-2:B1). These concordances list all the finds from each context giving catalogue numbers for cross referencing where finds are discussed in the text. The letter A after a catalogue number denotes the catalogue is in archive only.

A number of artefacts from excavations at Kirk Close which were lost during conservation were discovered at the National Museum of Antiquities of Scotland, shortly before going to press. Unfortunately it was too late to include them in the main body of the text. A catalogue, however, has been produced for microfiche (Table 87mf; 3:G9-11). These artefacts include three copper alloy sheets, one lead sheet, and a lead fragment, an iron knife, hasp, hinge pivot, hook and staple. All these objects except for the hook came from contexts dated to the late 14th century. The hook could be of 15th-century date.

5:1 COPPER ALLOY OBJECTS B FORD

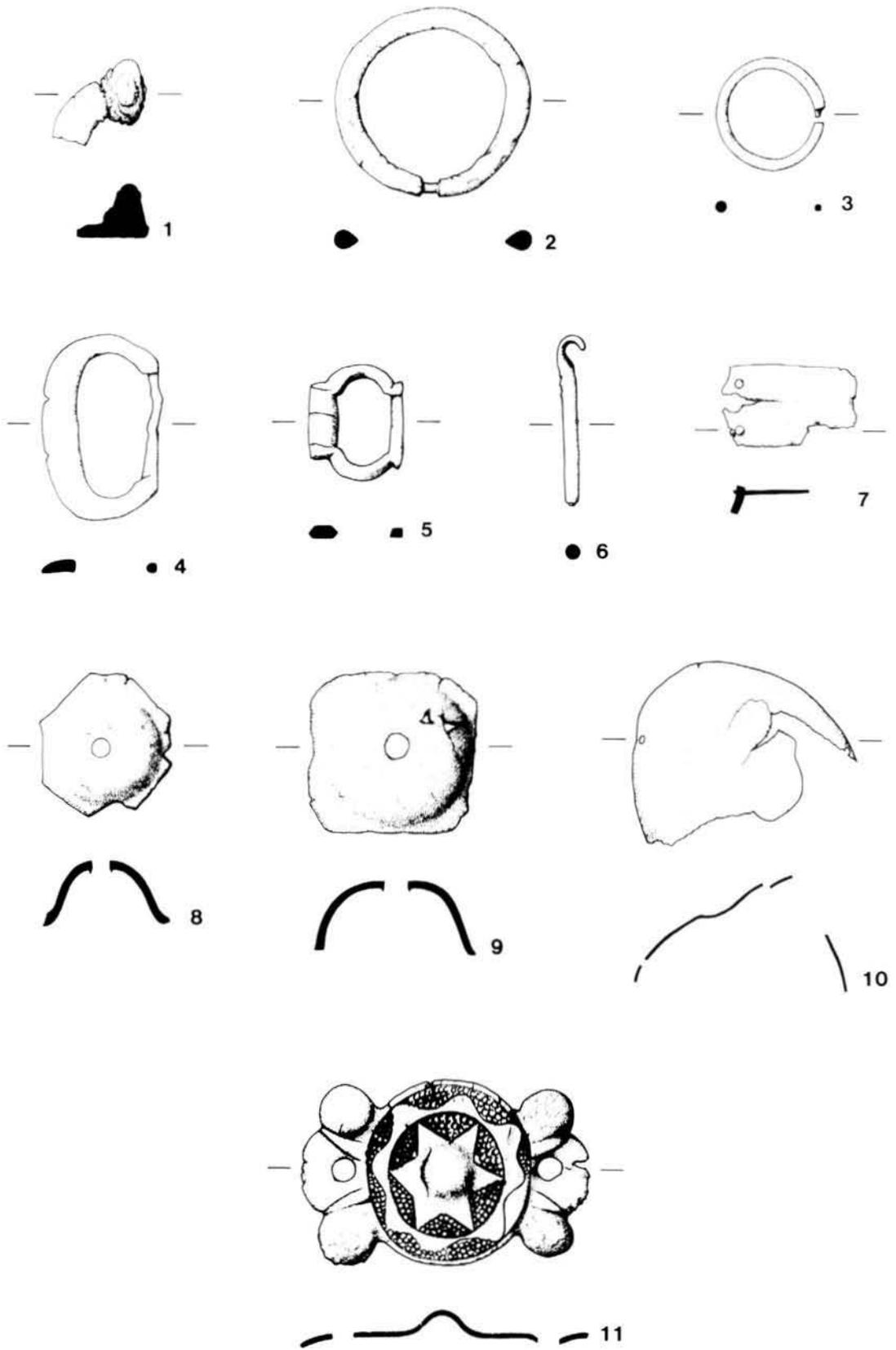
With a contribution by DH Caldwell

JEWELLERY AND FITTINGS FOR COSTUME (III 59)

These include brooches, buckles, buckle-plates, bosses, and mounts. There are two plain annular rings, which are possibly brooches or buckles. 2 is of a type often used to secure cloaks or, worn at the throat, to fasten undergarments. The smaller example 3 may have been used to fasten a strap, a shoe or a garment such as hose. Similar brooches/buckles have been found in London (London Museum 1940, 275, Plate

LXXVII), Northampton (Oakley and Webster 1979, 250) and Perth, where two stone moulds for casting them have also been found (Bogdan and Wordsworth 1978). 1 and 3 both come from late 14th-century contexts. 2, although unstratified, is a type also common in the 14th century.

The buckles are both single sided and could have been put to a number of uses. 4, from a late 15th-century context, is similar to one from London (London Museum 1940, 277, A1371) and a possible 16th-century example from Southampton (Harvey 1975, 262, fig 243, 1800). 5 from a late 14th-century context is paralleled by one from Exeter found in a late 15th-century context but thought to be earlier (Goodall 1984, 339, fig 190, M74). The buckle plate 7 is of



ILL. 59 : Copper alloy objects. Scale 1/1

a type current in the second half of the 14th century. There is a similar larger decorated piece from Northampton (Oakley and Webster 1979, 253, fig 108, Cu 31).

The three bosses 8-10 may be dress attachments from a leather belt or possibly fittings from a wooden object. 8 and 9 are pierced with a central hole, possibly for a rivet or leather thong. A similar object with an eight-sided flange but without the central pierced hole has been recorded from Exeter (Goodall 1984, 345, fig 193, M199). 8 is from a late 15th-century context and 9 from one of early 14th-century date. The decorative mount 11 may be a belt mount which would have been attached by means of the two pierced holes.

- 1 Brooch. Width of collet 6.5 mm.
Fragment of flat annular ring with an oval shaped mount set with a stone probably of green glass. The lip of the mount has been pushed inwards to secure the stone.
Kirk Close; Context 1118; Accession E121; Period III C.
- 2 Brooch/Buckle. Diameter 33 mm; thickness of ring 4 mm.
Annular. Cast. Ovoid in section. Seating for pin. Pin missing.
Kirk Close; Context 1000/2000; Accession E132; Unstrat.
- 3 Brooch/Buckle. Diameter 19 mm; thickness of ring 2 mm.
Annular. Circular in cross-section. Broken at seating for pin. Pin missing.
Kirk Close; Context 1098; Accession E128; Period IV B/C.
- 4 Buckle. Length 31.5 mm.
Single sided D-shaped decorated with two V-shaped notches. The back is flat, the face slightly rounded. The pin bar shows signs of wear and iron staining possibly from an iron pin, now missing.
Canal Street II; Context 2088; Accession E0103; Period VII 1/2.
- 5 Buckle. Length 20 mm.
Crude single-sided buckle. Flat back. The rounded sides terminate in a flat rectangular projection decorated with three incised notches. The square-sectioned pin bar shows signs of wear and iron staining possibly from an iron pin now missing. File marks on all surfaces.
Canal Street II; Context 2177; Accession E0110; Period V 1/2.
- 6 Buckle/Brooch pin. Length 29 mm.
Made from a folded sheet. Flattened and hooked at one end.
Canal Street II; Context 2322; Accession E0348; Period IV 5B, filling of trench 2318.
- 7 Buckle plate. Length 23 mm; width 14 mm; thickness 1 mm.
Rectangular, with shaped end, pierced with a central decorative hole and deep groove between two rivet holes. One with copper-alloy rivet still in place. Back shows horizontal tool marks. Traces of tinning.
Canal Street II; Context 2231; Accession E0443; Period V 4.
- 8 Boss. Diameter 19 mm; height 11 mm.
Dome, probably wrought with edge folded out to make an eight sided flange. Punched hole at centre of dome, (diameter of hole 3 mm).
Canal Street II; Context 2150; Accession E0090; Period VIII 1/2A.
- 9 Boss. Diameter 28 mm; height 12 mm.
Four-sided flange around central dome. Probably wrought. Punched hole at centre of dome (diameter of hole 4.5 mm).
Canal Street II; Context 2343; Accession E0121; Period IV 5B.

- 10 Boss. Diameter 38 mm.
Made from a single thin sheet. Pierced by two rivet holes.
1-5 High Street; Context 400; Accession E088.
- 11 Mount. Length 49 mm; width 31 mm; thickness 1 mm.
Made from a single sheet, with five bosses pushed up from behind. Around the central boss is a six-pointed star in relief surrounded by a raised wavy line border. The depressions between are filled with stamped dot decoration. The two lateral extensions are decorated with incised lines. They are pierced with a central hole between two bosses. The back is plain. The execution of the decoration is crude. Often the stamped dots overlap the raised borders and in one section they are missing.
81 High Street; Context 80; Accession E01.

PINS (Ill 60)

Five pins were recovered from contexts ranging from early 14th century to 15th century in date. 13 from a 14th- early 15th-century context is similar to one from Urquhart Castle (Samson 1982) thought to be a type found exclusively in Scotland. Examples dating back to the 8th-9th centuries have been noted by Laing (1975, 328-9). Decorated pins like 12 and 13 could have been worn to fasten garments or as purely decorative items. 14 is of a type found commonly in medieval and post-medieval periods, thought to have been used in dressmaking. This example dates to the late 15th century and was probably made by the wire drawing process (Caple 1983, 269-78).

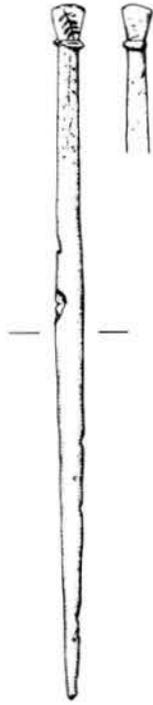
- 12 Pin. Length 96 mm; width of head 7.5 mm.
Circular cross-sectioned shaft tapering towards both head and tip. The head is flattened, rectangular in cross-section and decorated on front and back with three 'ring and dot' motifs.
Kirk Close; Context 2035; Accession E133; Period V B.
- 13 Pin. Length 93.5 mm; width of head 4.5 mm.
Frustum head square in cross-section above an abacus. The circular sectioned shaft is slightly swollen at the waist and broken at the tip. The head and upper part of the shaft are covered with a very fine leaf-like decoration on all four sides. The lower part of the shaft is plain.
South Methven Street; Context 101; Accession E001; Period II.
- 14 Pin. Length 55 mm; width of head 4 mm.
Circular cross-sectioned shaft. The head is formed by twisting a thin piece of wire twice around the shaft. The head is stuck or soldered in place.
Canal Street II; Context 2119; Accession E0043; Period VII 3/4, filling of gully 2115.
- 15 Pin? Length 58.5 mm; width 3 mm.
Broken at both ends. Crudely hammered rod made from a folded sheet, square in cross-section.
Canal Street II; Context 2320; Accession E0116; Period IV 5C, filling of 2321.
- 16 Pin. Length 73 mm; width 2 mm.
Broken at both ends. Rectangular cross-sectioned shaft, slightly twisted and tapering to a point. Not illustrated.
3 St John Street/Kirkgate; Accession E006b.

NEEDLES (Ill 60)

17 and 19 are both slender needles and could have been used in the sewing of textiles. 18, however, has a very large eye



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12



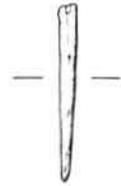
● 13



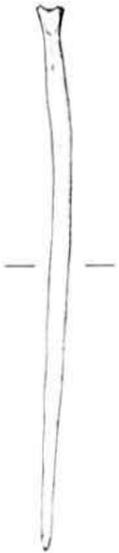
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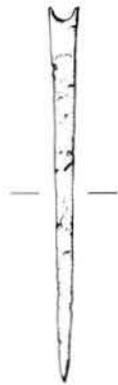
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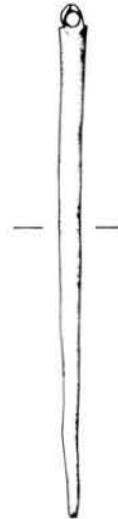
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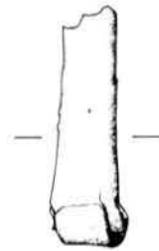
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18



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19



○ 24

ILL. 60 : Copper alloy objects. Scale 1/1

and could only have been used for the coarsest of fabrics. 18 and 19 are both from 14th-century contexts.

- 17 Needle. Length 74 mm; max diameter 2.5 mm. Broken across eye. Made from a folded sheet. Circular in cross-section, faceted towards point. Flattened at eye, the eye is cut in a countersunk groove. Kirk Close; Context 1000; Accession E066; Unstrat.
- 18 Needle. Length 51 mm; max diameter 4.5 mm. Broken across eye. Made from a folded sheet? Irregular cross-section. Kirk Close; Context 1058; Accession E138; Period Vb C S1.
- 19 Needle. Length 70 mm; max diameter 3.5 mm. Broken at tip. Oval in cross-section, flattened towards eye. The eye is worn. Canal Street II; Context 2408; Accession E0123; Period IV 5A.

TAGS (Ill 60)

Five tags were recovered, all from the Canal Street II excavations. 20-23 are lace tags and come from contexts dated to the late 15th and 16th centuries. They are all of a similar type, formed by rolling a single sheet of copper-alloy around the end of a lace so that the longer edges butt together. This type is often secured by a rivet close to the wider end. (Oakley and Webster 1979, 262, Type 1). 24 from a late 14th-century context could also be a tag from a larger lace or a chape from a leather strap.

- 20 Tag. Length 12.5 mm; diameter 2 mm. Broken at one end. Not illustrated. Canal Street II; Context 2125; Accession E0065; Period VII 1/2, filling of gully 2085.
- 21 Tag. Diameter 2.5 mm. Broken at both ends. Not illustrated. Canal Street II; Context 2103; Accession E0066; Period VII 3/4, filling of pit 2092.
- 22 Tag. Length 24 mm; diameter 2.5 mm. Broken at one end. Canal Street II; Context 2150; Accession E0089; Period VIII 1/2A.
- 23 Tag. Diameter 2 mm. Broken at both ends. Not illustrated. Canal Street II; Context 2127; Accession E0229; Period VII 3/4, filling of gully 2115.
- 24 Tag? Length 32.5 mm. Single sheet folded to make a tube with the long edges butting together. Part of one end has been cut leaving a flap, which has been folded over to enclose one end. The other end is broken. Canal Street II; Context 2224; Accession E0281; Period V 4, cobbled path 2231.

RINGS (Ill 61)

25, of unknown function, is from a context dated to the early 15th century. 26 may be a curtain ring or be from an annular brooch or buckle.

- 25 Ring. Diameter 23.5 mm. Cast ring, faceted and filed on all faces. Canal Street II; Context 2211; Accession E0109; Period VI 3/4.
- 26 Ring. Diameter 32 mm; thickness of ring 5.5 mm. Plain annular ring, circular in cross-section. 1-5 High Street; Context 400; Accession E064.

KEYS (Ill 61)

27 and 28 are both from contexts dating to the late 14th century. They would probably have been used to lock caskets or small boxes.

- 27 Key. Length 46.5 mm. Solid circular cross-sectioned stem with hole bored through the end. The bit has two plain wards, one broken. Bow missing. Kirk Close; Context 1121; Accession E148; Period III C.
- 28 Key. Length 43.5 mm. Solid stem, circular in cross-section. The stem projects to a point. The bit has two straight wards. The bow is oval. Kirk Close; Context 2016; Accession E149; Period V A.

MACEHEAD (Ill 21 and 62) DH CALDWELL

29 is only the second medieval macehead with a secure Scottish provenance, the other coming from Millsteads Farm, Canonbie, Dumfriesshire. Several others survive in European collections and are generally assigned dates from the 12th to the 14th century (Caldwell 1981b, 306-8.).

- 29 Macehead. Length (excluding wood) 53 mm; diameter 46 mm.

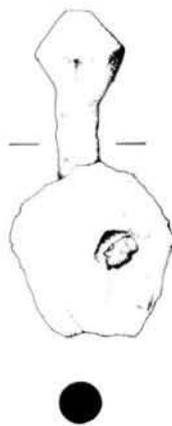
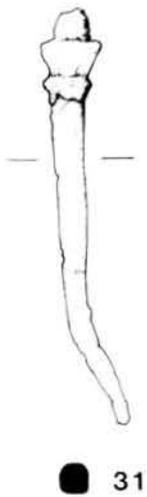
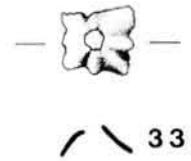
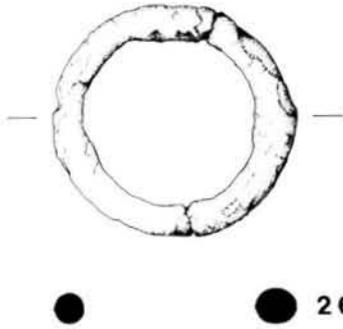
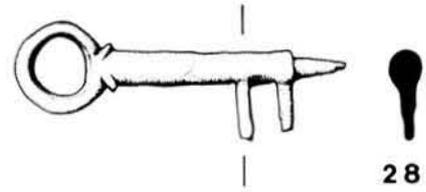
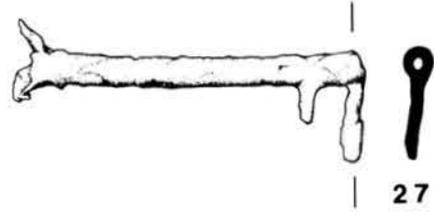
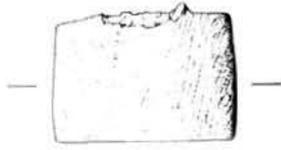
Badly corroded, with some splinters of its wooden shaft still surviving within its socket. The head has twelve knobs, staggered in three rows and there is a raised band near the bottom of the socket (internal diameter of socket 20 mm).

The macehead had been subjected to X-ray fluorescence analysis by the National Museum's Research Laboratory (Report No. R7397). Analyses were made of several of the different corrosion layers, all of which show the occurrence of the constituents of bronze, viz. copper, lead and tin with small amounts of antimony. There are traces of silver in some of the corrosion areas but this may be from contamination in the copper rather than a surface coating.

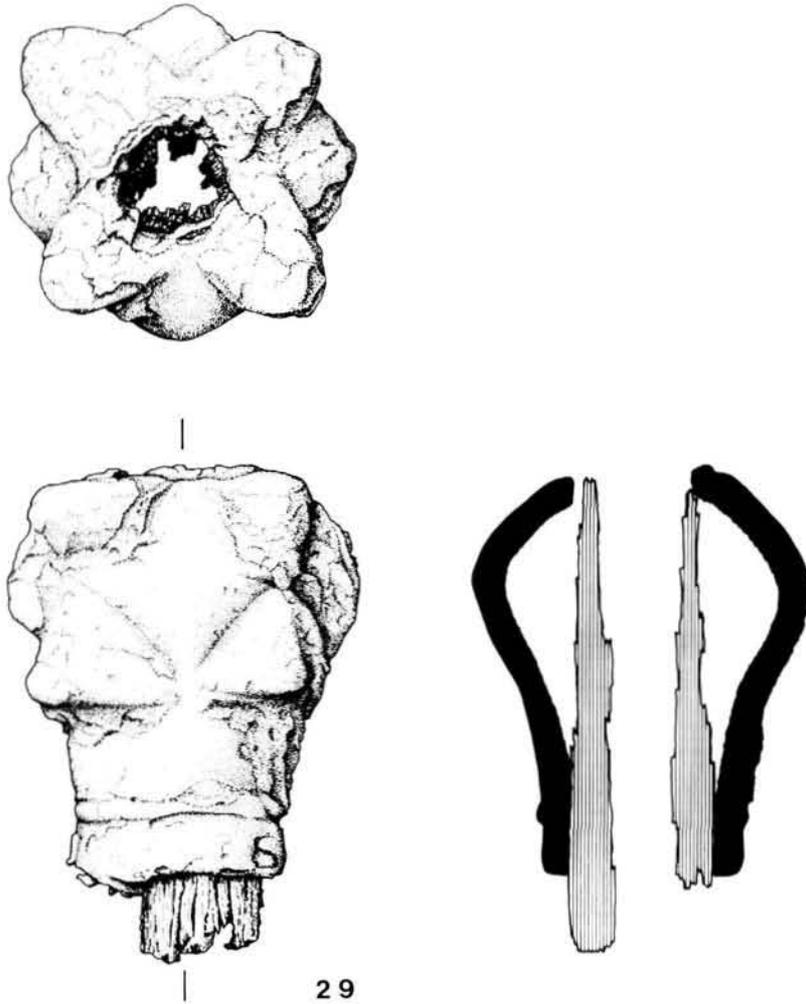
Much of the surface is covered with grey areas of corrosion which consist predominantly of lead. This might either be the remains of a lead covering or solder to attach some other material, functional or decorative. It does not appear to be leakage from a lead core as X-rays show no evidence that there was such a core. Perhaps the best explanation is that the head was decoratively bound with lead or pewter wire. Kirk Close; Context 1072; Accession E084; Period Vb C S1.

CLENCH BOLT, NAILS AND STUDS (Ill 61)

Clench bolts were used for joining a double thickness of timber. They are usually much larger than 30 and made of iron. A small finely made example like 30 could have been used on a door or a piece of furniture. 30 and the nail 31 are from contexts dating to the late 14th century. 32 is from a 12th-century context. This too may have been a clench bolt. However, the head shape is unusual and is possibly decorative. All the edges of the iron plate are broken so its true size and shape are unknown. The studs 33 and 34 are both from late 15th-century contexts and may have been put to one of a number of uses, functional or purely decorative.



ILL. 61 : Copper alloy objects. Scale 1/1



29

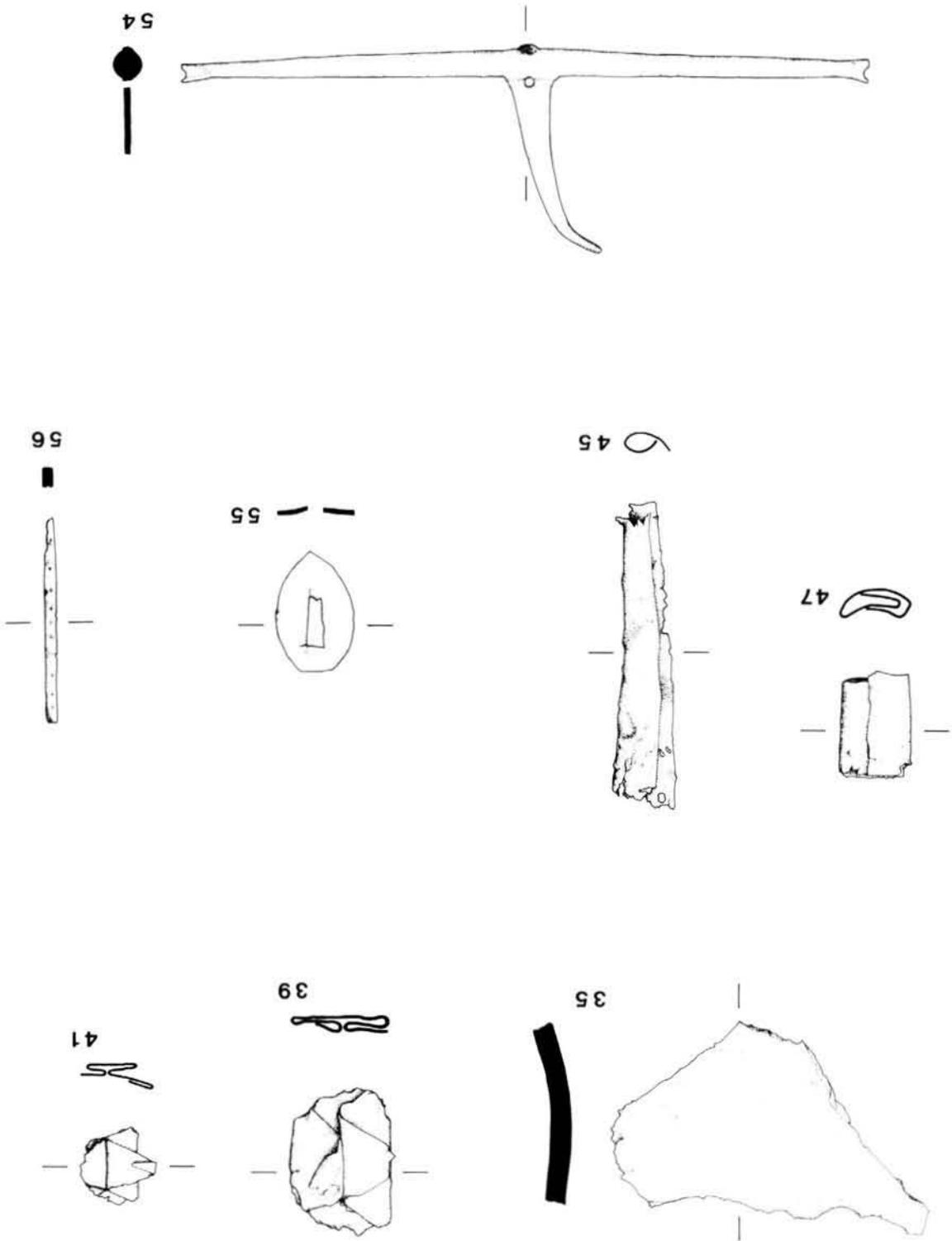
ILL 62 : Copper alloy object. Scale 1/1

- 30 Clench bolt. Length 24 mm; diameter of head 13 mm. Circular slightly domed head. Subrectangular cross-sectioned shaft. The base of the rivet is fixed in a broken iron rivet plate.
Canal Street II; Context 2278/2308; Accession E0658; Period IV 3A/B.
- 31 Nail/Pin. Length 56 mm; width of head 8 mm. Subrectangular cross-sectioned shaft. Broken at point. Square cross-sectioned flaring four-sided flat-topped head with circular-sectioned projection.
Kirk Close; Context 2058; Accession E126; Period V B.
- 32 Nail. Length 43 mm; diameter of head 12 mm. Circular cross-sectioned shank broken at tip. Biconical head. The end of the shaft is bent and inserted into the central hole of a flat iron plate.
Canal Street II; Context 2386; Accession E0486; Period II, filling of pit 2351.
- 33 Stud. Length 12 mm; width 11.5 mm. Domed head. The central hole has torn edges. The copper alloy rivet with circular cross-section shank is now detached.
Canal Street II; Context 2088; Accession E0104; Period VII 1/2.
- 34 Stud. Length 20 mm; diameter of head 17.5 mm. Circular flat head, broken. Traces of gilding on the upper surface. Square sectioned shank.
Canal Street II; Context 2171; Accession E0100; Period VIII 1/2A, filling of gully 2172.

VESSELS (III 63)

Four fragments from copper alloy vessels were recovered from excavations at Canal Street II from contexts dating from the early 14th to the late 15th century. All the fragments appear to be from cast vessels. A number of fragments of moulds from the casting of vessels were also recovered from the Canal Street II site. These have been divided into a number of types (See 5:14 Mould and Crucible Fragments). All except one of the vessel fragments are too small to determine size or shape. However, 35 seems to be a Type 1 casting as noted by Spearman (5:14).

40 and 41 are rivets commonly used when repairing vessels (Oakley and Webster 1979, 258, fig 112, Cu 99; Goodall, A R, 1979, 112, fig 57, Nos 60, 61). They were recorded from contexts dated to between late 14th and late 15th century.



- 35 Vessel fragment. Thickness 3 mm.
Canal Street II; Context 2096; Accession E0015;
Period VII 5A.
- 36 Vessel fragment. Not illustrated.
Canal Street II; Context 2151; Accession E0244;
Unstrat.
- 37 Vessel fragment. Not illustrated.
Canal Street II; Context 2268; Accession E0286;
Period IV 5C.
- 38 Vessel fragment. Not illustrated.
Canal Street II; Context 2320; Accession E0283;
Period IV 5C.
- 39 Paper clip rivet. Length 23.5 mm.
Made from a diamond-shaped sheet with the ends
folded twice.
Canal Street II; Context 2153; Accession E0245;
Period VII 5, filling of feature 2154.
- 40 Paper clip rivet? Length 10 mm.
Incomplete. Made from a folded diamond-shaped
sheet. Not illustrated.
Canal Street II; Context 2173; Accession E0288;
Period V 1/2.
- 41 Paper clip rivet. Length 12.5 mm.
Made from a diamond-shaped sheet with the ends
folded twice.
Canal Street II; Context 2239; Accession E0476;
Period V 5.
- 46 Sheet. Length 45 mm.
Fragment from a folded sheet with one cut edge. Not
illustrated.
Canal Street II; Context 2120; Accession E0105;
Period VII 5, filling of robber trench 2122.
- 47 Sheet. Length 17 mm; width 11.5 mm.
Thin rectangular sheet folded three times.
Canal Street II; Context 2146; Accession E0091;
Period VI 3/4.
- 48 Sheet. Thickness 0.5 mm.
Fragment, with a straight cut edge. Not illustrated.
Canal Street II; Context 2173; Accession E0339;
Period VIII 1/2A.
- 49 Sheet. Thickness 1.5 mm.
Fragment, with a straight cut edge. Not illustrated.
Canal Street II; Context 2208; Accession E0269;
Period V 3, filling of gully 2209.
- 50 Sheet. Thickness 1 mm.
Fragment with one straight cut edge. Not illustrated.
Canal Street II; Context 2210; Accession E0108;
Period V 3, filling of gully 2209.
- 51 Sheet. Thickness 1 mm.
Diamond-shaped sheet with cut edges. The two ends
are bent. Not illustrated.
Canal Street II; Context 2278/2308; Accession E0113;
Period IV 3A/B.
- 52 Sheet.
Fragment from a sheet folded twice. Not illustrated.
Canal Street II; Context 2278/2308; Accession E0282;
Period IV 3A/B.
- 53 Sheet. Thickness 0.5 mm.
Fragment with one straight cut edge. Not illustrated.
Canal Street II; Context 2313; Accession E0284;
Period IV 5B, filling of foundation trench 2318.

WIRES

Six fragments of fine wire were recovered from contexts dated to the 14th century.

- 42 Wire. Diameter 0.75 mm.
Three lengths of drawn wire, each is knotted at one
end. Not illustrated.
Kirk Close; Context 2036; Accession E113; Period
IV B.
- 43 Wire. Diameter 0.75 mm.
Length of drawn wire. Not illustrated.
Kirk Close; Context 2037; Accession E112; Period
IV B.
- 44 Wire. Diameter 0.5 mm.
Two fragments of drawn wire. Not illustrated.
Canal Street II; Context 2179; Accession E0330;
Period IV 2A.

SHEETS, OFFCUTS AND FRAGMENTS (Ill 63)

45 from Kirk Close was recovered from a late 14th-century context. Eight fragments of copper-alloy sheet were recovered from excavations at Canal Street II from contexts dating from the early 14th century to the 16th century. They were of irregular size and shape. Several examples show signs of having been cut and these may possibly be waste pieces from larger sheets. Evidence from the metal working debris and mould fragments also found at Canal Street II suggests that some copper-alloy working was taking place near the site (5:14 Metalworking). 47 and 52 may possibly be packages of waste copper-alloy sheeting folded ready to put back into the melt. 51 from an early 14th-century context may be a partly formed paper clip rivet (see 40 and 41).

- 45 Sheet. Length 49 mm.
Fragment of a folded sheet.
Kirk Close; Context 2056; Accession E123; Period
IV B.

MISCELLANEOUS (Ill 63)

54, a small beam balance, is from a context dated to the late 14th century. A similar example was found in Aberdeen (Goodall 1982, 186, Ill 107:65) and another much larger one was found at excavations at PHSE, (Perth and Kinross Museum and Art Gallery A04/0539). 55 is a hilt plate, a plate often set at the junction between blade and tang on whittle tanged knives. Two knife fragments with hilt plates still in place were recovered from Kirk Close (72 and 73). 56 of unknown function is from a context dated to the 14th century. 57 from a mid 14th-century context may possibly be part of a panel from a casket or box.

- 54 Balance. Length 109 mm; diameter of arms 4 mm.
Small beam balance. Bar formed from a sheet folded
into a circular rod, with the edges butting against each
other. The base of the now bent pointer is held in the
centre of the arm. It is pierced with a hole, which
would have contained a rivet to hold the (now missing)
suspension loop in place on which the balance would
pivot. The ends of the arms are flattened and pierced
for the suspension of the scale pans.
Canal Street II; Context 2210; Accession E0107;
Period V 3, filling of gully 2209.
- 55 Hilt plate. Length 19.5 mm; width 12.5 mm; thickness
1 mm.
Oval disc, pointed at one end. Rectangular hole cut
at the centre.
Canal Street II; Context 2151; Accession E0268;
Unstrat.
- 56 Rod. Length 33 mm; width 3.5 mm; thickness 2 mm.
Rectangular in cross-section, pointed at one end. File
marks on edges. Both narrow facets are punched with
a number of irregularly spaced holes.
Canal Street II; Context 2356; Accession E0325;
Period IV 5A, silting of bank = 2348, 2375, 2382.

- 57 Sheet.
Fragments from a thin sheet with traces of wood adhering. Several fragments are pierced by copper-alloy rivets. Five rivets are still in place. Not illustrated. Kirk Close; Context 1141; Accession E158; Period II C S4.

5:2 LEAD ALLOY OBJECTS (Ill 64) B FORD

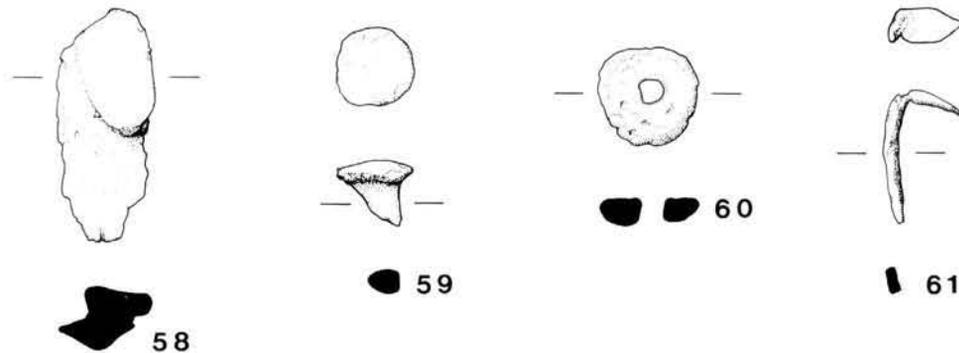
58 and 59 were probably used as lead repairs for ceramic vessels. 58 still has a small sherd of pottery sandwiched between the two sections of the patch. No ceramic vessels have been found from Perth with lead repairs in place but a sherd of White Gritty ware from Inverkeithing was found with a lead plug still in *in situ*. (MacAskill 1983, 539).

60, from an early 14th-century context, could possibly have been used as a spindle whorl or weight. Three lead spindle whorls have been recorded from Threave Castle (Caldwell 1981a, 111, fig 10: 55, 62, 67). Two perforated lead discs from Sandal Castle have been described as weights (Goodall A R 1983, 235, fig 2: 110, 111).

- 58 Patch. Max length 62 mm; max width 26 mm; max thickness 16 mm.
Oval shaped disc and irregularly shaped patch with a thin sherd of pale green glazed White Gritty ware between them.

Canal Street II; Context 2107; Accession E0053; Unstrat.

- 59 Plug. Length 19 mm; diameter 21 mm.
Flat disc with faceted projection.
Canal Street II; Context 2376; Accession E0326; Period IV 5A.
- 60 Spindle whorl or weight? Diameter 26 mm; max thickness 8 mm.
One flat surface, D-shaped cross-section. Pierced at the centre. (Diameter of hole 7 mm).
Canal Street II; Context 2339; Accession E0119; Period IV 3B.
- 61 Strip. Length 36 mm; width 7 mm; thickness 4 mm.
Folded strip flattened and pointed at one end.
Canal Street II; Context 2178; Accession E0270; Period VII 1/2.



ILL. 64 : Lead alloy objects. Scale 1/2

5:3 IRON OBJECTS B FORD

With contributions by BMA Ellis and A Walsh

ARROWHEADS (Ill 65)

62 and 65 are barbed and socketed arrowheads of LMMC Type 16 (London Museum 1940, 70). 62 is from an early 15th-century context. It was probably used in hunting, as barbed arrowheads, by the 14th century, were not capable of penetrating the tougher armour worn in battle. More compact barbless arrowheads were therefore needed. 63 and 64 cf

LMMC Type 8 (*ibid*, 68), from 13th and 12th century contexts respectively, may be early versions of this type of arrowhead and may have been used in battle.

- 62 Arrowhead. Length 64 mm; max width 18 mm.
Socketed and barbed. Broken at tip and socket.
Canal Street II; Context 2166; Accession E0250; Period VI 3/4.
- 63 Arrowhead. Length 63 mm; max width 11 mm.
Socketed. Circular in cross-section at the socket.
Tapering towards a faceted point.

- Canal Street II; Context 2349; Accession E0457; Period III 2.
- 64 Arrowhead.
Two very corroded fragments. Socketed, tapering towards the point. Tip missing. Not illustrated. Canal Street II; Context 2385; Accession E0481; Period II.
- 65 Arrowhead. Length 76 mm; max width 15 mm. Socketed and barbed, with a rivet hole at the top of the socket to secure the shaft. Broken at tip. 1-5 High Street; Context 1100; Accession E141.

BUCKLES (III 65)

D-shaped buckles are a common form of medieval buckle. 66 is from a 14th-/15th-century context. 67-71 are buckle pins dating from the early 14th to the 16th century.

- 66 Buckle. Length 62 mm; width 27 mm. Flattened D-shaped buckle. Circular cross-sectioned pin bar. Rectangular cross-sectioned frame. South Methven Street; Context 208; Accession E031; Period III.
- 67 Buckle pin. Length 81 mm. Broken at rectangular cross-sectioned loop. Tapers to a circular cross-sectioned tip. Not illustrated. Kirk Close; Context 2012; Accession E073; Unstrat.
- 68 Buckle pin. Broken at loop and tip. Rectangular in cross-section. Not illustrated. Canal Street II; Context 2162; Accession E0392; Period VI 5B.
- 69 Buckle pin. Broken at loop. Rectangular in cross-section. Not illustrated. Canal Street II; Context 2173; Accession E0413; Period VIII 1/2A.
- 70 Buckle pin. Length 67 mm; width at loop 8 mm. Complete. Rectangular in cross-section. Made from a rod hammered flat at one end and curved to form a loop. Tapers towards the tip. Canal Street II; Context 2254; Accession E0111; Period IV 2B, filling of hollow 2266.
- 71 Buckle pin. Length 75 mm. Broken at loop. Rectangular in cross-section at loop, tapering to a circular cross-sectioned tip. Not illustrated. Canal Street II; Context 2408; Accession E0336; Period IV 5A.

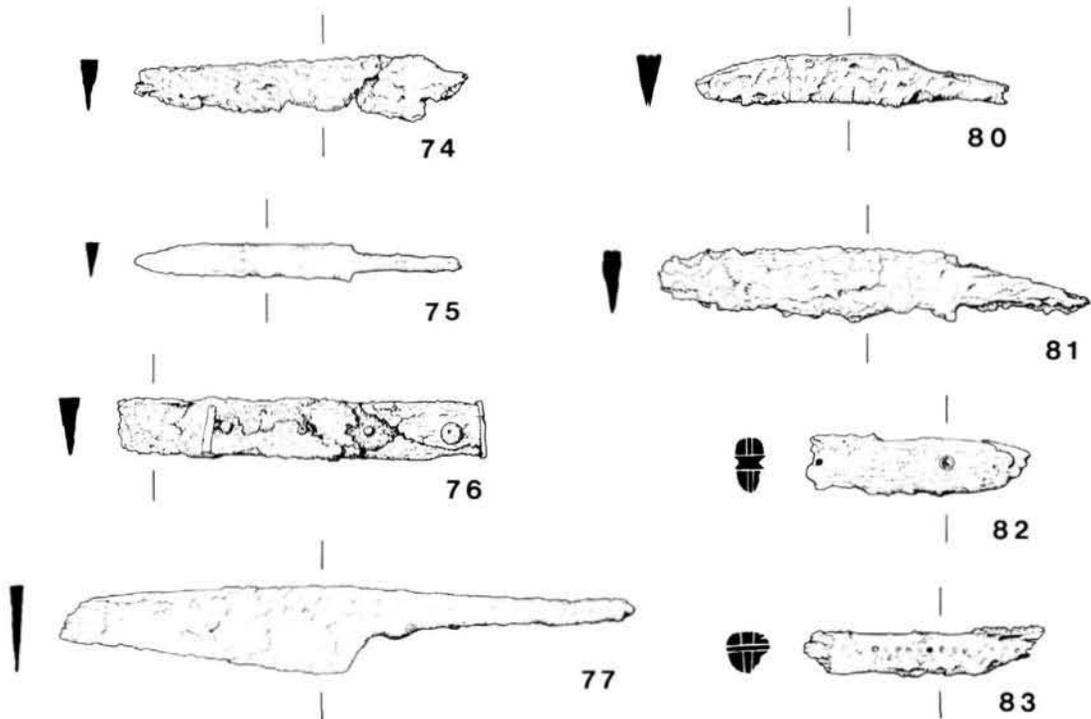
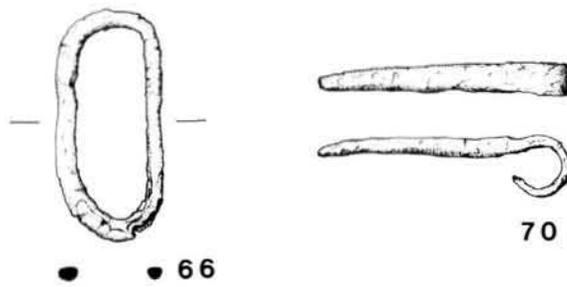
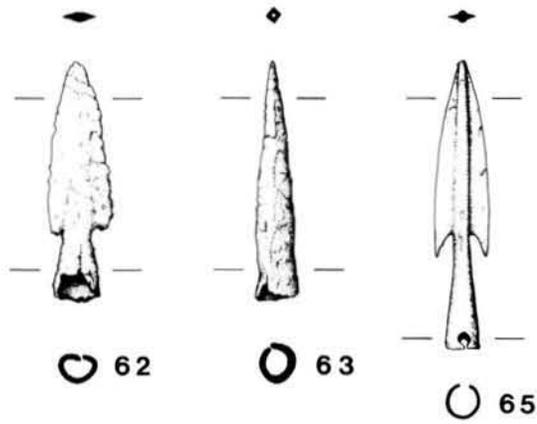
KNIVES (III 65)

Fragments of ten knives and two knife handles were recovered. 76, 82 and 83 have scale tangs and 73, 74, 75, 77, 80 and 81 whittle tangs. Both types were common in the medieval period. The scale tang knives all have handles of wood held in place by copper alloy rivets. 76 has non-ferrous shoulder plates, a common feature on this type of knife. It also has a large open rivet set close to the end plate which may have been for suspension. Knives of this type are thought to have been introduced in the 13th century (Goodall 1980, 82) these examples date from the late 14th to the 16th century.

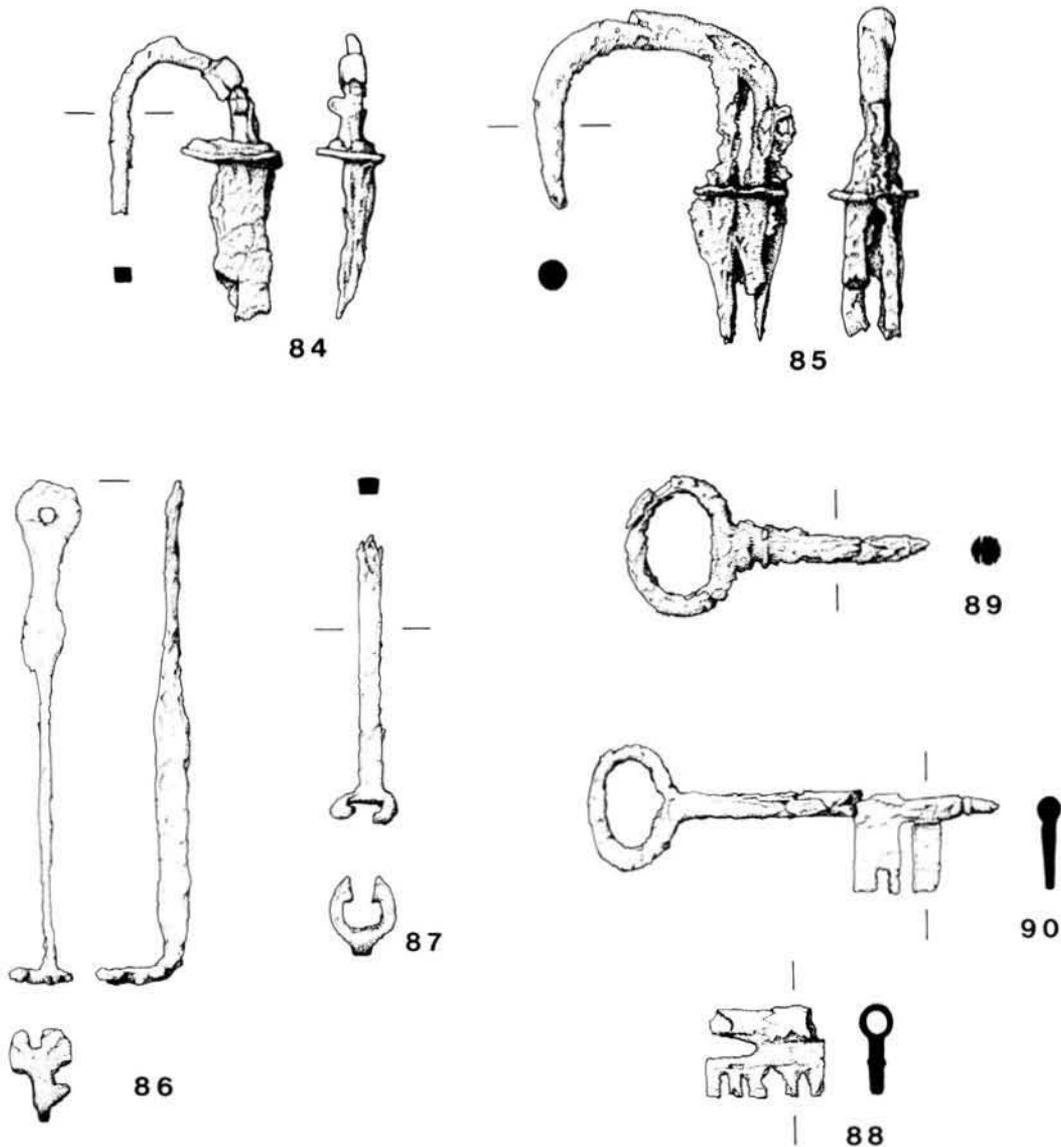
The whittle tang knives, where stratified, all came from contexts dating to the 14th century, except for 80 which is from a 12th-century context. This type of knife would usually have a handle of wood or bone into which the tang was inserted. However, no traces of the handles of any of these examples remain. Hilt plates were often placed between the blade and tang. 72 and 73 still have hilt plates attached.

Another detached copper alloy hilt plate 55 was also found (from Canal Street II).

- 72 Knife.
Fragment of a tang from a whittle tang knife, with copper alloy hilt plate still attached. Not illustrated. Kirk Close; Context 1045; Accession E071; Period Vb C S1.
- 73 Knife.
Fragment of a whittle tang knife, part of blade and tang remain with an iron hilt plate between. Not illustrated. Kirk Close; Context 1071; Accession E088; Period IV A.
- 74 Knife. Length 89 mm; max width of blade 18 mm. Whittle tang knife, blade back and cutting edge both taper towards the tip. Tip broken. Only a small part of the tang remains. Kirk Close; Context 1117; Accession E118; Period III C.
- 75 Knife. Length 87 mm; max width of blade 9 mm. Whittle tang knife. The blade is complete. The blade back and cutting edge run parallel before tapering to the tip. Kirk Close; Context 2036; Accession E134; Period IV B.
- 76 Knife. Length of handle 75 mm; width of handle 15 mm. Scale tang knife, only part of the blade remains. The handle is of wood, held in place by tubular copper alloy rivets, with a large open rivet close to the rectangular copper alloy end plate. There are two non-ferrous rectangular plates at the shoulder between tang and blade. Canal Street II; Context 2145; Accession E0092; Period VII 1/2, filling of gully 2085.
- 77 Knife. Length 153 mm; max width of blade 23 mm. Whittle tang knife. The blade back is straight and the cutting edge rises up to meet it at the tip. Tip broken. Canal Street II; Context 2322; Accession E0117; Period IV 5B, filling of trench 2318.
- 78 Knife. Width of blade 16 mm. Fragment of a knife blade. Not illustrated. Canal Street II; Context 2342; Accession E0453; Period IV 5B.
- 79 Knife. Max width of blade 11 mm. Fragment of a knife blade. Not illustrated. Canal Street II; Context 2356; Accession E0610; Period IV 5A, filling of gully 2376.
- 80 Knife. Length 84 mm; max width of blade 13 mm. Whittle tang knife. The blade back and cutting edge taper towards the tip. The tip of the blade and the end of the tang are broken. Canal Street II; Context 2385; Accession E0480; Period II.
- 81 Knife. Length 115 mm; max width of blade 19 mm. Whittle tang knife. The blade back and cutting edge taper towards the tip. The end of the tang and the tip of the blade are broken. 1-5 High Street; Context 700; Accession E063.
- 82 Handle. Length 60 mm. Fragment from the handle of a scale tang knife. The handle is of wood secured to the iron tang by copper alloy rivets. Canal Street II; Context 2083; Accession E0016; Period VIII 6.
- 83 Handle. Length 64 mm. Fragment from the handle of a scale tang knife. The handle is of wood, secured to the iron tang by very closely spaced copper alloy rivets. Canal Street II; Context 2177; Accession E0663; Period V 1/2.



II.L. 65 : Iron objects. Scale 1/2



ILL. 66 : Iron objects. Scale 1/2

LOCK AND KEYS (Ill 66)

Barrel padlocks such as 84 and 85 were the most common form of lock in the medieval period. 85 is from a 14th-/early 15th-century context. A similar padlock bolt with four spines was found at Clarendon Palace (Borenus and Charlton 1936). 84 is comparable with one from Southampton (Harvey 1975, 227, fig 250, 1988) Barrel padlocks were opened by using keys like 86 and 87 which, when inserted into the lock, would depress the springs hence opening the lock. 86 is from a late 14th-century context. 87, which is unstratified, is similar to one found at King's Lynn (Goodall and Carter 1977, 293, fig 133, 5). 88, 89 and 90 are probably door keys. 89 and 90 both come from contexts dating to the early 14th-century and 88 from one of late 15th-century date. 90 has an asymmetrical bit which could only have been used from one side of the lock.

- 84 Barrel padlock. Length 75 mm. Incomplete. Copper alloy coated U-shaped bolt with rectangular closing plate. The single spine originally had two springs. The decorative scrolls and band on the bolt are also coated with copper alloy. Kirk Close: Context 1000; Accession E059; Unstrat.
- 85 Barrel padlock. Length 88 mm. U-shaped bolt. Round closing plate with four spines, only three of which retain their springs. The decorative scrolls on the bolt are coated with copper alloy. South Methven Street; Context 210; Accession E034; Period III.
- 86 Barrel padlock key. Length 134 mm; width of bit 17 mm. Looped stem, the upper part of which is flat. The bit is set laterally to the stem and has radiating wards. One of the side wards may be missing.
- 87
- 88
- 89
- 90

- Kirk Close; Context 1121; Accession E085; Period III C.
- 87 Barrel padlock key. Width of bit 18 mm. The upper part of the stem is broken. The circular open looped bit is set laterally to the stem. 1-5 High Street; Context 200; Accession E032.
- 88 Key. Width of bit 31 mm. Copper alloy coated bit from a key, with hollow tip and four ward cuts. Canal Street II; Context 2103; Accession E0224; Period VII 3/4, filling of pit 2092.
- 89 Key. Length 79 mm. Oval bow and fragment of solid stem. The stem has moulded decoration below the bow. Canal Street II; Context 2255; Accession E0112; Period IV 4B, filling of sinkage 2296.
- 90 Key. Length 108 mm; width of bit 22 mm. Two fragments of a key with an oval bow. The solid stem has a projecting tip, with moulded decoration. The bit is cut by two wards of different lengths. Canal Street II; Context 2322; Accession E0118; Period IV 5B, filling of trench 2318.

TOOLS (Ill 67)

91 and 92 are probably both woodworking chisels. 91 is from a post-medieval context while 92 comes from a context of early 14th-century date. A similar tool to 92, found at Amsterdam, is described as a wedge used in woodworking (Amsterdams Historisch Museum 1977, 478, 480, No 918).

95 is also a woodworking tool. It was recovered from a late 14th-century context. It is an example of a common type of auger bit used to bore holes in wood. A number of complete and fragmentary examples have been recorded from Sandal Castle (Goodall I H 1983, 240, fig 4, 35-40).

The hoe, 93, from a context dated to the 12th century, has probably been bent. Other medieval tanged hoes have their tangs set at right angles to the blade (Goodall 1980, I, 69). It is uncertain to what use this type of hoe was put, but it could have been used for gardening or clearing land. Another tanged hoe has been found from a Scottish site at Lochmaben Castle (MacDonald and Laing 1975, 148, fig 11.16). A 13th-century tanged hoe has been recovered from Brandon Castle, Warwick. (Goodall 1980, II, 51, fig 46, F26). 94, from a 16th-century context, is probably a sickle although it has lost both its tang and blade tip and is very corroded. The presence of a sickle and hoe on the Canal Street II site supports the interpretation that the area was cultivated during the medieval and post-medieval periods.

- 91 Chisel. Length 70 mm; width of blade 15 mm. Flared blade with double bevelled cutting edge. Square cross-sectioned whittle tang for insertion into a handle. South Methven Street; Context 201; Accession E013; Period IV.
- 92 Chisel. Length 87 mm; width of blade 12 mm. Flat headed. Rectangular cross-sectioned blade with double bevelled cutting edge. Canal Street II; Context 2191; Accession E0289; Period IV 1, filling of gully 2392.
- 93 Hoe. Length 168 mm; max width of blade 91 mm. Triangular blade, the sides of which are bent. The square cross-sectioned tang is at an angle of 30-35° to the blade. Canal Street II; Context 2459; Accession E0125; Period II, filling of pit 2351.
- 94 Sickle? Length 250 mm; width 24 mm. Triangular in cross-section, broken at both ends. A broken rectangular copper alloy plate is riveted to the blade with an iron rivet. Canal Street II; Context 2213; Accession E0253A; Period VIII 1/2A, filling of pit 2214.

- 95 Spoon bit. Length 139 mm; width of blade 15 mm. Spoon-shaped blade. Rectangular cross-sectioned shank now broken. Terminal missing. Kirk Close; Context 1119; Accession E120; Period III C.
- 96 Tool. Length 94 mm; max width 18 mm. Rectangular shank with rivet at one end. Expands to a wedge shape with a blunt end. South Methven Street; Context 200; Accession E071; Unstrat.

HOUSEHOLD IRONWORK (Ill 68)

Pricket candlesticks such as 97 have been found on a number of sites. 97 is from an early 14th-century context. A corroded 14th-century example has been recorded from Lochmaben Castle, Dumfries and Galloway (Macdonald and Laing 1975, 149, fig 11.32). Two, more complete 13th-14th century examples have been recorded from London (Tatton-Brown, 1974, 191, fig 38.70). Pricket candlesticks were used by fitting a candle onto a spike. The candlestick could possibly have been set in a stand or fixed onto a wooden beam. The chain 98 was found in the same context as the three iron bars, 114-116, in the filling of an oven in S1 (see 2:1 Kirk Close). It is possible that the chain was used for suspension of some object in the bakery, possibly a cauldron or other domestic utensil.

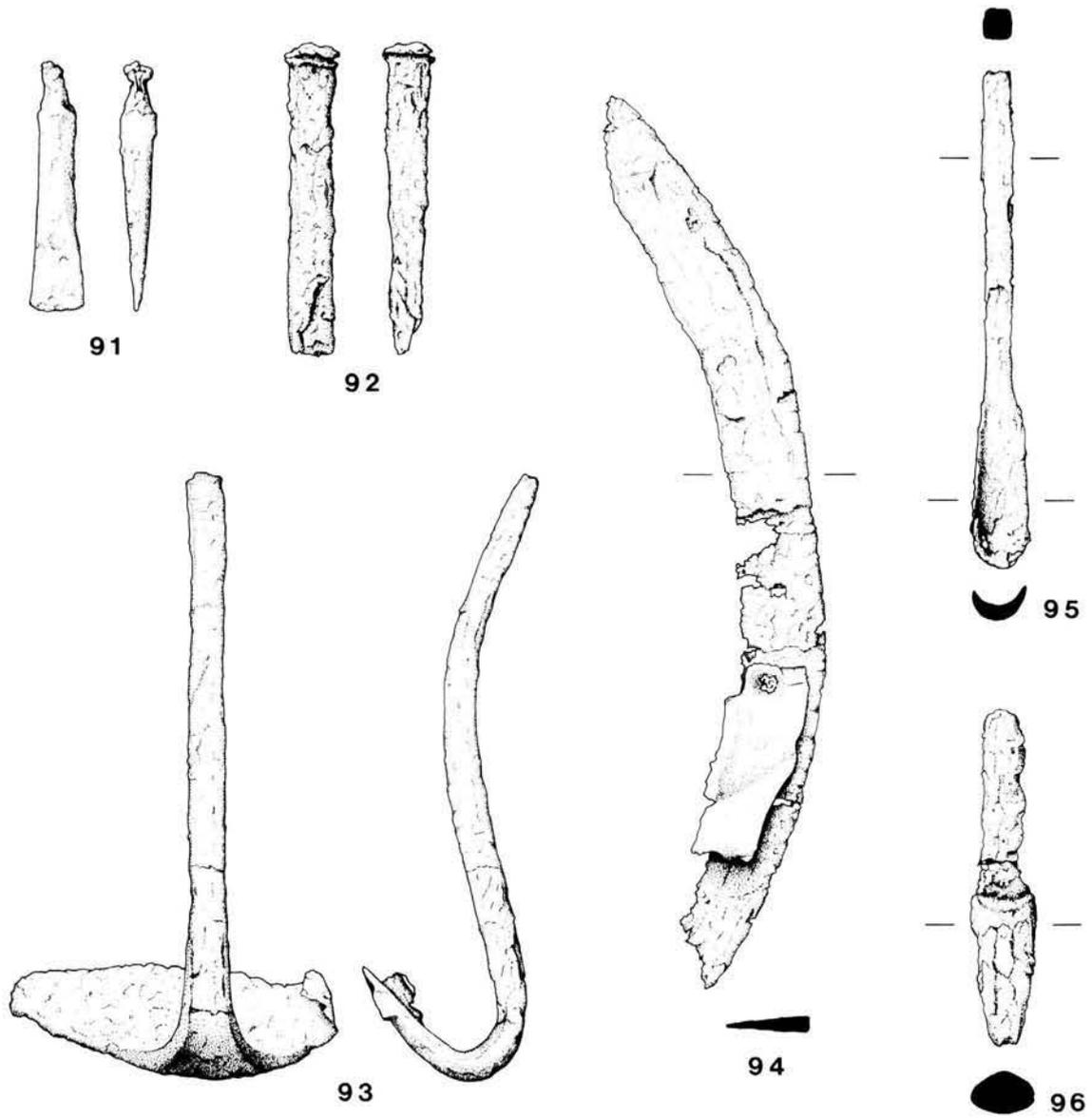
Swivel hooks like 99 were often used on the ends of chains to give more manoeuvrability. This example, which comes from an early 14th-century context, lacks its ring. Another complete 14th-century example comes from Badby, Northamptonshire (Goodall 1980, II, 271, J248). Swivel rings could also be put to other uses. Four swivel hooks and rings, for example, from Urquhart Castle are thought to be some form of horse gear, possibly a tether (Samson 1982, 466, nos 3-6).

- 97 Candlestick. Length 117 mm. Very corroded pricket candlestick with two side scrolls. The pricket spike is broken. Not illustrated. Canal Street II; Context 2357; Accession E0122; Period IV 4A, filling of pit 2391.
- 98 Chain. Two fragmentary figure-of-eight shaped links from a chain. Not illustrated. Kirk Close; Context 1004; Accession E057; Period VI C S1.
- 99 Swivel hook. Length 75 mm. Rectangular head. Square cross-sectioned shank, one end has been flattened and wrapped around the shank 23 mm below the head, to form a loop. Canal Street II; Context 2276; Accession E0331; Period IV 5B, filling of trench 2318.

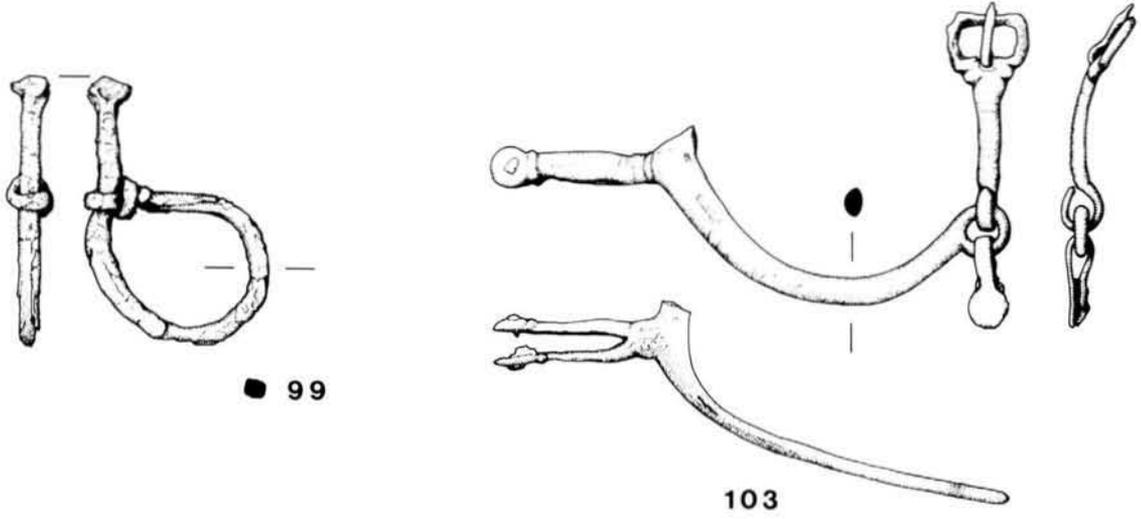
HORSE EQUIPMENT

Three fragments of horseshoes were recovered: 100 from a late 14th-century context and 101 from a 16th-century context. None of the fragments are large enough to say anything about their type.

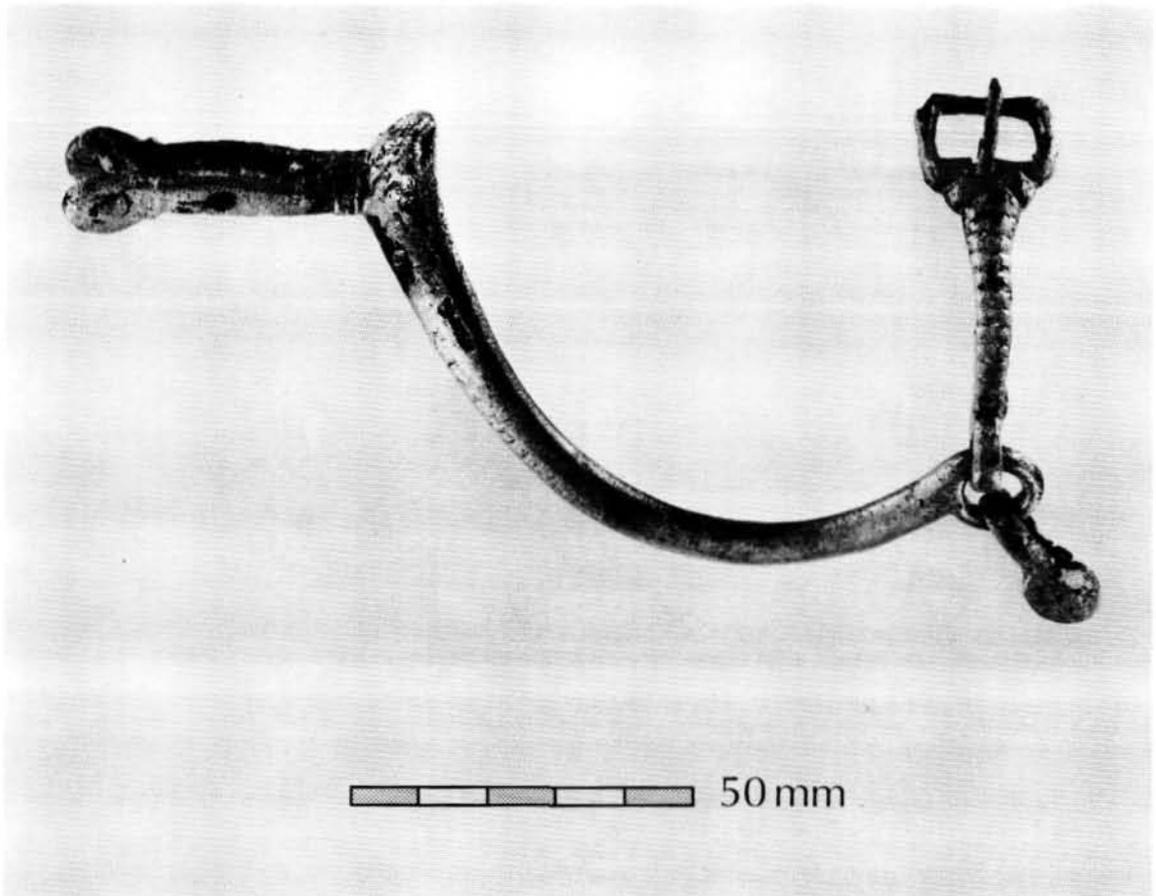
- 100 Horseshoe fragment. Not illustrated. Canal Street II; Context 2198; Accession E0243; Period V 3, filling of gully 2209.
- 101 Horseshoe fragment. Not illustrated. Canal Street II; Context 2213; Accession E0350; Period VIII 1/2A, filling of pit 2214.
- 102 Horseshoe fragment. Not illustrated. 1-5 High Street; Context 500; Accession E265.



ILL. 67 : Iron objects. Scale 1/2



ILL. 68 : Iron objects. Scale 1/2



ILL. 69 : Rowel spur: Catalogue No 103

SPUR (Ill 68 and 69) BMA ELLIS

Probably Scottish, late 13th to early 14th century. This is an early rowel spur with an attachment for the leather and a buckle of particular interest. Rowel spurs first appeared in the early 13th century and gradually replaced the single-goad prick spurs. The rivet attachment for the spur leather is a feature used on the later prick spurs but very seldom on rowel spurs and then only on the earliest ones. The buckle of the Perth spur is a very fine example. Long buckles at this period sometimes had an extra loop to hold the pendant strap-end but there is no sign of there ever having been one on this buckle. The rowel box length suggests the possibility of a fairly large rowel. The 14th-century fashion for large rowels had made its appearance by the 1320s, as shown on the monumental brass of Sir John de Creke at Westley Waterless, Cambridgeshire (London Museum 1940, 104, fig 32 No. 2). Records of Sir John de Creke in Cambridge County Record Office cease abruptly in 1328 but the brass may have been set up in his life time. Medieval iron spurs were often plated with tin to enhance them and to protect them from rust (Jope, 1956).

- 103 Rowel Spur for the right foot. Overall length of spur body 145 mm; length of neck 42 mm; length of rowel box 32 mm.

One side and the rowel are missing. The thickest part of the spur is behind the wearer's heel where the top edges of the sides form a slight point as they join, while the neck projects from the lower half of this area. The remaining D-section side tapers as it plunges into a generous curve under the ankle, rising again towards the single-ring terminal which retains the buckle and one attachment for the spur leather. The straight neck is divided for most of its length by the rowel box with D-section sides and disc-shaped rowel bosses containing fragments of the rowel pin.

Behind the heel a band of ridges and lines decorates the top and sides of the spur neck, now pitted by rust. There is also a single vertical ridge next to each rowel boss. The buckle (length 60 mm) has a rectangular frame at one end with its buckle pin, above two small mouldings flanking the long, narrow stem-like buckle body; the latter has a pattern of horizontal incised lines. The lower end is formed into an open ring at right angles to the frame, by which it is attached to the spur terminal. The entire buckle is curved to lie comfortably over the foot. The attachment for the spur leather (length 25 mm) is made from a narrow strip of metal looped through the spur terminal ring. Both its ends are flattened, the larger outer one into a disc shape, and were held together clasping the end of the spur leather between them, by a single rivet which remains. All surfaces have considerable remains of non-ferrous plating, probably tin.

1-5 High Street; Context 400; Accession E090.

HORSESHOE NAILS (Ill 70)
B FORD AND A WALSH

(see Iron Nails)

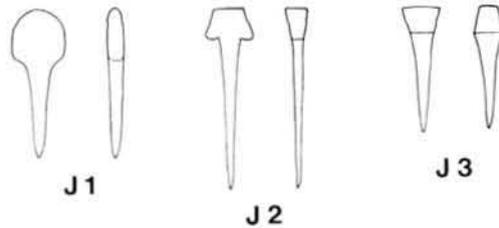
A total of eleven stratified horseshoe nails were recovered, three from excavations at Kirk Close and eight from Canal Street II. They could be grouped into three distinctive types.

- J.1 Fiddle headed nail with a semi-circular head. The width of the head is no wider than the shank. Length 35-40 mm.
J.2 Nail with a flat topped head with lobes. The width and thickness of the head being greater than the shank. Length 29-48 mm.

- J.3 Head that expands in both the front and side views to a flat top. Only one complete example, length 33 mm.

Type J.1 nails were used with horseshoes with wavy edges and large counter-sunk nail holes. This type of nail was thought to have gone out of use in the 13th century but 14th-century examples have been noted by Goodall (1973, 173). The two examples of this type from Canal Street II are from contexts dating to the early 14th century and the example from Kirk Close is from one of mid-14th-century date.

Type J.2 and J.3 nails were used with horseshoes with a plain outline and rectangular nail holes. The type J.2 nails were recovered from contexts ranging from the 14th to 15th centuries, whereas the two examples of type J.3 nails, both from Canal Street II, were found in contexts dating to the 16th century.



ILL 70 : Iron horseshoe nail types. Scale 1/2

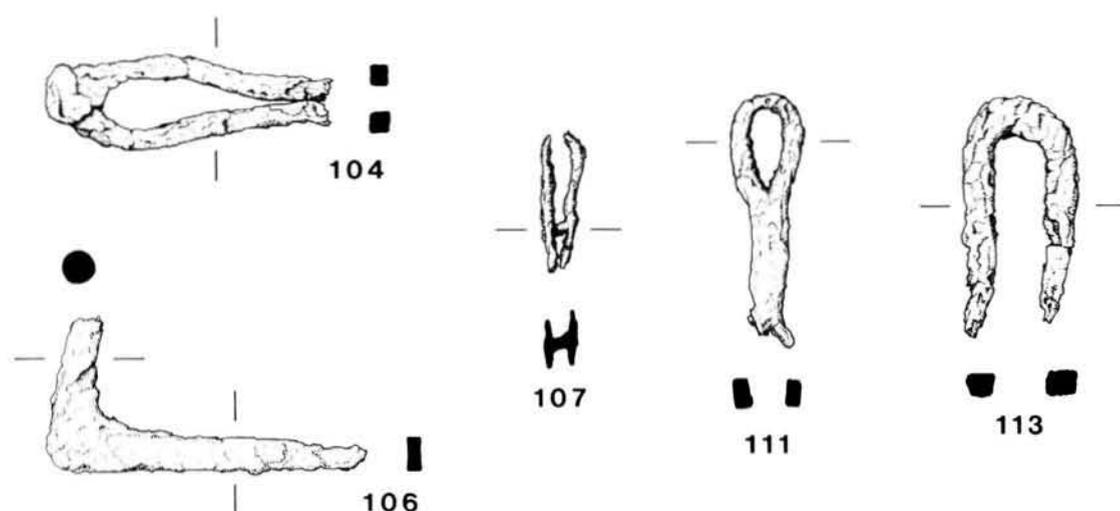
STRUCTURAL IRON WORK AND
MISCELLANEOUS FITTINGS (Ill 71)

The following objects would have been used as structural fittings in buildings or on doors or, possibly, on furniture. Hasps such as 104 were often used to fasten doors or to hold down the lid of a chest. One loop would be attached to the door or lid. The other would fit over the top of a staple, such as 110, 112, or 113 which would be fixed into the door post or the side of the chest. U-shaped staples like 110, 112 and 113 are common finds on medieval sites. A number of examples have been recorded at both Northampton (Goodall et al 1979, 273), and Wharram (Goodall I H 1979, 118). 113 is from a 12th-century context.

Looped staples like 111 would have passed right through a piece of wood and the ends would then be bent over to give the fitting greater strength. It may have been used, for instance, for supporting a chain. 111 is from a context dating to the 16th century; contemporary looped staples have been recorded from Winchester (Goodall 1980, fig 69, H161) and Wharram (Goodall I H 1979, 118).

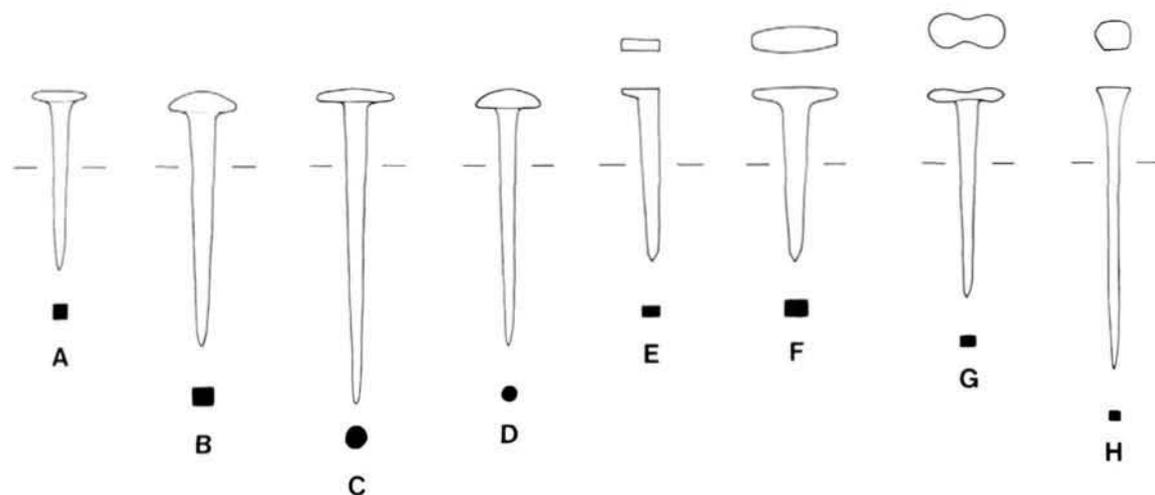
The hinge pivots, 105 and 106, could have been used for a door or a window. The tapering shank would have been fixed into the stone or wooden frame and the door or window would swing on the pivot. Hinge pivots are common finds on medieval sites. 105 comes from a context dating to the 12th century. A good collection was recovered from Northampton (Goodall et al 1979, 268).

108 and 109 are rivet plates which would have been part of clench bolts. A nail would be driven through the wood. A rivet plate would be placed over the end of the nail and the nail tip would then be hammered over to make the joint secure. Clench bolts were commonly used in boat building, but could have been used to secure a double thickness of timber, such as in the construction of a door or timber-lined pit.



ILL 71 : Iron objects. Scale 1/2

- 104 Hasp. Max width 24 mm.
Looped curved hasp. Broken between the two loops.
Hooked at one end.
Kirk Close; Context 2023; Accession E136; Period IV A.
- 105 Hinge pivot
Broken at junction of shank and pivot. Rectangular cross-sectioned shank. Not illustrated.
Canal Street II; Context 2438; Accession E0337; Period II, filling of pit 2385.
- 106 Hinge pivot. Length of shank 84 mm.
Rectangular cross-sectioned tapering shank. Circular cross-sectioned pivot, broken at end.
St John's Place; Accession E003.
- 107 Riveted loop. Length 36 mm; width 12 mm.
Looped strip with expanding ends, riveted together with an iron rivet.
Canal Street II; Context 2350; Accession E0662; Period III 2, layer over pit 2351.
- 108 Rivet plate. Length 30 mm; width 29 mm.
Square plate with central perforation. Not illustrated.
Canal Street II; Context 2159; Accession E0386; Period VI 1/2; filling of gully 2161.
- 109 Rivet plate. Length 33 mm; width 28 mm.
Rectangular plate with central perforation. Not illustrated.
Canal Street II; Context 2166; Accession E0404; Period VI 3/4.
- 110 Staple.
U-shaped staple. Broken at both points. Rectangular in cross-section. Not illustrated.
South Methven Street; Context 201; Accession E011; Period IV.
- 111 Staple. Length 67 mm; width of loop 19 mm.
Looped staple. The rectangular cross-sectioned arms are out-turned at the tips.
Canal Street II; Context 2150; Accession E0356; Period VIII 1/2A.
- 112 Staple.
Fragment, square cross-sectioned arms. Not illustrated.
Canal Street II; Context 2163; Accession E0395; Period VI 5B.
- 113 Staple. Length 63 mm; width 30 mm.
U-shaped staple. The straight arms are rectangular in cross-section.
Canal Street II; Context 2459; Accession E0338; Period II, filling of pit 2351.



ILL 72 : Iron nail types. Scale 1/2

IRON NAILS (III 72) B FORD AND A WALSH

A total of 193 stratified nails were recovered from excavations at Kirk Close (33), South Methven Street (14) and Canal Street II (146). Most of the examples are very corroded and have

TABLE 68 IRON NAILS. TABLE OF NAIL TYPES BY SITE AND PERIOD

(a) KIRK CLOSE

	Period					Total
	II	III	IV	V	VI	
A		3	4	3	3	13
B		1		1	2	4
C						0
D					1	1
E						0
F						0
G						0
H						0
J	1			1	1	3
Unident		3	2	4	3	12
Totals	1	7	6	9	10	33

(b) SOUTH METHVEN STREET

	Period					Total
	II	III	IV	V	VI	
A						3
B		1	2			3
C			1			1
D						0
E						0
F						0
G						0
H						0
J						0
Unident	2	3	5			10
Totals	2	4	8	0	0	14

(c) CANAL STREET II

	Period									
	II	III	IV	V	VI	VII	VIII	IX	X	Total
A	1	2	12	4	7	7	5			38
B		1	11	6	2	9	5			34
C			1	1	1	1				4
D					1					3
E				1		2	1			4
F			1	1	1	1	2		1	7
G			2	1						3
H						3	1			4
J				3	1	1	2			8
Unident	2	2	8	4	7	6	11	1		41
Totals	3	5	39	20	20	30	27	1	1	146

MISCELLANEOUS IRONWORK (III 73 and 74)

The three large bars, 114, 115, 116 were recovered from a 14th-/15th-century context, the filling of an oven in Kirk Close S1, Period VI. The oven was probably used for baking and these bars may be part of a fire grate connected with this structure (see 2:1 Kirk Close).

not been conserved. However, some classification has been attempted by visual inspection and x-ray. Eight types have been identified. These have been classified by shape of head and the cross-section of the shank.

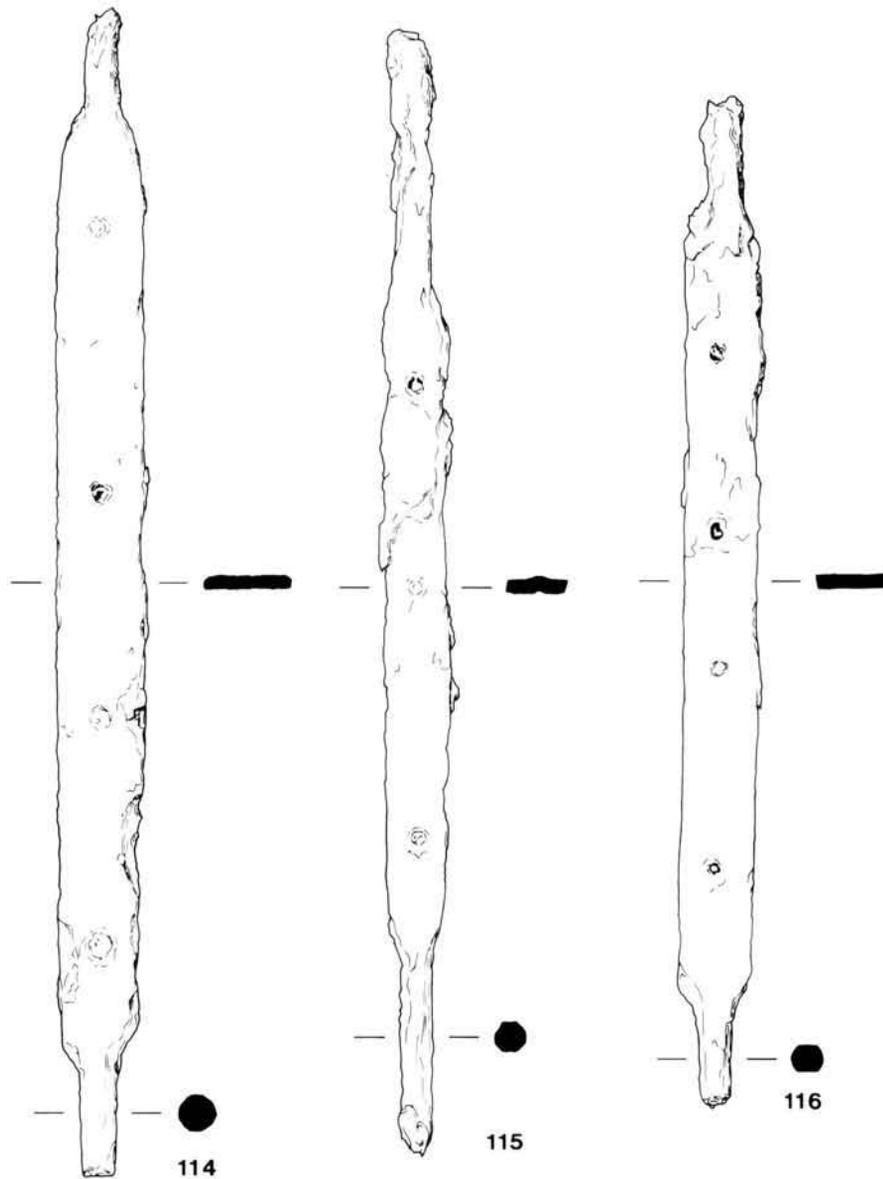
- A Circular, oval, square or rectangular flat head, with square or rectangular cross-sectioned shank. Lengths 38-97 mm.
- B Circular, oval or subrectangular domed head, with square or rectangular cross-sectioned shank. Lengths 37-80 mm.
- C Circular, oval, square or rectangular flat head, with circular cross-sectioned shank. Only one complete example. Length 82 mm.
- D Circular, oval or subrectangular domed head, with circular cross-sectioned shank. Only one complete example. Length 68 mm.
- E Flat L-shaped head with square or rectangular cross-sectioned shank. Length 33-45 mm.
- F Flat T-shaped head with square or rectangular cross-sectioned shank. Length 38-87 mm.
- G Flat figure of eight shaped head with square or rectangular cross-sectioned shank. Length 45-55 mm.
- H Square or rectangular flat head formed by flaring rectangular or square cross-sectioned shank. Only one complete example. Length 74 mm.
- J Horseshoe nails.

Table 68 shows the distribution of the recognized types by period for each site.

Types A-H are most likely wrought and are probably all woodworking nails. Nails do not start appearing in any large quantities at Canal Street II until the 14th century with only eight nails coming from the pre-14th-century contexts. The distribution is evenly spread throughout the different periods at Kirk Close. At Canal Street II periods IV to VIII have a fairly even spread of nails. At Canal Street II a number of nails were recovered from Period VIII associated with quantities of hammer-scale and Spearman (5:14 Metalworking: Slag Debris) suggests that some iron working, possibly nail making had taken place near the site. By far the highest proportion of the identifiable nails from all three sites are of Types A and B. Full details of all the nails are stored in archive.

119 is a tooth from a heckle. It was recovered from a late 14th-century context. Heckles were used to comb wool and flax in preparation for spinning. Fragments of wool and samples of flax have both been recorded from Kirk Close. (6:3 Botanical Remains).

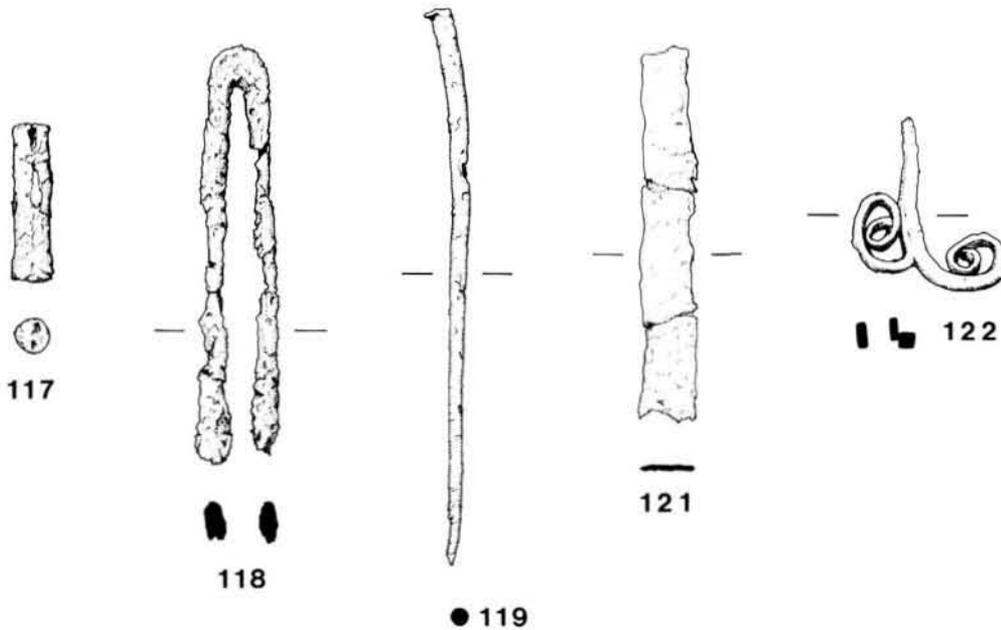
117, 118 and 122 are all from contexts dating to the late 14th century.



ILL. 73 : Iron objects. Scale 1/3

- 114 Bar. Length 465 mm; max width 36 mm. Flat rectangular bar pierced by four rivet holes. Tapers at both ends to a faceted circular projection. One end is broken. Kirk Close; Context 1004; Accession E154A; Period VI C, S1.
- 115 Bar. Length 447 mm; max width 28 mm. Flat rectangular bar pierced by three rivet holes. Tapers at both ends to a faceted circular projection. Broken at both ends. Kirk Close; Context 1004; Accession E154B; Period VI C, S1.
- 116 Bar. Length 402 mm; max width 30 mm. Flat rectangular bar pierced by four rivet holes. Tapers at both ends to a faceted circular projection. Kirk Close; Context 1004; Accession E154C; Period VI C, S1.
- 117 Cylinder. Length 42 mm; diameter 12 mm. Solid cylinder with two small perforations in one end plate. Inlaid with bands of silver running around and along its length. Kirk Close; Context 1119; Accession E106; Period III C.
- 118 Elongated loop. Length 111 mm; max width 22 mm. Part of a broken loop now in three pieces. Kirk Close; Context 2016; Accession E081; Period V A.
- 119 Heckle tooth. Length 147 mm; diameter at head 7 mm. Circular in cross-section. The head is flat with a side expansion. Tapers to a point. Kirk Close; Context 1114; Accession E125; Period III C.

- 120 Strip. Length 55 mm; width 22 mm.
Rectangular in cross-section. Broken at both ends
across rivet holes. Not illustrated.
Canal Street II; Context 2166; Accession E0251;
Period VI 3/4.
- 121 Strip. Length 100 mm; width 14 mm.
Broken into three fragments. Pierced by an iron rivet.
Canal Street II; Context 2462; Accession E0126;
Period III 5C.
- 122 Length 45 mm; width 40 mm.
Rectangular cross-sectioned bar which is split at one
end and the two parts spiralled.
Kirk Close; Context 2105; Accession E117; Period
III B S3.



ILL. 74 : Iron objects. Scale 1/2

5:4 WOODEN OBJECTS B FORD

The wooden artefacts have been recovered mainly from excavations at Kirk Close where they have survived in rich organic waterlogged midden layers. Species identification *123-127* by Theo Skinner, National Museum of Antiquities, *134-137* by A Crone and J Barber, Scottish Development Department.

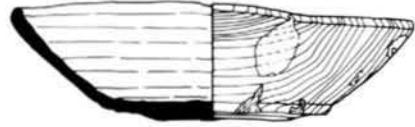
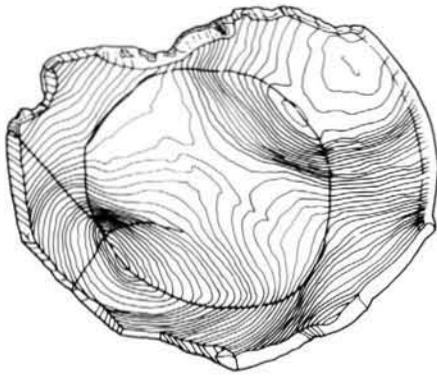
LATHE-TURNED BOWLS (Ill 75, 76 and 77)

Documentary evidence shows that wooden bowls were in common use during the medieval period. Depending on size and shape, they could have been put to a number of uses such as holding liquids and food. *123-126* are all of ash and have been turned on a lathe. The forms are types which are rarely represented in contemporary pottery. Wood was probably the material most commonly used for producing tableware forms such as plates and dishes. These would have been supplemented by ceramic jugs and cooking pots and possibly by vessels in other materials such as leather, metal or even glass. However, because the survival of wood on medieval excavations is limited, the number of wooden vessels found is small. Two other groups of wooden bowls and plates have been found in Scotland, at Threave Castle (Barber 1981) and PHSE (Curteis PHSE). A number of groups have been found in England, especially in London, nine bowls were

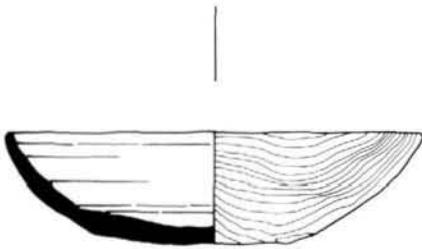
recovered from excavations at Ludgate Hill in contexts dating to the late 13th/early 14th century (Ford 1983), six have been noted from Swan Lane and a further nine from Trig Lane (Museum of London Archive) mainly from 13th-century contexts. Continental sites, however, have produced a much greater range of forms including cups and beakers (Neugebauer, 1975).

The Kirk Close bowls are all very simple forms. *124* and *125* have straight-sided profiles and bases decorated with a number of concentric grooves. A bowl and platter from PHSE (Curteis PHSE, A05/0043 and A11180b) have bases decorated in the same way. *123* and *126* have rounded profiles and bases accentuated by a circumferential groove, another type noted at PHSE (Ibid).

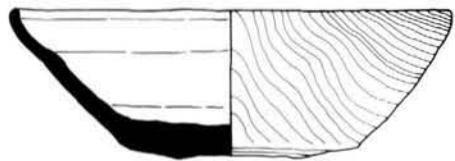
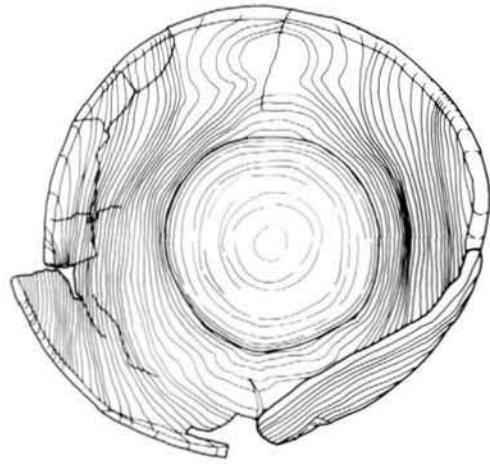
- 123 Bowl. Diameter at rim 167 mm; height 45 mm; thickness 5-8 mm.
Lathe-turned bowl. Rounded profile. Roughly



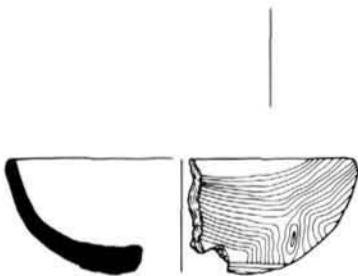
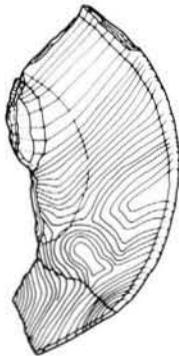
124



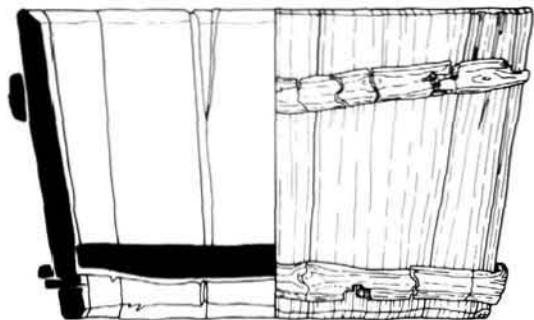
123



125



126



127

ILL 75 : Wooden objects. Scale 1/3

smoothed base (external diameter of base 81 mm, internal 100 mm) with external circumferential groove. Internal turning lines, Mandrel point on base. Ash *Fraxinus excelsior*.

Kirk Close; Context 2022; Accession H019A; Period V B.

- 124 Bowl. Diameter at rim 162 mm; height 47 mm; thickness 6-8 mm.

Lathe-turned bowl. Straight-sided profile. Slightly concave base (external diameter of base 88 mm, internal 90 mm). Internal and external turning lines. The base has a band of five decorative grooves. Mandrel point on base. Ash *Fraxinus excelsior*.

Kirk Close; Context 2022; Accession H019B; Period V B.

- 125 Bowl. Diameter at rim 176 mm; height 58 mm; thickness 5-14 mm.

Lathe-turned bowl. Straight-sided profile. Slightly concave base (external diameter of base 94 mm, internal 86 mm). Turning lines on interior and exterior. Band of four grooves on the base. Mandrel point on base. Ash *Fraxinus excelsior*.

Kirk Close; Context 2046; Accession H046; Period IV A.

- 126 Bowl. Diameter at rim 138 mm; height 46 mm; thickness 4-13 mm.

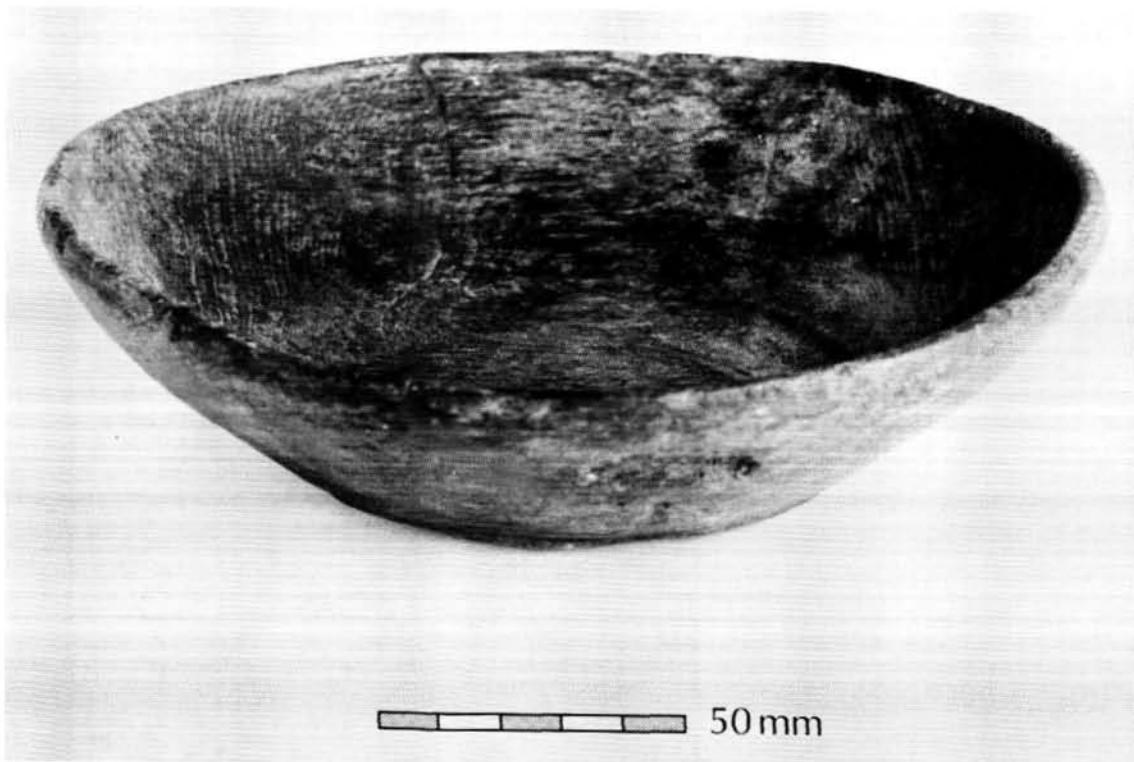
Lathe-turned bowl. Rounded profile. Very worn interior. External circumferential groove on base. Ash *Fraxinus excelsior*.

Kirk Close; Context 2046; Accession H047; Period IV A.

STAVE-BUILT BOWL (Ill 75 and 78)

Complete stave-built bowls are rare occurrences on British sites; although individual staves from either buckets or bowls have been recorded from Perth (Curteis PHSE), and York. A base plate has also been recorded from York (MacGregor 1982, 146-7, fig 76). The only other almost complete stave-built bowl from a British site is one from Southampton (Platt and Coleman-Smith 1975, 29-30, fig 228, 1630). However, this bowl differs in a number of ways from 127. The Southampton example is much smaller. It has fourteen staves, the average height of which is 57.5 mm. The external diameter at the rim is 165-170 mm. The base plate is constructed from two semi-circular pieces of wood, whereas 127 has a circular base plate made from a single piece of wood. Both bowls have internal grooves to take the base plate. The Southampton bowl has two external grooves to take the binding strips which are now missing and there are no signs that these were held in place by pegs as with 127.

Large quantities of stave-built bowls have been found on a number of sites in Northern Europe, including Lübeck (Neugebauer 1975), Ribe (Stiesdal 1968, 160), Amsterdam (Amsterdams Historisch Museum 1977) and Novgorod (Thompson 1967). The most common type of stave-built bowl at Lübeck is a small steep-sided bowl made of pine, with between six and ten staves and a base plate 60-120 mm in diameter. The inside is cut with a groove for the base plate. The staves can be of varying widths, between 15-70 mm, and the height of the bowls range between 35 and 80 mm. Again these examples are much smaller than the bowl from Kirk Close but are similar in construction. Most European



ILL. 76 : Kirk Close, lathe-turned bowl: Catalogue No 124



ILL 77 : Kirk Close, lathe-turned bowl: Catalogue No 125



ILL 78 : Kirk Close, stave-built bowl: Catalogue No 127

examples have external grooves for the encircling hoops which are normally of willow. The ends of the hoops are knotted together to hold them in place. Bowls have been found with one, two or three hoops, although three-hoop bowls are rare at Lübeck. It is suggested by Neugebauer that bowls with two hoops were only introduced in the 13th/14th centuries and that those with three hoops were not introduced until the 15th century (Neugebauer 1975, 119). 127 comes from a late 14th-century context.

Contemporary illustrations show stave-built bowls being put to a number of uses. A 14th-century manuscript from Aesop's Fables shows an illustration of a doctor's surgery where stave-built bowls are being used to collect blood. A dog is eating from a similar bowl in the background (Neugebauer 1975, 121, fig 8). Another illustration from St Nicholas's Church, Möllin (Ibid, 122, fig 9) shows a bellringer drinking from a larger type of stave bowl referred to as 'büttin'. Continental examples of these büttin have been found both with and without handles (Ibid, 125, fig 15). It would seem from their size that these might be more comparable with the Kirk Close bowl than the smaller continental examples. However, the 'büttin' that have been found on the continent have been described as being of inferior manufacture to the smaller bowls, having a much rougher appearance (Ibid, 120, fig 121). The Kirk Close bowl would, therefore, be more comparable with the smaller bowls in terms of manufacture, since it has been made to a very high standard with a very fine finish.

Three different types of wood have been used in the construction of 127. The bindings, or hoops, are made of hazel which is very flexible and could be easily bent. Scots pine has been used for the staves, being a soft wood it could be easily cut. Both Scots pine and alder, from which the base plate is made, are fairly resistant to water so the bowl would have been fairly watertight and could have been used for containing liquid or food.

- 127 Stave bowl. Max height 130 mm; external diameter of rim 205 mm; external diameter at base 170 mm. Made from twelve staves. In all cases the staves are wider at the rim than at the base. The width at the rim varies between 38 mm and 70 mm and at the base between 28 mm and 58 mm, the average difference in width between top and bottom is 8 mm. The staves vary in thickness between 6 mm and 10 mm. At a height of 16 mm the staves have been cut internally with a groove to take a base plate. The maximum diameter of the base plate is 159 mm. The base plate has shrunk across the grain. The edges of the staves are chamfered to form the rim. The staves are held in place by two hoops each formed from a single piece of wood split along its length. The average width of the hoops is 15 mm. The upper hoop or binding is 30 mm below the rim, the lower, on average, 10 mm above the base. Each hoop is held in place by three wooden pegs. The staves and pegs are made from Scots pine *Pinus sylvestris*, the base plate is Alder *Alnus glutinosa* and the bindings are of hazel *Corylus avellana*.
Kirk Close; Context 2022; Accession H015; Period V B.

PINS (Ill 79)

Five wooden pins were recovered, four of which came from the watching brief site, 1-5 High Street, and are therefore unstratified. 128 from Kirk Close was found in a 14th-century context. A large number of similar pins were found at the excavations at PHSE (Curteis PHSE), and at King's Lynn (Clarke and Carter 1977, 368). Like the PHSE and King's Lynn pins, 128-132 show no signs of wear on their heads,

and it is unlikely that they have been hammered. 128, 129 and 131 all have broken tips which suggest a use such as scratching or marking where pressure was exerted on the point. 128 has fairly smooth, polished surfaces, whereas 129, 130, 131 and 132 all have fairly rough surfaces, as does the larger pin/peg 133.

- 128 Pin. Length 57 mm; max diameter 5 mm. Oval in section, tapering to a point, tip missing, broken at other end.
Kirk Close; Context 2033; Accession H161; Period V B.
- 129 Pin. Length 67 mm; max diameter 6 mm. Complete. Irregular cross-section, tapering to a point. 1-5 High Street; Context 200; Accession H031.
- 130 Pin. Length 68 mm. Oval cross-section, tapers to a point, broken at both ends. Not illustrated.
1-5 High Street, Context 200; Accession H037.
- 131 Pin. Length 69 mm; max diameter 6 mm. Complete. Irregular cross-section, tapers to a point now broken.
1-5 High Street, Context 200; Accession H106.
- 132 Pin. Length 84 mm; max diameter 5 mm. Irregular cross-section. Tapers towards a point now broken.
1-5 High Street; Context 30; Accession H182.
- 133 Pin/peg. Length 162 mm; max width 11 mm. Piece of worked wood, square in cross-section, pointed at one end.
1-5 High Street; Context 300; Accession H250.

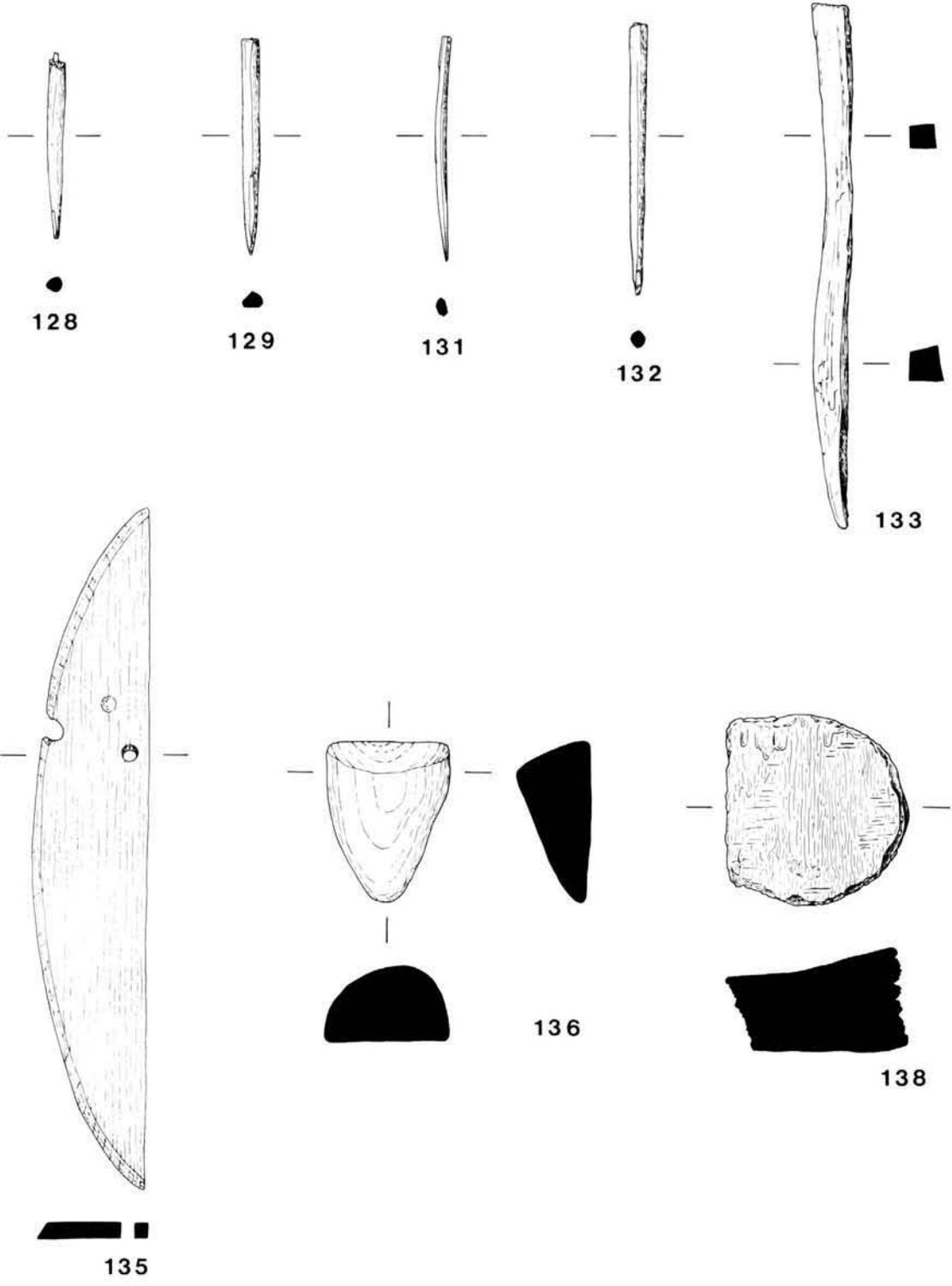
TOILET SEAT (Ill 7 and 8)

The toilet seat was found resting on a timber frame within a cess pit to the S of S2. The holes at each corner of the seat are thought to have been used as peg holes during an earlier phase of its use (see Kirk Close, 2:1) as they seemed to have no function within its current construction. Toilet seats have changed little through the ages and seats very similar to 134 were still being used in outside privies in the 19th century. 134 is thought to be of late 13th-/early 14th-century date. Other medieval examples have been found at King's Lynn (Clarke and Carter 1977, fig 174, No. 88), Exeter (Allan and Morris 1983, 313, fig 179, W76 and 315, fig 181, W102), and York (Hall 1984, 126-7). The decoration on the upper surface is an irregular band of incised lines. It is most probably graffiti rather than deliberate decoration, possibly scratched by one of the users of the toilet seat.

- 134 Toilet Seat. Max length 1220 mm; max width 480 mm; max thickness 35 mm. Large single plank with central circular hole. Max diameter of hole 245 mm. Each corner is pierced by a small hole 3-4 mm in diameter. Towards one edge on the upper surface there is a band of incised chevron and diamond decoration, running the full width of the plank. The band of decoration varies in width from 47-66 mm. Oak *Quercus*.
Kirk Close; Context 2119; Period I, S2.

MISCELLANEOUS OBJECTS (Ill 79)

135-137 are a group of miscellaneous wooden objects from excavations at Kirk Close which are now missing. The descriptions are based on the illustrations and preliminary comments that were made before the objects were misplaced. The barrel lid, 135, from a late 14th-/early 15th-century context, had an original diameter of thirty inches, which is the standard size for a hogshead barrel (J Barber and A Crone pers comm). 136 is from a mid-14th-century context. 137



ILL. 79 : Wooden objects, 128-133, 136. 138 at 1/2; 135 at 1/4

although greater in diameter than the other pins, 128-132, is comparable in length and may have had a similar use. It was recovered from a context of late 13th-/early 14th-century date. 138 may be part of a patten. Wooden pattens were worn to protect shoes whilst walking outside. A complete child's patten was recovered from PHSE (Curteis PHSE).

- 135 Barrel Lid. Length 420 mm; thickness 10 mm. Part of a barrel lid. The curved edge is cut obliquely and is notched (diameter of notch 11 mm). It is pierced by a hole 10 mm in diameter which originally contained a tapered dowel (not illustrated). To the left of this is a partly drilled depression 9 mm in diameter. Oak *Quercus*. Kirk Close; Context 2018; Accession R151; Period VI A/B.
- 136 Bung. Length 49 mm; width at head 38 mm; thickness at head 23 mm.

Fashioned from half a stem. An oblique cut has created a wedge shaped cross-section. The top has been trimmed. Hazel *Corylus avellana*.

- Kirk Close; Context 2138; Accession R153; Period II B.
- 137 Pin. Length 86 mm; max diameter 10 mm. Oval in cross-section finely faceted along its length. Pointed at one end. Apple type *Pomoideae*. Not illustrated. Kirk Close; Context 2161; accession R156; Period I A S2.
- 138 Patten? Length 54 mm; max width 57 mm; max thickness 30 mm. Semi-circular shaped piece of wood. Broken along straight edge. 1-5 High Street; Context 400; Accession H089.

5:5 STONE OBJECTS B FORD

Macroscopic examination of the stone was made by G Collins and comparisons were made with examples in the collections of the British Geological Survey, Edinburgh.

MORTAR (Ill 80)

A single fragment of a mortar was found. It appears to have been broken above the junction of wall and base: a common weak spot as noticed in examples from Sandal Castle (Butler 1983, 330). The mortar is made from sandstone, probably Carboniferous in age. It may have come from local deposits, but there is also a possibility that it is an import from the Carboniferous rocks of England.

- 139 Mortar. Rim diameter 240 mm; max thickness of walls 30 mm. Part of rim and bowl. Part of the upper and lower portions of a pierced side handle remain. The exterior is tooled vertically. Fine to medium grained creamy Carboniferous sandstone. 1-5 High Street; Context 500; Accession J227.

HONE STONES (Ill 80)

Hone stones were used throughout the medieval period for sharpening iron knives etc. A wide variety of stones could be used for this purpose, the best being those containing hard mineral grains such as quartz set in a softer matrix (Moore and Oakley 1979, 280). Hones can vary in size depending on their use and portability. Often perforations were made at one end (140, 141, 144) through which a thong would be threaded for attachment to a belt etc. This suggests that these comparatively small hones may have been worn about the person and used for sharpening small personal knives or razors (Ibid, 282).

Four of the hones show signs of wear. In three examples (140, 141, 143) this is most apparent on the wider faces and results from the sharpening of knife blades. All four faces of 144 show signs of wear. Shallow grooves, possibly for sharpening the points of needles, knives etc, are present on 140 and 144.

Three of the hones have a definite Scottish origin. Two, 141 and 144, are laminated micaceous siltstones similar to a rock from Little Glen Burn, Upper Mochty, Aberdeen (Morey and Dunham 1953, 143). The third, 143, is similar to the quartz-mica granulite of the Hone stone Group of the

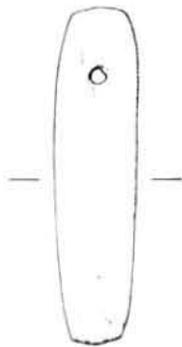
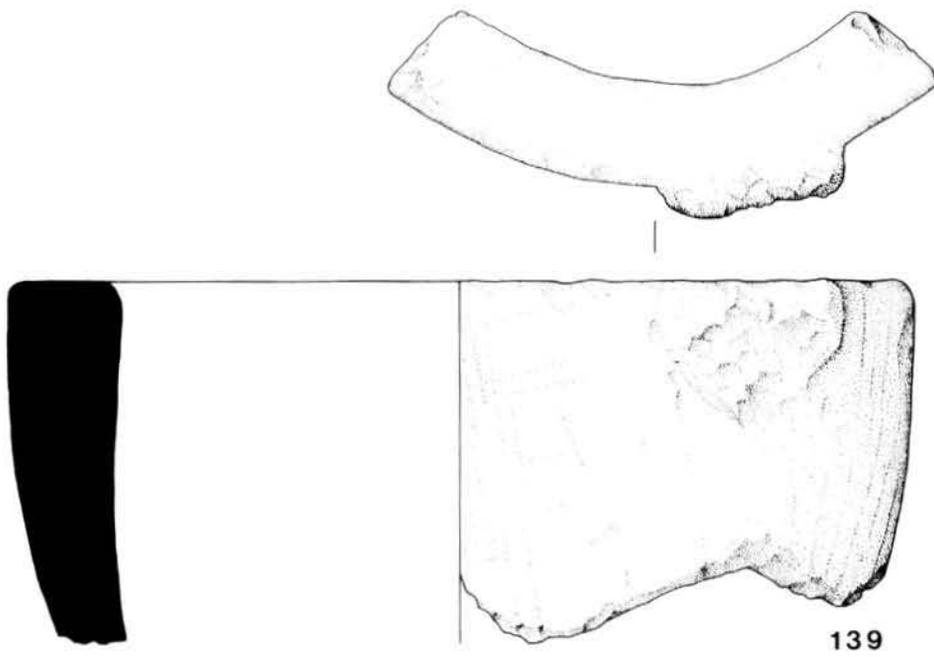
Dalradian rocks from Strathspey and the Forest of Athole, Aberdeen (Ibid, 143).

140, of fine grained dark grey sandstone, cannot be given a definite source as it is a rock found extensively in the Lower Palaeozoic strata. It may have come from local glacial deposits, but could also be from the Dalradian rocks N of the Highland Boundary Fault.

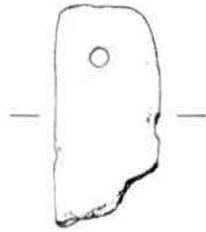
The final stone, 142, a chloritic schistose-grit, is also unprovenanced. No exact parallel has been found by Mr Collins, but he suggests that it may have come from Scandinavia. However, a Dalradian source cannot be ruled out. Hone stones from Scandinavia are fairly common finds on some English sites with collections from King's Lynn (Geddes and Dunning 1977, 317), Northampton (Moore and Oakley, 1979), and a collection of hones and hone stone waste from London (Ford 1983). However, Mr Collins can find no mention of a rock of this exact kind being used as a hone stone in the most recent account of the petrology of hone stones (Moore 1983).

Only three of the hones come from securely stratified deposits. 140 and 141 come from late 14th-century contexts and 142 from a 12th-century pit. However, it is not certain that the latter was ever used as a hone as it shows no signs of wear.

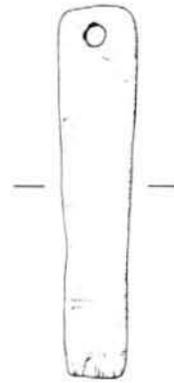
- 140 Hone. Length 89 mm; width 22 mm; max thickness 8 mm. Complete. Pierced for suspension (diameter of hole 6 mm). Rectangular in cross-section. Stone shows signs of wear on the two wide faces. There are a number of shallow grooves on one of the wider faces. Fine grained dark grey sandstone (Lower Palaeozoic?). Kirk Close; Context 1043; Accession J004; Period Vb C, S1.
- 141 Hone? Width 27 mm; thickness 3.5 mm. Incomplete, lower part missing. Pierced for suspension (diameter of hole 5 mm). Rectangular in cross-section. The stone seems rather thin and soft for a hone stone but there are signs of wear on the wider faces. Laminated siltstone. Kirk Close; Context 2037; Accession J039; Period IV B.



140



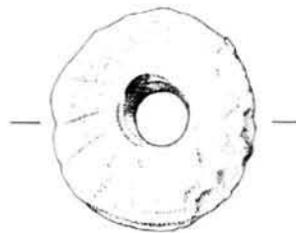
141



144



146



145



147

ILL. 80 : Stone objects, 139-144, 147 at 1/2; 145, 146 at 1/1

- 142 Hone. Max length 102 mm; width 26 mm; thickness 18.5 mm. Complete, rectangular in cross-section. Dark green ?chloritic schistose-grit. Not illustrated. Canal Street II; Context 2381; Accesssion J0641; Period II, filling of pit 2351.
- 143 Hone. Max length 47 mm; width 27.5 mm; thickness 10 mm. Incomplete, broken at both ends, rectangular in cross-section. Signs of wear on both wider faces. Very fine grained schistose mica granulite. Not illustrated. 1-5 High Street. Context 600; Accession J040.
- 144 Hone. Length 98 mm; width 21 mm; thickness 8 mm. Complete. Pierced for suspension (diameter of hole 7.5 mm). Rectangular in cross-section. Signs of wear on all four faces. Very badly worn at the tip where there are a number of shallow grooves. There are other shallow grooves on both the wider faces. Laminated siltstone. 1-5 High Street; Context 700; Accession J041.

SPINDLE WHORLS (III 80)

There are two probable spindle whorls of stone (145, 146). One of ceramic (162) and one of lead (60) were also recovered. The only complete stone example, 146, is a very thin disc and may have been too light to have been used as a spindle whorl. Both stone examples were probably made from local glacial deposits, with 146 having come from N of the

Highland Boundary Fault. 146 is from a 12th-century context and 145 is from one of 15th-century date.

- 145 Spindle Whorl. Diameter 28 mm; thickness 8 mm. Incomplete, sheared in half across horizontal axis. Decorated with concentric circles and incised oblique lines around the central hole (diameter 7 mm). Fine grained sandstone (Lower Old Red Sandstone). Canal Street II; Context 2193; Accession J0106; Period VI 3/4, filling of gully 2194.
- 146 Spindle Whorl? Max diameter 33 mm; thickness 3.5 mm. Complete. Crudely fashioned circle. Diameter of hole 6 mm. Phyllite-Dalradian. Canal Street II; Context 2394; Accesssion J0124; Period II, filling of pit 2351.

MISCELLANEOUS (III 80)

Two pieces of chalk were recovered from the Kirk Close excavations. One had been worked. Both were identified by Mr Collins as having come from the S of England or from France. Both were from late 14th-century contexts.

- 147 Worked Stone. Max length 47 mm; min width 23 mm; max width 25 mm. Fragment, faceted on six sides, tapering towards one end. Chalk. Kirk Close; Context 2022; Accession J028; Period V B.



150

- 148 Petrological sample.
Small fragment. Chalk. Not illustrated.
Kirk Close; Context 1120; Accession R231; Period III C.

ROOFING TILES (III 81)

Seventy-nine fragments of stone roofing tiles were recovered from the Kirk Close excavations. Fourteen came from context 1032, a demolition layer associated with S1. However, the excavator does not feel that the walls of the structure could have supported a stone roof (see 2:1 Kirk Close). All the other fragments came from context 2180, associated with S3 in Period III, but again they were probably not used as roofing material in this building, which is thought to have had a roof made of a light material (see 2:1 Kirk Close).

All the tiles from Kirk Close and the two fragments from excavations at Canal Street II are almost certainly of local origin. The stone came from the Lower Devonian (Lower Old Red Sandstone). Similar tiles have been found at excavations at the Carmelite Friary, Perth. The tiles from

all three sites have been matched to specimens from a disused quarry at Aberlemno by Mr Collins.

- 149 Tile. Thickness 27 mm.
Part of a rectangular tile with a single hole cut from both sides.
Kirk Close; Context 1032; Period VI C.
- 150 Tile. Length 428 mm; thickness 30 mm.
Part of a rectangular tile with a single hole cut from both sides.
Kirk Close; Context 1032; Period VI C.
- 151 Tile. Thickness 11 mm.
Fragment of a tile with a single hole cut from both sides.
Canal Street II; Context 2068; Accession P0020; Period VIII 3/4, filling of gully 2072.
- 152 Tile. Thickness 16 mm.
Fragment of a tile with a single hole cut from both sides.
Canal Street II; Context 2322; Accession J0576; Period IV 5B, filling of trench 2318.

5:6 BONE OBJECTS B FORD

With identifications by C Smith and GWI Hodgson

Only seven bone artefacts were recovered. None came from the Canal Street II excavations as bone preservation there was poor due to soil conditions.

The comb, *153*, is a very small example of a simple double sided bone comb of a type thought to have been popular in the early medieval period. Similar examples made of bone are rare in Britain, although a number have been found made of box wood (MacGregor 1985, 81). However, Continental parallels with ring and dot decoration have been found at Upsala (Broberg and Hasselmo 1981, 81) and undecorated examples from Lund (Persson 1976, 324). *153*, which is from a late 14th-century context, is a very late example of this type and could be residual.

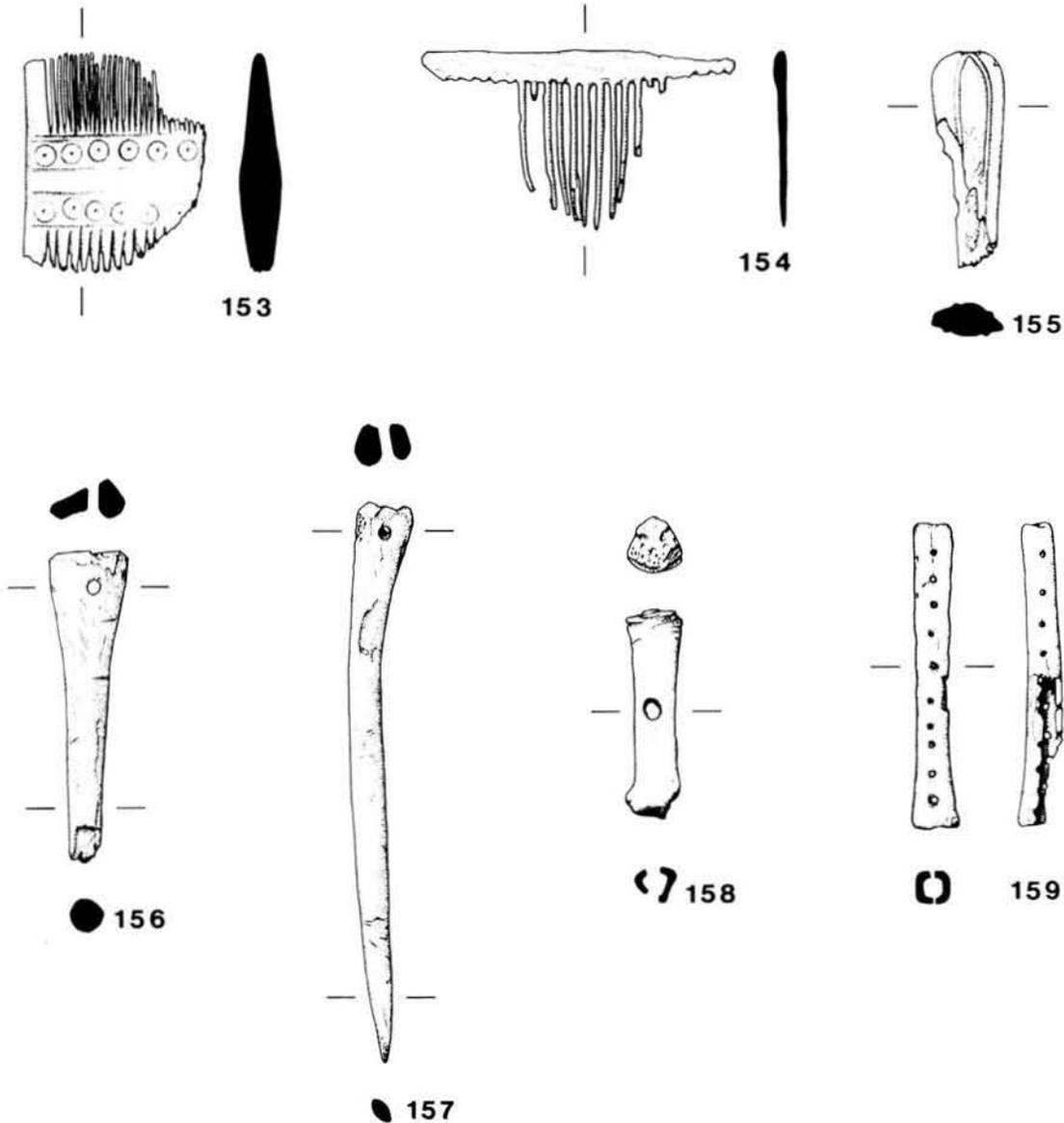
The pins *156* and *157* could have had a number of uses. It has been suggested that they could have been used as pin beaters or weaving tools (Crowfoot 1977, 311-2), or as needles, although the size of the head would restrict them to netting or sacking needles (Oakley 1979, 310). *156* and *158* are from late 14th-century contexts. *158* is possibly a toggle, used for fastening a garment. Other similar toggles have been found at Northampton (Oakley 1979, 313). On the Continent similar objects of prehistoric and post-Roman date have alternatively been identified as 'buzz-disks' or 'buzz-bones', a musical instrument or toy (Megaw 1984; Lund 1984, 22).

159 comes from a late 14th-/early 15th-century context; its function is unknown. Two similar objects were found at PHSE (MacGregor, PHSE, A2498, and A1353a). Both examples, however, are decorated with incised dots, whereas *159* is decorated with pierced holes. The PHSE examples have tentatively been described as bobbins. It seems unlikely that *159* was used as a bobbin, and the irregular placement of the holes would seem to rule out its use in connection with textiles.

- 153 Comb. Length 25 mm; width 30 mm; max thickness 5.5 mm.
End piece from a small simple double-sided comb. It has one set of fine and one of coarse teeth. The number of fine teeth per 10 mm is fourteen, the number of coarse teeth per 10 mm is seven. The end is convex. The rectangular solid section is decorated on both faces with two bands of 'ring and dot' decoration between horizontal incised lines. Made from the rib of a large mammal or from a long bone flake.
Kirk Close; Context 2022; Accession K013; Period V B.
- 154 Comb. Length 43 mm.
Laminated fragment from a single-sided comb. It has very widely spaced fine teeth with seven per 10 mm. The solid zone is very narrow. A number of tests were undertaken by Dr Hodgson to establish its composition. The biochemical wet tests Xanthoproteic and Millon's showed the specimens to be rich in protein. It is suspected that it is keratin, the protein of which horn, claw and hoof are made.
1-5 High Street; Context 1000; Accession K087.
- 155 Handle. Length 59 mm; max width 20 mm; max thickness 9 mm.
Oval in cross-section. Decorated on both faces with two sets of incised grooves with a prominent ridge between. The handle has been drilled part of the way along its length. Made from a flake from a long bone of a large mammal.
Kirk Close; Context 2022; Accession K024; Period V B.

- 156 Pin. Length 85 mm; width at head 22 mm; width of shaft 9 mm.
Incomplete. Broken at mid-point. The head is triangular in cross-section, the shaft oval. Possibly made from a horse splint. It has been filed and smoothed on all surfaces and a hole has been bored in the proximal end (diameter of hole 4 mm). Tapers towards the distal end.
Kirk Close; Context 1108; Accession K184; Period IV C.
- 157 Pin. Length 153 mm; width of head 16 mm.
Oval in cross-section. Made from a horse splint. The proximal end is shaved and has a hole bored through it (diameter of hole 3 mm). The distal end has been tapered to a point. Shaved on all surfaces.
100/102 High Street; Accession K1.

- 158 Toggle. Length 57 mm.
Made from a pig metacarpal (IV). One end has been shaved and shows a number of chopping marks. It is pierced with a hole 6 mm in diameter.
Kirk Close; Context 2022; Period V B.
- 159 Worked bone. Length 84 mm.
Incomplete. Square in cross-section. Made from a sheep/goat metatarsal. The proximal end has been filed and smoothed. The distal end has been sawn. All the surfaces have been smoothed and polished. It has been pierced along the four facets with a number of irregularly placed holes. The only complete face has ten holes. One face has a hole which does not penetrate right through.
Kirk Close; Context 1016; Accession K012; Period VI C, S1.



5:7 WINDOW GLASS B FORD

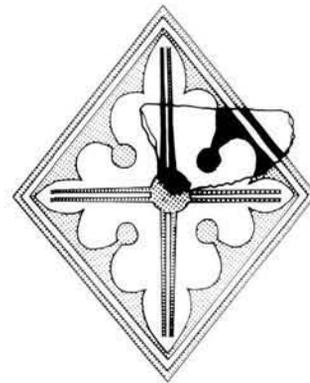
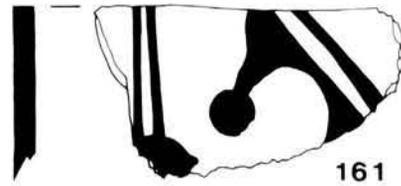
Two fragments of window glass were recovered from excavations at Canal Street II, from a context dated to the 14th century.

160 has colour applied by the method known as flashing, where a thin layer of coloured glass is flashed onto a piece of relatively colourless glass. This was one of the earliest methods used by medieval stained glass makers. It allowed more light to penetrate through the glass. Intense colours such as deep red were often used, made by adding copper to the glass (Frank 1982, 44). Two pieces of pale green glass with a red surface stain were also recovered from the Elcho Nunnery, Perth (Vose forthcoming).

161 has been painted. Similar colouring was noted on glass found at Kirkwall (Kerr 1982). The decoration is very similar in style to that seen on two fragments from Linlithgow of early 15th-century date (Lindsay forthcoming b). Both the fragments from Linlithgow and that from Canal Street II are part of an overall design which is paralleled on a panel of glass originally from Glasgow Cathedral dated to 14th/early 15th century (P Graves pers comm) and a panel of Austrian origin from the late 14th century (Burrell Collection, Catalogue No. 206). Ill 83 shows a reconstruction based on the fragment from Canal Street II.

Neither of the two fragments have any grozed edges. The extensive pitting on both fragments indicates the possibility that they may have been in place in a window. However, microscopic examination showed no signs of staining from lead window cames.

- 160** Window glass. Length 27 mm; thickness 2 mm. Small fragment of pale green glass flashed with a thin strip of ruby red glass. Microscopic examination shows heavy pitting on both surfaces. Not illustrated. Canal Street II; Context 2322; Accession N0341; Period IV 5B.
- 161** Window glass. Length 41 mm; width 23 mm; thickness 3 mm. The fragment is discoloured and opaque due to its burial. The exterior surface shows signs of weathering with extensive pitting. The brown painted decoration is well preserved. Canal Street II; Context 2322; Accession N0604; Period IV 5B.

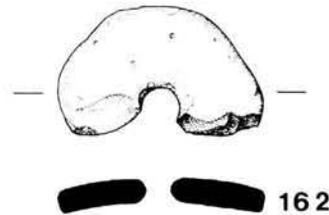


ILL 83 : Medieval window glass, 83 at 1/1; reconstruction at 1/2

5:8 CERAMIC OBJECT B FORD

The function of pierced ceramic discs is a little uncertain. However, it is frequently suggested that they were used as spindle whorls. Other similar ceramic discs described as spindle whorls have been found at Threave Castle (Good and Tabraham 1981, 129) and Northampton (Oakley and Hall 1979, 288). *162*, remade from a jug, in Perth Local fabric can be dated from the mid- to late 14th century.

- 162** Spindle whorl? Diameter 55 mm; thickness 7 mm. Half a pierced ceramic disc. Diameter of hole 10 mm. The fabric is slightly reduced Perth Local. The exterior is coated with a pale green glaze. Canal Street II; Context 2276; Accession A0114; Period IV 5B.

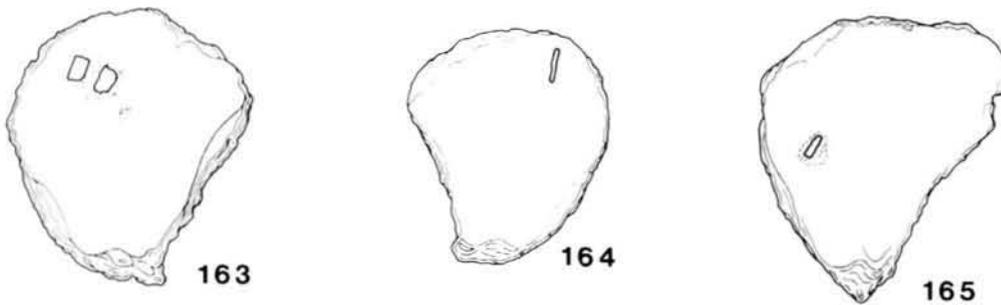


ILL 84 : Ceramic object. Scale 1/2

5:9 PERFORATED OYSTER SHELLS B FORD

A large number of oyster shells was recovered from the Kirk Close site; of these, three were perforated. The holes have definite straight-cut edges and could not therefore have been caused by birds. Other such shells have been found at York (MacGregor 1982, 147) and at Hangleton, Sussex (Holden 1963, 177). Unlike the examples from these two sites, the three Perth shells are not perforated at the centre, but towards the edge. Also, the holes seem considerably smaller and one example, 163, has been perforated twice. The Perth shells show no signs of the notch seen at the edge of two of the examples from Hangleton. The function of the shells is, as yet, unknown. They were recovered from a 14th-century midden.

- 163 Worked oyster shell.
Perforated with two holes, 7 mm × 4 mm.
Kirk Close; Context 2016; Period V A.
- 164 Worked oyster shell.
Perforated with a rectangular hole, 9 mm × 1.5 mm,
close to the edge.
Kirk Close; Context 2016; Period V A.
- 165 Worked oyster shell.
Perforated with a rectangular hole, 7 mm × 2 mm.
Kirk Close; Context 2033; Period V B.



ILL. 85 : Oyster shell, Scale 1/2

5:10 MOSS B FORD & D ROBINSON

A number of plaits and fragments of moss were recovered from excavations at Kirk Close, all from contexts dated to the late 14th century. They are nearly all of *Polytrichum commune* (common hair moss), with some small shoots of other species. *Thuidium tamariscinum* was identified in four of the examples, (169, 170, 172, 173). *Pleurozium schreberi* and *Hypnum cupressiforme* were also noted in 173.

Polytrichum commune, one of the largest mosses in the British flora, is found in acid mires and open woodlands (Dickson 1973). *Thuidium tamariscinum* is most commonly found in woodlands, but also grows in open grassland and, in the N and W of the British Isles, can be found growing on thin peat. *Pleurozium schreberi* is found in similar places to *Thuidium tamariscinum* whereas *Hypnum cupressiforme* grows in a wide variety of habitats. On balance, the *Polytrichum commune* was probably collected from open grassland or heath although collection from open acid woodland cannot be ruled out.

Polytrichum commune is common on archaeological sites of the medieval period. Plaited fragments have been recorded from Durham (Carver 1979), York (Walton, forthcoming) and Perth (Fraser, PHSE). Other examples are known from Dundas Wharf, Bristol (City Museum and Art Gallery, Bristol), and Trig Lane, London, with a further five examples probably of *Polytrichum commune* from excavations at Swan Lane, London (Museum of London Archive).

Polytrichum commune has very tough pliable stems, as a result of which, it has been put to a number of uses over a very long period. In prehistoric times examples of the use of *Polytrichum* ropes for the caulking of boats has been recorded, where they were used in association with carefully shaped planks and with the moss *Neckera complanata* as additional packing (Dickson 1973, 192-3). There are also examples from this period of 'fringes' and 'pigtail structures' from Lochee Crannog (Munro 1879). The use of this moss continues through to the 19th century, with evidence of its use in making artefacts such as brushes and baskets (Curle 1911; Dickson 1973). A high concentration of mosses has been recorded from cess pits at Kirk Close including some *Polytrichum commune* and it seems likely that these mosses were used as toilet paper. It has been suggested that the plaits from York may have been used in basket making, as with a Roman basket found at Newstead that is made from *Polytrichum commune* (Curle 1911). This may have also have been its use in some of the Kirk Close examples.

Another possibility, however, is that they were used in the construction of thatched roofs. Prior to the mid-18th century, one of the standard forms of roofing in Scotland was thatch. This tradition was current throughout both the Highlands and the Lowlands, although certain regional variations have been recognized (Fenton 1976). Ropes were used in a number of different ways to hold the thatch in place. In the Shetland Islands thatch was secured by vertical ropes



ILL. 86 : Kirk Close, Moss rope: Catalogue No 173

at the ends of which long flat stones were tied. These lay either on or just above the eaves. Wooden pins were also used to peg the ropes, keeping them tight (Ibid). In Torthorwalk, Dumfriesshire and Kirkmaiden, Wigtonshire, roofs of straw tied down with horizontal and vertical ropes pegged into the walls below the eaves were still standing in 1976 (ibid).

Architectural evidence from western Perthshire shows that thatch was fixed by ropes which lay horizontally and transversely. The crossings were secured by pegs and the ropes were anchored with stones, which lay on the lower edge of the thatch or hung over the wall (Sinclair 1953, 43).

Architectural studies show that straw, heather, bracken and rushes have been used as roofing material (Ibid, 42). This is corroborated by the botanical evidence from the floor levels at Kirk Close. Heather, bracken and straw have all been identified and these could have been used as floor or roofing materials. It may, therefore, be that the moss ropes found at Kirk Close were used to tie down the thatch on the neighbouring buildings.

- 166 Fragments of *Polytrichum commune*. Not illustrated. Kirk Close; Context 1077; Accesssion P37; Period Va C.
- 167 Fragments of *Polytrichum commune*. Not illustrated. Kirk Close; Context 1121; Accesssion P69; Period III C.
- 168 Fragments of *Polytrichum commune*. Not illustrated. Kirk Close; Context 2110; Accesssion P124; Period III B.

- 169 Plait. Length 23 mm; width 5.5 mm.
Three strand plait, shaped into a circle (maximum diameter 21.5 mm). *Polytrichum commune* with traces of *Thuidium tamariscinum*. Not illustrated. Kirk Close; Context 2022; Accession R29a; Period V B.
- 170 Plait. Length 23 mm; width 6 mm.
Three strand plait. *Polytrichum commune* with traces of *Thuidium tamariscinum*. Not illustrated. Kirk Close; Context 2022; Accession R29b; Period V B.
- 171 Plait. Length 58 mm; width 5.5 mm.
Three strand plait. *Polytrichum commune*. Not illustrated. Kirk Close, Context 2022; Accession P32; Period V B.
- 172 Plait. Length 28 mm; width 60 mm.
Three strand plait. *Polytrichum commune* with traces of *Thuidium tamariscinum*. Not illustrated. Kirk Close; Context 2033; Accession P49; Period V B.
- 173 Plait. Length 260 mm; max width 80 mm.
Three strand plait. *Polytrichum commune* with traces of *Thuidium tamariscinum*, *Pleurozium schreberi* and *Hypnum cupressiforme*. Kirk Close; Context 2053; Accession P245; Period IV B.

5:11 THE COINS AND JETTON DH CALDWELL

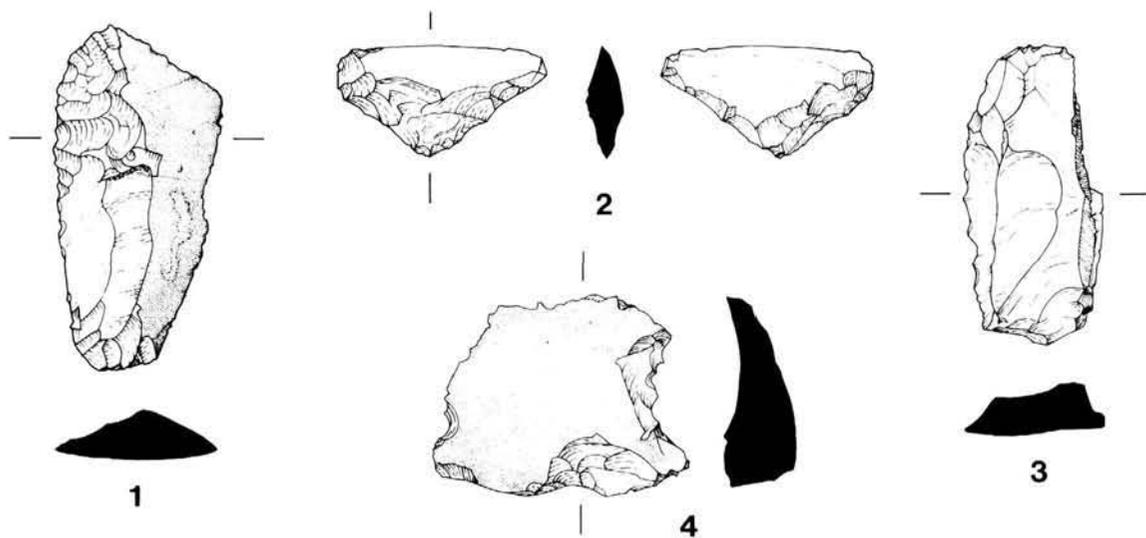
- 174 Coin. Copper-alloy. Diameter 18 mm. 22.99 grains. Deeply pitted and corroded. Not illustrated. Canal Street II; Context 2013; Accession E0014; Period IX 5.
- 175 Penny. Silver. 19.44 grains. English, Henry III, short cross class 7 (late); moneyer Adam at London (c.1223-42). Not illustrated. Kirk Close; Context 1114; Accession E146; Period III C.
- 176 Penny. Silver. 7.10 grains. English short cross type, moneyer Rauf at London; class 5c-7 (c.1205-42). This coin is very badly corroded and holed in several places. Not illustrated. Kirk Close; Context 1121; Accession E147; Period III C.
- 177 Penny. Silver. 3.40 grains. Scottish, David II—Robert II, minted at Edinburgh; fragment only. Not illustrated. Canal Street II; Context 2119; Accession E0039; Period VII 3/4, filling of gully 2115.
- 178 Three penny penny. Copper alloy. 23.30 grains. Scottish, James III, c.1482, 'globe and cross' type (formerly known as Bishop Kennedy pennies); type IIa. Not illustrated. Canal Street II; Context 2119; Accession E041; Period VII 3/4, filling of gully 2115.
- 179 Three penny penny. Copper alloy. Scottish, James III, c.1482, 'globe and cross' type; type Ia. This has been conserved with the reverse adhering to a pot sherd. Not illustrated. Canal Street II; Context 2120; Accession E0042; Period VII 5, filling of robber trench 2122.
- 180 Penny. Billon. 7.41 grains. Scottish, James III, minted at Edinburgh; Class Cii (late 1470's). This coin is in poor condition, largely due to soil conditions (?). Not illustrated. Canal Street II; Context 2152; Accession E0102; Period VI 5B, filling of pit 2133.
- 181 Penny. Silver. 14.66 grains. Scottish, Robert II, minted at Perth; variant of Burns 13 (1371-90). Not illustrated. Canal Street II; Context 2166; Accession E0101; Period VI 3/4.
- 182 Jetton. Base metal. Diameter 17 mm. 14.82 grains. English. The reverse has a cross with groups of three pellets in quarters. Broken and badly corroded. Not illustrated. Canal Street II; Context 2402; Accession E0127; Unstrat.

5:12 FLINT G HARDEN

A total of thirty-four flints were recovered; one retouched piece from Kirk Close (Ill 87, 1); two from South Methven Street, one of which is bifacially retouched (Ill 87, 2); twenty-seven from Canal Street II, of which three are possibly retouched (Ill 87, 3); and four from the Watching Brief at 1-5 High Street, one of which is retouched (Ill 87, 4). Full details on all the flints are stored in archive. An approximate angle of retouch has been given where appropriate.

It is probable that the retouched pieces have been introduced into these medieval sites with the gravel make-

up for floors—certainly in England retouched pieces are not infrequently found in redeposited gravels used for paths, drives etc, even today. The remainder of the flints are almost all small, heavily corticated chunks and abraded flakes, although not all of them have definitely been struck by man. Presumably they were also brought to the sites within the gravels and sands acquired locally. However, seven large chunks or nodules amongst the flints from Canal Street II may have been brought in from further afield, possibly as ship ballast from England.



ILL 87 : Flint, Scale 1/1

5:13 CERAMIC BUILDING MATERIAL NL MACASKILL

The quantities of roof and floor tile from these sites are too limited for any detailed conclusions to be drawn from them. The small numbers may reflect their limited use in medieval times in Scotland but other factors, such as re-use, may complicate the picture.

For the moment, it can be stated that peg tiles for roofing, either providing total or, far more likely, only partial coverage, perhaps at edges and corners, make their first appearance in levels dating to the late 13th or early 14th century. The only glazed example from this date is similar to the coarser, unglazed types and belongs with them rather than with the later glazed group in a fabric resembling that of the local pottery. This later group appears to date to the late 14th and 15th centuries.

Floor tiles do not seem to be represented until the 15th century, although the fragment from Methven Street, Period II may date to the late 14th century.

PEG TILES: UNGLAZED

The two examples recovered are in similar fabric types: coarse, ill-mixed with abundant medium to large angular or rounded quartz grains, moderate unidentified rock fragments and, in the case of 184, moderate tiny mica plates. In both cases, peg-holes present appear to have been one of a pair on a central line, made by pushing a rod through from below.

- 183 Incomplete tile. Thickness 10-15 mm.
Single peg-hole remains; red with grey core; upper surface wiped smooth, with thin, off-white slip; bottom surface rough and pitted. Not illustrated.
Kirk Close; Context 2134; Accession P224; Period I A, S2.
- 184 Incomplete tile. Thickness 14-19 mm.
Single peg-hole remains; orange-red with grey core; off-white slip on upper surface and edges, striated by wiping; bottom surface rough and pitted. Not illustrated.
Canal Street II; Context 2408; Accession P650; Period IV 5A.

PEG TILES: GLAZED

All but one of the glazed peg tiles recovered are in a smooth, slightly sandy fabric very similar to the Perth Local pottery fabric. The exception is 188, from Kirk Close: its fabric is very similar to that of the unglazed example from the same site, 183.

- 185 Tile fragment. Thickness 10 mm.
Red-buff to grey; partial coating of brown-green to yellow glaze on upper surface; edges cut and smoothed; lower surface sanded; slight curvature. Not illustrated.
Kirk Close; Context 1000; Accession P248; Unstrat.
- 186 Tile fragment. Thickness c 8 mm.
Red-buff to grey; brown-green glaze on upper surface; edge cut and smoothed; lower surface partly sanded, partly smoothed. Not illustrated.
Kirk Close; Context 1001; Accession 273; Period VI C.
- 187 Tile fragment. Thickness 10 mm.
Red-buff to grey; brown-green to yellow glaze on upper surface; edge cut and smoothed; lower surface sanded. Not illustrated.
Kirk Close; Context 1057; Accession P249; Period VI C.

- 188 Incomplete tile. Thickness 10-15 mm.
One complete side measures 105 mm; red with grey core; linear splash of yellow-green glaze on upper surface; bottom surface rough and pitted. Not illustrated.
Kirk Close; Context 1113/1114; Accession P252/P223; Period III C.
- 189 Tile. Thickness c 18 mm.
One complete side measures 195 mm; orange; upper surface and edges have thin, off-white slip under splashed glaze, coloured orange to green with black speckling; edges cut; bottom surface smoothed but remaining slightly pitted, with patch of glaze in one corner, to which a fragment of another tile adheres; slight concave curvature. Not illustrated.
South Methven Street; Context 127; Accession A085; Period I.
- 190 Tile fragment. Thickness c 14 mm.
Orange-buff to grey; upper surface glazed green; edges cut; bottom surface rough. Not illustrated.
Canal Street II; Context 2182; Accession P521; Period V3.
- 191 Tile fragment. As 190.
With glaze splash on bottom surface. Not illustrated.
Canal Street II; Context 2182; Accession P0737; Period V 3.
- 192 Tile fragment; as 190. Not illustrated.
Canal Street II; Context 2211; Accession P533; Period VI 3/4.
- 193 Tile fragment; as 190.
With green to brown glaze. Not illustrated.
Canal Street II; Context 2231; Accession P739; Period V 4.
- 194 Tile fragment; as 190.
With yellow-green glaze. Not illustrated.
Canal Street II; Context 2322; Accession P0577; Period IV 5B.
- 195 Tile fragment; as 190. Not illustrated.
Canal Street II; Context 2408; Accession P0651; Period IV 5A.

PAN TILES

Both the pan tile fragments recovered are medium hard and have abundant small to medium sub-angular quartz inclusions.

- 196 Tile fragment. Thickness 11-20 mm.
Dark red to black, with one surface badly burnt; curved. Not illustrated.
Kirk Close; Context 1001; Period VI C.
- 197 Tile fragment. Thickness 12 mm.
Orange-red with blackened surfaces. Unevenly rounded edge; curved, with smooth, striated concave surface and rough, sanded convex surface. Not illustrated.
South Methven Street; Context 200; Accession P064; Period IV.

FLOOR TILES

All the fragments except 200 are in a medium hard sandy fabric with abundant small, and moderate medium to large, quartz grains. The fabric of 200 is similar but with moderate unidentified rock fragments.

- 198 Tile fragment.
Orange-red; no upper surface; bottom surface sanded. Not illustrated.
South Methven Street; Context 107; Accession P088; Period II.
- 199 Tile fragment. Thickness 28 mm.
Upper surface has pale yellow glaze over white slip; bottom surface sanded. Not illustrated.
South Methven Street; Context 228; Accession P089; Period III A.
- 200 Tile fragment. Thickness 22 mm.
Orange-red; crazed black glaze, slightly burnt on upper surface; undercut edge; bottom surface rough and sanded. Not illustrated.
Canal Street II; Context unknown.
- 201 Tile fragment; as 205. Not illustrated.
Canal Street II; Context 2068; Accession P056; Period VIII 3/4.
- 202 Tile fragment. Thickness c 42 mm.
Orange-red; upper surface has patchy black glaze; bottom surface sanded. Not illustrated.
Canal Street II; Context 2068; Accession P081; Period VIII 3/4.
- 203 Tile fragment. Thickness c 25 mm.
Orange-red; upper surface has very abraded patchy black glaze; bottom surface sanded. Not illustrated.
Canal Street II; Context 2119; Accession P212; Period VII 3/4.
- 204 Tile fragment. Thickness c 30 mm.
Orange-red; upper surface has patchy yellow glaze over white slip; bottom surface sanded. Not illustrated.
Canal Street II; Context 2125; Accession P0214; Period VII 1/2.
- 205 Tile fragment. Thickness c 25 mm.
Orange-red; upper surface has pale yellow glaze over white slip; bottom surface sanded. Not illustrated.
Canal Street II; Context 2127; Accession P216; Period VII 3/4.

5:14 METALWORKING EVIDENCE RM SPEARMAN

SLAG DEBRIS

Metalworking slags from all three excavations were provisionally sorted into visual types and checked for magnetic attraction. Selected samples were then kindly analysed by Dr E Slater of University of Glasgow, Department of Archaeology, using standard X-ray diffraction techniques. Her results are incorporated in this report.

Four types of slag debris were recovered from the sites:

- (a) Vitreous iron slags
- (b) Iron cinder and bloomworking waste
- (c) Iron hammer-scale and waste iron
- (d) Vitreous Copper slags

Vitreous iron slags from this site are glassy, blue-black in colour and slightly porous internally. The majority of this debris would have been produced during the smelting of iron ore. Such slags are produced through the combination of acidic oxides such as silica with metallic elements. In this way the reactive silica is removed as furnace charge along with more easily oxidized metals such as aluminium, magnesium and manganese. Significant quantities of iron are also lost in this way and iron silicates such as fayalite are a major component in smelting slags.

The iron cinder and bloomworking waste has a matt grey pimply exterior with a porous interior. The waste is often mixed with charcoal and has a very variable iron content. Unlike non-ferrous metals, iron, with a melting point of 1525°C, is not produced in a molten form in simple low temperature bloomery furnaces. Instead, once cool, a fused mass of metal, slag, fuel and cinder is separated from the furnace and forged at temperatures around 1000°C. At this temperature the slag and cinder soften and can be squeezed out to leave a purer workable iron. It is this latter process which is represented by this debris.

Iron hammer-scale waste consists of small flakes of wrought iron in varying stages of corrosion. These were produced by the impact of hammers on hot bloom or wrought iron during its working. Such debris from this site survives only as concretions of iron filings around fragments of waste iron.

Vitreous copper slags have a matt to slightly glassy appearance. They are dense with a granular rather than porous structure. The matt surfaces have occasional patches

of green bronze disease while the vitreous granules range from deep red to scarlet. It is not clear whether these are the result of smelting copper ores or later alloying and working of the metal.

The distribution of these various types of debris is summarised by Site and Period in Table 69mf (2: F10-13).

Conclusions

The Kirk Close material is unusual in that it contains a high proportion of vitreous iron slag. The total quantities are very small and merely demonstrate that the smelting of iron had taken place, probably at some distance from the site.

The quantity of debris from South Methven Street is also very small. Nevertheless, the only implication of this debris is that iron working had taken place in the general vicinity.

The debris from Canal Street II is the most numerous of the three sites, although the quantity remains small. The ratio of vitreous iron slag to bloomworking waste is again that expected from iron working carried out somewhere in the general vicinity. A distinct group of bloomworking debris and hammer-scale is associated with the W end of the site during Period VIII. A number of nails were also recovered from contexts in this area and period, some associated with the hammer-scale. It would seem likely, therefore, that some iron working, probably nail making, had taken place near the site. A similar conclusion was drawn from the 1978 excavation where comparable debris was discovered from the corresponding Phase VI there (Spearman 1983, 514). A further interesting group of debris from this site is the vitreous copper slags concentrated at the E end of the site in Period IV. This would seem to have been associated with bronze casting near the site at that time (see below). Unfortunately the casting and furnace site was outwith the area of excavation, and it is not known if the smelting of ore actually took place within the town.

Apart from the Canal Street II debris the slag from these sites is mainly of interest as a demonstration of the movement around the town of clearly residual material. Iron working at quite a substantial level was obviously closely associated with the town from early times to produce such ubiquitous debris.

MOULD AND CRUCIBLE FRAGMENTS

A total of eighty-nine separate fragments of clay mould and three small fragments of crucible were recovered from the Canal Steet II excavation. In addition a single fragment of clay mould was recovered from the Canal Street I excavation (Spearman 1983, 514). These fragments are taken as direct evidence of casting but, unfortunately, none were recovered in a primary context. Since it is unlikely that large-scale casting would have left no other evidence, for example, hearths, it can only be assumed that the working area was outwith the area of excavation.

All fragments were examined using a $\times 10$ hand lens as the type and quantity of temper used in the moulds, as well as the fabric, can provide some indication of mould type. The pieces of crucible still had metallic debris adhering to them and they were sent for X-ray fluorescence analysis which was kindly undertaken by Dr J Tate at the National Museum of Antiquities of Scotland Laboratory. No such material was seen on the surfaces of the mould fragments and these were not examined in this way. X-ray fluorescence analysis has occasionally been used on mould material in the hope that some of the metal might have penetrated into the mould fabric. However, it is becoming clear that volatile elements such as zinc and lead tend to accumulate in the mould surface at levels out of all proportion to their concentration in the original alloy. Surface analyses, therefore, rarely provide an useful guide to the actual metals cast in the moulds.

The moulds can be separated into two distinct groups on the basis of the clay from which they were made and also the contexts from which they came. The first group is represented by five fragments and these are separately catalogued in Table 70mf (2:G1-2). They were all recovered from Period II and Period III contexts. These mould fragments were all of very fine clay containing little or no tempering. Only two, 0752a and 0694, retained any trace of possible patterns. These patterns consist of plain rectangular grooves and ridges and give no real guide as to the objects being cast. Indeed they may be part of the keying for the moulds and not part of the pattern. Although these fragments are not very diagnostic they may well be portions of simple two-piece moulds of a type familiar from Elgin (Spearman forthcoming) and may have been used to cast fine metalwork. Two of the other mould fragments in this group, 0725b and c, are from the sealing slip around the exterior of such moulds.

The second group of moulds consists of seventy-four fragments from the casting of vessels. Sixty-nine of these are described in Table 71mf (2:G3-14, 3:A5-8). The remaining five fragments were too poorly preserved to be included in the catalogue but were of comparable dimensions and fabric. With the exception of one fragment, 0328, from Period III (which could be intrusive) these mould fragments were recovered from Period IV contexts in Area 5 and as residual material from elsewhere on the site. The mould fragments all had a coarse fabric and were heavily tempered with vegetable matter, probably dung. Most still retain their inner and outer surfaces so the wall thickness of 6-29 mm must represent those of the original moulds. These would have been two-piece moulds with a cope to mould the outer face of the vessel and a core to produce the interior. By measuring the degree of vertical and horizontal curvature on the reduced casting surface of a mould fragment it is possible to assign it to a particular part of a vessel profile. The pieces of vessel mould may, therefore, be divided into four types: Type 1 Bulbous Body Fragments (core and cope); Type 2 Straightsided (core and cope); Type 3 Rim/Shoulder (core and cope); and Type 4 Flat (core indistinguishable from cope). These various Types are detailed in Ill 88.

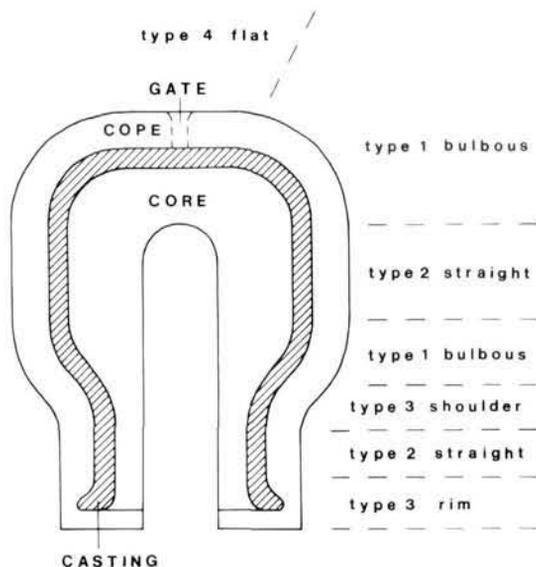
Three small fragments of crucible were recovered in association with the Period II and III mould fragments. The crucible fragments are too small to determine the form and

volume of the vessels from which they came, or even if they are all pieces from the same crucible. X-ray fluorescence analysis of crucible fragments indicated their use with a lead/tin bronze.

Conclusion

The mould and crucible fragments from Period II and III are from the casting of small objects, perhaps decorative fittings or even base metal jewellery in the manner of the Elgin moulds. In contrast, the later Period IV mould fragments are all from the casting of much larger objects, most probably vessels. These include forty-eight fragments of vessels with bulbous bodies (Type 1 in Table 71mf; 2:G3-14), twelve fragments from vessel necks ranging from 120-260 mm diameter (Type 2 in Table 71mf; 3:A5-6) and four rim fragments ranging from 160-260 mm diameter (Type 3 in Table 71mf; 3:A7-8). The form and construction of these moulds is therefore consistent with the casting of a variety of vessels, such as cauldrons, ewers and bowls. Several pieces of broken copper alloy vessels and repair patches were recovered from the site and these are considered with the other copper alloy finds (see 5:1 Copper Alloy Objects).

A small quantity of non-ferrous slags were also recovered from the site and these are dealt with above.



ILL 88 : Diagram of mould for casting vessels.
Not to scale

 5:15 TEXTILES H BENNETT

With a contribution on the silk by A Muthesius

 KIRK CLOSE

All the textiles from the site are rags rather than complete objects and many are heavily worn. There are finds in both wool and silk. Those in the first category consist of twenty-six samples of woven cloth, and one of felt; there are also three samples of matted wool or other animal hair (Accession Nos. F031, F111, F143b see archive), but these appear to be in their natural state and not to have been worked in any way. Silk is represented by three fragments of woven cloth, probably all part of one fabric, which are considered by A Muthesius; in addition, there is a silk band made by tablet weaving. There are no examples of linen; this is not surprising since the damp conditions favourable to the survival of wool and silk are much less suitable for the preservation of bast fibres. The presence of stitch holes in some of the pieces is almost certainly indicative of the use of flax thread which has since disintegrated.

CATALOGUE

The textiles are considered in groups according to their structure and method of finishing:

Woven cloth of wool:

- Tabby
- 2/1 twill with nap
- 2/1 twill without nap
- 2/2 twill
- Unidentified

Other finds:

- Felt
- Tablet-woven band
- Silk fragments 29 A Muthesius

Measurements have been taken along the line of warp and weft, but because of the worn state of the fragments, these give only an approximate indication of size. Where relevant, the direction of spin of the yarn and the count of threads per 10 mm in each system are stated. The direction of spinning is indicated by the convention Z and S (See Ill 89(iv)). The yarn is single ply unless otherwise stated.

Unless otherwise stated the finds are not illustrated.

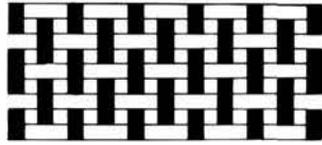
WOVEN CLOTH OF WOOL

Tabby weave (Ill 89(i), 90)

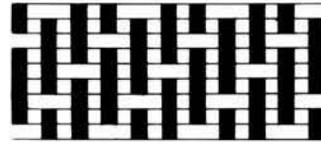
The four examples of plain weave are of a single kind, an exceptionally heavy fabric in the range 1-4 threads per 10 mm, in some cases so coarse and open as scarcely to be considered a cloth. The yarn is 2-ply in both systems and composed of rough, hairy fibres: these appear to be sheep's wool, but it has not been possible to test this by analysis. The colour of the fabric is generally mottled, resulting from the use of unsorted naturally pigmented fibres, and no sample shows any sign of having been dyed. Where a selvedge survives it is of the most basic kind, that is, the weft simply passes round the outermost warp on each side and there are no additional warps or other measures to strengthen the edge.

In her study of early textiles found in Scotland Miss Henshall noted one fabric of this type: the piece, originally thought to be of vegetable fibre, but now considered to be wool, is from a long cist of probable medieval date found near Kelso Abbey, Roxburghshire (Henshall 1952, 17). More recently, another example has been excavated from 13th-/14th-century layers in Aberdeen (Bennett 1982, 199), and more than fifty samples from the PHSE site (Bennett PHSE a); the latter were recovered from levels dating from pre-1150 through to the mid-14th century, and include two pieces woven from goat hair (A9993a and b). Similar fabrics have also been found in medieval contexts on the Continent, for example in 14th-century levels in Amsterdam, Holland (Amsterdams Historisch Museum 1977, 106, fig 44) and Svendborg, Denmark (Jørgensen 1979, 3 and fig 4). The presence of what may be a starting border on one of the PHSE pieces suggests the possibility that cloth of this type was woven on a vertical loom, but further evidence is required.

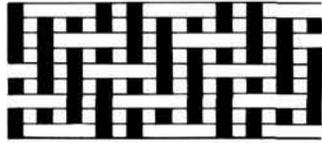
- 1 60 mm × 90 mm
One piece (and a number of fragments) of very coarse, mottled mid- to dark-brown fabric, similar to 4.
system 1, 2-ply yarn Z spun and S plyed, 2½ per 10 mm
system 2, similar, 1-1½ per 10 mm
Kirk Close; Context 1077; Accession F181; Period Va C.
- 2 340 mm × 400 mm.
One piece, now very ragged, of exceptionally coarse, dark-brown fabric with a harsh, open texture.
system 1, firm 2-ply yarn Z spun and S plyed, 2 per 10 mm
system 2, similar, 1-1½ per 10 mm
Kirk Close; Context 2022; Accession F014; Period V B.
- 3 (a) 125 mm × 150 mm, with 90 mm of selvedge; (b) 345 mm × 220 mm with 200 mm of selvedge.
Two pieces of heavy, mottled mid-to dark-brown fabric, markedly less coarse and more compact than the others in this group, both with a length of selvedge intact.
system 1, warp, very firm 2-ply yarn Z spun and S plyed, 3-4 per 10 mm
system 2, weft, similar, 2½-3 per 10 mm.
(b) not illustrated.
Kirk Close; Context 2050; Accession F034; Period III A.
- 4 130 mm × 85 mm.
One piece (and two fragments) of very coarse, mottled mid- to dark-brown fabric, softer and less open than 2, with about 55 mm of selvedge.
system 1, warp, 2-ply yarn weak Z spun and S plyed, 2 per 10 mm
system 2, weft, similar, 1-1½ per 10 mm
Kirk Close; Context 2059; Accession F036; Period IV A.



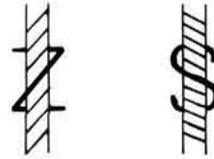
(i) Plain weave



(ii) 2/1 twill



(iii) 2/2 twill

(iv) Z-spun & S-spun
yarns(v) Plain tablet weaving with
four tablets.

ILL 89 : Textile, weave types and spun yarns

2/1 twill (Ill 89(ii), 91, 92, 93)

By far the largest number of samples (nineteen) is in this weave. All are of light to medium weight, but they fall into two distinct groups, according to their quality and manner of finishing.

2/1 twill with nap: The three samples are well-made cloths constructed from evenly-spun yarns and with the thread count balanced in the two systems. After being taken from the loom the cloth has been heavily fullled to compact and thicken the fabric. It has been brushed to raise the nap and sheared, resulting in a smooth, even surface which obscures the weave. All the pieces have a good depth of colour and have clearly been dyed.

- 5 160 mm × 80 mm.
One piece (and a fragment) of lightweight but heavily fullled, rich mid- to dark-brown cloth with a pronounced nap.
system 1, Z spun, closely-spaced threads, 18 per 10 mm
system 2, the same
Kirk Close; Context 1098; Accession F025; Period IV.

- 6 150 mm × 100 mm.
One piece (and four smaller fragments) similar in all respects to 5 and almost certainly part of the same fabric.

- 7 (a) 45 mm × 50 mm, (b) 45 mm × 55 mm.
Two small, roughly triangular pieces of lightweight but very firm and heavily fullled fabric, with a nap on both surfaces; the base fabric is now golden-brown, but the nap has a distinct rose tinge suggesting the cloth was dyed a shade of red or pink.

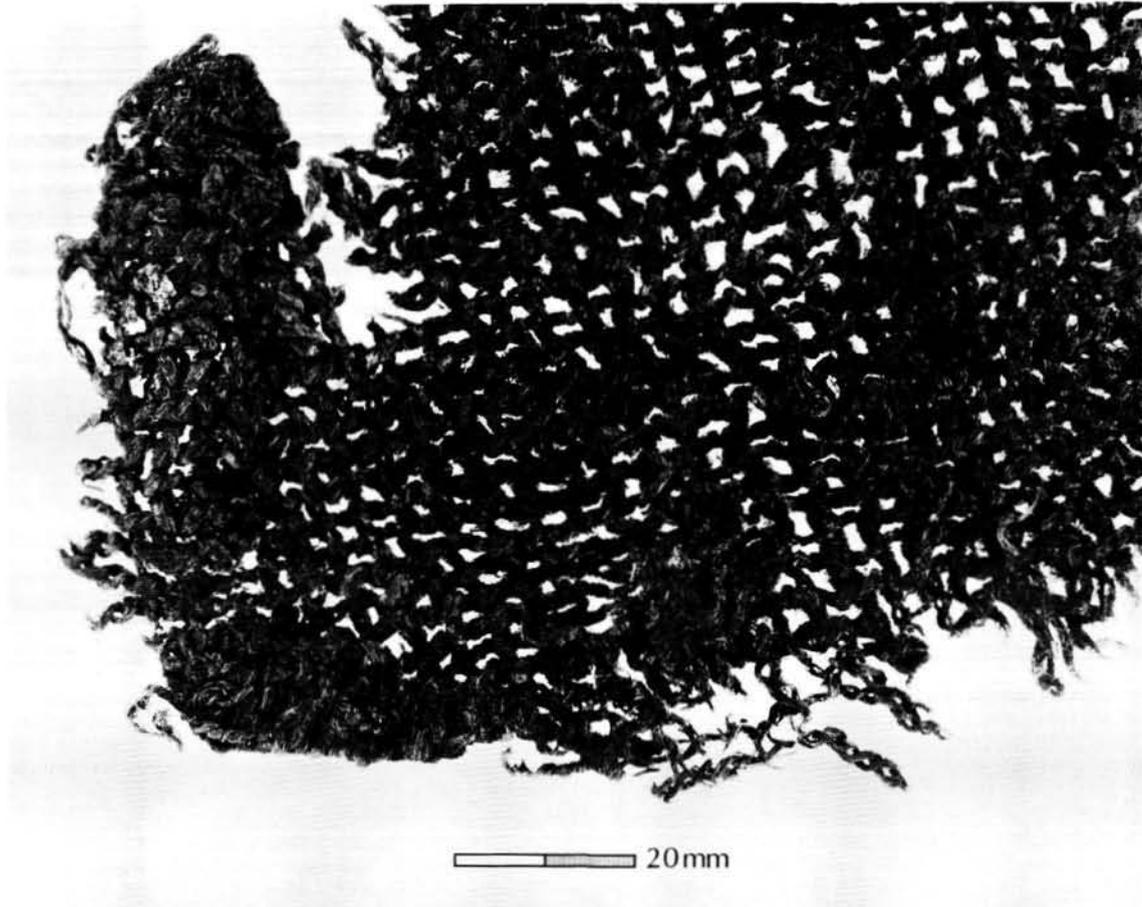
system 1, Z spun, closely spaced threads,
14 per 10 mm

system 2, the same

There is a series of needle holes through each piece, but the yarn has not survived.

Kirk Close; Context 2036; Accession F033; Period IV B.

2/1 twill without nap: These include fabrics with Z/Z (5), Z/S (10), S/S (1) systems, and thread counts in the range 6-16 per 10 mm. Their character and appearance are however, much the same. They tend towards a slightly harsh, open



ILL 90 : Textile, selvedge of 2 ply plain weave, catalogue No 3(a)

texture, and exhibit little sign of having been fulled; occasionally a surface has a slight nap, but this appears to be the result of wear rather than deliberate finishing. The yarn is mostly firm and smooth, although where a Z/S combination has been used the S threads are often softer.

In general the pieces are of poor quality, particularly in comparison with the 2/1 twills with nap. There are irregularities in the spacing of the threads and also, on occasions, in the tension of the spinning, resulting in an uneven appearance; a number of the pieces also exhibit the results of mistakes in the weaving process, where a weft has been passed accidentally twice through a shed, or the warps incorrectly tied. The even tone of some pieces suggests they may have been dyed, but they lack the depth of colour visible in those of the 2/1 twills with nap. 2/1 ZS twills, unfinished, and of poor appearance are well-represented among the PHSE finds, especially in later 13th- and early 14th-century levels.

8 70 mm × 50 mm (double thickness).

Two pieces, sewn one on top of the other, of lightweight reddish mid-brown fabric, unfulled and open textured, now heavily worn.

system 1, smooth but comparatively soft Z spun yarn, 11 per 10 mm

system 2, similar S spun yarn, 9-10 per 10 mm

The sewing thread is Z spun yarn, similar to that used in the weaving of the fabric, used double; there are six oversewing stitches intact.

Kirk Close; Context 1046; Accession F005; Period VI C.

9 340 mm × 470 mm.

One large heavily worn piece (and a number of fragments) of medium weight, unfulled fabric of an uneven mid-brown shade; there are irregularities in the spinning and the spacing of the yarns giving the fabric a rough and uneven appearance.

system 1, Z spun, about 10 per 10 mm

system 2, S spun, about 8 per 10 mm

Kirk Close; Context 1108; Accession F035; Period IV C.

10 170 mm × 300 mm.

One heavily worn piece (and some fragments) of mottled mid- to dark-brown, medium weight, unfulled fabric with irregularities in both the spinning and weaving.

system 1, Z spun yarn, about 10 per 10 mm

system 2, softer and more irregular, S spun yarn, about 10 per 10 mm

Kirk Close; Context 1108; Accession F145; Period IV C.

11 480 mm × 360 mm.

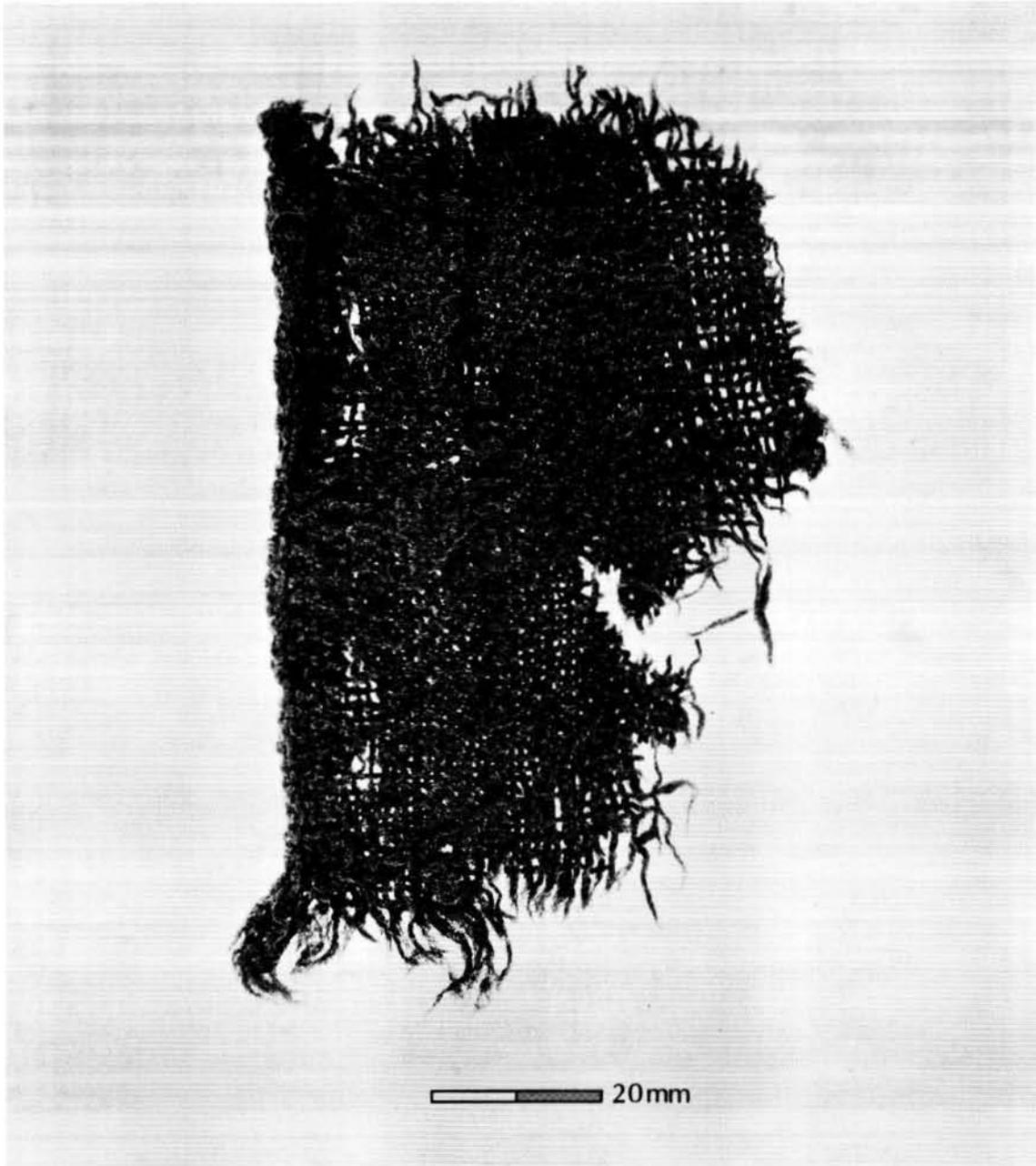
One piece of lightweight, unfulled fabric, generally almost black but with patches of brown—possibly where dye has been lost.

system 1, firm smooth Z spun yarn, 12-13 per 10 mm

system 2, similar S spun yarn, 9 per 10 mm



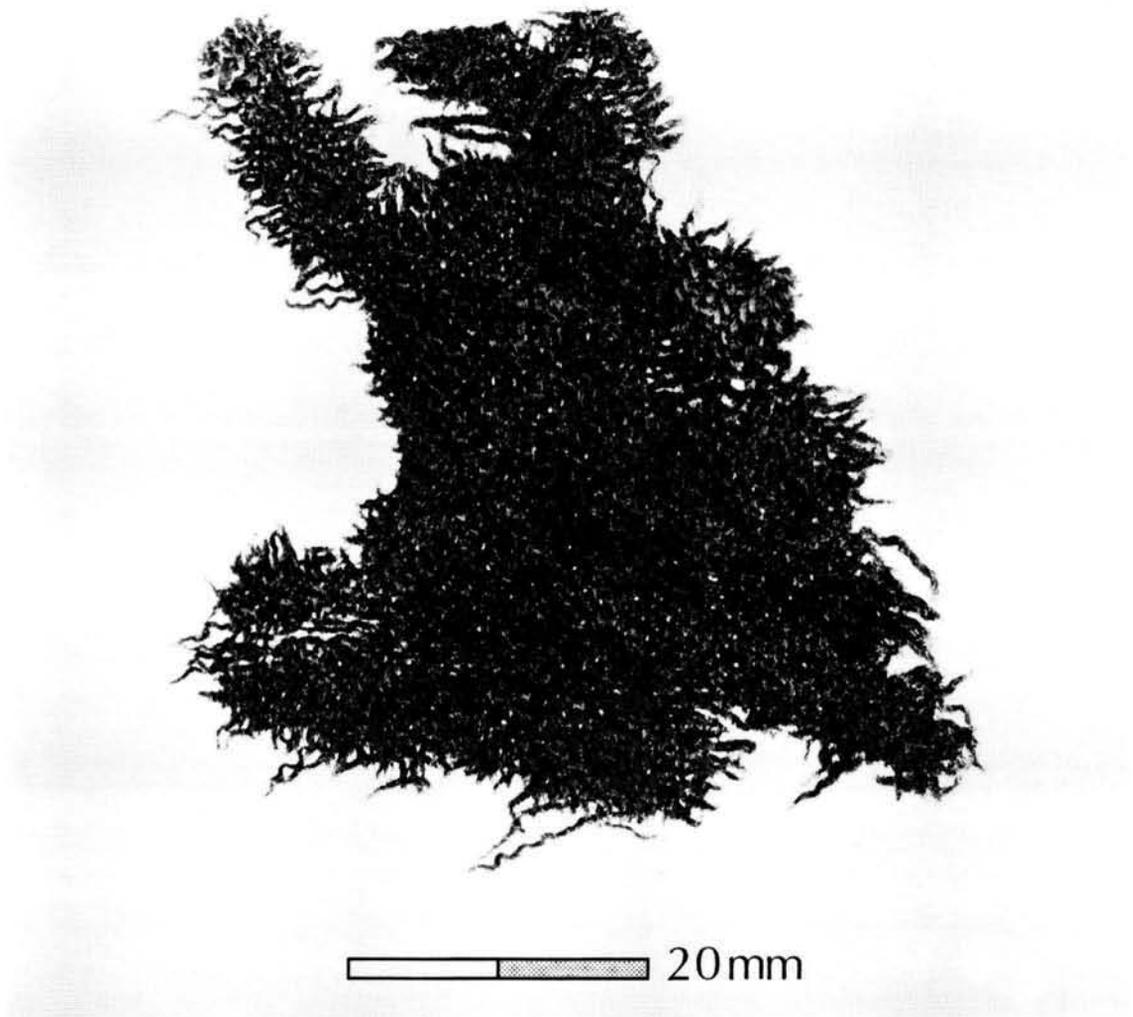
ILL. 91 : Textile, 2/1 twill with nap: Catalogue No 6



ILL. 92 : Textile, 2/1 twill without nap: Catalogue No 18(b)

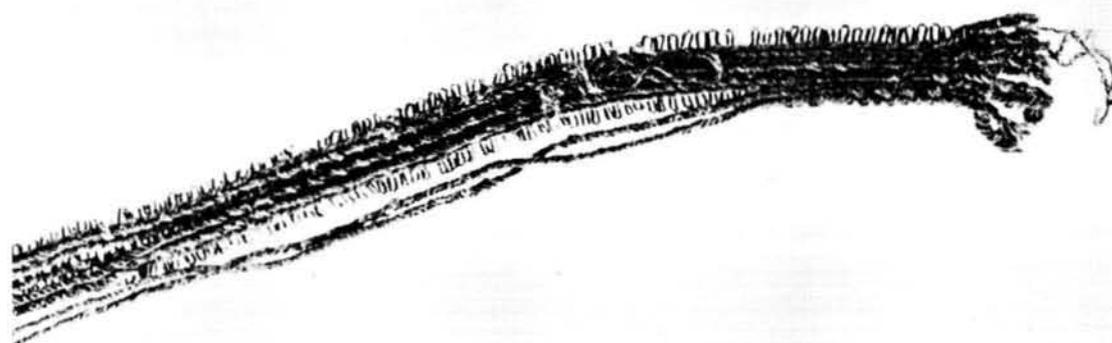
- Kirk Close; Context 2008; Accession F001; Period VI B.
- 12 (a) 165 mm × 35 mm; (b) 80 mm × 70 mm.
Two pieces of light to medium weight, dark-brown, unfulled fabric, similar to 11.
system 1, smooth Z spun yarn, 12 per 10 mm
system 2, softer S spun yarn more variable in thickness, 10 per 10 mm
Kirk Close; Context 2008; Accession F003; Period VI B.
- 13 (a) 70 mm × 105 mm; (b) 70 mm × 55 mm;
(c) 30 mm × 40 mm; (d) 90 mm × 105 mm.
Four pieces of light to medium weight, dark-brown, unfulled fabric, of rough and uneven appearance.
system 1, Z spun about 11 per 10 mm
system 2, the same, about 9 per 10 mm
Kirk Close; Context 2009; Accession F011; Period VI A.
- 14 270 mm × 150 mm.
One piece of medium weight, dark-brown, unfulled but close-textured fabric of very uneven appearance—the result of using yarn variable in thickness and tension.
system 1, Z spun about 10 per 10 mm
system 2, S spun, softer but in parts overspun, 6-8 per 10 mm
Kirk Close; Context 2022; Accession F016; Period V B.

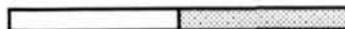
- 15 215 mm × 45 mm.
One strip, one long edge a selvedge, of medium weight, unfulled but soft, pinkish-brown fabric.
system 1, warp, soft S spun yarn, 6 per 10 mm
system 2, weft, similar, 7-8 per 10 mm
selvedge, closely but unevenly packed, 10-15 mm wide, composed of 18 Z spun warps, finer and more firmly spun than those in the main body of the fabric.
Kirk Close; Context 2022; Accession F017a; Period V B.
- 16 40 mm × 60 mm.
One piece of medium weight, dark-brown, unfulled but closely woven fabric, of uneven appearance.
system 1, Z spun, 8 per 10 mm
system 2, S spun, softer and more variable in thickness, 6 per 10 mm.
Kirk Close; Context 2022; Accession F017b; Period V B.
- 17 135 mm × 45 mm.
One piece of lightweight, firm, unfulled, dark-brown fabric, of rough and uneven appearance, with 125 mm of selvedge intact.
- system 1, warp, Z spun, 14 per 10 mm
system 2, weft, similar, 10-12 per 10 mm
The warp threads are more closely packed towards the edge of the fabric, but there are no special arrangements for the selvedge.
Kirk Close; Context 2033; Accession F030a; Period V B.
- 18 (b) 80 mm × 70 mm; (c) 90 mm × 25 mm;
(d) 105 mm × 65 mm; (e) 125 mm × 105 mm; (f) 40 mm × 45 mm.
Five pieces of light to medium weight, unfulled and open-textured, dark-brown fabric, exhibiting a number of weaving errors; pieces (d) and (e) have 100 mm and 75 mm of selvedge respectively.
system 1, warp, firm Z spun yarn, 10 per 10 mm
system 2, weft, Z spun yarn, more variable in thickness, 9-10 per 10 mm
There are no special arrangements for the selvedge.
Kirk Close; Context 2033; Accession F030b-f; Period V B.



ILL 93 : Textile, 2/1 twill without nap: Catalogue No 21

- 19 130 mm × 70 mm.
One piece (and two fragments) of light to medium weight, very dark-brown, unfulled, closely-woven fabric; there is a ridge running parallel to and 7 mm away from one edge, which probably marks a seam line, but there is no remnant of sewing yarn.
system 1, firm Z spun yarn, 13 per 10 mm
system 2, thicker S spun yarn, 7 per 10 mm
Kirk Close; Context 2035; Accession F029a; Period V B.
- 20 240 mm × 110 mm.
One piece of light to medium weight, unfulled and open-textured fabric, firm to the touch, with 115 mm of selvedge; the overall colour of the fabric is dark-brown, but the warp yarn is a lighter shade than the weft.
system 1, warp, firm Z spun yarn, 11 per 10 mm
system 2, weft, similar, 9-11 per 10 mm
There are no special arrangements for the selvedge.
Kirk Close; Context 2037; Accession F032a; Period IV B.
- 21 (a) 55 mm × 50 mm; (b) 80 mm × 70 mm.
Two pieces of lightweight, unfulled, closely-woven dark-brown fabric, firm to the touch; the threads in both systems are smooth and firm and evenly spaced, and the cloth is much more competently constructed than most in this group.
system 1, fine Z spun yarn, 16 per 10 mm
system 2, the same
Kirk Close; Context 2110; Accession F110; Period III B.
- 22 145 mm × 95 mm.
One piece of lightweight, dark-brown fabric, unfulled but close-textured and slightly soft to touch.
system 1, Z spun, 11 per 10 mm
system 2, S spun, 9 per 10 mm
Kirk Close; Context 2126; Accession F144; Period I B.
- 23 (c) 30 mm × 60 mm; (d) 50 mm × 40 mm.
Two pieces of lightweight, unfulled, mid-brown fabric, firm to the touch.
system 1, Z spun yarn, 15 per 10 mm
system 2, softer S spun yarn, 10 per 10 mm
Kirk Close; Context 2037; Accession F032c,d; Period IV B.
- 2/2 Twill (Ill 89(iii))
There are only two examples of this weave, both unfulled and without nap. 24 is too small for judgement to be made, but 25 has an undistinguished appearance and much in common with the examples of 2/1 twill without nap. The PHSE produced a few comparable fabrics, from both early and late levels, ranging in date from the 12th to the 14th century.
- 24 60 mm × 17 mm.
One piece of light to medium weight, unfulled, mid-brown fabric, slightly soft to the touch.
system 1, Z spun, 9 per 10 mm
system 2, S spun, 8 per 10 mm
Kirk Close; Context 2035; Accession F029d; Period V B.
- 25 210 mm × 115 mm.
One piece of light to medium weight dark-brown fabric, unfulled and open-textured, firm to the touch.
system 1, firm Z spun, 11 per 10 mm
system 2, S spun, 8 per 10 mm
Kirk Close; Context 2037; Accession F032b; Period IV B.
- Unidentified
- 26 One small fragment of fabric, now a light grey-brown shade; both Z and S yarns are identifiable, but the piece is too matted and worn for the weave to be discerned.
Kirk Close; Context 2134; Accession F143c; Period I A.



 20 mm

OTHER TEXTILE FINDS

Felt

To produce felt the fibres are not spun into yarn and woven, but are compressed in the presence of heat and moisture.

The site produced just one example of felt:

- 27 30 mm × 15 mm.
One small fragment of an even, bright mid-brown shade suggestive of a good standard of dyeing.
 Kirk Close; Context 2134; Accession 143a; Period I A.

Tablet-woven band (Ill 89(v), 94)

Tablet weaving is an ancient method of making narrow bands which allows a great variety of decorative effects (Ill 89 (v)). The warp threads are passed through holes in thin tablets of some rigid material such as wood; most commonly the tablets are square with a hole in each corner. When the tablets are held together they form a shed through which the weft is passed, and the weaving progresses by the turning of the tablets to create new sheds. For a technical description of tablet weaving, see, for example, *Ciba Review* No. 117 (Nov 1956).

- 28 170 mm long × 5 mm wide.
 The warps, originally forty in all, worked with ten four-hole tablets, are of beige 2S ply silk. The weft yarn is beige silk (or possibly linen) but has disintegrated, resulting in the partial collapse of the braid; there are twenty-eight picks of weft per 10 mm. Additionally, there is a brocading weft of beige silk, covered with metal foil which has turned black and largely corroded away. Examination by X-ray fluorescence in the Research Laboratory of the National Museum of Antiquities of Scotland showed the metal to be silver (Lab No 5312, Analysis No F0084). In places the metal has the appearance of gold, suggesting the surface of the foil may have had a gilt wash, but the analysis revealed no trace of gold metal. The small quantities of iron discovered by the analysis are presumed to have come from the burial soil.

There are traces of beige 2S ply silk yarn worked through the band roughly along the longitudinal mid-line, which are presumably the remains of a sewing thread which attached the band to another item.

The foundation of the band is plain weave, that is, the weft has been passed through the warps after each quarter turn of the tablets (and is completely obscured). As the tablets have been threaded alternately from opposite sides, adjacent cords have opposite twists, giving the structure a superficial resemblance to fine stocking stitch. On one side, however, the foundation weave is completely covered by the silver brocading weft which floats across the surface and is held only by occasional warp threads and, where it turns at the edge of the band, by the foundation weft.

A similar band, although finer, and with the warp threads which catch down the brocading weft arranged in a pattern of diamonds, was recovered from the grave of King Robert the Bruce (d 1329) (Henshall et al 1956, 32). More complex variants of the same structure, utilizing brocading yarns to develop the surface pattern, are also known from Scotland—from the tomb of Gavin Dunbar, Bishop of Glasgow (d 1547), and the tomb of an unknown bishop in Fortrose Cathedral (Henshall et al 1956, 32-5). But bands of this type are by no means peculiar to medieval Scotland since, as Miss Henshall has pointed out (et al. 1956, 30-31), technically similar pieces are known from 9th-century Birka, Sweden, and 10th-

century Durham, England and there are other, later, European examples.

Kirk Close; Context 2125; Accession F051; Period IV B.

Discussion

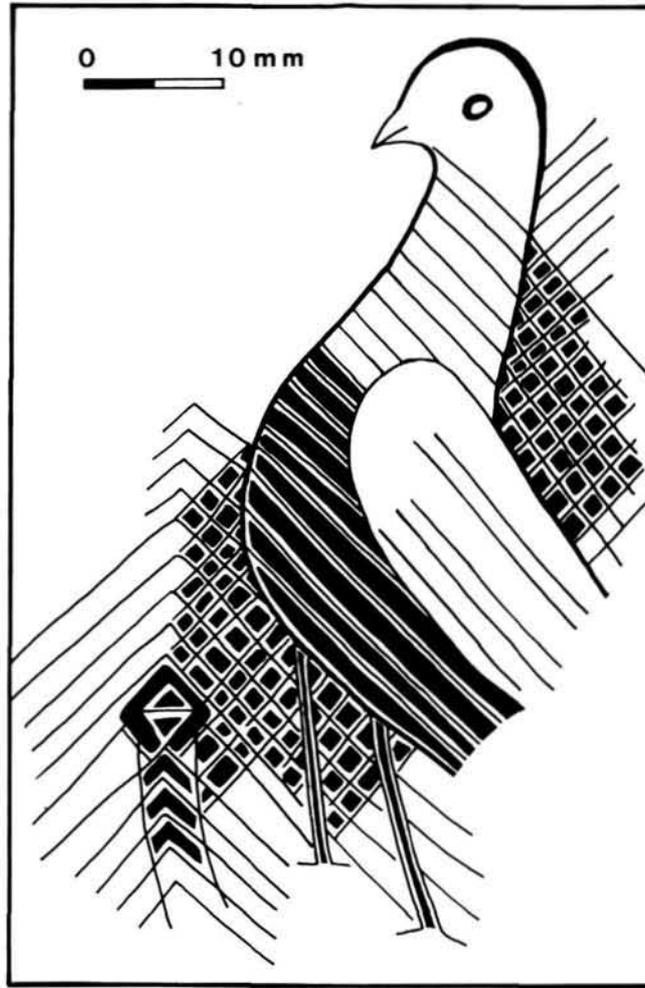
From their ragged state, and the signs of sewing, the textiles have clearly been used and are not, for example, tailors' waste. They have the appearance of remnants of garments and other items which have been worn out and discarded as rubbish. The distribution of the textiles over the site follows no obvious pattern, but is suggestive of domestic refuse, haphazardly abandoned.

As the textiles are small fragments, rather than complete entities, the use to which any individual piece was originally put can only be guessed at. The most that can be said is that among the woollen fabrics the twilled cloths, the majority, are of suitable weights for clothing or blankets or other light furnishings; the heavily felted triangles of 2/1 twill (7) are perhaps too rigid to have been part of the main material of a garment, but they may have served as a backing for a small section, or as the lining of a leather item. The felt could have come from a lining—a sample from the High Street site appears to have been an inner shoe (A9821)—or a complete garment such as a hat. The plain-woven 2-ply fabrics, by contrast, are altogether too harsh and inflexible for clothing purposes, but at least the more closely-woven pieces among them may have been sacking.

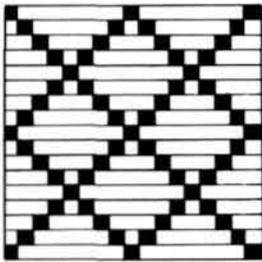
During the medieval period tablet-woven bands were used in a variety of ways, as seal tags (Henshall 1965), belts (e.g. Crowfoot 1950) or other complete objects; as tapes for fastening, and as edgings and ornaments on lay and ecclesiastical garments or, occasionally on other items (Henshall et al 1956, 29-30). The diminutive scale of the Kirk Close band is suitable for a fastening on clothing, although the somewhat rigid surface of the silver thread is perhaps less so, but it could equally well have served as an applied trimming.

The current state of knowledge about medieval textiles of daily use, as opposed to expensive patterned silks and embroideries, is still very limited, and it is rarely possible to attribute even a tentative date or place of origin to any fabric type. This is as true for the rest of Europe as for Scotland, although the publication of more material recovered from town sites is currently producing a clearer picture. On present evidence there is at least nothing against a range of dates in the 13th to 15th centuries for textiles from Kirk Close. Further, all the woollen cloths have parallels among the finds from the later levels of the PHSE site and, as has been shown above, a 14th-century date would be perfectly feasible for the tablet-woven band.

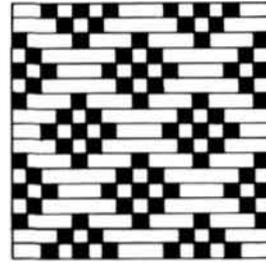
The most striking aspect of the woollen cloths from Kirk Close is the poor quality of many of the pieces. It is tempting to interpret these as native products, and the few examples of well-made 2/1 twill with nap as imported goods, perhaps from the flourishing cloth industry of the Low Countries. But the sample is, of course, too small to be a reliable indicator and a much greater body of evidence is needed before conclusions may be reached about the consumption and manufacture of textiles in medieval Scotland. It is interesting, however, that analysis of a range of pieces from the PHSE site (Bennett PHSE a) has revealed a low proportion showing any sign of having been dyed and a large number made from naturally pigmented wool—a discovery which suggests the market in Perth was not greatly quality conscious. Against this, there are the finds of silk which undoubtedly represent luxury goods. Silk was not manufactured in Britain at this period and both fabrics and yarn were imported from southern Europe. It is not impossible that the band was made here from imported materials, but as yet there are no positive indications that tablet weaving was practised in medieval Scotland.



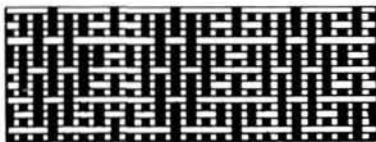
(i) Detail of bird design on 29c side 2



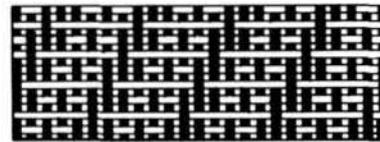
(ii) Lozenge twill side 1



(iii) Lozenge twill side 2



(iv) Lozenge twill ground



(v) 1.5 twill binding



ILL 96 : Textile, silk fragments: Catalogue No 29

SILK A MUTHESIUS

- 29 (a) 152 mm × 30 mm, (b) 215 mm × 160 mm, (c) 145 mm × 140 mm.

Three pieces of silk with the same technical structure. Probably one silk.

Worn on one face with wefts disarranged but overall in fair condition, one fragment (a) is entangled and matted. The pieces are decorated with two standing, facing birds (c 80 mm × 20 mm) separated by a vertical, decorative band. The birds have long tails and necks and thin, long legs and their wings are folded back. The decorative band between pairs of birds is patterned with V-shapes and inverted V-shapes and has a diamond motif about two thirds of the way down. The design is set in horizontal rows across the silk. The silk is monochrome, golden yellow, probably undyed. There seem to be no traces of any dye.

Double-faced weave with lozenge twill ground and chevron twill pattern. The weave is delicate and fine.

Warps. Binding warps only, single Z, golden yellow silk, 28 per 10 mm.

Wefts. Upper and lower weft, single, untwisted, golden yellow silk c 30 per 10 mm.

Spanish, 13th century.

Kirk Close; Context 2022; Accession F020, 021, 022; Period V B.

The Perth fabric is an important find being the only silk of its kind so far excavated in Great Britain. Two fragments of a tabby weave silk with weft floats from Aldgate, London, are not technically comparable. In technique it compares closely to silks from royal Spanish graves in the monastery of S. Maria de las Huelgas de Burgos, founded by Eleanor of England and King Alfonso VIII (d 1214). This allows the Perth silk and related silks in a number of museums and cathedral treasuries in Western Europe, to be dated to the 13th century. It is most probable that they were woven in Spain.

The largest fragment of Perth silk, 29(b), has traces of what seems to be dark brown silk thread and this could have been used for a seam. However, too little of the silk survives to be able to suggest what it was used for. It is difficult to be certain which side of the silk represents the front and which the back of the fabric and for this reason the terms "side 1" and "side 2" are used in this report. Side 1 is the more worn of the two sides.

The design on the Silk

The design is most prominent on side 2 of fragment 29(c) (Ill 95, 97). On 29(a), the smallest fragment of silk, only small sections of the background to the design can be seen. The design is visible on fragment 29(b) but it appears less clearly here than on 29(c). The design is made up of pairs of facing birds set in horizontal rows across the silk. A decorative, narrow, vertical band stands between the facing bird pairs. This band is patterned with inverted V-shapes and a projecting diamond shape is set about two thirds of the way down it. Ill 95 (i) shows one of the birds with part of the narrow vertical band to the left. The design on side 2 of 29(c) is slightly pulled to one side. The birds appear before a background of interlocking diamond shapes that form an all-over lozenge pattern.

The weave of the Silk

The Perth silk is woven in a plain weave that is self-patterning and highly decorative. There are no main warps. It can best be described as a double-faced weave with a lozenge twill ground and a chevron twill pattern (Donald King pers comm)

as opposed to lozenge twill with floats (Schmedding 1978, 45).

The two sides of the silk are not technically identical. A series of photographs was taken through a microscope to allow the weaving technique to be reconstructed. Ill 95 shows the technical structure of the lozenge twill ground (iv) and one of the twill bindings used for the design as seen on side 2 of the silk (v).

The direction of the points of binding of the twill changes across alternate birds and this gives a chevron or herringbone effect. The point at which the direction changes corresponds to the apex of the inverted V-motifs on the narrow vertical band between bird pairs.

Donald King has made the interesting suggestion that cloths of *areste*, as described in several English and French documents of the 13th century to early 14th century, refer to silks of exactly the type under discussion, (King 1968, 27-9).

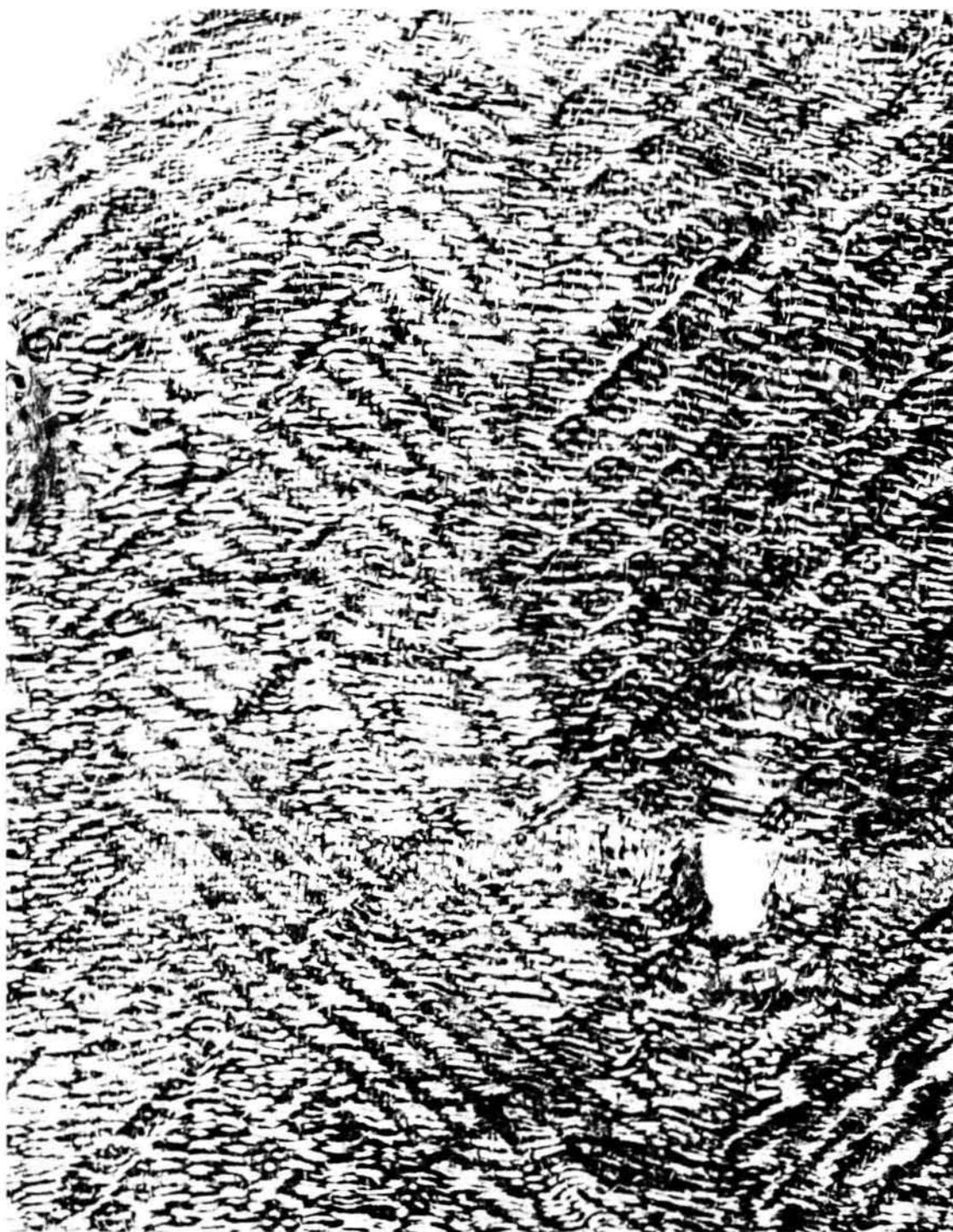
The dating of the silk

The identification of the term, cloth of *areste*, in 13th-century sources with double faced weaves of the Perth kind acts as one argument for dating the silk to the 13th century. The case for a 13th-century date is further strengthened by drawing parallels between the Perth silk and silks from dated royal Spanish graves at the monastery of S. Maria de las Huelgas mentioned earlier. Two technically closely comparable silks came from the graves of Alfonso VIII (d 1214) and of Fernando, son of Alfonso X (d 1284). The first silk has castle motifs and shields and the other silk has further heraldic devices that look like small baskets. The appearance of heraldic motifs suggests that the silks were woven locally rather than being imported. Silks have been found in earlier Spanish graves but they are not of the kind under discussion. These double-faced weave silks do not seem to have been popular in the 14th century judging by later Spanish grave finds. All the evidence suggests that this kind of silk was woven in Spain in the 13th century.

A much simpler form of self patterned weave appeared in different areas of the eastern Mediterranean up to the 9th century (Schmedding 1978, 166-8, No 135 for example), but this weave has little to do with the double-faced weave of the Perth silk and the related pieces from the royal Spanish graves (Gómez-Moreno 1946, 27, 33; May 1957, 87-9, Figs 59-60).

Technically very similar to the Perth silk are various examples in Swiss treasuries, (Schmedding 1978, 45, 188, 268, Nos 30, 157, 254 and cf No 255). Further comparable pieces are at Canterbury Cathedral; in the Detroit Institute of Arts; at the Kestner Museum, Hannover; at Sens Cathedral treasury; and at the Kunstgewerbe Museum, Schloss Charlottenburg, West Berlin. Paired birds appear on several of these silks including one in Hannover (Gronwoldt 1964, 141, No 35), that has been dated as early as the 12th century.

Unfortunately, none of the comparable silks, apart from those found in the royal Spanish graves, can be very firmly dated through circumstantial evidence. Perhaps stylistically closest to the Perth silk as well as technically comparable are two little known silks at Sens Cathedral and a further two silks, also practically unknown, at Schloss Charlottenburg, West Berlin (Sens inv.32.73, Sens inv.75; Berlin inv.91.224 and Berlin inv.K6032). All except the Berlin silk (K6032) have designs of paired facing birds similar to those of the Perth silk. The birds on the Berlin silk (K6032) are differently positioned, with only their heads turned to face one another. The birds of Sens silk (32.73) are particularly like those of the Perth silk, with their lengthy necks and tails and their long, thin legs. There are additions and variations in the general bird design; for instance, there are heraldic devices on the chests of the birds of Sens silk (32.73) but nevertheless, there is a distinctive style that binds the silks into one group. Undoubtedly the standard self-patterning effects, that is, the lozenge twill background contrasting with the chevron twill



ILL 97 : Textile, detail of bird design: Catalogue No 29

pattern areas which appear on all the silks are influential in drawing together these silks. The combination of the use of specific self-patterning techniques with the appearance of a standard type of bird motif makes it tempting to think that the silks may even have come from the same Spanish workshop, or at least from a series of workshops in Spain engaged in weaving the same kind of silk. This workshop or these workshops appear to have woven both monochrome and polychrome silks of the type under discussion. The Perth silk shows no traces of dye and those at the Detroit Institute of Arts also seem to be undyed (May 1957, 87). On the other hand, the Sens silk, those in Berlin and others in the Swiss treasuries are coloured, the combination of a deep blue and an orange being particularly popular.

The surviving silk suggest that Spain was exporting this kind of textile quite widely. It is a lightweight fabric that would have draped well. Such silks may have been fashionable in England in the 13th century remembering that in 1254 Edward I was married to Eleanor of Castile. The evidence so far suggests that the type of silk under discussion represents the survival of a relatively short-lived phase of production. If this kind of silk was still popular in the 14th century in England one might have expected to find scraps amongst the silk finds of the mid-14th century Baynard Castle Dock excavation. However, no traces of silk comparable to the Perth find were excavated. The Perth silk, therefore, is a valuable addition to this distinctive group of 13th-century Spanish textiles.

SOUTH METHVEN STREET

The site produced just two textile finds; fragments of a woven fabric and a length of yarn. Both are of wool.

- 30 (a) 130 mm × 75 mm, (b) 170 mm × 55 mm.
Two pieces of lightweight, unfelted and open-textured, mid-brown 2/1 twill.
system 1, firm Z spun yarn, 18-20 per 10 mm
system 2, similar, 16 per 10 mm
The yarn is fine and evenly spun, but like the examples of 2/1 twill without nap from the Kirk Close site (see above) the fabric has an irregular appearance—the result of a number of weaving errors. There is nothing against a 15th-century date.

South Methven Street; Context 107; Accession F017; Period II.

31 80 mm × 5 mm.

One piece of very heavy, dark-brown, 2-ply yarn; the yarn is Z spun and S plied, and composed of coarse, hairy wool. Similar yarn was used in the weaving of exceptionally coarse plain-woven fabrics which appear to have been made at least from the 10th to the 15th centuries (see above). A medieval date is therefore probable.

South Methven Street; Context 117; Accession F068; Period II.

TEXTILES FROM THE WATCHING BRIEFS, PERTH

Material recovered from workmen's trenches included a number of textiles, all in the form of rags. Although unstratified, the finds, taken as a group, may confidently be placed in the medieval period. As the majority are similar to fabrics recovered in quantity from other sites, notably from the PHSE site (Bennett PHSE a), it was felt that little was to be gained by a detailed examination of every piece. Instead, a sample was taken, consisting of the five textiles reported on below. Three are 2/1 diagonal twills, typical of the bulk of the finds, while the remaining two, a tabby and a 2/2 diagonal twill, were chosen, both as being unlike the others and as unusual among the generality of textiles excavated from Scotland.

The five textiles, all worn, and some showing clear signs of having been cut and sewn, are of wool. Each appears to have been fulled, that is pounded while wet to thicken and condense the fabric. Three have been additionally finished by napping: the fibres on one or both surfaces of the cloth have been raised by brushing, and levelled by shearing. This process wholly or partially obscures the weave, producing a soft, close surface—a popular finish during the Middle Ages. While all the fabrics have a degree of softness, only one, 33—the 2/2 twill, appears to be a true woollen, made entirely from yarn prepared by carding; in the remaining four the yarn in at least one system has probably been spun from wool prepared by the older method of combing.

Tabby

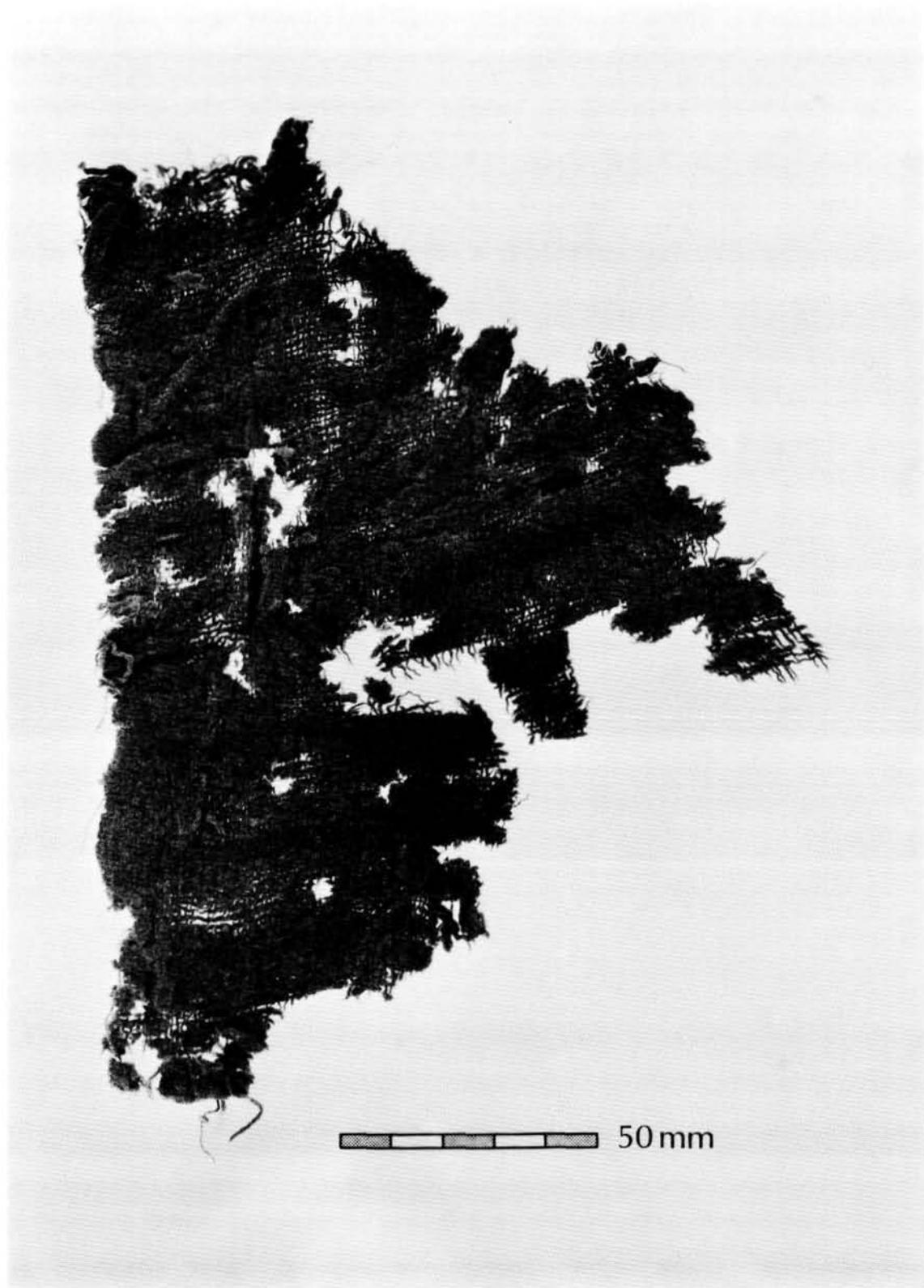
- 32 200 mm × 145 mm.
One piece of bright mid-brown tabby fabric, striped

in one system with brown and pink yarns, light to medium weight, fulled, and with traces of a light nap on both surfaces.

system 1, ?warp fine, probably combed, bright mid-brown Z spun yarn, 8 threads per 10 mm, widely spaced.

system 2, ?weft, S spun yarn similar in shade to system 1, but up to five times the diameter of the ?warp yarn and probably carded, about 7 per 10 mm; in addition, a finer S spun yarn, of similar weight to the ?warp, has been introduced in stripes, some dark pinkish-brown, and others mid-brown. The usual sequence is (12 threads of main yarn, 6 threads of finer brown yarn, 12 threads of main yarn, 6 threads of pink yarn) repeated. The finer threads are closely packed, giving a depth of about 3 mm to each narrow stripe.

A sample of each of the four yarns was examined by Mrs Helen Dalrymple of the Research Laboratory of the National Museum of Scotland, using ultra-violet/visible spectroscopy. The spectra for the pink yarn had puzzling features but were concluded to have been produced by madder which had undergone changes in composition due to burial. The remaining three samples gave negative results (although the main ?weft yarn did give a yellow solution when treated with acidified methanol) and it is considered likely that no dyes were present. Today, stained by burial, the two brown ?weft yarns appear the same colour, and only the change in texture consequent on the use of a



ILL. 98 : Textile, tabby fabric: Catalogue No 32

different yarn, more closely packed, allows the brown stripes to be detected. Since this feature would have been obscured by the raised nap, it must be supposed that, even if undyed, the two yarns were originally different shades, of natural brown and white, perhaps. 1-5 High Street; Context 400; Accession F317.

This find is unusual in more than one respect. Although Miss Crowfoot (1977, 374) describes napped tabbies woven from a combination of Z and S yarns as 'one of the commoner types of medieval fabric found in English medieval excavations', this is not so for Scotland. There are none, for example, among nearly 300 wool cloths from PHSE, a site covering the 12th to mid-14th centuries, and the only example that has been identified, from Elgin, is possibly of 16th-century date (Bennett unpublished). Striped fabrics are also rare from medieval Scotland: the PHSE site produced just two; a tabby (A12340c), without nap, and perhaps the remains of a narrow textile, and a 2/1 twill (A09.0077b) with possible weft-stripes in a finer yarn. Outside Scotland, finds of striped textiles are more common. A 2/2 twill with nap, and patterned with dark-red and dark-brown weft stripes in extended tabby, of similar weight to the Perth piece was recovered from a 13th-century level at Riverside Wall, London (Crowfoot 1980, 112-3), while a number of striped tabby fragments, of 14th- and 15th-century dates, are reported from other London sites (Pritchard 1982, 200 and fig 1); similar material from the 13th to 15th centuries is known from Holland, but it must be noted that, like most of the London finds, but unlike the Perth fragment, the weave of the stripes is extended (Vons-Comis 1982, 156 and fig 1). Interestingly, a class of textile known as *panni radiati* or *panni de radiato*, that is, striped cloth, is mentioned regularly in the Exchequer Rolls for the 14th century among the fabrics imported for the use of the royal household. In 1328, for example, twenty-three pieces were purchased in Flanders in preparation for the marriage of David and Johanna (ER, I, 119). On this occasion the cloth was to be made into robes for the knights; it may be added that striped cloths were used for the livery of the more junior servants at the court of Edward III of England (Staniland 1978, 230-1). This is not to say that the use of such cloths was limited to court circles, but it does suggest a textile of at least moderate quality. The Perth fragment, although not of the best kind, is sufficiently supple and well-made to have been suitable for fashionable clothing.

2/2 Twill

- 33 170 mm × 87 mm and 79 mm × 72 mm.
Two pieces of closely-woven, medium weight 2/2 diagonal twill, fulled and with a light nap on one surface; the colour, a rich dark-brown, suggests the piece has been dyed, but this has not been checked by analysis.
system 1, even, probably carded, Z spun yarn, 15 per 10 mm
system 2, similar yarn, 12 per 10 mm
One edge of piece E has been cut in a curve, and this and the adjacent straight edge have a seam line 3-7 mm from the edge. Two adjacent edges of piece H have been cut, and there is a seam line parallel to one of these, about 3 mm in. In neither case has sewing thread survived.
1-5 High Street; Context 400; Accession F218e and F218h.

This close-textured fabric, of good quality, and again suitable for clothing, is without parallel from medieval Scotland. While there are a number of well-made 2/2 twills woven from Z spun yarn from PHSE, these are predomi-

nantly worsteds, and the one example with a nap (A12553d) has a strange shaggy surface quite unlike the smooth finish of the pieces under consideration. Looking to England, examples of this description are not common, but a few are reported from later medieval levels. There are two 2/2 twills, ZZ, from Southampton: one from the last decade of the 13th century, is of exceptional quality and has a very high thread count (32/24), but the other, from a pit c1340-50, is of comparable weight to the Perth fragments and is described as heavily fulled (Crowfoot 1975, 335, 338-9). Some 2/2 ZZ woollens have also come from 15th century and later levels at Newcastle (Walton 1981, 193-4). In view of the small number of examples available, judgement must be tentative, but it may be that these Perth fragments post-date much of the PHSE material, that is, they should be placed in the mid-14th century or later.

2/1 Twill

2/1 twill, ZS weaves, with a fairly low thread count but of a suitable weight for clothing or light blankets, are already familiar from medieval Scotland; a disparity between the Z and S yarn and a mediocre appearance are common features. Fragments of this description have been recovered from 13th-14th century levels in Aberdeen (Bennett 1982, 199), and 14th-15th century deposits in Kirk Close, Perth, although none showed obvious signs of finishing. Among the large body of twills from PHSE, however, fulled cloths of this type, both with and without nap, are well represented, especially in the later 13th-century and early 14th-century levels. They are sufficiently common, indeed, to suggest local, or at least Eastern Scottish, manufacture.

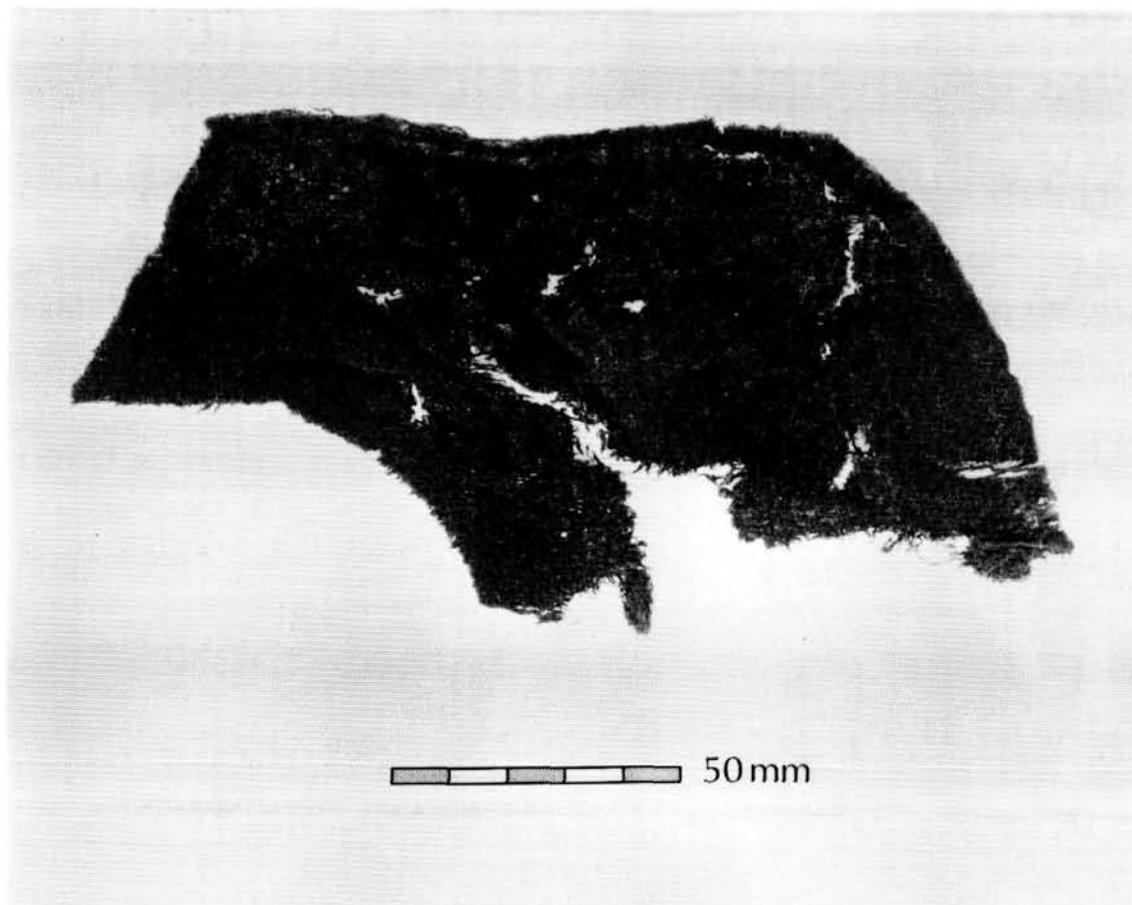
- 34 155 mm × 85 mm.
One piece of mid-brown, light to medium weight 2/1 diagonal twill, fulled but not napped, of slightly irregular appearance.
system 1, plump, probably combed, Z spun yarn, 10 per 10 mm
system 2, S spun yarn, preparation uncertain, more variable in thickness and tension. 9-11 per 10 mm
1-5 High Street; Context 400; Accession F269d.
- 35 95 mm × 65 mm.
One piece of light to medium weight 2/1 diagonal twill, similar in colour to 33 but heavier and more closely-woven, fulled, and with a light nap on the surface on which the S yarn predominates.
system 1, smooth, fairly firm, Z spun yarn probably prepared by combing, 11 per 10 mm
system 2, slightly heavier and less firm, S spun yarn, preparation uncertain, about 8 per 10 mm
1-5 High Street; Context 400; Accession F269f.
- 36 90 mm × 80 mm.
One piece of mid-brown, medium weight, close-textured 2/1 diagonal twill of lumpy appearance, fulled, and with a light nap, now much worn on the surface on which the S spun threads predominate.
system 1, Z spun yarn, irregular in thickness and tension, about 10 per 10 mm
system 2, similar S spun yarn, about 8 per 10 mm
1-5 High Street; Context 700; Accession F320.

Conclusion

The fragments are best interpreted as the discarded remnants of worn-out clothing. A 14th-century date is possible for all the pieces, although the 2/1 twills could be a little earlier and

the 2/2 twill and tabby rather later. The origin of the 2/2 twill is uncertain, but the 2/1 twills may well have been locally made. Although madder was certainly available to Scottish

dyers (Ancient Burgh Laws, 105) the balance of evidence is in favour of the striped tabby being an import, just possibly from Flanders.



ILL 99 : Textile, 2/2 twill: Catalogue No 33

5:16 LEATHER C THOMAS

KIRK CLOSE

The leather consisted of 321 fragments of shoes, two decorated sheaths, twenty-seven straps, 705 offcuts, 217 scraps and seventy-six miscellaneous pieces. The shoes, particularly the uppers, reflect a narrow range of styles. Parallels for most of the leather can be found among the finds from PHSE (1975-77) (Thomas PHSE) and from Threave Castle, Galloway (Thomas 1981), and from England, the Netherlands and Scandinavia.

The catalogue of illustrated leather (1-40) is in this text. The catalogue of the unillustrated leather (41-363) is in microfiche in Table 72mf (3: A9-D14).

SHOES

In this report, reference is made to the sole and upper types defined in the PHSE report (Thomas PHSE). For a brief summary of these types see Ill 100.

Construction

The shoes are of turnshoe construction; that is, they were made inside out, with the flesh side outwards, "by sewing the lasting margin of the upper to the edge of a single sole".

PERTH HIGH STREET		KIRK CLOSE		PERTH HIGH STREET		KIRK CLOSE	
APPROX DATE	PERIOD/PHASE LEATHER STRATI-TYPE GRAPHIC	APPROX DATE	PERIOD/PHASE LEATHER STRATI-TYPE GRAPHIC	APPROX DATE	PERIOD/PHASE LEATHER STRATI-TYPE GRAPHIC	APPROX DATE	PERIOD/PHASE LEATHER STRATI-TYPE GRAPHIC
1300	E	1400	V	1300	E	1200	I
1250	D	↑	IV	1250	D	—	—
1200	C	—	III	1200	C	—	—
1150	B	—	II	1150	B	—	—
1100	A	—	I	1100	A	—	—

SOLE TYPE		UPPER TYPE	
SOLE TYPE	UPPER TYPE	SOLE TYPE	UPPER TYPE
1		A	
2		B	
3		C	
4		D	
5		E	
6		F	
7		G	
8		H	
9		J	
		K	

ILL 100 : Leather, sole and upper types

The shoe was then turned the right way round, with the grain side of the leather on the outside, and with the sole/upper seam on the inside (Thornton 1973b, 47). The soles all have edge-flesh stitching channels, with stitch lengths of 4-7 mm. The uppers have lasting margins with grain to flesh stitching channels with stitch lengths of 4-7 mm. Fragments of upper were joined together with butted edge-flesh seams and with a stitch length of 3-4 mm. Over 40 fragments of rands were found, some *in situ*. These are wedge-shaped strips of leather, included in a sole-upper seam, to strengthen it and make it more waterproof. Parts of the rand attached to sole 49 are particularly wide, possibly to protect the upper. Woollen thread survives on twelve examples. The use of wool is most unusual, and is known only from PHSE (1975-77) and from Dungiven in Ulster (Bennett PHSE b). The normal thread for shoes was linen, but only one example of linen has been found in any of the recent excavations in Perth (see 6:3 Botanical Remains). The occurrence of wool in all phases of the PHSE site (early 12th to mid-14th century) suggests that it was not only used during a temporary shortage of linen. The absence of linen may be explained by soil conditions. (For further details of shoe construction see Thornton 1973a, 2-13; 1973b, 44-8).

Repairs

Worn soles were patched with clump soles which were attached to the underside of the original sole by a tunnel stitch, traces of which survive on seven soles. Three clump soles were also found. Four worn soles, 74, 75, 100 and 111 had worn edge-flesh stitching channels partially replaced, two with additional holes, the third with grain to flesh holes. Two uppers, 17 and 19 have splits which have been stitched together.

Soles (III 101, 102)

121 sole fragments survive; these include complete soles, foreparts, seats and small fragments. Thirty soles can be assigned to PHSE report sole Types 2, 3 and 4, while another five possibly belong to Types 3, 4 or 5. Types 8 and 9, separate seats and foreparts, are represented by eight examples (Table 73).

Type 2: The four Type 2 soles have definite waists and curved foreparts ending in oval toes. These soles were found in Periods I, II and V. Soles of this type were found in all periods at PHSE and were mostly of 13th-century date. Other parallels are known from King's Lynn, Period I, c1050-1250 (Clarke and Carter 1977, 355-7); Custom House site, London, early-mid-14th century (Tatton-Brown 1975, 157, fig 27, 9, 22, 43, 51, 52); Barbican ditch, Oxford, 13th-15th century (Hassall 1976, 277, fig 18 nos 6, 9, 10); and from Durham (Carver 1979, 31-3, fig 19, 20).

Type 3: Type 3 soles, of which there are twenty examples, are of a more natural shape, with pronounced waists and curved foreparts inclined inwards slightly, and ending in oval toes. They were found in Periods I, II, III, IV and V. This was the most common type of sole at PHSE, where it dated from the 12th to the 14th century, but belonged predominantly to the second half of the 13th century. Soles of this type were also found at Weoley Castle, Birmingham, 13th century (Oswald 1963, 132); Low Petergate, York, 12th-14th century (Goodfellow and Thornton 1972, 97-104, figs 23-26); Custom House site, London, early-mid 14th century (Tatton-Brown 1975, 154-8); King's Lynn, c1250-1350 (Clarke and Carter 1977, 357-60); and the Barbican ditch, Oxford, 13th-15th century (Hassall 1976, 275-8).

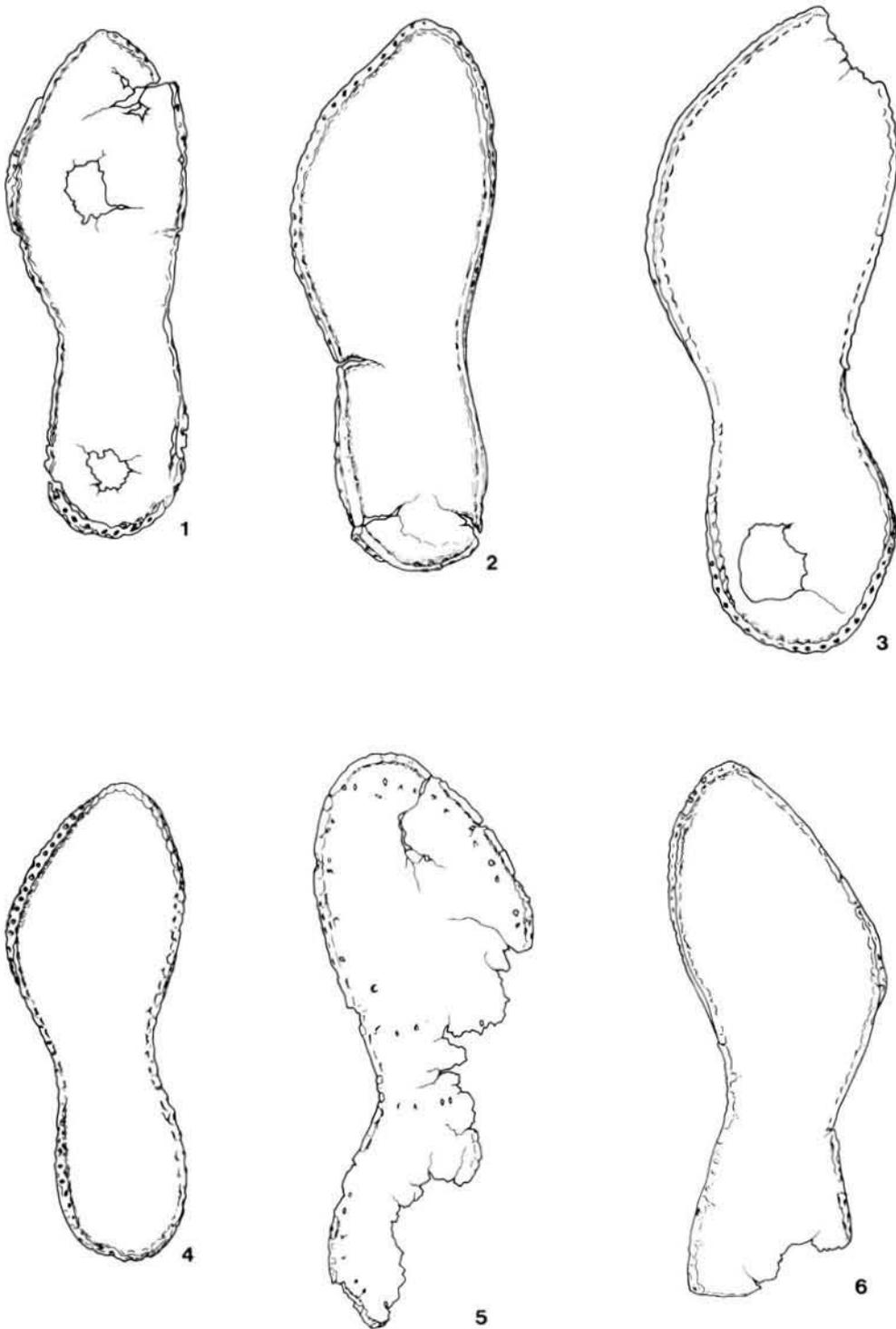
Type 4: The six Type 4 soles are slender and elegant, with narrow waists and pointed foreparts. They occurred in Periods III, IV and V. At PHSE they ranged in date from the late 12th to the mid-14th century, with half of them belonging to the 14th century. Other parallels include Threave Castle, Galloway, late 14th-early 15th century (Thomas 1981, 123-4); King's Lynn, c1350-1500 (Clarke and Carter 1977, 360-1, fig 168, nos 63 and 64); the Barbican ditch, Oxford, 13th-15th century (Hassall 1976, 277-8, fig 18.8); Dover, early 14th century (Cook et al 1969, 101-4, fig 20); and Southampton, late 13th century (Platt and Coleman-Smith 1975, 296-8, fig 261, nos 250-4).

Types 3, 4 and 5: Three soles are not complete enough to be assigned definitely to a single type. 58, 59 and 60 are perhaps of Types 3, 4 or 5. Type 5 soles are similar to those of Type 4, with pointed toes but have broader, more curved

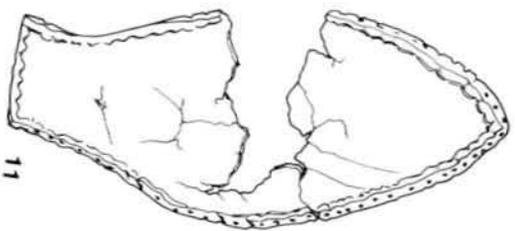
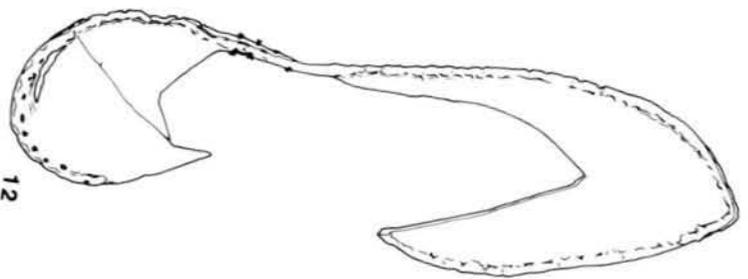
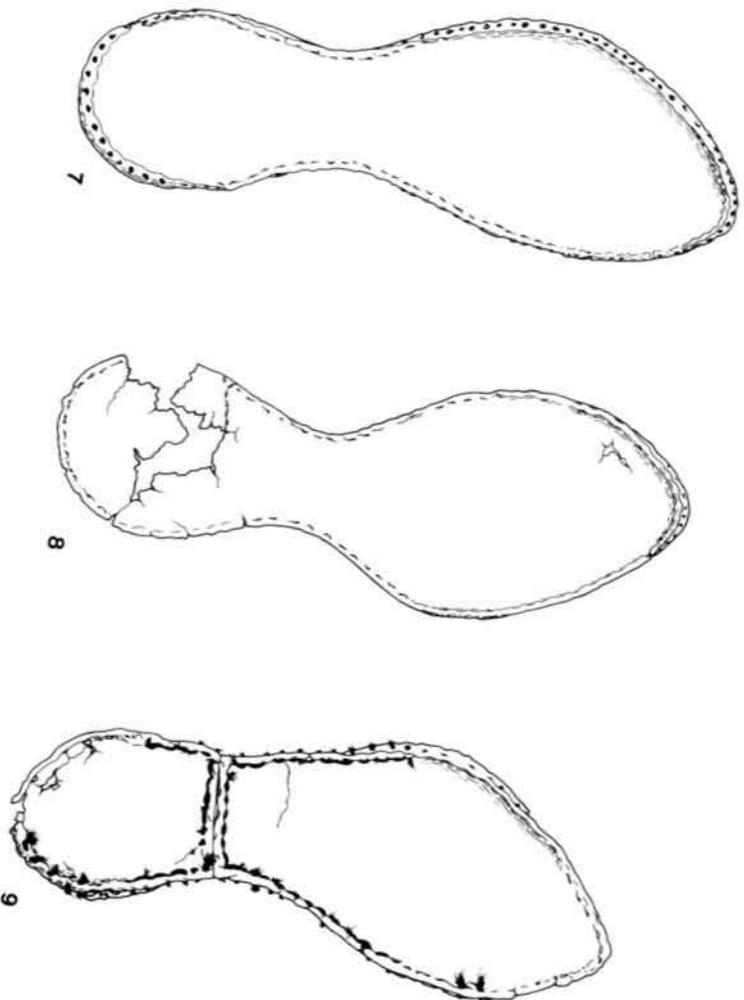
TABLE 73 LEATHER. TABLE OF TYPES BY PERIOD.

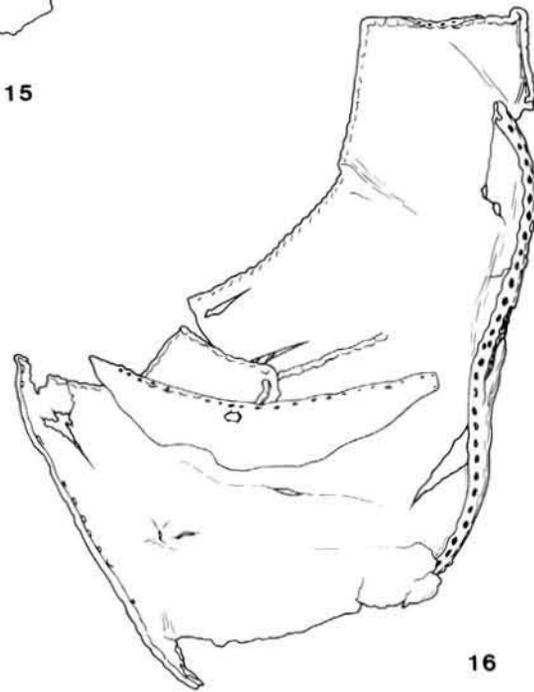
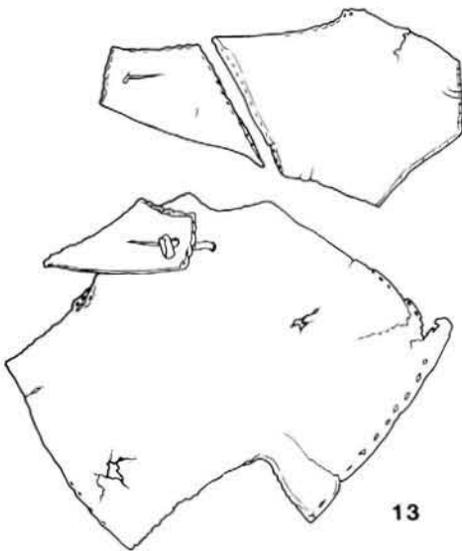
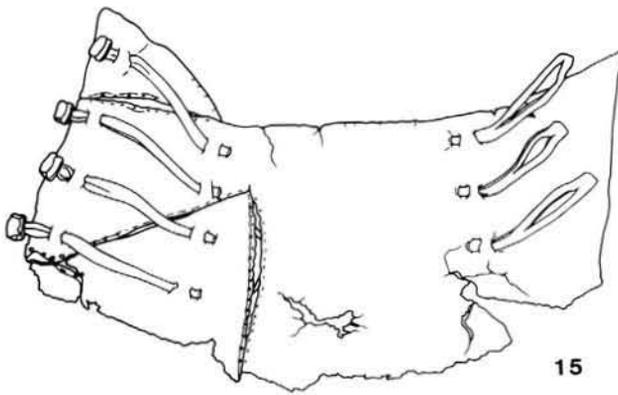
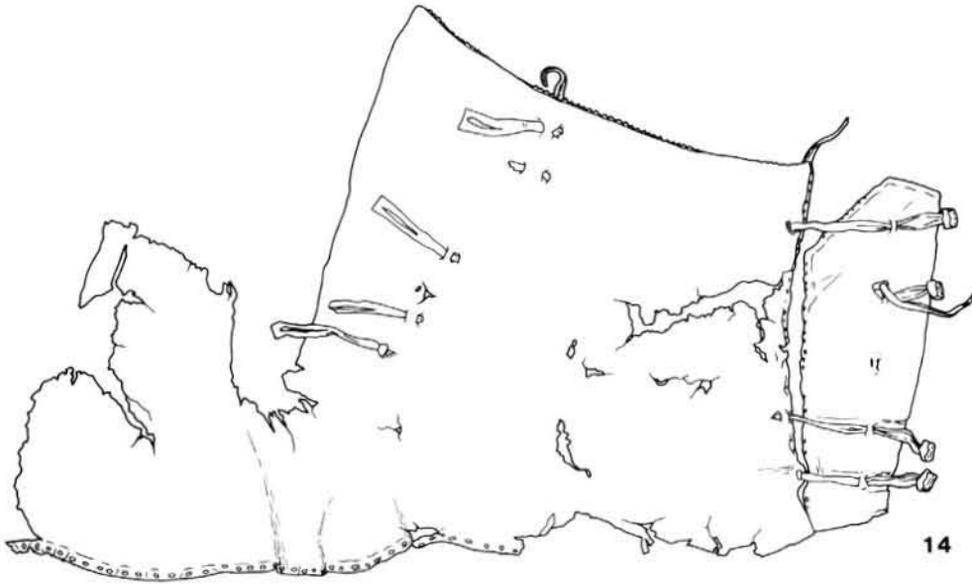
KIRK CLOSE

	Period						
	I	II	III	IV	V	VI	U/S
SOLES							
Type 2	1	2	—	—	1	—	—
Type 3	3	4	4	6	2	—	1
Type 4	—	—	2	1	3	—	—
Types 8 & 9	1	2	1	2	7	1	—
Other sole fragments	2	4	8	10	14	8	2
UPPERS							
Type K	—	—	1	5	4	1	2
Vamps with thong	—	—	—	1	—	1	—
Other upper fragments	7	9	9	24	34	6	9
SHEATHS							
	—	—	—	1	2	1	—
STRAPS							
Folded once	1	1	—	3	1	—	1
Of single thickness	—	2	4	—	9	1	—
Fragments with oversewn edges	—	2	15	9	7	—	—
RANDS							
	2	5	3	5	5	—	1
MISCELLANEA							
	2	—	6	17	10	6	2



ILL. 101 : Leather, sole types 2 and 3, Scale 1/3





ILL. 103 : Leather, type K uppers, Scale 1/3

foreparts. At PHSE they dated from c1250-1350. These soles came from Period V.

Types 8 and 9: Six seats and one forepart have been stitched across the waist with an edge-flesh stitching channel to form composite soles. Another fragment, 70, with only the waist portion surviving, could be either a seat or forepart. No matching pairs were found.

Similar seats and foreparts are known from PHSE, predominantly dated to the late 13th/mid-14th century (Thomas PHSE); King's Lynn, 1250-1350 (Clarke and Carter 1977, 360, fig 168, nos 68-70); Dover, late 14th century (Cook et al 1969, 103-4, fig 20, 16, 17); Custom House site, London, early 14th century (Tatton-Brown 1975, 156-8, fig 27, nos 47, 74); and Low Petergate, York, 12th-14th century (Goodfellow and Thornton 1972, 104, fig 36, no 48). Such composite soles are not, however, generally common. It was an economical style using small pieces of leather, especially the better parts of old soles. On the other hand, it was not very strong as the seam joining seat and forepart would have been subjected to great strain. It could represent either original construction or cobbling, that is, the manufacture of new shoes out of old ones.

A comparison of the sole types has shown that Type 3 was by far the most numerous, with only a few examples of Types 2 and 4. This fact, together with the complete absence of Type 1 soles which were very common in 12th-century contexts at PHSE, suggests that the Kirk Close soles are dateable, stylistically, to the 13th/14th centuries. This is in agreement with other evidence from the site.

Uppers (Ill 103, 104)

The 145 fragments of uppers comprise almost complete boots, vamps, quarters, latches, stiffeners and 117 other pieces. Five of the more complete uppers and six other fragments almost certainly belong to PHSE, Upper Type K, while four vamps with thongs could belong to either Type K or Type B.

Type K: comprises high shoes and boots with central fastenings, consisting of a combination of slits and toggles on the latches, occasionally with a thong emerging from a single hole at the vamp throat. Five uppers are definitely of this type, while another six pieces are most probably fragments of such uppers.

17 has three horizontal slits on one latchet and one horizontal slit, below two horizontal thongs, on the other latchet. Each thong has been threaded through a tunnel hole and a single hole; the end of one thong has been looped through itself. The other ends of the thongs are now broken, but they almost certainly ended in toggles. There is a single hole at the vamp throat, with a short length of thong threaded through it. 13 has a similar but simpler arrangement of toggles and slits, with a thong, knotted on the flesh side, emerging out of a single hole at the vamp throat, and passing through a T-shaped slit in one of the latchets, where the thong ends in a toggle. The second latchet has a matching T-shaped slit. 16 is also of similar design, with a single hole at the vamp throat and two horizontal slits on the surviving latchet. A toggle emerges out of the lower slit; its thong passes through the hole at vamp throat and then through a tunnel hole in the semi-circular tongue. 14 and 15, on the other hand, have a more elaborate arrangement, with toggles matched by opposing thongs ending in loops. The six other fragments, five with toggles, and one with a loop, are probably also parts of Type K uppers.

14 and 16 are basically one-piece uppers with vamp, quarters and one latchet made out of one piece of leather, and with small additional fragments forming the second latchets, side-pieces and, in the case of 16, a tongue. 17 is also a one-piece upper but is unusual in having both latchets as part of the large vamp and quarters fragment. 13 is an

upper of composite design, with separate vamp and quarter and with two separate latchets.

One of these uppers was found in a Period III context; four were in a Period IV pit (over S3), while five were found in Period V middens. Two were unstratified.

Eleven of the fourteen Type K uppers from PHSE are very similar to the Kirk Close examples. All are of late 13th- to mid-14th-century date. Other comparable uppers were found at the Barbican ditch, Oxford, 13th to 15th century (Hassall 1976, 279-80, fig 19, nos 24, 26, 31); and at the Custom House site, London, early to mid-14th century (Tatton-Brown 1975, 159-60, fig 28, nos 77, 78, 80). Boots with similar fastenings are also known from the Netherlands, as, for example, a button-boot from Amsterdam, of 14th to 16th-century date, with pear-shaped holes on one latchet, knotted thongs with long trailing ends on the other, and an oval hole with a loop emerging from it on the vamp throat. Groenman-Van Waateringe (1975, 30-1, fig 9, 4) suggests that the long ends of the thongs might have been threaded through the loop at vamp throat.

Vamps with Thong-hole at Vamp Throat (Ill 104): Four uppers, 19, 150, 151 and 152 have a single thong-hole at vamp throat. Thongs survive in 19, 151 and 152. These are probably parts of Type K uppers but as no latchets survive, it is possible that they are Type B uppers. The latter are boots of one-piece design, with wrap-around thongs, secured by tunnel holes on each side of the quarters; many examples also have a single thong hole at vamp throat. At PHSE these uppers ranged in date from the early 12th century to the mid-13th century but were predominantly of 12th-century date. Other published parallels include Coventry (Thomas 1980, 14, 55, 130); Durham, Saxon-Norman (Carver 1979, 30); and Low Petergate, York, 12th to 14th century (Goodfellow and Thornton 1972, 97, 102, fig 25, no 31). Three of these vamps belonged to Period IV; the fourth was found in a Period VI context.

Tongue: 20 is a triangular fragment with a thong threaded through a tunnel hole. It is similar to, but smaller than, the tongue on 16. There appears to be no published parallel. Both were found in a Period IV context.

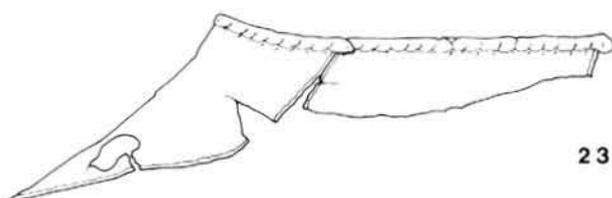
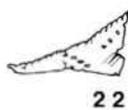
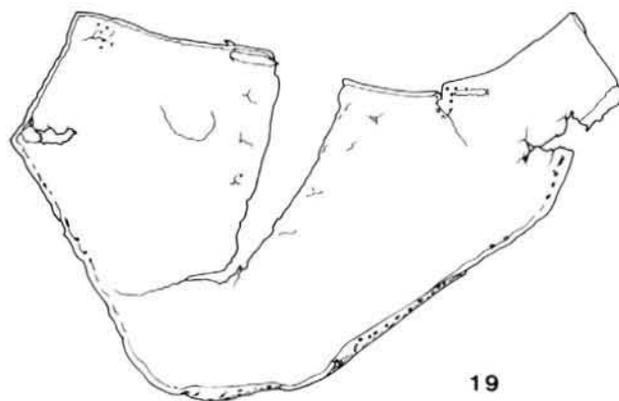
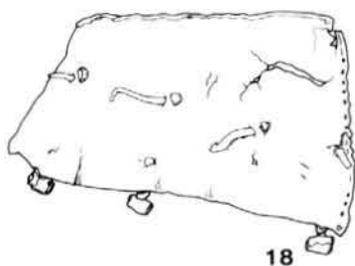
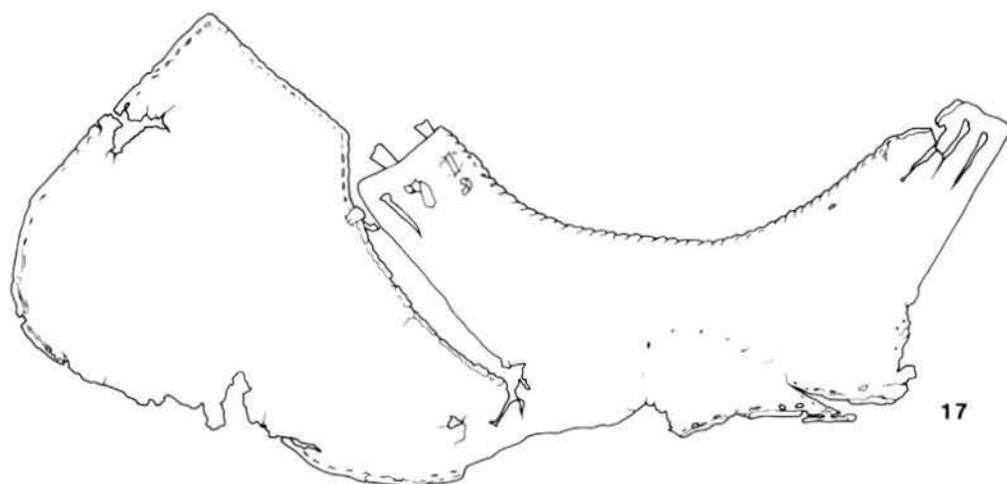
Tie-hole Strengtheners: 21 is almost certainly a strengthener or facing for the tie-holes on an upper with side or central fastening, or on an item of clothing. Another strengthener survives with its counterpart, probably part of clothing (see *Miscellanea*).

Although no strengtheners were found at PHSE, their use was demonstrated by rows of tunnel stitching on the flesh side of uppers with tie-holes, (Types C and D). These uppers were mainly of 13th-century date. Tie-hole strengtheners have been found at the Barbican ditch, Oxford, 13th to 15th century (Hassall 1976, 281, fig 20, No 39); the Customs House site, London, early-mid-14th century (Tatton-Brown 1975, 159, Nos 86, 88, fig 28, nos 86, 89), King's Lynn, c1050-1350 (Clarke and Carter 1977, 361, fig 168, no 79, 363) and at Coventry (Thomas 1980, 13,14).

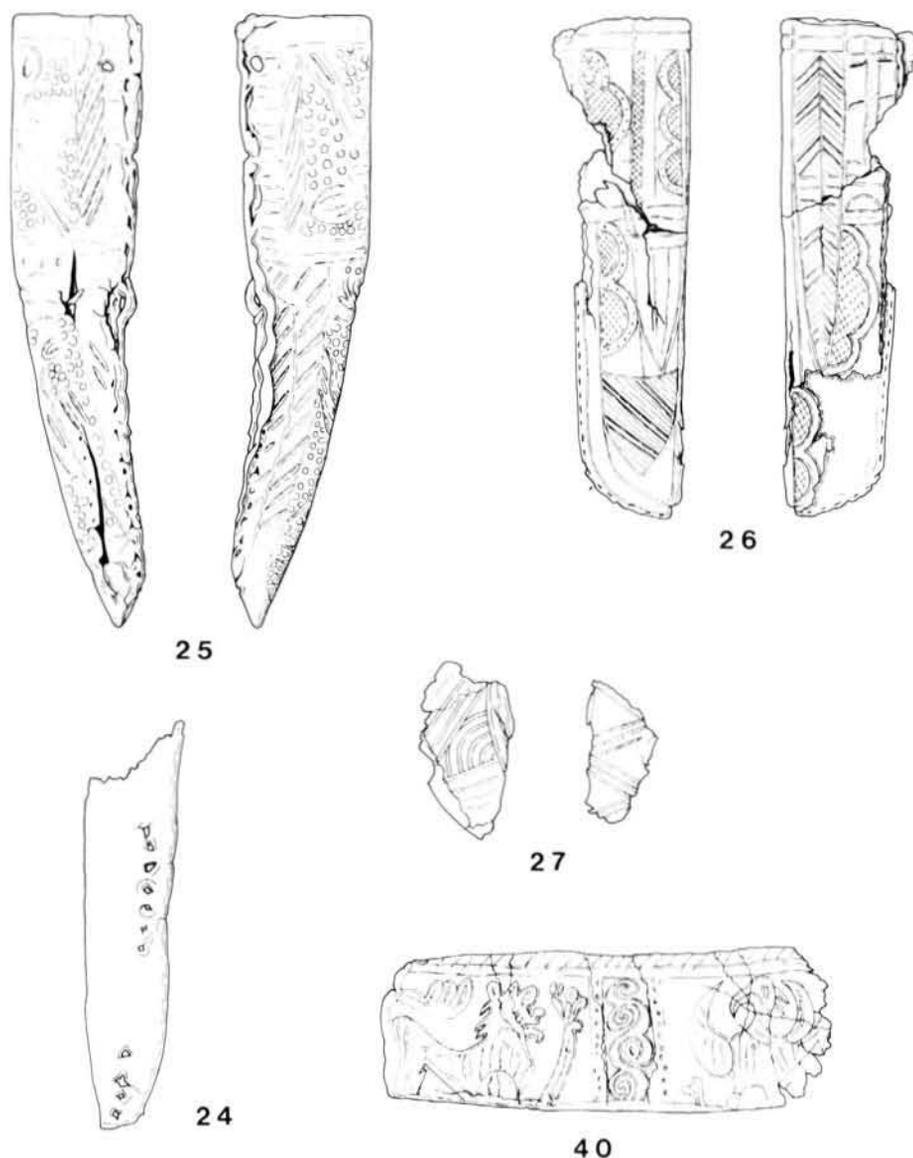
Stiffeners: Six triangular heel-stiffeners survive, without their parent uppers. All have traces of a hem stitch on the two diagonal edges and a lasting margin with grain to flesh stitching channel on the bottom edge. Tunnel stitching for stiffeners on the flesh side of the quarters survives on several fragments of upper.

Other fragments of upper include six vamps, four quarters, one latchet and 117 unidentifiable pieces.

As discussed above, only a few of the uppers can definitely be assigned to any of the upper types defined in the PHSE report. These all belong to Type K. The parallels quoted are mainly of late 13th- to 14th-century date. The only possible examples of earlier medieval boots with wrap-around thonging (Type B) are the vamps with a thong hole at the throat; these could equally be Type K.



ILL. 104 : Leather, type K uppers and vamps, Scale 1/3



ILL. 105 : Leather, sheaths and decorated fragments, Scale 1/2

SHEATHS (Ill 105)

Two almost complete decorated sheaths were found (25 and 26). Both are small, and were almost certainly designed to hold a man's everyday knife.

Construction

Each sheath has been formed out of a single piece of leather, which has been folded once and stitched with a grain to flesh seam. 26 has tunnel holes for attachment to belt, clothing or larger sheath, while 25 has an oval hole, penetrating both sides of the sheath. The latter tapers more than the former. Neither had a projecting upper part.

Decoration

26 is decorated simply and clearly, with shields and arcading. Imitation of armorial bearings is a common feature of

medieval sheaths; examples with simple shields and/or arcading have been found at the Custom House site, London, early 14th century (Tatton-Brown 1975, 161-4, fig 29, 110, 111, fig 30, 120); the Barbican ditch, Oxford, 13th to 15th century (Hassall 1976, 294, fig 25, nos 4, 6) and at York (Richardson 1959, 102-4). 25 is decorated with punched dots and engraved lines; the pattern is not clear and is probably meaningless. The closest parallel is probably a sheath from King's Lynn c1250-1350 (Clarke and Carter 1977, 364, fig 169, no 92), decorated with punched dots on one side and diagonal strokes on the other. Examples of punched dots from PHSE (Thomas PHSE) include a sheath and a strap decorated with rosettes.

These sheaths were found in Periods V and VI. Other fragments which may be parts of sheaths include two small pieces, 27 is decorated with embossed lines and 24, a tapering fragment, was originally probably folded with two vertical rows of four and seven grain to flesh holes.

STRAPS (Ill 106)

Bindings-Strips Folded Once

Eight strips of leather are almost certainly bindings for top edges of uppers and for clothing. They were formed of long strips of leather folded once. The long cut edges were stitched to the shoe or article of clothing, as demonstrated by the stitch holes and scallop pattern on both the bindings and the uppers. Lengths vary between 80 mm and 240 mm, widths between 4 mm and 15 mm. One unusual fragment, 267 has, on both sides, two rows of short diagonal strokes. These strips were found in Periods I, II, IV, V and Unstrat. Similar binding strips were found at PHSE, early 12th to mid-14th century (Thomas PHSE) and at King's Lynn, 11th to 13th century (Clarke and Carter 1977, 354-5, fig 164, no 10, fig 165, nos 20, 21).

Straps of Single Thickness

Twelve straps were formed of long strips of leather of single thickness, each with two long cut edges. Two other strips, one with oversewn edges, the other with two edge-flesh stitching channels, may also have been straps. Nine of these straps were decorated with a row of short diagonal strokes parallel to each long edge; 279 had two extra rows of strokes, while 274 had only a single row. 28 also had two engraved lines. 275 had a row of round holes parallel to each long edge, four fragments also have two or three round holes, most probably for the pin of a buckle (29, 270, 278, 280 and 281). 273 has been folded; both ends have been stitched together, with a grain to flesh seam. They were found in Periods III, IV, V and VI.

Thirty-three straps of this type were found at PHSE, in contexts of all periods but especially from those dating to the second half of the 13th century. Other parallels include King's Lynn (Clarke and Carter 1977, 361-2, fig 168, nos 76-82); Custom House site, London, early to mid-14th

century (Tatton-Brown 1975, 163, fig 30, nos 125, 126); Southampton, late 13th century (Platt and Coleman Smith 1975, fig 162, nos 2158-9, fig 163, nos 2160-1); and Oxford, 13th to 15th century (Hassall 1976, 280-2, fig 19, no 32-33, fig 20, no 38, 287, fig 2, no 15).

Offcuts and Scraps

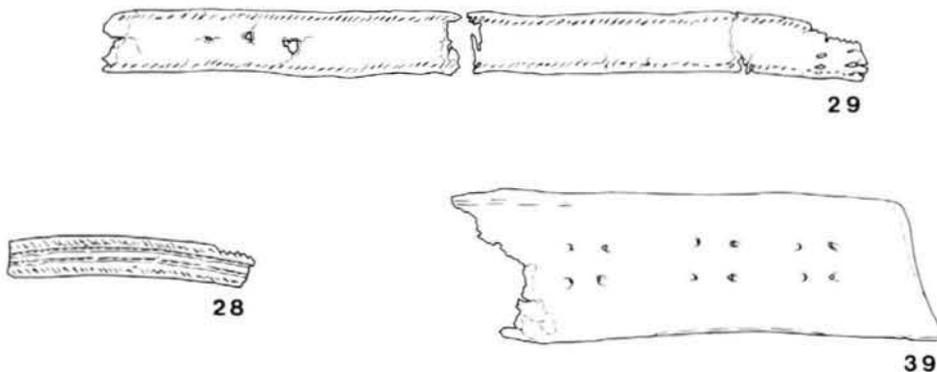
690 offcuts and 214 unstitched scraps were found. The offcuts include triangles, rectangles, circles, long thin strips and many irregular shapes. The triangles, in particular, are of thick, unworn leather, suggesting that they are the remnants from the cutting-out of soles from new leather. Other more worn offcuts are probably fragments of objects cut up for re-use. Offcuts and scraps were found in all periods.

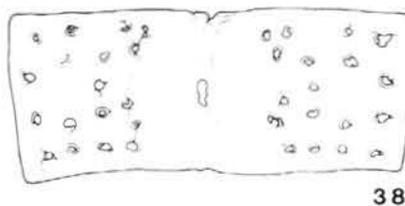
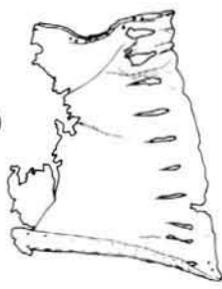
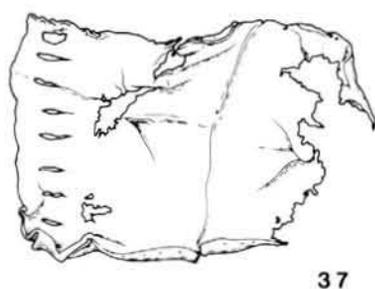
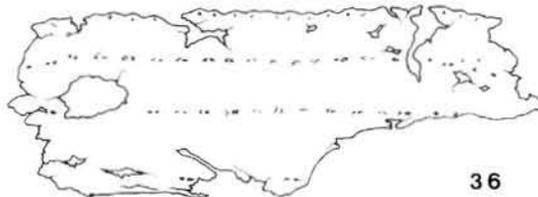
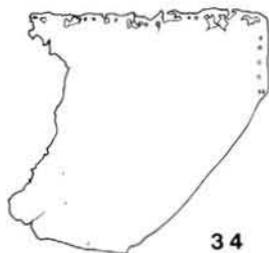
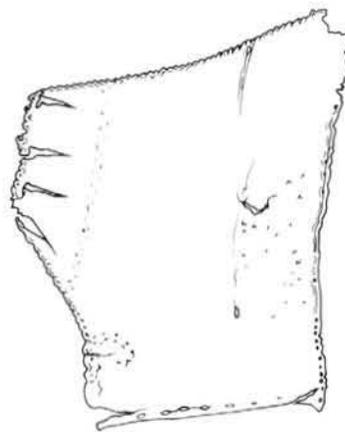
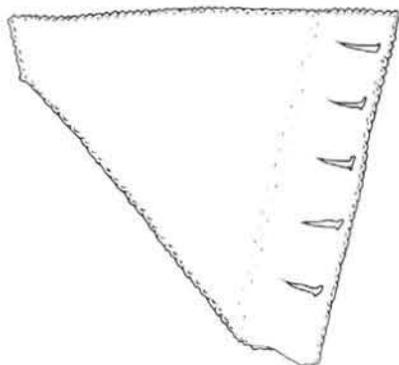
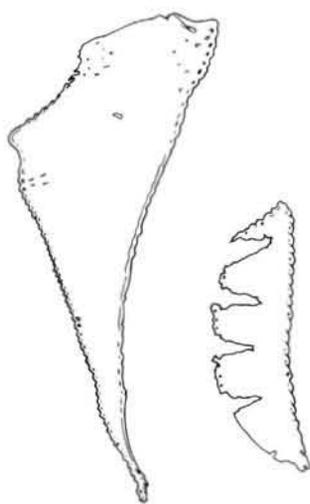
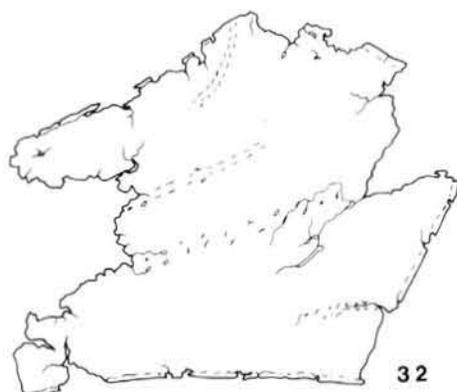
TABLE 74 LEATHER. TABLE OF OFFCUTS AND SCRAPS BY PERIOD. KIRK CLOSE

I Period	53 offcuts, 19 scraps
II Period	174 offcuts, 36 scraps
III Period	74 offcuts, 29 scraps
IV Period	154 offcuts, 56 scraps
V Period	157 offcuts, 50 scraps
VI Period	63 offcuts, 17 scraps

Fragments with Oversewn Edges

There were thirty-three irregular fragments with one or more oversewn edges. Twenty-seven of these examples were very loosely oversewn, with a long stitch length of 8-14 mm. 31 has three partially folded and oversewn edges, while 284 has two at right angles to each other. Most of these fragments are very thin, 0.75 mm to 1.00 mm. Only five are 1.5 mm to 2.0 mm thick. Their function is not known, they are not the top edges of uppers. They were found in contexts of Periods II, III, IV and V.





ILL 107 : Leather, miscellaneous, Scale 1/3

Miscellanea (Ill 107)

The thirty-nine miscellaneous fragments include six stitched fragments which might be part of clothing. 33, for instance, has loopholes and a matching strengthener. Other items include two fragments folded in the shape of a finger; these are possibly parts of gloves or finger-stalls (35, 320).

CONCLUSION

The leather discussed above forms a fairly typical assemblage with shoes, sheaths, straps and waste material all well represented. It differs from the PHSE material in having so few sole and upper types. The later date range of Kirk Close (13th to 14th century) probably explains the absence of Type 1 soles and Types A and B wrap-around boots. It is surprising, however, that no side-laced shoes or boots (Types C and D) were found as, at the PHSE, they dated to the 13th to 14th centuries. This assemblage is particularly distinguished, on the other hand, by so many well-preserved Type K uppers, which were poorly represented at the PHSE.

The presence of waste material, and of worn cut shoes, suggests that leather working may have been carried out on or near to the site. Cobbling, the repairing of shoes and manufacture of new out of old, is indicated by the many worn fragments which appear to have been cut to allow re-use of the less worn part, while cordwaining, the manufacture of shoes from new leather, is suggested by the thick triangular offcuts. The large quantities of leather found in S4 suggest that it might have been a workshop. The leather in the pits and middens is probably cobbling waste.

However, it is also possible that this represents leather-workers' waste brought from elsewhere for infill. Excavations at Bristol have shown that a similar assemblage of leather was used to backfill two doorways (Thomas forthcoming). Ordinary domestic rubbish would also have contained a considerable amount of leather, given the importance and ubiquity of leather. Even patching or re-use need not necessarily imply commercial working.

S4 contains no other indications of leather-working. Greek, Roman and medieval illustrations of shoe-makers at work feature benches, wall-mounted tool racks, and finished products hanging on walls (Burford 1972, plates 4-7;

Salzmann, 1923, 255-7). The principal cutting tool would have been a half moon or crescent-shaped blade, as an ordinary pointed blade would have become blunt too quickly. Awls were essential for piercing the leather, prior to stitching with bone or metal needles (Hodges 1964, 151-2). Wooden lasts might also have been used, although Thornton suggests that they were not essential in the manufacture of turnshoes (Thompson 1967, Thornton 1973a).

It is possible that the cobbler or cordwainer tanned his own leather. Salzmann quotes evidence to that effect from Shrewsbury, dating to 1323. By 1351, however, tanning and other branches of leather working were then treated as distinct trades (Salzmann 1923, 246). It is, however, most unlikely that leather was tanned on the Kirk Close site as tanners required a reliable source of running water and abundant space (Salzmann 1923, 247-8; Radley 1971, 50-1). Hides had to be stretched out over a bench or beam, to have the fatty tissue scraped off with a two-handled scudding knife. They were then soaked in urine or quicklime, to facilitate the removal of the hair and epidermis. After this they were soaked for approximately a year in pits or vats containing the tanning liquor. The degree of delamination of much of the Kirk Close leather suggests inadequate soaking (Hodges 1964, 148-9).

As Table 75 shows, nearly all the leather which has been identified is cattlehide. A small number of uppers were made of sheep or goat-skin probably the latter. Cattlehide is thicker than sheep or goat-skin, and therefore more suitable for soles and heavy uppers.

Most of the soles were too worn to be identified. The follicle patterns on the offcuts, on the other hand, were very clear, as the leather was not worn.

Note on Sizes and Shrinkage

At a seminar in Coventry in November 1982 Mr John Thornton, formerly head of the Shoe Department of Northampton College of Technology, stated that he no longer believes in expressing soles and uppers in modern shoe sizes, particularly as the rate of shrinkage of leather during burial and in conservation is not adequately understood. I have not attempted to use modern shoe sizes. One sole is definitely for a child. The rest could be for youths, women or men. The uppers are all boots, and could be for either sex.

TABLE 75 LEATHER. FOLLICLE ANALYSIS OF ALL FINDS

KIRK CLOSE

	Cattlehide	Sheep/Goat	Worn/unidentified
Soles	4	—	72
Uppers	39	6	20
Fragments of stitching channels	7	—	20
Straps	9	—	9
Offcuts	145	—	109
Scraps	21	—	42
Fragments with loosely oversewn edges	13	—	9
Sheaths	2	—	—
Miscellanea	5	1	16

SOUTH METHVEN STREET

The twenty fragments of leather from this site include soles, uppers, straps and two offcuts.

SHOES

Soles

PHSE Types 3 and 4 are each represented by one example.

Uppers

The uppers included a Type A vamp, a very worn Type B upper and a fragment with the tie-holes for side-lacing, either Type C or D.

STRAPS

Fragments of straps or belts included an oblong fragment, with three groups of four holes, probably for thongs, 39 (Ill 106).

The leather was all very worn, which is consistent with its context, as all but one fragment was found in an organically rich dump of rubbish, in Gully 102. The leather included only two offcuts, and no scraps, which suggests that it is not cobbling or manufacturing waste.

Of the types mentioned above, only sole Type 4 has a good 15th-century parallel from Threave Castle, Galloway (Thomas, 1981, 123-6). The other types are usually associated with contexts of 12th- to 14th-century date, for example, PHSE (Thomas PHSE); Custom House site, London (Tatton-Brown 1975, 154-67) and Low Petergate, York (Goodfellow and Thornton 1972, 97-105). It is perhaps surprising that, in a 15th-century context, there is not even a suggestion of uppers with an opening down the centre of the vamp, as at Threave (Thomas 1981, 123-6). However, it is important to remember that simple sole and upper shapes persist because they are easy to cut, often economical in their use of leather and, particularly as regards soles, usually more comfortable than elegant and fashionable styles.

WATCHING BRIEF: 81 HIGH STREET

Seventy-four fragments of leather were found including one seat cut across the waist, seven fragments of upper and sixty-two offcuts.

WATCHING BRIEF: 1-5 HIGH STREET

Over 1400 fragments of leather were recovered. The most important of these was an embossed piece. Soles, uppers, straps, 1040 offcuts, forty-two oversewn fragments and twenty-eight miscellaneous items were also found.

DECORATED FRAGMENT (Ill 105)

An oblong fragment, 40, c120 mm × 40 mm × 3-4 mm, with one torn edge and three irregularly cut edges, has been decorated with two beasts, almost certainly heraldic in origin; a panel of curvilinear design separates the two beasts. One beast is a bird, probably an eagle, with raised wings. The other is possibly a lion, with one front paw raised, and with a raised tail. The decorative motifs have been embossed by pressure from the front. The function of the fragment is not clear; it is almost certainly too big for a sheath.

The London Museum Medieval Catalogue suggests that this type of embossing belonged principally to the 14th and 15th centuries. It illustrates a bookcover with similar but less elaborate beasts (London Museum 1940, 198, A27347). A sheath from York has an eagle on the front, but with wings turned downwards. The lions on the reverse of this sheath have raised tails and front paws, but not raised so high as on this fragment (Richardson 1959, 103-4).

SHOES

Fragments of shoes included examples of PHSE sole Types 1 (two), 2 or 3 (two), 3 (one) and 4 (two), and of PHSE upper types B(i) (one), B(iii) (one), C or D (two). One fragment of upper bears an impression of herringbone pattern.

WATCHING BRIEF: 92 HIGH STREET

Seventy-five fragments of leather from this site included one very worn fragment of forepart, PHSE Type 3 and one of PHSE Type 4, plus four other very worn fragments of sole. Ten other fragments include a seat and a seat cut across the waist.

Eight fragments of upper include one very worn

fragment of vamp, two fragments with lasting margin and five with edge-flesh stitching channels.

There was one small fragment of binding or strap folded once, three fragments of rand, eighteen scraps, thirteen triangular offcuts and eighteen irregular offcuts.

LEATHER CATALOGUE (Illustrated)

All dimensions are maximum. A catalogue of unillustrated leather (41-363) is in microfiche at the end of this volume (Table 72mf; 3: A9-D14).

SOLES

Type 2

- 1 Length 288 mm; width 84 mm forepart, 62 mm seat; thickness 5 mm.
Two fragments of complete straight left sole with rounded seat, wide waist (50 mm) and slender forepart. Worn and partially delaminated; grain layer of toe separate. Holes in seat and forepart. Edge-flesh stitching channel, stitch length 6 mm.
Kirk Close; Context 1124; Accession C065; Period II C; Ill 101.
- 2 Length 243 mm; width 90 mm forepart, 67 mm seat. Left sole, with broad forepart, gently curved on outside, almost straight on inside, oval toe, wide waist (55 mm), straight seat. Edge-flesh stitching channel, stitch length 5-6 mm. Worn, with two cracks in seat and one at waist.
Kirk Close; Context 1147; Accession C095; Period I C; Ill 101.

Type 3

- 3 Length 280 mm; width 107 mm forepart, 81 mm seat. Almost complete left sole, with long and broad curved forepart, curved inward slightly, most probably oval toe but front inner edge missing. Narrowing to waist (59 mm), long rounded seat with large hole in it. Edge-flesh stitching channel, worn on outer side, stitch length 5.5-7 mm.
Kirk Close; Context 1000; Accession C001; Unstrat; Ill 101.
- 4 Length 210 mm; width 77 mm forepart, 57 mm seat. Complete left sole, of natural shape with gently curved forepart, turned inwards slightly and ending in an oval toe. Narrow waist (44 mm), slender seat. Worn, particularly at rear of seat. Edge-flesh stitching channel, stitch length 5-7 mm.
Kirk Close; Context 1113; Accession C030; Period IV C; Ill 101.
- 5 Length 252 mm; width 93 mm forepart. Right sole of natural shape with gently curved forepart, turned inwards slightly and ending in oval toe. Narrow waist (41 mm) and long rounded seat. Edge-flesh stitching channel, stitch length 5.5-7 mm. Pair of grain to flesh stitch holes indicate that both forepart and seat have been repaired with clump soles. Very worn and delaminated, missing outer rear of forepart and outer seat, and with a crack in front forepart.
Kirk Close; Context 1119; Accession C046; Period III C; Ill 101.
- 6 Length 233 mm; width 89 mm forepart, 71 mm seat. Right sole of natural shape, with gently curved forepart turned inwards slightly, ending in oval toe. Narrow waist (47 mm). Edge-flesh stitching channel, stitch length 5-6 mm. Worn, with rear of seat missing. Cattlehide.
Kirk Close; Context 1121; Accession C057; Period III C; Ill 101.
- 7 Length 265 mm; width 91 mm forepart, 73 mm seat. Complete left sole, of natural shape, with greatly

curved forepart, turned inwards slightly, oval toe. Narrow waist (48 mm), rounded seat. Edge-flesh stitching channel, stitch length 5-7 mm. Slightly worn, partially delaminated, missing grain layer of seat.
Kirk Close; Context 1124; Accession C061; Period II C; Ill 102.

- 8 Length 245 mm; width 92 mm forepart, 75 mm seat. Two joining fragments comprising almost complete right sole, with broad, gently curved forepart, oval toe, narrow waist (40 mm) and rounded seat. Edge-flesh stitching channel, stitch length 5.5-6 mm. Worn, especially front inner forepart and seat. Delaminated.
Kirk Close; Context 1124; Accession C061; Period II C; Ill 102.
- 9 Matching left forepart and seat, joined at waist with butted edge-flesh seam. Complete sole of natural shape, with gently curved forepart ending in oval, almost pointed toe. Edge-flesh stitching channels, stitch length 6-7 mm. Wool survives in many stitch holes. Worn and partially delaminated, particularly at seat. Cattlehide.
Kirk Close; Context 2054; Accession C239/240 Period III A; Ill 102.

Type 4

- 10 Length 189 mm; width 78 mm forepart. Fragment of right sole, with slender waist (41 mm) and pointed forepart. Oblong hole in centre forepart which has been repaired with a clump sole, tunnel stitch holes which survive on flesh side, only faint trace on grain side. Edge-flesh stitching channel. Stitch length 4.5-6.5 mm. Torn across rear of waist. Thread has cut part of grain side.
Kirk Close; Context 2037; Accession C200; Period IV B; Ill 102.
- 11 Length 196 mm; width 90 mm. Two joining fragments of right forepart, gently curved with pointed toe. Sewn across narrow waist (42 mm). Edge-flesh stitching channel, stitch length 5.5-7 mm. Very worn with part of centre missing.
Kirk Close; Context 2022; Accession C137; Period V B; Ill 102.
- 12 Length 293 mm; width 84 mm forepart, 66 mm seat. Very long slender sole, probably left foot, with almost straight-sided forepart, ending in broad central point. Rest of original shape unclear, as short sole, probably Type 4, has been cut out of forepart/waist/seat junction, removing part of inner stitching channel. Worn edge-flesh stitching channel, stitch length 6-7 mm. Wool survives in a few stitch holes.
Kirk Close; Context 2114; Accession C289; Period III B; Ill 102.

UPPERS

Type K

- 13 Four fragments of upper, most probably all part of high shoe or low boot with central fastening. Largest fragment is vamp with lasting margin with grain-flesh stitching channel, stitch length 7-8 mm. Vamp separate from quarters, with edge-flesh stitching channels on both vamp wings and at throat, stitch length 3 mm. Worn with front of vamp missing. Single thong hole 17 mm from vamp throat, thong threaded through it, knotted on flesh side. From grain side it passes through a T-shaped slit in a latchet (second

- fragment) where it ends in a toggle. Latchet is approx. trapezoidal, with vertical and top edges oversewn, bottom edge cut, edge-flesh stitching channel on diagonal edge. Stitch length 3.5 mm. Another latchet on third fragment, same as above. Fourth fragment is irregular with one oversewn edge, four edge-flesh stitching channels, stitch length 2 mm, one torn edge possibly joining diagonal edge of second latchet. Thickness 2-3 mm. Unusual in having both latches separate from rest of the upper.
Kirk Close; Context 2022; Accession C130; Period V B; Ill 103.
- 14 Two fragments of upper of high boot with toggle and loops for central fastening. One fragment is vamp, quarters and leg flap. Lasting margin with grain-flesh stitching channel, stitch length 6 mm. Top edge of quarters oversewn, other sides have edge-flesh stitching channel, stitch length 3-4 mm. Vamp throat does not survive. Leg flap, vertical edges cut, four loops and part of a fifth threaded through tunnel hole and then through single hole, each thong knotted through itself on flesh side. Three groups of slits, two corresponding to upper loops, third between second and third loop; possibly sixth loop? Faint trace of stitching for stiffener on flesh side of quarters. Very worn.
Second fragment is second leg flap with four toggles and tunnel hole for fifth, joins first fragment by butted edge-flesh seam, stitch length 3-4 mm. Edge-flesh stitching channels on bottom edge for joining to vamp and throat and on top edge for joining to third (missing) fragment. Toggles formed from thongs rolled up at one end, other end threaded through tunnel hook on latchet, top one also threaded through single hole adjacent to vertical edge of quarters and then through tunnel hole on flesh side (not perforating grain side). Second thong now knotted on grain side next to tunnel hole on latchet; trace of tunnel hole on other vertical edge of latchet. Tunnel hole on latchet and trace of hole on quarters for third (now missing) thong. Fourth thong threaded through tunnel hole and single hole on quarters and through tunnel hole on flesh side. Fifth thong threaded through single hole on quarters, then through tunnel hole on flesh side of latchet. Toggle (probably fifth) survives separately from same context.
Kirk Close; Context 2022; Accession C131; Period V B; Ill 103.
- 15 Three fragments, with thongs and toggles, most probably quarters of upper with central fastenings. Largest fragment has at one end three horizontal thongs ending in toggles, each threaded through two tunnel holes and single hole, plus part of fourth thong. At other end, three horizontal thongs ending in loops, each threaded through tunnel hole and single hole; plus impression of fourth thong. Both sets of thongs end on flesh side, those with toggles have tapered ends, the others have been bent backwards; accordingly, thongs not continuous. Stitch holes beneath lowest toggles and loops. On flesh side, tunnel stitch holes for top of tall stiffener. Edge-flesh stitching channels, stitch length 3 mm for attachment to second and third fragments. Second fragment, approximately triangular and joined to first by two butted edge-flesh seams. The two lower thongs with toggles have been threaded through it, stitch holes are part of vamp throat seam. Third fragment, triangular, joined to first by butted edge-flesh seam. Fourth thong with toggle has been threaded through it. Unusual upper as stitch holes on first fragment, beneath those for stiffener, suggest that the lower part of quarters was a separate fragment.
Kirk Close; Context 2037; Accession C197/198; Period IV B; Ill 103.
- 16 Two fragments of upper of boot with central fastening. Large fragment is vamp, vamp throat, vamp wing, latchet or leg flap and quarters. Other fragment approx. semi-circular, probably tongue, attached by thong to first fragment. Two horizontal slits in latchet with toggle threaded through lower one, thong passed through single hole in vamp throat and then through tunnel hole in tongue. Lasting margin with grain-flesh stitching channel, stitch length 6-7 mm. Edge-flesh stitching channels on vamp wing, vamp throat, and vertical edge of quarters. Top edge of quarters and latchet oversewn. Rest of latchet cut, not stitched. Grain-flesh stitching channel, stitch length 4-6 mm, on straighter edge of tongue indicating it was stitched to edge-flesh channel on vamp throat. Worn. Cattlehide.
Kirk Close; Context 2037; Accession C202; Period IV B; Ill 103.
- 17 Large fragment of upper with central fastening comprising vamp, vamp throat, vamp wing, quarters and two latches. Tunnel stitching for triangular stiffener on flesh side of quarters. Lasting margin with grain-flesh stitching channel, stitch length 6-8 mm. Channel very worn and partly replaced by additional holes. Edge-flesh stitching channels on vamp wing and vamp throat, stitch length 3-4 mm. Top edge of quarters and latches oversewn, vertical edges of latches cut. Bottom edge of quarters has split along line of stitching for stiffener, and has been stitched together. One latchet has three horizontal slits, the other, one. Below, two horizontal thongs, each threaded through a tunnel hole and a single hole, one thong has been looped through itself at end. Other ends probably originally had toggles. Single hole at vamp throat with short length of thong threaded through it. Cattlehide.
Kirk Close; Context 2038; Accession C206; Period IV B; Ill 104.
- 18 Approximately rectangular fragment with three toggles and part of thong of fourth toggle. Edge adjacent to toggles cut. Two grain-flesh stitching channels, stitch length 3-4 mm. Thong of each toggle threaded through tunnel hole and single hole, then secured through tunnel hole on flesh side. Cattlehide.
Kirk Close; Context 2041; Accession C214a; Period V B; Ill 104.

Vamps of Uppers with Thong Hole at Vamp Throat

- 19 Type K or B. Fragment comprising vamp, vamp throat and vamp wings. Lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. Edge-flesh stitching channel at vamp throat and on vertical edge of one vamp wing, stitch length 2 mm. Other wing torn. Short length of thong remaining. Vamp is cracked from throat towards the toe; irregular grain-flesh stitch holes indicate a rough repair. At corner of vamp throat/wing, irregular slit surrounded by very fine tunnel stitching holes which do not perforate grain layer—attachment of thong or lining? On the other side of the vamp throat/wing there is a short slit, part of which seems to have been repaired. Short rows of tunnel stitching adjacent—also for lining?
Kirk Close; Context 2037; Accession C201; Period IV B; Ill 104.

Tongue

- 20 Thickness 1-1.5 mm.
Approx. triangular fragment with grain-flesh stitching

channel along long edge, edge of grain turned in slightly; stitch length 4 mm. A thong, probably ending in a toggle has been threaded through a tunnel hole in the centre of this edge. No trace of stitching on other edges. This fragment is similar to, but smaller than, what appears to be a tongue on no 16.

Kirk Close; Context 2037; Accession C190; Period IV B; Ill 104.

Tie Hole Strengtheners

- 21 Length 52 mm; width 9-16 mm; thickness 1-1.5 mm. Small strip with traces of stitching parallel to three edges, and four approximately oval holes. Almost certainly a strengthener or facing for an upper with tie holes for side or central fastening.
Kirk Close; Context 2037; Accession C183; Period IV B; Ill 104.

Other Fragments of Uppers

- 22 Thickness 1-1.5 mm. Small triangular fragment with end of butted edge-flesh stitching channel, as on vamp throat; oversewn edge; between butted seam and oversewn edge small irregular oval holes, part of very small latchet.
Kirk Close; Context 2036; Period IV B; Ill 104.
- 23 Two joining fragments with an edge that has been folded and hem stitched. Two edge-flesh stitching channels on one fragment, one on the other, stitch length 3.5 mm. Probably part of leg of high boot.
Kirk Close; Context 2071; Period IV A; Ill 104.

SHEATHS

- 24 Length 109 mm; width 25 mm; thickness 1.5 mm. Tapering fragment, two edges seem to have been slightly folded. Decorated with two vertical rows of four and seven holes, c 1-1.5 mm. Possibly part of sheath.
Kirk Close; Context 1102; Accession C025; Period IV B/C; Ill 105.
- 25 Length 163 mm; width 35 mm; thickness 2 mm. Small knife sheath, decorated front and rear with engraved lines and punched dots. Single piece of leather, cut across top, tapering towards bottom folded once and stitched with grain-flesh holes, stitch length 8-10 mm. Decoration on fold suggests it was done prior to folding. Upper panel, front and back marked out at top and bottom by one and three engraved horizontal lines respectively. On each side parallel to seam, band (10 mm wide on front, 5 mm on back) of short horizontal engraved lines c 4 mm apart; 5 mm wide zone of diagonal lines, these form area of punched dots and irregular diagonal and horizontal lines. Lower part of front decorated with two vertical bands (5 mm and 7-9 mm wide) of diagonal strokes. Rest of front, fold and most of rear has irregular strokes and punched dots of no apparent pattern. Single oval hole, through both sides for thong. Cattlehide.
Kirk Close; Context 2009; Accession C109; Period VI A; Ill 105.
- 26 Length 131 mm; width 30 mm; thickness 1-1.5 mm. Two fragments join together formed of one piece folded once and stitched with grain-flesh seam, stitch length 3-4 mm. Top edge cut, tapers slightly towards bottom. Two tunnel holes, 5 mm wide and 10 mm long for thong for attachment to belt. Decorated with engraved panels. Upper handle, left part at panel one

large and one small semi-circle; on right, three small semi-circles, outlined with plain bands containing punched dots. Panel divided by two vertical bands, one plain, the other filled with a faint lattice pattern which also fills the semi-circles. Front middle panel has two lattice-filled semi-circles on the left outlined by band containing punched dots; long pointed shield on right. Bottom panel has large shield with three pairs of prominent diagonal strokes on a background of fainter strokes. On left rear of sheath, long narrow tapering sheath filled with faint chevrons, semi-circular designs beneath this and to the right similar to the rest. Remainder worn away.

Kirk Close; Context 2016; Accession C114; Period V A; Ill 105.

- 27 (1) Length 52 mm; width 26 mm; (2) Length 38 mm; width 21 mm; thickness 1 mm. Two small fragments, possibly belonging together. Decorated with simple embossed lines. Possibly knife sheath. Delaminated.
Kirk Close; Context 2016; Accession C120; Period V A; Ill 105.

STRAPS OF SINGLE THICKNESS

- 28 Length 95 mm; width 15 mm; thickness 2 mm. Short fragment with row of short diagonal grain-flesh slashes parallel to each long edge. Two engraved lines in middle of strap.
Kirk Close; Context 1058; Accession C016; Period Vb C; Ill 106.
- 29 Length 300 mm; width 26 mm; thickness 2 mm. Two joining fragments. Row of short diagonal slits parallel to each long edge. Three holes in middle of one fragment and four short slits at end of other fragment. Cattlehide.
Kirk Close; Context 2022; Accession C134; Period V B; Ill 106.

FRAGMENTS WITH OVERSEWN EDGES

- 30 Two fragments knotted together. One is a long strip ending in a triangle with one cut, and two oversewn, edges. Second is long strip with small irregular oversewn fragment folded over it, one end folded over itself and stitched with a thong. Cattlehide.
Kirk Close; Context 1121; Accession C059; Period III C; Ill 107.
- 31 Length 180 mm; width 55-77 mm; thickness 1 mm. Irregular fragment, three edges have been partially folded over and loosely oversewn. Fourth edge cut. Cattlehide.
Kirk Close; Context 2106; Accession C278; Period II A; Ill 107.

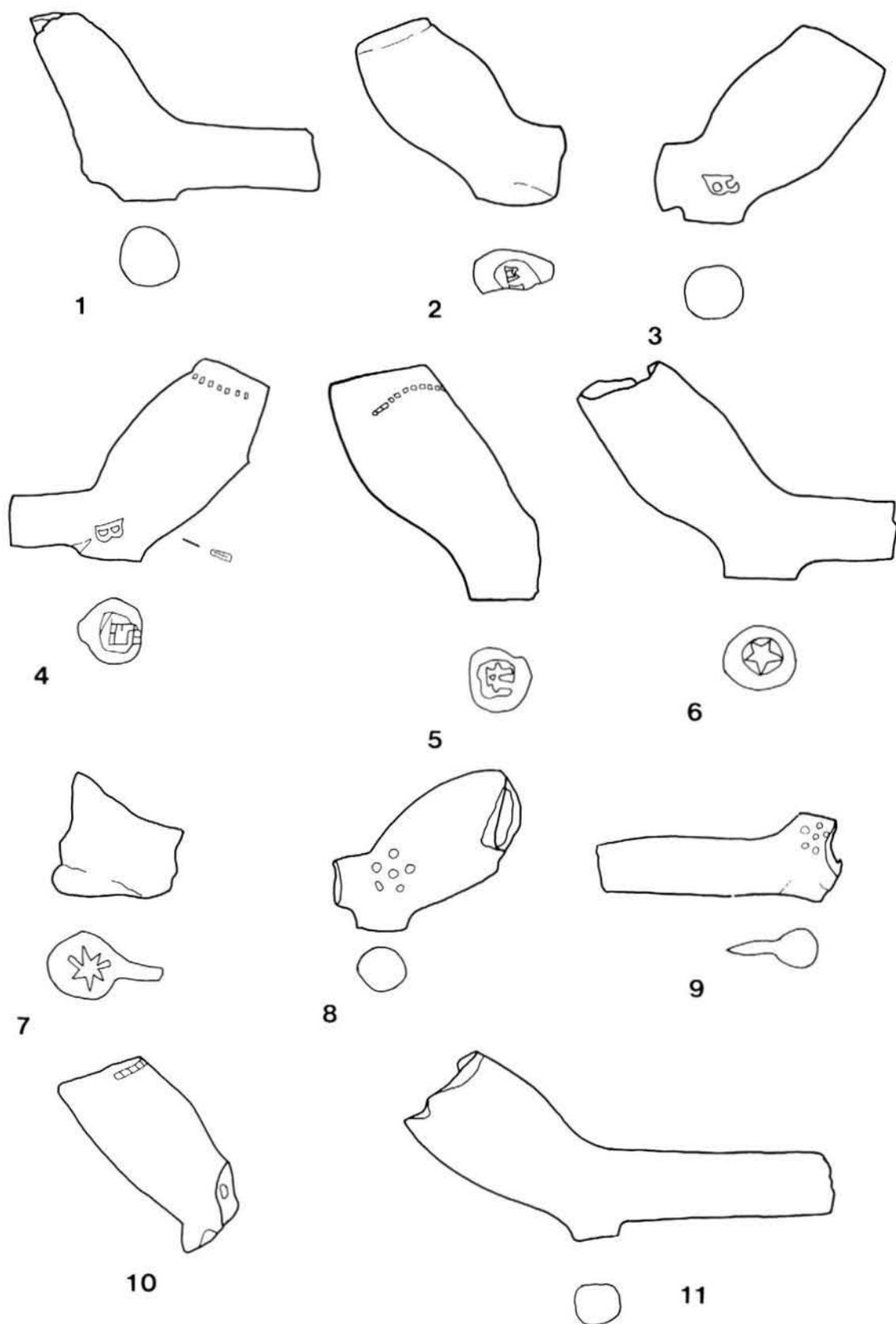
MISCELLANEOUS FRAGMENTS

- 32 Irregular fragment with one long grain-flesh stitching channel, stitch length 2.5 mm, and with short traces of three other grain-flesh stitching channels. Two rows of very neat tunnel stitching on flesh side, tunnel widths 2 mm, stitch length 2-3 mm. Two rows of pairs of grain-flesh slits, slits are 3-4 mm apart, pairs 6-8 mm part. Clothing?
Kirk Close; Context 1113; Accession C031; Period IV C; Ill 107.
- 33 Four fragments, probably clothing, of the same garment, but no visible joins.
(a) Thickness c 1.5 mm. Approx. trapezoidal, four oversewn edges and one

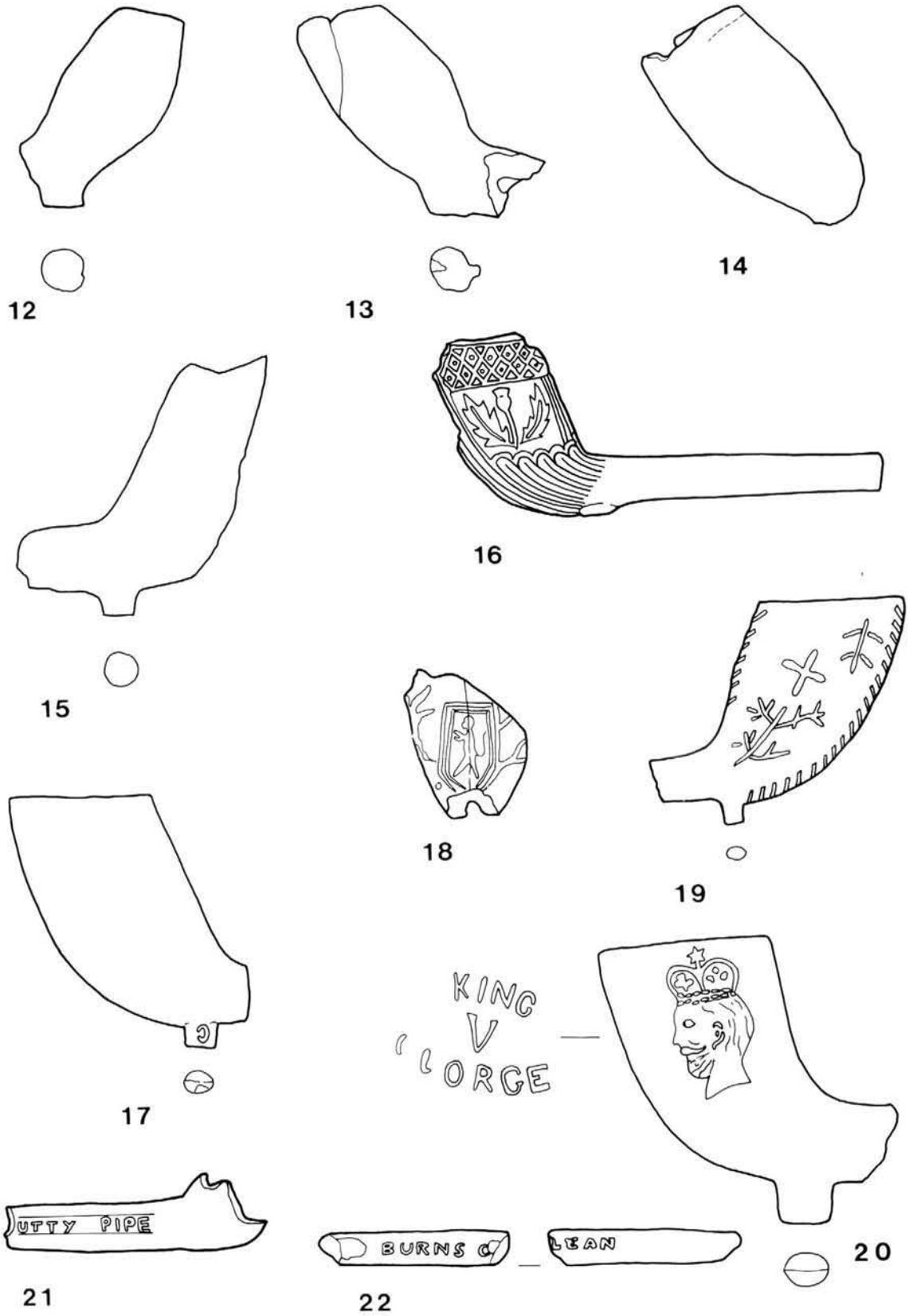
- torn edge. Five L-shaped loops, c 11-15 × 1.5 mm. Row of tunnel stitching on flesh side for attachment of strengthener.
- (b) Thickness c 1.5 mm.
Irregular fragment with three oversewn edges, one edge-flesh stitching channel, stitch length 4 mm and one grain-flesh stitching channel, stitch length c 10 mm. Three, possibly four, loops with tunnel stitching for strengtheners. Two other groups of tunnel stitching.
- (c) Thickness c 1.5 mm.
Approx. triangular fragment with two oversewn edges, one edge-flesh stitching channel, stitch length 4 mm. Two small groups of tunnel stitching on flesh side. Short length of grain-flesh stitching channel, stitch length c 10 mm.
- (d) Thickness c 1 mm.
Irregular fragment with three oversewn edges and four irregular loops, strengtheners for loops on (a) or (b). Worn.
Kirk Close; Context 2021; Accession C122; Period VI A; Ill 107.
- 34 Thickness 0.75-1 mm.
Two cut edges at right angles to each other. Parallel to these, irregular row of holes suggesting that this fragment had been nailed to another object. Other edges torn.
Kirk Close; Context 2022; Accession C132; Period V B; Ill 107.
- 35 Thickness 0.75 mm.
Fragment originally folded and stitched together forming small cylindrical tube, closed at one end. Finger-like shape; part of glove or finger-stall or possibly part of small sheath.
Kirk Close; Context 2022; Accession C140; Period V B; Ill 107.
- 36 Thickness c 0.75 mm.
Worn and delaminated irregular fragment, one oversewn edge. Parallel to it, two rows of tunnel stitching c 15 mm and 35 mm from edge. Stitches 5-6 mm apart. Part of second edge cut, trace of rows of tunnel stitching parallel to it and c 6 mm away from it.
Kirk Close; Context 2023; Accession C147; Period IV A; Ill 107.
- 37 Two irregular fragments, each with row of ten horizontal loop holes, c 10-12 × 1-4 mm. Possibly part of clothing. Top and bottom edges partly turned over with grain-flesh stitching channels, stitch length c 3-4 mm. No obvious join but the rows of loop holes appear to match up. Very worn and delaminated.
Kirk Close; Context 2024; Accession C149a, b; Period VI A; Ill 107.
- 38 Length 153-162 mm; width 60-68 mm; thickness 2-3 mm.
Approx. rectangular fragment which appears to have been folded in half widthways, grain surface inwards. Oval hole, c 11 × 4 mm on line of fold. On either side eighteen symmetrically arranged oval or round holes, c 5 mm in diameter. Cattlehide.
Kirk Close; Context 2051; Accession C226; Period III A; Ill 107.
- 39 Length 195 mm; width 60 mm; thickness 5 mm.
Fragment of belt? Approx. oblong fragment with two long cut edges, one short cut edge and one torn edge. In centre; three groups of four holes which probably had thongs threaded through them.
South Methven Street; Context 107; Accession C002-008; Period II; Ill 106.
- 40 Length 120 mm; width 40 mm; thickness 3-4 mm.
Embossed fragment, approx. oblong, partially delaminated with one torn edge and three irregularly cut edges. Decoration consists of two beasts, almost certainly heraldic in origin, separated by a panel of curvilinear design. One beast is a bird, probably an eagle with wings raised. The other is possibly a lion with one front paw raised and with a raised tail. The panel separating them contains an irregular curvilinear design, the vertical sides decorated with dots. The top edge of the fragment has been scored with short diagonal strokes. The decorative motifs have been embossed by pressure from the front. The London Museum Medieval Catalogue suggests that this type of embossing belonged principally to the 14th and 15th centuries (London Museum 1940, 188). cf (1). London Museum 1940, 198, A27347, "Book cover decorated with formal beasts in rondels", the beasts are similar but less elaborate than the lion; (2) Sheath from York, on reverse, now of lions (stamped) set in oval frames; lions have raised tails and raised front paw, though not raised as high as on this example. On front; stamped eagles, but with wings turn downwards. (Richardson, 1959, 103-4, No 4).
1-5 High Street; Accession C169; Ill 105.

5:17 CLAY TOBACCO PIPES PJ DAVEY

The following is an account of 246 clay tobacco pipe fragments recovered during archaeological activity in Perth between 1978 and 1982. 235 of them came from six excavations at Mill Street, Kirk Close, Canal Street I 1978, Canal Street II 1981, Whitefriars and King Edward Street. The remaining eleven were found during watching briefs in 1978 (Tables 76mf, 77mf and 78mf; 3: E1-9). The pipes have been recorded and studied according to the recently published 'Guidelines for the Processing and Publication of Clay-pipes from Excavations' (Davey 1981). Complete site and layer lists and record sketches of all bowls and decorated fragments are held in the excavation archive. In addition the collections of the Perth Museum and Art Gallery have been consulted for evidence of 19th-century production. The report is divided into three parts. First the evidence provided by the pipes for each excavation is considered. Secondly the nature of pipe use and loss during the periods covered by these groups is discussed. Thirdly the evidence for 19th-century pipe production in Perth is summarized.



ILL 108 : Clay pipes, bowls. Canal Street I (1-4, 6, 8, 11). Canal Street II (5). Mill Street (7, 9, 10). Scale 1/1



ILL. 109 : Clay pipes, bowls and stems. Canal Street I (12, 13, 18, 21). Whitefriars (14, 15, 19, 20). Mill Street (16). Kirk Close (17). Watching Briefs (22). Scale 1/1

THE EVIDENCE PROVIDED BY THE PIPES

The Perth pipes pose a number of problems. Apart from the material (?four fragments) from the High Street excavations (Martin PHSE), this is the first such material to be published from Perth and, in the absence of large equivalent groups from the rest of Scotland, its interpretation is bound to be tentative. The lack of good, closed post-medieval contexts on any of the excavations and the very small numbers of pipe fragments involved (4.3 pipes per context) severely limits the value of the pipes for chronological use or socio-economic interpretation. In spite of these difficulties and bearing in mind the accepted caveats about residuality, pipe mould life, and changes in the method of rubbish disposal, some brief assessment may, nevertheless, be worthwhile.

KIRK CLOSE (III 109)

Only four fragments came from the whole site. The two stratified stems are of mid-17th-century type and came from the fillings of a 19th-century latrine slot, 1006, 1015.

MILL STREET (III 108, 109)

Twenty-one contexts produced only fifty-eight fragments, an average of less than three per context. At least seven of the layer groups contain certain 19th-century material, but, on the evidence of the identifiable bowls the main pipe-depositing activity took place during the second half of the 17th century. A few of the layer groups are consistent with a 17th-century date, but the numbers involved are too small to rely on the pipes alone. Taking the discrete bowl fragments and mouthpieces together a minimum of nine pipes is represented on the site. In view of the lack of joins and the small proportion of any one pipe present, this is likely to be an underestimate.

CANAL STREET I (III 108,109)

This is the richest pipe site from Perth so far. One hundred and forty-nine fragments came from nineteen contexts, all but the first of which, 1082, have been dated by the excavator to the 19th and 20th centuries. Although twelve of the contexts certainly contain late material, the assemblage is dominated by pipes of the period 1660 to 1700. This suggests that the bulk of the pipes were originally deposited between 1660 and 1680 and that most of them are from secondary contexts. The largest group—from context 1076, for example—includes fifty-four fragments in all, with a bore date of 1667.

The range of bore sizes and the six identifiable bowls agree with this date. The context is, however, a dump of 19th-century pottery kiln material. This dating is confirmed by the presence of a single green-glazed mouthpiece. The other large group of twenty-four fragments (1020) is very similar in that it is predominantly 17th-century in date, but includes one certain 19th-century stem fragment. Assuming that the pipes are mostly the product of 17th-century rubbish disposal and gardening on the site, the restricted range present implies that this deposition and gardening could only have occurred during the last half of the century at most.

CANAL STREET II (III 108)

This site only produced six stems from two contexts. Of these two are of mid-to late 17th-century date and there is at least one 19th-century fragment.

SOUTH METHVEN STREET

The seven stem fragments from this site are all of 17th-century date.

WHITEFRIARS (III 109)

Although all the three contexts include 19th-century material, this site produced one late 17th-century bowl (no 14) and a rare example belonging to the 18th century (no 15).

WATCHING BRIEFS (III 109)

Eleven fragments were recovered from three sites. They included one Burns Cutty of probable local manufacture (no 22).

The pipes from Perth provide only limited information about the sites from which they were recovered. The chronological range is narrow and numbers are very small. On the evidence presented here no reliable socio-economic interpretations based on variations in quality or source can be attempted.

In spite of the above, the pipes recovered from recent excavations in Perth do allow a preliminary assessment of the material being used there, particularly during the period 1660-1700. This can be compared with groups from neighbouring sites like Edinburgh and Aberdeen, though these centres too suffer from lack of available evidence.

DISCUSSION

The pipes can be divided into three main groups: Dutch material dating from c1640-c1680, Scottish products of the period 1660-1700, and a small 19th-century group, probably of local manufacture.

THE DUTCH PIPES

The problems involved in the identification of Dutch pipes have been discussed elsewhere (Atkinson & Oswald 1972; Davey 1982a). The lack of high quality, well-finished and decorated pipes from Perth accentuates these difficulties.

Nevertheless, whatever the basis of calculation, at least 35% of all 17th-century pipes are of Dutch origin. Compared with the Dutch finds from Aberdeen and Scalloway Castle, Shetland (Davey 1983), the Perth examples are generally of much lower quality and do not include any of the early material present at the other sites. Instead the pipes are almost all of mid-17th-century date, so that the Dutch products clearly peak before the Scottish ones. There are no recognizable marks so that the actual centres of origin cannot be determined with any certainty. There are no products distinctive of the period following the establishment of the Gouda Guild (c1667 and onwards). It seems likely that the

Dutch wars with the English inhibited the movement of pipes into Scottish ports and consequently encouraged the expansion of the indigenous markets.

THE SCOTTISH PIPES

These consist of a distinctive group of fabrics and forms. They are often in coarse-grained, off-white clay with many inclusions and are generally higher fired than the Dutch pipes, rarely with reduced cores. The exterior surfaces of many are fumed in firing. The forms of the earliest examples are not far from London types of around 1650 (Ill 108, nos 1, 2, 4). The later 17th-century products by contrast are distinctively Scottish. Ill 108, no 6, is a good example. Although larger versions of the flat-heeled pipes occur in regional types throughout Britain, this specimen, with its pronounced forward lean, tapering mouth and local fabric and finish, could only have been produced in Scotland. The 'biconical' form is reminiscent of mid-17th-century Dutch types and may be directly influenced by the large numbers of these which seem to have reached northern Britain. Another feature of the Scottish pipes from Perth is that there is some evidence that local makers were supplying a variety of qualities of pipes to the market. A number of examples are well finished and burnished. One pipe (Ill 109, no 4) is very well trimmed and highly burnished and carries the 'castle' stamp. A bowl in a very similar form from Stirling Castle, is unburnished and

lacks the heel stamp (Davey 1980, 48, Fig 13, no 11). This may mean that the castle stamp was used as some kind of guarantee of quality for the more expensive Edinburgh products and may have operated in a manner analogous to the Edinburgh pewtermakers' marks in which each had an individual castle mark which was combined with initials. Examples of these marks can be seen covering the whole of the 17th century on a complete touch plate preserved in the National Museum of Antiquities (Acc No. MET 46-48). If this suggestion that the Edinburgh makers produced pipes of a variety of qualities is correct, and at least it is clear that some pipes were well burnished, then Oswald's suggestion that Scottish pipes could be distinguished by their lack of polish and poor trimming needs careful qualification (Oswald 1975, 43).

The origin of the pipes with the star stamp, and the meaning of the mark, is unclear. Laing's suggestion that they originate in St Andrews is probably premature (Laing 1967, 126). The Linlithgow finds include two different dies and Perth provides at least a third (Ill 108, no 7). Until these pipes are properly characterized and their distributions plotted using good sized samples, their origin must remain in doubt.

In general, then, the Perth pipes of Scottish origin give useful insight into patterns of use in the late 17th century and enhance the picture which is building up from recently excavated material. Unfortunately the small numbers involved and their restricted time range leave many questions unanswered.



23



24



25



26



27



28



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30

ILL 110 : Clay pipes, makers marks, Scale 2/1

THE 19th-CENTURY FINDS

Although only seven 19th-century fragments could be illustrated, some 25% of the whole sample from Perth are, on the bases of stem-bore and fabric, of a late date. One example (Ill 109, no 22) is almost certainly of Perth manufacture, being made by one of the McLean family. A search in the collections of the Perth Museum and Art Gallery produced a further McLean Stamp (Ill 110, no 23) and seven dies of stamps bearing the name Kean (or Kane) (Ill 110, nos 24-30). A study of the Directories for the period (Leslies and the Post Office) suggests that pipemaking began there soon after the middle of the century and ended in the late 1920's. Two families appear to have been involved, the McLeans and the Keans.

The dates during which various members of the families appear to have worked is as follows, though there is inevitably some ambiguity due to duplicated Christian names and absent entries in particular years:

Peter McLean 1	1854-1856	(PM1)
Samuel McLean 1	1856-1882	(SM1)
John McLean	1882	(JM)
Peter McLean 2?	1884-1905	(PM2)
Samuel McLean 2?	1895-1927	(SM2)
John Kane	1885-1914	(JK)
	(spelt Kane in 1885 only, otherwise Kean).	
George Kean	1866-1919	(GK)
	(spelt Kane from 1866-1878; & Co from 1891).	

The sequence of production sites is difficult to sort out exactly. There are a number of reasons for this. The *Directories* do not always make clear whether an address is the home of the maker or the shop. Sometimes makers were

certainly occupying more than one production site at a time. The sites changed hands rather frequently. The following table lists the sites and their occupiers in rough chronological order.

69 South Street	PM1 (1854); SM1 (1856); JK (1866-1878)
Flesh Vennel (now Cow Vennel)	SM1 (c1875-1878); PM2 (1884-1889)
Alexandra Street (after 1899 described as Stewart Place, Alexandra St)	GK (1879-1919)
Thimblerow	SM1 (1878-?1882)
50 Atholl Street	SM1 (1882)
350 High Street	JM (1882)
246 High Street	PM2 (1889-1892)
239 High Street	SM2 (1895-1905)
217 High Street	SM2 (1905-1927)
Campbell's Buildings, 9 St Catherines Road	PM2 (1893); GK (1905-1919)

Thus between five to seven makers occupied ten sites from 1854 to 1927.

6 THE ENVIRONMENTAL REMAINS

6:1 ANIMAL BONE C SMITH AND GWI HODGSON

SUMMARY

The animal bones discussed in this report were recovered from Kirk Close, South Methven Street and Canal Street II. The bones from the watching briefs were not retained.

The 5,846 identified bones reported upon are apparently a mixture of domestic and commercial/industrial refuse and are therefore of little value in assessing the inhabitants' dietary preferences for meats.

The samples from medieval levels are direct evidence of an economy based on cattle and sheep. This is related to the implied regality of the burgh and to the consequent commercial monopoly in the export of hides, wool and wool-fells which it enjoyed.

The high proportion of cattle horn cores in one sample from the South Methven Street site may be evidence of a locally based horn working industry.

The killing-curve for sheep and goats based on jaw bones recovered from the Kirk Close site implies that the animals (sheep) were raised for the production of wool and lambs rather than to supply wool-fells or meat.

Attention is drawn to the apparent under-exploitation of pig, lesser game (hare and wild fowl) and greater game (deer). This under-exploitation is related to similar evidence from two other royal burghs on the eastern Scottish sea-board.

The existence of a high proportion of remains from adult and of a smaller, but significant, proportion of remains from old cattle, sheep and pigs are taken as evidence that these animals were successfully husbanded through several winters.

Metrical data derived from the animal remains fall mainly within the size range of bones retrieved from elsewhere in the burgh of Perth.

METHODOLOGY

Identification was achieved by direct comparison with modern defleshed specimens.

Measurements were taken in accordance with the scheme proposed by von den Driesch (1976).

THE SAMPLES

Samples were received from three sites, Kirk Close, South Methven Street and Canal Street II. These samples were examined and reported upon according to site features and phases. The numbers of bones from each site were as follows:

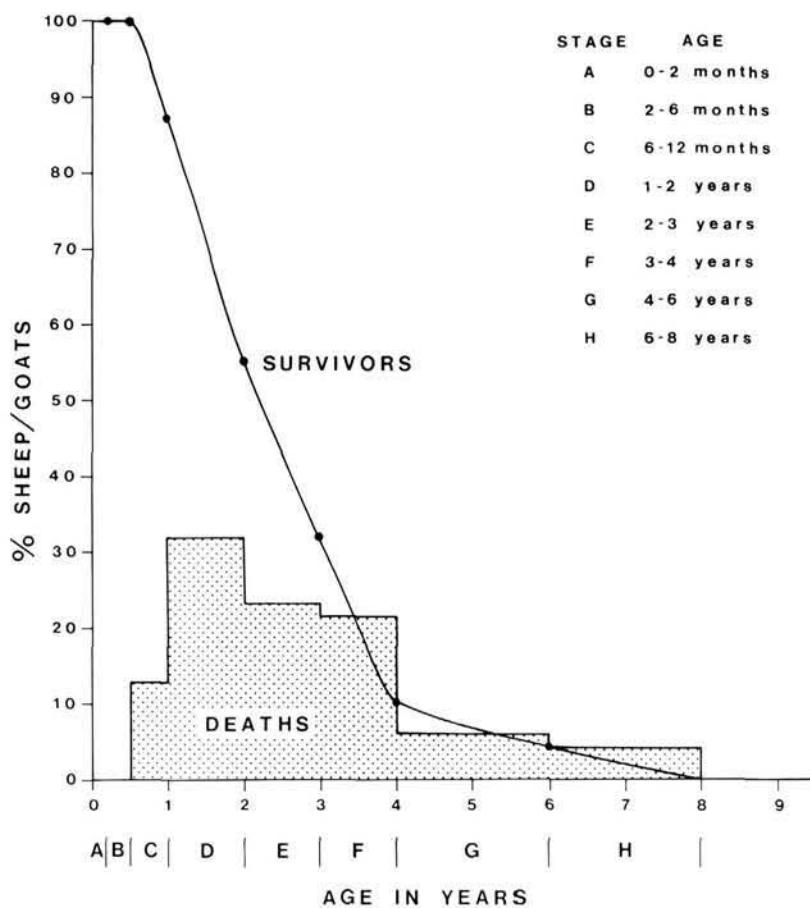
	No of bones identified
Kirk Close	4,294
South Methven Street	334
Canal Street II	1,218

A total of 5,846 bones (excluding unattached teeth, rib

and vertebrae fragments, butchers' chippings and fish bones) were identified as to species.

In a medieval context, on the basis of carcass analysis, the samples from Canal Street II appear mainly to be of domestic rather than commercial or industrial origin. This carcass analysis includes identifying surpluses or deficiencies of horn cores and a comparison of the number of leg bones (meat bearing) to foot bones (non meat bearing) for each species present. The samples from Kirk Close and South Methven Street are partly of commercial or industrial origin.

Of the cattle remains from the medieval levels at South



n = 69	A	B	C	D	E	F	G	H
% DEATHS	0	0	13.0	31.9	23.2	21.7	5.8	4.3
% SURVIVORS	100	100	87.0	55.1	31.9	10.2	4.4	0

ILL 111 : Animal bone, age at death, sheep/goat

Methven Street, 53% are horn cores although most of these were concentrated mainly in a ditch (Area 3). At this site none of the animal horn cores have been sawn through, whereas some of the cattle horn cores from Kirk Close have been sawn

through near to the base. The long bones from all three sites have been heavily smashed as though for extraction of marrow, those from South Methven Street having been deliberately split in the sagittal plane.

SPECIES PRESENT: RELATIVE FREQUENCIES

The species present at each of the sites are strikingly similar. Each of the sites was concerned with a beef based economy.

Sheep remains are the second most frequent species in the samples; the exploitation of mutton as meat increases steadily from 12th-19th century at the Canal Street II site. The massive reliance on cattle and sheep as sources of meat and other by-products is understandable in terms of the economy of a medieval Scottish burgh such as Perth which was concerned with the export of hides and wool-fells; the more so when it is remembered that under Scottish law the hides and wool-fells had to enter a Royal Burgh on the backs of the animals which grew them, ie they had to come to market "on the hoof" (Hodgson 1981 for discussion).

Less understandable is the apparent under-exploitation of pig, fowl, hare and deer at these sites and others reported on, in a medieval context, at Elgin and Aberdeen (Hodgson 1983). The scarcity of small mammal remains may reflect the excavation technique used. In the absence of flotation separation techniques counts of small mammal bones are usually low and recovery rates are biased in favour of large mammals.

TABLE 79 ANIMAL BONE. PRESENCE AND ABSENCE OF SPECIES BY SITE

	Canal Street II	South Methven Street	Kirk Close
Cattle	+	+	+
Sheep	+	+	+
Goat	+	-	+
Pig	+	+	+
Horse	+	-	+
Bird	+	+	+
Fish	+	+	+
Dog	+	+	+
?Dog/Fox	+	+	+
Cat	+	-	+
Hare	+	-	+
Roe Deer	-	-	+
Small Mammal	-	-	+

AGES OF SPECIES ON DEATH

PRESENCE OF YOUNG ANIMALS

On the basis of dental evidence the samples from Canal Street II contain the remains of calf, lamb, kid, piglet and kitten; those from South Methven Street, lamb or kid; while the Kirk Close samples contain the remains of calf, piglet, kitten and young roe deer.

PRESENCE OF ADULT AND MATURE ANIMALS
(i) Cattle

On the basis of osteological evidence, 90% of the cattle from Canal Street II and Kirk Close survived at least two winters before death and on the basis of dental evidence, one ox lived in excess of five years.

(ii) Sheep/Goat

On the basis of small samples of half mandibles (lower jaw bones) with teeth, 30% of the sheep/goats at Canal Street II survived until aged between four-six years and 20% at South Methven Street survived until aged between six-eight

years old. At Kirk Close a much larger sample of sheep/goat half mandibles allowed data for a killing curve to be prepared. (Ill 111)

These data and the killing curve based on them, appear to represent the killing curve for a flock of sheep maintained for the production of wool (not wool-fells) and lambs. The deaths in stages C and D would represent the culling of prime male lamb while those in stage E and the later stages F-H would represent the killing of young males or castrates, unserviced females and barren or broken mouthed ewes respectively.

(iii) Pig

At Canal Street II there is evidence of at least one older pig (three-plus years) while at Kirk Close 42.9% of the pigs were older than three years at death.

(iv) Dogs and Cats

There is no evidence of dogs dying when they were still puppies, but from Canal Street II and Kirk Close there is evidence of kittens dying. This may reflect the higher value placed on dogs.

PATHOLOGY, BUTCHERY AND POST-MORTEM DAMAGE TO BONES

Most of the bones reported upon are free from external signs of disease. The exceptions are as follows:

KIRK CLOSE

Two cattle toe bones and a single metatarsal display arthritic spicules of bone, while a single cattle metatarsal is splayed at its distal end as though the ox from which it came had been used as a draught animal.

CANAL STREET II

A sheep/goat half mandible displays an abscess cavity.

The incidence of smashing and splitting the bones for the extraction of marrow and of saw marks on horn cores has already been discussed.

A few bones from Kirk Close and South Methven Street have been gnawed by animals.

SIZE RANGE OF BONES

Most of the bones from the three sites fall within the size ranges of those reported from the medieval levels of the Perth High Street site (Hodgson et al PHSE). The exceptions are as follows:

KIRK CLOSE

Nineteen bones from cattle, sheep, horse and dog are smaller than those from the Perth High Street site while fifteen from sheep, pig, horse, roe deer, dog and cat are larger.

SOUTH METHVEN STREET

A single ulna from a dog or a fox is smaller than those reported from the Perth High Street site.

CANAL STREET II

Eleven bones of cattle, sheep, pig and horse, extend the size ranges reported from Perth High Street site by trivial amounts. A single horse shoulder blade and a toe bone are significantly bigger.

6:2 SHELLFISH PG VASEY

At Kirk Close 2,400 shells were found; 77% marine oysters and 20% marine mussels. The remainder were whelk, cockle, winkle, freshwater oyster and freshwater mussel.

Sixty-one examples were found at South Methven Street. Over 60% were marine mussels. The rest were mainly

freshwater and marine oysters.

Oysters were present on Canal Street II but the shellfish were not examined.

Further details on the shellfish are available in the archive.

6:3 BOTANICAL REMAINS D ROBINSON

INTRODUCTION

Samples of deposits from all three excavations were submitted for botanical analysis: twenty-seven from Kirk Close, twelve from South Methven Street and thirteen from Canal Street II.

As might be expected when considering the low-lying riverine situation of medieval Perth, the majority of the plant remains are preserved in a waterlogged state. Material from Kirk Close and South Methven Street was extremely well preserved due to waterlogging. Many of the seeds and fruits and much of the other plant material appeared in a very fresh state. There is also a significant body of carbonized material in the samples. The importance of this is accentuated at the Canal Street II site where conditions were such that the majority of non-charred material has not been preserved. The soils were markedly different at Canal Street II and it is possible that more aerobic conditions prevailed. A separate report has been prepared for each site and the results from them all commented on in a concluding discussion.

SAMPLING AND METHODOLOGY

COLLECTION OF SAMPLES

The samples were collected by the excavators and submitted for analysis at their discretion. Unfortunately at none of the sites was there the opportunity for the author to see the deposits *in situ*. Sample size was generally in excess of 2.0 kg and the samples were stored double-wrapped in an unheated building. Sample numbers allocated at South Methven Street are prefixed by R and those at Canal Street II by Rd; the numbers used in the Kirk Close report are context and not sample numbers.

METHODOLOGY

Initially 100 ml sub-samples were removed from the bulk samples. The bulk sample was spread out and material picked at random from the surface until sufficient had been collected to raise the volume of water in a 500 ml beaker by 100 ml. Duplicate samples were processed from some contexts and, in the case of Canal Street II where plant macro-fossil concentration was low, 500 ml sub-samples were analysed (apart from two samples the total volumes of which were less than this figure). Generally the richness of the South Methven Street and Kirk Close material was such that it was felt that

detailed analysis of larger sub-samples would have been prohibitively time-consuming. Where replicate 100 ml samples were examined, however, the number of new species encountered was found to be very low.

Sub-samples were broken down for analysis overnight in tap water or occasionally in a 1% solution of sodium hydroxide (NaOH) as required. They were then wet-sieved through coarse (1250 micron mesh) and fine (150 micron mesh) sieves. Plant and other macro-fossils were picked out under a low power binocular microscope (max $\times 250$) and critical determinations were made with the aid of a compound microscope (max $\times 1000$) and binocular microscope with objective illumination. All the macro-fossils recovered have been preserved for future reference.

PRESENTATION OF DATA

The results of the analysis are expressed in Tables 81-86 in the microfiche (3: F5-98). All other tables (88-107) form part of the unpublished archive and copies of these tables are

available as photocopies at cost price upon application to the Scottish Urban Archaeological Trust. The plant taxa have been divided into groups: plants useful to man, plants of arable land and wasteland, heathland plants, wetland plants, trees and bryophytes. Animal remains and miscellaneous items found in the samples are also tabulated. It is recognized that some taxa fit equally well into more than one group whilst others may not fit easily into any. However, it was felt that this was the most efficient way to organize the data for discussion. Table 81 (3: F5-6) is a summary of the useful plants found at the four sites. Table 82 (3: F7-8) lists the most common weed species present in the various contexts analysed.

NOMENCLATURE

Plant nomenclature follows Clapham et al (1981) and Smith (1978) apart from *Brassica* species (see McNaughton 1976a, 1976b; Thompson 1976; Hemingway 1976). Table 80 mf (3: F2-4) is a list of abbreviations used in the tables.

KIRK CLOSE

Twenty-seven soil samples were analysed. With the exception of one hearth sample the samples were organically-rich yielding a large number of plant macro-fossils and other organic material. The contexts examined comprised floor levels (nine), latrine deposits (two), middens (four), yard layers (two), hearth (one), pit deposits (three), gully deposits (four) and wall cladding (two).

FLOOR LEVELS

Contexts: 1043, 1070, 1126, 1128, 2078, 2085, 2097, 2099, 2106.

The plant remains recovered from the floor level samples show great overall similarity. The samples all appear to be made up of fibrous mats of *Pteridium* (bracken), *Calluna* (heather), cereal straw and chaff flooring mixed with relatively abundant domestic refuse (bone chips and the like) and weed seeds and fruits. The main weed species present were more-or-less constant and there was a large number of less abundant taxa. The samples were collected from complete layers which appear to have been of considerable thickness and which would have accumulated over an extended period.

It has not been possible to trace any changes of use during the accumulation time of the floor levels. 1043 and 1070 were among the least rich of the floor levels, containing relatively few weed seeds and useful plant remains. 1070 was notably poor and it may represent an open area in front of building S1a in which 1043 accumulated, that is, the macro-fossils are similar but have suffered more degradation due to exposure to the elements. There were no signs of specific industries.

2097 and 2099 were richer in plant macro-fossils but gave little indication that they were anything other than domestic floor levels.

2078 had a high concentration of wood shavings and chips suggesting either that there was on-site wood working or that shavings were used for flooring. *Linum* (flax) and *Brassica* remains were also present in quantity. They may have been stored for later oil extraction or the remains may represent waste material used as flooring.

2085 and 2106 contained a high concentration of *Brassica* and *Linum* (flax) remains which can be interpreted in a similar

fashion to 2078. 2085, in particular, contained a mass of very well preserved plant material. The sample had a peculiar sooty smell and there may be an element of roofing material in it.

The samples from 1126 and 1128 were rather different from those described so far. 1126 was clay-rich with few of the weed species which are so abundant in the other samples. Overall the plant macro-fossil content was low. It may represent a hard-packed floor which was kept swept fairly clean. This infers that it was well drained and dry enough to permit this.

1128 was unusual in that although the plant macro-fossil content, in terms of weed species, useful plants and the like, was similar to the other contexts, almost all the macro-fossils were carbonized. Charcoal made up more than 95% of the sieved volume of the sample. Included in this were large pieces of *Pinus* (pine) charcoal which may possibly have come from structural timber. Building S4 was probably destroyed or severely damaged by fire. The roof fell in, effectively sealing the floor and permitting the slow carbonization of the flooring material and remaining timber.

LATRINE DEPOSITS

Contexts: 2134, 2172

Large wads of robust woodland and heathland mosses made up the bulk of the samples and these were almost certainly used as toilet paper. The intervening matrix was rich in cereal testa fragments with those of *Triticum* (wheat) and *Secale* (rye) being by far the most common; (the problems of separating these on their microscopic characters, is discussed below). *Hordeum* (barley) and *Avena* (oat) fragments were present only occasionally indicating their minor role in the diet of the users of this particular latrine. *Brassica* sp. and *Raphanus raphanistrum* (wild radish) remains were present; the former may represent the use of *Brassica* species as a source of greens or as a spice, whereas the latter is likely to be a cereal crop contaminant. *Agrostemma githago* (corncockle) and *Centaurea cyanus* (cornflower) seeds and achenes would have presented a more serious contamination problem. Both these are major weeds of rye. They are rare in cereal crops today due to the use of selective herbicides and improved seed cleaning techniques. Wasteland weeds,

common in other samples, were present in small numbers in the latrine material. They probably originated from plants growing in the immediate vicinity of the latrine.

The basic cereal diet appears to have been augmented by meat, shellfish, eggs, fish and by wild fruits and seeds, *Prunus avium* (wild cherry), *Corylus avellana* (hazel), *Rubus idaeus* (raspberry) and *Vaccinium myrtillus* (blueberry). The flax seeds present may represent some medical use. The overall diet is similar to that described from the latrines at PHSE and Queen Street, Aberdeen, by Fraser (1981) with the notable exception that exotic species such as grapes and figs are absent from the Kirk Close material. This would tend to suggest that the latrine is that of poorer people and would be in keeping with the picture presented by the analysis of the floor level, pit and midden samples. If this is the case it is more likely that the bulk of the testa fragments in the latrine material are those of rye, a crop which may have been imported but is more likely to have been grown on unproductive acid ground by poorer people. Wheat was a prestige food and would have almost exclusively been imported by, or grown for, the wealthier classes. However, wheat which was heavily contaminated with corncockle may have been sold off to the poor. The eggs of the intestinal parasites *Ascaris* and *Trichuris* which adhered to the testa fragments confirm an infestation with these worms. However, they cannot be taken as an indication of the social position of the latrine users.

MIDDENS

Contexts: 2016, 2050, 2029, 2092.

The four samples from these contexts bear a striking resemblance to the floor level samples and it would seem almost certain that in part, they represent the clearing out of floor material. 2016 was notable in that it contained a walnut shell fragment. 2092 and 2029 appear to have a large dung component. The samples contain a high proportion of entire uncarbonized *Avena* (oat) and *Hordeum* (barley) caryopses. They are also rich in wetland plants which may have been collected with grass from damp meadows as hay. Overall there are marked similarities with the plant assemblages reported from horse dung in Roman Lancaster (Wilson 1979) including the presence of *Trifolium* (clover) petals. Wilson however described many more species, including a large number of exotics which are absent from this material. 2092 contained fur resembling that of pine marten (Appleyard pers comm).

YARD LAYERS

Contexts: 1120, 1121.

The material in these samples is again very similar to that in the floor levels and the middens. The presence of wood

shavings and chips may indicate on-site woodworking. Wool fibres were present in 1120 (Appleyard pers comm).

HEARTH

Context: 1137

Very few macro-fossils were recovered from this sample. The two moss fragments and a *Vaccinium myrtillus* (blueberry) seed are likely to be later contaminants. The absence of carbonized cereals suggests that this was not a cooking hearth, however a burnt tooth and burnt bone which were recovered may indicate the opposite.

PIT DEPOSITS

Contexts: 1152, 2125, 2053.

2125 and 2053 were rubbish pits containing a high proportion of flooring material similar in nature to that already described. 2125 contained leather fragments which probably indicate local repair or manufacture. 2053 contained wood shavings and other woodworking waste. 1152 was a robbing pit and along with 2053 appeared to contain dung in addition to flooring material and was similar to middens 2092 and 2029 in this respect. 2053 contained a small quantity of goat hair (Appleyard pers comm).

GULLY DEPOSITS

Contexts: 2072, 2094, 2052, 2027

All four samples were similar, containing a mixture of flooring material, midden material and dung in variable amounts. 2094 has a relatively high clay content and may have had some well-mixed wall material washed into it. 2027 contains a large amount of dog hair and was probably used as a dog pen at some stage.

WALL CLADDING

Contexts: 2079, 2060

The material in these samples consists of a mixture of grey clay and floor level material. The two components are poorly mixed with lenses of organic material occurring within the clay. This suggests that flooring-type material was incorporated accidentally rather than intentionally into the cladding. A chopped straw mixture intended to strengthen the cladding might be expected to be much more uniformly mixed with the clay prior to application.

SOUTH METHVEN STREET

Twelve samples, exclusively from waterlogged deposits, were analyzed. They were organically-rich and contained a large number of plant and other macro-fossils. The contexts examined comprised ditch deposits (eight), tank or well deposit (one), midden spread (one), and floor levels (two).

DITCH DEPOSITS

Two separate ditch deposits were analyzed. Three samples

came from Ditch 102 and five samples came from the town ditch (Area 3, Period A).

DITCH 102

Samples R04 upper filling
R12(1), (2) separate samples from mixed filling

Analysis showed that these three samples were very similar in content. R12(1) and R12(2) were virtually identical, R04 differed slightly in that it contained less coarse plant debris and material of obvious domestic/industrial origin (leather and bone fragments). The bulk of the material present appears to have originated from domestic flooring or roofing material, although farmyard-type debris may also be present. *Pteridium* (bracken) fronds, cereal remains and weed seeds were present in abundance in the R12 samples. The cereal remains comprised straw, chaff and both carbonized and uncarbonized grains. The numbers of grains present were not great. *Avena* (oat) grains were more abundant than *Hordeum* (barley) or *Triticum* (wheat). The seeds and capsule fragments of *Linum* (flax) probably represent waste from flax processing for oil rather than linen production.

A later re-examination of sample R12 yielded a short length of thread made up of twisted flax fibres. The thread was encased in a hard 'ball' of sediment which was broken down during the coarse sorting of the sieve residue. The encapsulation of the thread was almost certainly responsible for its preservation. Finds of flax fibres from the three Perth sites documented here have been very rare (see 5:15 Textiles). The suggestion is, therefore, that this was due to soil conditions not being suitable for their preservation rather than the absence of linen products.

Testa fragments (bran) of *Avena* (oat) and *Triticum/Secale* (wheat/rye) caryopses were recovered, some adhering to wads of moss (mainly *Hylocomium splendens* and *Hypnum cupressiforme*). Latrine material is the most likely source of these. Heathland species, *Calluna* (heather), *Erica* spp. (heaths), *Eriophorum vaginatum* (cotton grass) and a species of *Potentilla* (cinquefoil) possibly *Potentilla erecta* (tormentil) were present in the samples. They were probably transported in material collected for bedding, flooring or roofing, or in peat to be used as fuel.

Summary

The samples from the ditch filling contained material which suggests that the ditch was used as a dump for domestic debris, most of which was used flooring and/or roofing material.

Faecal material (probably human) is also present. The material in the upper part of the ditch is less coarse and contains less domestic refuse (such as bone and leather) than the mixed samples. It may be that the upper material suffered more degradation as a result of greater exposure to aerobic conditions. Plants growing in the vicinity of the ditch appear not to be well represented although many of the weed species present could equally well have grown there in addition to being components in the cereal waste.

TOWN DITCH AREA 3 PERIOD A

Samples from the ditch in stratigraphical order from the base:

Sample	Context
R28	307 (latest)
R16	309
R18	311
R40	316
R22	318 (earliest)

R22

Filling R22 is the basal filling from the town ditch. 'Economic plants' were absent, although charcoal was present. The weed species, *Fallopia convolvulus* (black bindweed) and *Potentilla* sp. (cinquefoil) were well represented. They were possibly responsible for the colonization of the newly-cut ditch and spoil heap. Seeds and fruits of other weed species arose in more modest numbers.

Wet habitat plants were also well represented; seeds and fruits of *Callitriche* (water starwort), *Juncus* spp. (rushes), *Potamogeton* cf. *polygonifolius* (bog pondweed), *Ranunculus flammula* (lesser spearwort) and *Ranunculus* sub-genus *Batrachium* (water crowfoot) were recorded. Collectively they infer the presence of open, possibly running, water which was not excessively polluted.

Heath species were present, possible sources of these have already been discussed in relation to Ditch 102.

R40

Cereal testa fragments were present for the first time at this level. Fragments of barley and wheat/rye type testa were recovered in very low numbers together with a single fragment of *Agrostemma githago* (corncockle) seed. Charcoal fragments and a seed of *Hyoscyamus niger* (henbane) were also recovered. The latter was widely used in medieval times, ostensibly for its medicinal properties.

Black bindweed and cinquefoil were rare in this sample but other weed species were prominent. The following examples were probably either growing nearby or were transported in cereal chaff and straw; *Chenopodium album* (fat hen), *Leontodon* sp. (hawkbit), *Poa trivialis/pratensis* (meadow grass), *Polygonum lapathifolium* (pale persicaria), *Raphanus raphanistrum* (wild radish), *Senecio* sp. (ragwort or groundsel), *Sonchus asper* (sow thistle), *Stellaria media* (chickweed), *Urtica dioica* (stinging nettle), *Urtica urens* (annual nettle), *Conium maculatum* (hemlock), *Torilis arvensis* (spreading hedge parsley), *Centaurea* sp. (knapweed or cornflower), *Chrysanthemum segetum* (corn marigold) and *Spergula arvensis* (corn spurrey).

Heath species were again present. Wet habitat plants represented include rushes, *Caltha palustris* (marsh marigold), *Isolepis setacea* (bristle scirpus) and *Stellaria nemorum* (wood stitchwort). Fruits of bog pondweed and water crowfoot were not encountered, perhaps indicating that there had been a degree of silting or infilling which reduced the amount of open water. The caddis fly larval cases in this sample indicate that the ditch was not at this stage grossly polluted.

R18

This sample contained no remains of wetland plants and caddis fly larval cases were similarly absent. It seems likely that the silting or infilling, apparent in the previous sample, continued so that open-water conditions no longer prevailed. Domestic rubbish containing bone chips and leather fragments (probably used floor level material) was present for the first time. Arable weed seeds were, surprisingly, less common but chickweed, groundsel and both species of nettle were well represented perhaps resulting from the growth of these species on the exposed surface of the dumped material.

R16

With the exception of a seed of marsh marigold, wet habitat plants were absent from sample R16, surprisingly however, caddis fly larval cases were abundant. Carbonized cereal grains appeared for the first time at this level and wheat/rye testa fragments were present along with a robust form of the moss *Hypnum cupressiforme*. Two flax seeds were recovered along with those of a number of arable weeds. Charcoal was very abundant and there were occasional cinders and bone chips. This sample apparently represents a further stage in the infilling of the ditch largely with refuse of human domestic origin.

R28

More carbonized cereal grains were present in this sample in addition to two barley rachis segments, half a flax seed, and several arable weeds. There were no cereal testa fragments. This sample represents a further infilling of the ditch.

Summary

Analysis of the samples from the town ditch show its fresh-water, possibly free-flowing, condition soon after its construction and then the progressive infilling with rubbish, largely flooring and roofing material, which resulted in pollution and blockage of the ditch. Infilling of the ditch appears to have been such that the level of dumped material was, at times, above that of the water in the ditch (for example filling R18). There is little in the plant remains to suggest the proximity of any specific industries to the ditch or any connected watercourses which may have supplied water-borne debris.

There are gross similarities with the ditch filling from Ditch 102. However, the virtual absence of *Lapsana communis* (nipplewort), *Polygonum* spp. (knotgrasses) and *Spergula arvensis* (corn spurrey) coupled with the abundance of *Capsella bursa-pastoris* (shepherd's purse), *Torilis arvensis* (hedge parsley) and *Urtica* spp. (nettles) tends to suggest that the ditch-side flora was a more important source of macro-fossils than was the case with Ditch 102.

TANK OR WELL DEPOSIT

Sample R05, Context 120

This sample was similar to those from Ditch 102 in that it contained a wide range of weed seeds and fruits, abundant charcoal and the remains of heathland plants. It differs in that fewer cereal grains were recovered and in the virtual absence of other cereal debris. Domestic debris as represented by bone chips and leather fragments were also absent.

The content of this sample differs from the previous three largely due to the way that the material accumulated. It is suggested that there was no dumping into this feature, be it tank or well, and that the plant material present arrived there from plants growing in the vicinity and from straw, chaff and other waste material which is likely to have strewn the working area around the well. The absence of rubbish and/or faecal materials in the deposits implies that the users had an interest in keeping the feature clean and unpolluted.

FLOOR LAYERS

Sample R02, Context 108
Sample R03, Context 110

These two floor levels (R02 from S1, Period I, and R03 from S2, Period II) were very similar in content. Charcoal, cinders, irregular pieces of coarse fired clay and bone and shell fragments were present in varying abundance. Carbonized hazel nut fragments and a number of carbonized cereal grains were also recovered. All the identifiable cereal grains proved to be oats. They may have been casualties in the process of parching the oat panicles over an open fire for the purpose of drying them and making the grain easier to separate from the florets. Weed seeds were moderately abundant and many of these would have been contained in the cereal chaff used for flooring. The overall macro-fossil content is similar to that recorded from the ditch-filling adding weight to the suggestion that the latter was a dump for used flooring material. However, in the floor levels the plant macro-fossils are rather more scarce. This is likely to be a preservation feature, a consequence of the aerated nature of the floor layers. There was no evidence present in the preserved plant material to suggest that the floor levels represent anything other than domestic usage of the building.

MIDDEN SPREAD

Sample R44, Context 235

The carbonized cereal and charcoal content of this sample, recovered from deposits outside S1, corresponds closely to that recorded from the floor levels. Weed species are again represented, the same species are present in approximately the same proportions as seen in the previous samples. The similarities with the floor levels are such that this midden spread must largely represent the cleaning out of used floor material.

CANAL STREET II

Thirteen soil samples were submitted for analysis from the excavation in Canal Street II. They were all similar in nature, being comprised mainly of silt and clay with varying proportions of organic material, sand, gravel and charcoal. The components were often poorly mixed and inclusions of pure clay were common. The contexts examined comprised pit deposits (ten), gully deposits (two) and trench deposit (one).

The samples were not rich in plant remains and almost all those recovered were carbonized. Analysis showed that the samples fell into one of two groups. One group of samples appeared to contain material interpreted as rake-out from a domestic hearth. In the case of the second group this domestic material was supplemented by rake-out more akin to that from an industrial hearth or furnace, although in practice the two may have had functions which were virtually indistinguishable.

DOMESTIC HEARTHES

Pit deposit 2385

Rd302: Charcoal was very abundant and fragments of both fish and animal bone were relatively plentiful. There

were occasional pieces of burnt and unburnt peat. Plant macro-fossils were rare comprising one carbonized *Avena* (oat) grain and a carbonized fragment of a *Chenopodium album* (fat hen) seed.

Rd303: Charcoal was abundant and carbonized *Calluna* (heather) stems and burnt peat were present. Bone fragments, mostly burnt or very brittle, were occasionally recovered. Plant macro-fossils were more abundant than in the previous sample. They included carbonized oat grains, floret and panicle fragments, *Hordeum* (barley) grains, *Corylus* (hazel) nut-shell fragments, a seed of *Linum usitatissimum* (flax) and *Chenopodium album* (fat hen) seed fragments.

Pit deposit 2351

Rd306: Charcoal was moderately abundant in this sample and there were very occasional fragments of burnt bone. Plant remains, comprising carbonized cereals *Avena* (oats) and *Hordeum* (barley) and weed seeds *Chenopodium album* (fat hen), *Anthemis cotula* (stinking mayweed), *Polygonum* spp. (knotgrasses) and *Polygonum persicaria* (persicaria), *Trifolium* sp. (clover) and *Rumex acetosella* (sheep's sorrel) were more common than in the previous samples.

Rd308: Charcoal was very abundant and there were occasional bone chips, mostly burnt or possibly cooked. Plant remains were not common, they included carbonized oat grains and weed seeds *Rumex acetosella* (sheep's sorrel), *Raphanus raphanistrum* (wild radish) and *Anthemis cotula* (stinking mayweed).

Pit deposit 2391

Rd300: Hard pebbles of peat, rich in pollen, characterized this sample. Charcoal and burnt bone fragments were also occasionally present. Plant remains were rare, they comprised two carbonized cereal grains, one *Avena* (oat), one unidentified, a *Chenopodium album* (fat hen) seed fragment, an *Erica cinerea* (bell-heather) leaf and an *Urtica dioica* (nettle) seed.

Rd301: This sample too had abundant peat pebbles and also included charcoal and burnt and cooked bone. The only plant macro-fossils present were a *Carex* (sedge) nutlet, a few fragments of *Chenopodium album* (fat hen) seeds and occasional *Juncus* sp. (rush) seeds.

Pit deposit 2092

Rd048: Charcoal was very abundant and was accompanied by coal, cinders and unworked fired clay. Bone chips, some burnt or cooked, were occasionally recovered. Plant remains were abundant when compared to those recovered from the other samples from this site. They included carbonized oat and barley grains, one *Triticum* (wheat) grain and a suite of carbonized weed seeds; *Chrysanthemum segetum* (corn marigold), *Chenopodium album* (fat hen), *Polygonum persicaria* (persicaria), *Galeopsis tetrahit* (dead nettle), *Polygonum aviculare* (knotgrass) and *Trifolium cf. repens* (clover). Heath species were well represented, the carbonized remains of *Calluna* (heather), *Erica tetralix* (cross-leaved heath) and *Erica cinerea* (bell-heather) were recovered.

These samples all represent to some degree material from a peat or wood-fuelled domestic hearth. The bone fragments present were very brittle and had the appearance of having been burnt or cooked. This may have, in part, been due to the conditions of preservation. The carbonized cereal grains and weed seeds present are likely to have been accidentally burnt, perhaps during parching or 'graddanning'. *Corylus* (hazel) nut shell fragments along with the bone would constitute domestic refuse burnt on the hearth.

The heath species present in several of the samples were most probably brought in with peat used for fuel. Wetland plant remains, such as those of *Carex* spp. are likely to have been growing nearby or may have been present in clay collected from stream sections.

INDUSTRIAL HEARTHES

Gully deposit 2392

Rd299: Most of the material left in the sieve when processing this sample had the appearance of chalky limestone and was probably mortar. Very occasional burnt bone chips and shell chips were recovered in addition to some unworked fired clay. No plant remains were identified other than some occasional charcoal fragments.

Pit deposit 2338

Rd317: Charcoal and coal were moderately abundant along with occasional fragments of metalliferous slag and cinders. Animal and fish bones were present but not abundant. In contrast to previous samples, uncarbonized seeds were present in this sample along with uncarbonized wood. They included *Reseda luteola* (dyer's rocket), *Atropa*

belladonna (deadly nightshade), *Chenopodium album* (fat hen), *Spergula arvensis* (corn spurrey) and both species of nettle, *Urtica dioica* and *U. urens*.

Trench deposit 2318

Rd309: Abundant coal (and possibly a form of slag) characterized this sample. Charcoal, cinders, burnt stone and bone fragments were also apparent. Plant remains were confined to poorly-preserved cereal grains (some identified as oat) and straw fragments plus a carbonized *Vicia* sp. (vetch) seed and heather flower.

Pit deposit 2390

Rd491: Cinders were abundant in this sample, there were also occasional fragments of coal, slag, metallic material and charcoal (including heather twigs). Plant remains were not numerous; carbonized cereals, oats and barley, and weed seeds, *Chenopodium album* (fat hen), *Rumex* (dock), *Rumex acetosella* (sheep's sorrel), *Chrysanthemum segetum* (corn marigold) and *Stellaria media* (chickweed), were recovered in addition to uncarbonized seeds and fruits of *Euphorbia helioscopia* (sun spurge), *Fumaria* sp. (fumitory), *Sambucus nigra* (elderberry) and *Urtica* spp. (nettles).

Rd495: Coal was abundant and cinders, charcoal and burnt stone were also recovered. Bone fragments, some burnt, were present. Plant remains were few and almost all carbonized. They included seeds and fruits of cereals, oats and barley, *Brassica* sp. (cabbage etc), *Chenopodium album* (fat hen) and *Hypochaeris radicata* (common cat's ear). An uncarbonized seed of *Atropa belladonna* (deadly nightshade) was the only item preserved in this manner.

Gully deposit 2209

Rd241: Mortar fragments were abundant and were accompanied by charcoal, coal, cinders, flint chips and unworked fired clay. Bone chips were relatively abundant. Plant remains were rare, being confined to three carbonized cereal grains (two oat, one unidentified) and a carbonized *Vicia* sp. (vetch) seed.

Domestic hearth material (carbonized cereals and weed seeds and bone fragments) was also present in this group of samples. They have an additional, possibly industrial, component mostly in the form of mortar, slag and unworked fired clay. Uncarbonized seeds of *Atropa belladonna* (deadly nightshade), *Reseda luteola* (dyer's rocket) and *Urtica* spp. (nettles) were present in sample Rd317. These are likely to be later additions originating from plants growing on the disturbed ground, although they have a history of use in dyeing, medicine and witchcraft.

Summary

All the samples examined were very similar in content and probably in origin. They were all largely made up of heavy clay/silt-rich soils. They were all more-or-less rich in charcoal and the plant remains were almost exclusively carbonized. This leads to the conclusion that the bulk of the organic material originated from the cleaning out of hearths. Apparently wood, peat and coal had been used as fuel. Wood and peat were most likely used for domestic purposes and coal, wood and, perhaps, charcoal were used in some form of industrial hearth. It is impossible from the botanical evidence to comment upon the nature of the industrial process involved. The two types of hearth rake-out may have been used to improve the fertility of the very heavy soils.

The assemblages of carbonized cereals and arable weed seeds are unremarkable in that they correspond closely to those already described from Kirk Close and South Methven Street. There are several routes by which they may have

become carbonized. The most likely are that they were being dried and were accidentally charred or that they represent the accidental burning of a store of grain. The virtual absence of remains other than whole grains suggests that the grain was already processed to remove the chaff etc.

Wheat/rye testa fragments were not recorded at Canal Street II but this may be a consequence of the poor preservation of uncarbonized material in these soils rather than an indication of their absence.

DISCUSSION

THE PLANT REMAINS

The majority of samples from the three sites have spectra dominated by arable and wasteland weeds and have much in common with those described from PHSE (Fraser 1981; Fraser PHSE), Aberdeen and Elgin (Fraser and Dickson 1982; Fraser forthcoming) and York (Hall et al 1983b). A large number of species are represented and the seeds and fruits of some species occur in great number. Cultivated and useful wild plants are relatively less common, apart from in the Kirk Close latrine samples, 2172, 2134, and Canal Street II samples. Those which are present do, however, give valuable information about diet, crafts, industry and day-to-day domestic practices.

Wetland and heathland species are moderately abundant, reflecting the proximity of marshy habitats and upland heath. Wood was also extracted in quantity and the majority of this is the subject of a separate report (see 3:2 Structural Timbers). Woodland mosses were occasionally abundant and large wads were found in the Kirk Close latrine samples.

PLANTS USEFUL TO MAN

Cereals

Remains of the four main cereal crops, oats (*Avena*), barley (*Hordeum*), wheat (*Triticum*), and rye (*Secale*) were recovered, in varying proportions, from the samples submitted. Oat and barley remains were the most frequently encountered.

Oat remains comprised carbonized and uncarbonized grains (caryopses), testa fragments and florets. The majority of the florets were referable to *Avena sativa* (common white oat), there were also some florets of *A. fatua* (wild oat). No florets of *A. strigosa* (black or bristle oat) were encountered although grains may have been present along with those of *A. sativa* and *A. fatua*. The apparent absence of *A. strigosa* is odd as in later centuries it was widely sown on poor acid soils in Scotland (Fraser 1981). It seems equally strange that *A. sativa* is present as Handley (1953) considers it to have been uncommon in the Highlands until after 1746, being restricted to the infields of the best farms for 50 years prior to this.

Avena testa fragments were only occasionally encountered and *Avena* remains in general were not common in the latrine samples. The testa fragments are delicate and almost translucent. They could have been overlooked but this is unlikely and it would seem that oats did not form a substantial part of the diet of these particular latrine users.

Uncarbonized grains were common in some samples, largely those containing flooring and midden material with a high dung content. The grains may have been fed directly to animals or were present in straw and chaff used as animal feed. Straw and chaff would also have been a component of bedding and flooring material for both human and animal

The uncarbonized remains which were preserved are interesting, *Atropa belladonna* (deadly nightshade) and *Reseda luteola* (dyer's rocket) for reasons already discussed and *Euphorbia helioscopia* (sun spurge) because this is its only occurrence in samples from these sites, although it has been described from PHSE material (Fraser 1981).

populations. The carbonized grain present could have arisen in a number of ways. Oat grains would have regularly become casualties during the process of parching or 'graddanning' the ears over an open flame to dry the grain and free it from the florets.

The accidental burning of chaff and straw or material containing it (such as roofing and flooring) would also be a rich source of carbonized grain (Hall et al 1983b) and might account for the carbonization of cereals which do not require 'graddanning'.

Barley remains, in the form of carbonized and uncarbonized grains and rachis segments, were as common overall as those of oats. They also had a similar distribution throughout the contexts examined being most common in floor level and midden samples. Barley testa fragments were more common in the latrine than those of oats but could not be considered to be abundant.

Examination of the barley rachis segments in the samples led to the conclusion that the majority of the barley present was a lax-eared type referable to bere. The rachis segments were long and slender rather than short and broad. All the grains were apparently hulled, although this was not always clear with carbonized examples. Wheat and rye remains were only occasionally encountered during the analysis. Testa (bran) fragments of both species were abundant in the Kirk Close latrine samples. Cereal bran has similarly been reported from medieval deposits at PHSE (Fraser 1981; PHSE), Aberdeen and Elgin (Fraser and Dickson 1982; Fraser forthcoming) and from York (Hall et al 1983a, 1983b). The testa fragments of wheat and rye are very similar in appearance and microscopic identification is fraught with difficulties (Korber-Grohne 1981, Korber-Grohne and Piening 1980; Dickson and Dickson forthcoming).

At present it is not possible to comment on the relative proportions of wheat and rye in the latrine material, although it is obvious that a mixture is present. The cell pattern of the possible rye fragments is very similar to that of *Secale cereale* spp. *segetale*, a modern weed rye, illustrated in Korber-Grohne (1981). It is hoped that reference material can be obtained which will permit the separation of the two sub-species in future.

As a consequence of the uncertainty regarding the identification of the testa fragments the broad categories of *Triticum aestivum* s.l. and *Secale cereale* s.l. have been used. *Triticum aestivum* s.l. includes the bread wheats and club wheat (*T. compactum*). *Secale cereale* s.l. covers the range of *Secale* species and sub-species (Evans 1976). The abundance of wheat and rye testa fragments in the latrine material is interesting. A similar abundance of wheat fragments in latrine fillings is reported from PHSE and Queen Street, Aberdeen (Fraser 1981). Wheat is generally thought to be a prestigious luxury food of the wealthy in medieval times and rye is not known to have been widely grown in Scotland (Ibid). The staple foods are recognized to have been oats and barley with a large proportion of the latter being

malted for use in brewing. It would be expected, therefore, that oat and barley testa fragments would form the bulk of the latrine material.

Wheat and rye may have been grown locally on fertile land and poor acid soil respectively or even sown together. The absence of any remains other than grain fragments suggests that processing did not occur at the excavated sites and the grain may even have been imported. Imported grain would command a high price and this would imply that the latrine users were wealthy. There are, however, no exotic food plants (figs or grapes and the like) represented in the latrine material to support this interpretation as was the case at PHSE, and Queen Street, Aberdeen (Fraser 1981).

The answer may lie in the very high concentration of *Agrostemma githago* (corncockle) present in the latrine material. This almost certainly represents heavy contamination of the wheat/rye which as a result would be unpalatable and eating it would produce unpleasant after-effects. *Agrostemma* seeds have a spiny outer coat and are 3-4 mm in diameter when whole. They also contain a toxic sapogenin called githagenin which is not destroyed by cooking. Heavily contaminated wheat and rye may have been sold off very cheaply to poor residents as, even in this form, it would provide some relief from barley and oats. The properties and possible users of corncockle are discussed in detail by Wilson (1975).

Brassicacae

Significant numbers of *Brassica* spp. (cabbage, turnip, swede, kail, etc) seeds and some pod fragments were recovered from the Kirk Close samples. They were much less common at the other sites. The seeds of *Brassica* and its related genera *Raphanus* (radish) and *Sinapis* (mustard) are easy to recognize to generic level but it is rather more difficult to separate the species.

Most records from archaeological deposits refer only to *Brassica* sp. or, at best, use the convention cf. in an identification. Further complications arise when both wild and cultivated populations are represented in a set of samples. The seeds from Kirk Close have been recorded as *Brassica* cf. *campestris* (which includes wild turnip, turnip rape and turnip, *B* cf. *oleracea* (which includes wild cabbage and all the cultivated cabbage family, brussels sprouts, cauliflower, kail, etc) and *Brassica* sp. for the remainder.

The earliest cultivated cabbages are thought to have been introduced in Roman times (Gates 1950) and were known in England in the 14th century, being grown as a commercial crop in the 16th century (Mitchell 1976; Thompson 1976). Kail of an uncertain type was grown from the 15th century onwards, its importance and the number of varieties increasing with time.

Most of the seeds identified to species level from Kirk Close are of *Brassica* cf. *campestris* and it may be that they are of the sub-species *oleifera* (turnip rape) known to have been cultivated for its oil content in Europe from the 13th century (McNaughton 1976a). Turnips may also have been grown for food.

The value of *Brassica* seeds as a guide to the use of various species by the human population is difficult to assess. Most cultivated *Brassica* species are eaten as roots or leaves and are harvested before the seed is set. Only seed collected for future sowing, use as a spice, for oil production or from wild or weedy populations is likely to be available for preservation. It is very difficult, therefore, to comment upon the use made by human populations of the various *Brassica* species. However, it does seem likely that they were used for food (probably as chopped and stewed 'greens') and for oil production along with *Linum* (flax). Analysis of latrine material for the presence of *Brassica*-specific aphids may go some way to confirming the former use (Hall et al 1983a).

Raphanus raphanistrum (wild radish) and *Sinapis arvensis* (wild mustard) have been included in this section

because of their use as a source of Durham mustard and as a famine food respectively. It is much more likely that they were cereal crop contaminants. *Raphanus raphanistrum* pod sections in particular are very difficult to remove from cereals by sieving or winnowing (Findlay 1956).

Flax (*Linum usitatissimum*)

Flax seeds and capsule fragments were most common in samples from Kirk Close, although some were recovered from the South Methven Street and Canal Street II sites. In common with the findings at PHSE (Fraser 1981) and Queen Street, Aberdeen (Fraser and Dickson 1982), flax fibres were absent or only rarely encountered. Linen fabric was similarly absent except for a single thread identified in a sample from South Methven Street.

It may be that oil production rather than linen production was the main purpose of the flax crop. Linseed oil would have had a large number of uses including fuel for lamps. A more likely explanation, as linen is known from historical records to have been produced in medieval Perth, is that the flax fibres do not preserve well under the prevailing conditions. The find of a small length of flax thread in a sample from South Methven Street illustrates this. The thread was enclosed in a dense ball of clay/silt-rich sediment which only broke down with difficulty during coarse sorting of the sample. The encapsulation had apparently protected the flax fibres from the conditions which cause the majority of the material to disappear. A dual use of the flax is likely to have occurred, producing both oil and linen. Waste from processing the crop to release the seeds may also have been used as flooring material.

Wild Plants as Food Sources

Wild foods were obviously collected locally when in season. *Corylus avellana* (hazel), *Prunus avium* (wild cherry), *Rubus idaeus* (raspberry), *Sambucus nigra* (elderberry), *Sorbus aucuparia* (rowan) and *Vaccinium myrtillus* (blaeberry) all produce edible seeds and fruits which would have provided welcome relief to a monotonous cereal diet.

Nutshell fragments of *Juglans regia* (walnut) were present in one sample from Kirk Close. *Juglans* is thought to have been introduced in Roman times (Godwin 1975), although pollen has been recorded at some sites from earlier periods (Godwin 1975; Whittington in Fraser 1981). It is impossible to say if walnuts were grown locally.

Plants as Sources of Dye

Dyeing of cloth is a use to which many plant species have been put in the past although they have now been almost entirely superseded by synthetic dyestuffs. The seeds and fruits of a number of these plants were recovered, mainly from Kirk Close material. The plant most obviously associated with dyeing is *Reseda luteola* (dyer's rocket) which provides a yellow dye. *Reseda luteola* is an introduced plant (Godwin 1975) and at one time was sown with oats and barley as a crop (Grigson 1975). Other plants present with applications in dyeing include *Vaccinium myrtillus* (blaeberry), *Sambucus nigra* (elderberry) also used in leather preparation (Buckland et al 1974), *Filipendula ulmaria* (meadowsweet), *Lycopus europaeus* (gypsy wort), *Calluna vulgaris* (heather) and *Pteridium aquilinum* (bracken).

Medicinal Plants

Almost all plants recognized in the medieval period have had medicinal properties attributed to them at some time (eg Gerarde 1597; Culpepper 1601). Most of the plant species represented at these four sites fall into this category. Of these perhaps the most potent are *Hyoscyamus niger* (henbane) and *Atropa belladonna* (deadly nightshade). In mild doses *Hyoscyamus* induces sleep, larger doses produce hallucinations and narcosis. It is reputed that it was a constituent

of witches' magic salve which enabled them to 'fly' and perform other supernatural acts. *Atropa* is best known as a muscle relaxant and was used by fashionable ladies in the past to dilate the pupils of their eyes.

Poisoning with both plants produces similar symptoms of flushed skin, dilated pupils, dry mouth, delirium and death from respiratory failure (Lewis and Elvin-Lewis 1977).

Hyoscyamus and *Atropa* may well have been cultivated or encouraged, along with other plants, for their medicinal properties. However, many other species would have been collected from the wild for this purpose.

WEED SEEDS AND CROP CONTAMINANTS

Weed seeds were present in almost every context examined and overall the plant macro-fossil spectra are dominated by plants of disturbed habitats. Even allowing for the tremendous productivity of some weed species this implies a local flora comprised largely of arable and wasteland weeds. Samples from the Kirk Close and South Methven Street excavations produced the greatest numbers and variety of weed seeds and fruits probably as a result of conditions at these sites being such that plant material was very well preserved.

A: Crop Contaminants

In the past, in the absence of selective herbicides, crops were much 'weedier' than they are at present with weeds making up a substantial part of the plant material growing in an arable plot. At harvest time the weeds were collected along with the crop. Weed seeds would then either be removed at some point in the initial crop processing (with the straw or the chaff), or be further processed and utilized with the crop. In the latter case their presence as contaminants could be toxic, unpleasant or inconsequential. A substantial number of species in Table 82mf (3: F7-8) would have been common as contaminants. *Agrostemma githago* (corncockle) and *Centaurea cyanus* (cornflower) are vigorous weeds of rye, and *Thlaspi arvense* (field penny cress) and *Spergula arvensis* (corn spurrey) both infest flax fields.

The analyses from the Canal Street II samples are very useful in identifying crop contaminants despite the low concentration of preserved macro-fossils. A number of the samples appear to contain charred examples of the oat and barley crop complete with weed seeds. Those present include *Chenopodium album* (fat hen), *Chrysanthemum segetum* (corn marigold), *Anthemis cotula* (stinking mayweed), *Polygonum aviculare* (knotgrass), *P. lapathifolium* (pale persicaria), *P. persicaria* (persicaria), *Rumex acetosella* (sheep's sorrel), *Spergula arvensis* (corn spurrey), *Stellaria media* (chickweed) and *Vicia* sp. (vetch). The majority of these are extremely abundant across the range of contexts from Kirk Close and South Methven Street.

Apart from cereals and flax, hay would also be an important crop needed to supply food for those animals not killed before winter. It could also be collected from damp meadows and marshes in a form known as 'rough hay' for roofing and flooring (Ravensdale 1974; Buckland et al 1974). The sowing of grass mixtures for hay production was a much later practice. Hay from the sources described above would contain a large number of meadow and wetland species, many with their seeds and fruits intact. Some are represented in the samples analyzed; *Gramineae* (grasses), *Ranunculus* spp. (buttercups), *Filipendula ulmaria* (meadow sweet), *Carex* spp. (sedges), *Trifolium* spp. (clovers), *Prunella vulgaris* (self heal) and *Myosotis* spp. (forget-me-nots). The presence of those species may reflect the use of hay in flooring and bedding. It is more likely, however, that they have passed through the digestive tract of an animal and that, along with the fibrous

plant material with which they are generally associated, they represent a mixture of dung and bedding.

B: Waste Ground

Yards and waste areas around modern farms provide an ideal habitat for weed species such as *Urtica* spp. (nettles), *Rumex* spp. (docks), *Chenopodium album* (fat hen) and *Stellaria media* (chickweed). Many arable weeds, transported with cereal crops, are similarly at home in these habitats. The opportunities for colonization by weed species of the medieval equivalent would be even greater. Roofs and walls would be attractive weed sites as conditions generally were much less tidy. An abundance of weed seeds would be released each year and would be transported by wind, by animals and human feet into a wide range of deposits. The tendency would be for the deposits to have a more or less uniform weed seed content dominated by species which were abundant or produced large numbers of seeds.

WETLAND PLANTS

The importance of wetland plant remains in identifying dung-rich samples has already been commented upon. Wetland species are represented at a lower frequency in most samples. The proximity of the marshy ground, the river, the town lade and other watercourses to each of the sites would ensure that seeds and fruits of these species would be incorporated into deposits by a number of routes other than the hay crop. It is interesting that *Juncus* (rush) seeds, usually one of the most common macro-fossils in waterlogged archaeological deposits (cf Underdown 1980), are not well represented at any of the sites. Rushes were apparently not available or were not favoured for flooring or roofing purposes. An abundance of straw may have removed the need to collect rushes (3:1 The Excavated Buildings).

Wetland species are most common in the South Methven Street ditch fillings probably as a consequence of their growing along the ditch sides or the water course which supplied water to the ditches. In this situation it is not possible to distinguish between seeds and fruits from living plants and those from dung and discarded roofing and bedding material.

HEATHLAND PLANTS

Heathland plants were regularly recovered from Kirk Close and South Methven Street samples; they were less obvious at the other sites. *Calluna vulgaris* (heather), *Erica* spp. (heaths) and *Pteridium aquilinum* (bracken) all apparently had applications in bedding, flooring and, perhaps, roofing. It is interesting to note that although shoots and flowers of *Calluna* and *Erica* spp. are abundant, seeds of these species are rare or absent. It seems likely that bedding and flooring material was collected from heathland in midsummer before the seed was set. Straw and chaff produced during threshing appears to have been used to replenish the bedding and flooring in the winter months.

Potentilla (tormentil) and *Eriophorum vaginatum* (bog cotton) would have been incidental collections along with the bracken and heather. *Potentilla* roots have, however, been used in dyeing and tanning (Fraser 1981).

TREES AND SHRUBS

Timbers exposed during the excavations in Kirk Close are the subject of a separate specialist report (see 3:2 The Excavated Buildings, Structural Timbers). A number of species are recorded as being present—*Quercus* (oak), *Alnus* (alder), *Betula* (birch), *Fraxinus* (ash), *Ulmus* (elm), *Corylus* (hazel), *Salix* (willow) and *Pomoideae* (apple family). During

the present analyses charcoal was generally recorded as such with no attempt being made to identify the species present. One sample from Kirk Close (1128) yielded charcoal in sizes large enough to represent structural timber. This was identified as being *Pinus cf. sylvestris* (probably Scots pine).

The timber report (see 3:2 The Excavated Buildings, Structural Timbers) draws the conclusions that the timber from the Kirk Close excavation was not new wood but had been re-used from other buildings. Timber was in short supply and its acquisition for building purposes particularly by the poorer classes would have presented great problems.

BRYOPHYTES

Thirty-three bryophyte taxa were recognized, mainly in samples from South Methven Street and Kirk Close. Of these, *Hylocomium splendens*, *Hypnum cupressiforme*, *Pleurozium schreberi*, *Polytrichum commune*, *Thuidium tamariscinum* and *Rhytiadelphus triquetrus* were the most commonly found and most abundant. These generally robust mosses of woodland, heathland and grassland habitats would have had a number of uses in packing, wiping and cleaning. High concentrations of these mosses in latrine samples are almost certainly the result of their use as toilet paper. Several fragments of rope made of *Polytrichum* stems (hair moss) were recovered from the excavation at Kirk Close (see 5:10 Moss Ropes, Catalogue 166-173).

ANIMAL REMAINS

Domestic refuse was present in a significant proportion of the samples, ostensibly those containing flooring material. Bone chips were common and were often of a brittle nature

perhaps as a result of being charred or cooked. Other finds comprised shell chips, egg shell, feather fragments, fish bones, hair, leather, teeth, vertebra and possible carbonized flesh.

MISCELLANEOUS

A number of items were recovered which were difficult to categorize.

Eggs of the parasitic worms *Trichuris* (whipworm) and *Ascaris* (maw worm) have been recognized in deposits from a number of sites (Buckland 1976; Fraser 1981; Hall et al 1983a, 1983b). They were present in Kirk Close adhering to cereal testa fragments in the latrine samples. No attempt has been made at this stage to ascertain the species present. However, *Trichuris* and *Ascaris* commonly occur together in man and pig. Circumstantial evidence from the plant remains in the material identified as coming from a human latrine suggests that the species which infect humans are represented (Hall et al 1938b).

Fired clay in worked and unworked forms was encountered in a number of samples. Unworked clay fragments, perhaps from the floor or wall covering, were probably accidentally fired on a hearth. Cinders and coal were also present and occurred in large amounts in the Canal Street II samples. They presumably represent the use of coal to fuel domestic and industrial hearths. Insect remains were routinely recovered from the matted plant material of the floor levels along with fungal fruiting bodies. The majority of the remains were fragments of beetles. *Diptera* puparia were common in latrine and midden material. No further identification was attempted. Globules of cramp-like slag were present in some samples. The quantities were never great but may indicate the execution of some industrial process.

SUMMARY

Throughout this account the similarity in plant macro-fossil content between contexts and between sites has been stressed. The uniformity is particularly evident when the data from South Methven Street and Kirk Close are examined. It is apparent that there is a substantial background component in the assemblages which is more or less constant regardless of context. Diagnostic differences between contexts are relatively slight and it is important to identify the background data in order to recognize and interpret these differences.

An examination of the major roles played by plants in the economy gives some indication of how the overall uniformity arose.

Cereals formed the basis of the human diet. They were harvested in the autumn along with the high proportion of weed species present in the crop, for example, *Agrostemma githago* (corncockle), *Centaurea cyanus* (cornflower) and *Fallopia convolvulus* (black bindweed). The crop would be processed throughout the winter. The grain would go to feed the human population with a small amount perhaps heavily contaminated with weed seeds, being fed to poultry for egg and meat production. The straw and chaff along with some grains and many weed seeds would be used to feed cattle and perhaps other animals not slaughtered before winter. Straw and chaff were also a source of roofing and flooring material, being used for both animal and human populations. Bedding and flooring material in the form of heather and bracken was collected from heathland, apparently in midsummer.

One of the hardest questions to answer concerning floor level samples made up of flooring and bedding material is whether they represent accumulation under human or animal occupation. The concentration of domestic debris, bone chips, fish bone, burnt grain and hazel nut shells, tends to suggest the former. However, it may be that, particularly in winter, animals and humans shared

much the same quarters or that flooring material on domestic floors was later utilized in the animal pen. In any event it would appear that the common state of the floors was to be covered in vegetation; straw, chaff, heather, bracken or rough hay, rather than just packed earth or boards. One of the main reasons for this would be that, in the low-lying riverside town, damp and decay would be ever-present problems. Freshly strewn plant material would dry up the floor, make it sweeter smelling and may even have been used in conjunction with a sand layer to level a floor. An analysis of how the various components are incorporated into an early medieval occupation floor in York has been undertaken by Hall et al (1983b). Many of their observations apply equally well to the material discussed here.

There are many similarities between the macro-fossil assemblages of the floor level samples from Kirk Close and South Methven Street and the assemblages seen in samples from the various middens, gullies, yards, pits and ditches in these sites.

It seems likely that, at certain times of the year, both human and animal accommodation would be cleaned out into the midden, pits and yards. Some would find its way into ditches and gullies either by accident or intent. The majority was probably spread on the fields as compost. The midden spreads, pit and gully fillings are the remnants of this. If the high incidence of wetland plants and grass remains is a reliable indicator of the presence of animal dung, then it would appear that this midden material has a higher dung content than is generally seen in the intact floor levels.

Latrine material too would find a use as fertilizer as the latrines must have been cleaned out from time to time. Whether latrines were in general use by the populace it is impossible to say on the basis of examining one filling.

The cereal diet, evident from analysis of the latrine material, was supplemented by meat (and, presumably, dairy products), fish, shellfish, eggs, wild fruits and seeds (raspberry, elderberry, wild cherry, blueberry and hazelnuts). The latter wild seeds and fruits would have provided welcome variety when in season.

The industries and crafts of woodworking, leatherworking, dyeing, linen and oil production relied heavily on supplies of raw materials, timber, hides, plant dyes, flax (and perhaps *Brassica*) respectively. The waste from these operations is evident in floor levels and the various midden samples. In the main they have been taken to represent on-site industry, but it is quite possible that wood chips, flax and *Brassica* waste were used as flooring much the same as straw and chaff were used.

7 CONCLUSIONS LM BLANCHARD

In the past decade there have been ten major excavations in Perth and it is now the most intensively excavated burgh in Scotland. The sites have been extremely rewarding, with deep, well-stratified deposits and well-preserved artefacts. Two excavations have already been published (Thoms 1982; Blanchard 1983) and this volume discusses much of the work conducted between 1979 and 1981. Analysis of past excavations and digging of new sites continues and Perth has become a prime source for studies of urban medieval Scotland. An attempt has been made to utilize the excavated sources up to 1982 in the following discussion.

As with other Scottish burghs, evidence for urban life in Perth prior to the late 12th century is limited. From historical sources Duncan has argued that David I (1128-1153) was recognizing an existing settlement when he conferred burghal status on the town (Duncan 1974 and 1975). Using evidence from customs receipts he suggests that the Watergate area on the W bank of the Tay was the nucleus of the early burgh. There has been no excavation within this area to confirm or deny this theory. However, a Viking-type sword was found in the Watergate (and another in High Street) but they could have been deposited in the 12th century and does not constitute proof of an early settlement (Caldwell PHSE).

Moving W, Duncan considers that the Skinnergate/Kirkgate alignment was an early development but again there has been no excavation of these streets. Still further W there have been two excavations reaching early levels on the High Street frontages; at the site developed by Marks and Spencer (Perth High Street Excavation) and the site developed by House of Fraser (King Edward Street) (SUAT forthcoming a). At the former there was evidence of several building phases prior to 1150 and at the latter there were building and industrial remains established before the end of the 13th century.

Further S, Duncan argues for the existence of South Street by 1180 and Spearman (2:3 Canal Street II) suggests that there was 12th-century occupation at the Canal Street II excavation but that formal planning took place in the 13th century. However, these theories remain tentative until South Street frontage sites are examined.

The observations of structural traces under recently demolished buildings and of gravels and midden under the street confirm that the alignment of High Street has remained reasonably constant through the centuries. An isolated observation at Kirkgate and another at South Street suggests that, at these points, the modern streets follow their medieval predecessors.

There has been some discussion on the exact limits of the medieval town. Duncan argues for a boundary on the same line as the lade shown on the Rutherford map (Ill 2) being established by 1180 whereas Spearman (2:3 Canal Street II) argues for an early W boundary roughly at the end of Meal Vennel. From archaeological sources there has as yet been no evidence for any 12th-century boundary but this is a result of lack of excavation. There have been three sections cut through parts of the N town boundary, two at the Perth High Street Excavation site, one at Mill Street (SUAT forthcoming a), and one through the W boundary (2:3 Canal Street II). There was also a fragment of walling on the Perth High Street Excavation site. The combined evidence from these features suggests that there was a formidable barrier around Perth by the 14th century, on the Mill Street, South Methven Street and Canal Street line and there is ample documentary evidence to support this (Turner-Simpson and Stevenson 1982).

By the end of the 14th century the town had spread beyond this boundary and at South Methven Street there was evidence of extra-mural occupation and possibly industry. Outside the defences the clusters of stray finds may indicate the sites of the Castlegable suburbs or the Blackfriars (Dominican) lands lying to the N of the burgh, the New Row suburb beyond the High Street port and the site

of the Carthusian Friary in the SW. The finds from Wellbank were originally thought to indicate the site of a pottery kiln (Stevenson & Henshall 1957) but this is now considered unlikely (Brooks & Haggarty pers comm).

The only major institutions of the medieval town to have been examined by archaeologists are the Carmelite Friary site some distance W of the burgh and the medieval harbour identified in a watching brief at the foot of the High Street where the plunging deposits of black organic material can only be the backfill of the early harbour and the timber piles were perhaps remnants of an associated structure, possibly a wharf or even the tolbooth or bridge. The frequent finds of human bone and shroud pins from the area around St John's Kirk verify the site of its medieval graveyard.

Although only giving a sketchy outline of the development of the burgh, the recent excavations have provided a wealth of detail about daily life in the town.

The Rutherford map shows clearly the individual holdings as they existed in the 18th century (Ill 2) and so far the excavated evidence suggests this pattern is an accurate reflection of the medieval rigs in the town. For example, on the Canal Street II site Spearman excavated parts of five to six medieval rigs and he suggests that they were regularly laid out in the 13th century. They had a width of c5 m and the boundaries remained reasonably constant until altered slightly by the insertion of Ropemaker's Close. At the Kirk Close site the properties were c5.5 to 6.5 m wide with continuity of boundaries throughout the 14th century. These boundaries were reflected in the 18th-century properties still standing on the High Street frontage.

The Kirk Close site had a close, then two properties and then another close, which seems a sensible arrangement allowing access to the rear of each property. At Canal Street II there was evidence of only one close leading through the site, although five to six properties were uncovered. This may indicate less intensive use of this area either because it was a backland or because South Street was a less important street.

As yet there has been no examination of a complete burgage plot in Perth. On the Perth High Street Excavation site an area stretching back from the street frontage up to 40 m was opened. Throughout most of its history this area consisted of a clutter of buildings interspersed with yards, middens and pits. In the earliest periods there were buildings on the street frontage, the later levels of the frontage did not survive, and the general picture was one of intense competition for land on or close to the High Street. The situation was similar at the King Edward Street site. On the Perth High Street Excavation site, trenches were opened up close to Mill Street more than 60 m back from the High Street frontage; here the site was much more open, with garden soils, fences and pits present rather than buildings. A similar picture emerged at Kirk Close and at both Canal Street I and II excavations. The former, 20 m from the High Street frontage was intensively occupied while the two latter, 40 m and more back from the South Street frontage had no buildings until the 15th century. On the South Methven Street site there was no evidence of well-defined linear rigs; instead there was an 'ad hoc' cluster of buildings outside the town wall.

On every site excavated to date there has been some evidence of industrial activity. At Kirk Close it is obvious that these were home-based or cottage industries; for example, the cobbling was carried out in a small building which might also have been the living quarters of the workman and his family. Similarly, the bread oven, although too large for purely domestic use, would not have employed a large number of bakers. On most of the sites the industrial evidence has been in the form of small quantities of waste products such as broken moulds from Canal Street II and horn cores from South Methven Street. So far there has been no convincing evidence of large scale manufactories in Perth but it is difficult to assess the scale of work when only a small area is excavated.

It seems likely that the craftsmen and labourers erected their own homes. Most of the buildings excavated were simple post-and-wattle dwellings which would not require a great deal of expertise to construct. There was a great dependence on local materials. Houses were built from locally gleaned timber and their floors were covered with straw. Most of the textile, leather and everyday domestic artefacts, tools and personal possessions are likely to have been made locally. Much of the food would also have been local produce. Frequently the buildings showed evidence of stabling as well as domestic use. There were large areas of gardens in the backlands, and the cesspit at Kirk Close contained blaeberry seeds and poor quality cereal in its filling.

Most of the excavated remains probably belonged to the poorer section of the community. These

people practised small scale industries to supplement their subsistence level life style. As yet there has been no excavation of large scale industrial sites nor of properties belonging to the richer merchant class. However, evidence for a cosmopolitan and industrial society can be found in the artefacts recovered. For example, large quantities of Perth Local pottery sherds point to the existence of a sophisticated pottery industry and fragments of imported pottery and beautiful silks demonstrate Perth's links with the rest of Europe.

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EXCAVATIONS IN THE MEDIEVAL BURGH OF PERTH 1979-81

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TABLE 1mf/1 KIRK CLOSE CATALOGUE OF FEATURES, STRUCTURE 2, PERIOD 1

Feature	Context	Description and dimensions
NORTH WALL:		
Group 1d construction		Stake and wattle set in a ground-sill
Ground-sill (Ulnus)	2152	0.8 m+ EW x 0.15 m diameter
Foundation trench?	2163	Not excavated
Stake and wattle	2102	0.15 m NS x 1.00 m+ EW x 0.25 m high Stake diameter c 0.06 m Stake spacing c 0.15 m intervals Wattle diameter c 0.03 m
Cladding (clay)	2079	0.20 m NS x 1.00 m+ EW x 0.25 m high
SOUTH WALL:		
Freestanding post (Quercus)	2083	0.19 m NS x 0.19 m EW x 0.79 m high
Freestanding post (Quercus)	2093	0.15 m NS x 0.17 m EW x 1.55 m high
WEST WALL:		
Possible group 1b Construction		Stake and wattle with freestanding posts
Stake and wattle	2182	Fragmentary
Cladding (clay)	2144	0.9 m +NS x 0.2 m EW x 0.3 m high
Freestanding post	2068	0.16 m NS x 0.12 m EW x 0.5 m high set in recut stone-packed post-hole

TABLE lmf/2

Feature	Context	Description and Dimensions
INTERNAL CESS PIT:		
Cess pit frame	2123	1.30 m NS x 1.10 m+ EW x 0.85 m deep
Half timber (Quercus)	2191	0.88 m+ NS x 0.20 m EW x 0.09 m thick
Baulk (Quercus)	2192	0.19 m+ NS x 0.90 m EW x 0.08 m thick
Baulk (Quercus)	2190	0.12 m+ NS x 0.87 m+ EW x 0.12 m thick
Stake and wattle screen	2158	0.4 m+ NS x 0.50 m+ EW Stake diameter c. 0.04 m Stake spacing c. 0.16 m
Stake and wattle screen	2166	0.4 m NS x 0.50 m+ EW Stake diameter c. 0.04 m Stake spacing c. 0.16 m Wattle diameter c. 0.02 m
INTERNAL LAYERS:		
Clay and amorphous organic silty sand	2136	
Amorphous organic silty sand	2164	
Blue clay	2165	
Sand	2137	

TABLE 2mf/1 KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 3, PERIOD I

Feature	Context	Description and dimensions
SOUTH WALL:		
Group 1b construction		Stake and wattle with freestanding posts
Stake and wattle	2062	0.14 NS x 3.00 m EW x c.0.10 m high Stake spacing irregular
Stake and wattle	2204	0.08 m NS x 1.06 m EW x 0.03 m high
Freestanding post	2147	0.08 m NS x 0.13 m EW x not recorded
EAST WALL:		
Group 1d construction		Stake and wattle set in ground-sills with some freestanding posts. A large amount of clay found in the robbing of this wall (see Period II, gully 2139) which could have been cladding.
Ground-sill (Alnus)	2142	2.24 m NS x 0.18 m EW x 0.17 m deep Stake diameter c. 0.03 m Stake spacing c. 0.26 m intervals
Ground-sill (Alnus)	2205	2.32 m NW x 0.10 m EW x 0.10 m deep Stake diameter c. 0.03 m Stake spacing c. 0.30 m
Freestanding post	2145	0.06 m diameter
Freestanding post	2146	0.06 m diameter
Freestanding post	2206	0.10 m diameter

TABLE 2m£/2

Feature	Context	Description and dimensions
EAST WALL CONTINUED		
Freestanding post	2207	0.06 m diameter
Freestanding post	2208	0.08 m diameter
Freestanding post	2209	
Stake and wattle	2184	c. 3.1 m NS x 0.10 m EW x 0.10 m high
WEST WALL:		
Group 1d construction		Stake and wattle set in ground-sills
Ground-sill (Quercus)	1101	2.42 m NS x 0.14 m EW x 0.05 m deep Stake diameter c. 0.04 m average Stake spacing c. C.30 m intervals
Freestanding stakes	2188	0.03 m diameter
Freestanding stakes	2210	0.03 m diameter
Freestanding stakes	2211	0.03 m diameter
Freestanding stakes	2212	0.03 m diameter
INTERNAL LAYERS:		
Structured organic material and sand	2181	
Sand	2151	
Amorphous organic material	2150	

TABLE 3mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 4, PERIOD I

Feature	Context	Description and dimensions
SOUTH WALL:		
Group 1b construction		Stake and wattle with freestanding posts
Stake and wattle	1148	0.08 m NS x 1.80 m EW x 0.08 m high
Robbed post-holes?	1129	
	1179	
EAST WALL:		
Group 1b construction		Stake and wattle with freestanding posts
Stake and wattle	1169	1.20 m NS x 0.10 m EW
Stake and wattle	1132	1.10 m NS x 0.12 m EW
Post (Quercus)	1155	0.19 m NS x 0.20 m EW x 1.92 m high
INTERNAL LAYERS:		
Organic material with		
wood and pebbles	1147	
Clean sand	1146	
INTERNAL FEATURES:		
Hearth stone	1149	c. 1.0 m NS x 0.74 m EW x 0.18 m thick
Hearth fill	1150	Burnt clay and sand
Hearth fill	1165	Layer of ash
Hearth fill	1166	Layer of ash

TABLE 4mf/1 KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 2, PERIOD 1I

Feature	Context	Description and dimensions
NORTH WALL:		
		See Period I
Freestanding post	2084	0.08 m NS x 0.08 m EW
SOUTH WALL:		
Possible Group 1b		
construction	2185	Stake? and wattle Wattle diameter c. 0.01 m
Cladding (clay)	2186	
WEST WALL:		
Freestanding post?	2068	See Period I
INTERNAL PARTITION:		
Freestanding post	2080	0.04 m NS x 0.08 m EW
Freestanding post	2081	0.04 m NS x 0.08 m EW
Freestanding post	2082	0.08 m NS x 0.08 m EW
INTERNAL LAYERS: N END		
Gravel	2090	
	2099	
	2097	
Amorphous organic	2075	
	2085	
Sand	2074	

Table 4mf/2

Feature	Context	Description
INTERNAL LAYERS: S END		
Clay and organic material	2106	
Organic loam	2078	

TABLE 5mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 4, PERIOD II

Feature	Context	Description and dimensions
Dimensions		As Period I
SOUTH WALL		As Period I
EAST WALL		As Period I
INTERNAL LAYERS		
Sandy clay	1140	
Silty clay	1139	
Organic loam		
carbonised floor remains	1128	
Silty clay	1133	
Sandy clay	1124	
Sand with clay	1164	
Clay	1126	
INTERNAL FEATURES		
		Hearth base 0.08 m across
Sandy clay	1130	
Hearth fills	1157	Burnt clay
	1158	Ash
	1159	Ash
	1145	c. 0.14 m diameter x 0.25 m deep
Fill	1140	Sandy clay
	1141	c. 0.83 m diameter x 0.05 m deep
Robbed post-hole?	1179	c. 0.91 m diameter x 0.21 m deep
Fill	1152	Structured organic material
Robbed post-hole	1129	1.93 m NS x 0.8 m+ EW x 0.45 m deep
Fill	1178	Silty clay

TABLE 6mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 2, PERIOD III

Feature	Context Description and dimension	
NORTH WALL	As Period I	
WEST WALL		
Foundation trench?	2132	c. 2.0 m NS x 0.10 m EW x c 0.30 m deep
Fill	2054	Clay and organic material
Freestanding post?	2068	see Period I
INTERNAL FEATURES		
Clay	2055	
Silty clay	2065	

TABLE 7mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 3, PERIOD III

SOUTH WALL

As Period I

EAST WALL

Group 1d construction		Stake and wattle set in a ground-sill
Foundation trench	2087	2.20 m NS x 0.24 m EW x 0.05 m deep
Ground sill (Alnus)	2061	3.10 m NS x 0.08 m diameter
Stake and wattle	2086	1.20 m NS x 0.06 m EW x 0.03 m high Wattle diameter 0.02 m
Cladding (clay)	2060	

WEST WALL

As Period I

INTERNAL LAYERS

Amorphous organic and sand (S)	2105
Sandy loam (S)	2096
Organic material and sand	2133
Organic material and sandstone (N)	2135
Sandstone flags (N)	2180

TABLE 8mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 1, PERIOD IV

Feature	Context	Description and dimensions
NORTH WALL		
Possible group Id construction		Post and wattle (?) set in ground-sill on stone foundation
Stone foundation	1053	0.03 m NS x 1.70 m+ EW x 0.02 m high
EAST WALL		
Ground sill	1086	2.34 m NS x 0.10 m EW x 0.05 m high
Stone foundation	1089	3.20 m NS x 0.30 m EW x 0.20 m high
SOUTH WALL		
Stone foundation	1180	0.40 m NS x 1.70 m EW x 0.20 m high
ASSOCIATED LAYERS		
Silt	1108	
Sand	1107	
Sand and organic loam	1100	
Clean sand	1088	
Stakeholes	1096	

TABLE 9mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 1 PHASE A, PERIOD V

Feature	Context	Description and dimension
ROOM S1(A)		
NORTH WALL		As Period IV
EAST WALL		As Period IV
ASSOCIATED LAYERS		
Sand with silt and rotted wood fragments	1070	
ROOM S1(B)		
Dimensions		1.00 m NS x 3.30 m+ EW
NORTH WALL		
Voided timber slot	1093	0.10 m NS x 1.25 m EW x 0.10 m thick
Stake hole	1078	c. 0.28 m deep
EAST WALL		
Timber slot	1095	0.70 m+ NS x 0.08 m EW x 0.05 m thick
Timber slot (voided)	(1094)	
ASSOCIATED LAYERS		
Silty clay	1074	
Sand and clay patches	1083	

TABLE 10mf KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE I PHASE B, PERIOD V

Feature	Context	Description and dimension
ROOM A		
NORTH WALL		As Period IV
EAST WALL		
Timber	1059	2.54 m NS x 0.18 m EW x 0.06 m thick
Post	1068	0.25 m NS x 0.18 m EW x 0.18 m high
SOUTH WALL		See N Wall of Room B
ASSOCIATED LAYERS		
Sand and organic silt	1058	
Patches of sand with wood and shell	1045	
Straw	1043	
ROOM B		
NORTH WALL		
Timber	1080	0.12 m NS x 1.10 m EW x 0.06 m thick
Stonefooting	1087	0.18 m NS x 1.00 m EW
Clay packing	1064	
Timber	1063	0.16 m NS x 1.76 m+ EW x 0.12 m
Posthole	1082	0.30 m NS x 0.30 m EW x 0.24 m
ASSOCIATED LAYERS		
Stone slab	1072	c. 0.16 m across
Silt	1073	

TABLE 11mf/1 KIRK CLOSE, CATALOGUE OF FEATURES, STRUCTURE 1 PERIOD VI

Feature	Context	Description and dimension
ROOM A		
NORTH WALL		As Period IV
EAST WALL		
Timber	1013	3.20 m NS x 0.15 m EW x unknown
Stone footing	1047	3.00 m NS x 0.18 m EW x 0.15 m high
Packing	1040	Clay and silt
SOUTH WALL		
Stone footing	1050	0.30 m NS x 1.70 m+ EW x 0.35 high
ASSOCIATED LAYERS		
Clay and straw	1042	
Silty clay	1038	
Clean sand	1016	
Silty clay	1003	
Silty clay with wood fragments	1008	
Structure 1		
Dimensions		2.30 m+ NS x 3.16m+ EW

TABLE 11mf/2

Feature	Context	Description and dimension
ROOM B		
NORTH WALL		
Timber	1014	0.14 m NS x 2.50 m+ EW x 0.14 m thick
Stone footing	1060	0.40 m NS x 1.10 m EW x 0.45 m high maximum
Bonding clay	1062	
EAST WALL		
Timber	1041	0.50 m+ NS x 0.12 m EW x 0.02 m thick
Stone footing	1060	0.54 m+ NS x 0.36 m EW x 0.45 m high maximum
ASSOCIATED LAYERS		
Stone slabs	1039	
Silty gravel	1028	
Gravel	1056	
Organic material	1057	
Silt	1026	
Stone slabs	1027	
Oven	1030	2.00 m+ NS x 0.70 m EW x 0.60 m deep
Stone lining	1010	
Packing	1009	Clayey silt
	1012	Clayey silt
Filling	1007	Charcoal and ash
	1156	Burnt clay and daub
	1001	Silty clay and daub

TABLE 12mf CANAL STREET II, CATALOGUE OF FEATURES, PERIOD I

Feature	Context Description and Dimensions	
Pit	2458	1.9 m x 0.4 m+ x 0.1 m+ deep
Pit	2463	0.9 m+ x 0.57 m+ x 0.36 m+ deep
Pit	2503	0.73 m+ x 0.3 m+ x 0.4 m+ deep
Post-hole	2487	0.78 m x 0.75 m x 0.3 m deep
Post-hole	2456	0.48 m x 0.34 m x 0.22 m deep
Post-hole	2520	0.5 m x 0.67 m+ x 0.3 m deep
Post	2514	0.15 m diameter x 0.08 m deep
Post	2516	0.12 m diameter x 0.14 m deep
Post	2534	0.16 m diameter x 0.02 m deep

TABLE 13mf CANAL STREET II, CATALOGUE OF FEATURES, PERIOD II

Feature	Context Description and dimensions	
Pit	2351	5.2 m x 1.8 m x 1.2 m deep
Pit	2385	1.3 m x 2.45 m+ x 0.95 m deep
Layer	2273	
Layer	2377	.
Layer	2450	
Layer	2502	
Layer	2523	
Layer	2541	

TABLE 14mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1, PERIOD III

Feature	Context Description and dimensions	
Gully	2243	0.9 m+ wide x 0.55 m-0.2 m+ deep
Pit?	2253	1.25 m+ x 0.25 m+ x 0.3 m+ deep
Post	2250	0.2 m diameter x 0.32 m deep

TABLE 15mf CANAL STREET II CATALOGUE OF FEATURES, PLOT 2, PERIOD III

Feature	Context	Description and dimensions
Gully	2445 /2489	0.8 m wide x 0.11 m - 0.48 m deep
Stake	2508	0.05 m diam x 0.33 m deep
	2509	0.09 m diam x 0.17 m deep
	2500	0.06 m diam x 0.12 m deep
Sinkage hollow	2334	2.17 m x 2.1 m x 0.3 m+ deep
Post-holes	2384	0.65 m x 0.43 m+ x 0.2 m+ deep (ghost 2372 0.16 m diam)
	2362	0.42 m x 0.33 m x 0.18 m deep
Shallow	2362	0.66 m x 0.5 m x 0.99 m+ deep
Layer	2349	

TABLE 16mf CANAL STREET II CATALOGUE OF FEATURES, PLOT 3, PERIOD III

Feature	Context	Description and dimensions
Gully	2347	0.4 m+ wide x 0.19 m+ deep
Layer	2368	

TABLE 17mf CANAL STREET II CATALOGUE OF FEATURES, PLOT 4, PHASE A, PERIOD III

Feature	Context	Description and dimensions
Gully	2452	0.7 m wide x 0.2m+ deep
Post-hole	2496	0.5 m wide x 0.28 m deep
Stake-hole	2497	0.07 m diam x 0.14 m deep

TABLE 18mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 4, PHASE B, PERIOD III

Feature	Context	Description and dimensions
Gully	2452/4	0.66 m wide x 0.2 m+ deep
Layer	2421	

TABLE 19mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE A, PERIOD III

Feature	Context	Description and dimensions
Pit	2531	0.4 m x 0.35 m+ x 0.4 m+ (base below natural 0.61 m)
Pit	2536	0.5 m x 0.44 m x 0.25 m+ (base below natural 0.6 m)
Pit	2538	1.05 m x 0.5 m+ x 0.6 m+ (base below natural 0.7 m)
Pit	2555	1.44 m x 0.6 m+ x 0.15 m+ (base below natural 0.68 m)
Pit	2565	0.5 m x 0.3 m+ x 0.35 m+ (base below natural 0.46 m)
Post-hole	2553	0.4 m x 0.35 m x 0.4 m+ (base below natural 0.61 m)
Post-hole	2567	0.5 m x 0.4 m x 0.2 m+ (base below natural 0.8 m)

TABLE 20mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE B, PERIOD III

Feature	Context	Description and dimension
Pit	2528	1.46 m x 0.9 m+ x 0.2 m+ deep (base below natural 0.5 m)
Pit	2529	2.05 m x 0.89 m+ 0.5 m+ deep (base below natural 0.51 m)
Pit	2540	0.78 m x 0.15 m+ x 0.4 m+ deep (base below natural 0.8 m)
Post-hole	2563	0.38 m x 0.22 m x 0.25 m+ deep (base below natural 0.55 m)
Slot	2569	0.36 m x 0.16 m+ x 0.1 m+ deep (base below natural 0.49 m)
Feature	2543	0.4 m x 0.1 m+ x 0.7 m+ deep
	2545	0.6m x 0.35 m+ x 0.6 m+ deep

TABLE 21mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE C, PERIOD III

Feature	Context	Description and dimensions
Pit	2526	1.25 m x 0.96 m+ x 0.22 m+ deep
Pit	2532	1.10 m x 0.5 m+ x 0.45 m deep
Pit	2547	1.24 m x 0.92 m+ x 0.7 m+ deep
Pit	2449/ 2586	0.8 m x 0.35 m+ x 0.55 m+ deep
Post-hole	2557	0.26 m diam x 0.14 m+ deep
Slot	2491	0.68 m x 0.46 m+ x 0.16 m+ deep
	2559	0.3 m x 0.45 m+ (ghost 0.16 m diam) x 0.8 m deep
	2561	0.65 m x 0.65 m+ x 0.45 deep
Spit	2419	
Spit	2420	
Spit	2447	
Spit	2462	
Spit	2477	
Spit	2494	
Spit	2512	

TABLE 22mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1, PERIOD IV

Feature	Context	Description and dimensions
Gully	2392	0.54 m wide x 0.75 m deep
Layer	2180	

TABLE 23mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 2, PHASE A, PERIOD IV

Feature	Context	Description and dimensions
Sinkage hollow	2266	c. 1.5 m wide x 0.3 m deep
Sinkage hollow	2289	1.23 m x 1.25 m x 0.35 m deep
Sinkage hollow	2303	0.23 m+ x 1.0 m x 0.12 m deep
Sinkage hollow	2406	2.31 m x 1.6 m x 0.36 m deep
Post-hole	2203	0.75 m x 0.38 m+ x 0.25 m deep
Post-hole	2291	0.4 m 0.3 m x 0.28 m deep
Post-hole	2294	0.32 m x 0.29 m x 0.18 m deep
Post-hole	2307	0.55 m x 0.36 m+ x 0.12 m deep
Post-hole	2418	0.4 m x 0.48 m+ x 0.54 m deep
Layer	2179	
Layer	2281	
Layer	2292	

TABLE 24mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 2, PHASE B, PERIOD IV

Feature	Context	Description and dimensions
Feature	2247	0.5 m x 0.85 m+ x 0.14 m deep
Feature	2370	0.25 m x 1.0 m+ x 0.16 m deep
Post-hole	2242	0.33 m x 0.23 m+ x 0.12 m deep
Post-hole	2272	0.73 m x 0.55 m x 0.37 m deep
Post-hole	2415	0.3 m x 0.1 m+ x 0.28 m deep
Stake-hole	2331	0.08 m diam x 0.11 m deep

TABLE 25mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3, PHASE A, PERIOD IV

Feature	Context	Description and dimensions
Gully	2493	0.29 m+ wide x 0.3 m+ deep
Layer	2308	

TABLE 26mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3, PHASE B, PERIOD IV

Feature	Context	Description and dimensions
Gully	2323	0.44 m wide x 0.5 m+ deep (recut 0.85 m wide)
Layer	2278	

TABLE 27mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 4, PHASE A, PERIOD IV

Feature	Context	Description and dimensions
Pit	2391	3.3 m x 3.0 m+ x 1.5 m deep
Stake-hole	2403	0.05 m diam x 0.1 m deep
Stake-hole	2511	0.05 m diam x 0.19 m deep
Stake-hole	2517	0.05 m diam x 0.25 m deep
Stake-hole	2518	0.05 m diam x 0.06 m deep

TABLE 28mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 4, PHASE B, PERIOD IV

Feature	Context	Description and dimensions
Gully	2300	1.5 m wide x 0.25 m+ deep
Sinkage hollow	2270/ 2296	2.75 m wide x 0.34 m+ deep

TABLE 29mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE A, PERIOD IV

Feature	Context	Description and dimensions
Gully	2376	0.73 m+ wide x 0.4 m deep
Pit	2330	0.88 m x 0.45 m+ x 0.65 m deep
Layer	2348	
Layer	2356	
Layer	2397	
Layer	2408	

TABLE 30mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE B, PERIOD IV

Feature	Context	Description and dimensions
Gully	2364/ 2388	0.19 m+ wide x 0.6 m+ deep
Trench	2318	1.5 m wide x 0.77 m deep
Pit	2338	1.37 m x 1.09 m+ x 1.2 m deep
Post-hole	2305	0.62 m x 0.2 m+ 0.18 m deep
Layer	2342	
Layer	2374	
Layer	2587	

TABLE 31mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE C, PERIOD IV

Feature	Context	Description and dimensions
Shallow	2321	1.36 m x 0.34 m+ x 0.1 m deep
Pit	2300	2.4 m x 0.86 m+ x 1.33 m deep
Post-hole	2298	0.22 m diam x 0.13 m deep
Slot	2284	0.8 m x 0.46 m x 0.2 m deep
Slot	2354	1.0 m x 0.3 m x 0.1 m deep
Layer	2263	
Layer	2268	
Layer	2301	

TABLE 32mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PERIOD V

Feature	Context	Description and dimensions
Gully	2232	0.93 m wide x 0.22 m deep
Layer	2177	

TABLE 33mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3, PERIOD V

Feature	Context	Description and dimensions
Gully	2209	2.5 m (0.8 m?) wide x 0.3 m deep
Gravel	2238	
Layer	2176	
Layer	2282	

TABLE 34mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 4, PERIOD V

Feature	Context	Description and dimensions
Path	2231	1.45 m wide
Layer	2181	

TABLE 35mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PERIOD V

Feature	Context	Description and dimensions
Hollow	2262	3.75 m x 1.25 m+ x 0.3 m deep
Feature	2216	0.5 m x 0.3 m+ x 0.12 m deep
Layer	2100/ 2235	
Layer	2227	
Layer	2228	
Layer	2236	
Layer	2239	
Layer	2286	
Layer	2578	

TABLE 36mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PERIOD VI

Feature	Context	Description and dimensions
Gully	2161	0.6 m wide x 0.5 m+ deep
Scorch marks	2187	0.35 m diam x 0.05 m deep
Scorch marks	2188	0.43 m x 0.26 m+ x 0.05 m deep
Layer	2199	
Layer	2212	

TABLE 37mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3/4, PERIOD VI

Feature	Context	Description and dimensions
Boundary	2194	1.2 m x 0.6 m+ x 0.18 m deep
Boundary	2206	0.7 m x 0.5 m+ x 0.2 m deep
Layer	2146	
Layer	2166	
Layer	2211	

TABLE 38mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE A, PERIOD VI

Feature	Context	Description and dimensions
S1a		
External		1.5 m+ N-S x 7.6 m E-W
Internal		0.55 m N-S x 5.6 m E-W
Foundation trench	2095	1.7 m+ N-S x 1.0 m E-W x 0.3 m deep
Foundation trench	2190	1.2 m wide x 1.4 m+ N-S x 4.4 m E-W
Foundation wall	2086	1.6 m+ N-S x 0.9 m thick x 0.35 m high
Foundation wall	2147	1.5 m+ N-S x 2.5 m+ E-W x 0.85 m thick x 0.25 m high
Floor	2167	1.15 m N-S x 4.5 m E-W
Post-hole	2222	0.28 m diam x 0.3 m deep
Post-pad?	2248	0.87 m x 0.74 m x 0.19 m deep
Pit	2201	0.4 m x 0.35 m+ x 0.65 m deep
Layer	2080	
Layer	2096	
Layer	2183	

TABLE 39mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PHASE B, PERIOD VI

Feature	Context	Description and dimensions
Foundation trench	2218	1.9 m+ E-W x 0.57 m wide x 0.08 m deep
Sill stones	2168	1.9 m+ E-W x 0.5 m thick x 0.08 m high
Floor debris	2162	1.5 m+ N-S x 2.5 m+ E-W
Earth bank	2202	1.35 m+ N-S x 1.4 m thick x 0.3 m high
Pit	2133	2.9 m x 1.5 m x 0.98 m deep
Layer	2184	

TABLE 40mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PERIOD VII

Feature	Context	Description and dimensions
Gully	2085	1.3 m wide x 0.35 m deep (basal slot 0.2 m wide x 0.1 m deep)
Post hole	2144	0.2 m diam x 0.12 m deep
Layer	2088	
Layer	2164	
Layer	2178	

TABLE 41mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3/4, PERIOD VII

Feature	Context	Description and dimensions
Gully	2115	1.2 m wide x 0.77 m - 0.87 m deep
Pit	2099	1.42 m+ x 1.35 m x 1.6 m deep
Post-hole	2105	0.18 m x 0.21 m x 0.38 m deep
Feature	2592	0.8 m+ wide x 0.29 m+ deep (section only)
Layer	2111	

TABLE 42mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PERIOD VII

Feature	Context	Description and dimensions
Robbing	2093	0.7 m x 2.5 m+ x 0.18 m deep
Robbing	2122	0.7 m x 1.3 m x 0.6 m deep
Robbing	2114	2.0 m x 0.9 m x 0.5 m deep
Robbing	2129	1.2 m x 1.9 m x 1.1 m deep
Robbing	2170	2.0 m x 0.8 m x 0.5 m deep
Post-hole	2106	0.43 m diam x 0.3 m deep
Post-hole	2140	0.7 m x 1.28 m+ x 0.1 m deep
Post-hole	2149	0.2 m diam x 0.3 m deep
Feature	2154	1.9 m x 0.3 m+ x 0.4 m+ deep
Feature	2589	0.75 m wide x 0.6 m deep (section only)
Layer	2073	
Layer	2082	
Layer	2091	
Layer	2094	
Layer	2580	

TABLE 43mf CANAL STREET II, CATALOGUE OF FEATURES,
PLOT 1/2, PHASE A, PERIOD VIII

Feature	Context	Description and dimensions
Gully	2172	0.92 m wide x 0.25 m deep
Pit	2214	1.65 m x 1.1 m+ x 1.3 m+ deep
Layer	2071	
Layer	2087	
Layer	2150	
Layer	2173	
Cultivation edge	2099	

TABLE 44mf CANAL STREET II, CATALOGUE OF FEATURES,
PLOT 1/2, PHASE B, PERIOD VIII

Feature	Context	Description and dimensions
Path	2039	1.0 m wide x 0.1 m high
Feature	2052	4.5 m x 0.3 m+ x unexcavated
Layer	2051	

TABLE 45mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3/4, PERIOD VIII

Feature	Context	Description and dimensions
Gully	2072	1.22 m wide x 0.4 m - 0.5 m deep
Feature	2049	3.2 m x 0.3 m+ x unexcavated
Layer	2053	

TABLE 46mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PERIOD VIII

Feature	Context	Description and dimensions
Drain	2066	0.4 m wide x 0.3 m deep
Path	2155	0.25 m x 1.2 m+ x 0.14 m deep
Path	2165	
Pit	2098	1.2 m diam x 0.64 m deep (stepped at 0.37 m deep to 0.78 m diam)
Slot	2124	0.35 m x 0.55 m+ x 0.5 m deep
Layer	2077	
Layer	2078	
Layer	2079	

TABLE 47mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5/6, PERIOD VIII

Feature	Context	Description and dimensions
Feature	2275	0.11 m x 0.41 m+ x 0.3 m+ deep
Layer	2083	

TABLE 48mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PERIOD IX

Feature	Context	Description and dimensions
Layer	2050	

TABLE 49mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3/4, PERIOD IX

Feature	Context	Description and dimensions
Slot	2009	5 m+ x 0.4 m x 0.1 m deep
Slot	2034	5 m x 0.4 m x 0.1 m deep
Layer	2022	

TABLE 50mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PERIOD IX

Feature	Context	Description and dimensions
S2a		
Wall	2040	0.95 m wide x 5.0 m+ N-S x levelled foundation trench
Wall	2041	1.8 m wide x 0.7 m deep
Wall	2018	0.3 m+ wide x 3.7 m+ E-W x 0.6 m high foundation trench section only
Post-pad	2074	0.45 m x 0.6 m x 0.1 m deep
Layer	2013	
Layer	2021	
Layer	2075	

TABLE 51mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 6, PERIOD IX

Feature	Context	Description and dimensions
Cultivation edge	2055	1.1 m+ wide x 0.52 m deep
Layer	2064	
Layer	2070	

TABLE 52mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PHASE A, PERIOD X

Feature	Context	Description and dimensions
Layer	2031	
Layer	2032	
Layer	2033	
Layer	2035	
Layer	2038	

TABLE 53mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 1/2, PHASE B, PERIOD X

Feature	Context	Description and dimensions
Wall	2010	Modern brick
Pit	2036	0.75 m x 0.60 m+ x 1.1 m deep
Layer	2026	
Layer	2027	
Layer	2028	
Layer	2029	
Layer	2030	

TABLE 54mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 3/4, PERIOD X

Feature	Context	Description and dimensions
Drain	2008	1.2 m wide x 0.9 m deep
Sump	2016	1.3 m wide x 1.4 m deep
Pit	2048	1.0 m+ wide x 0.5 m+ deep
Post-hole	2015	0.5 m square x 0.1 m deep
Layer	2001	

TABLE 55mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 5, PERIOD X

Feature	Context	Description and dimensions
Foundation trench	2017	continuous about 1.5 m wide x 0.3 m deep
Wall	2005	0.7 m wide x 0.3 m high
Wall	2007	1.2 m wide x 4.9 m E-W x 0.3 m high
(Wall	2018	Period IX S2a incorporated)
Post-hole	2019	0.15 m diam x 0.1 m deep
Layer	2012	
Layer	2020	
Layer	2024	

TABLE 56mf CANAL STREET II, CATALOGUE OF FEATURES, PLOT 6, PERIOD X

Feature	Context	Description and dimensions
Wall	2002	0.3 m wide x 0.7 m+ E-W x0.4 m high
Foundation trench	2057	
Paving stones	2045	0.85 m x 0.3 m+
Drain	2052	
Layer	2044	
Layer	2046	
Layer	2058	
Layer	2061	

TABLE 57mf/1

CANAL STREET II, CATALOGUE OF PRINCIPLE FEATURES AND THEIR FILLS

Feature	Fills
2017	2005, 2007, 2014, 2025
2036	2037
2066	2065
2072	2023, 2068
2081	2093
2085	2084, 2125, 2145, 2157, 2583
2092	2089, 2103, 2105, 2112, 2117-8, 2121
2098	2097
2102	2101
2106	2104
2114	2090, 2113
2115	2116, 2119, 2126, 2127, 2131, 2132
2122	2120
2124	2123
2129	2128
2133	2130, 2132, 2134-8, 2141, 2142, 2152
2140	2139
2144	2143
2149	2148
2154	2153
2161	2158-60
2170	2169, 2175
2172	2171
2190	2189, 2195, 2147
2194	2193

TABLE 57mf/2

Feature	Fills
2201	2200, 2575-7
2202	2163, 2185-6
2203	2192
2206	2205
2214	2213, 2593-4
2216	2215
2218	2168, 2217
2223	2221-2
2231	2224
2232	2225
2238	2174, 2233, 2237
2242	2241
2243	2219, 2234
2245	2240
2247	2244
2248	2246, 2251
2250	2249
2253	2252
2262	2251-61
2266	2254, 2276, 2280
2272	2271
2275	2274
2285	2283-4
2289	2288
2291	2290
2294	2293

TABLE 57mf/3

Feature	Fills
2296	2255, 2287, 2295
2298	2297
2300	2264
2303	2302
2305	2304
2307	2306
2312	2311
2318	2276/2313, 2299, 2309, 2310, 2319, 2322, 2341
2321	2320
2323	2324-7, 2339, 2344
2330	2329
2334	2332-3
2335	2328
2338	2336-7, 2340, 2343, 2360, 2409
2347	2345-6, 2352
2351	2373, 2381, 2386, 2394, 2407, 2459-2461, 2498-2500
2354	2353
2362	2361
2364	2365-7
2370	2369
2372	2371
2376	2355, 2382
2380	2379
2384	2383
2385	2393, 2424-2441
2388	2387

TABLE 57mf/4

FEATURE	FILLS
2390	2315-17, 2389, 2395, 2399, 2404, 2581
2391	2357, 2378, 2398, 2464-75, 2478-85, 2446, 2522, 2590
2392	2191, 2204, 2220, 2229, 2230, 2296
2406	2405
2415	2414
2418	2256, 2416-7
2423	2422
2445	2442-4
2449	2448, 2586
2452	2451
2454	2453, 2476
2458	2457
2463	2505-7
2487	2455-6, 2486
2489	2488
2491	2490
2493	2358-9, 2492
2496	2495
2503	2504
2514	2513
2516	2515
2520	2519
2528	2527
2529	2551
2531	2530, 2548
2532	2570, 2579
2536	2535

TABLE 57mf/5

FEATURE	FILLS
2538	2537
2540	2539
2543	2542
2545	2544
2547	2546, 2571-4
2553	2552
2555	2554
2557	2556
2559	2558
2561	2560, 2584
2563	2562
2565	2564
2567	2566
2589	2588
2592	2591

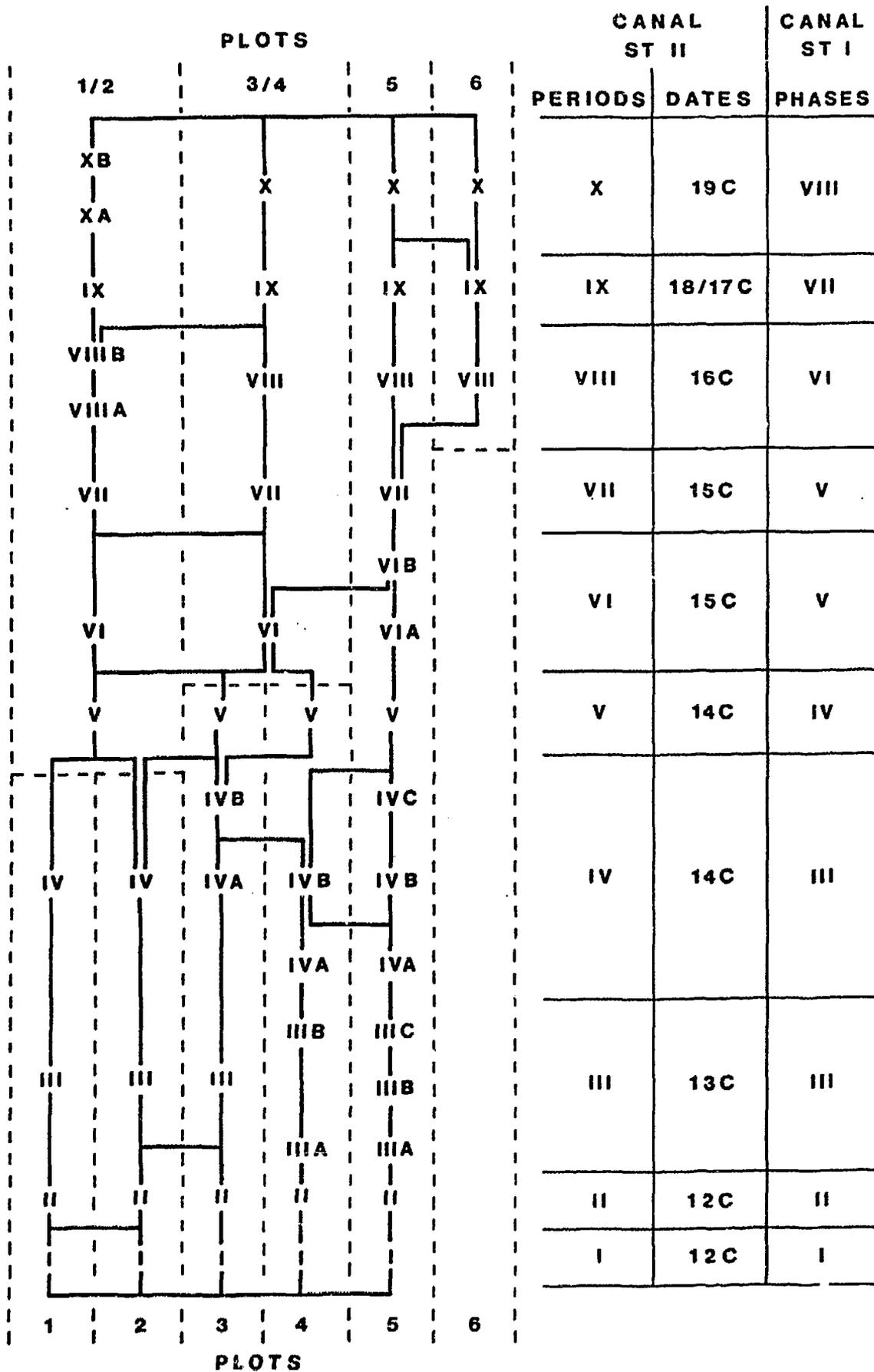
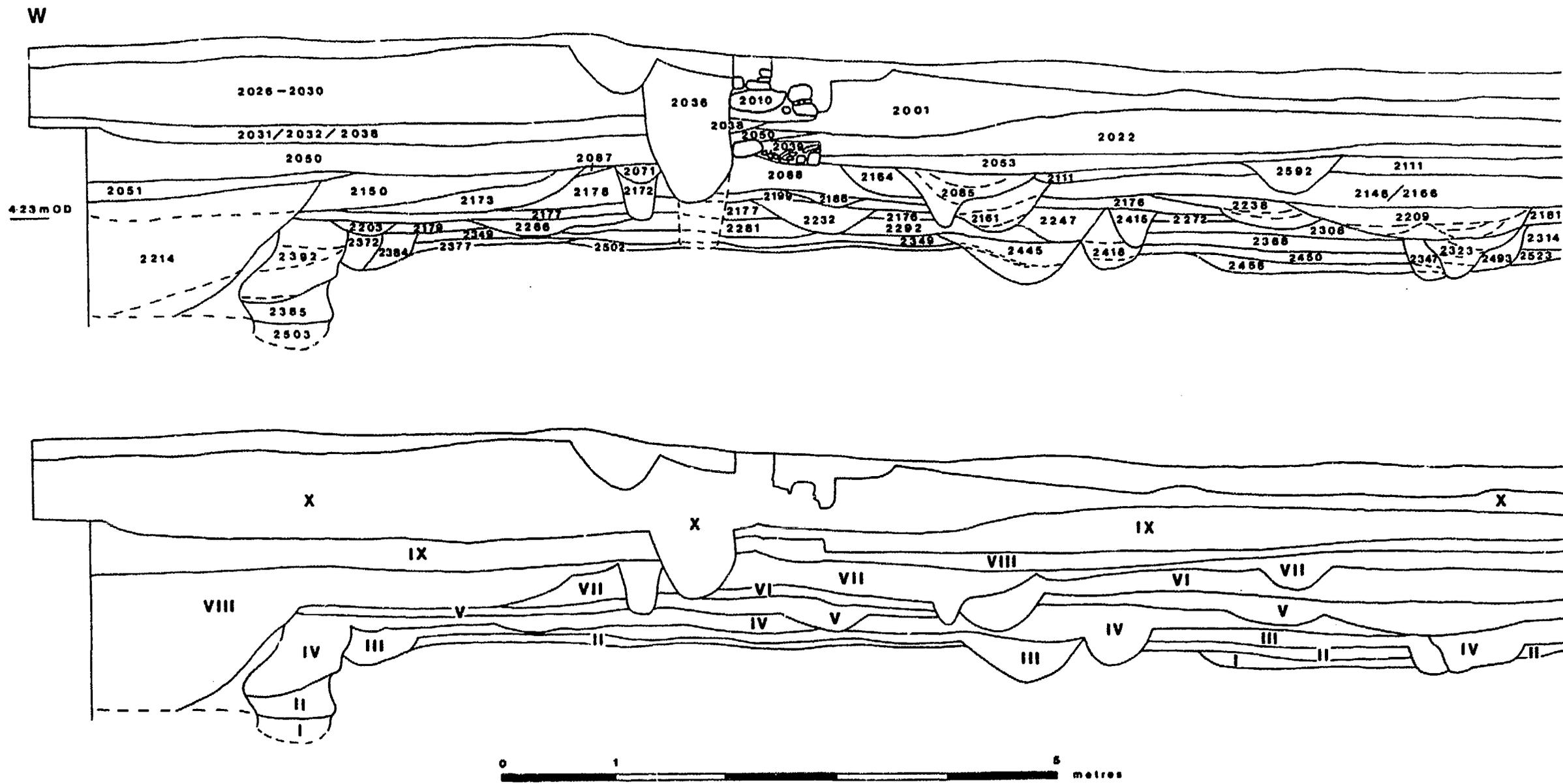


Table 58 : Matrix summary of cross site period and phase divisions



ILL 35 : Canal Street II, W half of N facing section 1 : D7-8

TABLE 62mf/1 POTTERY. NUMBER AND PERCENTAGE OF SHERDS

BY FABRIC TYPE AND PERIOD. KIRK CLOSE.

FABRIC TYPE	PERIOD					
	I	II	III	IV	V	VI
Perth local	83	75	928	465	799	439
	59.3%	52.4%	69.9%	48.2%	65.1%	47.4%
White Gritty	37	37	263	402	334	400
	26.4%	25.9%	19.8%	41.7%	27.2%	43.1%
Scarborough 1	2	1				
	1.4%	0.7%				
Scarborough 2	5	18	90	67	75	64
	3.5%	12.6%	6.8%	6.7%	6.1%	6.9%
London	1	1	3			
	0.7%	0.7%	0.2%			
Stamford		4	2	1	2	
		2.8%	0.2%	0.1%	0.2%	
Low Countries	1			1	3	2
Grey	0.7%			0.1%	0.2%	0.2%
Low Countries				1		18
Red				0.1%		1.9%
Aardenburg			1		1	2
			0.1%		0.1%	0.2%
Andenne		1			1	
		0.7%			0.1%	

TABLE 62mf/2

FABRIC TYPE	PERIOD					
	I	II	III	IV	V	VI
N French White	1		2	7	1	2
	0.7%		0.2%	0.7%	0.1%	0.2%
Rouen				2	1	
				0.2%	0.1%	
Unidentified	10	6	39	18	11	
	7.1%	4.2%	2.9%	1.9%	0.9%	

TABLE 63mf POTTERY. NUMBER AND PERCENTAGE OF SHERDS

BY FABRIC TYPE AND PERIOD. SOUTH METHVEN STREET.

FABRIC TYPE	PERIOD				
	I	II	IIIA	IIIB	IV
Perth Local	22	185	17	51	220
	57.9%	57.3%	53.1%	62.2%	69.4%
White Gritty	14	109	7	25	57
	36.8%	33.7%	21.9%	30.5%	18.0%
Scarborough 1		1			5
		0.3%			1.6%
Scarborough 2		18	5	2	18
		5.6%	15.6%	2.4%	5.7%
Low Countries		1			
Grey		0.3%			
Aardenburg		3			
		0.9%			
Blue-grey		1			
		0.3%			
N French White					1
					0.3%
Delft					1
					0.3%
Unidentified	2	5	3	4	15
	5.3%	1.5%	9.4%	4.8%	4.7%

TABLE 64mf/1 POTTERY. NUMBER AND PERCENTAGE OF SHERDS

BY FABRIC TYPE AND PERIOD. CANAL STREET 11.

FABRIC TYPES	PERIOD								
	I	II	III	IV	V	VI	VII	VIII	IX
Perth Local		7	296	1067	378	528	589	507	34
		11.1%	60.9%	65.4%	59.2%	73.0%	76.9%	72.9%	94.5%
White Gritty		27	153	443	191	151	109	133	2
		42.9%	31.5%	27.1%	29.9%	20.9%	14.2%	19.1%	5.5%
Scarborough 1		8	12	47	57	24	33	22	
		12.7%	2.5%	2.9%	8.9%	3.3%	4.3%	3.2%	
Scarborough 2			11	36	6	4	14	15	
			2.3%	2.2%	0.9%	0.6%	1.8%	2.2%	
		2	3	11	2	2	4	1	
		3.2%	0.6%	0.7%	0.3%	0.3%	0.5%	0.1%	
?E Anglia				2		1			
				0.1%		0.1%			
Stamford			1	2				1	
			0.2%	0.1%				0.1%	
Low Countries	1	15	2	2		1	1		
Grey	100%	23.8%	0.4%	0.1%		0.1%	0.1%		
Low Countries		1		6	1	6	4	7	
Red		1.6%		0.4%	0.2%	0.8%	0.5%	1.0%	

TABLE 64mf/2

FABRIC TYPE	PERIOD								
	I	II	III	IV	V	VI	VII	VIII	IX
Aardenburg			1 0.2%	4 0.2%	1 0.2%	1 0.1%	5 0.7%	2 0.3%	
Andenne				1				1	
N French Grey		2 3.0%		-				0.1%	
N French White		1 1.6 %	5 1.0%	4 0.2%		1 0.1%	5 0.7%	1 0.1%	
Saintonge				1 -					
Rouen			1 0.2%	3 0.1%	1 0.2%		2 0.3%	1 0.1%	
Andalusian						1 0.1%			
Mediterranean					1 0.2%				
Stoneware			1 0.2%	3 0.1%	1 0.2%	4 0.6%		4 0.6%	

TABLE 65mf/1 CATALOGUE OF CONTEXTS PRODUCING FINDS BY PERIOD

PLOT AND STRUCTURE. KIRK CLOSE

Context/ Structure	Material	Accession Number	Catalogue Number	Description
PERIOD I				
2149	Wood	R180	49A	Structural: post
2176	Pottery			Perth Local, White Gritty
2203	Pottery			Perth Local
PERIOD I PLOT A				
2067	S2 Pottery			Perth Local
	Animal bone			
	Shell			
	Leather	C258, C257	51, 139	Type 3 sole, rand
		C256		Offcut
2068	S2 Pottery			Perth Local
	Daub	R093		
	Wood	R064, R106	42A, 86A	Structural: post, 6 stakes
2070	Wood	R217	96A	Structural: wattle
2079	S2 Sample	R240		Botanical sample: wall cladding
2083	S2 Pottery			White Gritty, Miscellaneous
	Wood	R207	43A	Structural: post

TABLE 65mf/2

PERIOD I PLOT A

Context	Material/ Structure	Accession Number	Catalogue Number	Description
2092	Pottery			Perth Local
	Animal bone			
	Leather	C274	268	Strap
		C270-1		Offcuts and scraps
	Sample			Botanical sample: floor level material
2093 S2	Pottery			White Gritty
	Wood	R274	44A	Structural: wood
2107/	Pottery			Perth Local, White Gritty
2124 S2				Unidentified
	Animal bone			
	Shell			
	Wood	R121, R275-6	73A-5A	Structural: 3 planks
	Leather	C281, C279	118, 246	Sole, upper
		C280		Offcuts
2119 S2	Wood		134	Toilet seat
2120 S2	Pottery			White Gritty
2123 S2	Pottery			Perth Local
	Wood	R123/R200c	1A	Structural: beam
2128 S2	Pottery			Perth Local
2134	Pottery			Perth Local, White Gritty
				Imports, Unidentified
	Animal bone			
	Shell			Oyster

TABLE 65mf/3

PERIOD 1 PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2134	Ceramic	P224	183	Peg tile
	Textile	F143a, c	27, 26	Felt, unidentified woollen cloth
	Sample	R119		Botanical sample: latrine fill
2136 S2	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster, mussel, whelk
2137 S2	Pottery			Perth Local
	Animal bone			
2144 S2	Leather	C295-6	338-9	2 straps
2152 S2	Pottery			Perth Local
2161 S2	Wood	R156	137	Pin
2163 S2	Pottery			Perth Local, White Gritty
2167 S2	Wood	R176	2A	Structural: beam
2168	Wood	R197	3A	Structural: plank
2169 S2	Wood	R172-3	4A, 5A	Structural: 2 stakes
2172 S2	Sample	R140		Botanical sample: latrine fill
2173 S2	Pottery			Scarborough
	Wood	R170	6A	Structural: post
2174 S2	Wood	R174	7A	Structural: stake
2175 S2	Wood	R164	90A	Structural: stake
2189	Wood	R204	8A	Structural: plank
2190	Wood	R206	10A	Structural: stake

TABLE 65mf/4

PERIOD I PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2191	Wood	R165-7	11A-13A	Structural: beams, stake
		R199/201	14A-15A	2 posts
		R200a, b	16A-17A	2 stakes

PERIOD I PLOT B

1101	S3 Pottery			Perth Local
	Wood	R213	56A	Structural: sillbeam
2062	SJ Wood	R216, R218	93A, 94A	Structural: wattle
		R222	95A	Wattle
	Leather		76	Type 8 or 9 sole
2113	Pottery			Perth Local, White Gritty Unidentified
	Animal bone			
	Leather	C286a-d	247-50	Uppers
		C285		17 offcuts, 7 scraps
2114	Animal bone			
	Shell			
	Leather	C287a	251	Upper
		C290	281	Strap
		C287-290		Scraps and offcuts
2126	S3 Pottery			Perth Local
	Animal bone			
	Leather	C294		2 offcuts
	Textile	F144	22	2/1 twill without nap: Woollen cloth

TABLE 65mf/5

PERIOD I PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2127 S3	Pottery			Pottery local, White Gritty
	Animal bone			
	Iron	E156		Nail
2142 S3	Wood	R233	59A	Structural: sill beam
2142	Wood	R154, R234	47A, 60A	Structural: post, sillbeam
2147 S3	Wood	R168	109A	Structural: barrel stave/plank
		R169	76A	Plank
2148	Wood	R159	48A	Structural: post
2150 S3	Pottery			Perth Local, White Gritty
				Unidentified
2162 S3	Pottery			Perth Local
2148 S3	Wood	R220-1	100A-1A	Structural: wattle

PERIOD I PLOT A + B

2116	Pottery			Perth Local, Imports
	Animal bone			
	Shell			Oyster, mussel
2160	Pottery			Perth Local, White Gritty
				Scarborough

PERIOD I PLOT C

1132 S4	Pottery			Perth Local, Imports
				Miscellaneous
1136 S4	Pottery			Perth Local, Miscellaneous

TABLE 65mf/6

PERIOD I PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1137	S4 Pottery			Miscellaneous
	Animal bone			
	Shell			Oyster, mussel
	Slag	Q254		
	Sample	R98		Botanical sample: hearth
1142	S4 Pottery			White Gritty, Miscellaneous
	Animal bone			
	Shell			Oyster
1144	S4 Pottery			Perth Local
	Animal bone			
1146	S4 Leather	C091		Offcut
1147	S4 Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
	Shell			Oyster
	Leather	C095, C097	2, 46	Type 2, type 3 soles
		C092a	92	Sole (unclassified)
		C092	130	Rand
		C096, C092b	162, 191	Vamp of uppers, uppers
		C092-C097		18 offcuts, 7 scraps
1150	S4 Pottery			White Gritty
1151	S4 Wood	R177	103A	Structural: miscellaneous
1155	S4 Wood	R235	36A	Structural: post

TABLE 65mf/7

PERIOD II PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2077	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
2078 S2	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
	Sample			Botanical sample: domestic floor level
2081 S2	Pottery			Perth Local
2084 S2	Pottery			Perth Local
2085 S2	Pottery			Perth Local, White Gritty
	Wood	R099	97A	Structural: wattle
	Leather	C268		Offcut
	Sample	R78		Botanical sample: domestic floor level
2091 S2	Leather			Scrap
2094	Pottery			Perth Local, White Gritty
	Shell			
	Leather	C272c	244	Upper
		C272b	269	Binding/strap
		C272d	305	Fragment with oversewn edge
		C272		Scraps and offcuts

TABLE 65mf/8

PERIOD II PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2097 S2	Pottery			Perth Local
	Sample	R89		Botanical sample: domestic floor level
2099 S2	Pottery			Perth Local, White Gritty
	Animal bone			
	Sample	R88		Botanical sample: domestic floor level
2104	Pottery			Perth Local
	Animal bone			
	Shell			
2106 S2	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Leather	C278	31	?Clothing fragments
		C276-7		2 offcuts
	Sample	R90		Botanical sample: domestic floor level
2108 S2	Pottery			White Gritty
	Animal bone			
	Shell			Oyster
2112	Pottery			Perth Local, White Gritty Imports, Miscellaneous
	Animal bone			
	Shell			Oyster, mussel
	Leather	C283-4		Offcuts

TABLE 65mf/9

PERIOD II PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2118	Pottery			Perth Local, White Gritty Scarborough, Imports Unidentified
	Animal bone			
	Shell			
	Leather	C292a	117	Sole
		C292b	252	Upper
		C291/C293		Scraps and offcut
2138	Pottery			Perth Local
	Animal bone			
	Wood	R153	136	Bung
2156	Pottery			Perth Local
	Animal bone			

PERIOD II PLOT C

1124 S4	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Leather	C065, 61, 67	1, 7, 8,	Type 2 soles
		C066+70, C068	43, 44	Type 3 soles
		C069, 71, 61	89-91	Soles (unclassified)
		C071	126	Rands
		C071f,	173	Fragment of upper
		C062a, b	187/188	Fragments of uppers
		C061-C071		Scraps and offcuts

TABLE 65mf/10

PERIOD II PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1126 S4 Pottery				Perth Local, White Gritty Imports
	Animal bone			
	Stone	J045		Flint
	Leather	C073	45	Sole (type 3)
		C072/C074		5 offcuts, 2 scraps
	Sample	R86		Botanical sample: domestic floor level
1128 S4 Pottery				White Gritty
	Animal bone			
	Daub	P237		
	Leather	C075		7 offcuts
	Sample	R72		Botanical sample: domestic floor level (carbonised)
1129 S4 Pottery				Perth Local, White Gritty
	Leather	C076	189	Upper fragment
1130 S4 Pottery				Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
	Iron	E116		Nail
	Leather	C079	62	Sole (type 8 or 9)
		C078	190	Upper fragment
		C077		9 offcuts

TABLE 65mf/11

PERIOD II PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1133 S4	Shell			Oyster
	Leather	C080	127	2 rand fragments
		C080	174	2 upper fragments
		C080		12 offcuts, 2 scraps
1134 S4	Pottery			White Gritty
1138	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			Oyster, periwinkle
	Leather	C081, C082	128	2 rand fragments
		C081		8 offcuts
1139 S4	Pottery			Perth Local, White Gritty
	Animal bone			
	Leather	C085, C083	41, 63	Soles (types 2 and 8 or 9)
		CC34	129	Rand
		C084	175	Upper fragment
		C083/C085		7 offcuts, 8 scraps
1140 S4	Pottery			White Gritty
	Animal bone			
	Leather	C086		3 offcuts
1141 S4	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster, Mussel
	Copper Alloy	E158	57	Sheet

TABLE 65mf/12

PERIOD II PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1152	Animal bone			
	Sample	R111		Botanical sample: floor/midden with dung

PERIOD III PLOT A

2049	Pottery			Perth Local, White Gritty Scarborough
	Shell			
	Iron	E096a, b		Nails
	Leather	C220	330	Fragment
		C219		Offcut
2050	Pottery			Perth Local, White Gritty Scarborough, Unidentified
	Animal bone			
	Shell			Oyster, mussel
	Wood	R059-60	41A, 84A	Structural: post stake,
		R052	108A	half trunk
	Leather		112, 331	Sole, fragment 7 offcuts, 2 scraps
	Textile	F034	3	Tabby weave:woollen cloth
	Sample	R66		Botanical sample: floor level
2051	Pottery			Perth Local, Imports Unidentified
	Shell			Oyster, mussel
	Leather	C226	38	Rectangular fragment

TABLE 65mf/13

PERIOD III PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2054	Pottery			Perth Local, White Gritty, Imports, Unidentified
	Animal bone			
	Shell			Oyster, mussel
	Iron	E108		Nail
	Leather	C239/40, C243	9, 57,	Soles (types 3 and 4)
		C242	74	Type 8 or 9 sole
			138	Rand
		C234, C241	237, 238	Uppers
			159/160,	Stiffeners
		C238	166	Upper
		C235		14 offcuts
2055 S2	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Sea urchin
	Leather	C244a-f	279	6 strap fragments
		C246	302	Fragments
		C245a, b		Offcuts
2065 S2	Pottery			Perth Local
	Animal bone			
	Shell			Oyster

TABLE 65mf/14

PERIOD III PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2060	S3 Sample	R84		Botanical sample: wall cladding
	Wood	R219	85A	Structural 2 stakes
2061	S3 Pottery			Scarborough
	Animal bone			
	Shell			
2072	Wood	R267	57A	Structural: sillbeam
2086	S3 Wood	R108, R100, R109	87A, 98A, 99A	Structural: stake, wattle Wattle
2096	S3 Pottery			Scarborough, Imports
	Animal bone			
	Shell			
2098	S3 Pottery			White Gritty, Scarborough Imports
	Animal bone			
	Shell			
2105	S3 Pottery			White Gritty, Scarborough
	Animal bone			
	Shell			Oyster
	Iron	E117	122	Unidentified
	Leather	C273	117	Sole
		C274b	141	Rand
		C274a	245	Upper
		C273/C274		Offcuts and scraps

TABLE 65mf/15

PERIOD III PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2110	Pottery			Perth Local, White Gritty Scarborough, imports
	Animal bone			
	Shell			
	Leather	C282		3 offcuts
	Textile	F110	21	2/1 twill without nap: woollen cloth
	Moss	P124	168	Fragments
2114	Pottery			White Gritty
	Animal bone			
	Shell			
	Leather	C289	12	Sole (type 4)
		C287a, C290	251, 281 306-11	Upper, straps, Fragments
		C287-C290		7 offcuts, 2 scraps
2133 S3	Pottery			White Gritty, Scarborough
	Animal bone			
	Shell			Oyster, mussel
	Wood	R194	45A	Structural: post
2133 S3	Wood	R184	46A	Structural: post
2135 S3	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
2159 S3	Stone	P225		65 fragments of paving stone

TABLE 65mf/16

PERIOD III PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1114	Pottery			Perth Local, White Gritty, Scarborough, Imports Unidentified
	Animal bone			
	Shell			Oyster
	Daub	P226		
	Iron	E125	119	Heckle-tooth
		E153, E183		Unidentified fragment
	Silver	E146	175	Penny: Henry III
	Ceramic	P252/223	188	Peg tile
	Leather	C037	283	Fragment with oversewn edge
		C035-6		9 offcuts, 4 scraps
1115	Pottery			Perth Local, White Gritty
	Animal bone			
	Leather	C038		Offcut
1116	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			Oyster
	Leather	C039		2 scraps

TABLE 65mf/17

PERIOD III PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1117	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Shell			Oyster, mussel
	Copper Alloy	E119		Unidentified fragment
	Iron	E118	74	Knife
		E095a,b, E105		Nails
		E076		3 unidentified fragments
	Leather	C040-1		4 scraps
1118	Pottery			Scarborough
	Copper alloy	E121	1	Brooch
	Glass	N038		Post-medieval ?window
1119	Pottery			Perth Local, White Gritty Scarborough, Imports, Miscellaneous
	Animal bone			
	Shell			Oyster, mussel, whelk
	Iron	E120	95	Spoon bit
		E106	117	Cylinder
	Metalworking debris	Q256		Vitreous iron slag
	Glass	N049		Post-medieval bottle

TABLE 65mf/18

PERIOD III PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1119	Leather	C046, C049	5, 61,	Soles (type 3, 8 or 9)
		C042a,b,C050	83-5	Soles (unclassified)
		C047, C042	184, 183	2 uppers
		C048	313	Fragment
				7 offcuts, 8 scraps
1120	Pottery			Perth Local, Imports
				Miscellaneous
	Animal bone			
	Wood	R110	77A	Structural: stake
	Stone	R231	148	Chalk
	Leather	C057b		9 offcuts
	Sample	R83		Botanical sample: yard
1121	Pottery			Perth Local, White Gritty
				Scarborough, Imports
				Miscellaneous
	Animal bone			
	Shell			Oyster, mussel, whelk, cockle
	Daub	P082, P236		
		P246		
	Copper Alloy	E148	27	Key
	Iron	E085	86	Barrel padlock key
		E083		Nail
	Silver	E147	176	Penny: short cross
	Moss	P69	167	Fragments

TABLE 65mf/19

PERIOD III PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1121	Leather	C057a, C056	6, 86	Soles (type 3, unclassified)
		C058, -	87, 88	Soles (unclassified)
			125	Rand
		-, C052	145, 161	Uppers (type K, vamp)
			171, 185	Latchet, fragment
		C054, -	270, 271	Straps
		C059, C053	30, 288	Fragments
		-, C052	289, 314	Fragments
		C025		20 offcuts, 6 scraps
	Sample	R81		Botanical sample: yard evidence for woodworking
1123	Pottery			Perth Local, White Gritty
	Animal bone			
	Leather	C060	186	Upper
1131	Pottery			Scarborough
1135	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
1137	Metalworking debris	Q254		Vitrified clay
1153	Wood	R149	78A	Structural: stake
1154	Wood	R150	79A	Structural: stake

TABLE 65mf/20

PERIOD IV PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1071	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Shell			Oyster, mussel
	Iron	E088	73	Knife
		E159		Nail
	Leather	C018d, e		Offcut and scrap
2023	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Shell			Oyster, mussel
	Iron	E136	104	Hasp
		E142	6mf	Knife
	Leather	C148	102	Sole (unclassified)
		C145, C147	151, 36	Vamp of upper, fragment
		C146d, g	295, 296	Fragments with oversewn edge
		C146b, e, f	264, 317	Binding/strap, Miscellaneous fragments
		C145-8		Offcuts and scraps
2024	Leather	C150		8 scraps
2043	Pottery			White Gritty
	Animal bone			
2046	Pottery			White Gritty
	Wood	H046, H047	125, 126	Bowls

TABLE 65mf/21

PERIOD IV PLOT A

Context/ Material Structure	Accession Number	Catalogue Number	Description
2047	Pottery		Perth Local, White Gritty Scarborough
	Animal bone		
	Iron	E086	Nail
	Leather	C218	Offcut
2048	Pottery		White Gritty
	Wood	R271	107A Structural: large timber
2052/ 2059	Pottery		Perth Local, White Gritty Scarborough, Imports
	Shell		Oyster, mussel
	Leather	C239, C230b	113-114 Soles (unclassified)
		C230c,d	115-116 Soles
		C230a, e, f	170, 234 Uppers
		C228/C230	10 offcuts
	Textile	F036	4 Tabby weave: woollen cloth
2071	Pottery		Perth local, White Gritty Scarborough, Imports
	Animal bone		
	Shell		Oyster, mussel
	Iron	E097	Nail
	Leather	C265a, b	52, 53, Soles (type 3)
		C266	54 Sole
		C261	140 Rand
			23,24 1-3 Uppers
		C262	267, 280, Binding, strap
			337 Unidentified
			28 offcuts, 16 scraps

TABLE 65mf/22

PERIOD IV PLOT A

Context/ Material Structure	Accession Number	Catalogue Number	Description
2183	Pottery		White Gritty

PERIOD IV PLOT B

2036	Pottery		Perth Local, White Gritty Miscellaneous	
	Animal bone			
	Shell		Oyster, mussel, whelk	
	Copper alloy	E113	42	Wire
		E129		Unidentified fragment
	Iron	E134	75	Knife
		E092, E109		2 nails
	Leather	C174, C178a,	22, 157	Uppers
		C175/C176	165	Upper
		C182	224	Upper
		-, -	299, 230	Fragments
		C180-1, C177	321-3	Fragments
		C174, C178		3 scraps
	Textile	F033	7	2/1 twill with nap: woollen cloth
2037	Pottery			Perth Local, White Gritty Scarborough, Imports Miscellaneous
	Animal bone			
	Shell			Oyster, mussel, winkle
	Copper alloy	E112	43	Wire

TABLE 65mf/23

PERIOD IV PLOT B

Context/ Material Structure	Accession Number	Catalogue Number	Description	
2037	Iron	E098	Rod	
	Stone	J039	?hone	
	Leather	C200, C201, C196, C184 C199A, C188 C197/C198 C202, C201, C190, C183 C186 -, C188c, C193, C191 C189-C194	10, 49, 73, 108 109, 136 15 16, 19 20, 21 147 158, 178 225, 261 301 23 offcuts, 5 scraps	Soles Soles Sole, rand Upper Uppers Uppers Upper Uppers Upper, toggle Fragment
	Textile	F032a, c, d F032b	20, 23 25	2 x 2/1 twill without nap: woollen cloth 2/2 twill: woollen cloth
2038	Pottery		Perth Local, White Gritty Scarborough, Imports	
	Animal bone			
	Shell			
	Leather		110 C206, - C204	Soles (unclassified) Uppers Uppers Upper 16 offcuts

TABLE 65mf/24

PERIOD IV PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2039	Pottery			White Gritty, Unidentified
2043	Wood	R157	106A	Structural: ?batten
2044	Pottery			White Gritty, Scarborough
	Animal bone			
	Shell			Oyster
2053	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
	Moss	P245	173	Plait
	Leather	C231, C233	235-6	Uppers
		C231		Offcuts
	Sample	R215		Botanical sample: midden pit- domestic floor level material
2056	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
	Copper alloy	E123	45	Sheet
	Iron	E124	10mf	Staple
2057	Pottery			Perth Local, White Gritty
				Scarborough, Imports
	Animal bone			
	Shell			
	Leather		50	Sole (type 3)
			303	Fragment
		C225		Offcut, scrap

TABLE 65mf/25

PERIOD IV PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2109	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
2122	Wood	R112-6	19A-22A	Structural: c.93 pieces of wattle, stake
2125	Pottery			Perth Local, White Gritty Imports, Miscellaneous
	Animal bone			
	Shell			Oyster, mussel
	Textile	F051	28	Silk: tablet woven band
	Sample	R120		Botanical sample: midden pit- domestic floor level material
2153A	Wood	R185, R188	23A, 110A	Structural: 2 trunks,
		R189, R196	24A, 25A	2 trunks
2153B	Wood	R182-3, R191	26A-28A	Structural: 3 trunks
		R195	29A	Trunk
2153C	Wood	R192, R208	30A,31A	Structural: trunk, post
		R186	32A	Trunk
2153D	Wood	R187, R190	33A, 34A	Structural: trunk, post
		R193	35A	Trunk

TABLE 65mf/26

PERIOD IV PLOT B/C

Context/ Material Structure	Accession Number	Catalogue Number	Description
i098/ Pottery			Perth Local, White Gritty
1102			Scarborough, Imports
Animal bone			
Shell			Oyster
Copper alloy	E128	3	Brooch/buckle
Iron	E152		Nail
Leather	C023	123	Rand
	C022-C024		Offcut, scraps
Textile	F025, F026	5, 6	2/1 twill with nap: woollen cloth

PERIOD IV PLOT C

1053 S1 Pottery			White Gritty
1054 Pottery			Perth local, White Gritty Scarborough
Animal bone			
Leather	C014	80	Sole (unclassified)
	C015		Offcut
1088 S1 Pottery			Perth Local
1096 S1 Pottery			Perth Local
1097 Animal bone			
Iron	E109		Unidentified fragment
1100 S1 Pottery			Perth Local, White Gritty Scarborough
Shell			Oyster

TABLE 65mf/27

PERIOD IV PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1103 Pottery			Perth Local, White Gritty Imports
Animal bone			
Shell			Oyster
Leather	C026		4 offcuts, 2 scraps
1105 Pottery			Perth Local, White Gritty
Animal bone			
Shell			Oyster
1106 S1 Pottery			Perth Local, White Gritty Scarborough
1107 S1 Pottery			Perth local, White Gritty
Animal bone			
Shell			Oyster
1108 S1 Pottery			Perth Local, White Gritty Scarborough
Shell			Oyster, Whelk
Bone	K184	156	Pin
Leather	C028a	82	Sole
	C028b, C028	181, 312	Uppers and fragment
	C028		Offcut, 12 scraps
Textile	F035, F145	9, 10	2/1 twill without nap: woollen cloth
1109 Pottery			White Gritty
Animal bone			

TABLE 65mf/28

PERIOD IV PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1111	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			Oyster
	Leather	C029		Offcuts
1113	Pottery			Perth Local, White Gritty Scarborough, Imports Miscellaneous
	Animal bone			
	Shell			Oyster
	Lead	E135	4mf	Sheet
	Ceramic	P252/223	188	Peg tile
	Leather	C030,	4, 124	Sole (type 3), rand
		C031, C030	32, 154	Uppers
		C034a, b	182, 282	Upper, fragment
		C031-C034		2 offcuts, 4 scraps
1122	Pottery			Perth Local

PERIOD V PLOT A

2016	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Shell			Oyster, mussel
	Copper alloy	E149	28	Key
	Lead	E130		Waste

TABLE 65mf/29

PERIOD V PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2016	Iron	E081	118	Elongated loop
		E107		Nail
2016	Leather	C119, C116a	55, 64	Soles (types 3, 4)
		C117, C118	65, 66	Soles (types 8 or 9)
		C116b	96	Sole (unclassified)
		C116, C116c,	131, 146	Uppers
		d, e, h, i, j	195-7	Uppers
		k, l, m	198-200	Uppers
			195-200	Uppers
		C114	26, 27	Knife sheath, ?Sheath fragment
		C116		5 rands
		C115, C116		38 offcuts, 17 scraps
	Shell		163, 164	2 worked oyster shells
	Sample	R42		Botanical sample: floor level
2025	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Wood	R26, R36, R43	61A-3A	Structural: 3 planks
		R46, R53-7,	64A-9A	5 planks
		R33, R27.	81A, 91A	Stake, wattle
		R044-5	104A-5A	2 battens
2028	Pottery			Perth Local, White Gritty
	Iron	E155	7mf	Hasp
	Leather		212	Upper fragment

TABLE 65mf/30

PERIOD V PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2029	Sample	R20		Botanical sample: flooring/ midden/dung
2032	Wood	R34	70A	Structural: plank
2095	Pottery			Perth Local
	Animal bone			
	Wood	R105, R107	88A, 89A	Structural: 2 stakes

PERIOD V PLOT B

2020	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
2022/ 2033	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Shell			Oyster, mussel, whelk
	Copper Alloy	E127	1mf	Sheet
	Iron	E082a, b		Nails
		E157a, b		Nails
	Stone	J028	147	Worked chalk
	Bone	K013	153	Comb
		K024	155	Handle
			158	Toggle
	Wood	H019a, b	123-4	2 lathe-turned bowls,
		H015	127	1 stave-built bowl

TABLE 65mf/31

PERIOD V PLOT B

Context/ Material Structure	Accession Number	Catalogue Number	Description	
Wood	H161	128	Pin	
Shell		165	Worked oyster shell	
2022/ 2033	Textile	F014, F016, F017a, b, F030a-f	2, 14 15, 16 17, 18	Tabby, 2/1 twill without nap 2/1 twill without nap 2/1 twill without nap: woollen cloth
		F020-22	29	Silk cloth
Moss	R29a, b, P32	169-71	Plaits	
	P39	172	Plait	
Wood	R62, R125	38A, 92A	Structural: post, wattle	
	R58, R147	71A-2A	2 planks	
Leather	C137, C133	11, 47,	Soles (type 4 & 3)	
	C163, C128	48, 58	Soles (type 3, type 3, 4 or 5)	
	C142, C163	59, 60	Soles (types 3, 4 or 5)	
	C141, C163a	67, 69	Soles (types 8 and 9)	
	C163b, C135,	70, 97	Soles (types 8 & 9, (unclassified)	
	C136	98-101	Soles (types 8 & 9, unclassified)	
		132	Rands	
	C130, C131	13, 14	Uppers	
	C145	151, 156	Uppers	
	C132	167	Upper	
	C136	168, 176	Uppers	
		201-210	Uppers	
		214-220	Uppers	

TABLE 65mf/32

PERIOD V PLOT B

Context/ Material Structure	Accession Number	Catalogue Number	Description
2022/2033 Leather	C134, C132	29, 34,	Strap, unidentified fragment
	- , C162c	273, 274	Straps
		290-4,298	Unidentified fragments
	C139, C162d	316, 318	Unidentified fragments
	C140b	35	Glove or fingerstall
	C139, C140		72 offcuts, 17 scraps
	C162, C164-6		
2026 Pottery			Perth Local, White Gritty
Animal bone			
Shell			Oyster, limpet
Iron	E090		Unidentified
Leather	C153	56	Sole (type 4)
	C153	177	Upper
	C152, C153		2 offcuts
2027 Pottery			White Gritty
Animal bone			
Leather	C154		Offcut
Sample	R19		Botanical sample: flooring/ midden
2030 Pottery			Perth Local, White Gritty Scarborough
Animal bone			
Wood	R61	82A	Structural: stake

TABLE 65mf/33

PERIOD V PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2030	Leather	C158	133	2 rands
		C157	213	2 uppers
		C157		2 offcuts
2031	Pottery			White Gritty
	Animal bone			
	Iron	E137	8mf	Hinge pivot
	Leather	C160	105	Clump sole
		C161a	297	Fragment
		C159, C161		2 offcuts
2032	Pottery			White Gritty, Scarborough
	Wood	R30, R31	40A, 83A	Structural: post, stake
2034	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Coal	R144		
	Copper alloy	E131	2mf	Sheet
	Iron	E091a, b		Nails
		E166		Nail
	Metalworking debris	Q258		Vitreous iron slag
	Leather	C168	71, 134	Sole (type 8 or 9), rands
			221	3 uppers
			275-6	2 straps
		C167, C168		5 offcuts

TABLE 65mF/34

PERIOD V PLOT B

Context/ Material Structure	Accession Number	Catalogue Number	Description	
2035	Pottery		Perth Local, White Gritty Scarborough, Imports	
	Animal bone			
	Shell			
	Copper alloy	E133	12	Pin
	Metalworking debris	Q048		Vitreous iron slag
	Leather	C169a, C169	42, 72,	Soles, (type 2, 8 or 9)
		C169	106-7	Soles (unclassified)
		C172	135	Rand
		C173a, C171a	222-3, 27	Uppers
		C170	320	Miscellaneous
		C170-3		9 offcuts, 4 scraps
	Textile	F029a, d	19, 24	Woollen cloth: 2/1 twill without nap, 2/2 twill
2040	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Shell			Oyster, mussel

TABLE 65mf/35

PERIOD V PLOT B

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2041	Pottery			Perth Local
	Animal bone			
	Shell			Oyster, mussel
	Leather	C216	111	Soles (unclassified)
		C214a, C186	18, 148	Uppers
		C215, C217b	278, 329	Strap, fragment
		C214 - C217		4 scraps
2042	Wood	R181	18A	Structural: post
2058	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			Oyster, mussel
	Coal			
	Copper alloy	E126	31	Nail/pin
	Iron	E124		Unidentified
	Metalworking debris	Q227		Vitreous iron slag
	Leather	C251, C250 C249, C250	239, 333	Upper, unidentified fragment 11 offcuts

PERIOD V PLOT A & B

2028	Pottery			Perth Local, White Gritty
	Animal bone			

TABLE 65mf/36

PERIOD V PLOT A & B

Context	Material	Accession Number	Catalogue Number	Description
2028	Shell			Oyster
	Iron	E155		Unidentified fragment
	Wood	R148	39A	Structural: post
	Leather	C155, C156		5 offcuts, scrap

PERIOD V PLOT C

1061	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			Oyster
	Iron	E10		Nail
		E102		Unidentified fragment
	Stone	P250		roof tile
1065	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
	Metalworking debris	Q028		Vitreous iron slag
1066	Pottery			Perth Local
	Animal bone			
	Shell			Oyster
	Leather	C018a	8i	Sole (unclassified)
		C018b	172	Upper fragment
		C018		7 offcuts, 2 scraps

TABLE 65mf/37

PERIOD Va PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1070 Slb Pottery			Perth Local
Sample	R22		Botanical sample: domestic floor level
1074 Slb Pottery			Perth Local, White Gritty Imports
Animal bone			
1076 Pottery			Perth Local, White Gritty
Animal bone			
Shell			Oyster
1077 Pottery			Perth Local, White Gritty
Animal bone			
Shell			Oyster
Textile	F181	1	Woollen cloth: tabby weave
Moss	P37	166	Plait
Leather	C019		4 Scraps
1078 Slb Pottery			Perth Local
1079 Slb Pottery			White Gritty
Animal bone			
Shell			Oyster
1083 Slb Pottery			Perth Local, Imports
Animal bone			
Shell			Oyster

TABLE 65mf/38

PERIOD Va PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1085 Pottery			Perth Local, White Gritty
Animal bone			
Leather	C020		2 offcuts
1090 Pottery			White Gritty
Animal bone			

PERIOD Vb PLOT C

1043 Sla Pottery			Perth Local, White Gritty Scarborough
Animal bone			
Shell			
Stone	J004	140	Hone
Sample	R14		Botanical sample: domestic floor level
1045 Sla Pottery			Perth Local, White Gritty Scarborough
Animal bone			
Shell			Oyster
Iron	E071	72	Knife
	E072		Unidentified fragment

TABLE 65mf/39

PERIOD Vb PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1058 Sla Pottery			Perth Local, White Gritty Scarborough
Animal bone			
Shell			Oyster
Copper alloy	E138	18	Needle
Leather	C016	28	Strap
	C017		Offcut
1064 S1b Pottery			White Gritty
1072 S1b Pottery			Perth Local, White Gritty
Animal bone			
Copper alloy	E084	29	Macehead
1073 S1b Pottery			Perth Local, White Gritty Imports
Shell			Oyster
1080 S1b Pottery			Scarborough
1091 Pottery			Perth Local

PERIOD VI PLOT A

2005 Pottery			Perth Local
Leather	C103	150	Uppers
2007 Pottery			Perth Local, White Gritty
Animal bone			
Shell			

EXCAVATIONS IN THE MEDIEVAL BURGH OF PERTH 1979-81

Edited by PHILIP HOLDSWORTH

WITH LM BLANCHARD B FORD GWI HODGSON NL MACASKILL
D ROBINSON L ROSS C SMITH AND RM SPEARMAN

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TABLE 65mf/40

PERIOD VI PLOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2009	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Iron	E058	9mf	Hook
		E074		Nail
	Stone	P228		Petrological sample: slate
	Textile	F011	13	Woollen cloth: 2/1 twill without nap
	Leather	C110	95	Sole
		C109	25	Knife sheath 9 offcuts, 2 scraps
2010	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
2011	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
	Coal	R143		
2013	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			

TABLE 65mf/41

PERIOD VI LOT A

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2021	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Iron	E089		Modern nail
	Leather	C124c	155	Upper
		C122	33	Unidentified fragments
		C123, C124		9 offcuts
2024	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Leather	C151	68	Sole (type 8 or 9)
		C150, C157	103-4	Soles (unclassified)
		C150b	211	Upper
		C149 a + b	37	Fragment - possibly clothing
		C150, C151		32 offcuts

TABLE 65mf/42

PERIOD VI PLOT B

Context/ Material Structure	Accession Number	Catalogue Number	Description
2008	Pottery		Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone		
	Shell		
	Iron	E063, E080	Nails
	Metalworking debris	Q015	Vitrified Clay
	Textile	F001, F003	11, 12 Woollen cloth: 2/1 twill without nap
	Leather	C104, C105a	93, 94 Soles (unclassified)
		C105b, C106	163, 164 Uppers
		C107d	194 Uppers
		C104-106	6 offcuts, 10 scraps
2015	Pottery		Perth Local, White Gritty Scarborough, Imports
	Animal bone		
	Shell		
	Leather	C113	272 Strap
		C111, C112	7 offcuts

TABLE 65mf/43

PERIOD VI PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1001 S1b Pottery			Perth Local, White Gritty Scarborough, Imports Miscellaneous
Animal bone			
Daub	P001		
Iron	E100, E167		Nails
	E056		Unidentified fragment
Ceramic	P273	186	Peg tile
		196	Pan tile
1003 S1a Pottery			Perth Local, White Gritty Scarborough, Imports
Animal bone			
Iron	E060		Nail
1004 S1b Pottery			Perth Local, White Gritty Scarborough, Imports Miscellaneous
Animal bone			
Shell			Oyster
Daub	P141		
Iron	E057	98	Chain
	E154a, b, c	114-6	3 bars
1007 S1b Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
Animal bone			

TABLE 65mf/44

PERIOD VI PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1008 Sla Pottery			Perth Local, White Gritty
Animal bone			
1009 S1b Pottery			Perth Local, White Gritty
Imports			
Animal bone			
Shell			Oyster
1011 S1b Pottery			Perth Local, White Gritty
Imports			Scarborough, Imports
Animal bone			
Shell			
Iron	E077a, b, E067		Nails
1012 Pottery			Perth Local, Scarborough
Imports			
Animal bone			
1016 S1b Pottery			Perth Local, White Gritty
Imports			Scarborough
Animal bone			
Shell			Oyster
Bone	K012	159	Unidentified
1024 S1 Pottery			Perth Local, White Gritty
Animal bone			
1026 S1b Pottery			Perth Local, White Gritty
Imports			Scarborough, Imports
Animal bone			
Shell			Oyster

TABLE 65mf/45

PERIOD VI PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1028 S1b Pottery			Perth Local, White Gritty Scarborough, Imports
Animal bone			
Shell			Oyster
Iron	E070		Nail
1030 S1 Pottery			Perth Local, White Gritty Scarborough
Animal bone			
Shell			Oyster
Iron	E079		Unidentified fragment
1031 S1 Pottery			White Gritty
1032 S1 Pottery			White Gritty
Stone		149, 150	14 roof tiles
1038 S1a Pottery			Perth Local, White Gritty Scarborough, Imports
Animal bone			
Shell			Oyster, Whelk
Iron	E094		Unidentified fragment
1040 S1b Pottery			Perth Local, Scarborough
Animal bone			
1041 S1b Pottery			Scarborough
1044 Pottery			Perth Local, White Gritty Imports
Animal bone			
Shell			Oyster

TABLE 65mf/46

PERIOD VI PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1044	Iron	E099a, b		Nails
	Leather	C013a	79	Sole (unclassified)
		C013		2 scraps
1046	S1a Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Textile	F005	8	Woollen cloth.: 2/1 twill without nap
1047	S1a Pottery			White Gritty
1055	S1b Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
1056	S1b Pottery			Perth Local
1057	S1b Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
	Ceramic	P249	187	Peg tile
1062	S1b Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			Oyster
	Metalworking debris	Q269		Bloomworking waste
1156	S1b Daub	P002		

TABLE 65mf/47

PERIOD VI PLOT C

Context/ Structure	Material	Accession Number	Catalogue Number	Description
2011	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	P47		
2018	Pottery			Perth Local, Imports
	Animal bone			
	Wood	R17	37A	Structural: post
		R151	135	Barrel lid
2019	Pottery			Perth Local
	Animal bone			
	Leather	C121	315	Unidentified fragment

PERIOD VIa PLOT C

1017 S1a	Pottery			Perth Local
	Shell			Oyster
	Iron	E062, E064		Unidentified fragments
1021 S1b	Pottery			White Gritty
1023	Pottery			Perth Local, Scarborough
1025	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
1029 S1b	Animal bone			
	Shell			Oyster
	Leather	C012	78	Sole (unclassified)
		C011		3 scraps

TABLE 65mf/48

PERIOD VI PLOT C

Context/ Material Structure	Accession Number	Catalogue Number	Description
1037 Sla Pottery			White Gritty
Anir	one		
1051 Sla Pottery			Perth Local, White Gritty
Animal bone			
1052 Sla Pottery			Perth Local, White Gritty
Animal bone			
Shell			Oyster

PERIOD VIb PLOT C

1002 S1 Pottery			Perth Local, White Gritty
Animal bone			
Wood	R8	102A	Structural: piece
Leather	C009	77	Sole (unclassified)

TABLE 65mf/49

PERIOD - POSSIBLY MODERN

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1006	Pottery			Perth Local, White Gritty
	Animal bone			
	Copper alloy	E065		Unidentified fragment
		E087		Pin
	Ceramic	A171		Clay pipe
	Leather	C010	180	Upper
1015	Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
	Ceramic	A172		Clay pipe
2003	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
	Leather	C102	193	Upper
2006	Pottery			Perth Local, White Gritty
				Miscellaneous, possible Grimston
	Animal bone			
	Shell			
	Coal			
2012	Pottery			White Gritty
	Iron	E073	67	Buckle pin

TABLE 65mf/50

UNSTRATIFIED

Context/ Structure	Material	Accession Number	Catalogue Number	Description
1000	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous, French or Stamford, London, Unidentified
	Animal bone			
	Shell			Oyster
	Copper alloy	E066	17	Needle
	Iron	E059	84	Barrel padlock
		E104		Nail
		E247		Unidentified fragment
	Glass	N002, N162-4		Post-medieval bottle
		N169, N180		Post-medieval bottle
	Ceramic	P248	185	Peg tile
		A170		Clay pipe
	Daub	P229, P268		
	Leather	C001, a, b, c	3, 144	Type 3 sole, type K upper
			179	Upper
		C001, e	233	Strap
				Offcuts and straps
1000/2000	Pottery			Perth Local, White Gritty, Scarborough, Miscellaneous, French: Rouen
	Animal bone			
	Shell			Oyster, mussel
	Copper alloy	E132	2	Brooch/buckle

TABLE 65mf/51

UNSTRATIFIED

Context/ Material Structure	Accession Number	Catalogue Number	Description
1000/2000Iron	E165, E168		Unidentified fragment
Leather		120, 122, 2	soles
	C008	149	Type 'K' upper
	C002	253	Upper
		254-8	5 uppers
		262	Thong
		340, 143	Fragment, rand
	C101	192	Upper

TABLE 66mf/1 CATALOGUE OF CONTEXTS PRODUCING FINDS BY PERIOD AND AREA

SOUTH METHVEN STREET

Context	Material	Accession Number	Catalogue Number	Description
PERIOD I AREAS 1/2				
103	Pottery			Perth Local
	Animal bone			
108	Pottery			Perth Local, White Gritty
	Sample	R002		Botanical sample: Floor layer
119	Pottery			Perth Local, White Gritty
	Animal bone			
	Shell			
	Daub	P038		
	Iron	E036		Unidentified
127	Pottery			Perth Local, White Gritty
	Ceramic	A085	189	Peg Tile
128	Wood			Timber ground-sill
160	Pottery			White Gritty
203	Pottery			Perth Local
	Animal bone			
204	Pottery			Perth Local
209	Pottery			Perth Local, White Gritty
	Animal bone			
221	Metalworking			
	Debris	Q066		Vitreous iron slag
223	Pottery			White Gritty, unidentified
230	Pottery			Perth Local
	Animal bone			
	Metalworking			
	Debris	Q083		Vitreous iron slag

TABLE 66mf/2

PERIOD II AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
101	Pottery			Perth Local, White Gritty Scarborough, Imports Unidentified
	Animal bone			
	Daub	P028, P045		
	Copper alloy	E001	13	Pin
	Iron	E006		Nail
		E008, E035		Unidentified fragment
	Stone	J007		Flint
	Ceramic	P094		Tiles
102	Sample	R004, R012		Botanical sample: organic silty midden
104	Animal bone			
105	Pottery			Perth Local, White Gritty
	Animal bone			
	Iron	E010		Unidentified fragment
107	Pottery			Perth Local, White Gritty Scarborough, Yorkshire Imports
	Animal bone			
	Shell			
	Daub	P082		
	Ceramic	P088	198	Floor tile
	Textile	F017	30	2/1 twill: woven woollen cloth
	Leather	C002-008	39	? belt fragment

TABLE 66mf/3

PERIOD II AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
107	Leather	C002-021	341-50	Soles (types 3, 4, clumps), forepart Rand Upper fragments Offcuts
110	Sample	R003		Botanical sample: occupation trample in S2
117	Pottery			Miscellaneous
	Iron	E009		Nail
	Textile	F068	31	Woollen, 2 ply yarn
120	Pottery			Perth Local, White Gritty Unidentified
	Animal bone			
	Sample	R005		Botanical sample: organic midden
121	Pottery			Perth Local, White Gritty
	Animal bone			
123	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			

PERIOD III AREAS 1/2

112	Pottery			Perth Local
	Animal bone			
134	Pottery			Perth Local, White Gritty Scarborough

TABLE 66mf/4

PERIOD III AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
146	Pottery			Perth Local, White Gritty Scarborough, Yorkshire
	Animal bone			
	Daub	P052		
206	Pottery			White Gritty
	Animal bone			
	Iron	E015		Nail
208	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Shell			
	Daub	P040		
	Iron	E031	66	Buckle
		E026		Nail
210	Pottery			Perth Local, White Gritty Yorkshire, Miscellaneous
	Animal bone			
	Daub			
	Iron	E034	85	Barrel padlock
212	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	P084		
	Iron	E072		Nail
	Sample	P084b		Petrological sample: burnt chalk or plaster

TABLE 66mf/5

PERIOD III AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
216	Pottery			Perth Local, White Gritty Yorkshire
	Animal bone			
224	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Daub	P041		
	Iron	E032		Nail
225	Daub	P039		
226	Pottery			Perth Local, White Gritty
228	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	P074		
	Ceramic	P089	199	Floor tile
235	Sample	R044		Botanical sample: carbonised cereal and burnt material with arable and wasteland seeds
236	Animal bone			

Table 66mf/6

PERIOD IV AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
100	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Slag	Q030, Q078		Bloom working and smithing debris
100/200	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Daub	P093		
	Iron	E057		Unidentified fragment
	Metalworking debris	Q018, Q030, Q078		Bloomworking waste
	Ceramic	P076		Tile
200	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Shell			
	Daub	P053, P065		
	Slag	Q018		Smithing debris
	Copper alloy	E005		Waste
	Iron	E071	96	Tool
		E071b, E003		
		E004		3 nails
		E002, E019		Unidentified x 7
		- E025		

TABLE 66mf/7

PERIOD IV AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description	
200	Stone	J055		Fragment of marble	
	Ceramic	P073		Tile	
		P064	197	Pan tile	
	Glass	N054		Bottle	
	Leather	C001	351	Strap	
				Scraps and offcuts	
201	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous	
	Shell				
	Daub	P048, P058			
	Iron	E013	91	Chisel	
		E011	110	Staple	
		E012		Nail	
		E024		Unidentified fragment	
	Stone	J061		Flint	
	Ceramic	A047, A059		Clay tobacco pipes	
	Coal	R060			
	202	Pottery			Perth Local, White Gritty
		Animal bone			
		Daub	P051		
	Ceramic	A050		Clay tobacco pipe	

TABLE 66mf/8

PERIOD IV AREAS 1/2

Context	Material	Accession Number	Catalogue Number	Description
213	Pottery			Perth Local, White Gritty Imports, Unidentified
	Animal bone			
	Daub	P042		
	Iron	E027a, b,		Nails
		E043		Nail
		E014		Unidentified fragment

AREA 3 PERIOD A

307	Sample	R028		Botanical sample
309	Pottery			Yorkshire
	Sample	R016		Botanical sample
311	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	P092		
	Sample	R018		Botanical sample
316	Animal bone			
	Sample	R040		Botanical sample
318	Sample			Botanical sample

TABLE 66mf/9

AREA 3 PERIOD B

Context	Material	Accession Number	Catalogue Number	Description
306	Pottery			Perth Local, White Gritty
	Animal bone			
322	Wood	H033, H093		Structural: stake, stake fragment

AREA 3 PERIOD C

301	Animal bone			
302	Animal bone			
304	Pottery			Perth Local
305	Pottery			Perth Local
	Animal bone			
319	Pottery			Perth Local
	Animal bone			
	Shell			

UNSTRATIFIED AREA 3

300	Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
	Shell			

TABLE 67mf/1 CATALOGUE OF CONTEXTS PRODUCING FINDS BY PERIOD AND PLOT

CANAL STREET II

PERIOD I

Context	Material	Accession Number	Catalogue Number	Description
2463	Pottery			Imports
2533	Pottery			Imports, Miscellaneous

PERIOD II

2273	Pottery			Miscellaneous
	Animal bone			
2373	Pottery			Perth Local
	Animal bone			
2381	Pottery			Perth Local, Imports
	Stone	J0641	142	Hone
2382	Iron	E0327		Unidentified
	Stone	J0642		Flint
2385	Pottery			White Gritty, Imports
	Animal bone			
	Slag	Q0710		
	Iron	E0481	64	Arrowhead
		E0480	80	Knife
		E482-4		Nails
	Stone	J0643		Flint
2386	Copper alloy	E0486	32	Nail
	Stone	J0645		Flint
2393	Pottery			Perth Local, Miscellaneous
	Animal bone			

TABLE 67mf/2

PERIOD II

Context	Material	Accession Number	Catalogue Number	Description
2394	Pottery			Perth Local, Imports
	Animal bone			
	Slag	Q0674		
	Stone	J0717		Flint
		J0124	146	Spindle whorl
	Ceramic	Rb0725a, b, c		Metalworking moulds: jewellery/fine metalwork
		Rb0725d, e		Crucible
	Sample	Rd306		Botanical sample: charcoal, carbonised plants
2407	Animal bone			
2432	Pottery			Perth Local
2434	Copper alloy	E0333		Sheet
	Sample	Rd303		Botanical sample
2438	Pottery			Miscellaneous
	Animal bone			
	Iron	E0337	105	Hinge pivot
2440	Pottery			Imports
	Animal bone			
	Sample	Rd302		Botanical sample
2441	Pottery			Perth Local
2459	Iron	E0125	93	Hoe
		E0338	113	Staple

TABLE 67mf/3

PERIOD II

Context	Material	Accession Number	Catalogue Number	Description
2461	Animal bone			
	Sample	Rd308		Botanical sample: charcoal /burnt bone chips/carbonised plant remains

PERIOD III PLOT 1

2219	Animal bone			
2234	Pottery			White Gritty
	Animal bone			
2253	Pottery			Perth Local

PERIOD III PLOT 2

2332	Pottery			Perth Local, Miscellaneous
	Animal bone			
2333	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
2349	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Iron	E0457	63	Arrowhead
		E0455, E0456		Nails
	Metalworking debris	Q0458		Vitreous iron slag

TABLE 67mF/4

PERIOD III PLOT 2

Context	Material	Accession Number	Catalogue Number	Description
2350	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Iron	E0662	107	Rivettted loop
2362	Pottery			Imports
	Daub	Rb0694		
2363	Pottery			Perth Local, White Gritty Scarborough, Imports
2371	Pottery			Scarborough
2385	Iron	E0485		Unidentified
2442	Animal bone			
	Metalworking debris	Q0459		Vitreous iron slag

PERIOD III PLOT 3

2145	Animal bone			
	Iron	E0279		Nail
		E0280		Unidentified
2278	Animal bone			
	Copper alloy	E0113	51	Staple
	Iron	E0656, E0657		Nails
		E0659		Nail

TABLE 67mE/5

PERIOD III PLOT 3

Context	Material	Accession Number	Catalogue Number	Description
2345	Pottery			Miscellaneous
	Animal bone			
	Metalworking debris	Q0120, Q0454		Slag, vitrified clay
	Iron	H0617		Nail in wood
	Shell	G0589		Oyster
2346	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
2347	Metalworking debris	Q380, Q382 Q0381		Vitreous iron slag, bloom- working waste, vitrified clay
	Iron	E0379		Nail
2368	Pottery			Perth Local, White Gritty Scarborough, Imports Miscellaneous
	Animal bone			
	Metalworking debris	Q0477		Vitrified clay
	Ceramic	Rb0382		Metalworking mould: cope

PERIOD III PLOT 4 PHASE A

2451	Pottery			Perth Local, White Gritty
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TABLE 67mf/6

PERIOD III PLOT 4 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2421	Pottery			Perth Local, White Gritty Miscellaneous

PERIOD III PLOT 5 PHASE A

2530	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Stone	J0752		Flint
2535	Pottery			Perth Local, White Gritty Scarborough

PERIOD III PLOT 5 PHASE B

2527	Pottery			Perth Local, White Gritty
2529	Pottery			Perth Local, White Gritty
	Stone	J0751		Flint
2539	Pottery			Perth Local

PERIOD III PLOT 5 PHASE C

2419	Pottery			Perth Local, White Gritty Scarborough
2422	Pottery			Perth Local, White Gritty
2447	Pottery			Perth Local, White Gritty Scarborough, Imports
2448	Pottery			Perth Local

TABLE 67mf/7

PERIOD III PLOT 5 PHASE C

Context	Material	Accession Number	Catalogue Number	Description
2462	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Coal	Rc0478		
	Iron	E0126	121	Strip
		E0354, E0355		Nails
		E0747		Unidentified
	Stone	J0749		Flint
2477	Pottery			Perth Local, Imports
2490	Pottery			Perth Local, White Gritty
2494	Pottery			Perth Local, White Gritty
2512	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Vitrified clay
	Metalworking debris	Q0750		
2525	Pottery			Perth Local, White Gritty Scarborough
2546	Pottery			Perth Local, White Gritty
2558	Pottery			Miscellaneous

TABLE 67mf/8

PERIOD IV PLOT 1

Context	Material	Accession Number	Catalogue Number	Description
2180	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0709		
	Iron	E0422		Nail
2191	Pottery			Perth Local, White Gritty Miscellaneous, Imports
	Animal bone			
	Daub	Ra0529		
		Ra0530		
		Ra0531		
	Copper alloy	E0613		Unidentified
		E0291		Waste
	Iron	E0289	92	Chisel
		E0428		Nail
		E0528		Nail
	E0427		Unidentified	
2229	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
2230	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Iron	E0441		Nail

TABLE 67mf/9

PERIOD IV PLOT 2 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2396	Animal bone			
	Sample	Rd299		Botanical sample: mortar, occasional burnt bone and shell chips
2179	Pottery			Perth Local, Miscellaneous
	Animal bone			
	Copper alloy	E0330	44	Wire
2192	Animal bone			
2256	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Iron	E0655		Nail
2281	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Iron	E0619		Nail
2288	Pottery			Perth Local
	Animal bone			
2291	Pottery			Perth Local
2292	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports

TABLE 67mf/10

PERIOD IV PLOT 2 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2293	Pottery			Perth Local, Miscellaneous
	Animal bone			
	Iron	E0607		Nail
2302	Pottery			Perth Local
	Animal bone			
2369	Pottery			Perth Local
	Animal bone			
2405	Pottery			White Gritty
2406	Pottery			White Gritty
	Animal bone			

PERIOD IV PLOT 2 PHASE B

2241	Pottery			White Gritty, Scarborough
	Coal	Rc0497		
2244	Pottery			Perth Local, White Gritty
	Animal bone			
2254	Pottery			Perth Local, White Gritty
				Scarborough, Imports
				Miscellaneous
	Animal bone			
	Daub	Ra0546		
	Iron	E011	70	Buckle pin
		E0660		Nail
2271	Pottery			Perth Local
	Animal bone			
	Iron	E0466		Nail

TABLE 67mf/11

PERIOD IV PLOT 3 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2279	Animal bone			
2280	Pottery			Perth Local, White Gritty
	Animal bone			
2306	Pottery			Perth Local, White Gritty
				Imports
	Animal bone			
2308	Pottery			Perth Local, White Gritty
				Miscellaneous, Imports
	Animal bone			
	Copper alloy	E0282	52	Sheet

PERIOD IV PLOT 3 PHASE B

2278	Pottery			White Gritty, Scarborough
				Miscellaneous, Imports
	Animal bone			
	Copper Alloy	E0658	30	Clench bolt
		E0113	51	Sheet
	Iron	E0656a, b		Nails
		E0657, E659		Nails
2314	Pottery			Perth Local, White Gritty
				Scarborough, Miscellaneous
				Imports
	Animal bone			
	Stone	J0568,		Flints
		J0569		

TABLE 67mf/12

PERIOD IV PLOT 3 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2323	Pottery			Perth Local
2324	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
2325	Pottery			Perth Local, White Gritty
	Animal bone			
2326	Pottery			White Gritty, Imports
	Animal bone			
2327	Pottery			Perth Local, White Gritty
	Animal bone			
2339	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Lead	E119	60	Spindle whorl/weight

PERIOD IV PLOT 4 PHASE A

2264	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Copper alloy	E0292		Unidentified
2357	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			

TABLE 67mf/13

PERIOD IV PLOT 4 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2357	Iron	E0122	97	Candlestick
		E0322-4		Nails
		E0487		Nail
2378	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
2398	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
2400	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Daub	Ra0642		
	Lead	E0318		Unidentified
	Stone	J0648		Flint
	Sample	Rd302		Botanical sample: charcoal fish, animal bone
2403	Pottery			Perth Local
2466	Sample	Rd300, Rd301		Botanical samples: peat occasional burnt bone and charcoal, 2 carbonised seeds a few plants
2467	Pottery			Perth Local
	Lead	E0606		Unidentified

TABLE 67mf/14

PERIOD IV PLOT 4 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2255	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Daub	Ra0544		
	Iron	E0112	89	Key
	Sample	Rc0545		Ash

PERIOD IV PLOT 4 PHASE B

2269	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
2287	Pottery			Perth Local, White Gritty Imports
	Animal bone			

PERIOD IV PLOT 5 PHASE A

2329	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Daub	Ra0585		
	Iron	E0390, E0391		Nails
2330	Ceramic	Rb0587		Metalworking mould: cope
2355	Pottery			Perth Local, White Gritty
	Daub	Ra0592		
		Ra0593		

TABLE 67mf/15

PERIOD IV PLOT 5 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2355	Metalworking debris	Q710		Vitreous copper slag
	Ceramic	Rb0590, 1, 5 Ra0693 Rb0746		Metalworking moulds: copes
	Coal	Rc0594		
2356	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Ra0633 Ra0638		
	Copper alloy	E0325	56	Rod
	Iron	E0610	79	Knife
2375	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0639		
	Lead	E0326	59	Plug
2382	Pottery			Perth Local, White Gritty Scarborough
	Iron	E0327		Unidentified
	Stone	J0642		Flint
2397	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Stoneware

TABLE 67mf/16

PERIOD IV PLOT 5 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2397	Animal bone			
	Daub	Ra0646		
2408	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Copper alloy	E0123	19	Needle
	Lead	E0235		Unidentified
	Iron	E0336	71	Buckle pin
		E0351, E0352		Nails
	Ceramic	P0650, P0651	184, 195	Peg tiles

PERIOD IV PLOT 5 PHASE B

2276	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0627		
	Metalworking debris	Q0488		Bloomworking waste?
	Iron	E0331	99	Swivel hook
		E0489, E0630		Nails
		E0631		Nails
		E0490, E0632		Unidentified
	Ceramic	A0114	162	Spindle whorl
		Rb0553		Metalworking mould: core
		Rb0556		Metalworking mould: cope

TABLE 67mf/17

PERIOD IV PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2304	Pottery			Perth Local
2305	Pottery			Perth Local
2309	Pottery			Perth Local, White Gritty
2313	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0567		
	Copper alloy	E0284	53	Sheet
2319	Pottery			Perth Local, White Gritty Miscellaneous
	Daub	Ra0682		
2322	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Daub	Ra0581-3		
		Ra0579		
		Ra0689		
	Metalworking debris	Q0449, Q0465 Q0670, Q0690		Bloomworking waste, Vitreous copper slag
	Copper alloy	E0348	6	Buckle/brooch pin

TABLE 67mf/18

PERIOD IV PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2322	Iron	E0117	77	Knife
		E0118	90	Key
		E0342-3		Nails
		E0450, E0460		Nails
		E0462-3		Nails
		E0669, E0691		Nails
		E0461		Unidentified fragment
	Stone	J0576	152	Roof-tile
		J0706		Flint
		P0584		Petrological sample
	Glass	N0341	160	Window
		N0604	161	Window
		N0605		Post medieval window
		N0320		Unidentified
Ceramic	P0577	194	Peg tile	
	Rb0580		Metalworking mould: cope	
Sample	Rc0578		Ash	
	Rc0707			
	Rc0745			
Sample	Rd309		Botanical sample: plants burnt bone, coal cinders Burnt stone and ? slag	

TABLE 67mf/19

PERIOD IV PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2336	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0696		
		Ra0703		
2337	Pottery			Perth Local, White Gritty
	Iron	E0332		Nail
	Ceramic	Rb0711		Metalworking mould: cope
2340	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Daub	Ra700		
	Iron	E0621		Nail
2342	Pottery			Perth Local, White Gritty Miscellaneous, Imports
	Animal bone			
	Daub	Ra0588		
	Metalworking debris	Q0451-2		Vitreous copper slag
	Iron	E0453	78	Knife
		E0321		Nail
	Ceramic	Rb0587		Metalworking mould: cope

TABLE 67mf/20

PERIOD IV PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2343	Pottery			White Gritty, Scarborough Miscellaneous, Imports
	Animal bone			
	Daub	Ra0586		
		Ra0712		
	Copper alloy	E0121	9	Boss
		E0333		Unidentified
	Glass	N0334		Vessel
2360	Pottery			Perth Local
	Animal bone			
	Sample	Rd317		Botanical sample: animal and fish bones, uncarbonised plants, slag, cinders charcoal, coal
2365	Pottery			Perth Local, White Gritty Scarborough
	Metalworking debris	Q0477-8		Vitrified clay
	Ceramic	Rb0328-9		Metalworking moulds: cope
		Rb0634-7		Metalworking moulds: cope

TABLE 67mf/21

PERIOD IV PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2367	Pottery			Perth Local
	Daub	Ra0654		
	Ceramic	Rb0652-3		Metalworking moulds: cope, flat
2374	Pottery			Perth Local
2387	Pottery			Perth Local

PERIOD IV PLOT 5 PHASE C

2263	Pottery			Perth Local, White Gritty Stoneware
	Daub	Ra0716		
	Iron	E0608		Nail
2268	Pottery			Perth Local, White Gritty Miscellaneous
	Daub	Ra0551		
	Copper alloy	E0286	37	Vessel fragment
	Iron	E0446		Nail
	Ceramic	Rb0552		Metalworking mould: core
2283	Animal bone			
	Coal	Rc0714		
2284	Pottery			Perth Local
2297	Pottery			Perth Local
	Daub	Ra0562		

TABLE 67mf/22

PERIOD IV PLOT 5 PHASE C

Context	Material	Accession Number	Catalogue Description Number
2301	Pottery		Perth Local, White Gritty Imports
	Animal bone		
	Daub	Ra074 1, 2	
	Copper alloy	E0290	Unidentified
		E0349	
	Iron	E0448	Nail
	Ceramic	Rb074 1a,	Metalworking mould: core
		c, d, e	Metalworking moulds: core
		Rb074 1b	Metalworking mould: cope
		Rb0564, Rb0565	Metalworking moulds: cope
		Rb0563	Metalworking mould: cope
		Rb0564	Metalworking mould: flat
	Coal	Rc0566	
		Rc0743	
2315	Pottery		Perth Local, Imports
	Stone	J0505	Building material
2316	Pottery		Scarborough
	Daub	Ra0570	
2317	Pottery		Perth Local, White Gritty
			Miscellaneous
	Animal bone		
	Copper alloy	E0115	Unidentified

TABLE 67mf/23

PERIOD IV PLOT 5 PHASE C

Context	Material	Accession Number	Catalogue Number	Description
2320	Pottery			Perth Local, White Gritty
	Daub	Ra0571		
		Ra0572		
	Copper alloy	E0116	15	Pin
		E0283	38	Vessel fragment
	Ceramic	Rb0573		Metalworking mould: cope
		Rb0574		Metalworking mould: cope
		Rb0575		Metalworking mould: core
2321	Pottery			Miscellaneous, Imports
2389	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0698		
	Sample	Rd495		Botanical sample: occasional carbonised plants, bone fragments and industrial
2395	Sample	Rd491		Botanical sample: occasional carbonised plants and industrial
2399	Pottery			Perth Local

PERIOD V PLOT 1/2

2177	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Stoneware
	Animal bone			

TABLE 67mF/24

PERIOD V PLOT 1/2

Context	Material	Accession Number	Catalogue Number	Description
2177	Copper alloy	E0110	5	Buckle
	Iron	E0663	83	Knife handle
		E0664		Nail
	Stone	J0721		Unidentified
	Sample	Rc0692		Ash
2225	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			
	Iron	E0437		Nail
		E0438		

PERIOD V PLOT 3

2174	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Iron	E0418-9		Nails
2176	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Copper alloy	E0353		Unidentified fragment
	Iron	E0389		Nail
		E0388		Unidentified fragment

TABLE 67mf/25

PERIOD V PLOT 3

Context	Material	Accession Number	Catalogue Number	Description
2182	Pottery			White Gritty, Scarborough Miscellaneous
	Animal bone			
	Daub	Ra0681		
		Ra0684		
	Iron	E0423, E0622		Nails
		E0623		Nail
	Stone	J0719		Flint
	Ceramic	P0521	190	Peg tile
		P0737	191	Peg tile
		Rb0521		Metalworking mould: cope
	Coal	Rc0685		
2196	Pottery			Perth Local
2197	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Iron	E0609		Nail
2198	Pottery			Perth Local, White Gritty Scarborough, Imports Unidentified
	Animal bone			
	Iron	E0243	100	Horseshoe
		E0429, E0612		Nails
		E0430		Unidentified fragment

TABLE 67mf/26

PERIOD V PLOT 3

Context	Material	Accession Number	Catalogue Number	Description
2207	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Iron	E0532		Unidentified fragment
	Sample	Rd241		Botanical sample: mortar, Charcoal, coal, cinders, flintchips, fired clay, bone chips, 4 carbonised seeds
2208	Copper alloy	E0269	49	Sheet
2210	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Copper alloy	E0107	54	Balance
		E0108	50	Sheet
2233	Pottery			Perth Local, Miscellaneous
	Animal bone			
	Iron	E0439-40		Nails
2237	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous
	Animal bone			

TABLE 67mf/27

PERIOD V PLOT 3

Context	Material	Accession Number	Catalogue Number	Description
2238	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Iron	E0624-5		Nails
2282	Pottery			Perth Local, White Gritty
	Animal bone			

PERIOD V PLOT 4

2181	Pottery			Perth Local, Scarborough Imports
	Animal bone			
	Iron	E0242		Nail
	Daub	Ra0683		
2224	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Daub	Ra0540		
	Copper alloy	E0281	24	Tag
	Iron	E0485		Nail
		E0436		Unidentified fragment
	Stone	P0538-9		Chalk
	Coal	Rc0541		

TABLE 67mf/28

PERIOD V PLOT 4

Context	Material	Accession Number	Catalogue Number	Description
2231	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Daub	Ra0722-3		
	Copper alloy	E0443	7	Buckle plate
	Iron	E0442		Nail
	Ceramic	P0739	193	Peg tile
		Rb0740		Metalworking mould: cope

PERIOD V PLOT 5

2227	Pottery			Perth Local
	Iron	E0738		Unidentified
2228	Pottery			Perth Local, White Gritty Miscellaneous
	Daub	Ra542		
	Iron	E0496		Unidentified
	Ceramic	Rb0542		Metalworking mould: flat
2236	Pottery			Perth Local
	Animal bone			
	Daub	Ra0697		
2239	Pottery			Perth Local, White Gritty
	Animal bone			
	Copper alloy	E0476	41	Paper clip rivet

TABLE 67mf/29

PERIOD V PLOT 5

Context	Material	Accession Number	Catalogue Description Number
2240	Pottery		Perth Local, White Gritty
	Animal bone		
	Iron	E479	Nail
2259	Pottery		Perth Local, White Gritty
			Miscellaneous
	Animal bone		
	Daub	Ra0543	
	Iron	E0444	Nail
2260	Pottery		Perth Local, White Gritty
			Scarborough
	Animal bone		
	Iron	E0445	Unidentified fragment
2261	Pottery		Perth Local
	Daub	Ra0548	
2265	Pottery		Perth Local, White Gritty
	Daub	Ra0549	
	Copper alloy	E0285	Unidentified
	Ceramic	Rb0550	Metalworking moulds: copes
		Rb0699	
2277	Pottery		Perth Local, White Gritty
			Miscellaneous
	Animal bone		
	Daub	Ra0557-8	
	Iron	E0447	Nail

TABLE 67mf/30

PERIOD V PLOT 5

Context	Material	Accession Number	Catalogue Number	Description
2286	Pottery			Perth Local, White Gritty
	Daub	Ra0559		
		Ra0561		
		Ra0626		
	Metalworking debris	Q0629		Vitreous copper slag
	Ceramic	Rb0560		Metalworking mould: flat
2328	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0715		

PERIOD VI PLOT 1/2

2158	Pottery			Perth Local
	Animal bone			
2159	Pottery			Perth Local, White Gritty
				Scarborough, Imports
	Animal bone			
	Daub	Ra0736		
	Iron	E0386	108	Rivet plate
		E0387		Nail
2160	Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
2161	Copper alloy	E0230		Unidentified fragment
2187	Pottery			Perth Local

TABLE 67mf/31

PERIOD VI PLOT 1/2

Context	Material	Accession Number	Catalogue Number	Description
2188	Pottery			Perth Local
2199	Pottery			Perth Local, White Gritty
	Animal bone			
	Iron	E431		Nail
		E432		Unidentified fragment
2212	Pottery			Perth Local, White Gritty
				Scarborough
	Animal bone			

PERIOD VI PLOT 3/4

2146	Pottery			Perth Local, White Gritty
				Scarborough, Imports
				Miscellaneous
	Animal bone			
	Daub	Ra0735		
	Copper alloy	E0091	47	Sheet
2166	Pottery			Perth Local, White Gritty
				Scarborough, Miscellaneous
				Imports, Stoneware
	Animal bone			
	Daub	Ra0506-8		

TABLE 67mf/32

PERIOD VI PLOT 3/4

Context	Material	Accession Number	Catalogue Number	Description	
2166	Iron	E0250	62	Arrowhead	
		E0404	109	Rivet plate	
		E0251	120	Strip	
		E0248-9		Nails	
		E0401-3		Nails	
		E0405		Nail	
		E0509		Nail	
		E0398-400		Unidentified	
		Silver	E010	181	Scots penny
		Stone	J0510-11		2 flints
2193	Pottery			Perth Local, White Gritty	
	Animal bone				
	Daub	Ra0675			
		Ra0724			
	Copper alloy	E0652		Pin	
	Iron	E0620		Nail	
	Stone	J0106	145	Spindle whorl	
	2194	Pottery		Perth Local	
2205	Pottery		Perth Local		
	Animal bone				

TABLE 67mf/33

PERIOD VI PLOT 3/4

Context	Material	Accession Number	Catalogue Number	Description
2211	Pottery			Perth Local, White Gritty Imports
	Animal bone			
	Copper alloy	E0109	25	Ring
	Ceramic	P533	192	Pegtile

PERIOD VI PLOT 5 PHASE A

2080	Pottery			Perth Local, White Gritty Imports
	Daub	Ra0361		
	Ceramic	Rb0362		Metalworking mould: flat
2095	Pottery			Perth Local, Scarborough
	Animal bone			
	Daub	Ra0729		
		Ra0730		
	Metalworking debris	Q733		Vitrified clay
	Ceramic	Rb0731-2		Metalworking moulds: copes
2167	Pottery			Perth Local, White Gritty
	Iron	E0246-7		Nails
	Ceramic	A0514		Unidentified fragment

TABLE 67mf/34

PERIOD VI PLOT 5 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2183	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0681		
		Ra0704		
	Stone	J0522		Flint
	Ceramic	Rb0525		Metalworking mould: cope
2189	Pottery			Perth Local, White Gritty
	Animal bone			Miscellaneous
	Daub	Ra0523, 4, 6		
		RA527		
	Metalworking debris	Q470		Vitreous copper slag
	Iron	E0071		Nail
		E0423		Nail
	Ceramic	Rb0525		Metalworking mould: cope
2190	Pottery			Perth Local
	Ceramic	Rb0525		Metalworking mould: cope
2195	Pottery			Perth Local, White Gritty
				Imports
2222	Animal bone			
	Daub	Ra0536		
	Ceramic	Rb0537		Metalworking mould: cope

TABLE 67mf/35

PERIOD VI PLOT 5 PHASE A

Context	Material	Accession Number	Catalogue Description Number
2246	Pottery		Perth Local, White Gritty Imports
	Animal bone		
	Daub	Ra0677	
		Ra0705	
	Iron	E0668	Nail
	Stone	J0678	Flint
2311	Pottery		Perth Local
	Iron	E0611	Nail
2577	Pottery		Perth Local

PERIOD VI PLOT 5 PHASE B

2130	Pottery		Perth Local, White Gritty Miscellaneous
	Animal bone		
	Daub	Ra0274	
	Metalworking debris	Q0060, Q0219	Vitreous copper slag/ Bloomworking waste
	Iron	E0272-3	Nails
		E0474-5	Nails
	Glass	N0266	Window
	Sample	Rc0221	Ash
2133	Pottery		Perth Local, Miscellaneous
2135	Pottery		Perth Local, White Gritty Imports

TABLE 67mf/36

PERIOD VI PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2137	Pottery			Perth Local, White Gritty Stoneware
	Daub	Ra0275		
2138	Pottery			Perth Local, Miscellaneous
	Animal bone			
	Daub	Ra0276		
2141	Pottery			Perth Local, White Gritty Scarborough, Imports
2142	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0277		
2152	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports, Stoneware
	Animal bone			
	Daub	Ra0370		
	Copper alloy	E0244	36	Vessel fragment
		E0102	180	Scottish billon penny
	Iron	E0372		Nail
2162	Pottery			Perth Local
	Iron	E0392	68	Buckle pin
		E0393		Nail

TABLE 67mf/37

PERIOD VI PLOT 5 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2163	Pottery			Perth Local, White Gritty Miscellaneous
	Daub	Ra0513		
	Copper alloy	E0396		Waste
	Iron	E0395	112	Staple
		E0394		Nail
	Ceramic	Rb0512		Metalworking mou.
2184	Pottery			Perth Local, White Gritty
	Animal bone			
	Iron	E0424		Nail
2217	Pottery			Miscellaneous
2218	Pottery			Perth Local

PERIOD VII PLOT 1/2

2084	Pottery			Perth Local, White Gritty Miscellaneous, Imports
	Animal bone			
	Daub	Ra0235		
	Slag			
	Iron	E0225		Nail
		E0226		Unidentified fragment
	Coal			

TABLE 67mf/38

PERIOD VII PLOT 1/2

Context	Material	Accession Number	Catalogue Number	Description
2088	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Ra0271		
	Copper alloy	E0103	4	Buckle
		E0104	33	Stud
	Iron	E0385		Nail
		E0469		Nail
		E0498-503		Nails
		E0504		Unidentified fragment
2125	Pottery			Perth Local, Miscellaneous Imports
	Animal bone			
	Daub	Ra0215		
	Copper alloy	E0065	20	Tag
	Ceramic	P0214	204	Floor tile
2143	Pottery			Perth Local
2145	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Iron	E092	76	Knife
		E0279		Nail
		E0278, E0280		Unidentified fragment

TABLE 67mf/39

PERIOD VII PLOT 1/2

Context	Material	Accession Number	Catalogue Number	Description
2164	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Iron	E0397		Unidentified fragment
2178	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Ra0517		
	Lead	E0270	61	Strip
	Iron	E0420		Vitrified fragment

PERIOD VII PLOT 3/4

2053	Daub	Ra0071		
	Iron	E0072		Nail
		E0098		Nail
		E0017		Unidentified fragment
2089	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Ra0063		
	Iron	E0236		Nail
		E0027		Nail

TABLE 67mf/40

PERIOD VII PLOT 3/4

Context	Material	Accession Number	Catalogue Number	Description
2103	Pottery			Perth Local, White Gritty
	Animal bone			
	Copper alloy	E0066	21	Tag
	Iron	E0224	88	Key
	Stone	J0239		Flint
	Coal	Rc0064		
	Sample	Rc0238		Ash
2105	Pottery			Perth Local, White Gritty
2111	Pottery			Perth Local, White Gritty
				Scarborough, Miscellaneous Imports
	Animal bone			
	Metalworking debris	Q0434		Bloomworking waste
	Ceramic	Rb0085		Metalworking mould: cope
2112	Pottery			Perth Local, White Gritty
				Scarborough
	Animal bone			
	Daub	Ra0208		
	Metalworking debris	Q0210		Vitreous iron slag
	Coal	Rc0209		
2116	Animal bone			
	Daub	Ra0211		

TABLE 67mf/41

PERIOD VII PLOT 3/4

Context	Material	Accession Number	Catalogue Number	Description
2117	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0062		
	Iron	E0235a, b		Nails
2118	Pottery			Perth Local, Miscellaneous
	Animal bone			
	Sample	Rd048		Botanical sample: carbonised plants: occasional bone chips, charcoal and industrial
2119	Pottery			Perth Local, White Gritty
	Animal bone			
	Copper alloy	E0041	178	Scottish three penny
		E0043	14	Pin
		E0040		Unidentified fragment
	Iron	E0213		Nail
	Silver	E0039	177	Scottish penny
2126	Ceramic	P0212	203	Floor tile
	Pottery			Perth Local, Scarborough
2127	Animal bone			Perth Local, White Gritty
	Pottery			Scarborough, Imports
2127	Daub			
	Copper alloy	E0229	29	Tag
	Ceramic	P0216	205	Floor tile

TABLE 67mf/42

PERIOD VII PLOT 5

Context	Material	Accession Number	Catalogue Description Number
2131	Pottery		Perth Local, White Gritty Scarborough, Imports
	Animal bone		
2132	Pottery		Perth Local, White Gritty
	Animal bone		
2193	Pottery		Perth Local, White Gritty
	Animal bone		
	Iron	E0662	Nail
2073	Pottery		Perth Local
2081	Pottery		Perth Local
	Animal bone		
	Daub	Ra0033-4	
	Metalworking debris	Q0054	Vitreous iron slag
2082	Pottery		Perth Local
2090	Pottery		Perth Local, White Gritty Scarborough
	Animal bone		
	Daub	Ra0084, 7, 8, Ra0202	
	Copper alloy	E0050	Waste
		E0228	Waste

TABLE 67mf/43

PERIOD VII PLOT 5

Context	Material	Accession Number	Catalogue Description Number	
2090	Iron	E0082	Nail	
		E0222	Nail	
		E0227	Nail	
		E0237a, b	Nails	
		E0083	Unidentified fragment	
2091	Pottery		Perth Local, White Gritty Miscellaneous	
	Animal bone			
	Daub	Ra0261-2		
	Copper alloy	E0052	Waste	
		E0287	Waste	
	Iron	E0260	Nail	
		E0263	Nail	
		E0259	Unidentified fragment	
	2094	Pottery		Perth Local
	2101	Pottery		Perth Local, Miscellaneous
Daub		Ra0069		
2102	Pottery		Perth Local, White Gritty	
2106	Pottery		Perth Local	
	Ceramic	Rb0205	Metalworking mould: cope	
2113	Pottery		Perth Local, White Gritty	
	Daub	Ra0535		
2120	Pottery		Perth Local, White Gritty	
			Imports	

TABLE 67mf/44

PERIOD VII PLOT 5

Context	Material	Accession Number	Catalogue Number	Description
2120	Animal bone			
	Daub	Ra0254		
	Copper alloy	E0105	46	Sheet
		E0042	179	Scottish three penny
	Iron	E0426		Sheet fragment
		E0256		Nail
		E0255		Unidentified fragment
2122	Pottery			Perth Local
2128	Pottery			Perth Local, White Gritty
				Miscellaneous
	Daub	Ra0218		
2129	Pottery			Perth Local
2140	Pottery			Perth Local
	Animal bone			
	Copper alloy	E0245	39	Paper clip rivet
		E0231		Sheet
	Iron	E0352		Nail
2169	Pottery			Perth Local, White Gritty
	Daub	Ra0701		
	Iron	E0406-9		Nails

PERIOD VII PLOT 5 PHASE A

2096	Pottery			Perth Local
	Animal bone			
	Copper alloy	E0015	35	Vessel fragment

TABLE 67mf/45

PERIOD VII PLOT 5 PHASE A

Context	Material	Accession Number	Catalogue Description Number
2189	Pottery		Perth Local, Scarborough Imports
	Animal bone		
	Daub	Ra0523, 4, 6, 7	
	Slag	Q0470	Copper smelting slag
	Iron	E0425	Nail
		E0471	Nail

PERIOD VII PLOT 1/2 PHASE A

2071	Pottery		Perth Local, White Gritty Scarborough, Miscellaneous Imports, Stoneware
	Animal bone		
	Daub	Ra0099	
	Metalworking debris	Q0032	sintered coal
	Iron	E0472-3, E005	Nails
2150	Pottery		Perth Local, White Gritty Scarborough Imports, Stoneware
	Animal bone		
	Daub	Ra0365	
	Metalworking debris	Q0366	Hammerscale, bloomworking waste

TABLE 67mf/46

PERIOD VIII PLOT 1/2 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2150	Copper alloy	E0090	8	Boss
		E0089	22	Tag
	Iron	E0256	111	Staple
		E0376-8		Nails
2171	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Copper alloy	E0100	34	Stud
	Iron	E0410-12		Nails
		E0515		Nail
2173	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0516		
	Copper alloy	E0288	40	Paper clip rivet?
		E0339	48	Sheet
	Iron	E0413	69	Buckle pin
		E0414-17		Nails
	2213	Pottery		
Animal bone				
Iron		E0253a	94	Sickle?
		E0350	101	Horseshoe
Coal		Rc0534		

TABLE 67mf/47

PERIOD VIII PLOT 1/2 PHASE B

Context	Material	Accession Number	Catalogue Number	Description
2039	Pottery			Perth Local
	Iron	E0012		Nail
2051	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	P0029		
	Metalworking debris	Q0028		Bloomworking waste, hammer scale
	Iron	E0023-4		Nails
		E0031		Nail
		E0095-6		Nails
	Stone	J0030		Flint
2023	Pottery			Perth Local, Miscellaneous
2049	Pottery			Perth Local
2053	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports, Stoneware
	Animal bone			
	Daub	Ra0071		
	Copper alloy	E0017		Unidentified fragment
	Iron	E0072		Nail
		E0098		Nail
	Ceramic	P0011		Building material

TABLE 67mf/48

PERIOD VIII PLOT 3/4

Context	Material	Accession Number	Catalogue Number	Description
2068	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Daub	Ra0055		
	Metalworking debris	Q0021		Hammerscale, bloomworking sintered coal
		Q0045		Unidentified
		Q0057		Unidentified
	Iron	E0018		Nail
		E0058		Nail
	Stone	J0020	151	Roof tile
	Ceramic	P0056	201	Floor tile
		P0081	202	Floor tile

PERIOD VIII PLOT 5

2065	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Daub	Ra0036		
2077	Pottery			Perth Local, White Gritty Miscellaneous, Stoneware

TABLE 67mf/49

PERIOD VIII PLOT 5

Context	Material	Accession Number	Catalogue Number	Description
2078	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Iron	E0203		Nail
		E0258		Nail
	Glass	N0257		Unidentified
2079	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
	Daub	Ra0038		
		Ra0067		
2097	Pottery			Perth Local, White Gritty Scarborough
	Animal bone			
	Daub	Ra0061		
2123	Pottery			Perth Local
2155	Animal bone			
	Ceramic	Rb0371		Metalworking mould: cope
2165	Pottery			Perth Local, White Gritty
	Animal bone			

TABLE 67mf/50

PERIOD VIII PLOT 5/6

Context	Material	Accession Number	Catalogue Number	Description
2083	Pottery			Perth Local, Scarborough
	Daub	Ra0201		
	Copper alloy	E0016	82	Knife handle
	Iron/wood			
2274	Daub	Ra0673		
	Iron	E0661		Nail
2275	Pottery			Perth Local

PERIOD IX PLOT 5

2013	Copper alloy	E0014	174	Coin
2041	Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
	Daub	Ra0094		
2075	Pottery			Perth Local

PERIOD IX PLOT 6

2054	Pottery			Perth Local, White Gritty
				Miscellaneous
	Animal bone			
	Daub	Ra0045		
		Ra0046		
2055	Pottery			Perth Local, Miscellaneous
	Coal	Rc0044		

TABLE 67mf/51

PERIOD X PLOT 1/2 PHASE A

Context	Material	Accession Number	Catalogue Number	Description
2031	Pottery			Perth Local, White Gritty Miscellaneous

PERIOD X PLOT 1/2 PHASE B

2036	Pottery			Perth Local
	Animal bone			

PERIOD X PLOT 3/4

2001	Pottery			Perth Local, Miscellaneous
	Ceramic	A0007		Clay tobacco pipes
2015	Animal bone			
	Glass	N0008		Unidentified
2016	Pottery			Miscellaneous
	Iron	E0009		Nail
		E0010		Nail

PERIOD X PLOT 6

2048	Pottery			White Gritty
2058	Pottery			Perth Local
2059	Pottery			Perth Local

TABLE 67mf/52

UNSTRATIFIED

Context	Material	Accession Number	Catalogue Number	Description
2000	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Ra0005		
		Ra0695		
		Ra0705		
	Slag	Q0233		
		Q0665		
		Q0688		
	Iron	E0223		Nail
		E0234a, b		Nails
		E0547		Nail
		E0666		Unidentified fragment
		E0667		Unidentified fragment
	Glass	N0003		Unidentified
	Ceramic	A0006		Clay tobacco pipes
		Rb0687		Metalworking mould: cope
		A0002		Stoneware pottery
		A0093		Bottle
		A0232		Brick and pot vitrified kiln debris
		A0727		Stacking ring
		P0004		Building material

TABLE 67mf/53

UNSTRATIFIED

Context	Material	Accession Number	Catalogue Number	Description
2000	Sample	Rc0686		Ash
2107	Pottery			Perth Local, White Gritty Scarborough, Stoneware
	Animal bone			
	Daub	Ra0086		
	Lead	E0053	58	Patch
2108	Pottery			Perth Local, White Gritty Miscellaneous
	Animal bone			
2109	Pottery			Perth Local, White Gritty
	Animal bone			
	Daub	Ra0073		
		Ra0077		
		Ra206		
		Ra265		
	Copper alloy	E0347		Waste
	Iron	E0075, 76		Nails
		344-6		Nails
		E0074		Unidentified fragment
	Ceramic	Rb0264		Metalworking mould: cope
	Coal	Rc0207		

TABLE 67mf/54

UNSTRATIFIED

Context	Material	Accession Number	Catalogue Number	Description
2110	Pottery			Perth Local, White Gritty Scarborough, Imports
	Animal bone			
	Daub	Ra0363-4		
	Iron	E0358-360		Nails
		E0383-4		Nails
		E0467-8		Nails
		E0433		Unidentified fragment
	Ceramic	Ra0734		Metalworking mould: cope
2111	Animal bone			
	Slag	Q0434		
	Ceramic	Rb0085		Metalworking mould: cope
2151	Pottery			Perth Local, White Gritty Scarborough, Miscellaneous Imports
	Animal bone			
	Daub	Rb0367		
		Ra0369		
	Copper alloy	E0268	55	Hilt plate
	Iron	E0373-5		Nails
	Ceramic	Rb0368		Metalworking mould: cope

TABLE 67mf/55

UNSTRATIFIED

Context	Material	Accession Number	Catalogue Number	Description
2156	Pottery			Perth Local, White Gritty Miscellaneous, Imports
	Animal bone			
	Iron	E0614-5		Nails
2401	Pottery			Perth Local, White Gritty Scarborough
2402	Pottery			Perth Local, White Gritty Scarborough
	Daub	Rb0753		
	Copper alloy	E0319		Unidentified fragment
	Base metal	E0127	182	Jetton

TABLE 69mf/1

METALWORKING DEBRIS, OCCURENCE BY PERIOD

a) KIRK CLOSE

Period	Area	Context	Acc No	Vitreous Iron Slag	Bloom Working Waste	Hammer Scale	Vitreous Copper Slag	Others
III	C	1119	Q256	0.04 kg				
	C	1137	Q254					0.01 kg vitrified clay
V	B	2034	Q258	0.03 kg				
	B	2035	Q048	0.09 kg				
V	B	2058	Q227	0.05 kg				
V	C	1065	Q028	0.05 kg				
VI	B	2008	Q015					0.04 kg vitrified clay
	C	1062	Q269		0.02 kg			
SITE TOTALS				0.26 kg	0.02 kg	-	-	0.05 kg vitrified clay

TABLE 69mf/2

b) SOUTH METHVEN STREET

Period	Area	Context	Acc No	Vitreous Iron Slag	Bloom Working Waste	Hammer Scale	Vitreous Copper Slag	Others
I	2	221	Q066	0.02 kg				
I	2	230	Q083	0.07 kg				
IV	1/2	100/200	Q018					
			030					
			078		0.30 kg			
SITE TOTALS				0.09 kg	0.30 kg	-	-	-

TABLE 69mf/4

c) CANAL STREET

Period	Area	Context	Acc No	Vitreous Iron Slag	Bloom Working Waste	Hammer Scale	Vitreous Copper Slag	Others
VIb	5	2133	Q219					
			060		0.1 kg		0.06 kg	
VII	3/4	2111	Q434		0.30 kg			
			Q210	0.02 kg				
			Q054	0.05 kg				
VIIIa	1/2	2071	Q032				0.05 kg	
							sintered coal	
	1/2	2150	Q366		0.05 kg	Present		
VIIIb	1/2	2051	Q028		0.08 kg	Present		
VIII	3/4	2068	Q021		0.21 kg	Present	0.08 kg	
SITE TOTALS				0.292 kg	3.02 kg	Present	0.5 kg	sintered coal

TABLE 70mf MOULDS. TABLE MOULD TYPES USED FOR CASTING JEWELLERY AND FINE METALWORK. CANAL STREET II

Type	Comments	Period	Feature	Access	Temp	Attri- butes	Pattern	Keying	Dimension*
Composite Plate	External slip	II	2394	725a	Hair ?Grog	-	Rectangular ridge 2 x 9 mm in a flat side end to sub - rectangular pattern plane	Flanges at opp-	36 x 16 x 10 mm
External mould slip	A piece of fine clay slip from the exterior of a composite mould such as 725a	II	2394	725b	-	-	-	-	23 x 20 x 6 mm
External mould slip	A piece of fine clay slip from the exterior of a composite mould such as 725a	II	2394	725c	-	traces of gate lip	-	-	20 x 16 mm

Table 7lmf/1 Moulds. Table of mould types used for casting small objects and vessels

Core fragments - Type 1 bulbous

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
IV	5B	2318	553	50 X 50 X 12	c 320	-	-
IV	5C	2321	575	30 X 25 X 12	c 80	-	-
IV	5C	2268	552	60 x 55 x 20	c 160	-	-
IV	5C	2301	741a	75 x 70 x 27	c 28	-	-
IV	5C	2301	741c	114 x 74 x 26	c 320		
IV	5C	2301	741d	37 x 27 x 14	c 220	-	-
IV	5C	2301	741e	45 x 42 x 17	c 260	-	-

Table 71mf/2

Cope Fragments - Type I Bulbous

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
IV	5A	2376	590	65 x 53 x 20	-	-	Shouldered
IV	5A	2376	595	45 x 53 x 20	c 360	-	-
IV	5A	2376	693a	48 x 40 x 15	c 160	-	-
IV	5A	2376	693b	30 x 32 x 10	Large	-	-
IV	5A	2376	693c	30 x 20 x 10	c 260	-	-
IV	5B	2318	556	37 X 30 X 10	c 240	-	Indented
IV	5B	2338	711	75 x 65 x 15	c 360	-	-
IV	5B	2364	329	60 x 50 x 20	c 260	-	-
IV	5B	2364	634	75 x 85 x 25	c 260	-	-
IV	5B	2364	636	40 x 32 x 10	c 140	-	-

Table 71mf/3

Cope fragments - Type 1 Bulbous

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
IV	5B	2364	652	52 X 35 X 15	c 220	-	-
IV	5C	2321	573	40 x 30 x 10/20	c 160	-	-
IV	5C	2301	563	65 x 43 x 15	c 180	-	-
IV	5C	2301	565	65 x 50 x 18	c 240	-	-
IV	5C	2301	564a	53 x 55 x 23	-	-	-
IV	5C	2301	564b	30 x 28 x 11	c 220	-	-
IV	5C	2301	564c	51 x 27 x 8	c 160	-	-
IV	5C	2301	564d	60 x 35 x 29	c 320	-	-
IV	5C	2301	564e	44 x 26 x 10	c 260	-	-

Table 7lmf/4

Cope Fragments - Type 1 Bulbous

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
IV	5C	2301	564f	28 x 30 x 16	c 260	-	-
IV	5C	2301	564g	45 x 40 x 13	c 280	-	-
IV	5C	2301	564h	33 x 40 x 18	c 220	-	Ribbed
IV	5C	2301	564i	40 x 33 x 15	c 180	-	-
IV	5C	2301	564j	38 x 27 x 14	c 280	-	Ribbed
IV	5C	2301	564k	40 x 41 x 19	c 240		-
IV	5C	2301	564l	43 x 35 x 14	c 180		-
IV	5C	2301	564m	40 x 41 x 28	-		-
V	3	2182	521	51 X 53 X 10	c 220	-	Ribbed shoulder
V	4	2231	740	42 x 32 x 8	c 240	-	-

Table 71mf/5

Cope Fragments - Type 1 Bulbous

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
VI	5A	2095	723a	50 x 35 x 15	c 160	-	-
VI	5A	2183	680	33 x 28 x 8	c 160	-	-
VI	5A	2223	537	50 x 35 x 10	c 240	-	-
VI	5B	2163	512	65 X 50 X 18	c 340	-	-
VII	3/4	2111	085	70 x 45 x 15	c 220	-	Shouldered
VII	5	2106	205	60 x 65 x 10/23	c 260	-	Ribbed shoulder
VIII	5	2155	371	35 X 30 X 10	c 240	-	-

Table 7lmf/6

Cope Fragments - Type 1 Bulbous

Unstratified

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
		2109	264	78 x 55 x 15/23	c 280	-	Ribbed
		2110	734	35 x 45 x 8+	c 220	-	-
		2110	364	62 x 70 x 18	c 280	-	-
		2151	368	27 x 33 x 12		-	-
		2000	687	80 x 45 x 35	c 220	-	-

Cope Fragments - Type 2 Straightsided

IV	5B	2342	587	50 x 40 x 12	c 340	-	-
IV	5A	2376	591	40 x 35 x 12	c 240	-	-
IV	5A	2376	746	35 x 35 x 12	c 120	-	-

EXCAVATIONS IN THE MEDIEVAL BURGH OF PERTH 1979-81

Edited by PHILIP HOLDSWORTH

WITH LM BLANCHARD B FORD GWI HODGSON NL MACASKILL
D ROBINSON L ROSS C SMITH AND RM SPEARMAN

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Table 7lmf/7

Cope Fragments - Type 2 Straightsided

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
IV	5B	2342	587	30 x 45 x 15	c 220	-	-
IV	5B	2322	580	45 x 25 x 8+	c 260	-	-
IV	5B	2364	637	50 x 40 x 20	c 120	-	-
IV	5C	2301	741b	48 x 50 x 22	c 200	-	-
V	5	2265	550	18 x 22 x 8	c 40	-	-
V	5	2265	699	40 x 35 x 12	c 200	-	-
VI	5A	2095	731	32 x 52 x 15	c 220	-	-
VI	5A	2095	732b	48 x 32 x 12	c 140	-	-
VI	5A	2190	525	20 x 30 x 10	c 200	-	-

Table 7lmf/8

Cope Fragments - Type 3 Rim/Shoulder

Period	Plot	Feature	Access	Dimensions (mm)	Diameter (mm)	Keying	Decorations
III	3	2368	328	78 x 92 x 6/20	c 260		Rim
IV	5B	2364	635	60 x 38 x 25	-		Everted rim
IV	5C	2321	574	38 x 30 x 10	c 160	-	Shoulder
IV	5C	2301	564	40 x 33 x 24	c 200	-	Shoulder

Core or Cope Fragments - Type 4 Flat

IV	5B	2364	653	40 x 25 x 14	-	-	-
IV	5C	2301	564	34 x 23 x 13	-	-	-
V	5	2286	560	40 x 40 x 10	-	-	-
V	5	2228	542	30 x 30 x 15	-	-	-
VI	5A	2080	362	32 x 28 x 12	-	-	-

TABLE 72mf/1 LEATHER CATALOGUE (UNILLUSTRATED)

Kirk Close

Soles Type 2

41. Length 115 mm; width 72 mm
Fragments of left forepart, almost straight-sided with oval toe. Very worn and delaminated. Edge-flesh stitching channel, stitch length 5 mm.
Kirk Close; Context 1139; Accession C085; Period II C
42. Length 180 mm; width 90 mm forepart, 67 mm seat
Fragment with long seat, narrow waist (48 mm) and rear of wide forepart, edge-flesh stitching channel, stitch length 5-6 mm.
Kirk Close; Context 2035; Accession C169a; Period V B

Soles Type 3

43. Length 190 mm; width 85 mm forepart; thickness 5 mm
Two joining fragments comprising waist and forepart of right sole with gently curved forepart, ending in oval toe. Very worn and delaminated.
Kirk Close; Context 1124; Accession C066+070; Period II C
44. Length 140 mm; width 90 mm; thickness 4 mm
Fragments of right forepart with oval toe, edge-flesh stitching channel, stitch length 4-5 mm. Worn.
Kirk Close; Context 1124; Accession C068; Period II C
45. Length 175 mm; width c.86 mm, c.46 mm waist
Very worn right forepart of natural shape, probably oval toe. Torn across rear of waist. Edge-flesh stitching channel, stitch length 6-7 mm. Delaminated.
Kirk Close; Context 1126; Accession C073; Period II C

TABLE 72mf/2

46. Length c.230 mm; width 84 mm, 70 mm seat
Left sole of natural shape, with gently curved forepart, probably oval toe, but inner part of forepart missing. Narrow waist (39 mm), rounded seat. Edge-flesh stitching channel, stitch length 5-6 mm. Holes worn through to grain layer. Very worn, particularly at front of forepart and rear of seat where stitching channel is missing.
Kirk Close; Context 1147; Accession C097; Period I C
47. Length 195 mm; width 70 mm forepart, 38 mm waist, 43 mm seat; thickness 4-5 mm
Part of seat, waist and most of forepart of narrow right sole. Edge-flesh stitching channel, stitch length 6-7 mm. Very worn and delaminated.
Kirk Close; Context 2022; Accession C133; Period V B
48. Length 110 mm; width 85 mm; thickness 3-4 mm
Fragment of worn right forepart, ending in oval, almost pointed toe. Edge-flesh stitching channel, stitch length 5 mm. Wool survives in some stitch holes.
Kirk Close; Context 2033; Accession C163; Period V B
49. Length 253 mm; width 86 mm forepart, 53 mm waist, 76 mm seat
Right sole of natural shape, but straight, forepart gently curved but not turned inwards. Almost certainly oval toe, but end missing. Narrows to waist, wide rounded seat. Edge flesh stitching channel, stitch length 6-7 mm with wool surviving in many stitch holes. Very worn and delaminated, split across centre forepart and across seat. Also four fragments of rand, stitch length 6-7 mm with wool surviving, fragments for waist and inner forepart are 9-13 mm wide.
Kirk Close; Context 2037; Accession C201; Period IV B
50. Length 130 mm; width 80 mm; thickness 3 mm
Fragment of right forepart of natural shape with oval toe, edge-flesh stitching channel, stitch length 4.5-5 mm. Worn.
Kirk Close; Context 2057; Period IV B

TABLE 72mf/3

51. Length 245 mm; width c.90 mm forepart, 42 mm waist
Right sole, of natural shape, with gently curved forepart turned inwards, oval toe, narrow waist and rounded seat. Edge-flesh stitching channel, stitch length 6-7 mm, with wool surviving in some of the holes. Very worn and delaminated with outer seat and part of forepart missing. Hole in centre of forepart.
Kirk Close; Context 2067; Accession C258; Period I A
52. Length 245 mm; width 87 mm forepart, 68 mm seat; thickness 5 mm
Almost complete right sole of natural shape with gently curved forepart turned inwards slightly, probably ending in oval toe, inner front edge missing. Narrow waist (44 mm) and rounded seat. Edge-flesh stitching channel, stitch length, 5-7.5 mm, stitching channel on outer forepart slightly worn, also short crack, several cracks in centre forepart.
Kirk Close; Context 2071; Accession C265a; Period IV A
53. Length 247 mm; width 92 mm forepart, 76 mm seat; thickness 5 mm
Left sole, with gently curved forepart ending in oval toe, narrow waist (48 mm), rear of seat missing. Edge-flesh stitching channel, stitch length 5.5-7 mm, with wool surviving in a few holes. Channel particularly worn along outer edge of waist and seat. Very worn and partially delaminated with cracks across forepart and front of seat.
Kirk Close; Context 2071; Accession C265b Period IV A
54. Waist and forepart of sole of natural shape with rounded toe. Trace of edge-flesh stitching channel, stitch length not measurable. Very worn and partially delaminated.
Kirk Close; Context 2071; Accession C266; Period IV A

Soles Type 4

55. Length 106 mm; width 90 mm; thickness 4 mm
Fragment of pointed right forepart, cut across tread. Traces of stitch holes for clump sole. Edge-flesh stitching channel, stitch length 6-7 mm. Very worn and delaminated, hole in centre forepart.
Kirk Close; Context 2016; Accession C119; Period V A

TABLE 72mf/4

56. Length 130 mm; width 74 mm; thickness 5 mm
Pointed right forepart, probably Type 4. Edge-flesh stitching channel, stitch length 5-7 mm. Worn and cracked irregularly across centre.
Kirk Close; Context 2026; Accession C153; Period V B
57. Length 171 mm; width 93 mm, 42 mm waist
Right pointed forepart cut across waist, three small fragments of thong have been threaded through both grain and flesh layers in centre forepart. Edge-flesh stitching channel, stitch length 6 mm. Worn and delaminated.
Kirk Close; Context 2054; Accession C243; Period III A

Soles Type 3, 4 or 5

58. Length 185 mm; width 45 mm waist; thickness 4 mm
Probably fragment of right sole, comprising part of seat, narrow waist and rear of gently curved forepart. Edge-flesh stitching channel, stitch length 5-6 mm. Very worn with large hole in seat, torn across centre forepart. Both seat and forepart have been repaired with clump soles.
Kirk Close; Context 2022; Accession C128; Period V B
59. Length 167 mm; width 80 mm forepart, 46 mm waist
Fragment of left forepart, almost straight inner edge and curved outer edge, end missing. Edge-flesh stitching channel, stitch length 6 mm. Very worn and delaminated.
Kirk Close; Context 2022; Accession C142; Period V B
60. Length c.175 mm; width 80 mm forepart, c.60 mm seat
Fragment of sole, missing most of forepart. Long seat, narrow waist (35 mm) and wide forepart. Edge-flesh stitching channel, stitch length 5 mm. Very worn and delaminated.
Kirk Close; Context 2033; Accession C163; Period V B

TABLE 72mf/5

Soles Type 8 and 9

61. Width 55 mm waist
Fragment of waist partly repaired with a clump sole.
Edge-flesh stitching channel, stitch length 5-6 mm.
Very worn.
Kirk Close; Context 1119; Accession C049; Period III C
62. Length 102 mm; width 45 mm waist; thickness 3 mm
Long narrow seat maximum width not measurable.
Edge-flesh stitching channel across waist, stitch length
5 mm. Worn.
Kirk Close; Context 1130; Accession C079; Period II C
63. Length 110 mm; width 47 mm waist; thickness 3 mm
Fragment of waist with edge-flesh stitching channel,
stitch length 5 mm. Very worn and partially
delaminated.
Close; Context 1139; Accession C083; Period II C
64. Fragment of sole with edge-flesh stitching channel,
stitch length 5 mm.
Kirk Close; Context 2016; Accession C116a; Period V A
65. Length 109 mm; width 38 mm waist, 65 mm seat; thickness
3 mm
Seat sewn across waist; edge-flesh stitching channel,
stitch length 5-6 mm. Worn and partially delaminated.
Kirk Close; Context 2016; Accession C117; Period V A
66. Width 51 mm; thickness 2 mm
Fragment of waist with edge-flesh stitching channels,
stitch length 6 mm.
Kirk Close; Context 2016; Accession C118; Period V A
67. Length 78 mm; width 65 mm; thickness 4 mm
Seat sewn across waist, edge-flesh stitching channel,
stitch length 6-6.5 mm. Very worn.
Kirk Close; Context 2022; Accession C141; Period V B

TABLE 72mf/6

68. Fragment of waist with edge-flesh stitching channel, stitch length c.6 mm. Very worn and partially delaminated.
Kirk Close; Context 2024; Accession C151; Period VI A
69. Length 78 mm; width 65 mm; thickness 5 mm
Seat sewn across waist, edge-flesh stitching channel, stitch length 6-6.5 mm. Very worn.
Kirk Close; Context 2033; Accession C163a; Period V B
70. Fragment of seat or forepart, sewn across waist with edge-flesh stitching channel, stitch length 6.5 mm. Very worn.
Kirk Close; Context 2033; Accession C163b; Period V B
71. Length 78 mm
Seat sewn across waist, edge-flesh stitching channel, stitch length 6 mm. Very worn and delaminated.
Kirk Close; Context 2034; Accession C168; Period V B
72. Fragment; with waist and part of seat or forepart. Edge-flesh stitching channel, stitch length 6-6.5 mm, wool surviving in some holes. Worn. Cattlehide.
Kirk Close; Context 2035; Accession C169; Period V B
73. Width 40 mm waist
Two joining fragments, waist and rear of forepart. Edge-flesh stitching channel, stitch length 6.5-7 mm. Very worn and partially delaminated.
Kirk Close; Context 2037; Accession C196; Period IV B
74. Length 57 mm; width 60mm forepart, 51 mm waist
Fragment of rear forepart sewn across waist, edge-flesh stitching channel, stitch length 6-7 mm. On one edge, the original stitching channel has been replaced by grain-flesh holes. Very worn.
Kirk Close; Context 2054; Accession C242; Period III A

TABLE 72mf/7

75. Length 82 mm; width 71 mm seat, 63 mm waist
Seat sewn across waist missing part of rear. Edge-flesh stitching channel, original very worn, replaced by grain-flesh holes, stitch length 6.5-10 mm. No trace of original edge-holes across waist suggesting that this was an old seat re-used for a two-part sole - would be a very weak join. Worn.
Kirk Close; Context 2059; Accession C252; Period IV A
76. Length 145 mm; width 51 mm waist
Two joining fragments with waist and rear of forepart, edge-flesh stitching channel, stitch length 5-7 mm.
Kirk Close; Context 2062; Period I B

Fragments of Soles - Unclassified

77. Small fragment with edge-flesh stitching channel, stitch length 6.5 mm. Worn.
Kirk Close; Context 1002; Accession C009; Period VIb C
78. Small fragment, with trace of stitching channel, very worn and delaminated.
Kirk Close; Context 1029; Accession C012; Period VIa C
79. Small fragment with edge-flesh stitching channel, stitch length 5 mm.
Kirk Close; Context 1044; Accession C013a; Period VI C
80. Fragment with traces of edge-flesh stitching channel. Very worn and delaminated.
Kirk Close; Context 1054; Accession C014; Period IV C
81. (1) Length 45 mm; width 20 mm; thickness 2 mm; (2) Length 70 mm; width 60 mm
Two fragments with traces of edge-flesh stitching channels. Very worn, one fragment delaminated.
Kirk Close; Context 1066; Accession C018a; Period V C
82. Fragment of seat cut across middle. Trace of edge-flesh stitching channel, stitch length 5-7 mm. Very worn.
Kirk Close; Context 1108; Accession C028a; Period IV C

TABLE 72mf/8

83. Three fragments with edge-flesh stitching channels, stitch length 6-8 mm. Worn.
Kirk Close; Context 1119; Accession C042a; Period III C
84. Length 42 mm; width 60 mm; thickness 3 mm
Small right forepart, with rounded toe, sewn across tread; repair? Edge-flesh stitching channel, stitch length 5-7 mm. Worn. Cattlehide.
Kirk Close; Context 1119; Accession C042b; Period III C
85. Width 85 mm
Fragment, probably forepart, edge-flesh stitching channel, stitch length 5-6 mm. Very worn.
Kirk Close; Context 1119; Accession C050; Period III C
86. Length 150 mm; width 43 mm waist; thickness 5 mm
Fragment comprising part of seat, waist and rear of forepart. Edge-flesh stitching channel, stitch 5-6 mm. Worn.
Kirk Close; Context 1121; Accession C056; Period III C
87. Length 165 mm; width 55 mm waist; thickness 5.5 mm
Fragment comprising part of seat, waist and rear of forepart, edge-flesh stitching channel, stitch length 5-6 mm. Both forepart and seat have been repaired with clump soles; stitch holes visible on both grain and flesh layers.
Kirk Close; Context 1121; Accession C058; Period III C
88. Very small fragment with edge-flesh stitching channel, stitch length 4.5-6.5 mm.
Kirk Close; Context 1121; Period III C
89. Length 83 mm; width 73 mm; thickness 5 mm
Seat torn across waist, edge-flesh stitching channel, stitch length 6 mm. Worn.
Kirk Close; Context 1124; Accession C069; Period II C

TABLE 72mf/9

90. Fragment with traces of edge flesh stitching channel.
Worn.
Kirk Close; Context 1124; Accession C071; Period II C
91. Nine small fragments with edge-flesh stitching channel,
stitch length 4 mm. Very worn.
Kirk Close; Context 1124; Accession C061; Period II C
92. Two fragments with traces of edge-flesh stitching
channels, stitch length 6 mm.
Kirk Close; Context 1147; Accession C092a; Period I C
93. Fragments with trace of edge-flesh stitching channel,
stitch length 6-7 mm. Very worn.
Kirk Close; Context 2008; Accession C104; Period VI B
94. Three scraps with edge-flesh stitching channels, stitch
length c.6-7 mm. Very worn and delaminated.
Kirk Close; Context 2008; Accession C105a; Period VI B
95. Width c.90 mm
Fragment of broad seat with edge-flesh stitching
channel, stitch length 6-7 mm. Very worn.
Kirk Close; Context 2009; Accession C110; Period VI A
96. Three fragments with traces of edge-flesh stitching
channels.
Kirk Close; Context 2016; Accession C116b; Period V A
97. Length 128 mm; width 40 mm; thickness 3 mm .
Long narrow left sole for infant or small child.
Straight rounded forepart with trace of four edge-flesh
stitch holes on outer edge. Rest of edge cut except for
outer portion of seat which is missing. Very worn sole
or fragment of large sole cut to this shape but not
actually re-used?
Kirk Close; Context 2022; Accession C135; Period V B
98. Thickness 2 mm
Small fragment with edge-flesh stitching channel, stitch
length 5.5 mm.
Kirk Close; Context 2022; Period V B

TABLE 72mf/10

99. Fragment of left forepart, most probably with oval toe. Edge-flesh stitching channel, stitch length 5 mm on original seam, 7 mm repair holes. Large hole cut out of toe area; worn away across tread. Thickness 2 mm at cut edge of hole and 4 mm at seam edge. Worn.
Kirk Close; Context 2022; Period V B

100. Very worn seat cut across waist, edge-flesh stitching channel, stitch length 6-8 mm. Trace of other stitch holes, probably a repair seam.
Kirk Close; Context 2022; Period V B

TABLE 72 r.f/11

101. Fragment of small seat with trace of edge-flesh stitching channel. Very worn and delaminated.
Kirk Close; Context 2022; Period V B
102. Length 104 mm; width 64 mm forepart, 50 mm seat
Frgment with two-thirds of gently curved forepart, narrow waist (30 mm), and most of rounded seat. Edge-flesh stitching channel, stitch length 6-6.5 mm. Missing front of forepart, rear of seat and most of flesh layers. Very worn and delaminated.
Kirk Close; Context 2023; Accession C 148; Period IV A
103. (1) Length 90 mm; width 40 mm; (2) Length 50 mm; width 40 mm
Two very worn and delaminated fragments with short tunnel stitches, possibly clump soles.
Kirk Close; Context 2024; Accession C 150; Period VI A
104. Length 55 mm; width 65 mm
Fragment, probably seat. Edge-flesh stitching channel, stitch length 5 mm. Very worn and delaminated.
Kirk Close; Context 2024; Accession C 157; Period VI A
105. Length 109 mm; width 42 mm; thickness 2 mm
Fragment of long thin clump sole with tunnel stich holes for attachment to original sole. Unusual shape, suggests that it is half of a seat clump; stitch holes clearly on both edges, possibly clump was split longitudinally and torn edge was then stitched to original sole.
Kirk Close; Context 2031; Accession C 160; Period V B
106. Fragment, probably forepart with edge-flesh stitching channel, stitch length 6-6.5 mm. Worn.
Kirk Close; Context 2035; Accession C 169; Period V B
107. Two fragments with edge-flesh stitching channel, stitch length 5-6 mm, both worn.
Kirk Close; Context 2035; Period V B
108. Width 48 mm waist
Two fragments of seat and waist, with rand still attached by wool. Edge-flesh stitching channel, stitch length 5-6.5 mm. Very worn and delaminated.
Kirk Close; Context 2037; Accession C 184; Period IV B

TABLE 72mf/12

109. Fragments of seat of small sole with edge-flesh stitching channel, stitch lengths 6-7 mm. Matching fragments of rands and lasting margins of quarters of uppers. Worn.
Kirk Close; Context 2037; Accession C199a; Period IV B
110. (1) Length 35 mm; thickness 3 mm; (2) Length 42 mm; width 75 mm; thickness 3.5 mm
(1) Fragment of forepart with oval toe, cut across front. Edge-flesh stitching channel, stitch length 6-7 mm. Worn. (2) Fragment of forepart with oval toe, cut across front. Edge-flesh stitching channel, stitch length 6 mm.
Kirk Close; Context 2038; Period IV B
111. Fragment of sole, most probably forepart, with traces of edge-flesh stitching channel, stitch length 3.5-4.5 mm, and with five repair stitch holes; stitch length 4.5-6 mm. Worn and delaminated.
Kirk Close; Context 2041; Accession C216; Period V B
112. Two fragments with traces of edge-flesh stitching channel. Stitch length 5, 7 and 10 mm. Delaminated.
Kirk Close; Context 2050; Period III A
113. Length 32 mm; width 30 mm
Fragment with trace of two edge-flesh stitching channels meeting at right angles. Waist of separate forepart or seat.
Kirk Close; Context 2052; Accession C229; Period IV A
114. Fragment, probably forepart, with edge-flesh stitching channel; stitch length 4 mm and with traces of stitch holes for clump soles. Very worn and delaminated.
Kirk Close; Context 2052; Accession C230b; Period IV A
115. Very worn and delaminated fragment of seat, with edge-flesh stitching channel, stitch length 4-5 mm.
Kirk Close; Context 2052; Accession C230c; Period IV A
116. Fragment with edge-flesh stitching channel, stitch length 7-8 mm, unusually long. Worn.
Kirk Close; Context 2052; ac 230d; Period IV A
117. Fragment with trace of edge-flesh stitching channel, stitch length 5 mm.
Kirk Close; Context 2105; Accession C273; Period III B

TABLE 72mf/13

118. Very worn and delaminated fragment of seat, with edge-flesh stitching channel, stitch length 6-7 mm.
Kirk Close; Context 2107; Accession C281; Period I A
119. Thickness 2 mm
Fragment with trace of edge-flesh stitching channel, stitch length 7 mm.
Kirk Close; Context 2118; Accession C292a; Period II B
120. Fragment of seat with edge-flesh stitching channel, stitch length 5-7 mm. Very worn and delaminated.
Kirk Close; Context 1000/2000; Unstrat.
121. Scrap with trace of edge-flesh stitching channel.
Unstrat.
122. Two fragments with edge-flesh stitching channels, stitch lengths 6, 6.5 mm.
Unstrat.

Fragments of Rands

123. Stitch length 6-8 mm
Kirk Close; Context 1098; Accession C023; Period IV
124. Two fragments, stitch length c.5 mm
Kirk Close; Context 1113; Accession C030; Period IV C
125. Fragments, stitch length 5.5-6 mm
Kirk Close; Context 1121; Period III C
126. Five Fragments
(a) Stitch length 6-6.5 mm. Cattlehide
(b) Stitch length 6 mm. Cattlehide
(c) Stitch length 5 mm. Worn
(d) Stitch length 6 mm. Worn
(e) Stitch length 4.5 mm. Cattlehide
Kirk Close; Context 1124; Accession C071; Period II C

TABLE 72mf/14

127. Two fragments, stitch length 6mm
Kirk Close; Context 1133; Accession C080; Period II C
128. Two fragments, stitch length 5-6mm
Kirk Close; Context 1138; Accession C081,082; Period: II
C
129. Fragment, stitch length 4-6mm, very worn and
delaminated.
Kirk Close; Context 1139; Accession C084; Period II C
130. Three fragments, stitch length 5, 6, and 7mm
Kirk Close; Context 1147; Accession C092; Period I C
131. Five fragments
(a) Stitch length 5mm.
(b) Stitch length 5mm.
(c) Stitch length 6-7mm.
(d) Stitch length 7mm.
(e) Stitch length 5mm.
Kirk Close; Context 2016; Accession C116; Period V A
132. Six fragments
(a) Stitch length 5mm. Worn
(b) Stitch length 6-8mm. Worn
(c) Stitch length 5mm.
(d) Rand, stitch length 5mm.
(e) Rand, stitch length 5mm.
(f) Rand, stitch length 5-6mm.
Kirk Close; Context 2022; Period V B
133. Two fragments, stitch length 7-10mm
Kirk Close; Context 2030; Accession C158; Period V B

TABLE 72mf/15

134. Four fragments
(a) Stitch length 6-7 mm.
(b) Stitch length 5 mm.
(c) Stitch length 6 mm.
(d) Stitch length 4.5-6.5 mm.
Kirk Close; Context 2034; Period V B
135. Fragment of rand, stitch length 6-6.5 mm
Kirk Close; Context 2035; Accession C172; Period V B
136. Two fragments
(a) Stitch length 6 mm.
(b) Stitch length 6-6.5 mm with wool. Cattlehide
Kirk Close; Context 2037; Accession C188; Period IV B
137. Rand and lasting margin of quarters of upper. Fragment of rand, stitch length 6-7 mm, still adhering to fragment of lasting margin of quarters, with grain to flesh stitching channel, stitch length 6-7 mm. Matching seat of sole.
Kirk Close; Context 2037; Accession C199b; Period: IV B
138. Rand and lasting margin of upper. Short length of rand, with lasting margin still attached by wool. Stitch length 6-7 mm. Worn.
Kirk Close; Context 2054; Period III A
139. Fragment, stitch length 7 mm
Kirk Close; Context 2067; Accession C257; Period I A
140. Fragment, stitch length 6-7 mm
Kirk Close; Context 2071; Accession C261; Period IV A
141. Two fragments, stitch length 6 mm
Kirk Close; Context 2105; Accession C274b; Period III B
142. Fragment, stitch length 5 mm
Kirk Close; Context 2118; Accession C292c; Period II B
143. Stitch length 6-7 mm
Kirk Close; Context 1000/2000; Unstrat.

TABLE 72mf/16

Type K Uppers

144. Irregular torn fragment, with edge-flesh stitching channel down one edge, stitch length 3.5 mm. At right angles to this edge, long thong ending in toggle, threaded through tunnel hole and knotted on flesh side; thong now passes through first slit of tunnel hole, but probably originally passed through second slit, then through single hole. Thong extends c.50 mm beyond stitched edge, suggesting that there was another fragment of upper as on No. 14. Second tunnel hole and single hole c.35 mm from first - almost certainly for second toggle which survives separately. Very worn and delaminated.
Kirk Close; Context 1000; Accession C001b; Unstrat.
145. Small fragment of upper with toggle, probably part of latchet of boot with central fastening. Thong of toggle has been threaded through a tunnel hole and single hole, then knotted on flesh side. Traces of two oversewn edges. Very worn and delaminated.
Kirk Close; Context 1121; Period III C
146. Fragment with one edge-flesh stitching channel, stitch length 3 mm; one oversewn edge, and part of three loops or oval slits, c.20-25x3 mm. Probably part of boot with central fastening.
Kirk Close; Context 2016; Accession C116c; Period V A
147. Irregular fragment, with oversewn edge with four slits for thongs and toggles. Almost certainly part of a latchet of a boot with central fastening. Very worn and delaminated.
Kirk Close; Context 2037; Accession C186; Period IV B
148. Thickness 1.5 mm Approx. rectangular fragment with two toggles and with tunnel holes for third toggle. Edge adjacent to toggles cut; one edge-flesh stitching channel, stitch length 3 mm, two grain-flesh stitching channels, stitch length 4 mm. Thongs of toggles threaded through tunnel hole and single hole; end of thong secured through another tunnel hole.
Kirk Close; Context 2041; Accession C214b; Period V B

TABLE 72 mf/17

149. Thickness c.1.5 mm Irregular fragment with one edge with grain-flesh stitching channel, stitch length 4 mm, grain bent slightly to form edge. One long edge cut; adjacent to it, two tunnel holes, one with thongs still threaded through it; second fragment of thong survives separately. Probably Type K.
Kirk Close; Context 1000/2000; Accession C008; Unstrat.

Vamps of Uppers with Thong Hole at Vamp Throat

150. Two fragments, not joining, but probably belonging together, plus toggle. One fragment comprises vamp and vamp throat. Lasting margin with grain-flesh stitching channel, stitch length 5 mm. Edge-flesh stitching channel on vamp throat, forming continuous seam to lasting margin on one side at least; stitch length 3.5 mm. Single thong hole at vamp throat, possibly for toggle which survives separately. Wool survives in a few stitch holes. Second fragment, probably part of quarters, with lasting margin and oversewn top edge. Very worn and tattered and partially delaminated.
Kirk Close; Context 2005; Accession C103; Period VI A
151. Two fragments of upper, almost certainly joining. Larger fragment comprises vamp and vamp throat. Lasting margin with grain-flesh stitching channel, stitch length 6-7 mm. Edge-flesh stitching channel at vamp throat, stitch length 4 mm. Single thong hole at vamp throat with short fragment of thong threaded through it. Worn at front of vamp. Second fragment, probably part of quarters, appears to join vamp wing of first fragment. Lasting margin as above and vertical edge-flesh stitching channel, stitch length 4 mm at vertical edge of quarters. None of top edge survives; thong at vamp throat suggests central fastening with latchets, toggles and loops but thongs at vamp throat are also found on boots with wrap-around thonging, either Type K or B. Cattlehide.
Kirk Close; Context 2023; Accession C145, 146a; Period IV A

TABLE 72mf/18

Tongue

152. Type K or B. Large fragment of vamp with oval toe, vamp throat and vamp wing. Rand and tiny portion of sole, with woollen thread attached to toe. Lasting margin with grain-flesh stitching channel, stitch length 6 mm. Edge-flesh stitching channel on vamp throat and vamp wing, very neat stitching, stitch length 1.5-2.5 mm. Short fragment of thong remaining. Worn. Cattlehide. Kirk Close; Context 2036; Accession C179; Period IV B
153. Thickness 1-1.5 mm
Approx. triangular fragment with grain-flesh stitching channel along long edge, edge of grain turned in slightly; stitch length 4 mm. A thong, probably ending in a toggle has been threaded through a tunnel hole in the centre of this edge. No trace of stitching on other edges. This fragment is similar to, but smaller than, what appears to be a tongue on No. 16.
Kirk Close; Context 2037; Accession C190; Period IV B

Stiffeners

154. Triangular stiffener with lasting margin with grain-flesh stitching channel, stitch length c.6 mm. Very worn.
Kirk Close; Context 1113; Accession C030; Period IV C
155. Height 78 mm; width 55 mm base, 9 mm top; thickness c.1 mm
Tall, approx. triangular, with lasting margin with grain-flesh stitching channel, stitch length c.10 mm, possibly repair stitch holes. Stitching for attachment to upper on other two edges.
Kirk Close; Context 2021; Accession C124c; Period VI A
156. Height 55 mm; width 75 mm base
Triangular, with lasting margin with grain-flesh stitching channel, stitch length 6 mm and with stitch holes for attachment to upper. Delaminated.
Kirk Close; Context 2022; Period V B

TABLE 72mf/19

157. Height 70 mm; width 60 mm base; thickness 1 mm
Tall and triangular with lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. Trace of stitch holes on other two edges. Cattlehide.
Kirk Close; Context 2036; Accession C178a; Period IV B
158. Triangular fragment with lasting margin and grain-flesh stitching channel, stitch length 7-7.5 mm and with faint trace of stitching on other two edges. Very worn and delaminated.
Kirk Close; Context 2037; Period IV B
159. Height 65 mm; width 45 mm base; thickness 1 mm
Triangular fragment with traces of stitch marks. Possible stiffener.
Kirk Close; Context 2054; Period III A
160. Height 35 mm; width 76 mm base; thickness 1 mm
Small and triangular with lasting margin with grain-flesh stitching channel, stitch length 7-8 mm; wool surviving in some holes. Faint trace of stitching on other two sides.
Kirk Close; Context 2054; Period III A

Vamps of Uppers

161. Thickness c.1 mm
Irregular fragment with edge-flesh stitching channel at vamp throat, stitch length 3-3.5 mm, and with a vertical row of tunnel stitching on flesh side, possibly to secure lining. Very worn.
Kirk Close; Context 1121; Accession C052; Period III C
162. Thickness 1.5 mm
Small fragment of front of vamp with oval toe. Lasting margin with grain-flesh stitching channel, stitch length 6 mm. Very worn. Cattlehide.
Kirk Close; Context 1147; Accession C096; Period I C

TABLE 72mf/20

163. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 7 mm and with edge-flesh stitching channel on opposite side of vamp, stitch length 3-4 mm, suggesting that a separate piece with rest of lasting margin is missing. Cattlehide.
Kirk Close; Context 2008; Accession C105b; Period VI B
164. Height 25-30 mm
Fragment most probably part of vamp, with vamp throat and very low vamp wing. Lasting margin with grain-flesh stitching channels at throat and wing, stitch length 5 mm. Very worn, tattered and delaminated.
Kirk Close; Context 2008; Accession C106; Period VI B
165. Thickness c.1.5 mm
Two joining fragments with rounded toe and vamp throat. Lasting margin with grain-flesh stitching channel, stitch length 6-7 mm. Edge-flesh stitching channel at throat, stitch length 5-6 mm. Very worn.
Kirk Close; Context 2036; Accession C175, 176; Period IV B
166. Thickness c.1.5 mm
Two joining fragments, lasting margin with grain-flesh stitching channel, stitch length 7.5 mm, wool surviving in a few holes. Very worn.
Kirk Close; Context 2054; Accession C238; Period III A

Quarters of Uppers

167. Height 88mm; width 125 mm; thickness 2 mm
Fragment of quarters of high shoe. Lasting margin with grain-flesh stitching channel, stitch length 2.5-3 mm. Top edge oversewn. Tunnel stitch holes for triangular stiffener on flesh side.
Kirk Close; Context 2022; Accession C132; Period V B
168. Thickness c.1 mm
Fragment of lasting margin of quarters, with grain-flesh stitching channel, stitch length 5-6.5 mm. Worn. Cattlehide.
Kirk Close; Context 2022; Accession C136; Period V B

TABLE 72mf/21

169. Thickness c.1.5 mm
Fragment, most probably part of quarters of boot, with trace of lasting margin with grain-flesh stitching channels, and with two groups of three horizontal slits, most probably tunnel holes and single holes for two vertical thongs. Very worn and tattered.
Kirk Close; Context 2038; Period IV B
170. Thickness c.1.5 mm
Trapezoidal fragment, lasting margin with grain-flesh stitching channel, stitch length 6-7 mm. Edge-flesh stitching channel on one diagonal edge, stitch length 2.5 mm. Grain-flesh stitching channel on other diagonal edge, stitch length 3-4 mm, grain bent slightly to form edge. Top edge oversewn. Tunnel stitch holes on flesh side for stiffener. Cattlehide.
Kirk Close; Context 2052; Accession C230a; Period IV A

Latchet

171. Thickness c.1.5 mm
Approx. triangular fragment with edge-flesh stitching channel on short side, stitch length c.3 mm. Long edges oversewn at wide end. Tunnel stitching on flesh side, the two rows meeting at the beginning of a loop, the edges oversewn. Worn.
Kirk Close; Context 1121; Period III C

Lasting Margins of Upper

172. Fragment with grain-flesh stitching channel, stitch length 5-6 mm. Cattlehide.
Kirk Close; Context 1066; Accession C018b; Period V C
173. Three fragments with grain-flesh stitching channels, stitch lengths 6 mm, 7-8 mm, 6 mm. Worn
Kirk Close; Context 1124; Accession C071f; Period II C

TABLE 72mf/22

174. Two fragments with grain-flesh stitching channels, stitch lengths 5-6 mm.
Kirk Close; Context 1133; Accession C080; Period II C
175. Fragment with grain-flesh stitching channel, stitch length 5 mm. Very worn.
Kirk Close; Context 1139; Accession C084; Period II C
176. Fragment with grain-flesh stitching channel, stitch length 6 mm. Cattlehide.
Kirk Close; Context 2022; Period: V B
177. Grain-flesh stitching channel, stitch length 5 mm.
Kirk Close; Context 2026; Accession C153; Period V B
178. Two, with grain-flesh stitching channels, stitch lengths 5 mm and 5-6 mm.
Kirk Close; Context 2037; Accession C188c; Period IV B

Other Fragments of Upvers

179. Irregular fragment with two edge-flesh stitching channels, stitch length 3-4 mm, and one oversewn edge. Three tunnel holes for thongs. Worn and delaminated.
Kirk Close; Context 1000; Accession C001c; Unstrat.
180. Fragment with trace of edge-flesh stitching channel. Very worn and tattered.
Kirk Close; Context 1006; Accession C010; Modern

TABLE 72mf/23

181. (1) Length 140 mm; width 100 mm; thickness 1 mm; (2) Length 40 mm; width 40 mm; thickness 1 mm
Three fragments, (1) has oversewn edge?; (2) has trace of grain-flesh stitching channel, stitch length 5 mm; (3) irregular fragment with trace of lasting margin.
All worn.
Kirk Close; Context 1108; Accession C028b; Period IV C
182. Fragment, with lasting margin, grain-flesh stitching channel, stitch length c.5 mm. Worn.
Kirk Close; Context 1113; Accession C034a; Period IV C
183. Fragment with grain-flesh stitching channel, stitch length 7-8 mm.
Kirk Close; Context 1119; Accession C042; Period III C
184. Length 90 mm; width 90 mm; thickness 1.5 mm
Irregular fragment with edge-flesh stitching channel, stitch length c.3-4 mm. Cattlehide.
Kirk Close; Context 1119; Accession C047; Period III C
185. Thickness 1 mm
Thin strip, possible fragment of upper, with neatly oversewn edges, stitch length 3 mm. Cattlehide.
Kirk Close; Context 1121; Period III C
186. Thickness 1.5 mm
Fragment with trace of edge-flesh stitching channel, stitch length c.3 mm. Worn.
Kirk Close; Context 1123; Accession C060; Period III C
187. Four fragments, (1) has trace of edge-flesh stitching channel. Very tattered. (2) Has edge-flesh stitching channel, stitch length 2 mm. (3) Fragment of lasting margin with grain-flesh stitching channel, stitch length 6 mm. (4) Fragment with lasting margin with grain-flesh stitching channel, stitch length 5-8 mm, possibly sidepiece.
Kirk Close; Context 1124; Accession C062A; Period II C

TABLE 72mf/24

188. Fragment with lasting margin with grain-flesh stitching channel, stitch length 6 mm. Worn.
Kirk Close; Context 1124; Accession C062B Period II C
189. Fragment with trace of lasting margin with grain-flesh stitching channel, stitch length 7 mm. Very worn and delaminated.
Kirk Close; Context 1129; Accession C076; Period II C
190. Thickness 1 mm
Thin strip with trace of edge-flesh stitching channel.
Kirk Close; Context 1130; Accession C078; Period II C
191. Three fragments, (1) with lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. (2) Approx. triangular fragment with edge-flesh stitching channel, stitch length 5 mm. (3) Fragment with lasting margin with grain-flesh stitching channel, stitch length 6 mm. Cattlehide.
Kirk Close; Context 1147; Accession C092b; Period I C
192. Length 170; width 53; thickness 2 mm
Cut fragment with one large and one short edge-flesh stitching channel, stitch length 3-4 mm, and with one grain-flesh stitching channel, holes c.1x0.25 mm, stitch length 5-6.5 mm, possibly replacement for edge-flesh stitching channel - not lasting margin. Cattlehide.
Kirk Close; Context 2000; Accession C101; Unstrat.
193. Thickness 2 mm
Fragment with three edge-flesh stitching channels, stitch length 3-4 mm. Worn.
Kirk Close; Context 2003; Accession C102; Possibly modern
194. Four fragments with traces of edge-flesh stitching channels. Also trace of lasting margin. Two fragments have short pieces of knotted thongs. All too worn to reconstruct upper.
Kirk Close; Context 2008; Accession C107; Period VI B
195. Two fragments with traces of edge-flesh stitching channels.
Kirk Close; Context 2016; Accession C116d,e; Period: V A

TABLE 72mf/25

196. Fragment with neatly oversewn edge, stitch length 6 mm.
Kirk Close; Context 2016; Accession C116h; Period V A
197. Thickness c.1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 5 mm, and with diagonal edge-flesh stitching channel, stitch length 3 mm.
Kirk Close; Context 2016; Accession C116i; Period V A
198. Four fragments with lasting margin with grain-flesh stitching channels, stitch length 5-6 mm.
Kirk Close; Context 2016; Accession C116j, k; Period: V A
199. Fragment of stiffener, with lasting margin with grain-flesh stitching channel, stitch length 5 mm and one edge with grain-flesh stitch holes.
Kirk Close; Context 2016; Accession C116l; Period V A
200. Fragment with trace of lasting margin.
Kirk Close; Context 2016 Accession 116m; Period: V A
201. Fragment with lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. Cattlehide.
Kirk Close; Context 2022; Period V B
202. Fragment with trace of edge-flesh stitching channel, stitch length 2.5 mm. Worn and delaminated.
Kirk Close; Context 2022; Period V B
203. Length 75 mm; width 25 mm; thickness 1 mm
Rectangular fragment with one short edge-flesh stitching channel, stitch length 4 mm.
Kirk Close; Context 2022; Period V B

TABLF 72mf/26

204. Thickness 1.5 mm
Triangular fragment with two cut, and one oversewn, edges, most probably part of leg of boot. Worn.
Kirk Close; Context 2022; Period V B
205. Approx. trapezoidal fragment with one torn, two cut edges and one edge-flesh stitching channel, stitch length 2.5 mm. Worn.
Kirk Close; Context 2022; Period V B
206. Height 18mm; width 60 mm base; thickness 1-2 mm
Small triangular fragment with lasting margin with grain-flesh stitching channel, stitch length 5-7 mm and with two edge-flesh stitching channels, stitch length 2.5 mm. Cattlehide.
Kirk Close; Context 2022; Period V B
207. Fragment with lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. Cattlehide.
Kirk Close; Context 2022; Period V B
208. Fragment with three cut edges and one short edge-flesh stitching channel, stitch length 2.5 mm. Cattlehide.
Kirk Close; Context 2022; Period V B
209. Small fragment with lasting margin, stitch length 4-5 mm. Worn.
Kirk Close; Context 2022; Period V B
210. Fragment with lasting margin with grain-flesh stitching channel, stitch length c.6 mm. Cattlehide.
Kirk Close; Context 2022; Period V B
211. Small fragment with lasting margin with grain-flesh stitching channel, stitch length 5 mm. Very worn and delaminated.
Kirk Close; Context 2024; Accession C150b; Period VI A
212. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 8 mm.
Kirk Close; Context 2028; Period V A/B

TABLE 72 mf/27

213. Two fragments with traces of edge-flesh stitching channel, stitch length 3-4 mm.
Kirk Close; Context 2030; Accession C 157; Period V B
214. Length 15 mm
Fragment of grain-flesh stitching channel, stitch length 5-6 mm, with wool surviving. Worn.
Kirk Close; Context 2033; Accession C 162a; Period V B
215. Fragment of upper with holes for three horizontal thongs - each row has tunnel hole and single hole. Very tattered and worn.
Kirk Close; Context 2033; Period V B
216. Fragment with lasting margin with grain-flesh stitching channel, stitch length 5-6 mm, probably from waist of shoe, judging from folded portion. Worn.
Kirk Close; Context 2033; Period V B
217. Fragment with lasting margin with grain-flesh stitching channel, stitch length 6-6.5 mm, and with two edge-flesh stitching channels, stitch length 4-5 mm. Very tattered.
Kirk Close; Context 2033; Period V B
218. Thickness 1.5 mm
Small fragment with edge-flesh stitching channel, stitch length 5 mm. Cattlehide.
Kirk Close; Context 2033; Period V B
219. Thickness 1.5 mm
Small fragment with edge-flesh stitching channel, stitch length 4 mm. Cattlehide.
Kirk Close; Context 2033; Period V B
220. Length 40 mm; width 30 mm; thickness 2 mm
Small fragment with two opposite edge-flesh stitching channels, stitch length 4 mm, and with two opposite oversewn edges. Part of latchet or leg-flap. Cattlehide.
Kirk Close; Context 2033; Period V B

TABLE 72mf/28

221. Three fragments, all with lasting margin with grain-flesh stitching channels, stitch lengths (1) 5-6 mm, cattlehide; (2) 7 mm, delaminated; (3) 5 mm, cattlehide.
Kirk Close; Context 2034; Period V B
222. Thickness 1 mm
Fragment with one edge-flesh stitching channel, stitch length 4 mm and with oversewn edge with small oval hole near it. Cattlehide.
Kirk Close; Context 2035; Accession C173a(1); Period V B
223. Thickness 1.5 mm
Fragment with edge-flesh stitching channel, stitch length 4 mm. Cattlehide.
Kirk Close; Context 2035; Accession C173a(2); Period V B
224. Thickness c.1-1.5 mm
Small fragment, possibly part of leg of boot, with latchet? Five edge-flesh stitching channels, stitch length 2-3 mm. Cattlehide.
Kirk Close; Context 2036; Accession C182; Period IV B
225. Fragment with edge-flesh stitching channel, stitch length 3.5-5 mm and with single thong hole near stitched edge. Very worn and delaminated.
Kirk Close; Context 2037; Accession C193; Period IV B
226. Thickness 1.5 mm
Fragment with one long edge-flesh stitching channel and with thong through tunnel hole, stitch length 4 mm.
Kirk Close; Context 2038; Period IV B
227. Thickness 1 mm
Fragment with oversewn edge, stitch length c.5 mm.
Kirk Close; Context 2038; Period IV B

TABLE 72mf/29

228. Thickness 1 mm
Fragment with trace of two edge-flesh stitching channels.
Kirk Close; Context 2038; Period IV B
229. Thickness 1.5-2 mm
Sidepiece, with lasting margin with grain-flesh stitching channel, stitch length 6-7 mm, and with three edge-flesh stitching channels, stitch length 3-5 mm.
Kirk Close; Context 2038; Period IV B
230. Thickness 1.5 mm
Fragment with long edge-flesh stitching channel, stitch length 5-6 mm.
Kirk Close; Context 2038; Period IV B
231. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 7-9 mm.
Kirk Close; Context 2038; Period IV B
232. Thickness 1.5 mm
Fragment with edge-flesh stitching channel, stitch length 3-4 mm.
Kirk Close; Context 2038; Period IV B
233. Length 153 mm; width 8 mm; thickness 1 mm
Thin strip with edge-flesh stitching channel, stitch length 2 mm.
Kirk Close; Context 2050; Period III A
234. Length 145 mm; width 21 mm; thickness 1 mm
Two joining fragments, most probably part of leg, each fragment has an edge which has been folded (Width 5 mm) and hem stitched neatly, stitch length c.4-5 mm.
Kirk Close; Context 2052; Accession C230e,f; Period IV A

TABLE 72mf/30

235. Two fragments with lasting margin with grain-flesh stitching channel, stitch length 8-10 mm, wool surviving in one fragment.
Kirk Close; Context 2053; Accession C231,233; Period IV B
236. Thickness 1 mm
Two fragments with edge-flesh stitching channels, stitch length 4-5 mm.
Kirk Close; Context 2053; Accession C233,231; Period IV B
237. Three fragments, two have lasting margins with grain-flesh stitching channel, stitch length 6 mm. One is long strip (230 mm) cut from upper, with edge-flesh stitching channel, stitch length 3-3.5 mm.
Kirk Close; Context 2054; Accession C234; Period III A
238. Thickness 1.5 mm
Small fragment with lasting margin with grain-flesh stitching channel, stitch length 6-7 mm, and one edge-flesh stitching channel, stitch length 2.5 mm. Fragment of rand attached with wool surviving. Cattlehide.
Kirk Close; Context 2054; Accession C241; Period III A
239. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 8-9 mm.
Kirk Close; Context 2058; Accession C251; Period V B
240. Thickness 1.5 mm
Fragment with grain-flesh stitching channel, stitch length 4 mm, grain bent to form edge. Cattlehide.
Kirk Close; Context 2059; Accession C252e; Period IV A
241. Six fragments with lasting margin with grain-flesh stitching channels, stitch length 5-6 mm.
Kirk Close; Context 2071; Period IV A
242. Three fragments with edge-flesh stitching channels, stitch length 5 mm.
Kirk Close; Context 2071; Period IV A

TABLE 72mf/31

243. Small, approx. triangular fragment, all edges cut or torn with seven small holes, possibly for thin thongs. Delaminated.
Kirk Close; Context 2071; Period IV A
244. Thickness c.1 mm
Small fragment with lasting margin with grain-flesh stitching channel, stitch length 6 mm. Cattlehide.
Kirk Close; Context 2094; Accession C272c; Period II B
245. Fragment with lasting margin with grain-flesh stitching channel, stitch length 7 mm.
Kirk Close; Context 2105; Accession C274a; Period III B
246. Fragment with trace of lasting margin, very worn.
Kirk Close; Context 2107; Accession C279; Period I A
247. Two fragments with lasting margin with grain-flesh stitching channel, stitch length 8 mm.
Kirk Close; Context 2113; Accession C286a; Period I B
248. Thickness 1-1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 7 mm and with one edge-flesh stitching channel, stitch length 4 mm.
Kirk Close; Context 2113; Accession C286b; Period I B
249. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 4 mm.
Kirk Close; Context 2113; Accession C286c; Period I B
250. Thickness 1.5 mm
Fragment with edge-flesh stitching channel, stitch length 4 mm.
Kirk Close; Context 2113; Accession C286d; Period I B

TABLE 72mf/32

251. Thickness 1.5 mm
Fragment with lasting margin with grain-flesh stitching channel, stitch length 6 mm. Cattlehide.
Kirk Close; Context 2114; Accession C287a; Period III B
252. Thickness 1-1.5 mm
Fragment with lasting margin, with grain-flesh stitching channel, stitch length 7 mm.
Kirk Close; Context 2118; Accession C292b; Period II B
253. Height 72 mm; width 218 mm base; thickness 2 mm
Large triangular fragment with three edge-flesh stitching channels, stitch length 4 mm. Most probably part of leg of high boot.
Kirk Close; Context 1000/2000; Accession C002; Unstrat.
254. Fragment of lasting margin with grain-flesh stitching channel, stitch length 6-7 mm, and with rand attached by wool. Worn.
Kirk Close; Context 1000/2000; Unstrat.
255. Fragment with trace of edge-flesh stitching channel. Very Worn.
Kirk Close; Context 1000/2000; Unstrat.
256. Thickness 2-3 mm
Fragment with two edge-flesh stitching channels, stitch length 5 mm, and with round thong hole.
Kirk Close; Context 1000/2000; Unstrat.
257. Length 55 mm; width 34 mm; thickness 0.5 mm
Approx. oblong fragment with edge-flesh stitching channel, stitch length 2 mm. Extraordinarily neat. Worn.
Kirk Close; Context 1000/2000; Unstrat.
258. Length 125 mm; width 55 mm; thickness 1 mm
Approx. triangular fragment with one edge-flesh stitching channel, stitch length 2 mm. Worn.
Kirk Close; Context 1000/2000; Unstrat.

TABLE 72mf/33

Thongs and Toggles

259. Length 80 mm; width 8 mm; thickness 1 mm
Thong. Knotted near one end. Cattlehide.
Kirk Close; Context 2033; Accession C164a; Period V B
260. Length 90 mm; width 3 mm; thickness 2 mm
Thong. Worn.
Kirk Close; Context 2033; Accession C164b; Period V B
261. Length 7 mm; width 8 mm; thickness 2 mm
Toggle. Formed of thin strip of leather (90 mm) and
rolled tightly at one end and threaded through itself.
Cattlehide.
Kirk Close; Context 2037; Accession C191; Period IV B
262. Length c.230 mm; width 5 mm; thickness 1 mm
Thong. Knotted to form a loop at one end.
Kirk Close; Context 1000/2000; Unstrat.

Bindings - Straps folded once

263. Length 40 mm; width 6 mm; thickness 1 mm
Short fragment of strap, folded once and stitched
together where edges meet. Most probably binding.
Kirk Close; Context 1000; Accession C001e; Unstrat.
264. (1) Length 240 mm; width 5 mm; thickness 1.5 mm; (2)
Length 105 mm; width 5 mm; thickness 1.5 mm
Two fragments, possibly two separate straps.
Kirk Close; Context 2023; Accession C146b; Period IV A

TABLE 72mf/34

265. Length 238 mm; width 6 mm; thickness 1 mm
Fragment oversewn where edges meet, probably binding for upper or clothing. Very worn.
Kirk Close; Context 2023; Accession C146c; Period IV A
266. Length 80 mm; width 10 mm; thickness 1 mm
Short length, stitched where edges meet. Cattlehide.
Kirk Close; Context 2033; Accession C162b; Period V B
267. Length 103 mm; width 15 mm; thickness 1 mm
Decorated on both sides with two rows of short diagonal grain-flesh strokes. Does not appear to have been stitched.
Kirk Close; Context 2071; Period IV A
268. Length 135 mm; width 8 mm; thickness 2 mm
Stitched together with grain-flesh stitching channel, stitch length 8 mm.
Kirk Close; Context 2092; Accession C274; Period I A
269. Length 240 mm; width 10 mm; thickness 1 mm
Probably binding of boot or clothing. Sewn together where edges meet, through stitching channel with diagonal grain-flesh holes, stitch length 4 mm. Both ends are cut, so probably complete.
Kirk Close; Context 2094; Accession C272b; Period II B

TABLE 72mf/35

Straps of Single Thickness

270. Length 60 mm; width 30 mm; thickness 3 mm
Row of short slits parallel to each long edge. Approx.
round hole in middle of fragment, probably another one
on broken edge (18 mm between holes). Other short end
cut.
Kirk Close; Context 1121; Accession C054; Period III C
271. Length 30 mm; width 16 mm; thickness 2 mm
Short grain-flesh slits parallel to each edge, 5-6 mm
apart.
Kirk Close; Context 1121; Period III C
272. Length 60 mm; width 34 mm
Small fragment with two oversewn edges. Delaminated.
Kirk Close; Context 2015; Accession C113; Period VI B
273. Length 238 mm; width 18 mm; thickness 1.5 mm
All edges cut; grain-flesh stitch holes at both ends,
the fragment has been folded and the two ends have
almost certainly been stitched together. Cattlehide.
Kirk Close; Context 2022; Period V B
274. Length 75 mm; width 14 mm; thickness 1 mm
Single non-central row of short diagonal grain-flesh
holes. Worn.
Kirk Close; Context 2033; Accession C162c; Period V B
275. Length 55 mm; width 25 mm; thickness 2 mm
Tapering fragment with round holes parallel to each long
edge. Cattlehide.
Kirk Close; Context 2034; Period V B
276. Length 65 mm; width 25 mm; thickness 2 mm
Edge-flesh stitching channel, stitch length 3-4 mm.
Probably part of a strap, perhaps with decorative
stitching. Very worn and partially delaminated.
Cattlehide.
Kirk Close; Context 2034; Period V B

TABLE 72mf/36

277. Length 42 mm; width 29 mm; thickness 2 mm
Row of short diagonal grain-flesh holes parallel to each long edge. Probably not stitched. Cattlehide.
Kirk Close; Context 2035; Accession C171a; Period V B
278. Length 105 mm; width 28 mm; thickness 2 mm
Has oval end with one D shaped and one approx. triangular hole in the centre. Worn.
Kirk Close; Context 2041; Accession C215; Period V B
279. Length 90-360 mm; width 26-33 mm
Six fragments, no obvious joins but probably part of the same strap. Four rows of short diagonal grain-flesh slashes, one row parallel to each long edge and two rows in centre of strap. All fragments very worn and delaminated.
Kirk Close; Context 2055; Accession C244a-f; Period III A
280. Length 110 mm, 40 mm; width 32 mm; thickness 2 mm
Three fragments, two joining. Parallel to each cut edge, grain-flesh stitching channel, stitch length 6-7 mm. Most probably has been stitched. Trace of two round holes in middle of strap, diameter c.10 mm - very large. Worn.
Kirk Close; Context 2071; Accession C262; Period IV A
281. Length 185 mm; width 30 mm; thickness 2.5 mm
Two joining fragments. Parallel to each long cut edge, row of short diagonal grain-flesh slits in centre of strap c.20x1 mm, 30x2 mm, 22x1 mm. At one end near short cut edge, three rows of short slits.
Kirk Close; Context 2114; Accession C290; Period V B
- Fragments with Oversewn Edge
282. Length 105 mm; width 10 mm; thickness 1 mm
Loosely oversewn, stitch length 10-12 mm. Worn.
Kirk Close; Context 1113; Accession C034b; Period IV C

TABLE 72mf/37

283. Length 100 mm; width 18 mm; thickness 0.75 mm
Oversewn edge partially folded, stitch length 5 mm.
Worn.
Kirk Close; Context 1114; Accession C037; Period III C
284. Length c.60 mm; width 40 mm; thickness 0.75 mm
Two neat oversewn edges at right angles, stitch length
4-5 mm. Worn.
Kirk Close; Context 1119; Accession C042a; Period III C
285. Length 60 mm; width 45 mm; thickness 0.75 mm
One edge oversewn, stitch length 4-5 mm. Worn.
Kirk Close; Context 1119; Accession C042b; Period III C
286. Length 25 mm; width 25 mm; thickness 0.5 mm
One edge oversewn. Cattlehide.
Kirk Close; Context 1119; Accession C042c; Period III C
287. Length 110 mm; width 35 mm; thickness 1 mm
Cattlehide.
Kirk Close; Context 1119; Accession C042d; Period III C
288. Length c.83 mm; width 12 mm
Loosely oversewn edge, stitch length 8-12 mm. Worn.
Kirk Close; Context 1121; Accession C053; Period III C
289. Length c.260 mm; width 10 mm; thickness 2 mm
Loosely oversewn, stitch length 8-9 mm. Cattlehide.
Kirk Close; Context 1121; Period III C
290. Length c80 mm; width 8 mm; thickness 1 mm
One long edge is loosely oversewn, stitch length 12-15
mm. Cattlehide.
Kirk Close; Context 2022; Period V B

TABLE 72mf/38

291. Length c.110 mm; width 15 mm; thickness 1 mm
One short edge, neatly oversewn, stitch length 7-8 mm.
Worn.
Kirk Close; Context 2022; Period V B
292. Length 90 mm; width 12 mm; thickness 0.75 mm
One edge partially oversewn, stitch length 10 mm. Worn.
Cattlehide.
Kirk Close; Context 2022; Period V B
293. Length c.55 mm; width 15 mm
Two short oversewn edges, stitch length 8 mm.
Delaminated. Cattlehide.
Kirk Close; Context 2022; Period V B
294. Length c.125 mm; width 8 mm; thickness 1 mm
One long edge loosely oversewn, stitch length 10 mm.
Cattlehide.
Kirk Close; Context 2022; Period V B
295. 90 mm x 17 mm (-2) x 1 mm
Triangular fragment with two cut and one long loosely
oversewn edge, stitch length c. 10 mm. Function not
known.
Kirk Close; Context 2023; Accession C146d; Period IV A
296. Small fragment with oversewn edge and four stitch holes
c.2 x 0.75 mm, stitch length c.6 mm. Delaminated.
Kirk Close; Context 2023; Accession C146g; Period IV A
297. Length 190 mm; width 30 mm; thickness 0.25 mm
One loosely oversewn edge, stitch length 10 mm.
Kirk Close; Context 2031; Accession C161a; Period V B
298. Length c.70 mm; width 37 mm; thickness 1 mm
Three loosely oversewn edges. Very worn.
Kirk Close; Context 2033; Period V B

TABLE 72mf/39

299. Length 85 mm; width 28 mm; thickness 1.5 mm
Irregular fragment with loosely oversewn edge, stitch length 8 mm. Two cut, and one torn edge. Function not known.
Kirk Close; Context 2036; Period IV B
300. Length 70 mm; width 20 mm; thickness 1 mm
Irregular fragment with loosely oversewn edge, stitch length 7 mm. Other edges cut. Cattlehide.
Kirk Close; Context 2036; Period IV B
301. Length 140 mm; width 35 mm; thickness 0.5 mm
Irregular fragment with curved, neatly oversewn edge, stitch length 5-7 mm. The edge has been turned inwards slightly. Cattlehide.
Kirk Close; Context 2037; Period IV B
302. Length 175 mm; width 70 mm; thickness 1 mm
Irregular fragment with three cut edges, three irregularly torn edges and one slightly curved edge, loosely oversewn, stitch length 7-9 mm. Function not known. Cattlehide.
Kirk Close; Context 2055; Accession C246; Period III A
303. Length 103 mm; width 35 mm; thickness 1 mm Irregular fragment with one straight and one curved cut edges, meeting in a point and one long loosely oversewn edge, stitch length 7-8 mm. Function not known. Cattlehide.
Kirk Close; Context 2057; Period IV B
304. Thickness 1 mm
Irregular fragment with one loosely oversewn edge, one straight cut edge and one irregular curved cut edge. Two groups of small holes near straight edge could possibly be nail holes. Purpose?
Kirk Close; Context 2059; Accession C245; Period IV A

TABLE 72mf/40

305. Length c.130 mm; width c.30 mm; thickness c.1 mm
Irregular fragment with loosely oversewn edge, stitch
length c.7 mm. Cattlehide.
Kirk Close; Context 2094; Accession C272d; Period II B
306. Length 150 mm; width 12 mm; thickness 1 mm
Stitch length 10 mm. Cattlehide.
Kirk Close; Context 2114; Period III B
307. Length 60(-2) mm; width 30 mm; thickness 1.5 mm
Triangular with trace of oversewn edge. Cattlehide.
Kirk Close; Context 2114; Period III B
308. Length 120 mm; width 35 mm; thickness 1 mm
Triangular, one oversewn edge, stitch length 10 mm.
Worn.
Kirk Close; Context 2114; Period III B
309. Length 35 mm; width 5-20 mm; thickness 1.5 mm
Trapezoidal, one oversewn edge.
Kirk Close; Context 2114; Period III B
310. Length 50 mm; width 35 mm; thickness 1 mm
Approx. rectangular with two oversewn edges, stitch
length 7-8 mm. Worn.
Kirk Close; Context 2114; Period III B
311. Irregular fragment with two loosely oversewn edges,
stitch length 6-7 mm. Partially delaminated.
Cattlehide.
Kirk Close; Context 2114; Period III B

TABLE 72mf/41

Miscellaneous Fragments

312. Length c.190 mm; width 140 mm
Large fragment with trace of tunnel stitches along one edge, stitch length c.8-10 mm, and irregular traces of other tunnel stitches. Clothing? Delaminated.
Kirk Close; Context 1108; Accession C028; Period IV C
313. Length 215 mm; width 103 mm; thickness 1 mm
Irregular fragment, with long cut edge, with small grain-flesh holes, probably for whip stitch, stitch length c.10 mm. Approx. parallel to this edge and c.40 mm away from it, two rows of tunnel stitching, 12 mm apart. Rest is very worn.
Kirk Close; Context 1119; Accession C048; Period III C
314. Length 155 mm; width 130; thickness 0.75 mm
Irregular fragment with trace of grain-flesh stitching channel, stitch length 7 mm. Diameter of hole is 0.5 mm.
Kirk Close; Context 1121; Accession C052; Period III C
315. Length 50 mm; width 45 mm; thickness 1 mm Scrap with traces of two rows of tunnel stitching, stitch length 5-6 mm. Worn and delaminated.
Kirk Close; Context 2019; Accession C121; Period VI A/B
316. Length 55 mm; width 32 mm; thickness 0.75 mm Irregular fragment with four cut and one torn edges and with oval slit with pointed ends. Cattlehide.
Kirk Close; Context 2022; Accession C139; Period V B
317. Length 250 mm; width 9 mm; thickness 0.5 mm
Two joining strips. Edge of fragment of clothing. Cattlehide.
Kirk Close; Context 2023; Accession C146e,f; Period IV A

TABLE 72mf/42

318. Length 105 mm; width 40 mm; thickness 1.5 mm
Small fragment with two grain-flesh stitching channels, stitch length 1.5 mm, meeting in a point. Not part of upper.
Kirk Close; Context 2033; Accession C162d; Period V B
319. Length 125 mm; width 100 mm; thickness 1 mm
Small fragment with two grain-flesh stitching channels, meeting in a point. Probably not part of upper.
Kirk Close; Context 2033; Accession C163; Period V B
320. Length 95 mm; width 40 mm
Very thin fragment, folded into finger shape, may be part of glove or finger stall. Tattered and delaminated.
Kirk Close; Context 2035; Accession C170; Period V B
321. Thickness c.1 mm
Long straight edge with edge-flesh stitching channel, stitch length 3 mm; at right angles at each end are an irregularly cut edge with three, possibly four holes near it, and an oversewn edge. Fourth edge torn. Very worn. Cattlehide.
Kirk Close; Context 2036; Accession C180; Period IV B
322. Thickness 1 mm
One oversewn edge possibly joins 32321 Very worn. Cattlehide.
Kirk Close; Context 2036; Accession C181; Period IV B
323. Thickness 1 mm
Has edge-flesh stitching channel, stitch length 3 mm, and an oversewn edge. Very worn. Cattlehide.
Kirk Close; Context 2036; Accession C177; Period IV B
324. Length 90 mm; width 3 mm; thickness 2 mm
Strip with tunnel stitching, stitch length 4 mm, on flesh side. Worn.
Kirk Close; Context 2037; Accession C192a; Period IV B

TABLE 72mf/43

325. Length 90 mm; width 3 mm; thickness 0.5 mm
Strip with oversewn edge, stitch length 4 mm.
Delaminated.
Kirk Close; Context 2037; Accession C192b; Period IV B
326. Length 25 mm; width 18 mm
Scrap. Traces of stitching. Delaminated.
Kirk Close; Context 2037; Accession C183a; Period IV B
327. Length c.60 mm; width 40 mm; thickness 1 mm
Scrap. Traces of stitching.
Kirk Close; Context 2037; Accession C183b; Period IV B
328. Irregular fragment, with three small tunnel holes, two
have rivets through them. Very worn and almost
completely delaminated.
Kirk Close; Context 2038; Accession C204; Period IV B
329. Length c.82 mm; width 6 mm; thickness 0.75 mm
Scrap. Central row of short grain-flesh diagonal slits,
stitch length 3.5-4.5 mm
Kirk Close; Context 2041; Accession C217b; Period V B
330. Length 110 mm; width 78 mm; thickness 0.75 mm
Irregular stitched scrap with two short edge-flesh
stitching channels, stitch length 2.5-3.5 mm, other
edges torn/cracked. Possibly fragment of upper.
Cattlehide.
Kirk Close; Context 2049; Accession C220; Period III A
331. Length 90 mm; width 10 mm; thickness 0.75 mm
Fragment with tunnel stitching along one edge, stitch
length 1.5 mm.
Kirk Close; Context 2050; Period III A
332. Length 65 mm; width 65 mm; thickness 1 mm
Irregular fragment which appears to have been partially
folded and stitched.
Kirk Close; Context 2055; Accession C245a; Period III A

TABLE 72mf/44

333. Length 175 mm; width 5 mm; thickness 1.5-2 mm
Strip with grain-flesh stitching channels, stitch length
7 mm. Thread marks indicate one edge has been
oversewn.
Kirk Close; Context 2058; Accession C250; Period V B
334. Length c.160 mm; width 35 mm
Delaminated.
Kirk Close; Context 2059; Accession C252b; Period IV A
335. Length c.55 mm; width 23 mm
Delaminated. Cattlehide.
Kirk Close; Context 2059; Accession C252c; Period IV A
336. c.Length 45 mm; width 35; thickness 1 mm
Cattlehide.
Kirk Close; Context 2059; Accession C252d; Period IV A
337. Length 80 mm; width 50 mm; thickness 1 mm
Fragment with one edge which has been folded slightly
and gathered with a tunnel stitch and with irregular row
of round holes, 0.75 mm in diameter. Clothing?
Kirk Close; Context 2071; Period IV A
338. Length 170 mm; width 1-15 mm; thickness 1 mm
Strip with one long cut edge, row of short grain-flesh
diagonal slits parallel and 5 mm away from it. Lasting
margin of upper? or part of strap.
Kirk Close; Context 2144; Accession C295; Period I A
339. Length 110 mm; width 65 mm; thickness 1.5 mm
Two grain-flesh stitching channels, stitch length 4-5 mm
at right angles to each other. Rest of fragment torn.
Kirk Close; Context 2144; Accession C296; Period I A
340. Length 120 mm; width 40 mm; thickness 2 mm
Irregular fragment with 8 mm wide folded edge and with
grain-flesh stitching channel, stitch length 10 mm.
Kirk Close; Context 1000/2000; Unstrat.

There were c.690 offcuts and c.214 scraps from Kirk Close
which are described more fully in archive.

TABLE 72mf/45

South Methven Street

Soles

341. Length 265 mm; width 104 mm forepart, 74 mm seat
Left sole, now in two fragments, but otherwise complete,
PHSE Type 3? Broad waist (54 mm) and broad, gently curved
forepart, toe oval, almost pointed, only flesh layer
survives (outer grain layer of toe probably oval). Sole
is of natural foot shape. Edge-flesh stitching channel,
stitch length 6-8 mm. Very worn and partially delaminated.
South Methven Street; Context 107; Accession C002-021;
Period II

342. Length c.120 mm; width 78 mm; thickness 3-4 mm
Fragment of pointed forepart, probably right foot.
Probably PHSE Type 4. Trace of edge-flesh stitching
channel, stitch length 6-7 mm, rest of holes for clump
sole. Very worn.
South Methven Street; Context 107; Accession C002-021;
Period II

343. Clump seat.
South Methven Street; Context 107; Accession C002-008;
Period II

344. Four very worn fragments of sole.
South Methven Street; Context 107; Accession C002-021;
Period II

345. Length 125 mm; width 90 mm; thickness 1 mm
Fragment of clump forepart with tunnel stitch holes for
attachment to original sole. Irregular hole in tread.
Very worn.
South Methven Street; Context 107; Accession C002-021;
Period II

346. Length c.100 mm; width 88 mm; thickness 1-3 mm
Fragment of forepart with oval toe. Edge-flesh stitching
channel, stitch length 6-7 mm.
South Methven Street; Context 107; Accession C002-21;
Period II

TABLE 72mf/46

Rands

347. Fragment of rand.
South Methven Street; Context 107; Accession C002-0021;
Period II

Uppers

348. Fragment of upper with edge-flesh stitching channel and with tunnel-hole for horizontal thong; probably part of a one-piece design upper with wrap-around thong, cf PHSE Type B.
South Methven Street; Context 107; Accession C002-0021;
Period II

349. Height 100-120 mm; thickness c.1 mm
Large fragment of vamp of low boot or high shoe, with one small latchet, vamp wing and part of quarter. No trace of thongs, thong holes or tunnel holes. Lasting margin with grain-flesh stitching channel, stitch length 5-6 mm. Edge-flesh stitching channel on vamp wing, vamp throat and on lower and vertical edges of latchet, stitch length 3 mm. Top edge of latchet and quarters oversewn. Latchet most probably stitched to its partner. Vertical row of tunnel stitching on flesh side, from junction of latchet and vamp throat to just above lasting margin possibly for attachment of lining. Probably a one-piece design, PHSE Type A.
South Methven Street; Context 107; Accession C002-021;
Period II

350. Height 78 mm; width 33 mm; thickness 1.5 mm
Small irregular fragment of leather, with row of six holes c.2 x 4 mm, and with trace of edge-flesh stitching channel. Faint trace of tunnel stitching on flesh side parallel to tie-holes for attachment of facing or strengthener. Edge parallel to holes has been oversewn. Most probably shoe or boot with side-lacing, PHSE Type C or D.
South Methven Street; Context 107; Accession C002-021;
Period II

TABLE 72mf/47

Straps

351. Length 170 mm; width 9 mm; thickness 3 mm
Fragment of thong or thin strap of single thickness, which
has been knotted at one end.
South Methven Street; Context 200; Accession C0001; Period
IV

There were also two offcuts (in archive)

Watching Briefs

1-5 High Street

352. Fragment of forepart. PHSE Type 2 or 3. Very worn.
1-5 High Street; Context 400; Accession C082a

353. Fragment with seat, waist and rear of forepart. PHSE
Type 2, 3, or 4.
1-5 High Street; Context 400; Accession C082b

354. Forepart cut across tread. PHSE Type 3.
1-5 High Street; Context 400; Accession C083a

355. PHSE Type 3
1-5 High Street; Context 400; Accession C165a

356. PHSE Type 4
1-5 High Street; Context 400; Accession C165b

357. Forepart with oval toe. PHSE Type 2 or 3.
1-5 High Street; Context 400; Accession C165c

358. Fragment of forepart cut across tread. PHSE Type 1.
1-5 High Street; Context 1100; Accession C192

359. Forepart with forepart shaped cut. PHSE Type 3
1-5 High Street; Context 1100; Accession C215

TABLE 72mf/48

360. Large right sole, PHSE Type 4
1-5 High Street; Context 1100; Accession C219

Uppers

361. Latchet with toggles. PHSE Type K?
1-5 High Street; Context 300; Accession Context 181

362. Fragment of quarters of upper, with thong threaded vertically, and with separate horizontal thong. The latter appears to have been wrapped around the boot but not threaded through the vertical thong, suggesting that the vertical thong was purely decorative. Lasting margin with grain-flesh stitching channel, stitch length 6 mm. Edge-flesh stitching channel on vertical edge of quarters, stitch length 6mm. Top edge irregularly cut, suggesting that the rest of the leg has been cut away, possibly for re-use. Trace of beginning of vamp throat. Very small part of stiffener survives, still attached to quarters, with woollen thread surviving. cf PHSE Type B (1).
1-5 High Street; Context 400; Accession C083b

363. Fragment with tunnel holes for one horizontal thong, P. H. S. Type B (1).
1-5 High Street; Context 400; Accession C165d

Over 1400 fragments were recovered including soles, uppers, straps, 1040 off-cuts, forty-two oversewn fragments and twenty-eight miscellaneous items. They are described more fully in archive.

81 High Street

Leather recovered includes one sole, seven fragments of upper, fifty-two off-cuts, one scrap and three miscellaneous items. They are described more fully in archive.

92 High Street

Sixteen fragments of sole, eight fragments of upper, three fragments of rands, five fragments of straps, thirty-one off-cuts and eighteen scraps. These are described more fully in archive.

TABLE 76/1 CLAY PIPES. CATALOGUE OF THE SEVENTEENTH CENTURY BOWLS

Ill	Site Code	Context Number	Acc No	Description	bore Diameter
108.1	Canal Street I	1076	A43	Small, well made, flat-heeled bowl bottered, but not burnished; cf Lawson 1980, 172, fig 8A, probably Scottish; 1640-60.	6/64"
108.2	Canal Street I	1001	A48	Bowl in a dense, hard, white fabric, bottered but not milled or burnished; slightly expanded heel with a damaged heart-shaped, relief stamp, probably reading NW; possibly Scottish; 1650-70.	7/64"
108.3	Canal Street I	1076	A43	Crudely made bowl in a micaceous, pink fabric, bottered but not burnished or milled; a moulded B on the right side of the bowl just above the heel; cf a similar example with only one clear initial in Lawson 1980, 172, fig 8 H; probably made by one of the Banks family of Edinburgh (cf no 4 below); 1660-80	7/64"

TABLE 76/2

Ill	Site Code	Context Number	Acc No	Description	bore Diameter
108.4	Canal Street I	1076	A43	Well made bowl in a coarse pink fabric. Well bottered, milled with wide burnishing; IB moulded on either side of the heel, ?unclear Edinburgh Castle stamp on the underneath of the heel in relief; probably made by John Banks, son of William Banks, who was married in 1658 and made a Burgess of Edinburgh in 1659 (Armet 1951, 9); although there is no parallel for the particular pair of initials, the form and method of lettering in the mould are very similar indeed to the William Banks pipes found so commonly in Central Scotland cf Lawson 1980, 172, fig 8E; Edinburgh: 1660-80.	8/64"

TABLE 76/3

Ill	Site Code	Context Number	Acc No	Description	bore Diameter
108.5	Canal Street II	2000	A06	Bowl in an off-white mica-rich clay with many other inclusions and a 'fumed' pink/orange exterior; small area of irregular rouletting on the front, not burnished; partially obscured 'castle' stamp on the underneath of the bowl in relief; cf Martin 1977, 219, no 17. for a similar form and possibly obscured stamp from the wreck of the Dartmouth off Mull (1690) and Davey (1982b fig 12C) for a comparable find from Berwick-on-Tweed; probably Edinburgh; 1670-1700.	7/64"
108.6	Canal Street II	1071	A24	Bowl in fabric as 5; crudely milled with a 'fumed' exterior; relief stamp on the underneath of the heel in the form of a five-pointed star in a circle; cf Laing 1968, 126-127, fig 7 nos 3 & 11 from Linlithgow Palace; Scottish; 1670-1700	7/64"

TABLE 76/4

Ill	Site Code	Context Number	Acc No	Description	bore Diameter
108.7	Mill Street	109		Fragment of bowl and heel in fabric as 5 & 6; crudely burnished; and irregular five-armed star incised on the underneath of the heel; no good comparison; Scottish; 1670-1700.	
108.8	Canal Street II	1020	A14	Moulded rose bowl, damaged, with a mould fault on the back; unburnished; a five-dot circle; cf Duco 1981, 244, no 33 and similar examples from Aberdeen (Davey 1982a fig 185) and Scalloway Castle, Shetland (Davey 1983 figs 24-28); Dutch probably Amsterdam; 1640-60.	6/64"
108.9	Mill Street	100		Fragment of moulded rose bowl; totally reduced core unburnished; six-dot circle; cf no 8; Dutch; 1640-60.	7/64"
108.10	Mill Street	106		Bowl in a very pure white, dense clay, heel damaged; rouletted on the front only; cf Duco 1981, Dutch; 1670-90.	7/64"

TABLE 76/5

Seventeenth Century Bowls

Ill	Site Code	Context Number	Acc No	Description	Stem- bore Diameter
108.11	Canal Street I	1020	A14	Bowl as 10, well bottered, lightly polished, rouletting damaged; very good quality; cf Duco 1981, Dutch; 1660-80	7/64"
109.12	Canal Street I	1076	A43	Bowl as 11, unburnished, undecorated cf Duco 1981, Dutch; 1660-80.	7/64"
109.13	Canal Street I	1076	A43	Bowl in two pieces, crudely made; unburnished; bore distorted in firing and damaged; cf Duco 1981 Dutch; 1660-80.	8/64"
109.14	Whitefriars	2	A055	Damaged bowl, fabric as 2, unburnished rouletted on the front only; probably Scottish; 1660-80.	
109.15	Whitefriars	2	A050	Damaged bowl with small heel; fabric as 2; unburnished; probably Scottish 1720-60.	5/64"

TABLE 77/1 CLAY PIPES. CATALOGUE OF NINETEENTH AND TWENTIETH CENTURY PIPES

Ill	Site Code	Context Number	Acc No	Description	bore Diameter
109.16	Mill Street	124		Damaged bowl and spur; moulded thistle and fluting.	5/64"
109.17	Kirk Close	2000	A173	Plain bowl, a crescent or possibly a retrograde C moulded on the left side of the spur, probably 19th century in spite of the wide bore.	6/64"
109.18	Canal Street I	1072	A47	Fragment of the front of a moulded bowl; shield and rampant animal decoration.	5/64"
109.19	Whitefriars	2	A70	Moulded bowl; same floral decoration on both sides ? debased thistle.	5/64"
109.20	Whitefriars	1000	A213	Crude, thick-walled moulded bowl; head of George V on left side and 'KING V GEORGE' on the other; possibly made to commemorate the coronation in 1910.	5/64"
109.21	Canal Street I	1005	A13	Stem fragment, moulded lettering on one side reads '...UTTY PIPE'.	4/64"

TABLE 77/2

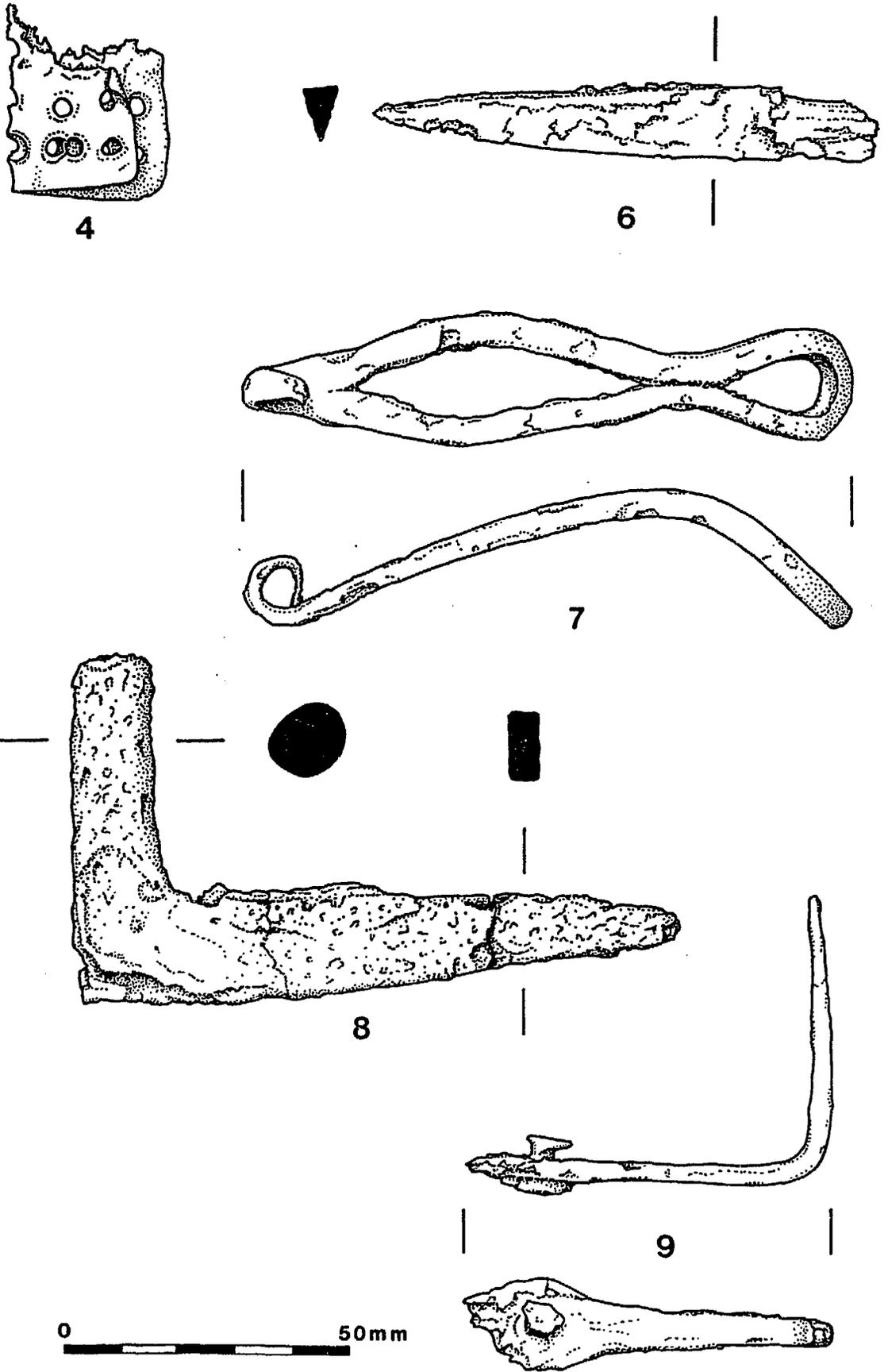
Ill	Site Code	Context Acc No Number	Description	bore Diameter
109.22	Watching Brief 59 George Street	1001 A2	Stem fragment, moulded lettering on both sides reads 'BURNS C.../... .LEAN' probably a Burns Cutty made by one of the Mcleans of Perth.	4/64"

TABLE 78/1 PERTH PIPEMAKERS' STAMPS USED ON FRONT OF BOWL FROM PERTH MUSEUM
AND ART GALLERY

Ill	Museum Acc No	Die No	Description
110.23	1982.5	-	S McLEAN PERTH in a circular frame with a star in the centre, on a plain pipe of 19th century - early 20th century, c 1856 - c 1927.
Stamps of Kane (Kean)			
110.24	1980.571	A	Flattened oval frame, broken on the left; large finely cut lettering reads 'G KEAN/MAKER/PERTH', on a late 19th century bowl with moulded golf clubs (see also 77/1976).
110.25	NN	B	As A but rounder frame, with slightly smaller, fatter lettering; on an 1887 Queen Victoria Jubilee Pipe - the mould for the bowl is the same as described for Die E.
110.26		C	As B with a round frame, but much neater lettering; the word 'MAKER' is horizontal, not curved; also on an 1887 Jubilee pipe.
110.27		D	As B with a rounded frame; slightly flattened, smaller rather fat lettering on plain bowls; two examples.

TABLE 78/2

Ill	Museum Acc No	Die No	Description
110.28	1981.554 1977.117	E	Frame and lettering similar to B, an arrow on either side of the word 'MAKER', two examples both on 1887 Jubilee bowls; in the latter the stamp overlaps the moulded date.
110.29	1977.23 77B/1976	F	Reads 'KEAN/MAKERS/PERTH'; two examples on plain, briar style bowls.
110.30	1978.865	G	Reads 'KANE/MAKERS/PERTH'; the word Kane is asymmetrically placed as if an initial has been erased from the die; the word 'MAKERS' is small; plain, briar-style bowl.



ILL 112 : Kirk Close, miscellaneous lead and iron objects

TABLE 80/1 BOTANICAL REMAINS. LIST OF ABBREVIATIONS USED

Macrofossil	Abbreviation
testa fragments	t
caryopsis	c
carbonised caryopsis	c*
floret	fl
panicle fragments	pf
achene	a
seed	s
pod fragments	pdf
stem fragment	st.f
inflorescence	infl
nut fragment	nf
rhizome fragment	rf
rachis segment	rs
capsule fragment	cf
fibres	fb
fruit stone	fr.st
pod section	pd.se
straw	straw
pappus	pp
fruit	fr
nutlet	ntlt
perianth segment	p.s
fruiting stem	fr.stm
petals	pet
utricle	u

TABLE 80/2 LIST OF ABBREVIATIONS USED

Macrofossil	Abbreviation
capsule	cp
shoot	sh
twig	tw
flower	fl
leaf base spindle	lbs
frond fragments	frfs
catkin scale	cs
chips	ch
shavings	sv
buds	bu
burnt fragments	burnt f
vertebrae	v
bone	b
scale	sc
egg	e
fruiting bodies	frbd
carbonised	*
fragment	f
charcoal	char
sclerotia	scl
presence	+
occasional	oc
abundant	ab
very abundant	vab
tentative identification	?

TABLE 80/3 LIST OF ABBREVIATIONS USED

Macrofossil	Abbreviation
plus	.
absent	-
vertebra	v
bone	b
scale	sc
cooked fragments	cookf

TABLE 81

PLANTS USEFUL TO MAN

Summary of 3 sites

TAXA	-----Kirk Close-----						-South Methven St-					Canal St II
	floors	latrines	middens	yards	pits	gullies	cladding	ditch 102	town ditch	floors	tank	
<i>Avena sativa</i> (cultivated oat)	1	+	3	1	2	1	+	1	1	2	+	2
<i>Brassica</i> sp. (cabbage, rape, turnip)	3	+	+	-	+	+	-	-	-	-	-	+
<i>Brassica</i> cf. <i>campestris</i> (turnip etc)	2	1	1	1	1	+	+	-	-	-	-	-
<i>Brassica</i> cf. <i>oleracea</i> (cabbage/kail)	-	+	-	-	-	-	-	-	-	-	-	-
<i>Corylus avellana</i> (hazel)	1	1	1	2	1	1	+	+	-	+	+	+
<i>Hordeum</i> sp. (barley)	1	+	1	+	1	+	-	+	-	-	-	2
<i>Hyoscyamus niger</i> (henbane)	-	-	+	-	-	+	-	-	+	-	-	-
<i>Juglans regia</i> (walnut)	-	-	+	-	-	-	-	-	-	-	-	-
<i>Linum usitatissimum</i> (flax)	2	1	1	-	1	1	-	2	1	-	-	+
<i>Prunus avium</i> (wild cherry)	-	+	+	-	-	-	+	-	-	-	-	-
<i>Raphanus raphanistrum</i> (wild radish)	2	2	1	-	1	1	+	1	1	+	+	+
<i>Reseda luteola</i> (dyer's rocket)	+	-	+	+	+	+	-	-	-	-	-	+
<i>Rubus idaeus</i> (raspberry)	-	2	-	-	-	-	-	-	-	-	-	-
<i>Sambucus nigra</i> (elderberry)	+	-	-	-	-	-	+	-	-	-	-	+
<i>Sorbus aucuparia</i> (rowan)	+	+	-	+	-	-	-	-	-	-	-	-
<i>Secale cereale</i> s.l. (rye)	-	+	-	-	-	-	-	-	-	-	-	-
<i>Triticum aestivum</i> s.l. (wheat)	+	+	+	+	-	+	-	+	+	-	-	+
Unidentified cereals	+	+	+	+	+	+	-	1	2	2	+	3
<i>Vaccinium myrtillus</i> (blaeberry)	+	3	1	+	+	+	-	-	-	-	-	-

Abundance scale 1 to 3, + denotes presence, - denotes absence.

TABLE 82

COMMONEST WEED SPECIES

Summary of 3 sites

TAXA	-----Kirk Close-----						--South Methven St--					
	floors	latrine	middens	yards	pits	gullies	cladding	ditch 102	town ditch	floors	tank	Canal St II
<i>Agrostemma githago</i> (corncockle)	1	3	1	1	1	1	1	2	+	-	1	-
<i>Centaurea cyanus</i> (cornflower)	-	3	-	-	-	-	-	-	-	-	-	-
<i>Chenopodium album</i> (fat hen)	2	1	2	2	2	2	1	2	1	+	2	2
<i>Chrysanthemum segetum</i> (corn marigold)	1	-	-	-	-	-	-	+	1	-	-	1
<i>Fallopia convolvulus</i> (black bindweed)	1	1	1	1	+	+	+	1	1	-	-	-
<i>Galeopsis tetrahit</i> (dead nettles)	1	+	1	1	1	1	1	1	-	-	-	+
<i>Lapsana communis</i> (nipplewort)	1	1	1	1	1	1	1	2	-	-	-	-
<i>Polygonum aviculare</i> (knotgrass)	1	1	1	+	1	1	1	+	-	-	-	+
<i>P. lapathifolium</i> (pale persicaria)	2	1	2	2	2	2	1	2	1	-	+	+
<i>P. persicaria</i> (persicaria)	1	1	1	1	1	+	+	1	+	+	1	+
<i>Ranunculus</i> sp. (buttercup)	1	1	1	1	1	1	1	1	+	+	1	-
<i>Rumex</i> sp. (dock)	1	1	+	+	1	1	+	1	1	+	+	+
<i>R. acetosella</i> (sheep's sorrel)	2	1	2	2	3	3	1	1	1	+	+	1
<i>Spergula arvensis</i> (corn spurrey)	2	2	2	1	2	2	1	2	+	1	2	-
<i>Stellaria media</i> (chickweed)	1	1	2	1	2	2	1	2	2	+	1	1
<i>Urtica</i> sp. (nettles)	1	-	+	1	+	+	-	+	2	-	-	1
Gramineae (grasses)	1	+	2	+	2	1	+	1	1	+	1	+

Abundance scale 1 to 3, + denotes presence, - denotes absence

TABLE 83/1 BOTANICAL REMAINS. SUMMARY INTERPRETATION OF SAMPLES BY FEATURE.

KIRK CLOSE

	Layer	sample	Context	Comments
Structure One				
Room A	1043	R14	Floor	Domestic floor level
Room B	1070	R22	Floor	Domestic floor level material perhaps open yard outside 1043
Structure Two				
South Part	(2078	R75	Floor	Domestic floor level. Wood- working and possible Flax/ Brassica storage or processing
	(
	(
	(
	(2106	R90	Floor	Domestic floor level. Possible Flax/Brassica storage or processing.
	(
	(
North Part	(2099	R88	Floor	Domestic floor level.
	(
	(2085	R78	Floor	Domestic floor level ?roofing material very rich in plant macro-fossils. Flax/Brassica storage or processing.
	(
	(
	(
	(
	(2097		Floor	Domestic floor level.

TABLE 83/2 BOTANICAL REMAINS. SUMMARY INTERPRETATION OF SAMPLES BY FEATURE.

KIRK CLOSE

	Layer sample	Context	Comments
Structure 4	1126 R86	Floor	Domestic floor level, probably well drained and swept clean.
	1128 R72	Floor	Domestic floor level material with possible structural timber remains - all carbonised. Building probably destroyed by fire.
Latrine	(2172 R140	Latrine	Latrine filling revealing diet of wheat/rye with raspberry, blackberry, hazelnut and possibly Brassicas in some form. Meat, fish, eggs and shellfish also represented. Intestinal parasite eggs are common and moss was used as 'toilet paper'.
	(
	(
	(
	(
	(
	(
	(
	(2134 R119	Latrine	Latrine filling as 2172 above
Gully 2134	2094 R241	Gully fill	Mixture of clay and flooring/midden material perhaps from the degeneration of a building wall. Wood may represent wattle or woodworking.
Gully 2066	2052 R65	Gully fill	Mixture of flooring/midden material and dung.

TABLE 83/3 BOTANICAL REMAINS. SUMMARY INTERPRETATION OF SAMPLES BY
FEATURE. KIRK CLOSE

	Layer	sample	Context	Comments
Gully 2032	2027	R19	Gully fill	Compacted flooring/midden material with dog hair. Probably a dog pen.
	2072	R76	Gully fill	Midden/floor level material with very few weed seeds and fruits from general wasteland weeds.
Robbing pit B4	1152	R111	Fill of Robbing pit	Mixture of flooring/ midden material and dung.
Pit 2039	2125	R120		Midden pit containing domestic floor floor level material, leather and woodworking waste, and dung.
Pit 2054	2053	R215	Pit	As above with less evidence for dung. Woodworking waste present.
Midden	2016	R42	Midden	Floor level material with domestic refuse, including a walnut shell.
	2050	R66	Midden	Floor level material, with domestic refuse, possibly some faecal material.
	2092	R85	Midden	Compacted floor level material with a large component of dung. Possible evidence for leather-working.

TABLE 83/4 BOTANICAL REMAINS. SUMMARY INTERPRETATION OF SAMPLES BY FEATURE.

KIRK CLOSE

	Layer	sample	Context	Comments
	2029	R20	Midden	Mixture of flooring/midden material and dung.
Yard	1120	R83	Yard	Material very similar to that from domestic floor level, possibly an intermediate area between house and midden.
	1121	R81	Yard	As above with evidence for woodworking.
Hearthfill B4	1137	R98	Hearth	Possible cooking hearth although carbonised cereals are absent.
Cladding	2079	R240	Wall cladding	Clay and floor-level material coarsely mixed-used as wall cladding. Inclusion of flooring material probably accidental.
	2060	R84	Wall cladding	Very similar to 2079 but with fewer weed seeds in flooring material.

TABLE 84

PLANTS USEFUL TO MAN: KIRK CLOSE

PLANT TAXA

PLANT TAXA	Macrofossil	floor levels						
		1043	1070	2078	2106	2099	2085	2097
Avena sativa (cultivated oat)	t	-	-	-	-	-	-	-
	c	10	1.f	7.2f	-	1.f	5	3
	c ⁺	-	1	-	-	-	-	-
	fl	-	+	+	+	-	-	-
Brassica sp. (cabbage/rape/turnip family)	s	-	6½.1.4f	3f	2.f	85½.8f	-	-
	pdf	-	-	f	-	3f	-	-
B. cf. campestris (turnip, turnip-rape)	s	-	9.11f	15½.13f	17.4f	2½.5f	9½.8f	-
B. cf. oleracea (cabbage, kail etc)	s	-	-	-	-	-	-	-
	st.f	-	-	+	-	+	-	-
Corylus avellana (hazel)	nf	-	1	2	9	1	2	3.1 ^f
Equisetum sp. (horsetail)	st.f	-	-	-	-	-	-	-
	rf	-	-	-	-	-	-	-
Hordeum sp. (barley)	t	-	-	-	-	-	-	-
	c	1	-	4.f	-	1	1	-
	c ⁺	-	-	-	-	-	-	-
Hordeum sp. (lax-eared)	rs	-	-	+	-	-	-	+
Hyoscyamus niger (henbane)	s	-	-	-	-	-	-	-
Juglans regia (walnut)	nf	-	-	-	-	-	-	-
Linum catharticum (purging flax)	s	-	-	-	-	-	-	1

TABLE 84 (cont)

PLANTS USEFUL TO MAN: KIRK CLOSE

PLANT TAXA	Macrofossil	floor levels						
		1043	1070	2078	2106	2099	2085	2097
L. usitatissimum (cultivated flax)	s	1	-	15½	2	f	58½.2f	1½
	cf	-	-	-	8	1	2	126
	fb	-	-	oc	-	-	oc	-
Prunus avium (wild cherry)	fr.st	-	-	-	-	-	-	-
Raphanus raphanistrum (wild radish)	s	-	-	1½	2	-	7	1
	pd.se	-	-	1.2f	1.3f	>30f	10.2f	6f
Reseda luteola (dyer's rocket)	s	-	-	-	-	-	-	1
Rubus idaeus (raspberry)	s	-	-	-	-	-	-	-
Sambucus nigra (elderberry)	s	-	-	-	3f	1½	-	-
cf. Sinapis sp. (charlock)	s	-	-	-	-	2	-	-
Sorbus aucuparia (rowan)	s	-	-	-	-	-	-	1 ^f
Secale cereale sl. (rye)	t	-	-	-	-	-	-	-
	c	-	-	-	-	-	-	-
Triticum aestivum sl. (wheat)	t	-	+	-	-	-	-	-
	c	-	2	f	1	-	-	-
	c ^f	-	-	1	-	-	-	-
Triticum/Secale (wheat/rye)	t	2	-	+	-	3.2f	-	-
Unidentified cereal	c	-	-	-	-	f	-	-
	straw	+	-	+	+	+	vab	+
Vaccinium myrtillus (blaeberry)	s	-	-	-	1	4	-	-

TABLE 85

PLANTS USEFUL TO MAN: SOUTH METHVEN STREET

TAXA	Macrofossil	fill 107 of ditch 102			tank 120	floor layers		R44/235 Midden Spread	town ditch				
		R04	R12(1)	R12(2)		R05	R02/108		R03/110	R28/307	R16/309	R18/311	R40/316
Avena sativa (cultivated oat)	c ^f	f	4.f	-	f	1	16	18.2f	-	-	-	-	-
	c	-	-	2	1	2	-	-	-	-	-	-	-
	t	+	+	+	-	-	-	-	-	-	-	-	-
	fl	-	a	a	oc	a	a	a	-	-	-	-	-
Hordeum sp (barley)	c ^f	-	1	-	-	-	-	-	-	-	-	-	-
	rs	-	-	-	-	-	-	-	2	-	-	-	-
	t	-	-	-	-	-	-	-	-	-	-	+	-
Secale/Triticum (rye/wheat)	t	+	+	+	-	-	-	-	-	+	?	+	-
Triticum aestivum s.l. (wheat)	c ^f	-	-	-	-	-	-	1	-	-	-	-	-
	c	-	-	1	-	-	-	-	-	-	-	-	-
Unidentified cereals	c ^f	f	1	2	-	1	14	10	6	1½	-	-	-
	rs	-	oc	oc	-	oc	-	-	-	-	-	-	-
Corylus avellana (hazel)	nf	f	2f	f	4f	f	-	-	-	-	-	-	-
Hyoscyamus niger (henbane)	s	-	-	-	-	-	-	-	-	-	-	1	-
Linum usitatissimum (flax)	s	3.2f	2.f	4	-	-	-	-	½	2	f	-	-
	cf	9	f	8	-	-	-	-	-	-	-	-	-
Raphanus raphanistrum (wild radish)	s	f	-	-	-	-	-	-	-	f	-	-	-
	pdf	14f	+	12f	f	-	2f	-	f	f	3f	-	5f

TABLE 86

PLANTS USEFUL TO MAN: CANAL STREET II	Macrofossil	SAMPLE/CONTEXT												
		Rd302/2440	Rd303/2434	Rd306/2394	Rd308/2461	Rd299/2396	Rd317/2360	Rd241/2207	Rd048/2118	Rd491/2395	Rd495/2389	Rd300/2446	Rd301/2446	Rd309/2322
TAXA														
Avena sativa (cultivated oat)	c [†]	1	1	6	3	-	-	2	27	-	1	1	-	1½
	fl.pf [†]	-	+	2f	3f	-	-	-	-	2	2f	-	-	-
Brassica sp. (cabbages, kale etc)	s [†]	-	-	-	-	-	-	-	-	-	½	-	-	-
Corylus avellana (hazel)	nf [†]	-	5	-	-	-	-	-	-	-	-	-	-	-
Hordeum sp. (barley)	c [†]	-	1	7.f	-	-	-	-	44½	3	2	-	-	-
	rs [†]	-	-	-	-	-	-	-	1	-	-	-	-	-
Linum usitatissimum (flax)	s [†]	-	1	-	-	-	-	-	-	-	-	-	-	-
Raphanus raphanistrum (wild radish)	pdf [†]	-	-	f	f	-	-	-	2.f	-	-	-	-	-
Reseda luteola (dyer's rocket)	s	-	-	-	-	-	f	-	-	-	-	-	-	-
Sambucus nigra (elderberry)	s	-	-	-	-	-	-	-	-	1	-	-	-	-
Triticum aestivum sl. (wheat)	c [†]	-	-	-	-	-	-	-	1	-	-	-	-	-
Unidentified cereals	c [†]	-	-	4.f	-	-	½	1	75	-	-	1	-	2½
	straw [†]	-	-	+	-	-	-	-	+	+	-	+	-	+

TABLE 87mf/1 ADDITIONAL FINDS CATALOGUE

Copper alloy objects

1. Sheet. Length 73 mm; max width 34 mm; thickness 0.7 mm
Fragment of a thin sheet with one straight cut edge.
Rectangular hole pierced from one side (length 8 mm). (Not
illustrated)
Kirk Close; Context 2033; Accession E127; Period V B
2. Sheet. Length 79.65 mm; thickness 0.8 mm
Fragment of a folded sheet with one straight cut edge. (Not
illustrated)
Kirk Close; Context 2034; Accession E131; Period V B
3. Sheet. Length 119.05 mm; max width 21.55 mm; thickness 1.6
mm
Fragment of a sheet with one straight cut edge. (Not
illustrated)
Kirk Close; Context 2036; Accession E129; Period IV B

TABLE 87mf/2

Lead alloy objects

4. Sheet. Max. width 32.16 mm; thickness 1.35 mm

Fragment of a folded sheet with three straight cut edges.
Pierced from one side with the remains of three rows of
closely spaced parallel holes

Kirk Close; Context 1113; Accession E135; Period IV C

5. Waste. Thickness 3.5 mm

Irregular piece of folded waste. (Not illustrated).

Kirk Close; Context 2016; Accession E130; Period V A

Iron objects

Knife

6. Knife. Length 88.65 mm; max width 7.3 mm

Fragment of a knife blade.

Kirk Close; Context 2023; Accession E142; Period IV A

TABLE 87mf/3

Structural iron work and miscellaneous fittings

7. Hasp. Length 107.45 mm; max width 23.8 mm; thickness 5 mm
Looped, curved, figure of eight shaped hasp. Hooked at one end.
Kirk Close; Context 2028; Accession E155; Period V A
8. Hinge pivot. Length of shank 104 mm; height 59.35 mm
Rectangular cross-sectioned tapering shank. Circular cross-sectioned pivot.
Kirk Close; Context 2031; Accession E137; Period V B
9. Hook. Length 49.4 mm; height 64.25 mm
Angled spike with expanded perforated head. Iron rivet still in place.
Kirk Close; Context 2009; Accession E058; Period VI A
10. Staple
U-shaped staple. Rectangular in cross-section. Broken at both ends. (Not illustrated)
Kirk Close; Context 2056; Accession E124; Period IV B