

Excavations in Inverkeithing, 1981

Jonathan Wordsworth*

with contributions by D H Caldwell, G W I Hodgson,
N MacAskill, D Robinson, C Smith and M Taylor

illustrations by G Harden

SUMMARY

Five sites were examined in the town, two of them being on the main street frontage. One of these was barren while the other revealed part of the medieval market place. It is suggested that this market place was laid out on a more regular alignment than the present High Street line would indicate, and that within this market area a series of small scale activities were carried out until the area was infilled by a late 16th-century housing development which involved the creation of a new street. The other three sites set in the backlands S of the main street revealed a considerable development of medieval and post-medieval garden soils and no evidence of building extending into these backlands apart from a post-medieval dovecot that is still standing.

INTRODUCTION

Inverkeithing is first recorded in a charter granted to Scone Abbey in 1114-15 and it was probably one of the earliest of the Scottish burghs. The date of its erection to burgh status is not known though it is mentioned as a burgh in the reign of Malcolm IV (1153-65). It has been noted by both Duncan (1975, 483) and Turner Simpson (1981a, 1) that the earliest surviving charter, which is dated to between 1178 and 1189 in the reign of William the Lion, gave greater rights to the burgesses than those given to the burgesses of Rutherglen ten years earlier and of Ayr c 1205. This has been interpreted as showing the greater political sophistication of the burgesses of Inverkeithing.

The location of the earliest settlement is not known and it is not clear whether it developed in its present position or down by the mouth of the Keithing burn where a fine natural harbour is still to be found. Though the modern town plan emphasises the importance of the High Street, the properties on the S side of this street formerly extended down to the burn. At least one property, that of the supposed priory at 29 Townhall Street, is known to have had a substantial building at the end of its rig on the banks of the burn by the end of the 16th century. Whether this was a warehouse, dwellinghouse or pigsty must remain speculation. It is clear, however, that its sheltered harbour and position as a crossing on the Forth encouraged the development of Inverkeithing as one of the major burghs of the kingdom.

The topography of the town is based on a ridge of basalt that rises steeply from the Forth. The town is of a linear form, shaped around a broad High Street 25 m wide by 250 m long. There

* Ardinsh, Kincaig, Kingussie, Inverness-shire

are two island developments at either end of this street. On the NW side of the High Street the tenements reflect the rising hill slope and stretch back from 75 to 110 m from the street front. On the SE side the properties, though now truncated by the railway, originally extended down to the Keithing burn, a distance of up to 175 m.

It is not known when the town achieved its late medieval size as defined by the town's ports, the positions of which are shown in figs 1 and 12. The ports date to the 16th century and it is likely that they mark a burgh extent established some time before. The position of the friary, squeezed uncomfortably into two or three tenement plots, would suggest that the town had already developed to the extent illustrated by the middle of the 14th century when the friary was founded. How much earlier than this the layout was established may only be answered by archaeological investigation.

Examination of the standing buildings and documents connected with 17th-century and later buildings has shown that there has been continuing alteration to the line of the main street frontage, evidence for this being clearest on the S side of the High Street. The best examples of this are the granting of a licence in 1688 to the owner of 12 High Street to extend 9 ft into the street (Stephen 1921) and the present incorporation of a well into the front lounge of the Royal Hotel. The two island building developments, by contrast with English and other Scottish examples, are likely to be late or post-medieval in origin.

EXCAVATION

Despite a persistent local story of Roman remains being excavated on the S side of the High Street, there is no record of previous work being carried out in the town. The Urban Archaeology Unit was contacted by Dunfermline District Council in advance of a planned development of backlands on the S side of the High Street, the majority of which are owned by the Council. While sample excavations were being planned for this area two other sites became available in Bank Street. It was not possible to do more than establish a watching brief at 6 Bank Street, but at 1 Bank Street/5-7 Townhall Street a five week excavation was carried out by a team of six excavators during August and September 1981. This was followed by a further three weeks' trial trenching on the backlands of 52 High Street and 2-6 Bank Street and on the E side of Port Street. The primary records and a detailed stratigraphic report on these excavations are stored in the National Monuments Record, 54 Melville Street, Edinburgh.

6 BANK STREET (figs 1, 2)

A watching brief was carried out by W J Lindsay, Director of the Urban Archaeology Unit on 27-28 June when the site was being cleared prior to rebuilding. The basalt bedrock and its overlying sub-soil were only 0.2 m below the surface and there was no trace of medieval settlement surviving on this site. A small piece of cultivated soil containing pottery dating probably to the 17th century was found 10 m from the street front, though most of this had been cut away by a large pit containing dark brown clay and Victorian pottery.

1 BANK STREET/5-7 TOWNHALL STREET (figs 1-9)

This site became available as the result of a demolition order served on Mr Divitto, the owner of a building that stood until recently on this site. The terms of the demolition order which led to the immediate destruction of the building meant that it was not possible to survey the standing building. The process of demolition meant the destruction of the modern floor level.

After the removal of the rubble, Mr Lindsay noted that medieval pottery and deposits rich in bone and oyster shell lay under this floor and Mr Divitto kindly gave permission for an excavation to be carried out. The demolished building had a lintel dated 1599 (pl 33) though photographs of the building would suggest a date in the 18th or 19th century. It is possible that the demolished building was built on the foundations of an earlier structure as 3 Bank Street includes the remains of a wall and a window, part of a building that extended NE (fig 3). To the NW 2-4 High Street incorporated windows of a 17th-18th

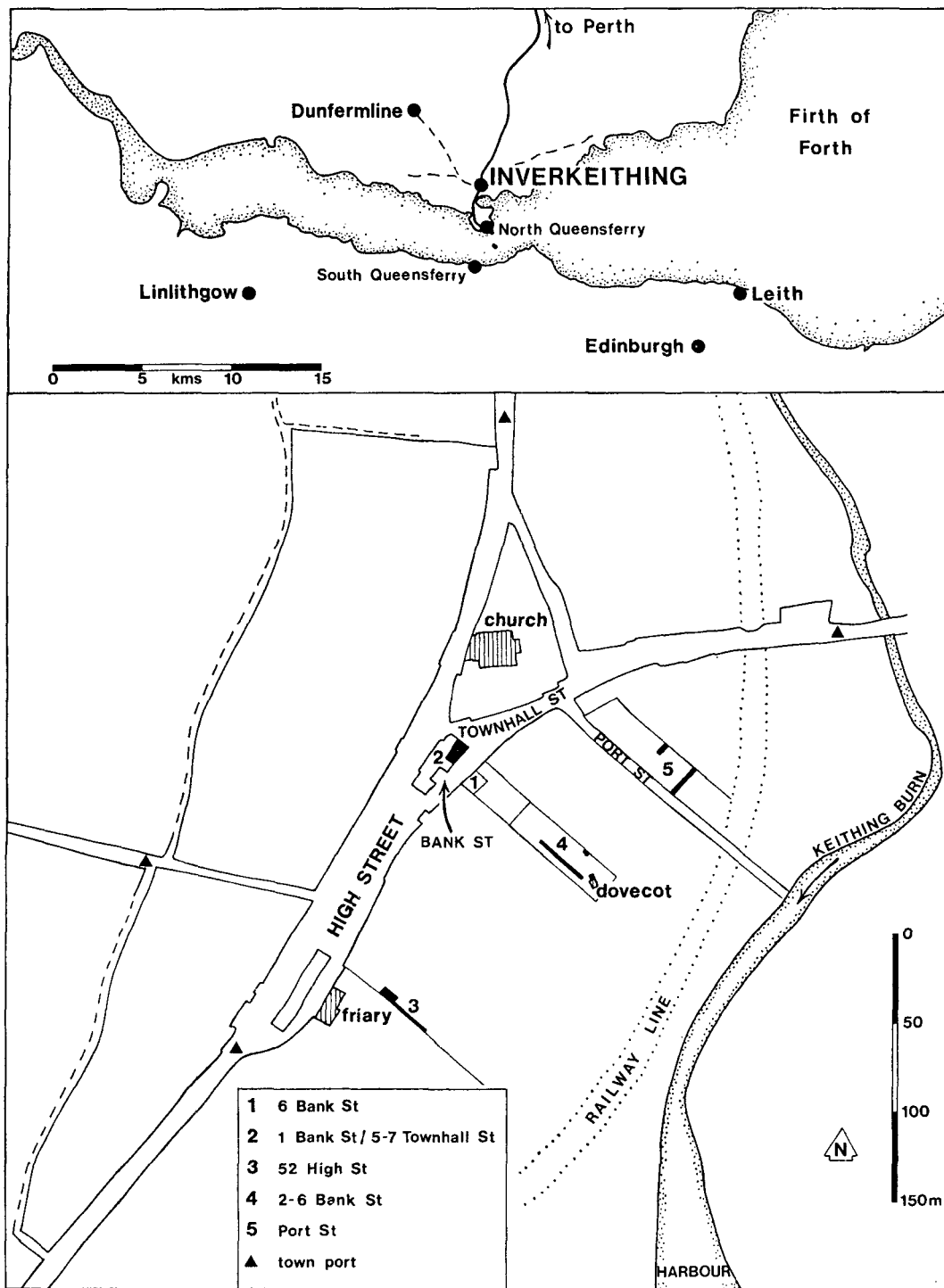


FIG 1 Plan of Inverkeithing showing location of excavation trenches

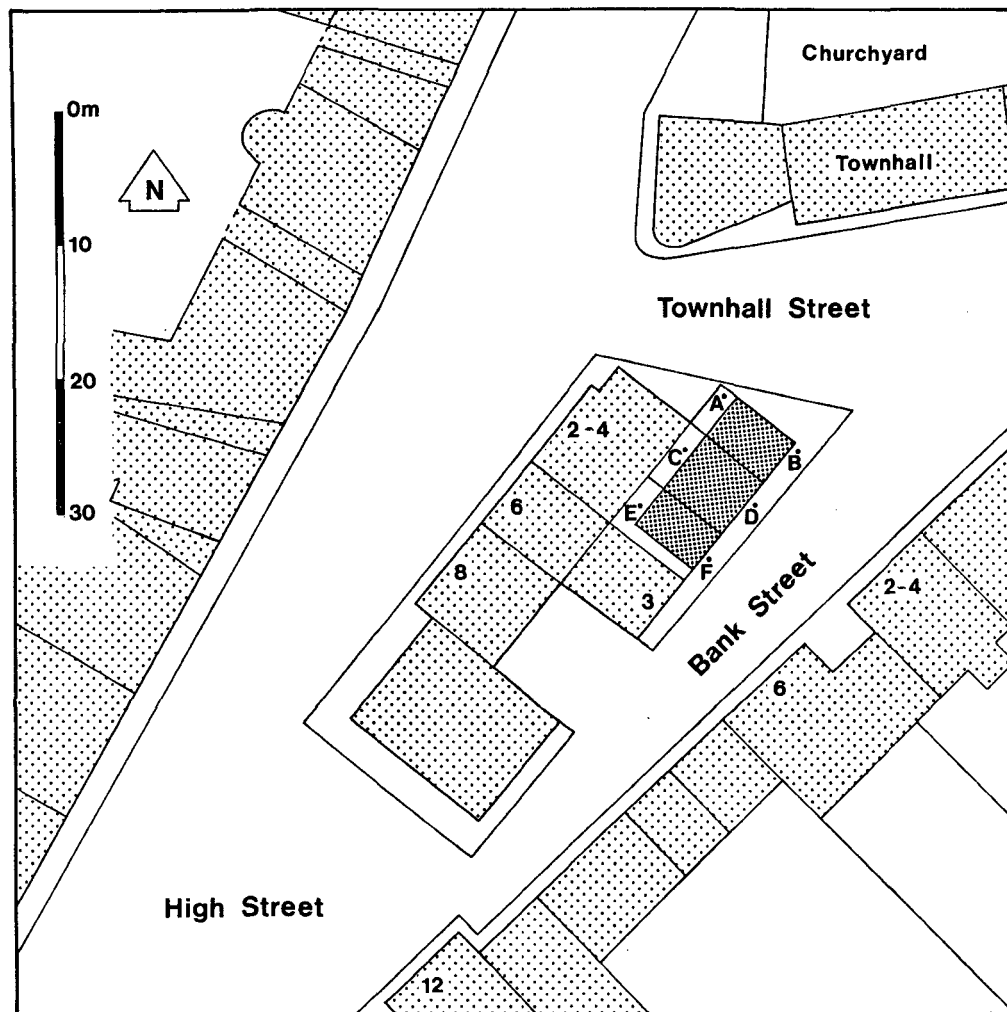


FIG 2 Street and house plan of E end of the High Street

century-date that faced to the SE. These had been subject to very little weathering, such that it seemed likely that they had been obscured by the building of a structure on 1 Bank Street. This is discussed further below.

The excavation was divided into three distinct areas, numbered here from the SW and defined by the walls of the previous building on 1 Bank Street. While these areas were discrete, as illustrated in fig 2, it has been possible to link deposits between the different areas by means of their similarity. For the purpose of this report the original contexts have been renumbered and reordered to make the stratigraphic description easier to follow.

The subsoil was a yellow clayish silt (as encountered on 6 Bank Street) and this had formed from the decay of the underlying basalt, some of which outcropped at the N and W of the site. The ground level sloped gently downwards from the NW and at the S end of the site there was a strong flow of water through the natural silts. All the gravel and sand deposits had been subject to a degree of iron panning. This was particularly prominent directly above the subsoil where cobbled areas 20-21 and 22 were firmly set by iron panning. No finds earlier than the 13th century were found on area 1.

On area 2 (fig 4) the earliest material, layer 10, was a 50 mm thick patch of compressed brown silt

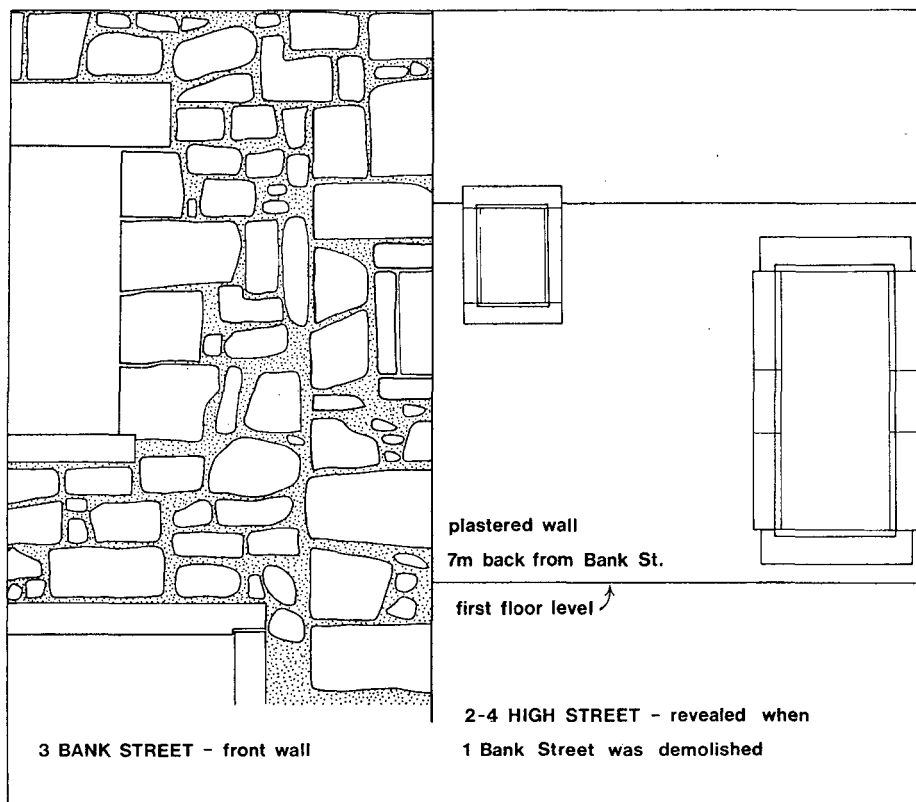


FIG 3 Earlier buildings revealed after the demolition of 1 Bank Street

which was sealed by a deposit of small angular basalt stones. The finds included pottery and roof tiles similar to the material found in cobble layer 21 above. It is possible that this material, in layer 10, was impressed from layer 21. Three possible postholes, 11, were found at the same level. None was more than 0.3 m in diameter by 0.1 m in depth and they were filled with a loose grey silty clay. One of them was cut into silt layer 10. A large depression, 12, 2 m long by 1.5 m wide by 0.2 m deep lay in the centre of this area. It appeared too regular to be a natural feature. At the NE of area 2 a squared pit, 13, had been largely cut away by later wall foundations. The pit was probably wattle-lined and had been filled with dark grey silt and pieces of burnt daub and charcoal. Though the pottery from the pit was similar to material from later layers, such as context 28, the pit was clearly sealed by layer 25 (fig 9), and must therefore be earlier than the surviving cobbles. The pit cut a possible gully, 14, that was filled with grey silty clay.

On area 3 three gullies, 15, 16 and 17, were recovered, cut into the natural subsoil (fig 4). Fifteen and 16 ran almost due S while 17 lay almost at right angles to 16. There was some evidence to show that 16 was cut later than the other two as it cut 17, while 15 appeared to respect 17, being butt ended. Fifteen may have extended into area 2 and the remains of a similar feature, 14, severely truncated by later foundation trenches and pit 13, lay directly S of 15. However, the fill of 14 was a dark grey silt, significantly different from the fill of the other three features which consisted of silt sealed by compacted grey-brown clay with pieces of preserved wood and leather. A few sherds of pottery, apparently dating to the 13th century or earlier, were found in the fill of gullies 15 and 16, but were not sufficient to date these features. To the E of gully 16 a possible posthole, 18, and a certain posthole, 19, were found. Eighteen was filled with grey silty clay and had no evidence for a post pipe or post packing, whereas 19 contained a post pipe 0.2 m square by 0.3 m deep set in a posthole 0.5 m by 0.2 m whose post had been supported by basalt lumps.

Over all three areas a deposit of cobble stones, 20, 21 and 22, was laid (fig 5). Very little of cobbling

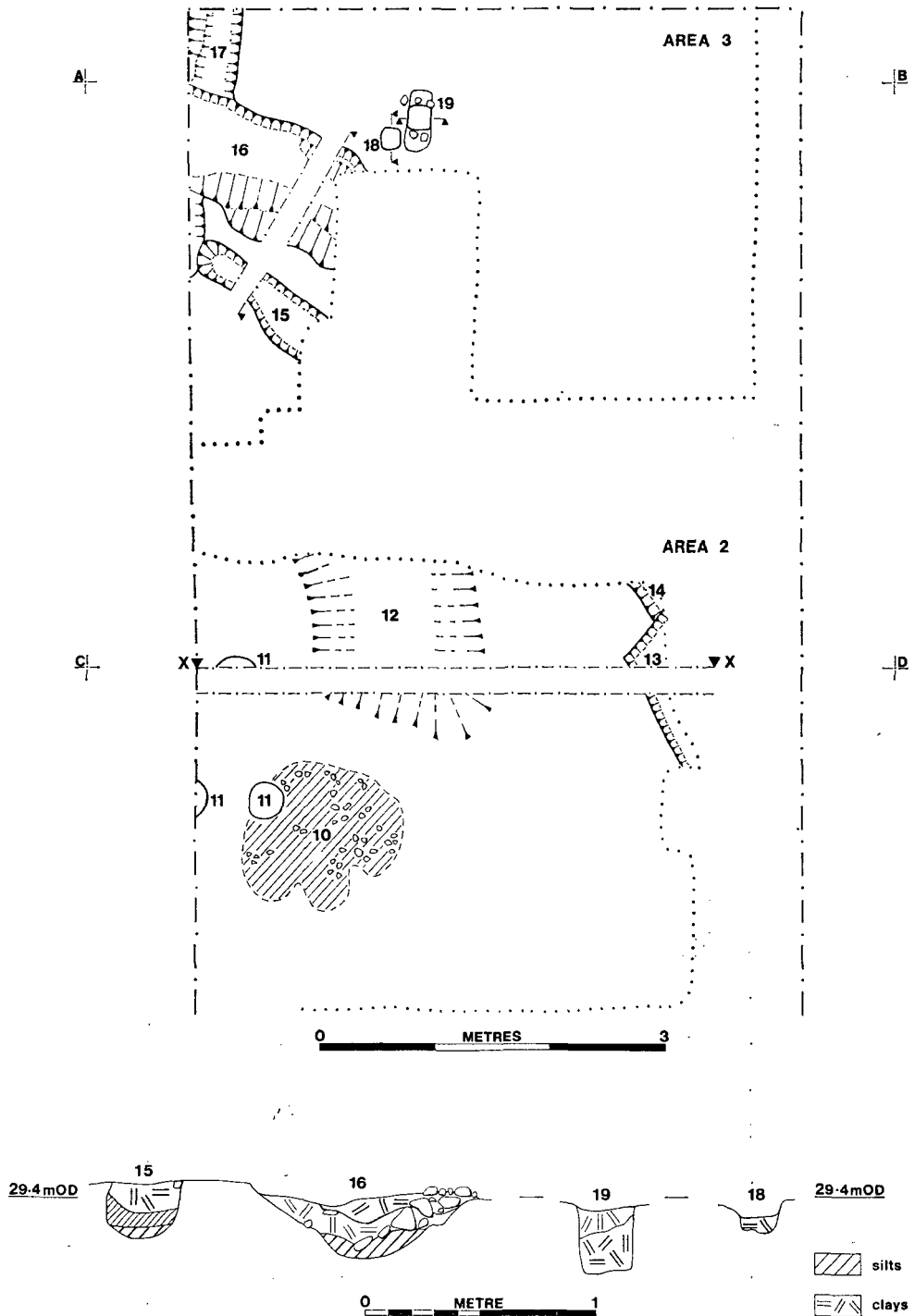


FIG 4 Plan and section of earliest features recovered at 1 Bank Street/5-7 Townhall Street

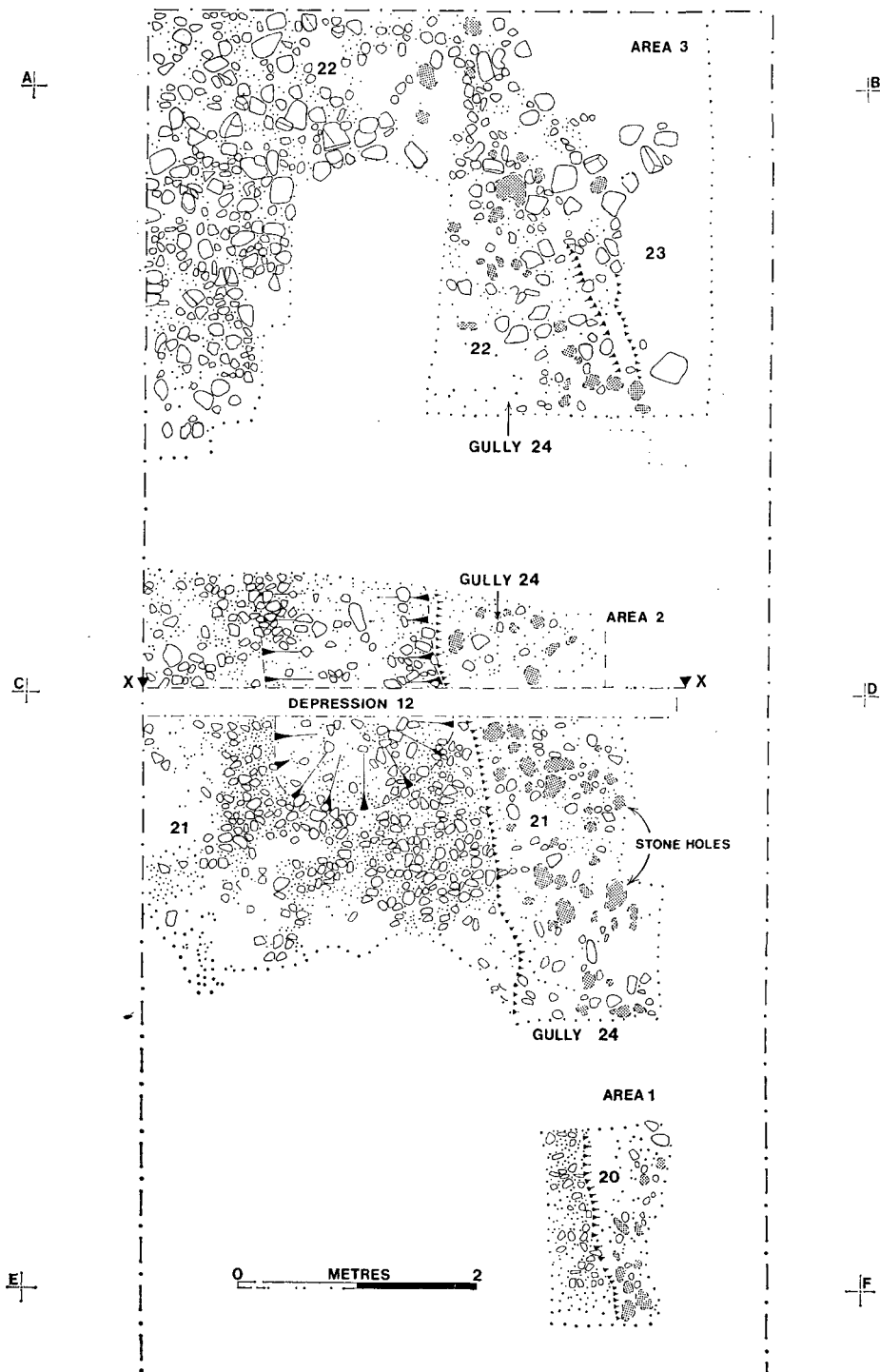


FIG 5 Plan of first cobbling phase with gully worn on the S side

20 on area 1 survived and it was broadly similar to layer 21 on area 2. This consisted of rounded stones of basalt and sandstone of an average diameter of 50–100 mm and it also included fragments of fired clay roofing tile, bone and pottery, possibly dated by 'Scarborough' type wares to the 13th–14th centuries. The stones were set directly onto the subsoil without bedding material, apart from the deposits already mentioned. The stones were firmly impressed into the subsoil and distinct holes were left where they had been dislodged.

On the E side of area 3 the cobbling died out and a less compacted grey silt, 23, was found. The division between 23 and cobbling 22 would have been imprecise except that a broad gully, 24, had been worn in the cobbling to form a distinct edge between this and silt 23, 24 was irregular in shape, averaging 2 m in width by 0.1 m in depth. The degree of wear had been quite severe as several stones had been dislodged completely while others were set on edge in a disturbed deposit of clay-silt derived from the subsoil. The gully ran N-S and extended into areas 1 and 2, though its full width was only evident in area 3. On area 2 there had also been some wear in the centre where a depression, 12, had been noted earlier. From the position of the stones surviving on the surface of this depression it would seem that the hollow was not filled in and that considerable wear had taken place.

Above these features extensive patching took place. This was primarily in the form of a yellow gritty shell sand which contained quantities of stone, bone, pottery and crushed oyster shell. Though distinct deposits were discovered it was difficult to decide whether these were discrete surfaces or transient patches in a fairly rapid accumulation. From the evidence of pits being cut and infilled, thus demonstrating a period of use in areas 1 and 2, and more certain cobbled surfaces in area 3, it is more likely that the former description holds true. In area 3 the earliest patch was a 1 m diameter deposit of crushed sandstone that lay in the extreme N. It was succeeded by a crushed oyster shell and gritty sand deposit which contained bones, pottery and some stones, up to 80 mm thick. This sand lay mostly in the E of the area, filling gully 24. At the NW a deposit of large stones forming a distinct cobbled surface, averaging 100 mm in diameter, was laid down. This deposit was itself partially sealed by a further deposit of shell and gritty sand which lay under the next surviving road surface, 42. This shell and gritty sand may have been bedding material for this surface, though this is not certain. It was dated by a billon penny to the 15th century, possibly the middle of that century.

In area 3 the cobbling and patching layers above gully 24 were not directly comparable with those found further to the S in areas 1 and 2, except in the use of gritty shell sand as bedding and patching material. Because there were as many as four layers all containing various quantities of stone, compressed into 0.15 m in thickness, the sections in this area are not informative and have therefore not been reproduced.

In area 2 a similar accumulation of crushed shell, stone and sand was recovered (fig 9). The earliest layer containing this material, 25, sealed gully 24. Above this was a similar layer, 26, 0.1 m thick that extended over the depression, 12, in the centre to the NW of the area. Over 26 and densest in the area of the depression, was a layer, 27, of grey clay 0.1 m thick. Though this was clearly a patching layer, no trample on the surface was evident. At the NW this clay was sealed by 28, a deposit of grey-brown almost greenish clay-silt which contained large quantities of burnt clay, coal, charcoal and pottery, especially on the surface of this layer. A possible hearth lay immediately to the W of area 2 (not illustrated) as a patch of intense burning was recorded here at the end of the excavation.

Above burning layer 28 was a further deposit of shell sand which was in turn sealed by a loose deposit of oyster shells, 29, in a grey clay-silt matrix that lay below the upper layer of cobbling, 30. From the evidence of the oyster shells it would appear that there was no proper bedding material for cobbling 30 and by association that the uppermost patch in area 3, which was probably dated to c 1450, was also not a bedding material.

On area 1 little of the road patching sequence was observed. Over cobbles 20 and the S extension of gully 24 a shelly sand and stone deposit, 31, was found that was identical to layer 25 and the secondary patching found in area 3. Above layer 31 was the next road level, 32, equivalent to layers 42 and 30 (fig 9). This simple sequence was made more complex by the digging of a series of pits. The earliest of these, 33, (fig 6) was cut into the subsoil and its relationship with the cobbles that lay to the N was not certain. It was filled with a compact brown clay, 34, that may have extended further as a similar clay was noted filling feature 35 (fig 6), though the relationship was destroyed by a later pit, 38. On the E side of 33 a second pit, 36, was cut that penetrated the water table and because of this could not be fully excavated. Thirty-six was also cut by a later wall trench. The fill of 36, layer 37, consisted of a mixture of clay-sand and a brown clay rather similar, though looser textured than layer 34.

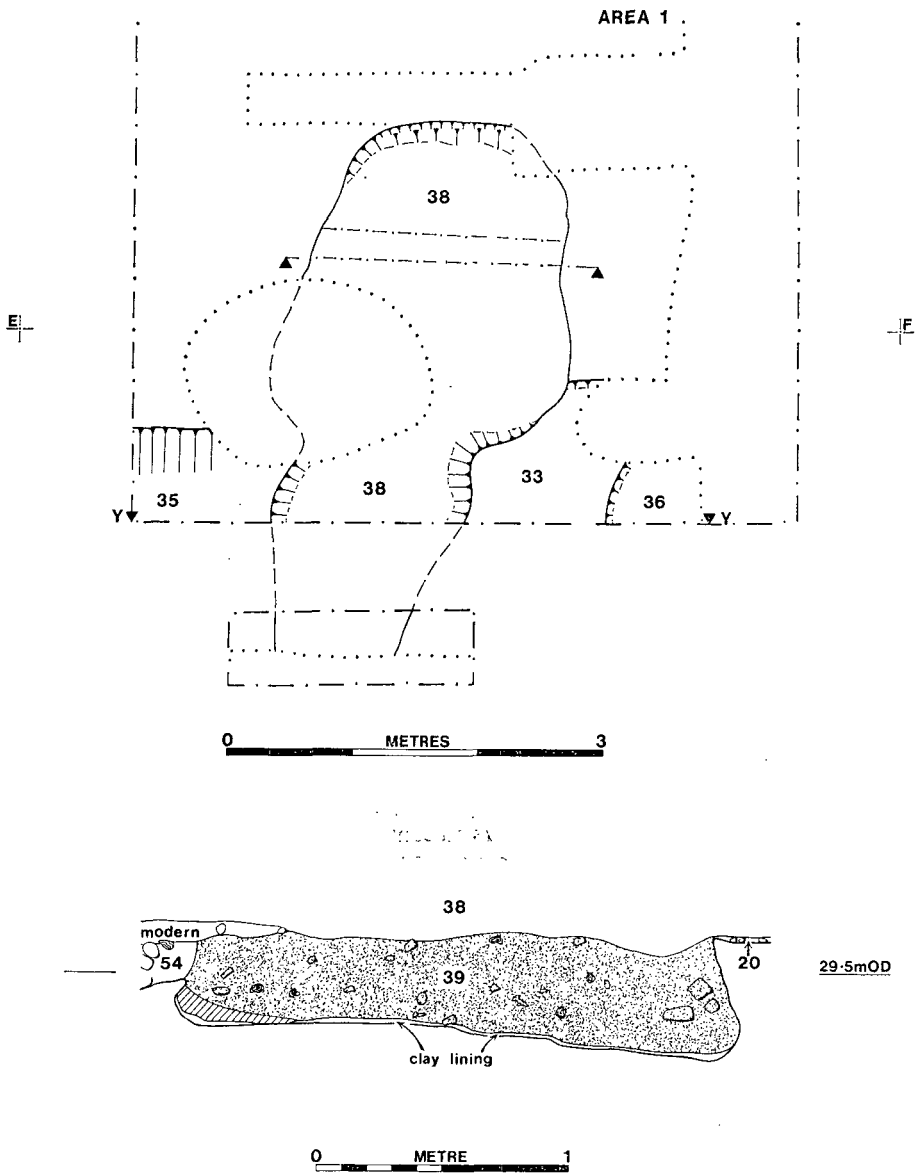


FIG 6 Plan and section of pit 38

On the W a third pit, 38, was cut in to a depth of 0.8 m. It was 2 m wide and extended south-westwards out of the area, further excavation to the W showing it to have been at least 4 m long. It was under cut to produce a concave dome whose apex would have been 2 m above the level of cobbling 20. The domed shape may have been exaggerated slightly on the W by compaction of the basic fill, 39. This is unlikely to have been a severe distortion of the original cut, as the natural subsoil to the E, into which it was also cut, maintained a similar profile. Since the subsoil was a much more rigid material than clay 34 it is unlikely to have altered its shape significantly. The base of the pit was lined with clay, though this had been disturbed in the centre where a later pit, 46, had been cut in and this allowed the underlying water to seep upwards. There was no evidence to show that the clay had originally extended up the sides of the pit,

though it may have done so. The fill, 39, of the pit was a compact deposit of burnt daub and pink silt probably derived from other pieces of burnt daub. Within this layer were pieces of flat carbonized wood, many iron nails including clench bolts, a few fragments of ribbed vessel glass and fragments of a jug that looked very similar to material from layer 28. As there was no evidence of burning on the sides and base of this pit, it is unlikely, though not impossible, that this burnt daub had any connection with its function.

Above daub 39 there was a small patch of shelly sand intermixed with burnt daub that was sealed by a group of loose set cobbles, 40, (not illustrated) with a diameter of 80–100 mm. This patch was only found in a small area at the W and could not be directly related to the other cobbling layers. The cobbles may have formed part of the upper cobbling layer, 32, but it is more likely that they were part of a patching between the two main cobbling layers. This would make them similar to layer 31 and layer 41 (not illustrated), a deposit of cobbles and silt with shelly sand that formed over layer 34 and the fill of 36. Forty-one was clearly sealed by cobble layer 32 and the shelly sand would suggest that 41 belongs to the intermediate patching period rather than a surface predating cobbling 20. This would suggest that pits 33 and 36 were dug after the deposition of 20 as no cobbling corresponding to layer 20 was found under layer 41.

The upper cobbling, 32, consisted of a variety of compacted stones, both angular and rounded, including sandstone and basalt (figs 7 & 9). The average size of 50–70 mm in diameter was smaller than the earlier surfaces uncovered, except for the identical layer, 30, on area 2. The apparently contemporary surface on area 3, layer 42, consisted of rather larger cobble stones, though equally well compacted. None of the surfaces showed signs of wear. The deposits lying above layers 30 and 32 (and not distinguished from these layers on fig 9) were compacted grey ashy silts. Forty-two was covered by a series of compacted organic trample layers up to 60 mm thick. A further two road deposits were noted on area 3, the first consisting of crushed sandstone chips compressed with brown silt into a compact surface while the second was a layer of decomposed or decomposing basalt which was also quite compacted. These two deposits were not very extensive as the appropriate levels had elsewhere been removed and only a few sherds of pottery were found, all apparently of a medieval date.

This sequence was not observed in areas 1 and 2 where the ashy layers were directly sealed by layers related to the next phase of activity which was the construction of a stone building (fig 8). The foundations for this were deeply set and there appears to have been a deliberate effort to set the building down onto the basalt underlying the subsoil as the foundation trenches were deeper on the E where the basalt lay further from the surface. The walls consisted of shell-mortar-bonded blocks of basalt, though some of the upper blocks contained a harder white mortar more consistent with lime mortar. The basalt was not shaped, remaining angular, though the faces had been roughly dressed to provide a flat surface. Within the foundation trench was a quantity of redeposited medieval pottery as well as bone and oyster shell and it would seem that the material excavated from the foundation trenches was also used to fill them. The building was 8.9 m long by 5.8 m wide with a central division which may not have extended fully across the building as the W end did not survive. The foundation fill was sealed by a layer of yellow sand, 43, which was in turn sealed by a deposit of mortar, 44, that only survived at the NE of the building and contained reduced greyware pottery of a 16th–17th century date. Included with the wall construction were two stone pads, 45 in area 1 and 46 in area 2. They both consisted of substantial stone blocks, the one in area 1 being 0.4 m thick by 0.8 m wide by 0.4 m long and both were associated with burning levels 47 and 48 above the sand which lay to the S of these blocks.

Inside the building in area 1 a series of pits had been dug (fig 8). There were no direct relationships between the pits and the sand deposits above the wall foundations and so it is not certain whether the pits were dug before or after the building was constructed. The pottery finds are more indicative of the 17th than the 16th century, though they are derived from abandonment levels. It would seem likely from the pottery that the pits are indeed later than the construction of the building and therefore that they functioned within it. Because it was not desirable or feasible to excavate next to the standing walls it was not possible to test this hypothesis by establishing that the pits were cut by the walls.

The largest pit, 49, was cut down to the bedrock, cutting through daub silt fill 39 of pit 38. The pit was roughly rectangular, 2 m by 1.5 m by 0.6 m deep with rounded corners, which may have originally been squared as the original fill and lining had been removed. It was associated with a shallower pit, 50, 1.4 m by 1.2 m by 0.4 m deep that lay to the N, a gully, 51, that ran in from the W and a third pit, 52, at least 0.3 m deep that was only partly revealed as it disappeared off to the SW. A further examination of the site in November 1981 revealed a fourth pit, 53, further to the W. All these pits were filled by a brown very sticky clay, 54, with varying quantities of bone, pottery, stone and oyster shell, the pottery including a high proportion of residual medieval material. Though the clay was impervious there was no evidence that it

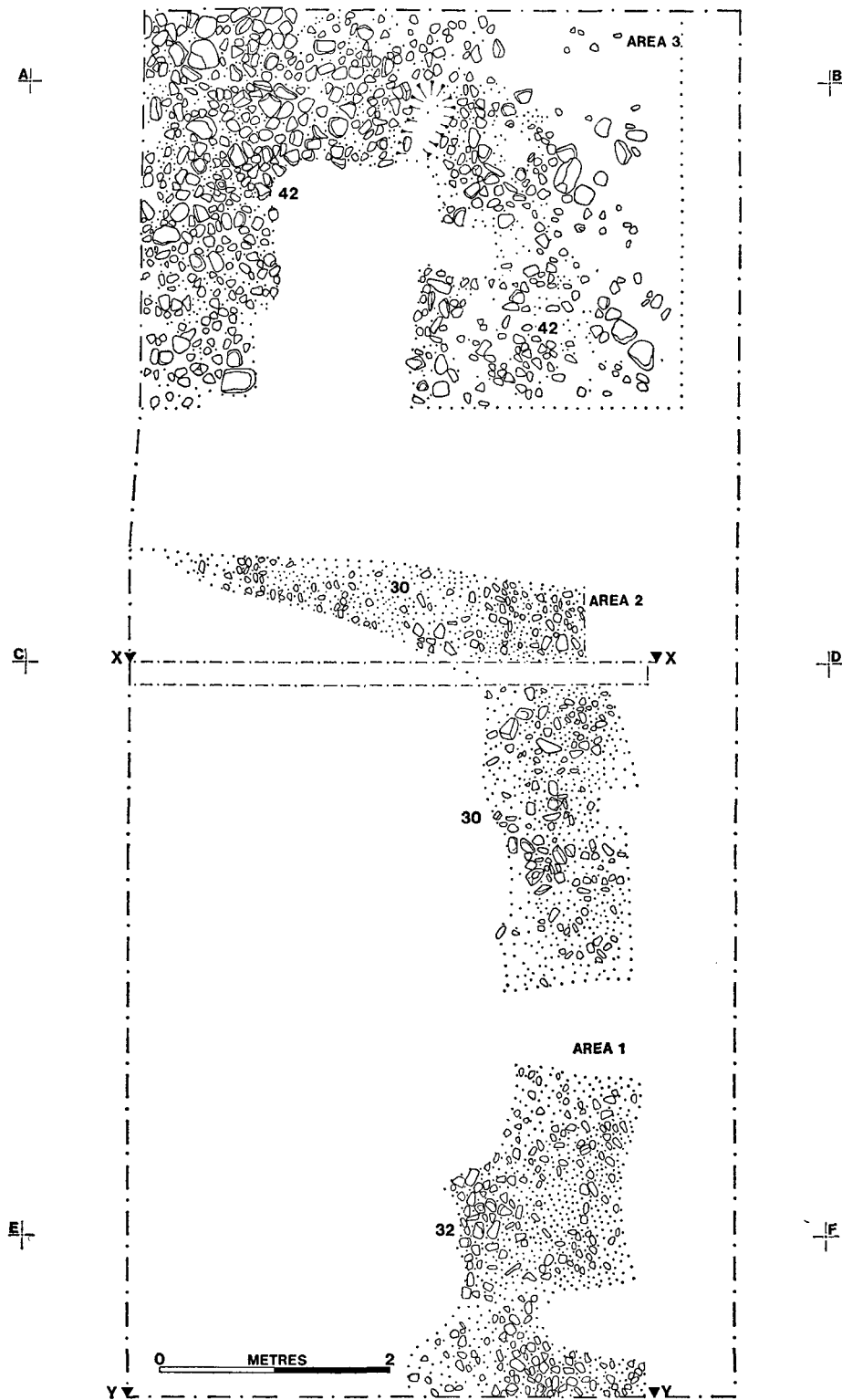


FIG 7 Plan of second major cobbling phase

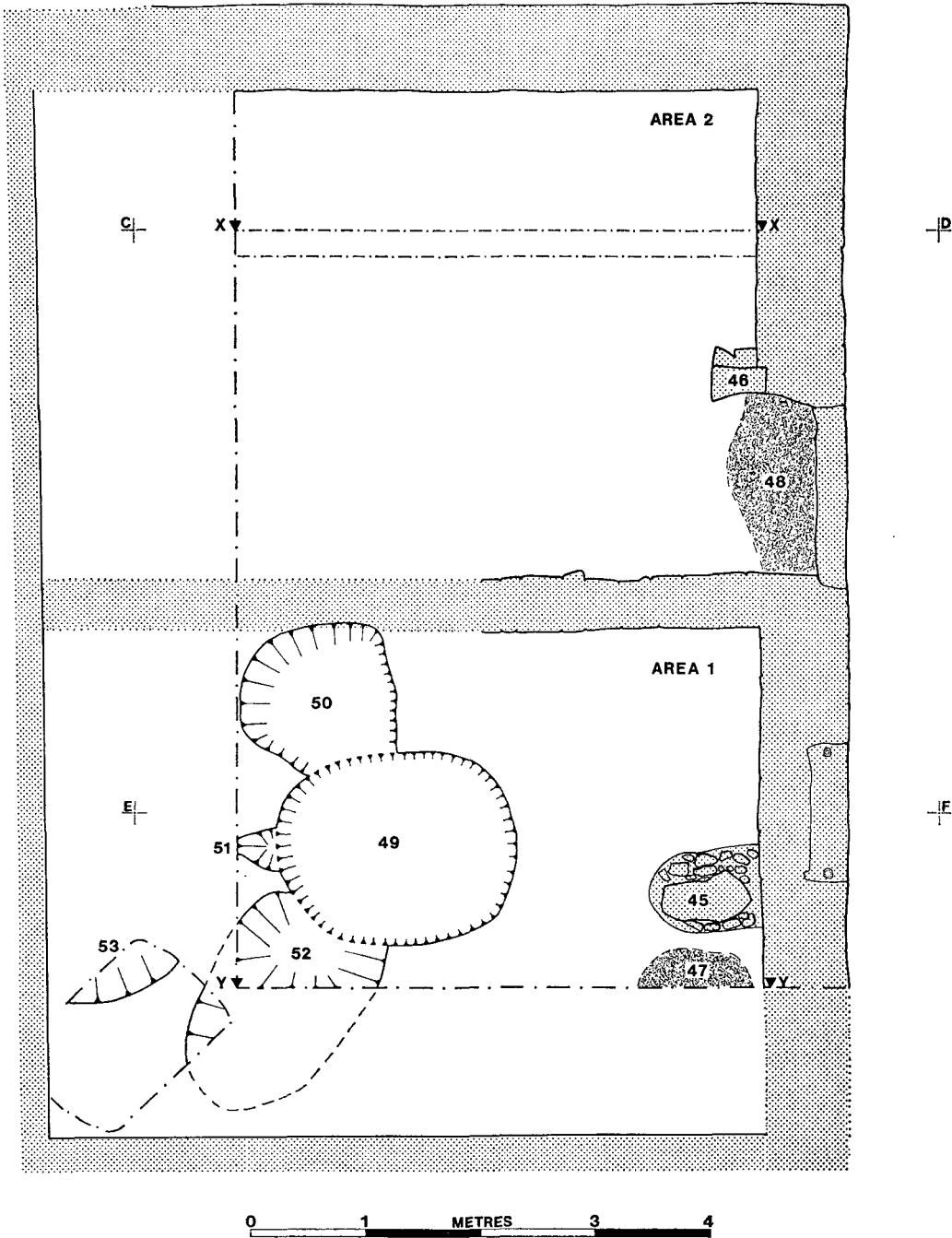


FIG 8 Plan of post-medieval pits and building

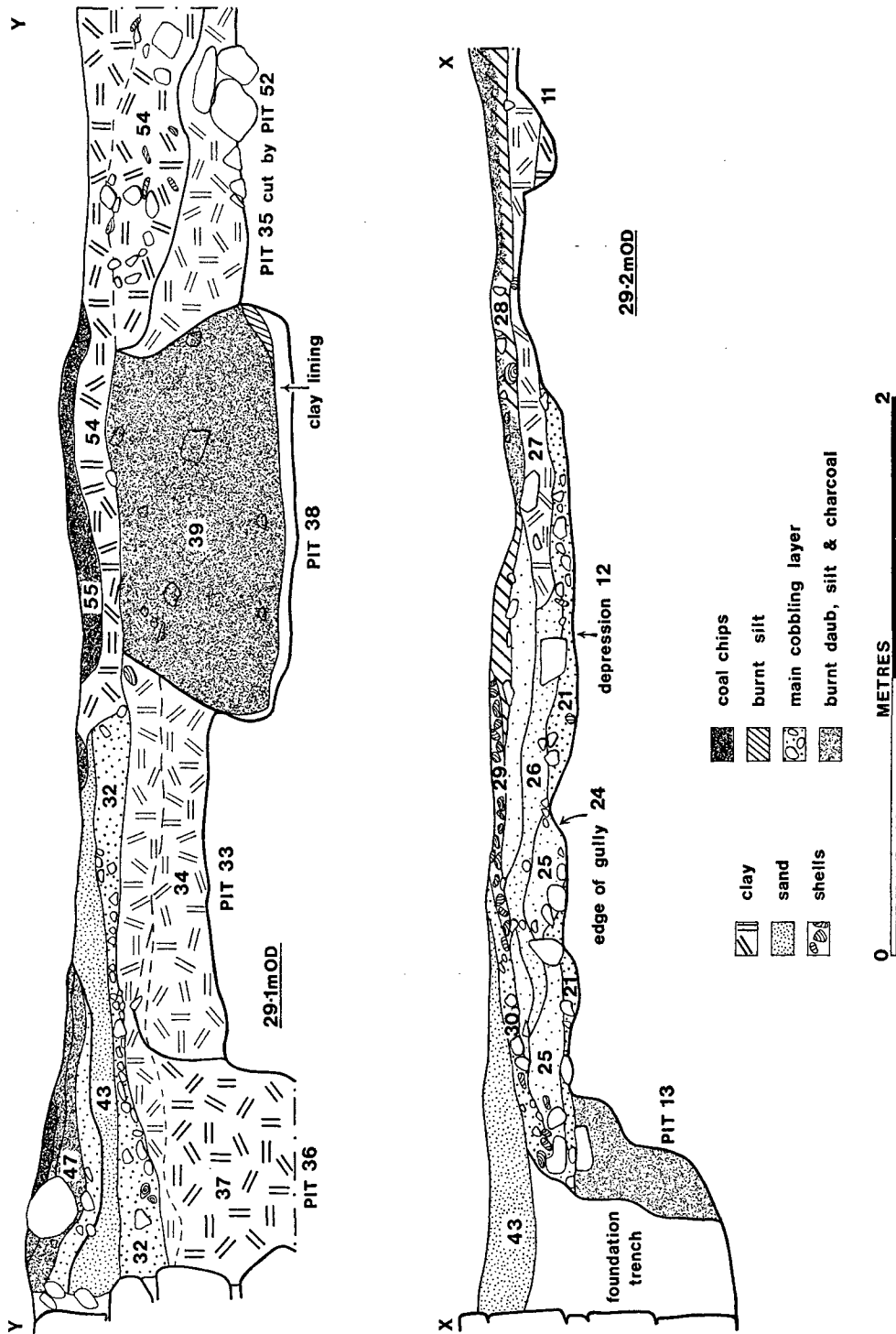


FIG 9 W section of areas 1 and 2 respectively

had formed a lining to any of the features and the brown colour of the clay and the quantity of animal material suggested that this layer had originally been highly organic.

Apart from a small scatter of coal chips, layer 55, this was the last level excavated on area 1 below the modern rubble. On area 2 no levels were found, apart from the sand and mortar already mentioned, that dated to the period after the building was constructed. On area 3 further levels were noted above the probably medieval stone spreads. All of these contained 18th-century or later porcelain pottery and no late 16th- or 17th-century levels appear to have survived. Some stone cladding was noted on the N wall of the main structure. This may represent a refacing of this building, but it is more likely to represent the side of a drain feature running along the edge of the building. The cladding was sealed by the walls constructed for the building that previously stood on 5-7 Townhall Street and that used the N wall of 1 Bank Street as its S wall. From its position in the stratigraphy this building must have been built in the late 19th or 20th century. The latest feature found was a small brick cellar built about 1970 that, on information from Mr Divitto, was used for storing ice.

Interpretation of 1 Bank Street/5-7 Townhall Street

One of the most interesting discoveries was the lack of clearly identifiable 12th- or even 13th-century levels. It is very unlikely that this site lay outside the nucleus of the original town as it lay less than 50 m from the church, near the junction of the road from the harbour and the main highway from North Queensferry. The gullies and postholes on area 3 were the earliest features found, and are not consistent with a road or market place, the gullies being more readily explained as slots for timber walls. There were of course no floor deposits to substantiate this explanation and so this cannot be confirmed. The depth of the gullies and the angle at which they are running make it unlikely that they were caused by wheeled traffic such as carts.

The lack of earlier deposits underneath the first road surface would suggest that any earlier material had eroded away or had been deliberately removed. It is unlikely that there would be cause to remove these deposits as the site is naturally lower than the High Street. The survival of part of the first cobbling which was set directly onto the natural subsoil and cannot be dated earlier than the late 13th century makes it unlikely that this area had been paved at an earlier period. This survival of the cobbled surface is despite heavy traffic which led to the E side of the cobbling being worn down. The destruction shows that heavy loads were being carried along this street but there was no evidence of cart ruts and the displacement must have been caused by heavily laden horses such as pack-horses or by sleds dragged by horse and mule power. The route of the erosion is interesting as it means that Bank Street did not exist at this period and that Townhall Street was narrower as there was no indication of traffic turning down to it from the site (see figs 2, 5, 12).

The cause of the depression in the centre of area 2 is not clear and it would seem that it was a depression before the construction of the first road and was an area of erosion afterwards. The history of the area after the laying of the first road surface is complex as it was used for a variety of activities not connected with the use of the street. While the phasing is unclear it is evident that the digging of pits and the burning of fires went on regardless of the use of the area as a street. All of these activities are consistent with the use of the area as a market place. The functions of pits 13 and 38 are not clear and the simplest explanation is that they were containers for goods sold at the market, with pit 38 in particular being designed to keep material cool. The burnt daub and clenched nails found in 38 are probably irrelevant to its function. The purposes of pits 33 and 36, the former of which pit 38 was cut into, are less certain. They cannot be satisfactorily explained without further work to the S of this site.

From the evidence of the coin found below the upper cobbling this phase of activity lasted for at least 100 years and possibly as long as 200 years. It was not until the end of this period that a complete resurfacing took place. A variety of patches primarily composed of shelly sand with stones was used to form some sort of repair, but this did not form a compact surface likely to resist wear. The situation was better at the N where stone surfaces were maintained with some consistency. This failure to produce an adequate surface suggests that either there was less traffic in this area or that the postulated resurfacings were disturbed so completely that they did not survive. As distinct horizons did occur between the patches as well as pits in areas 1 and 2 it would seem that the flow of traffic was no longer so heavy in this area. Why this should be remains uncertain, for it does not seem that a new street, on the line of Bank Street, had yet been created as there was no good evidence for a paved surface to the E.

The origin of the road material is uncertain as it consisted of a variety of basalt, sandstone and other,

mostly angular pieces. The source of the patching material, consisting of a crushed oyster shell matrix, is also uncertain, as it is unlikely to have been a marine deposit. The pottery within it was abraded rather than completely rounded, the latter being what would be expected if the sherds had been exposed to water action.

The second major cobbling layer had been subject to very little wear and it may be that little time elapsed between its deposition and the construction of 1 Bank Street. Alternatively the cobbling may not have been part of a roadway, being instead part of a courtyard for the property to the N. Such an interpretation may explain why the cobbling appeared to differ between areas 1–2 and area 3. This was the explanation put forward by Archer and Gair for an area of cobbling without camber or wear that was found in medieval levels between Broomgate and Castlegate in Lanark (*Discovery Excav Scot 1977*, 21). As this too seems to be part of an infilled market the explanation that the cobbling was a courtyard area is a little weak. It may be that traffic was restricted from this area, but it seems unlikely that a courtyard was created before the market was infilled. The creation of an enclosure may have been the first stage of this. It seems likely that it was at this period that Bank Street was created as there would be little need for it before the island development formed at this end of the High Street. As fig 3 shows, it is likely that 2–4 High Street was built before 1 Bank Street as it has windows of a 17th-century form facing E and it would seem that this building was constructed first. The recent removal of this E wall belonging to 2–4 High Street revealed that the wall dividing 1 and 3 Bank Street was abutted against this E wall and that the E line between properties facing High Street and those facing Bank Street continued through 3 Bank Street. This would make it likely that the Bank Street side of the island development is a later accretion.

It is unfortunate that the only dating evidence for the construction of 1 Bank Street is a few sherds of green glazed reduced pottery that can be dated no more accurately than the late 16th to the early 18th centuries. Because of the lintel dated 1599 (pl 33) it is tempting to choose the earlier date and see the recently demolished building as a later reconstruction on the same site. The recent building, from photographic evidence, was clearly 18th or early 19th century in date and the lintel found in this building was most likely to be derived from an earlier building on the same site. There was also some evidence that the lowest courses of the walls were bonded in a soft yellow mortar derived from oyster shell whereas the upper levels were bonded in a harder white mortar more probably derived from the calcination of limestone. However, it is unlikely that the building at 2–4 High Street was constructed after a building on Bank Street and the lintel dated 1599 may have been acquired from elsewhere. This would mean that the possible industrial features, pits 49, 50, 52, 53, lay outside a structure, unless they were enclosed within a single storey structure. Since the space available was being used so intensively it is unlikely that this area remained a market area and instead had already been enclosed. What process was being carried out in the pits is uncertain as the linings and original fill have been removed, but as they occupied a central position in the town it is unlikely that an odorous trade such as tanning or dyeing was being followed. These features may mark an encroachment onto Bank Street that was subsequently ratified by the construction of 1 Bank Street.

For 5–7 Townhall Street it was not until the late 19th-early 20th century that the area was built up and until this time the road or market had continued in use with sporadic replacement.

52 HIGH STREET (fig 2)

This site was the only part of the proposed development by Dunfermline District Council which extended to the street front. It was not possible to excavate the frontage itself as this is presently used as an access by the owner of 48 High Street. It was decided that if the site was productive, it might be possible to excavate on the street frontage at a later date. The adjoining property to the SW was the site of the Franciscan friary, the W range of which still survives on the street front. Further to the SE on this former monastic property are extensive remains of cellars up to 65 m from the street front. It was hoped that though the frontage of 52 High Street could not be excavated, there might be remains of other buildings surviving further back.

Initial cleaning was done by machine to reveal a series of rubble tips and garden soil. At the NW end of the trench bedrock lay directly under a modern cobble surface but from this point it sloped downwards in a SE direction. Excavation to a distance of 40 m from the street front revealed a series of layers which contained stone rubble and mortar to a maximum thickness of 0.5 m. After the removal of 19th- and 20th-century material connected with a demolished building and an adjoining coal cellar, the rubble was discovered to contain mostly 18th-century material with some residual medieval and 17th-century finds. A stone revetting wall was found running across the site and this may be connected with some

gardening activity. Apart from this no structure was found within the rubble, though this may be due to the size of the trench excavated. It is possible, though it could not be proved, that the lower levels of the rubble dated to the 17th century.

To the SE a series of cultivation furrows ran across the slope beneath a 0.8 m accumulation of topsoil. The furrows were found to contain 17th-century pottery. Similar material came from a large pit over 40 m from the street frontage, which was 1 m deep and filled with stones c 0.2 m in diameter. It was interpreted as a soakaway. The cultivation furrows sealed a pit which was filled with large amounts of fractured animal bones and sea shells, presumably food rubbish. This pit, 1.5 m wide by 1 m deep, had been subject to intense heat so that the sides had been reddened and the base blackened. Too little of the pit was excavated for its function to be defined and no dating evidence was found. It was cut into a 0.5 m accumulation of tilled soils containing medieval pottery. These tilled soils extended NW across the whole site. There were divisions within this material, but it was not possible to separate these in the time available.

2-4-8 BANK STREET (fig 2)

In common with most of the backland areas acquired by the local council, this area was stripped of its topsoil in the early 1970s. Two trenches were dug by machine and one by hand to reveal the extent of any remaining deposits.

Trench I was cut parallel to the hill slope, revealing the total removal of the soil in this garden and showing the natural slope of the bedrock. Trench II was cut adjacent to a dovecot of an unknown date in the hope of dating its construction from associated finds. The foundations of the dovecot were only 0.3 m below the ground, lying without support on a sandy silt 0.25 m deep containing medieval pottery. Though no foundation trench was recovered, there was a group of glass bottle fragments with mortar adhering found adjacent to the tower which appear to be of an 18th-century date. Trench III was cut next to the boundary wall between this and the adjoining property to the NE. The wall was found to be built in two phases. There was no foundation trench seen for either phase, though both were cut into a sandy silt containing medieval pottery.

PORT STREET (fig 2)

This street was the main route to the harbour in the 17th and 18th centuries and may have existed at an earlier date. Though bedrock was showing on the frontage of the street it was hoped that enough deposits would survive further to the NE, showing properties and their boundaries to indicate when Port Street was set out. Two trenches were dug, first by machine and then by hand, to reveal a maximum soil depth of 2 m adjacent to the boundary wall between these properties and that of Roseberry House to the NE. No boundary divisions were noted save for the wall of stone and mortar recorded above. This was found to rest in a foundation trench c 1 m deep and to lie over an accumulation of tilled soil 0.4-0.6 m deep. The fill of the foundation trench contained mortar flecks and medieval pottery. It is likely that this pottery was residual as similar pottery was found below the foundation cut and down to the bedrock. The soil in both trenches was a uniform grey-brown fine silt which gradually became more yellow-brown as it approached the natural bedrock. Because of extensive worm and root action it was impossible to define any features save for two pits and the functions of these could not be inferred. Though the silts were excavated in spitted layers approximately 100 mm thick, it is unlikely that any reliance can be placed on the vertical relationship between the various pieces of pottery found, as the heavy worm and root action is likely to have shifted all the pieces out of context.

THE POTTERY (fig 10)

Norman MacAskill

1 BANK STREET/5-7 TOWNHALL STREET

Of the 1724 sherds recovered from this site, nearly 90% (1513 sherds) are in what appear to be variations of one basic fabric type. This is a gritty ware varying in colour from white through brown to grey-brown. Other types represented include Scottish medieval and post-medieval sandy wares, Scarborough ware, German stonewares and possible French and Dutch wares. The gritty ware sherds, which have been illustrated, are largely from pit groups as these contained the least abraded examples of the

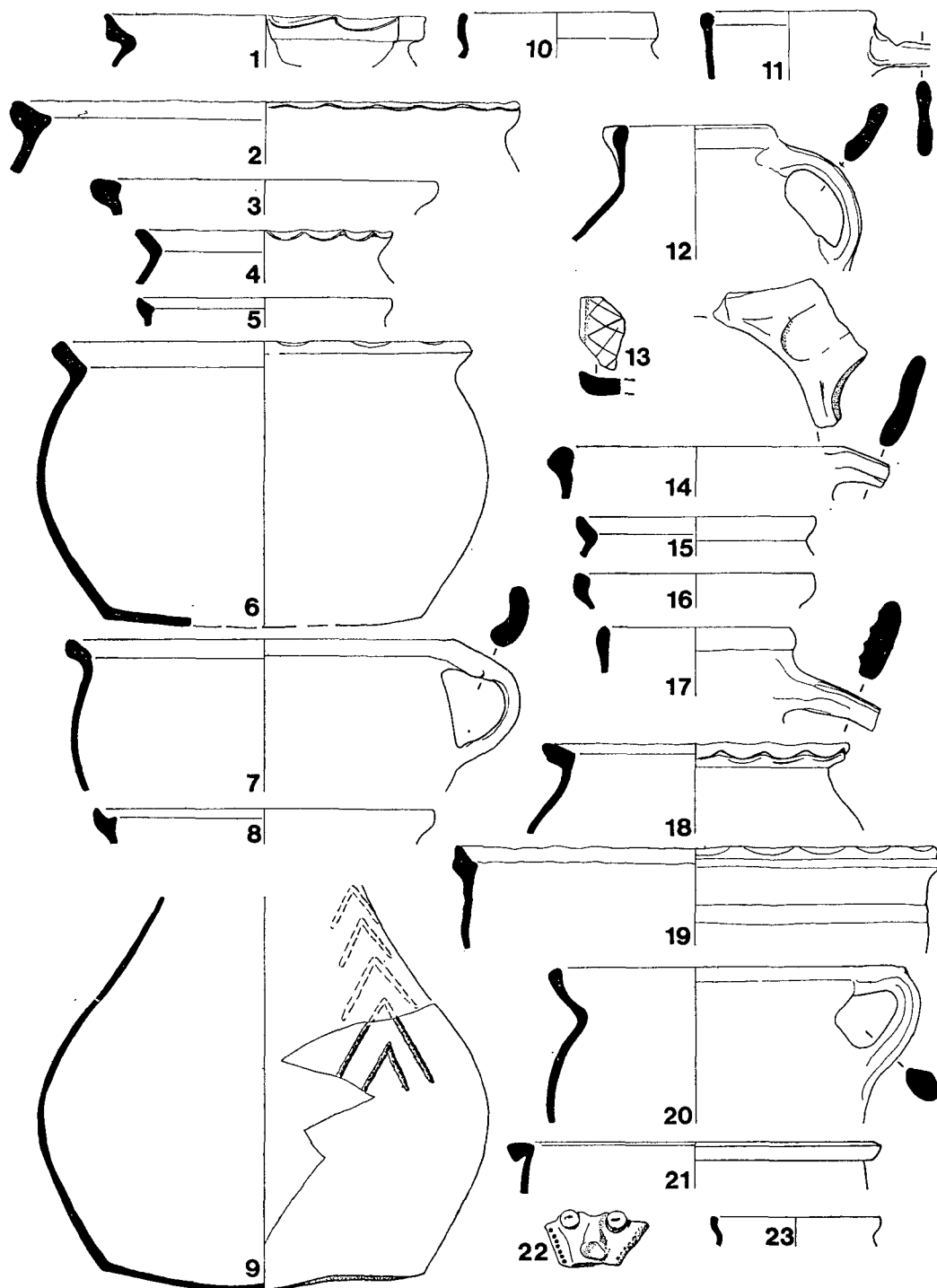


FIG 10 The pottery (scale 1 : 4)

various vessel forms. There were no sherds in any of the other fabric types large enough to warrant illustration.

The nature of the site, particularly the cobbled street levels where much of the pottery was found, and the abraded and fragmentary state of most of the sherds suggest that a high proportion of the pottery is residual. This creates difficulties in any attempt to produce a closely dated sequence of types. For the purpose of analysis the material has been divided according to groups of contexts which correspond roughly to the chronological development of the site. These are not, however, to be seen as true phases. The relative quantities of the different types in each context group are shown in Table 1, both by sherd count and estimated minimum vessel count. The contexts in each group are listed, along with a brief note on their nature. The gritty wares from that group are then described. The other pottery types are then described separately and there follows a discussion of the assemblage as a whole.

TABLE 1
Pottery types by group and fabric type

Group	Gritty ware	Scarborough		'Red sandy'	Post-med reduced	?French
		I	II			
I	33 sherds (1j, 3c-p)	1 (1j)	0	1 (1j)	0	0
Ia	10 sherds (1j, 2c-p)	6 (2j)	0	0	0	0
Ib	47 sherds (3j, 2c-p)	0	1 (1j)	1 (1j)	0	0
II	158 sherds (9j, 16c-p)	6 (2j)	5 (1j)	6 (1j)	0	1 (1j)
III	106 sherds (11j, 15c-p)	0	6 (1j)	9 (2j, 1c-p)	1 (1j)	0
IIIa	31 sherds (2j, 2c-p)	0	0	2 (1j)	1 (1j)	2 (1j)
IIIb	312 sherds (27j, 8c-p)	2 (1j)	1 (1j)	5 (1j)	0	0
IV	341 sherds (16j, 10c-p)	0	6 (2j)	12 (2j)	7 (2j)	0
V	307 sherds (11j, 12c-p, 2pl)	8 (3j)	0	19 (2j)	26 (2j, 1b)	0
VI	168 sherds (9j, 3c-p)	0	2 (1j)	3 (1j)	64 (1j)	0
Totals	1513 sherds	23	21	58	99	3

j, jugs; c-p, cooking pots; pl, platters; b, bowls

The gritty ware

The gritty ware which predominates in the assemblage exhibits substantial variations in both fabric and firing. Without detailed petrological analysis it was thought that it would be pointless and potentially misleading to attempt rigid subdivisions of what is probably a general fabric type. In the analysis of pottery from Colstoun (Brooks 1980), a similarly wide range of variations was noted in sherds which were undoubtedly all from the same kiln site. The main variations in the Inverkeithing material are described below and are noted, where relevant, in the text. No correlation between fabric variant and vessel form was apparent, but this may be due to the shortage of profiles.

The commonest version of the fabric is off-white in colour, medium hard to hard with a quite finely grained sandy matrix containing moderate quantities of medium to large subangular quartz grits, small black and medium to large red ferruginous grains, unidentified grey rock fragments and occasional tiny mica flakes. A substantial proportion (c 30%) of the sherds contain an abundance of large white grits, either quartz or feldspar, which are usually visible on the surfaces of the pot. A smaller proportion (c 5-10%) have a finer matrix than the norm and fewer and/or smaller inclusions. Visually, the main observable difference is that about a third of the vessels have been fired to a higher temperature, some probably in a more reducing atmosphere, and are brown to grey-brown in colour, hard or very hard and often slightly fused.

Group I (contexts 10, 11, 16, 23) This includes all the material which lay under the first cobbling, except for that in Groups 1 and 1b whose relationship to the cobbling is not clear. The 33 sherds in this group are all fragmentary and abraded. Most are in the standard off-white gritty fabric, with five having slightly finer gritting. Jug sherds include part of an upright rim with rounded external thickening and several decorated bodysherds. Two of these have wavy combing, one has a dark vertical strip and another has part of an embossed shell-like design. Green or yellow-green splashed glaze is present on several of the bodysherds. Cooking pot material includes a fragment of thick, squared rim, several unglazed, externally sooted bodysherds and three basal-angles, one of which is coarser and thicker than the others.

Group Ia (context 13) The pottery from this pit is markedly similar to that found in contexts 28 and 38/39 of Group III, though pit 13 was clearly sealed beneath the first cobbling layer. The ten sherds in this group are all in the standard gritty fabric and include three basal-angles: one brown slipped one from a jug and the other two, grey-white and grey-brown, from cooking pots. Two body sherds are decorated, one with dark vertical lines and one with self-coloured vertical lines and applied fishscales. Green glaze on some of the body sherds has been burnt either during or after firing. If the former, they could be kiln wasters.

Group Ib (contexts 33, 34, 35, 36, 37) The pottery from these pits cannot be directly related to the main sequence of occupation though the material is almost certainly contemporary with Group I. The 47 sherds in this group are all in either the standard off-white fabric or a variant with slightly finer gritting. There are two jug rimsherds, both upright and externally thickened, and three pieces of strap-handle, one of which is ribbed. Some of the jug bodysherds are splashed with green glaze. Another fragment of strap-handle is attached to a simple everted cooking pot rim and a second such rim has applied frilling (fig 10, no 1).

Group II (contexts 20, 22, 21) This group came from the first cobbling period and the gully worn into it. While some contamination almost certainly occurred between these layers and the Group III material, the majority of finds were securely stratified. About 15% of the 158 sherds in this group are in the grey-brown hard-fired fabric variant, the rest are of the standard type. The jug rims present are all upright or slightly everted with slight external thickening. Their diameters are around 100–120 mm. Most of the handles are plain strap forms but some are grooved or ribbed and there are also two ribbed rod handles. Many of the jug bodysherds are green glazed and a few have simple self-coloured vertilinear decoration. All the jug basal-angle sherds are simple in form. The cooking pot rims are mostly simple angled forms with squared or rounded external thickening (fig 10, no 4) and sometimes a lid-seating form. There is one with part of a strap-handle attached and another has applied frilling (fig 10, no 2). Part of a folded handle, badly abraded, is present, possibly from a skillet. Many of the sherds in this group appear to have been burnt at some time subsequent to their firing.

Group III (contexts 25, 26, 27, 31) This group is from the patching material which accumulated between the two cobbled surfaces. A date of c 1400 or later is supplied by a coin from one of the uppermost patches in area 3. About 20% of the sherds in this group are grey-brown and about half contain large quartz or feldspar grits. The jug rimsherds are all simple upright forms with external thickening (fig 10, no 5). The handles are grooved or ribbed strap forms apart from one small, possibly decorative, rod handle. The only type of surface decoration present consists of applied dark vertical lines. The cooking pot rim forms vary from thick squared types to angled forms, some of which have applied frilling (fig 10, no 3) or, in one case, thumbing. Two of the externally blackened cooking pot basal-angles are internally glazed green.

Group IIIa (contexts 38, 39) Like Group Ib, pit 39 was not securely related to the main phasing though it was sealed by cobbling that was probably part of the second cobbling phase. Large sherds from at least two jugs are present in this group, all grey-brown, hard and with burnt external surfaces. The vessels appear to have been poorly made, with uneven rilling, smeared finger marks and badly distorted bases. It is possible that these were kiln wasters. The only rim present is simple and upright with a pulled spout. The body of one of the jugs has been decorated with lines of a darker, more iron-rich, clay applied in a chevron pattern (fig 10, no 9). Parts of two cooking pots with handles are also present, in a lighter grey-brown fabric variant (fig 10, nos 7, 14). Both of these appear to have been globular in form, shaped almost like chamberpots.

Group IIIb (context 28) This was a distinct group lying directly under the second cobbling phase. The group of 312 sherds from this burning layer includes some of the largest found on site. Most are off-white to light grey-brown in colour and c 10% have finer gritting than the standard fabric. Seventeen different jug rims are represented, with diameters ranging from 8 to 12 mm. Most of these are upright and externally thickened (fig 10, no 12) while some exhibit slight variation and are slightly everted, collared (fig 10, no 10) or internally beaded (fig 10, no 11). The handles recovered are all strap forms, mostly ribbed, some plain and some grooved. One upper handle junction has broken to reveal a short amorphous piece of iron which was apparently used to pin the handle to the neck. Most of the jug sherds have splashed pale green external glaze and several body fragments have dark applied lines, sometimes vertical and sometimes curvilinear with associated flattened pellets, possibly originally forming a horseshoe pattern although none of the sherds is large enough to confirm this. As with the Group IIIa material, some of the jug basal- and bodysherds are so cracked and distorted that it is likely that they were kiln wasters. One of the cracked bodysherds has been plugged 5 mm up from the base with a lead rivet. This cannot have been very effective in preventing the jug from leaking.

Only seven cooking pot rimsherds were present, one being part of the only complete profile to be recovered (fig 10, no 6). This has a simple everted form with slight thumbing, as though as a concession to the more elaborate 'pie-crust' tradition. Five of the other rims are also simple and everted, with attached straphandles in two cases, one plain and one grooved. The exception is an unusual bifid rim form (fig 10, no 8).

Group IV (contexts 30, 32, 42) This group is from the second cobbling phase and is securely stratified above the coin dating to 1400 or later. About half of the 341 sherds in this group are of the hard grey-brown type. The 16 jug rims are all upright, most with external thickening. Apart from one ribbed rod type, all the handles are strap form, either grooved, ribbed or plain, one of the plain ones having vertical incisions down its length. There is one small, possibly decorative, straphandle, c 14 mm wide. The only type of surface decoration present is applied vertical lines on two different bodysherds. The jug bases are all plain in form. The cooking pot rims are mostly everted with squared or rounded external thickening. Five examples have applied frilling and two have internally hollowed 'lid-seating'. Two of the basal-angles are internally glazed light green and another two are unusually thick and coarsely made.

Group V (context 53) This homogeneous group of material from pits 49, 50, 51 and 52 is probably late medieval in date, judging by the stonewares included in it. The medieval pottery present is residual. Only c 10% of the 307 sherds in this group are of the grey-brown type; about half have large white grits, visible on their surfaces. The jug rims are simple upright and externally thickened, with diameters ranging from 9 to 12 mm (fig 10, no 17). Two everted rimsherds (fig 10, nos 15, 16) are either from wide-mouthed jugs or small cooking pots or bowls. Most of the handles are strap forms, with some ribbed or grooved ones also present. As well as these there are three oval-sectioned handles, one of which is ribbed, one ribbed rectangular-sectioned handle and a small, possibly decorative, plain rod handle.

Eleven cooking pot rims were recovered of which six are simple and externally thickened, one is everted and handled (fig 10, no 20) and four are frilled (fig 10, nos 18, 19). One of the frilled types (fig 10, no 19) appears to be part of an exceptionally large pot (rim diameter 290 mm or more) but the apparent diameter is probably exaggerated by distortion. Bodysherds from two thick coarsely made vessels with thick external green glaze are present. These are similar to basal sherds found in Group IV. Two platter rimsherds are also present. One is grey-brown and fused and the other is off-white with green internal glaze and incised cross-hatching (fig 10, no 13).

Group VI (contexts 43, 44, 45, 46) This group consists largely of material from the trenches for the stone foundations recovered on the site. These penetrated medieval deposits belonging to Groups I to IV so a large residual element is present. The presence of smooth reduced grey wares suggests a post-medieval date, either 16th- or 17th-century.

About 10% of the sherds in this group are grey-brown hard-fired. Of the off-white ones, 5% are unusually fine-grained. The jug rims are all upright with rounded external thickening and the handles present are ribbed, grooved or plain strap forms except for one thick rectangular-sectioned one. Most of the jug bodysherds are glazed green and one has dark vertical linear decoration. The fragmentary cooking pot rimsherds are all simple everted forms, one of which has a straphandle junction. There is one rim fragment which appears to be from a platter with decorative stabbing around the edges.

Scottish medieval sandy wares

Sherds of red-orange to buff sandy ware were present in all the groups apart from Ia. This general type of ware was produced in Perth, Aberdeen and Inverness during medieval times and the examples from Inverkeithing may be from one or more of these burghs. The fabric is commonly medium hard to hard with a sandy matrix containing moderate quantities of small to medium subangular quartz grits, moderate quantities of mica and varying quantities of red and black iron ore.

The earliest example is a single bodysherd with white external slip from Group I. In the Perth Local ware, white slipping is suggestive of a 14th-century date which would tie in with the other evidence from this site. Ribbed rod handles in this fabric are present in Groups II and III. Group III also contains two rim fragments, one from a jug and one possibly from a cooking pot. In Group IIIb there is a grooved straphandle with a vertical thumbled strip running down the middle. This form is paralleled in Perth. Apart from parts of two ribbed rod handles and one straphandle from Group IV, the sherds from Groups IV, V and VI are all fragmentary basal or body sherds.

Scarborough ware

Sherds in this distinctive ware are found on most Scottish medieval sites. The high quality jugs produced by the potters of Scarborough were apparently in great demand in the 13th and 14th centuries and the extensive trade in their wares seems to have survived the establishment of local pottery industries in many parts of the country during this period. The sherds from this site were divided into Scarborough Phase I and II types as described by Peter Farmer (1979). The fact that the earliest sherds on the site are in the softer pinkish Phase I fabric ties in with Farmer's dating of it to the late 12th and early 13th centuries. After that, both Phase I and II products are present. As the Phase II products were not, according to Farmer, being made beyond the middle of the 14th century those occurring in Group III and later are certainly residual and it is likely that many or all of the earlier sherds are, too.

The sherds in both fabrics are from typical decorated jugs. The Scarborough Phase I material includes ribbed rod handles, simple rim and bodysherds decorated with vertical lines, alone or with fish-scales, part of a face-mask and parts of two thumbled basal-angles.

Scottish post-medieval wares

From the 15th to the 18th century, the commonest pottery types in Scotland were grey jugs, fired in reducing conditions, and orange or orange-grey bowls, fired in oxidizing conditions. Both vessel types were glazed green. These were apparently produced at a number of different locations, with the local clay being used for both forms. Together, they can be seen as forming a tradition of Scottish post-medieval pottery (Haggarty 1980). Examples of these jugs and bowls appear in Groups III, IIIa, IV, V and VI. There are two similar but distinct fabrics present: one is smooth and fine, with occasional sandy inclusions; the other is sandier and resembles the fabric of the medieval wares. The smooth fabric is similar to that of wares found in a number of places including Stirling (Haggarty 1980), Falkirk (MacAskill 1982) and the probable kiln site at Throsk in Stirlingshire (Caldwell & Dean 1981). Reduced sandy ware similar to the other fabric present has been found in Lanark (MacAskill forthcoming) and Lesmahagow (Hall 1982). [As it makes the earlier appearance on this site, in Groups III and IIIa, it may be a direct continuation of the medieval sandy ware tradition.]

The sherd from Group III is an undecorated bodysherd and that from Group IIIa is a thick basal-angle with characteristic knife-trimming. Most of the other sherds in the assemblage are jug bodysherds, with the exception of an everted rim fragment and an internally glazed basal-angle from an open bowl which came from Group V contexts. The only decoration present is a circular stamp 15 mm in diameter on the shoulder of a jug from Group VI.

Miscellaneous others (including possible Continental imports)

Three fragments of fine white ware with patchy light green glaze from Groups II and IIIa have not been positively identified but may be either S French imports of Stamford ware. A thin simple jug rimsherd from Group IV and two bodysherds from Groups Ib and II are in red sandy fabrics with abundant small quartz grits. These may be imports from the Low Countries. Several sherds from a Group V context are in another white fabric, medium hard to soft with a fine-grained matrix and occasional tiny quartz and ferruginous red inclusions. Eight of the sherds are from a urinal, apparently globular or ovoid in form

with an oval aperture with an externally thickened rim above which is a transverse grooved straphandle. Its thick external glaze is quite lustrous. Another sherd in this, or a similar, fabric appears to be from the narrow neck (c 40 mm diameter) of a vessel with internal and external flaking green glaze.

The stonewares

Five fragments of stoneware are present, one from Group IV, three from Group V and one unstratified. The body fragment from Group IV is light grey with clear glaze and some creamy speckling. It has part of a handle junction attached. The only definitely identified sherd is a fragment from the rim of a Siegburg drinking bowl from Group IV. This is pale grey in colour and probably dates to the 15th or 16th century. A similar example was found in excavations in Falkirk (MacAskill 1982). A fragment of frilled base, grey with brown glaze, and part of a probable jug shoulder, pale orange-white with yellow-brown external glaze, were also recovered in this group but have not been identified. The unstratified sherd is part of the rim of a bottle or costrel with an external cordon and notched decoration. It probably dates to the 17th or 18th century.

Roof tiles

One hundred and forty sherds of roof tiles were recovered from this site. They came from all the context groups and showed very little variation. Most are in a red fabric with abundant subangular quartz gritting, sometimes partly reduced to grey at the core. One of the sherds, from Group I, has dull white glaze on one face and may be a floor rather than a roof tile. Thirteen of the sherds are in a white fabric with larger quartz grits, like the standard pot fabric. Several of the red tiles have a thumb lug. It appears that most of the roof tiles were made with clay from a different source from that which served the local potters. They were probably imported but whether from another part of Scotland or from the Continent is not clear.

POTTERY FROM THE OTHER SITES

A number of sherds from the other sites excavated at this time were also examined. These were mostly fragmentary and unsatisfactorily stratified and so were not analysed in detail but rather used as comparative material. The fabrics and forms closely matched gritty wares from the Bank Street/Townhall Street site. Two rim forms, one cooking pot and one jug, which were not closely paralleled are illustrated (fig 10, nos 21, 23) along with a decorative face-mask from a jug (fig 10, no 22). All are in off-white gritty ware. One other unusual form is a large spout in a sandy buff and grey fabric with external green glaze. It is broken and abraded and has an external diameter of 45 mm narrowing to 35 mm. It may be from an aquamanile or similar vessel.

DISCUSSION

Gritty wares like those which dominate the Inverkeithing assemblage were common in E Scotland in medieval times. The kiln at Colstoun produced a wide variety of forms, including parallels for most of those from this site (Brooks 1980) and similar material has been found at a possible kiln site at Balchrystie in Fife (*Discovery Excav Scot* 1973, 26). Both of these are possible sources for the Inverkeithing pottery and it may be possible at a future date to test this by scientific analysis. The presence of sherds which are probably kiln wasters, however, suggests that there was a local pottery industry serving the needs of the burgh.

Very few indications of jug profile survive but those which do appear to be plain ovoid vessels with slightly tapering cylindrical necks. Decoration consists of variously patterned applied lines of darker, iron-rich clay. These appear to be commoner in the earlier Groups and less frequent after the Group III contexts. The cooking pots appear to have been largely globular in form, although at least one straight-sided example was recovered (fig 10, no 19). Many are handled, although it is impossible to say exactly what proportion, and about a third have applied frilling or thumbing of some type. This type of decorative rim is recognized to be a common feature of medieval pottery from Fife and numerous examples have also turned up in Perth.

Unless red-buff sandy wares were also being produced locally, the examples here must have been imported from other parts of Scotland, possibly Perth or Aberdeen. The sherds of Scarborough ware attest further to the extensive trade up and down the E coast of Britain in the 13th and 14th centuries. The

only definite Continental imports are the German stonewares but it is very likely that several of the unidentified fragments are from the Low Countries and possibly France.

The problem of ceramic dating on this site is considerable as there are no obvious criteria for separating out the large numbers of residual sherds from those contemporary with the deposits from which they were recovered. The degree of abrasion might be a helpful indicator but on a cobbled street surface a great deal of abrasion could take place in a very short time. It is worth noting that although both the earliest and latest gritty ware is fragmented and abraded, the later material is noticeably more abraded than the grey green-glazed ware, with which some of it was found. For example, the gritty wares from the infill of the foundation trench of the SW wall in area 2 (Group VI) are more abraded than the grey green-glazed wares in the layer directly above it, suggesting that the latter are likely to be contemporary with the wall and the former residual.

The proportion of the different types of vessels does appear to change over time, with markedly more cooking pots than jugs in the earlier Groups and the reverse in the later ones. This is a common pattern on sites throughout Scotland as ceramic cooking vessels seem to have been replaced, presumably by metal ones although there is no direct evidence of this. This change is not precisely dated but appears to have been well under way in many places by the mid-14th century. The Scarborough ware should be of some use in dating as the different fabrics have been closely dated by Farmer (1979) but once again the problem of residuality crops up. It may be significant that none of the Scarborough Phase I fabric appears in Groups I or Ia as it suggests that they date to before 1275 but this is negative, and rather tenuous, evidence. The reduced green-glazed ware is not found on the site before Group III, possibly dating that Group to the 15th century or later as this is thought to be the earliest date for its production. This last date in fact ties in well with the only certain dating on the site: the coin from Group III which dates to the early 15th century. Its presence suggests strongly that most or all of the material above the first cobbling was laid down later than 1400. This is surprisingly late, given that gritty wares of the type found here are generally thought to date to the 13th and 14th centuries. It is conceivable that all the gritty material laid down after this time was residual, as some of it must have been and as the Scarborough wares certainly were, but this is highly unlikely even considering the undoubted longevity of discarded pottery.

It appears then that white and grey-brown gritty wares were being produced and used in Inverkeithing at least until the early 15th century. The grey post-medieval wares do not appear in large numbers until after the second cobbling so it is not clear what degree of overlap there was in the use of the two types of ware.

THE ANIMAL REMAINS FROM 1 BANK STREET/5-7 TOWNHALL STREET

C Smith and G W I Hodgson, Duncan of Jordanstone College

METHODOLOGY

The animal bone material was identified by direct comparison with modern material. Ribs and vertebrae, other than the first two neck vertebrae, were not identified or recorded. The single fish bone which was present was not identified as to species. Measurements were made in accordance with the scheme proposed by von den Driesch (1976, 19-100).

THE SAMPLES

The samples consisted of bone fragments and teeth recovered from seven Groups from the site at 1 Bank Street/5-7 Townhall Street, dated to between the 13th and 17th centuries. The samples may be derived from butchering activities on the site, remains of middens dumped on to the street and material brought in from elsewhere to be used as road metalling. The bone material was heavily fragmented, much of it apparently being butcher's chips. Four hundred and seventeen bone fragments were identified as to species. With the single exception of a fish bone, all the bones came from domesticated mammals. The species present were cattle, sheep, goat, pig, horse, dog and cat. Four single oyster shells were also present.

RELATIVE FREQUENCIES OF SPECIES PRESENT

The relative frequencies of species were estimated on the bases of: (a) total numbers of identified bones of each species present; and (b) minimum numbers of animals present.

Table 2 gives the numbers and percentages of bones identified from each Group. Table 3 gives the

minimum number of animals of each species present, based on the most frequent bone for a given species in a specific Group. Data presented in Tables 2 and 3 reflect a cattle-based economy typical of urban sites in Scottish medieval burghs. It is perhaps unwise with such small samples to speculate on the relative extent to which man exploited individual species, but the low percentage of pig bones, and the absence of those of bird and deer, are striking features of this site.

TABLE 2
Numbers and percentages of identified bones recovered from each group, classified as to species, excluding fish

Group	Date (approx)	Cattle	Sheep/goat	Pig	Horse	Dog	Cat	Total
I	13C	No 12	1	—	1	—	—	14
		% 85.7	7.1	—	7.1	—	—	
Ib	13C?	No 4	—	1	—	—	—	5
		% 80.0	—	20.0	—	—	—	
II	14C	No 115	15	9	6	2	1	148
		% 77.7	10.1	6.1	4.1	1.4	0.7	
III	14-15C	No 77	12	5	2	3	1	100
		% 77.0	12.0	5.0	2.0	3.0	1.0	
IV	15C	No 30	12	3	—	2	—	47
		% 63.8	25.5	6.4	—	4.3	—	
V	mid-15C or later	No 39	4	2	1	—	—	46
		% 84.8	8.7	4.3	2.2	—	—	
VI	17C	No 43	10	—	4	—	—	57
		% 75.4	17.5	*	7.0	—	—	
Totals		No 320	54	20	14	7	2	417
		% 76.7	12.9	4.8	3.4	1.7	0.5	

* Single unattached teeth present

TABLE 3
Minimum numbers of animals present, based on the most frequent bone of a species in a given group

Group	Cattle	Sheep/goat	Pig	Horse	Dog	Cat
I	1	1	—	1	—	—
Ib	1	—	1	—	—	—
II	5	2	2	1	1	1
III	5	2	1	1	1	1
IV	2	2	1	—	1	—
V	2	1	1	1	—	—
VI	3	1	—	1	—	—

AGES OF ANIMALS ON DEATH

Cattle

There was insufficient dental evidence to estimate the age at which the cattle died. On the basis of the osteological evidence of the fusion of distal articular surfaces to the shafts of long bones, it appears that most of the cattle survived at least until they were between the ages of three and four years. This suggests that methods of animal husbandry were adequate to rear cattle to an age approaching the optimum for hide production.

Sheep/goat

On the evidence of a single sheep's humerus, which lacked a fused distal articular surface, it appears that a sheep died or was killed before it reached an optimum age for the production of wool or woolfells. Most of the sheep bones appear to have come from adult animals.

Pig

A single maxilla bearing an unworn third molar (M₃) was attributed to a young pig.

Horse

All of the horse bones evidently came from adult animals.

Dog

All of the dog long bones came from adult animals, but a single jawbone was from a puppy. One jawbone (half mandible) displayed a heavily worn canine and a worn second molar; presumably this came from an old dog.

Cat

Both of the cat long bones came from adult animals. There was no evidence of kittens having been killed.

SIZE, SEX AND CONFORMITY OF BREED

A summary of the bone size ranges is stored in archive. The majority of bones measured fall within the size ranges reported for the medieval levels at Perth High Street (Hodgson forthcoming). A single cattle ulna and the scapula and innominate bone of a horse extend these ranges. The horn cores from the cattle were from oxen. There was no other indication as to the sex of the animals from which the bones came. The remains of cattle, sheep, pig, goat, cat and dog conform with the varieties reported on from medieval Perth.

CARCASS ANALYSIS

Uncertainty as to whether the samples represent domestic or commercial waste or a mixture of both, is reflected in the results of carcass analysis given in Table 4. The high ratios of cattle foot bones (low meat yielding) to cattle leg bones (high meat yielding) from six of the seven Groups and the presence of cattle, sheep and goat horn cores (some of which have been sawn through to remove the horn) from five of the Groups are indicative of industrial or commercial waste. Conversely, the low ratios of sheep/goat foot bones to leg bones from Groups II to VI is indicative of prime cuts of mutton, such as would be consumed domestically, being brought to the site.

TABLE 4
Numbers and percentages of cattle and sheep/goat leg and foot bones

Group	Date		Cattle leg bones	Cattle foot bones	Sheep/goat leg bones	Sheep/goat foot bones
I	13C	No	5	4	0	1
		%	41.7	33.3	0	100.0
Ib	13C?	No	1	2	—	—
		%	25.0	50.0	0	0
II	14C	No	30	46	4	3
		%	26.1	40.0	26.7	20.0
III	14-15C	No	29	29	6	2
		%	37.7	37.7	50.0	16.7
IV	15C	No	7	19	6	3
		%	23.3	63.3	50.0	25.0
V	mid-15C	No	9	17	3	—
		%	23.1	43.6	75.0	0
VI	mid-15C	No	9	25	8	—
		%	20.9	58.1	80.0	0

BUTCHERY AND PATHOLOGY

Most of the long bones, including those of horse, have been heavily butchered and split in the sagittal plane, as though to extract marrow to make stock. This, and the absence of gnawing marks suggests consumption of horse flesh by humans rather than by dogs. Hoof bones of cattle and horses bear chopping and knife marks, probably resulting from the removal of the hoofs. The careful sawing through of horn cores

suggests a horner's industry. None of the bones bore signs of disease and they apparently came from healthy animals.

THE SMALL FINDS (fig 11)

Conservation was not completed on all the objects recovered, but sufficient work had been done to show that there were no finds remaining that significantly altered the interpretation of the site. A full list of the finds will be stored in archive. Initial digits refer to illustration numbers and final digits to context.

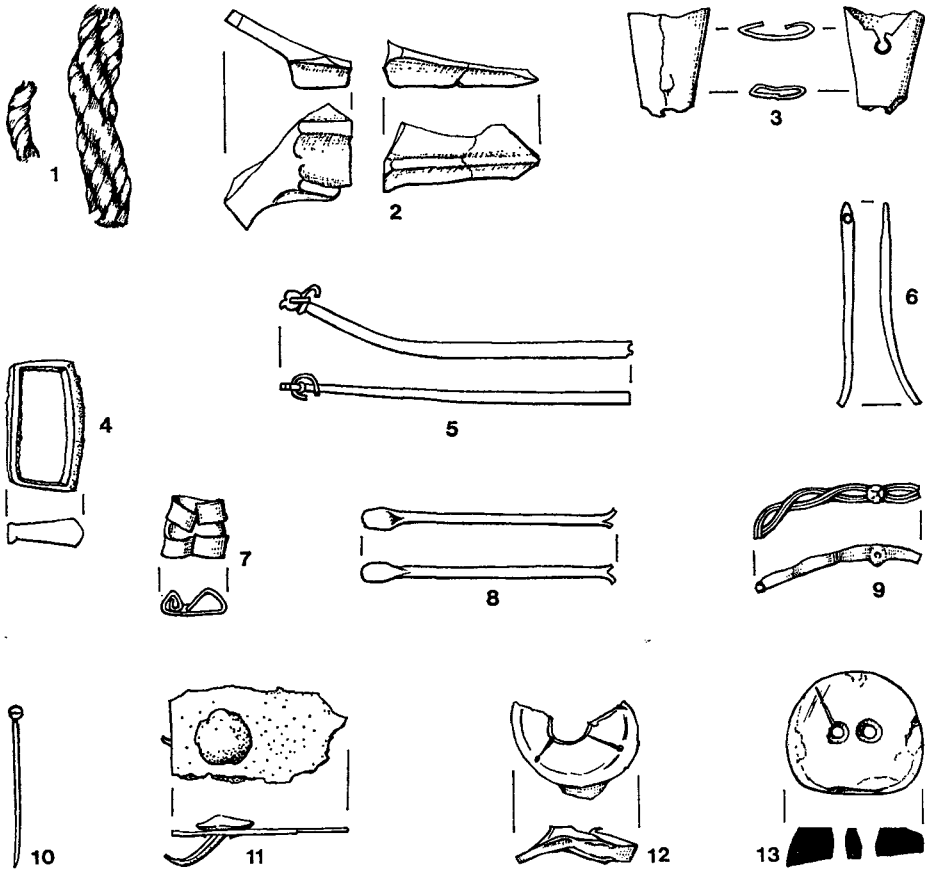


FIG 11 The small finds

ORGANIC MATERIAL

(Identification by D Robinson, Dept of Botany, Glasgow)

- 1 Medieval rope formed from bastic fibres, species uncertain due to carbonization, probably willow, birch or elm. 28.

GLASS

- 2 Three fragments of blue-green ribbed vessel glass, probably from the same vessel. 20 g. 39.

COPPER ALLOY

- 3 Folded sheet, possibly used as a chape. 24.
Flat sheet, seven fragments, largest 22 mm by 13 mm, less than 1 mm thick. 28.
Flat sheet, seven fragments, largest 70 mm by 40 mm, less than 1 mm thick, some ? hammering marks. Total weight 9 g. 39.
- 4 ? Belt buckle without pin. Patching below 42.
- 5 Possibly part of the beam for a small balance. 29.
- 6 Needle, point broken off. 32.
- 7 Folded sheet forming tube, 25 mm long by 7 mm wide, now crushed. 1 g. 32.
? Brooch pin, 48 mm long by 5 mm wide by 2.5 mm thick. 5 g. Patch above 22.
? Brooch pin, 14 mm long by 1 mm wide by 1 mm thick. 1 g. ? Medieval garden soil, Port Street.
- 8 Spatula or small spoon. 17th-century pit fill, Port Street.
- 9 Part of a decorated buckle. Unstratified, 52 High Street.
- 10 Pin. ? 17th-century garden soil, Port Street.

IRON

- Small wedge or chisel end (only partly cleaned), 50 mm long by 13–28 mm wide by 8 mm max thickness. c 30 g. 32.
- 11 Plate with nail through, probably sheeting to protect some unidentified wooden object. 39.
Triangular shaped object (not fully conserved), possibly a stirrup iron, but would only fit a child's foot, 80 mm high by 90 mm wide, 6 mm by 6 mm thick. 39.
Tool ? chisel, tapers 15 mm from end to a flattened tip, incomplete at shafting end, 50 mm long by 77 mm wide by 5 mm thick. 54.
Portions of three semi-circular objects were recovered from layers 21 and 25. These may have been the remains of horseshoes, although no evidence of nail holes appeared on the x-rays. These objects were badly corroded making positive identification impossible. In the fill of pit 39 over 28 clenched bolts, 23 nails up to 50 mm long, 44 nails 5–7.5 mm long and 24 nails 7.7–10 mm long were found. Nails were also found in other contexts but as these were clearly not related to any structural material they have not been listed here.

LEAD

- Lump, slightly pitted, no distinct shape. 75 g. 22.
Lump, 4 by 10 by 4 mm. 25 g. 28.
Seven pieces of run lead, possibly waste but more probably from an object melted in the same fire that destroyed the other objects within pit, 39.
- 12 ? Seal, probably not a spindle whorl despite apparent similarity. 22 g. ? Medieval pit fill, Port Street.

STONE

(Geological identification by Michael Taylor, Keeper of Natural Sciences, Perth Museum and Art Gallery)

- 13 Button. 20 g. ? 17th-century pit, Port Street.
Incomplete shale spindle whorl, 30 mm diameter by 13 mm thick with groove 6 mm wide by 3 mm deep cut into the circumference. Full weight c 20 g. 29.
Broken schist whetstone (stone probably from the Scottish Highlands), c 10 mm by 2.5 mm by 2 mm.
Two fragments of oolitic limestone quern with rounded lug, badly decomposed by dissolution (probable source of stone in Southern England). Within pit 39.
Fragment of Purbeck limestone mortar. 54.

COINS

(Identification by D Caldwell, National Museum of Antiquities of Scotland)

Badly worn billon coin (found concreted to a stone), difficult to identify. The earliest this coin could

be is from the reign of Robert III (1390–1406). It is more likely to belong to the reign of James I (1406–37) as a half demy Edinburgh penny group B (Stewart 1967) or to the reign of James II (1437–60) as an Edinburgh penny second issue (*ibid*). It is too large to have been minted in the reign of James III. Found in a patch below the upper cobbling level.

Billon penny of James IV (1488–1513), 1st issue (saltire stops, no annulets), minted at Edinburgh. Garden soil, Port Street.

CONCLUSIONS ON THE SMALL FINDS

The majority of the finds are not individually significant and those found at the Townhall site are consistent with objects dropped on a street or courtyard. The early material from this site, in particular the finds in pit 39, is less easy to interpret. Clench bolts have generally been considered to derive from boat building and their presence on urban sites to indicate re-used ship's timbers. However it is as plausible that they came from cart building or any other domestic function where it was necessary for pieces of wood to be joined, leaving two faces clear. Whatever their origin, it is unlikely that they had a functional relationship with the other material, especially the daub, in this pit. This does not, of course, help interpret the function of this pit.

The stone mortar fragments and the Scarborough fabric pottery show some of the trading links with England that are to be expected in an East coast port such as Inverkeithing. The most significant find is clearly the coin found within the road/market sequence at Townhall Street. As N MacAskill's report reveals, its importance is not only in providing a partial date for the sequence, it also contradicts any theory that 'White Gritty' fabric pottery was not produced after the end of the 13th century.

GENERAL CONCLUSIONS

Though the backland excavations did not produce significant deposits they do indicate the variations in topography to be found in this town and that it would be unwise to dismiss areas as archaeologically sterile by superficial topographical examination. For example, further monitoring of the High Street in March 1982 showed that well preserved midden material of unknown date survived 8 m in front of the Royal Hotel (fig 12). It is perhaps a truism to state that towns are organic, being subject to both growth and decay, but it is worth emphasizing as it is a matter of some controversy as to how formally towns were laid out. The foundation charters denote fairly rigid boundaries and yet it is still not known whether the individual properties were laid out or whether they evolved into their boundaries.

As has been discussed in another paper (Wordsworth forthcoming) recent archaeological work in Aberdeen and Inverness has shown distinct changes over time in both street and plot layout. It would appear that considerable alterations in street plans did occur as is illustrated in the shift during the medieval period in Lanark from a Castlegate to a High Street axis (McGavin & Wordsworth forthcoming; Turner Simpson & Stevenson 1981b). While more work is necessary to define these variations it is clear that the continuity recovered in Perth from the 12th century (Blanchard 1980) need not be expected in other burghs such as Inverkeithing. It is still unclear, for example, whether the original settlement lay close to the harbour or whether it was always sited on the road from North Queensferry.

There is, as yet, only one site that gives any idea as to the development of this burgh, and for the 12th and 13th centuries the picture is blank. It is possible to interpret the gullies as the remains of a 13th-century or earlier building which would mean that the town plan was irregular, but the evidence is not conclusive. The construction of the first road surface in the 13th–14th centuries illustrates a fairly rigid street pattern that was maintained until the 16th century. The modern plan is irregular, particularly on the E side of the High Street. However, if one moves the line of 36–38 High Street 2 m E to allow room for the well presently incorporated into the building and reduces 12 High Street by 2·3 m, which was the extent it was allowed to encroach on to the street

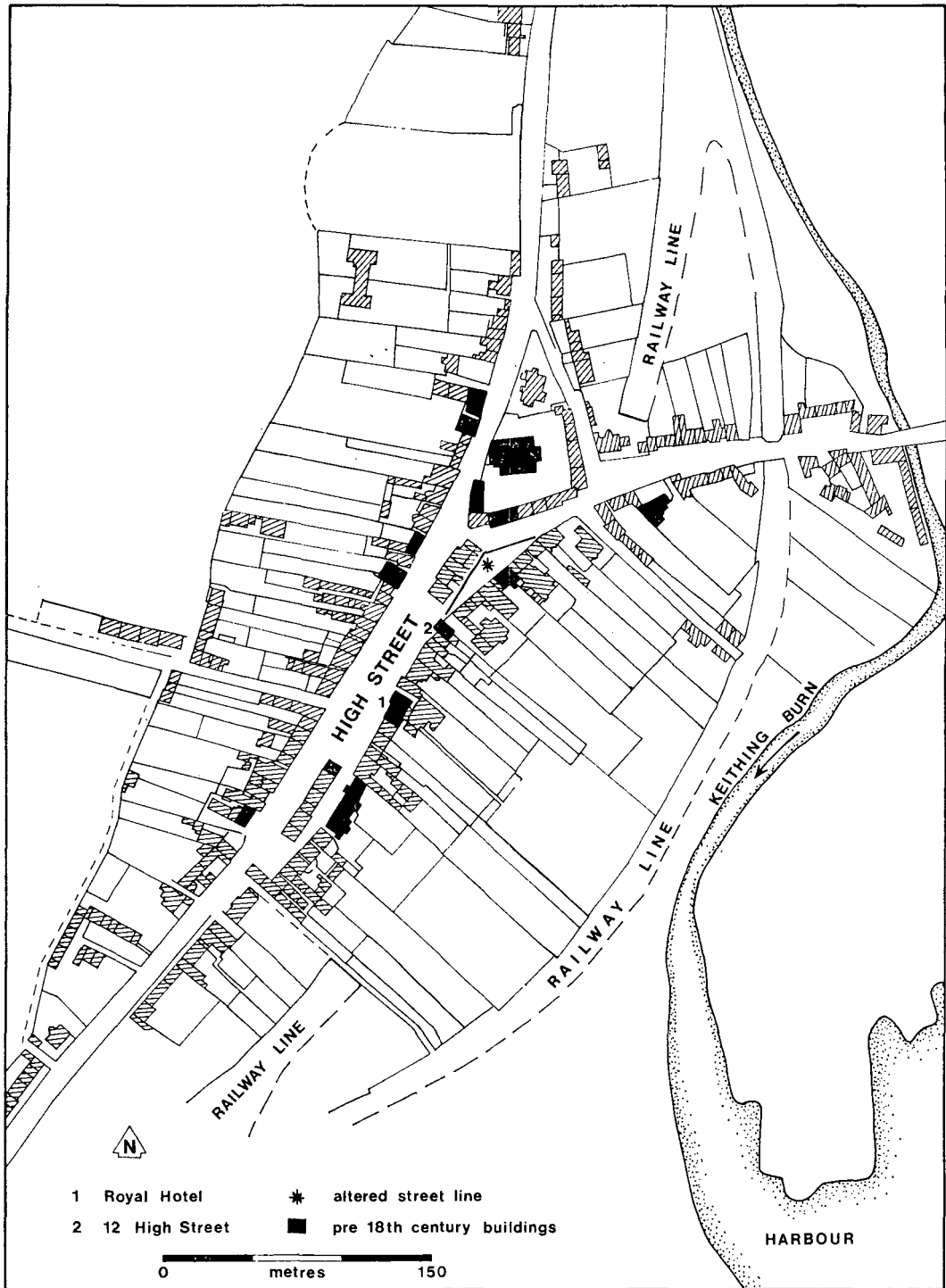


FIG 12 Plan of Inverkeithing at the end of the 19th century with known 17th-century or earlier buildings shaded and suggested earlier street line

in 1688, a reasonably straight line parallel to and roughly 50 m apart from the W side of the High Street is produced. It is of course dangerous to use 17th-century and later evidence to indicate the medieval street line as the later evidence from 1 Bank Street shows further change of the street pattern, with a probably late 16th-century island development involving the creation of a new street. Even this pattern is more complex as the house now standing at 2–4 Bank Street, built in 1617, is shown by a roof raggle in its N gable – a line continued by an early arcade wall inside – to have previously stood 2 m SE of its present position.

As an illustration of burghal organization the site at 1 Bank Street showed only two major resurfacings in 100–200 years. It seems that there were no organized road repairs undertaken by the burgh apart from small patching jobs. This may have been because traffic passing through Inverkeithing would use the W side and thus not disturb this side of the High Street. It is surprising that the pattern of wear observed in the first road surface was not repeated in the later patches, and this can only be explained by traffic not using this side of the street. The cutting of pits and the possible hearth site in this area show a transient occupation that may be the result of the area being used as a market. Alternatively, they may mark the first encroachment onto the market area which resulted in the complicated sequence of island development that has already been described. This encroachment appears to have included the cutting of a new street to take traffic from the harbour to the S end of the town. The dearth of public records to substantiate this process means that the complicated bargains and settlements necessary to complete this new plan can only be guessed at. One can be sure that it was not an easy process!

The study of markets and streets is a neglected one, partly because the sites are rarely available and partly because they are considered to be of less interest than house sites. It is hoped that this report has shown that these are areas of considerable morphological interest, illustrating the changing shape of the historic burghs of Scotland.

ACKNOWLEDGEMENTS

The author is grateful to Mr Divitto, Mr and Mrs Grigor, and Dunfermline District Council for permission to excavate the various sites in the town. Particular thanks are due to G Stell, W J Lindsay, N Fojut and G Harden for various comments on an earlier draft of this report, to the contributors for their help and finally to the select group of excavators responsible for the primary evidence on which this report is based. I would also like to thank W J Lindsay for providing fig 11.

The excavations and the writing of this report were funded by the SDD (AM Branch).

REFERENCES

- Blanchard, L 1980 'Kirk Close – a backland excavation', in Turner Simpson, A & Stevenson, S (eds), *Townhouses and structures in medieval Scotland*. Glasgow. (= *Scottish Burgh Survey*.)
- Brooks, C M 1980 'Medieval pottery from the kiln site at Colstoun, East Lothian', *Proc Soc Antiq Scot*, 110 (1978–80), 364–403.
- Caldwell, D H & Dean, V 1981 'The post-medieval pottery industry at Throsk, Stirlingshire', *Scot Pottery Hist Rev*, 6 (1981), 21.
- Driesch, A von den 1976 'A guide to the measurement of animal bones from archaeological sites', *Peabody Mus Bull*, 1 (1976), 1–136. (= Harvard University.)
- Duncan, A A M 1975 *Scotland, the making of the Kingdom*. Edinburgh.
- Farmer, P G 1979 *An introduction to Scarborough ware and a re-assessment of Knight jugs*. Hove.
- Haggarty, G 1980 'The pottery', in Ewart, G 'Excavations at Stirling Castle 1977–1978', *Post-Medieval Archaeol*, 14 (1980), 36–40.

- Hall, D 1982 'The pottery', in Gordon, A R & Wordsworth, J 'Lesmahagow Priory: Excavations, 1978', *Glasgow Archaeol J*, 9 (1982), 76-106.
- Hodgson, G W I forthcoming 'Report on the animal remains excavated during 1975-76 from medieval levels at the High Street, Perth'.
- MacAskill, N 1982 'Post-medieval pottery from a site in Falkirk', *Scot Pottery Hist Rev*, 7 (1982), 24-7.
- MacAskill, N forthcoming 'The pottery', in McGavin, N & Wordsworth, J forthcoming.
- McGavin, N & Wordsworth, J forthcoming 'Excavations in Lanark, 1979', *Glasgow Archaeol J*, forthcoming.
- Stephen, W 1921 *History of Inverkeithing and Rosyth*. Aberdeen.
- Stewart, I H 1967 *The Scottish Coinage*. London.
- Turner Simpson, A & Stevenson, S 1981a *Historic Inverkeithing the archaeological implications of development*. (= *Scot Burgh Survey*, University of Glasgow.)
- Turner Simpson, A & Stevenson, S 1981b *Historic Lanark the archaeological implications of development*. (= *Scot Burgh Survey*, University of Glasgow.)
- Wordsworth, J forthcoming 'Scottish burgh morphology', *Scot Archaeol Forum*, forthcoming.

This report is published with the aid of a grant from the Scottish Development Department



c Lintel incorporated into demolished building at 1 Bank Street