J. Dunbar.

## **EXCAVATIONS IN THE MEDIEVAL BURGH OF ABERDEEN 1973-81**

EDITED BY J C MURRAY

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# EXCAVATIONS IN THE MEDIEVAL BURGH OF ABERDEEN 1973-81

ILLUSTRATION J DUNBAR S THAIN PHOTOGRAPHY B R WHITE

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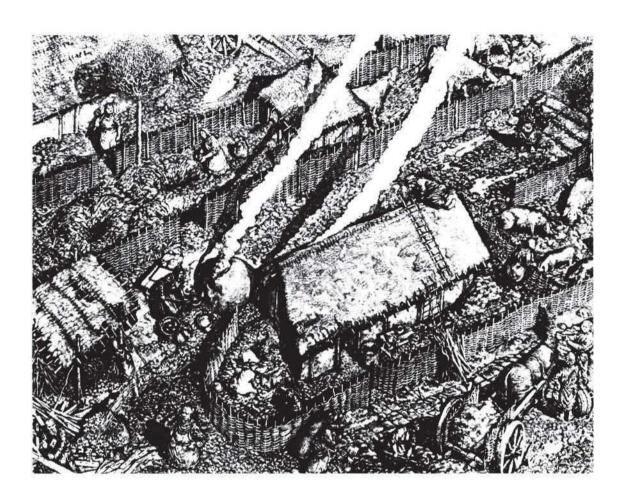
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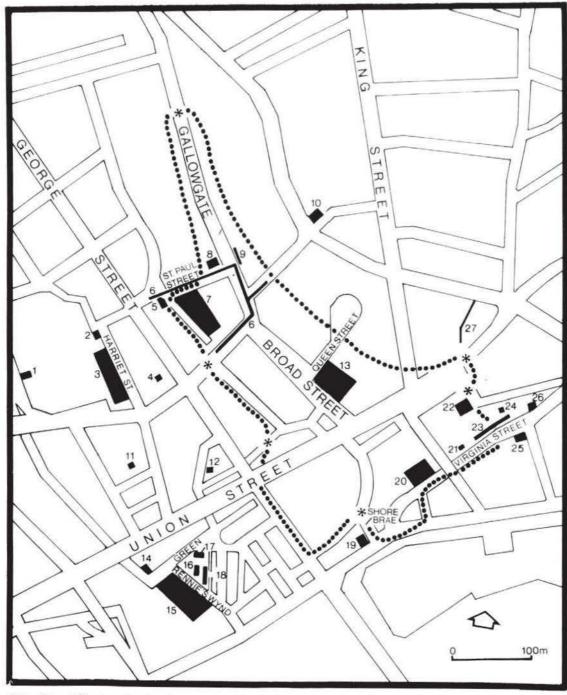
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#### 1 INTRODUCTION J C MURRAY

The development of a permanent archaeological presence in Aberdeen must be regarded as the fine achievement of a group of interested local people, in particular Dr G G Simpson and Mr J Colvin Greig. Prior to 1976 the major excavations of St Nicholas church (Hunter 1974), Queen Street Midden Area (J C Greig), Queen Street frontage (C Brooks), Broad Street (J Dent) and Shore Brae (C Brooks), and other minor trial excavations were carried out under the direction of local part-time archaeologists and some archaeologists brought in from outside, helped by enthusiastic local volunteers. The results illustrated the richness of archaeological deposits in the city and emphasized the fact that, in the face of increasing development, full time monitoring and observation of sites were needed, as weil as excavation.

Consequently, due to the efforts of those already involved in Aberdeen, two full-time achaeologists, Charles Murray and Judith Stones, were appointed in 1976 by the Society of Antiquaries of Scotland for a term of three years, financed by the Scottish Development Department (Ancient Monuments) and housed by the City of Aberdeen District Council.

Between December 1976 and June 1977 four small excavations and one site observation were carried out assisted by local volunteers. During this period the Archaeological Unit was planning ahead for a major excavation at 42 St Paul Street. Through utilization of a Manpower Services Commission Job Creation Programme, the workforce was expanded to excavate this large site for six months. The vast amount of material excavated showed the need for the continued employment of additional personnel to cover post-excavation and future excavation work.

In 1979, the City of Aberdeen District Council took the decision that, when the contracts of the two original archaeologists terminated, the City would continue their employment, within the Art Gallery and Museums Department, the money for excavation and post-excavation work still coming from the Scottish Development Department (Ancient Monuments). Finally, in 1981, the City of Aberdeen District Council also undertook to become the employers of the other four members of the Unit: Jan Dunbar, Hilary Murray, Stewart Thain and Richard White.

So, these last eight years have seen the development of a full-time Archaeological Unit employed by the Aberdeen City District in the Art Gallery and Museums Department, a situation that is unique in Scotland and which is a compliment not only to the original interested bodies but also to the City Council who have so fully realised the importance of the archaeological heritage of the burgh.

In this volume, all the excavations from 1973-1978 are published in full and all the major sites excavated from 1978-81 in summary form (III 1). Short accounts of all site observations up to December 1981 are also included. Each excavation has been written up individually by its director, with the post-excavation work co-ordinated by the Archaeological Unit.

#### THE HISTORICAL BACKGROUND H BOOTON

The surviving documentary evidence concerning 12th and 13th- century Aberdeen presents only a basic outline of the town's status and activities. Its development appears to be typical of that taking place elsewhere in 12th-century Scotland, where a growing import trade was financed by an increasing

surplus from home production, the result of a more efficient agrarian economy. Aberdeen's position as a port on the edge of a hinterland rich in tradeable commodities such as wool and skins, as well as the food and raw materials required to supply a growing domestic market, allowed exploitation of both overseas trade and thriving local commerce. This local commerce had its focus in a weekly market given royal assent in 1222 by Alexander II (Anderson, 1890, 5, charter 3).

The strength of the town's foreign trading position was aided by its confirmation as a royal burgh. Although no document survives to provide details, royal burgh status appears to have been first conferred in David I's reign (1124-53) as the earliest surviving charter dating from 1179 and granted by David's grandson William I (1165-1214) confirms the burgh in the privileges enjoyed in his grandfather's reign. The right to engage in the lucrative overseas trade was reserved for the royal burghs alone, a right confirmed in a charter of David II in 1364. Royal burgh status also gave Aberdeen a certain amount of autonomy; the town authorities exercised complete control over all matters relating to commercial transactions and ran their own court with the use of burgh laws formulated to cover the specific needs of the community. A burgh seal appeared c 1250, indicating Aberdeen's status as to some degree a self-governing community; this seal was affixed to the 1296 treaty between Scotland and France, an indication of the burgh's political importance.

Scotland had been part of the European expansion in trade from the 11th century onwards; the growth of Aberdeen's part of the market in the 12th and 13th centuries was largely based on wool exports to the Flemish cloth industry. A record survives from 1273 of a ship load of the exports of three Aberdeen merchants which consisted principally of wool, ox-hides and salmon (Bain 1883, ii, 2, no 9). Trading was concentrated on Bruges and later Middelburg with the imports being mainly of luxury and manufactured goods such as wines, books, drugs and spices, clothing, gold and silverwork and weapons. Also an important aspect was the trade with the Baltic, in particular Danzig, for such commodities as timber, lint, wax, grain and iron. This Hanse factor was jealously guarded by the burgh; in 1487 a commission of Aberdeen magistrates deplored the fact that ships from Danzig then sailed to Dundee and Leith 'the more remote parts of Scotland' (Stewart 1844, i, 415).

Trading prosperity meant the rise of a wealthy and powerful merchant class. Alexander II (1214-49) granted Aberdeen a charter in 1222 which confirmed the existence of a merchant guild (Anderson 1890, 5, charter 3) whose powers under the charter included the monopoly of the making of cloth within the burgh. Such monopolies helped build up the wealth and consequently the power of the merchant group to the point that they dominated the burgh council and the lesser groups such as the craftsmen; the latter were positively discriminated against in James I's reign being deprived of any powers to fix their own prices or even to hold 'their accustomed meetings'.

A further influential factor in medieval Aberdeen was the religious life of the town. A burgh church existed by 1157 when the first mention of the Kirk of St Nicholas was made in a papal bull. Medieval piety ensured its upkeep with rebuilding taking place from 1385 to 1426 and the continual granting of gifts including some 31 chantries between 1277 and 1524 (Kennedy 1818, ii, 13). Trinitarian, Carmelite and Dominican friaries were all established by the late 13th century; the Franciscan friars came to Aberdeen in the 1460s and gained property in the Gallowgate from a burgess named Richard Vaus (Kennedy 1818, ii, 76). The ecclesiastical foundation of St Machar's in the 12th century together with the subsequent establishment of King's College formed the nucleus for the centre of learning at Old Aberdeen, a separate community 1½ miles distant which was not part of the burgh of Aberdeen and was outwith its burgh laws.

Some assessment of the population of medieval Aberdeen can be made from two tax rolls dating from 1408 and 1451 (Anderson 1890, 312, writ 10). The former contains 350 names; if all held burgage tenements this would suggest a population in the early 15th century of over 2,000, a large number for a Scottish town at this date possibly implying a comparatively sizeable population in the 13th and 14th centuries.

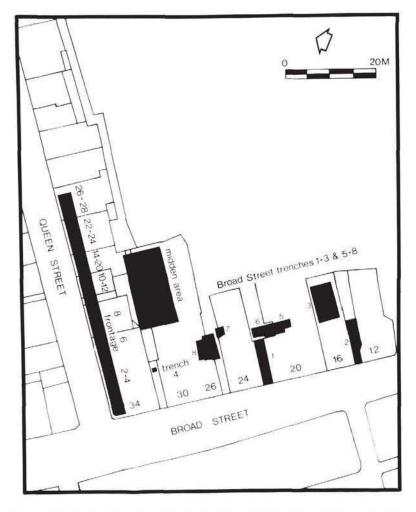
The picture of medieval Aberdeen that emerges from the documentary evidence is one therefore of a prosperous and sizeable burgh, supported in its development by royal approval and maintained in its growth by the supply of commercial products from its environs. The evidence derived from the archaeological excavations detailed below adds a further dimension to this view of the burgh, revealing new aspects of the domestic life of the inhabitants, the layout of their town, the objects they made and traded and even the food they ate.

## 2 THE SITES

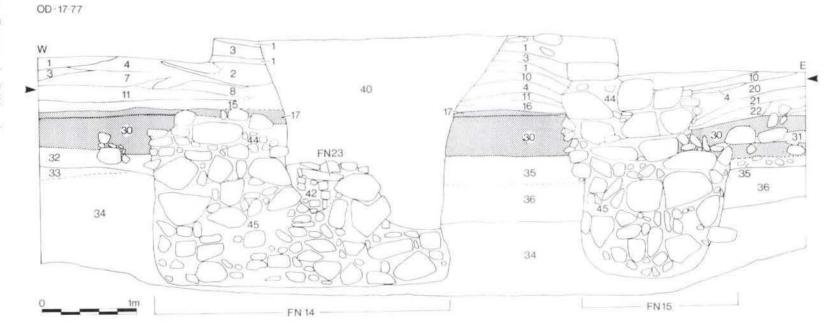
## 2:1 2-28 QUEEN STREET 1973 C M BROOKS

#### THE SITE

During the excavation of the Queen Street and Broad Street sites an area of the 2-28 Queen Street frontage was examined (Grid ref: NJ943063). Unfortunately 19th-century cellarage and disturbance during the demolition of the standing buildings on the site had destroyed all medieval layers S of the pavement, up to the edge of the Midden Area (Ill 2). As a result little information could be gained regarding the frontage structures and the section itself (Ill 3) which was preserved below the edge of the pavement could not be positively related to the Midden Area.



III 2: Location map of 2-28 Queen Street Frontage, Queen Street Midden Area, 12-26 Broad Street and Broad Street, Trench 4



#### THE EXCAVATION

The main features of interest in the section were two massive clay-bonded stone foundations FN 14 and FN 15 which appeared to be of medieval date. FN 14 was some 3.10 m wide E-W along the section and cut the subsoil (Layer 32) into natural to a depth of 1.30 m. It was apparently partly sealed by Layer 30, and fully sealed by Layer 17; both of these horizons yielded medieval pottery. FN 15 was 1.50 m wide E-W and 1.30 m deep; it appeared to cut the natural sand and gravel (Layer 35) and was sealed by Layer 30. It had been re-used as the base of a later wall.

Stone foundations of comparable size have been found in the city, for example in the Carmelite friary (p 115) and in building JC in 42 St Paul Street (Ill 40); the latter appears to have been a 15th-17th century structure. The only major stone buildings historically known from this area would be those associated with the Greyfriars, but they held property further to the N on Gallowgate. The foundations on the Queen Street frontage, if medieval in date, could imply a very considerable building on the site in the period. Unfortunately the often difficult nature of dating from sections and the very limited fragments of the foundations excavated make any firm conclusions impossible.

Layer 30, which was an organic deposit, may be part of the midden of the Midden Area, Phase 2, but positive identification is not feasible.

## 2:2 QUEEN STREET MIDDEN AREA 1973

#### COLVIN GREIG

#### THE SITE

The excavation of the Midden Area (NJ943063), which was directed by the author, took place for seven weeks in 1973 at the same time as the excavation of the related sites of Queen Street frontage directed by C Brooks and 12-26 Broad Street directed by J Dent. The work was carried out by local volunteer labour. Administration was undertaken by Dr G Simpson and Mr K A Wood of the University of Aberdeen.

The site, which consisted of an open area excavation c  $11 \times 22$  m, lay in the backlands between Queen Street and Broad Street. As Queen Street was not opened up until c 1775, only the later features on the site relate directly to it and in the medieval period this area must be regarded as part of the backlands belonging to the Broad Street frontage.

19th-century development with the construction of massive cellars associated with both Queen Street and Broad Street frontages had, however, physically isolated the Midden Area, so that it was not possible to directly relate individual layers or phases.

This area is shown on Parson Gordon's map of 1661 (Ill 130) as a series of long rigs or gardens behind the Broad Street tenements.

#### THE EXCAVATION

#### MESOLITHIC HORIZON

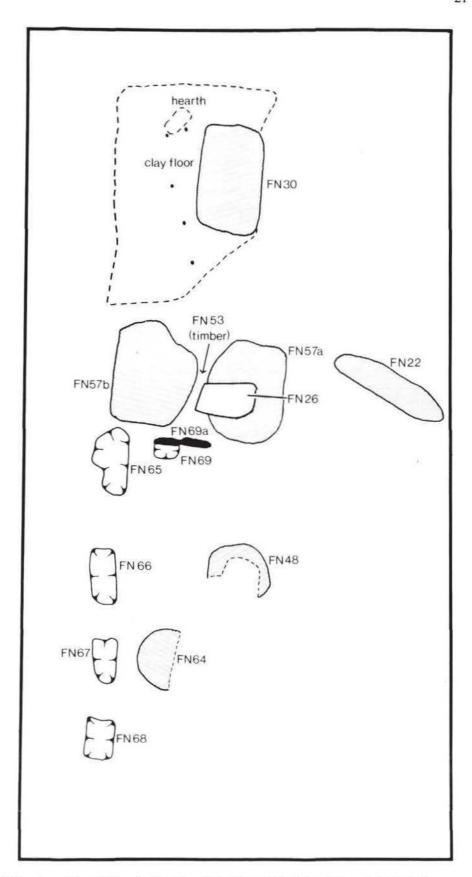
About 0.5 m below the original land surface lay an area of sand and gravel with occasional-water-rounded stones. This horizon was uncovered by a section at the W end of the site cut by mechanical digger. An investigation of the sandy area revealed a number of mesolithic flints and flint cores (p 200).

#### PHASE 1A (III 4)

Due to subsequent building and site clearance this horizon was confined to the SE corner of the Midden Area (Ill 4: delineated by dotted lines). A hard beaten clay floor covered the area, lying directly on the natural land surface. The features within this horizon included a flat unkerbed stone hearth with two associated post-holes and a line of three other post-holes. A dark occupation horizon c 0.04 m thick covered the floor. The finds included a few fragments of pottery and some animal bone.

#### PHASE 1 (III 4)

During this phase a series of pits (FN22, FN30/50, FN57a, FN57b, FN48, FN64) were dug. With





Ill 4: Queen Street Midden Area. Plan of Phase 1a (dotted outline), Phase 1 (shaded) and Phase 3 (unshaded)

the exception of FN30, which truncated the Phase 1a clay floor, all the pits had been cut into the natural. They had been used as cess and rubbish pits and produced large quantities of leather, pottery, animal bone and other artefacts. A number of textiles were also recovered. The pottery from the pits suggests that Phase 1 can probably be dated to the 2nd half of the 13th century.

FN30/50:  $(1.36 \times 2.24 \text{ m}, \text{depth } 1.50 \text{ m})$  This first appeared as a distinct depression in the Phase 4 cobbling (FN30). On further excavation the cause of the depression was discovered to be a cess pit FN50. This pit had been deliberately filled and showed clear signs that layers of sandy gravel had been used to seal some of the rubbish layers. The contents of the pit included bone, antler, pottery and large amounts of fish bone. Within the pit there had been a void subsequently filled with later rubbish, stone and slate which had originally held a post which appeared to have been contemporary with the use of the pit as the tip lines in all cases respected it.

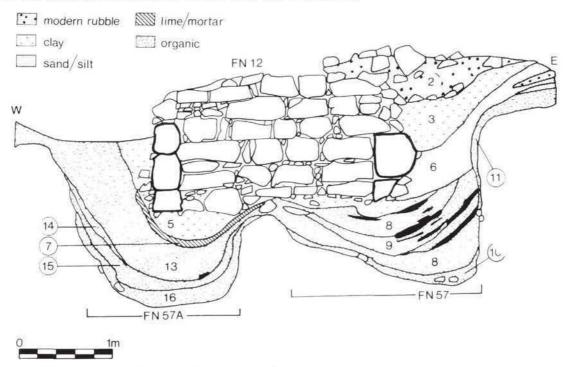
Associated pottery: 42-44, 46, 51, 53-55, 57-58

FN22: (0.62×2.56 m, depth; 0.37 m) This consists of a shallow elongated oval pit cut into the natural land surface and filled with rubbish, some pottery but mainly animal bone.

Associated pottery: 37-40, Scottish E Coast Gritty ware.

Associated finds: antler spindle whorl 20

FN57a, FN57b: (A:  $1.62 \times 2.12$  m, depth: 1.75 m. B:  $1.76 \times 2.12$  m, depth: 1.82 m) These two pits were close together and initially appeared to be a single feature. Both had been damaged by a later, Phase 4, structure (Ill 5). However the remains of a timber walkway was uncovered between them. A circular timber stain round the top of FN57A and collapsed timbering within the pit suggests that it may have been timber-lined. One large section of timber contained clench bolts and nails and therefore may have been re-used ships' timber. This is not unusual on medieval sites. The bottom of this pit produced quantities of oak bark and animal hair.



III 5: Queen Street Midden Area. Section of pits 57A and 57B: Phase 1

FN57b had no evidence of timber-lining and a complete absence of any timber within the pit fill. The botanic analysis (Chapter 7) of samples from this pair of pits included remains of food plants and parasite eggs which strongly suggest that the pits had been used, at least in part, as cess pits. Moss present in the fill may have been used as 'toilet paper'. There was also a large amount of domestic rubbish, animal bone and pottery.

Associated pottery: 1-34, including large percentage of Scarborough wares (eg 11-16) and local fabrics (eg 1-9).

Associated finds: antler hammer 16, whetstone 47, button/button formers 59, 60, copper alloy boss 64, balance arm 65, copper alloy fragments 69-71, waste lead 92, silk 160, woollen cloth 155. FN48: (1.28×1.32 m) It was not possible to fully excavate this feature or ascertain its depth due to the massive concrete foundations which cut into the pit. From the finds evidence it would appear that this pit had also been used as a cess pit.

FN64:  $(1.20 \times 1.24 \text{ m}, \text{depth: } 0.70 \text{ m})$  This shallow pit was also cut by massive concrete foundations but it was possible to establish its dimensions. Over the top of it lay the badly crushed remains of a wickerwork basket or creel. The wickerwork was not closely interwoven, the ribs being c 100 mm apart and 10 mm thick. The horizontals varied from 10 mm to 50 mm apart. There were indications that the basket had a thicker twisted top edge. Due to the extensive damage and decay it proved impossible to reconstruct or to suggest the original dimensions of the object.

Unlike the other pits this feature produced little in the way of finds and had been dry filled. It had been partly sealed by a stone slab (FN63) immediately under which lay the ivory spindle whorl (24).

Associated finds: ivory spindle whorl 24, iron handle 86.

#### PHASE 2

The filling of the Phase 1 pits with rubbish appears therefore to have established most of this backlands area as a midden. Due to subsequent building development on the site, especially in the 18th century, it was not possible to establish the extent of this midden. However the section along Queen Street frontage (III 3) shows a thick band of midden material (30), lying on the natural land surface. There is little doubt that this is part of the same midden which had been separated from it by the massive cellarage of 19th-century Queen Street. It may extend under the present Queen Street. The midden, which survived to a depth of 0.60 m, sealed Phase 1 pits FN22 and FN57A; elsewhere it lay directly on the natural soil level. It contained animal bone, seeds, antler, leather, textiles and other artefacts.

Analysis of the animal bone (Chapter 6) has shown an interesting increase in pig bone during Phase 2, suggesting that the wealth of the area had declined since Phase 1; this would be consistent with its use as a midden.

The pottery from the midden can be dated to the late 13th and early 14th century. There is, surprisingly, a higher percentage of Low Countries grey wares than in Phase 1, which would superficially suggest an earlier date (see p 124).

Associated pottery: 59-125.

Associated finds: dice 18, 19, bone skate 26, copper alloy clasp 63, waste lead 91, 93, lead/copper alloy fragment 94, water spout 98, leather 103, 108, 114, 117, 126, 137, 141, 149, 154.

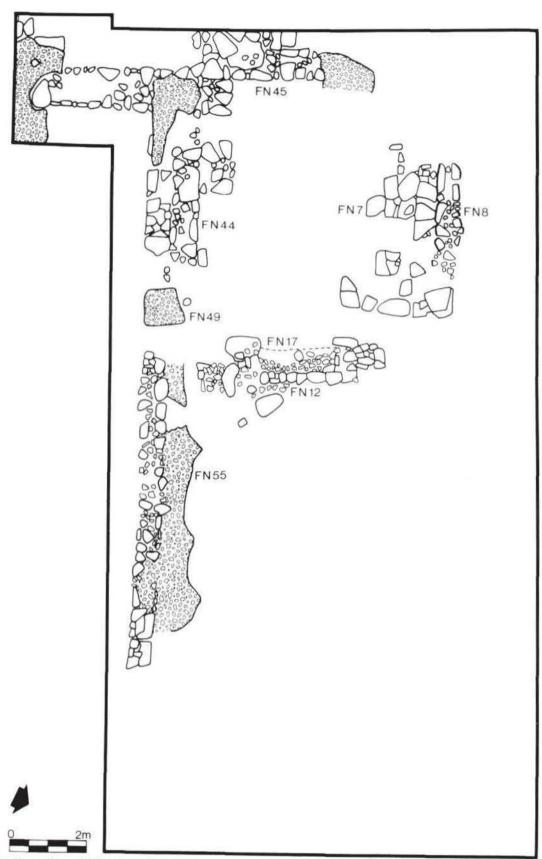
#### PHASE 3 (Ill 4)

To this phase belonged the only definitive building structure in the backlands area, represented by FN26, FN69, FN69a, FN65, FN66, FN67, and FN68. The building had been destroyed by fire and only one section of burnt wattle and daub walling FN26, a possible timber sill and a number of post settings remained. FN26 was a section of collapsed wattle and daub, c  $0.80 \times 1.00$  m. Excavation revealed that it had fallen on a layer of burnt heather and wattles which in turn covered a thin dark occupation horizon containing only a few fragments of animal bone. The cross-section of FN26 consisted of a layer of hard beaten clay and a second layer of clay into which heather had been pressed in a criss-cross pattern. A number of wattles had also been used in the construction.

A possible sill, a timber upright and planking (FN69a) were found near FN26. The planking was c  $1.30 \times 0.30 \times 0.02$  m. There were five roughly rectangular post-pits (FN69, FN65, FN66, FN67, FN68) with a surviving average depth of only 0.09 m, the rest having been cut by later building activity. FN69 and FN65 appear to indicate the corner of the structure. The building appears to have been at least 8 m long E to W, no estimate of the other dimensions is possible.

Associated pottery: 126-129.

Associated finds: copper alloy buckle 55, clench bolts 76, 77.



Ill 6: Queen Street Midden Area, Plan of Phase 4

#### PHASE 4 (III 5)

The foundations of a clay-bonded wall (FN8: length 1.20 m, width: 0.24 m, height: 0.60 m) lay parallel to the present Queen Street, at right angles to Broad Street. From its position it would appear to have been a feu boundary wall, further evidence being that the later wall FN7 did not cut or destroy FN8 but had been constructed tightly against its inner face reiterating the boundary. FN8 cut through the midden and was therefore post Phase 2 and as it was replaced by FN7 it was earlier than the 18th century. Gordon's map of 1661 (Ill 130) shows stone boundary walls on the site and could suggest a 17th-century or possibly earlier date for this feature.

Clearance of the 20th-century rubble on the site uncovered a well cobbled floor (FN13) with associated post holes and socketed stones which could have held some kind of machinery. The floor, which was covered with 18th or 19th-century glass bottles and shattered pottery, was bounded by lime-mortared walls (FN7, FN9, FN10, FN29, FN49, FN46). The remains of a well constructed fireplace (FN12), the jambs of which still stood on one side to a height of three courses, suggest a late 18th-century date for the building. The section (Ill 5) shows the back of this fireplace with its associated jambs and foundation trench (5) and (3). Directly below (5) lay a layer of building lime.

At a later date the hearth area (FN13) had been reduced in size and used for some industrial purpose. It is interesting that the 1807 title deeds of 26 Broad Street show that c 1800 Middleton Rettie, a tinsmith, held property in Rettie's Court at the rear of No 26 Broad Street (City Charter Room, Box 30/250).

#### CONCLUSIONS

One of the problems in understanding the Queen Street Midden Area has been its isolation from the Broad Street and Queen Street frontage sites. The cause of this was the 18th and 19th-century cellarage on the Queen Street frontage and the massive cellars, concrete foundations and post-demolition mechanical disturbance on the Broad Street frontage. This isolation of the different areas made an overall comparative study of horizons and features on the three sites impossible.

The excavation revealed that post-medieval and 19th and 20th-century site clearance and levelling had stripped all evidence of 15th to 17th-century occupation with the result that removal of 18th to 20th-century rubble and occupation immediately exposed an early medieval horizon. It was, however, possible to establish an occupation sequence for the Midden Area during the 13th and 14th centuries.

An early 13th-century domestic settlement (Phase 1a) was followed in the second half of the century by the digging of a series of cess and rubbish pits (Phase 1). This perhaps suggests the formalisation of the Broad Street frontage properties by the second half of the 13th century, the backlands then being used for the disposal of domestic and commercial waste. This hypothesis is reinforced by the continued use of the area as a midden into the early 14th century (Phase 2). The Phase 3 building clearly brought to an end the use of the area as a midden; the Scarborough ware including the face mask jug (126) suggests a date in the late 13th or early 14th century.

In conclusion, this excavation proved the establishment of settlement in the Castlegate/Broad Street area by the early 13th century.

#### 2:3 12-26 BROAD STREET 1973 J DENT

#### THE SITE

Seven trenches (1-3, 5-8) were excavated on the frontage of 12-26 Broad Street (Ill 2); Trenches 1 and 2 were along closes that lay between the cellars (Grid ref: NJ943063).

A preliminary excavation by J Hinchliffe in January 1973 showed that no archaeological features were likely to have survived below the cellar floors on the street frontage and that much of the potentially interesting material had already been destroyed. It was in this area that buildings were shown on Gordon's map of the town, and the excavators had hoped to find these well preserved. In fact fragments of structures were found at three points along the frontage, lying sealed between the walls of neighbouring cellars. It was not possible, however, to establish the plan of a single building and even though the cellars had been confined to the street frontage, excavation in the backlands was hampered by a multitude of recent wall foundations and other disturbances. Those trenches which could be dug were often widely separated and it was seldom possible to correlate layers from different trenches. Probably 90% of the area had been spoiled for the excavators but, in spite of this, valuable information was recovered, including well stratified groups of medieval pottery.

Because of the difficulty of correlating material from different trenches a degree of flexibility is necessary in interpretation. Although a common 12th-century ground surface was located in each trench, subsequent development of the individual plots, which appear to have corresponded approximately to the modern properties, was piecemeal with perhaps considerable overlaps between building phases. The overall build up in stratigraphy dates from the 13th and 14th centuries, but this predated the latest structures which are likely to have been those illustrated by Gordon.

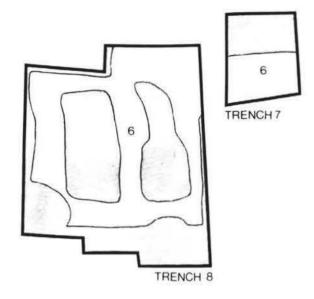
#### THE EXCAVATION

#### EARLY ACTIVITY

Overlying the natural gravel wherever this was located was an old soil which had formed the early medieval land surface. This fell away towards the SW, so that there was a drop in ground level of some 0.80 m between Trench 8 and the W end of Trench 2. Included in the old soil was flint waste of the sort found elsewhere on the site, while a residual barbed and tanged arrowhead from Trench 1 also belonged to these early stages of activity. The total absence of pre-12th-century pottery suggests that, before the construction of Broad Street, the site was virtually unoccupied.

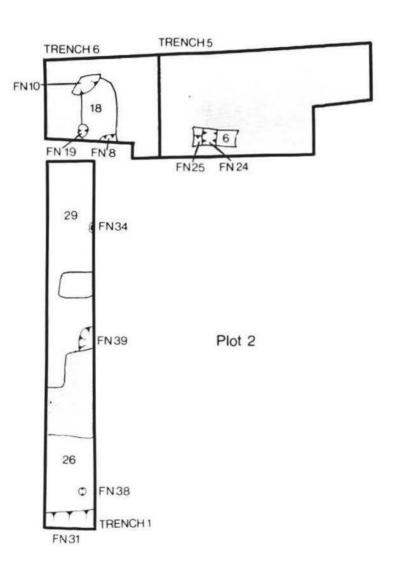
#### PHASE 1 (Ill 7)

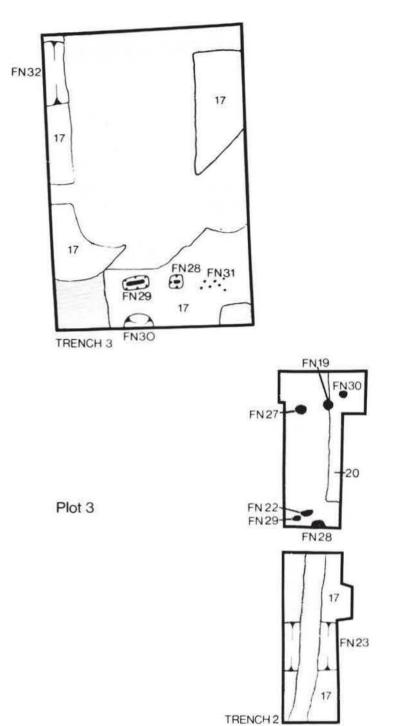
A ditch cut into this land surface (Trenches 1: FN31 and 2: FN23) may be interpreted as the first boundary of a new Broad Street. In Trench 2 this was 1.30 m wide and 0.40 m deep and the fill contained the earliest medieval pottery on the site, possibly dating to the late 12th century. The first building programme was based upon this line and the ground along the street was divided up into

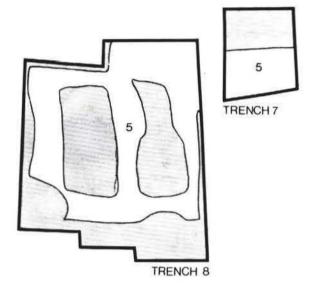


Plot 1



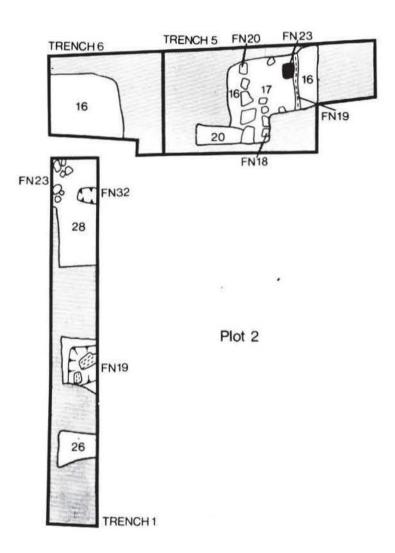


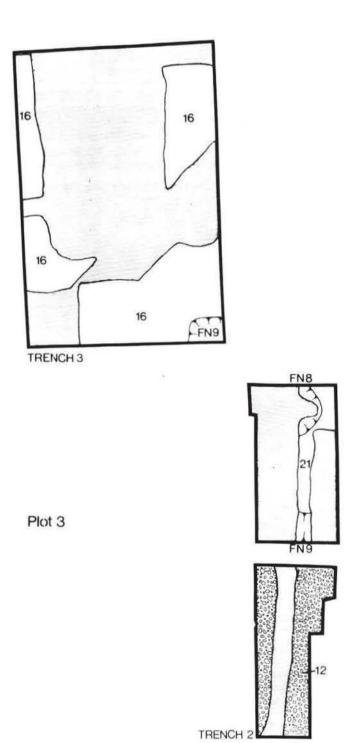




Plot 1







separate plots for building. A post-hole in Trench 1 (FN38) may be from a fence which supplemented the boundary ditch along the street frontage.

In Plot 2, remains of a timber building survived in the form of three post-holes (Trench 1: FN34, 39. Trench 6: FN8), one of which contained the truncated remains of a post 0.38 m high and 0.21 m wide. The fact that the post appears to have been sheared off at ground level on demolition suggests that it was rotten by this stage. These three posts could have supported a gable wall some 5 m wide. To the S and E of these were small pits or post-holes and a slot (Trench 5: FN24, 25. Trench 6: FN10, 19) which could have belonged to the same structure.

To the S in Plot 3 there was evidence of another timber structure. Timber uprights (FN28, 29) and vertical stakes (FN31) in Trench 3 seem to belong to the back wall of a building fronting the street, with its front wall and a central support indicated in Trench 2 (FN22, 28, 29: front wall. FN19, 27, 30: central axis). These would give a structure some 6 m wide and at least 5.50 m long, set back from the street ditch by 2.30 m. A trodden earth floor in Trench 2 was overlain by a destruction layer of burnt clay (FN21, 25) which with the timber construction, seems to indicate that the walls had daub infilling.

On the N side in Plot 1, a building in line with those found further S would lie outside the excavated area, and would have been destroyed by cellaring.

In the backlands behind the earliest structures the only feature which might relate to this phase was a pit (Trench 3: FN32).

Associated pottery: 133-137. Associated finds: antler offcut 31.

#### PHASE 2 (Ill 8)

The earliest stratified pottery from the street frontage comes from the ditch along the road-side and it appears that this was filled in the late 12th or early 13th century. Following this the hard gravel surface of the street was extended up to the building line.

In Plot 2, the first phase timber building was replaced, apparently without burning, by a second wooden structure. What was probably a complete section through the building in Trench 1 showed a foundation trench for the rear and front walls with an extant upright timber, 0.82 m high, in the latter (Trench 1: FN19, 32). A layer of grey clay which was probably the floor of the building overlapped the front foundation trench. At the rear of the structure traces of another foundation consisted of a horizontal timber (Trench 5: FN19), 0.15 m wide and at least 1.50 m long, lying against and over a footing of cobbles set in sand. Embedded in this footing had been a squared timber upright,  $0.30 \times 0.40 \text{ m}$  in section, which was represented by a void (Trench 5: FN23). Four small squared blocks of granite formed a line running from E to W along the footings (Trench 5: FN18). Whether these elements constituted a separate structure or the base of a staircase for access to the upper storey of the building is not known.

In Plot 3 the early timber phase was replaced by a stone structure the walls of which were later robbed out (Trench 2: FN9, Trench 3: FN9). The foundation had cut into the gravel subsoil for some 0.20 m and the walls had been approximately 0.40 to 0.50 m in thickness. An internal partition or support could have rested on a cobble foundation and then been subsequently removed leaving a pit (Trench 2: FN8). Inside the building, a succession of superimposed hard trodden floor surfaces of sandy clay contrasted with the gravel street surfaces to the W and a long period of use is indicated by the thickness of both. Pottery evidence shows that the timber structure in Plot 2 was destroyed first and the overlying ground was building up when the later road surfaces outside the Plot 3 building were being laid down. The breadth of this stone structure is only approximately measurable and was about 4.0 m. This was slightly narrower than the preceding structure and the N gable was somewhat to the S of the earlier line.

Over the whole area a gradual rise in the ground level took place as deposits of building debris and occupation rubbish accumulated to a depth of 0.50-0.60 m. The more durable structure in Plot 3 survived longer, while the wooden foundations of the building in Plot 2 were less resistant to the ravages of damp.

Associated pottery: 138.

#### PHASE 3 (Ill 9)

The rise in ground level following the demolition of the second timber building in Plot 2 was the result of the deliberate dumping of organic refuse, implying that the property stood vacant for some little time before further building took place. A large granite block foundation 1.90 m wide and 1.00-1.20 m deep (Trench 1: FN4) could have been intended to support a large stone building, but a single course of undressed facing stones, with the ground surface to the W weathered as if by run-off water, was all that survived of any superstructure. No corresponding walling was found and it is difficult to see any other evidence for this being part of a large stone structure. The way in which the footing cut the gravel suggested that the N, E and W sides were original and that only the S side was truncated, which could support the suggestion that this had been the base of an external chimney or stairway, which would presumably have adjoined a building which lay to the S.

The stone building on Plot 3 appears to have remained in use during this stage of the site's history, but activities in the backlands required the digging of various pits (Trench 3: FN1, 8, 22, 27. Trench 8: FN8) some of which were deep and squared (Trench 3: FN8, 22) and recalled pits from the Queen Street Midden Area. Pit FN8 in Trench 3 was 3.50 m deep.

Building in the backlands was limited to the central area where the SW corner of a rectangular structure survived as a footing of granite blocks set in sand which cut through the earlier deposits and rested on the natural gravel (Trench 6: FN11), S of this, part of the second phase footings (Trench 5: FN18) could have survived above ground, while 1.30 m further to the S was a parallel wall of granite blocks resting on a sand and cobble footing (FN12) which had been robbed down to a single course above the contemporary ground level.

In the forelands, a pit filled with organic material was found in Trench 1 (FN21), but its extent is not known.

Associated pottery: 139-172.

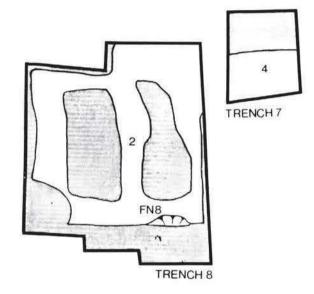
Associated finds: bone spindle whorl 22, copper alloy ring 61, copper alloy plate 67, iron shears 84, cloth seal 88.

#### PHASE 4 (III 10)

Although a fifth stage of building was to take place in Plot 2, it was the layout of buildings from the fourth phase which was to survive until the rebuilding of the 18th and 19th centuries. In this phase a greater conformity is seen in the street frontage and in the size of houses and backland plots. At least two walls from buildings of this period were incorporated into the later cellars and survived until 1973.

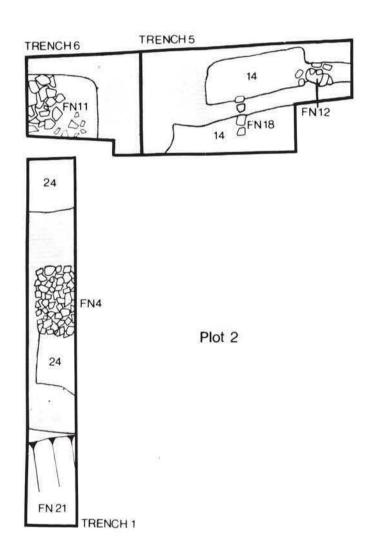
In Plot 2 the tradition of building in timber was continued and a wooden structure with a cobbled floor was erected over the earlier footings. Two stout squared oak timbers survived at what may have been the NW corner, one of which was 1.20 m in length and 0.30 m square, with edges adzed to a chamfer (Trench 1: FN12). An upright central to the gable (Trench 1: FN35) was 0.40 m wide but had been partly sheared away in the construction of a cellar wall. At the rear the wall survived as a horizontal sill fixed in clay and 1.10 m long (Trench 1: FN18). This last was rotted on its upper side and was covered with burned daub. A building c 4 m wide is indicated from the surviving remains and that the length is unlikely to have exceeded 6 m is suggested by the line of a culvert (Trench 5: FN6) which presumably ran to the S. A 14th-century date for this phase is likely from the pottery evidence.

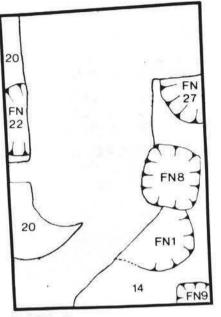
In Plot 3, on the site of the earlier stone building, a new stone foundation was built which consisted of granite blocks set in sand (Trench 2: FN10) filling an irregular trench with a maximum width of 0.80 m and depth of 1.80 m. Included in the wall was a reused block of dressed limestone from a window or door. The complete length of the N gable wall of the building survived below the contemporary ground surface. On the S a thin brick veneer separated it from the interior of a recent cellar. The building had been 4.30 m wide and of unknown length. There was no sign of a further reconstruction until the 18th or 19th century and it seems certain that this was the building shown by Gordon.



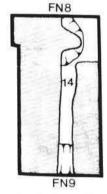
Plot 1



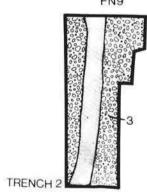


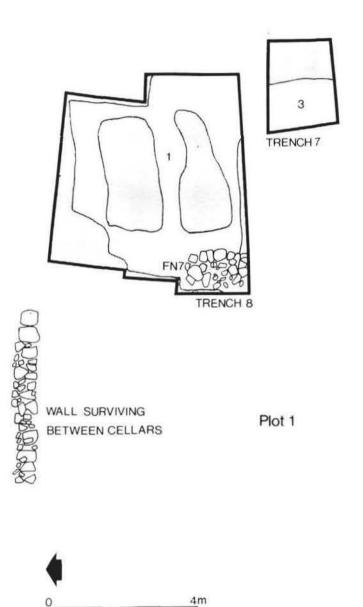


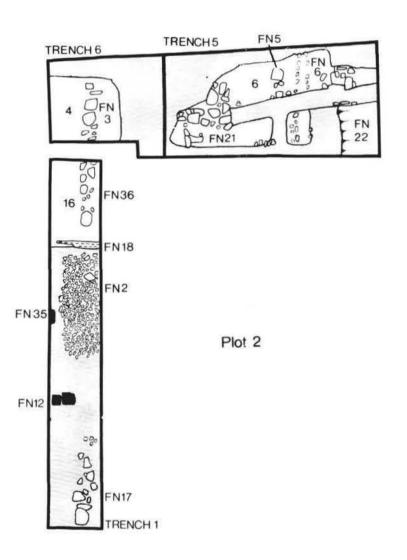
TRENCH 3

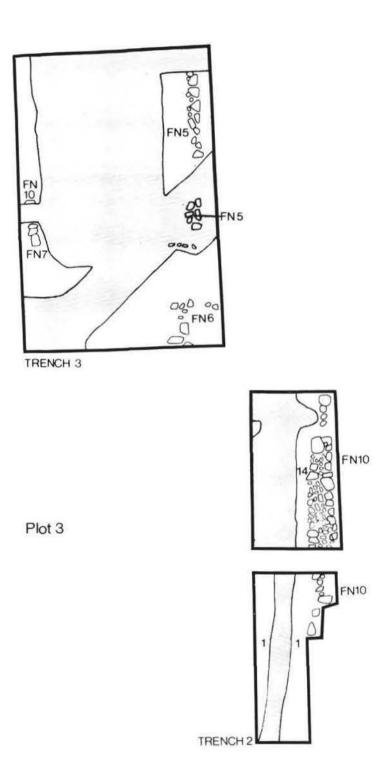


Plot 3









Ill 10: 12-26 Broad Street, Plan of Phase 4

In Plot 1 a similar gable wall survived between two cellar walls and was 4.6 m long and rested on the natural gravel. Here, as in the other two buildings, a close relationship with modern property boundaries is evident and the line of the frontages of the three buildings runs parallel to the modern street.

A fragment of cobble foundation in Trench 8 (FN7) could belong to this stage and may have been the base for an external staircase. The surviving fragment was  $2.30 \text{ m} \times 1.10 \text{ m}$  and was less than 0.30 m in thickness, resting on the fill of an earlier pit.

In the backlands and forelands there was considerable evidence for subdivision in the form of walls or lines of flat stones of a single course (Trench 1: FN17, 36. Trench 3: FN5, 6, 7, 10. Trench 5: FN5. Trench 6: FN3). Related to this was the culvert in Trench 5 (FN6), and to the rear of the central wooden building in Plot 2 was the SW corner of a stone structure, granite block footings which rested on natural gravel and were still 0.70 m high (Trench 5, FN21).

Associated pottery: 173-182.

Associated finds: limestone fragment 48, woollen cloth 156, 157.

#### PHASE 5 (Ill 11)

In Plot 2, the destruction of the earlier building was followed by renewed activity in the backlands, but no remains were found of a foreland structure earlier than the existing cellars. Although the upper levels were disturbed by services laid along the close here in modern times, it is unlikely that this destroyed all trace of a final phase. It is more probable that the rebuilding closely followed the modern line and that structural remains were removed in more recent times.

The structures at the back which belong to this late phase were: a length of granite boulder footing, set in red clay, some 3 m long and 0.60 m wide with a second course of blocks in places (Trench 1: FN33. Trench 6: FN1); a short fragment of wall footing 1.20 m long and 1.10 m wide, again formed of water worn stone blocks (Trench 5: FN2); and a section of wall footing one course deep running S from the line of FN2 (Trench 5: FN9). This was 2.30 m long and 0.40 m wide and overlay a small pit (FN7) and the robbing trench of an earlier wall (FN22).

Elsewhere there was apparently no change after the fourth phase of building until after the production of Gordon's map.

Associated pottery: 183-188. Associated finds: whetstone 46.

#### CONCLUSIONS

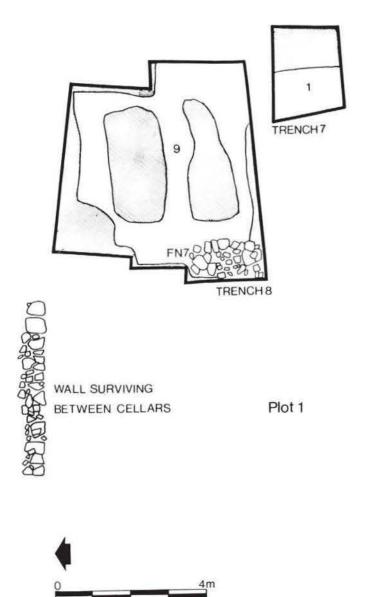
The Broad Street site should be seen as an example of medieval town planning. In the late 12th/early 13th century the land along the road which led from the centre of the town towards Old Aberdeen was parcelled off for housing. The buildings found along the street frontage allow space for a row of structures which need be interpreted in no other way than as houses. The rise in ground level in the 13th and early 14th centuries permitted boundaries to wander slightly but by the end of the period they were very close to the boundaries of 1973. The stabilization of the ground level was the result of improved facilities for the removal of rubbish from the vicinity of the houses, which may have been a reaction to the Black Death of the mid-14th century. Once the ground level remained essentially constant the land divisions were less open to dispute.

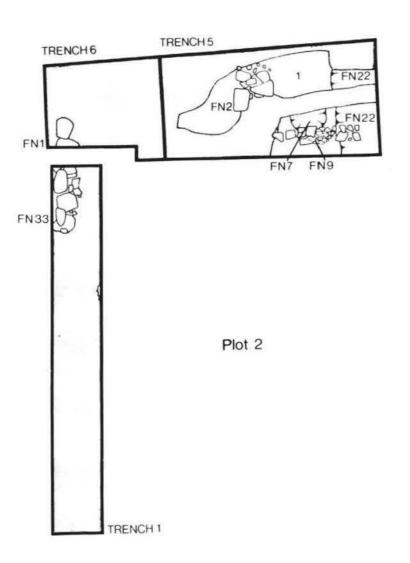
The best preserved building arrangements were those of the fourth phase, which suggested that a row of houses was built parallel to the street, each measuring not more than approximately 6 m by 4.5 m. Some evidence for external staircases may indicate that these were two-storied buildings. In front and behind were forelands and backlands which were later to be used as building space.

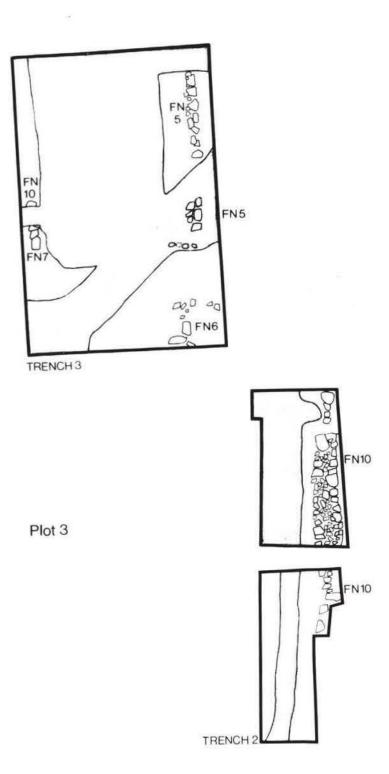
The shorter sequence of more durable stone foundations on Plot 3 contrasts with the use of wooden uprights in Plot 2 where five stages of construction were attested. There was no single form of building and variations in technique and materials are likely to have reflected variations in wealth. The final phase of activity as represented in Plot 2 would have dated to the 14th century or later, but in terms of the appearance of the street, this is unlikely to have altered between the 14th century and the 18th when the national expansion of commerce began to be reflected in urban building generally.

## BROAD STREET, TRENCH 4

A small trench was opened up in the close between 30 and 34 Broad Street. It was very disturbed but yielded a number of 19th-century clay pipes which appeared to have been of local manufacture (III 127: 240-241).







III 11: 12-26 Broad Street, Plan of Phase 5

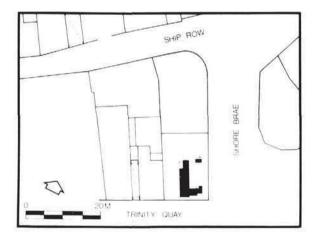
## 2:4 SHORE BRAE 1974 C M BROOKS

#### THE SITE

A rescue excavation in advance of road-works took place over six weekends in November and December 1974 on a site (Grid ref: NJ943061) at the junction of Shore Brae and Trinity Quay (Ill 12). The work was carried out by local volunteers under the direction of the writer, with the assistance of Mrs Moira Greig.

The significance of this site lay in its position at the innermost point of the town's early harbour, known as the Keyhead, which was the highest navigable point on the sandy estuaries of the Dee and the Denburn. This was therefore for many centuries the main landing and dispatch place for all goods going by sea. The site covers an area of just over 100 sq m, but the area that could be examined was limited by the time available and by safety factors, for the trenches had to be kept a reasonable distance from the standing building adjoining the site to the W and from the walls revetting a car-park uphill and Shore Brae to the E. A total area of about 27 sq m was opened up, but only in 3 test areas (Areas 1-3) was there time to excavate to any depth owing to the thickness and complexity of the post-medieval deposits. In none of these areas, the deepest of which was dug to 3 m below the present ground surface, was the natural undisturbed subsoil reached; the necessity for shoring the sides and constant pumping away of water, and the difficulty of working in narrow deep sections, meant that the earliest deposits could not be reached.

The most important discovery of the excavation was the stone-built late medieval harbour wall, although the constructional details of only two short lengths of this could be recovered. This wall had at least two phases, and was succeeded by major harbour works which created a new waterfront line further out towards the line of the present Trinity Quay. The old harbour area was filled in within a short time, the infill containing late 15th/early 16th-century pottery. When this made ground had stabilized, it was overlain by phases of occupation represented by cobbled surfaces, hearths and drains. The most recent building on the site was a 19th-century warehouse.



Ill 12: Location map of Shore Brae

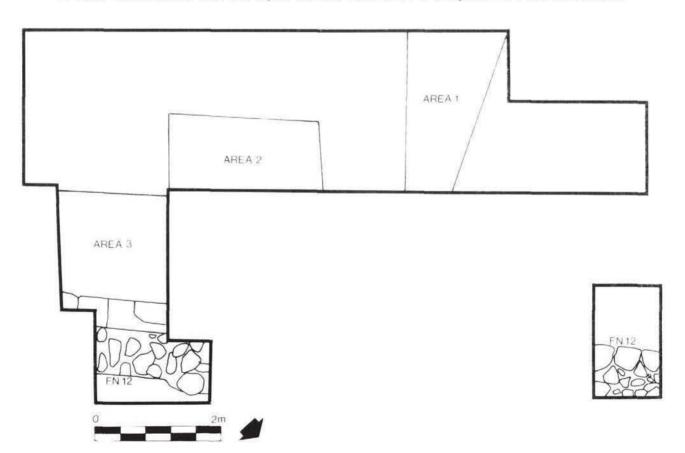
#### THE EXCAVATION

#### PHASE 1: LATE 14th-15th CENTURY (III 13)

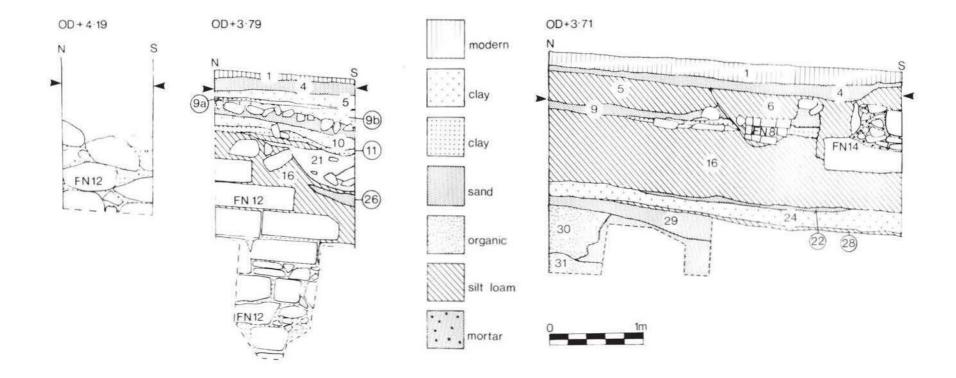
The earliest feature on the site was a wall, FN12, located first in the E extension of Trench 1 at a depth of 0.90 m below modern ground surface. The wall was discovered at a late stage in the excavation, so only a small length, 1.60 m, was revealed. The outer face (Area 3) was dug to a depth of 3.0 m without reaching the base. The wet conditions and necessary shoring at this depth made recording very difficult.

The upper part of the wall (Ill 14) was of large well-dressed granite ashlar blocks, close-jointed and worn smooth on the outer face. The stones, 0.80-0.90 m in length and 0.30-0.50 m in breadth, were laid in courses of varying height. Rounded arrises on the blocks were probably not intentional. The core of the wall was of large water-worn granite boulders bedded in yellow clay. Lower down, the outer face of the wall was of rougher rubble construction bonded with red clay and the core, which was partly excavated, was of stones set in red clay. The W, outer, face of the wall had a pronounced batter and the structural characteristics strongly suggest a quay wall. The upper ashlar-faced section of the wall with a yellow clay core probably represents a rebuild after time and weather had destroyed part of the earlier wall. A layer of grey silt 0.05-0.06 m thick overlying the red clay core supports this assumption. The uppermost part of the wall core has a brown sandy soil between the boulders, which might possibly represent a third phase. (I am grateful to G Stell for comments on the wall.)

A small trench 1.0 m wide, Trench 2, was laid out some 7 m further back from Trinity Quay to check the line of the wall. The top of the wall was reached at a depth of 0.75 m below modern



III 13: Shore Brae, Plan of Phase 1, 14th-15th century



Ill 14: Shore Brae, Wall FN12 in E section of Trench 1, Area 3 and E section of Trench 2

Ill 15: Shore Brae, E section of Trench 1, Area 2

ground level. The construction was of water-worn boulders bonded with red clay, similar to that of the earlier phase of FN12 in Trench 1. Being in a more sheltered position, this part of the wall was perhaps not subject to as much erosion, and did not need repairing when the upper part of the wall in Trench 1 was rebuilt with ashlar masonary. Had there been time to link up these trenches, over 9.5 m of the length of the wall would have been revealed. In the limited area that was excavated there was no trace of any associated timbers.

The dating of this wall presents some problems. Pottery dating of the site in general is complicated by the presence of residual sherds. 14th-15th century stoneware sherds occur in the uppermost levels of the site, for instance, and there are 13th-14th century Scarborough ware sherds in association with 14th-15th century pottery in the lower levels. The dating of locally made pottery is less clear cut, so it is more difficult to estimate how much is residual in a given level. The only direct dating evidence for FN12 is a single unglazed body sherd in Fabric 3 from Layer 38, the yellow clay core of the wall's later phase. This fabric is probably medieval (see pottery report p 171 and Ill 101) but occurs sporadically through to Phase 4. The deposits of sandy soils and midden-like material found at the back of FN12, behind the clay core, are presumably contemporary with the construction of the wall. The only finds from these levels (37, 39, 45) were a few sherds in Fabric 1.

The deposits to the W of the wall are more helpful for dating purposes. The lowest levels in Area 2 (29, 34) were water-laid yellow sand and gravel layers alternating with very thin bands of black clay (Ill 15). These early silting levels, which were taken to be sterile natural sand until sectioned, yielded a few small lumps of burnt daub and a sherd of Langerwehe stoneware. Beneath 29 and 34 was a fine blue-grey apparently sterile sand, which there was not time to test properly. Above was a thin band of black silt (28) overlain by another sandy layer (25). Pottery was found to join between Layers 25 and 34. Layer 24, a narrow layer of dark brown soil with charcoal, overlay 25, and was in turn overlain by a thin brown sand layer (22). These layers all contained 14th-15th century stoneware and Layer 24 had, in addition to local pottery, two late 14th-century Aardenburg handles, a possible Dutch pipkin sherd and a residual Scarborough ware sherd, reflecting the widespread trade contacts of Aberdeen.

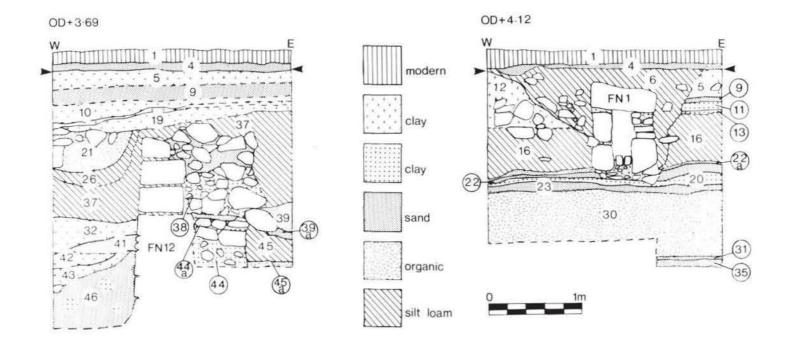
A pottery join between Layers 34 and 46 relates the early silting levels of Area 2 to the lowest brown sandy layer of Area 3 (Ill 16), immediately adjacent to FN12. The levels between the two areas do not correspond directly, however, except in general character. Layer 46 is overlain by 43, a dark grey sandy clay, again containing a possible Dutch pipkin sherd. This is beneath Layer 42, a brown-grey sandy clay, above which is a yellow-grey silt layer with clay lenses (41). A black slightly sandy clay (32) was the uppermost layer of this phase. Both Areas 2 and 3 suggest an initial period of use as a water-channel bounded by wall FN12, with silting levels containing small amounts of refuse probably deposited from the landward side. The dumping of domestic refuse increased with time, leading eventually to the deliberate infill of this area in Phase 2.

Phase I deposits in Area 1 (Ill 17) were more difficult to interpret. The lowest level reached (35) was a black pebbly soil with organic material, bone and twigs. A grey sandy soil (31) overlay this and above 3I was a thick black midden-like deposit containing charcoal, bones and pottery (30). A water-laid sand level, 0.08 m thick, covered this (23, corresponds to 29 and 34 in Area 2) and was overlain by a narrow band of black clayey silt (20). The layers with large quantities of organic material were very different from the predominantly sandy levels in Area 2 close by, and evidently indicate a greater use of this area for refuse disposal, perhaps as it was closer to land on the NW side.

The finds from the silting layers suggest a late 14th/15th-century date for the period of use of the harbour wall FN12. The use of granite and method of construction would be consistent with a date in the late 14th or first half of the 15th century. Stratigraphically, the wall and layers of silting and refuse deposition are everywhere sealed by the infill material of Phase 2, which probably dates to the end of the 15th century or early 16th century.

There is some documentary evidence for the medieval harbour and wharf of Aberdeen. It has been suggested that the name 'Shore' as applied to quay-sides and streets close to harbours may indicate the use of a landing-place antedating the construction of regular quays (Graham 1969, 206). This would seem very likely in the case of Aberdeen. Robertson (1839, 275) says:

'The most ancient, and during many years the only erection within the port was a bulwark, extending from the Shiprow southwards, and now known as the Shore Brae. Its extremity



was called the QUAY-HEAD, a name afterwards applied to the wharf extending from the vicinity of the Trinity Kirk eastward beyond the present Weigh-house. At what time it was built is altogether unknown, but it was in existence in the fourteenth century, and was probably constructed in the preceding age'.

'Our key of Abirden' is referred to in a contract of 1399 (Dickinson 1957, 106). The town records of the 15th and 16th centuries show that repairs to the quay were frequently necessary (Robertson 1839, 275-6), which would support the interpretation of the two construction phases of FN12; perhaps the repair works can be correlated with those recorded in 1453.

Froissart's *Meliador*, written between 1365 and 1383, refers to Aberdeen's jetty made of ashwood (Diverres 1965, 100). It is likely that the earliest wharf construction would have been of wood, to be replaced perhaps by the stone and clay construction of FN12 (although only short lengths of this wall were revealed and the possibility of it incorporating some timber cannot be ruled out). The stone construction finds general parallels among harbour walls of later periods, but Graham (1969, 206-7) points to the paucity of dating evidence for their masonry styles and the persistence of traditional building methods, combined with the use at all periods of the locally available stone, which may prove misleading. In discussing the use of undressed beach-boulders, for instance, he notes that these are often found in the lowest courses of 16th-century piers, but also occur in the 18th-century Lundin pier. The inference to be drawn is that these works were built on virgin sites, and that the first courses were thus formed of easily available boulders. Similar boulders were noted in the construction of FN12 in Trench 2.

# PHASE 2: LATE 15th-EARLY 16th CENTURY

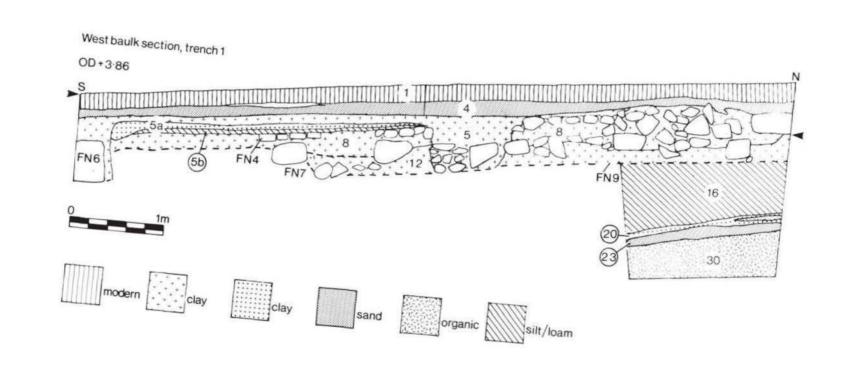
At the end of Phase 1 it is likely that the area sheltered by the bulwark or Quay-head was noticeably filling up with silt and refuse and the wall was again in need of repair. Stones at the S end of FN12 were missing, although it is not clear whether this was through natural action or whether they were deliberately removed for re-use elsewhere. If the latter was the case, it is strange that more of the well-worked ashlar blocks of the upper wall were not taken.

The wall itself in Trenches 1 and 2 and contemporary levels in Areas 1, 2 and 3 were sealed by a grey-brown homogeneous soil 0.45-0.70 m thick, containing pottery and some charcoal (Layer 16, incorporating Layers 17, 18, 27 and 40 which were thus denoted in the various sections until it became apparent that they were in fact the same deposit). Layer 16 appears to have been a deliberate infill of this area, with a view to moving the line of the wharf further out; a continuing process in the development of harbours. This layer contained, in addition to local wares, 14th-15th century stoneware, a Dutch pipkin fragment and a sherd of 15th-century Valencian lustreware. In this context it is interesting to note that about 1484 'the wreck of a Spanish barge, on the southern shore, which obstructed the channel, was removed' (Robertson 1839, 275). At this time also the Quay-head was either repaired or rebuilt.

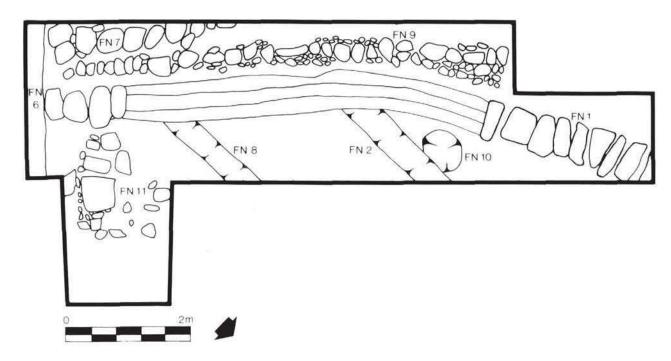
Dating Phase 2 precisely is rather difficult, as the material for infilling might not necessarily contain pottery in contemporary use. Furthermore, an exotic piece such as the lustreware plate might not be broken and discarded for some considerable time after acquisition. Phase 2 might relate either to the rebuilt wharf of 1484, or to a major reconstruction phase in 1526, which was necessary in spite of the repairs carried out in 1512 (Robertson 1839, 275-6). Repairs were also needed in 1549, when a stair was added, and in 1582 a crane was erected. The 17th century saw the building of the Weigh-house which also served as a custom house and the extension of the wharf E to Footdee, reclaiming a considerable amount of land. The appearance of the Keyhead in Parson Gordon's map of 1661 (III 130) is thus rather different from that of the earlier harbour and its bulwark.

# PHASE 3: 16th-LATE 17th CENTURY (III 19)

Above the infill level of Phase 2, various occupation levels were found on the made ground. These had been considerably disturbed by later drainage systems, although there were no cellars on this



Ill 18: Shore Brae, W section of Trench 1 including W section of Area 1



III 19: Shore Brae, Plan of Phase 3, 16th to late 17th century

site. The remaining small areas of occupation yielded a sequence of post-medieval pottery, mixed with a number of residual sherds. However, it was difficult to make much sense of the floors and structures.

The earliest features were a cobbled surface (FN9) and a trodden clay surface (Layer 13) cut into by a small shallow pit (FN10) with a dark fill containing coal fragments. Layer 13 was cut away by FN1 and FN2; traces of this floor were found also in the area between FN2 and FN8. FN9, which lies at about 0.80 m below ground level, was cut through on one side by the foundation trench of FN1. It did not appear to be cut away on the other side, nor was there evidence for its continuation E of FN1, which suggests that it was a pathway rather than a cobbled area. The stones were well-laid, being up to 0.40 m across and 0.30 m in depth. Beside FN9 and set slightly higher was a row of water-worn boulders at the edge of the trench, which may have been part of a wall (FN7). At about the same depth as FN9 and Layer 13, and probably belonging to the same period, was part of a floor constructed of stone slabs and red clay (FN11).

Between these floors and FN4, the next major horizon detectable, were Layers 10, 11, 12, 19, 21 and 26. The latest layers (10 and 11) are linked by sherds from the same vessel, a trailed slipware bowl; there is another sherd from this bowl from a later layer (5, Phase 4). Phase 3 probably dates to the late 17th or early 18th century.

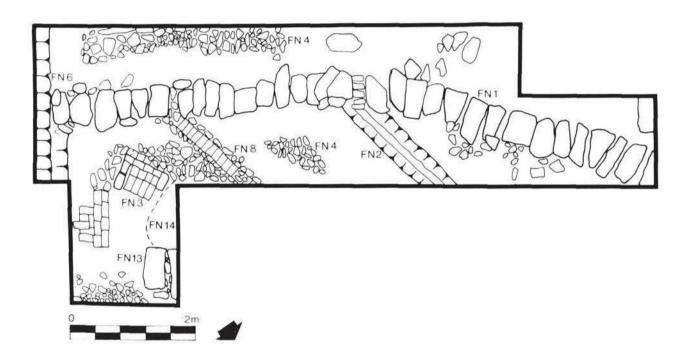
# PHASE 4: 18th-19th CENTURY (Ill 20)

The next structural phase was a floor which was in some places of small stone cobbles and elsewhere of bricks (FN4). The cobbles were in close association with a brick structure (FN3). This was probably a hearth, and had a brick floor and a wall of up to three courses of clay-bonded bricks. The fill of this feature was a black soil with ash and coal fragments. Floor FN4, which in places was covered by a similar layer of black soil and coal 10 mm thick, was cut away by the later drains and wall FN6, and also apparently by FN13 and 14. Its depth was 0.40-0.50 m below ground surface.

FN13 was a massive mortared stone structure, possibly a wall, just appearing in the E extension of Trench 1. It perhaps relates to another stone and mortar construction FN14, which appeared in the section of Area 2.

The massive granite block at the bottom of FN14 showed quarrying wedge-marks which were probably mid-18th century in date (Stell, pers comm).

Layer 5 represents a general build-up of material over the whole trench above the level of FN4, and is cut into by drains FN2 and 8, and perhaps FN1. FN1 was a large drain cut to a depth of 1.40-1.50 m, and constructed with walls of mortar-bonded stone and brick covered with large unshaped capstones, the joints of which were sealed with red clay. It ran the length of Trench 1, evidently to empty out into the harbour. Running into it were two smaller drains, one a salt-glazed drain-pipe (FN2), the other a covered drain built of bricks, the trench being packed with stones on either side (FN8). This drainage stystem is dated by the find of a George III coin from Layer 6, the fill of the trench in which FN1 is set, and some late pottery; the finds from Layers 6 and 8 were combined, as the layers could not be distinguished until the stons of FN1 were clearly defined. Wall FN6 was built over FN1, and was presumably part of the same phase of construction. It was overlain by Layer 5, dated by a small lead seal stamped '1791'. The whole area was later sealed by Layers 1 and 4, the sand-bedded cobbled floor of the latest building of the 19th century.



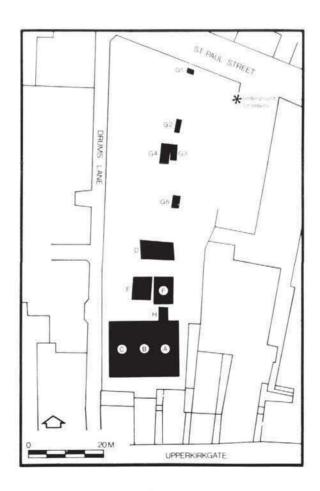
Ill 20: Shore Brae, Plan of Phase 4, 18th to 19th century

# 2:5 42 ST PAUL STREET 1977-8 HILARY MURRAY

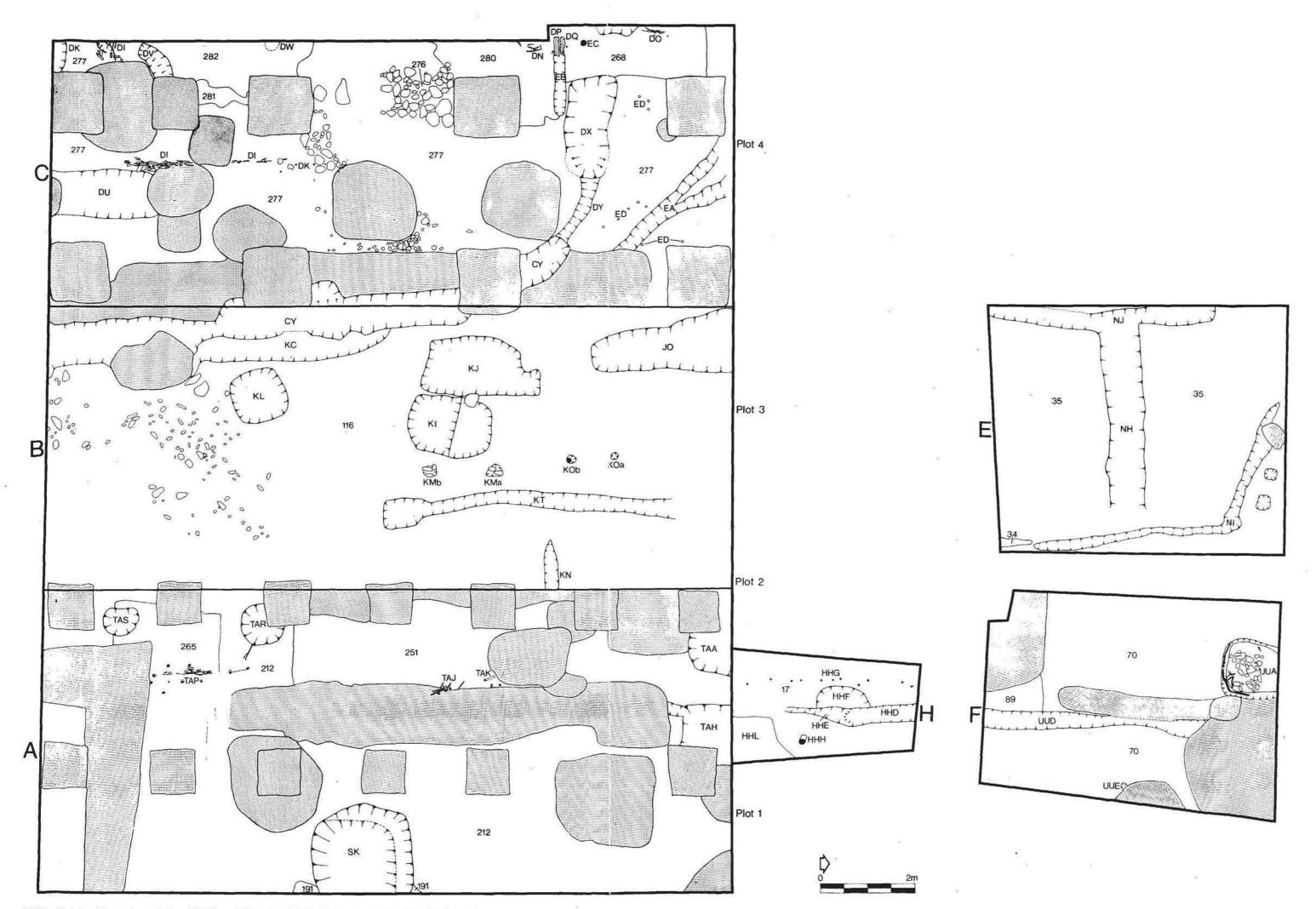
with contributions by J Cripps, J Kenworthy and Judith Stones

# THE SITE

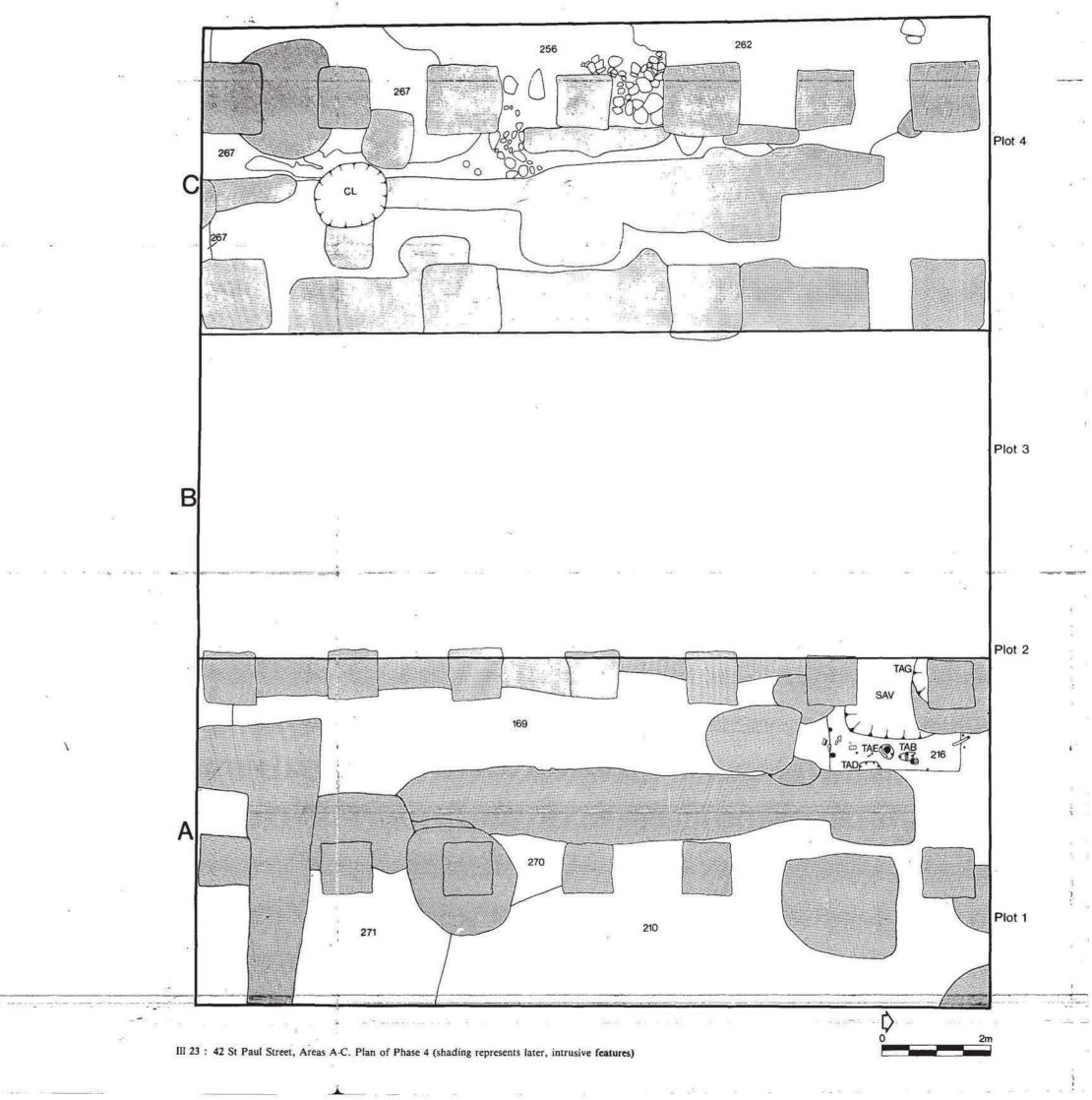
Excavation took place on the area previously occupied by the warehouses of Farquhar and Gill which were acquired by Aberdeen City District in 1977 and demolished prior to redevelopment. The site (Ill 21) extended between the backs of 18-26 Upperkirkgate to the S and St Paul Street to the N; it was bounded on the W by Drums Lane and on the E by Kirkgate Court, a passage between 12 and 18 Upperkirkgate (Grid ref: NJ941065).



Ill 21: Location map of 42 St Paul Street



Ill 22: 42 St Paul Street, Areas A-F and H. Plan of Phases 2 and 3 (shading represents later, intrusive features)



# THE EXCAVATION

Trial trenches dug on the site in 1973 by C Brooks had demonstrated that there was a considerable depth of stratified medieval deposits, so it was decided to undertake a large open area excavation as part of a Manpower Services Job Creation scheme which took place in August 1977-February 1978. As the site afforded a good opportunity to investigate several backland properties, the main focus of the excavation lay directly behind the Upperkirkgate frontage buildings where three main areas, A, B, C, each c 6×15 m (Ill 21), were examined. Areas A and B were subsequently extended back from the frontage by Areas F, H and E respectively, linking them to the fourth main area, D,  $5 \times 8.5$  m, which was excavated c 35 m N of the back of the Upperkirkgate frontage buildings to see how far occupation extended towards St Paul Street. As the results of Area D suggested that there was little occupation or intensive use of the land N of this point, the remainder of the site was only investigated by a series of trial trenches, G1-G5, which confirmed this impression.

The thickness of medieval deposits varied but it was up to 1.5 m at the S end of the site, tailing off in Area D. Natural levels consisted of a range of sand and gravel layers at depths of OD + 1700 to OD + 1750.

The individual areas were separately supervised (A, F, H: H Murray; B, E: N Hakiel; C: E Sanders, A Graham; D: P Yeoman; G: A Graham) and separately recorded. Layer numbers are, therefore, preceded by the area letter, eg C122. Features are letter coded eg AA, TAB etc; these are not preceded by the area letter as exclusive groups of letters were used in each area (Area A; SA-TZ, SAA-TAX; Area B: JA-KZ; Area C: AA-ED; Area D: WA-WV; Area E: NA-NP; Area F: UA-UZ, UUA-UUG; Area G: FA-FI: Area H: HHA-HHL). Layers were cross-related between areas and as many of the major layers and features were recognised across the site, the whole site was correlated into 13 phases (composite matrix: Ill 48. Area matrices: Tables 12 mf-17 mf). These are purely stratigraphic and there is no implication that they were of equal duration. The site phases are discussed in summary form, with a plan of each phase. Details and measurements of all the features can be found in the catalogue of features (Tables 1 mf-11 mf). The full site records are held in archive.

# PHASE 1 JKENWORTHY

An industry of later Mesolithic technology (?6500-3500 BC) is represented by small amounts of struck flint in the old land surface. The frequent occurrence of burnt pieces shows that hearths were present on or near the site, which may have been a short-term seasonal hunting camp.

Associated finds: flint 185, 188, 189.

# PHASES 2 AND 3 (III 22)

Phase 2 included features cut into or recognised only in the natural sand. Phase 3 included features cut into or built on subsoil (A212, A233, B116, C277, C287, E35, F70, D73).

Examination of botanical samples (Chapter 7) from the subsoil (A212, A233) yielded a predominance of weed seeds suggesting that the ground may have been waste or uncultivated land before it was divided up. Two soil stains (TAN and TAO) appeared on site to be possible cultivation marks but they were shallow and irregular and are more likely to have been fairly incidental spade marks or the result of the action of small animals. (We are grateful to IAG Shepherd for his opinion on these marks.)

The first recognisable medieval activity began when the area was subdivided by a series of boundary ditches (NH, TAH, CY, HHD, HHE, JO, KC, KT, NI, NJ, UUD, WV). With the possible exception of TAH and NH which were only identified in natural, the ditches were cut into the subsoil. They appeared to form three main N-S boundary lines. The E boundary which was delimited by UUD, HHD and HHE appeared to have been continued S by the narrow ditch associated with TAH.

Any extension of this ditch further S had been cut by later ditches, but the line of a building (TAP), a fence (TAJ) and the E edge of layer A251 suggested that the boundary extended S for the full length of Area A. Further W, ditches KT and NI and bank E34 appeared to form another N-S boundary. The N limit of the property was first defined by ditch NH and later by the E-W section of ditch NI. The third boundary was originally formed by ditch KC but this was soon recut by ditch CY which curved W as DX and DY to form an E-W boundary at the N end of the property. The line of this boundary was extended N by ditches JO and NJ but it was not possible to determine whether these belonged to the earlier or later phase of the boundary.

A large N-S ditch (WV) in Area D did not appear to be in line with any of the other boundaries and it appears likely that this area was beyond the N limit of the properties at this period.

Several very shallow, irregular ditches (EA, KN, DV) did not conform to any of these boundaries and may only have been used for drainage. The boundary ditches themselves appeared to have been used partly for drainage, as pits or sumps were found in TAH and KT. There was, however, no evidence that the ditches had been kept empty and although several (HHD, TAH) had a thin layer of silting at the base, the fills were generally organic and appeared to be the result of rubbish accumulation.

The plots formed by the boundaries have been numbered 1-4 (E to W: Ill 22). The full width of Plots 1 and 4 is unknown as both extended beyond the limits of excavation. It can be said that they were over 3.5 and 5.5 m respectively. Plot 2 varied between 3.5 and 4.0 m in width and Plot 3 between 3.0 and 3.5 m. Although several possible N boundaries were found (for example the end of NI) the exact length of the plots cannot usefully be given as there is no evidence as to whether the street frontage on Upperkirkgate, which would form the S boundary, remained on the present line.

The only feature in Plot 1 at this period was a large cess pit (SK) which appeared to have been filled fairly rapidly as it was cut into A212 and the sealing layer of the pit (A191) lay directly on A212. A fragment of a post-and-wattle building (TAP) stood at the S end of Plot 2. There was no evidence of its function and its E side had been destroyed by later features. The area directly to the N of the building appeared to have been a yard with a fence (TAJ) as the boundary. Much of this yard was covered by a smooth black organic layer (A251) which may have been the result of stabling or herding animals in the area. Further N, there were two cess pits (TAA and UUA). In TAA the cess was sealed by sand (A221, A241). In UUA there was no sealing layer, but a layer of stones at the base of the pit must have been intended as a soak-away.

In Plot 3, a line of four large post-holes (KM, KO) could be assigned to this period. They were not associated with any other structural feature. Three rubbish pits (KI, KJ, KL) also appeared to belong to this period, but the stratigraphy was unclear due to disturbance by the later stone building and they may have been as late as Phase 4 or 5.

Most of Plot 4 up to the N boundary DX/DY was filled by another post-and-wattle building (DI). The function of ditch/trench DU was uncertain. It was not on the boundary line but the rather clean fill (C292) did not suggest that it had been a rubbish or cess pit.

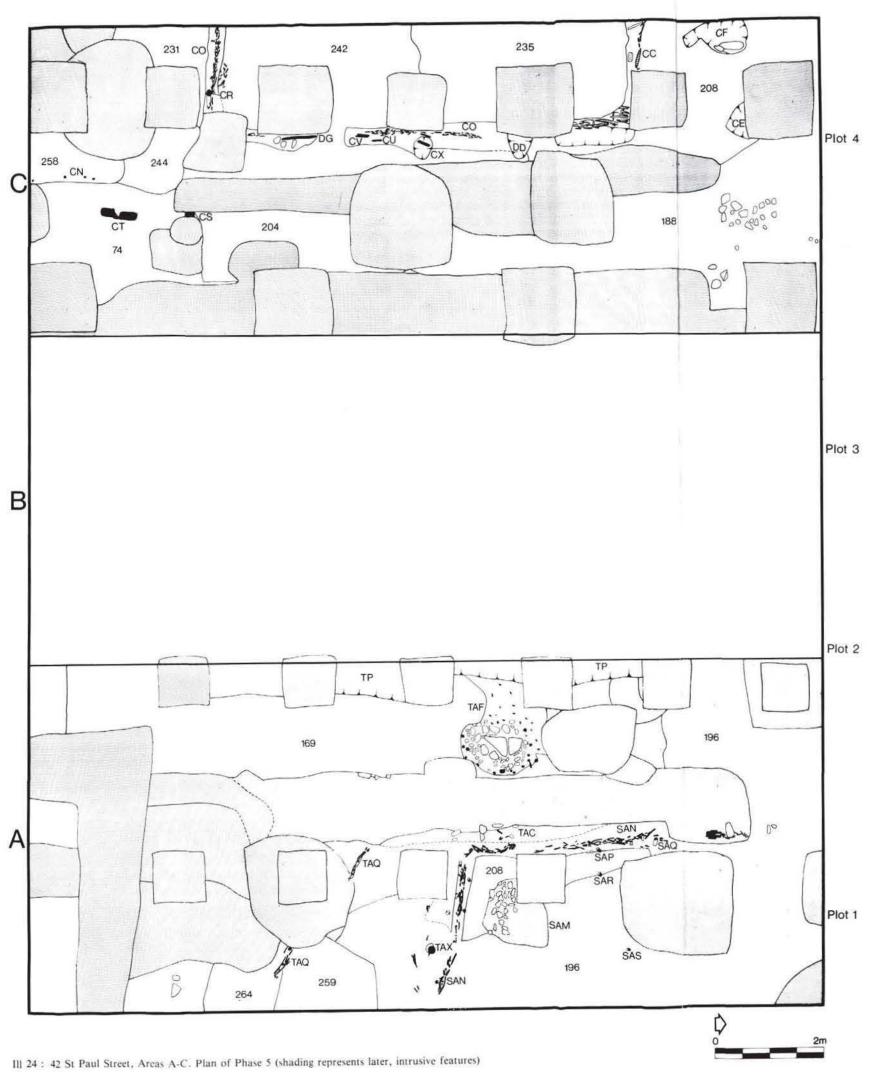
Phases 2 and 3 can probably be dated to the mid-12th or early 13th century on the basis of the presence of some Developed Stamford ware (337, 339-340) and the absence of later fabrics. Associated pottery: 334-356.

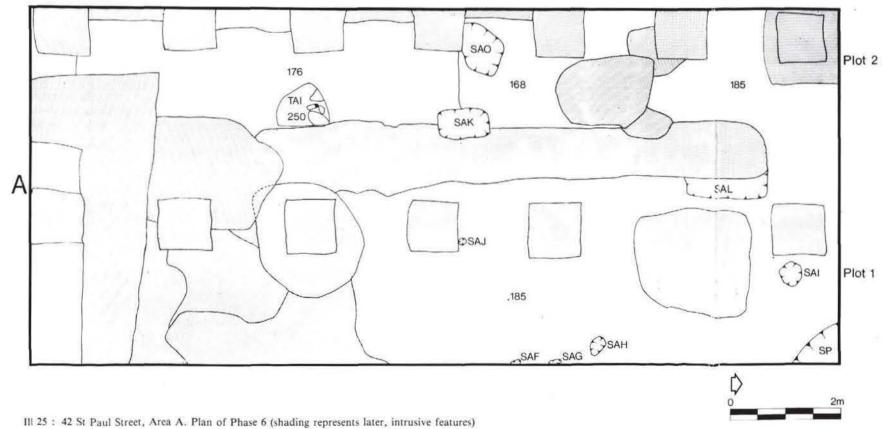
Associated finds: wood 15, comb 30, leather 112, 122, 128, 129, 134, 138, 140, flint 183, 186. Catalogue of features: Tables 1 mf and 2 mf.

# PHASE 4 (Ill 23)

After the boundary ditches of Phase 3 had filled up and the buildings had gone out of use, the S part of the properties, nearest to the Upperkirkgate buildings, appeared to have been used as open yards. There was no evidence of any activity on the N part of the site in this period. The N-S boundary between Plots 1 and 2 appeared to have continued since, although there was no ditch or fence, there were distinct soils to the E and W of the boundary line. In any case, the Phase 7 ditch would have removed most earlier features on this line.

A reddish-brown organic layer containing some wood and decayed bone (A210) had accumulated





over most of Plot 1. It varied in thickness from 0.02 to 0.14 m and could most easily be interpreted as the normal organic build-up in a yard area.

The SE corner of a fairly flimsy post-and-wattle structure, possible a shed (TAB) stood at the N end of Plot 2. The W side of the structure had been destroyed by a later stone building. After the building had fallen out of use, the area was cut by a large pit (SAV). The function of this pit was not clear, the fill consisted of alternate woody organic layers and sealing layers of sand or clay. No pottery, leather, bone or small finds were in the fill, so it does not appear to have been a rubbish pit. The S 3 of Plot 2 were covered by an extremely crumbly peaty-organic layer (A169) up to 0.25 m thick. The almost sterile nature of the deposit suggested that it had been a deliberately laid layer of turves.

Nothing in Plot 3 could be attributed to this phase.

During this period Plot 4 appeared to have been used for extensive rubbish dumping. The earliest dumps were at the S end where they were thickest (C279, C272, C267), with a thinner spread to N and E (C259, C256, C257). This midden was presumably being built up by the inhabitants of the contemporary building on the Upperkirkgate frontage dumping their rubbish in the yard behind their house.

A small pit (CL) appeared to have cut into the top of these dump layers. The quantity of pottery, leather and bone in the fill suggested that this was a rubbish pit; the fill was certainly not cess. It is difficult to understand why a pit was dug in this instance instead of merely adding to the midden. The pit and the midden were both sealed by a mixture of organic and clay layers (C231, C243, C244, C270) in Phase 5.

Low Countries grey cooking wares (381) which first appeared in Phase 4 and Yorkshire wares (385, 386) both indicate a date in the early 13th century.

Associated pottery: 357-386.

Associated finds: stave? 6, whetstones 42, 43, leather 107, 131, 142, 148, textile 159.

Catalogue of features: Table 3 mf.

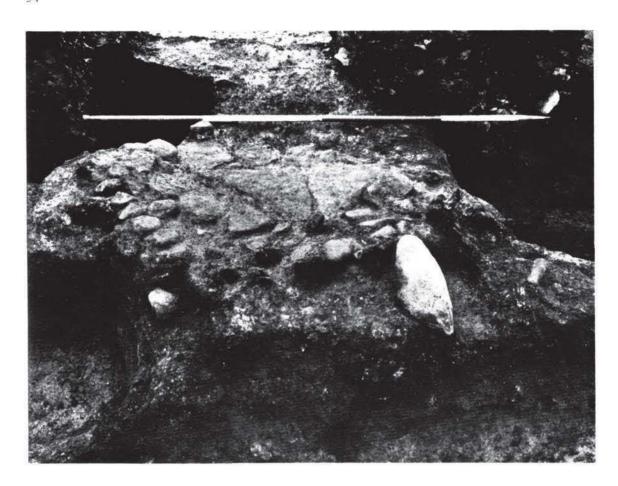
# PHASE 5 (Ill 24)

There was a considerable increase in the intensity of use in the area during Phase 5, with buildings on two of the properties and an oven on a third. The N of the site however, still appeared to have been virtually unused.

There was little evidence of the boundaries at this stage. The boundary between Plots 1 and 2 was still in existence, as part of a ditch (TAC) was found on this line and there was still a difference between soil A169 which remained to the W of the boundary and a peaty-organic layer (A196) which extended over the area to the E in Plot 1. The picture was slightly confused, however, as A196 may also have extended into the N end of Plot 2. A ditch-like feature (TP) was found 2 m W of the Plot 1/2 boundary line. It had been badly disturbed by the foundations of a later stone building (JC) and only c 0.20 m width survived. It was unlikely to have been a boundary ditch due to its proximity to the open end of a contemporary oven (TAF) where space would have been needed for stoking and filling the fire.

A post-and-wattle building (SAN) was built at the N end of Plot 1. The building had a hearth and may have been a dwelling. A wattle fence (TAQ) appeared to enclose a small yard around the S end of the building. The yard was covered by a gritty-sandy loam containing ash and charcoal which may have been thrown from the hearth (A258). A rubbish dump (A259) was cut within the yard and appeared to be contemporary as it respected the fence. The remainder of Plot 1 between wall TAQ and the Upperkirkgate frontage, appeared to have been a fairly open area, with an accumulation of organic earth (A264). Other features may have existed in this area but it had been very disturbed by later dumps.

Peaty layer A169 (Phase 4) still covered the S  $\frac{1}{2}$ 3 of Plot 2. An oven (TAF: Ill 26) was built on it at this stage. It appeared to have been a bread oven. It is not possible to determine if it was for family or 'commercial' consumption, but the oven would have had a fairly large capacity. There was no sign of a shelter and the oven would appear to have stood in the open air away from buildings, presumably in order to reduce the fire risk.



Ill 26: 42 St Paul Street, Area A. Base of oven TAF: Phase 5

Nothing in Plot 3 could be firmly assigned to this period although it is possible that pits KI, KJ, KL were as late as this.

A post-and-wattle building (CO) covered most of Plot 4. Before it was constructed the N end of its site was levelled with Layers C236 and C242. There was no evidence of the building's function but it may have been a dwelling. A gravel yard (C208, C240) extended around the N end of the building. A similar gravel (C235) had been laid as an internal floor shortly after the building was constructed. A series of clay and organic layers (C190, C226, C227, C237, C239, C271) accumulated E of this structure while it was still in use. These were ultimately sealed by a compact gritty yellow sand (C74, C173, C188, C204, C221).

A short N-S line of posts (CN) was found at the S end of Plot 4. They appeared to form the E limit of clay C258. They could have been part of a boundary fence but they were not on the earlier Plot 3/4 boundary line and they were even further W than the realignment of Phase 7. They may have been the remains of a fence similar to TAQ in Plot 1.

Two large vertical oak timbers (CS and CT) were difficult to relate to other features. They resembled door or gate posts but there was no associated structure. They may have been related to the contemporary structure on the frontage, rather than to the backland properties.

The pottery assemblage in Phase 5 is similar to that in Phase 4 but with the inclusion of more Yorkshire wares and some early Scarborough ware, including a sherd of Farmer phase II (407) which may be dated to after 1275.

Associated pottery: 387-408.

Associated finds: wooden lid 11, leather 116, 124.

Catalogue of features: Table 4 mf.



Ill 27; 42 St Paul Street. Boundary ditch TO looking S: Phase 7

# PHASE 6 (Ill 25)

Phase 6 represents the accumulation of layers in Plots 1 and 2 after the destruction of building SAN and of the oven TAF. No equivalent phase was evident in Plots 3 and 4 and it is possible that this accumulation took place in 1 and 2 while building CO was still standing in Plot 4.

The only indication of the Plot 1/2 boundary was the difference between the soils in the two areas. In Plot 1, a layer of compact clay with small sand inclusions (A185) extended over the whole area formerly occupied by building SAN and its yard TAQ/SO. There was little activity at this stage. Only five small post-holes (SAF, SAG, SAH, SAI, SAJ), a rubbish pit (SAL) and a cess pit (SP) cut into this layer. The cess pit was sealed by a clean clay layer (A66).

Similarly in Plot 2, a compact clay surface (A168) was laid over the remains of oven TAF, which had burnt down by this stage. The total lack of pottery, bone, leather or small finds in this layer suggested that it had been deposited quickly, probably as a deliberate sealing layer. Several small pits (SAK, SAO, TAI) were dug during this period.

The pottery suggests a late 13th-century date. It is possible that this phase was of very short duration.

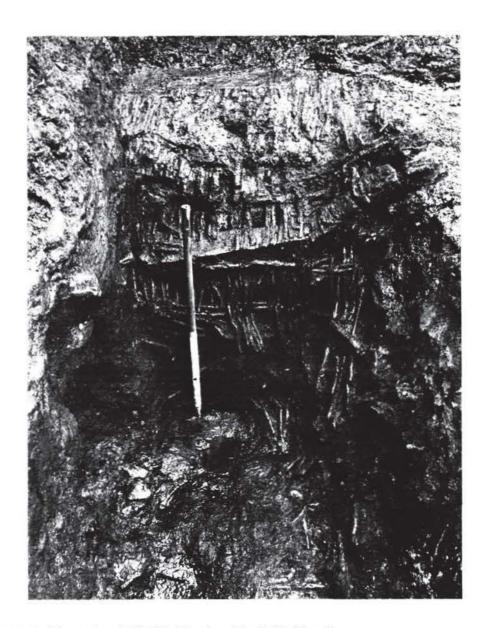
Associated pottery: 409-411. Catalogue of features: Table 5 mf.

# PHASE 7 (III 30)

After the accumulation of another series of fairly mixed clay/organic layers (A91, B104, C196, E13, E26, F43, F47, F63), there appeared to have been a fairly drastic reorganisation of the boundaries. The boundary between Plots 1 and 3 remained on its former line, but was redefined by a new, deep ditch (TO: III 27), the line of which seemed to have been extended N with another ditch (UX). A path (KF: III 28) formed the division between Plots 2 and 3. The boundary between Plots 3 and 4 was moved c 2.5 m to the W and redefined by a deep ditch (CH). This reorganisation resulted



Ill 28: 42 St Paul Street, Area B. Path KF looking N: Phase 7



III 29: 42 St Paul Street, Area A. Pit UG with collapsed hurdle US: Phase 7

in Plots 2 and 3 being c 4.5/5.5 m and 5.5/6.0 m wide respectively. Plots 1 and 4 were probably of a similar width but their outer boundaries were beyond the area excavated. However, if Plot 1 had been 5.5/6.0 m wide, the E boundary would have coincided with the modern boundary of the existing Upperkirkgate property. A similar reconstruction of Plot 4 would place the W boundary on the E side of Drums Lane (not then in existence as a lane).

It appears probable that Plots 2, 3 and 4 were under a single authority or ownership at the period of this reorganisation. The deliberate nature of the reorganisation was emphasised by the appearance of the boundary ditches CH and TO. They were very similar, deep, wide ditches ending parallel to the N and possibly to the S (although TO was cut by dumps at the S end, so this is not certain). There was remarkably little silting in the ditches (possibly A186, A189 in TO; F52 in UX) and the general impression was that they were rapidly filled by rubbish (eg A131, A149: organic, shell, wood and bone). TO had been recut or cut through an earlier ditch as the base was stepped but there was no observable difference in the fills.

In Plot 1 two post-and-wattle fences (SQ and SAC) were built on A91. They were too flimsy

to have been part of a building and were probably yard fences or pens. There were three pits in the plot at the period (SX, TN and UG). UG (Ill 29), which was at the N end of the property, had been covered by a wattle hurdle (US) and may have been some sort of cellar or storage pit. TN was a rubbish pit with a fair quantity of pottery, bone and leather in the fill. SX, which was a cess pit, originally had a kerb of stones around the top.

In Plot 2, a small area of stone paving (KH) on the E side of the property may have been an extension of path KF, but this was very inconclusive.

In Plot 3 there was a small wattle lined pit (DH) at the S end of the property. A second pit (JS) lay to the E. A series of flimsy post-and-wattle fences (NF) stood at the N end of the area. They were probably rough enclosures or pens for animals.

In Plot 4, a rubbish pit (CQ) belonged to this period.

The higher percentage of Scarborough wares and the increasing use of glazed jugs suggest a late 13th or early 14th-century date.

Associated pottery: 412-456.

Associated finds: stave 7, wood 14, whetstone 45, leather 127, 135, 143, 151, textile 158. Catalogue of features: Table 6 mf.

# PHASE 8 (III 31)

After the ditches had been filled the W part of Plot 1 and most of Plots 2, 3 and 4 were covered by a layer of redeposited natural sand which had been compacted to form a hard layer up to 0.15 m thick (A17, A110, B86, C5, C23, C24, C44, C84, C103, C153, C181, C182). Similar sand layers extended N and E (E4, E11, F50) but they were less concentrated and in Area D, at the extreme N end of the site, there was only a very thin scatter of sand (D56). These layers appeared to represent a widespread attempt to clean up the area, although in Plot 4 it is possible that they were also used as a floor level.

The boundaries were less definite at this period. The boundary between Plots 1 and 2 was represented by a fence (TX/TY) and posts (UR, UU, UUB and UUF). The central boundary was not clear but there were a few posts on this line and the edge of B86 appeared to have been cut along it. There was no direct indication of the boundary between Plots 3 and 4, but a wattle building (BQ) was just to the W of the line and may itself have formed the boundary. The stoney layer outside the entrance (C110) might have been a path on the boundary but as it was not found extending far to the S, this suggestion must remain tentative.

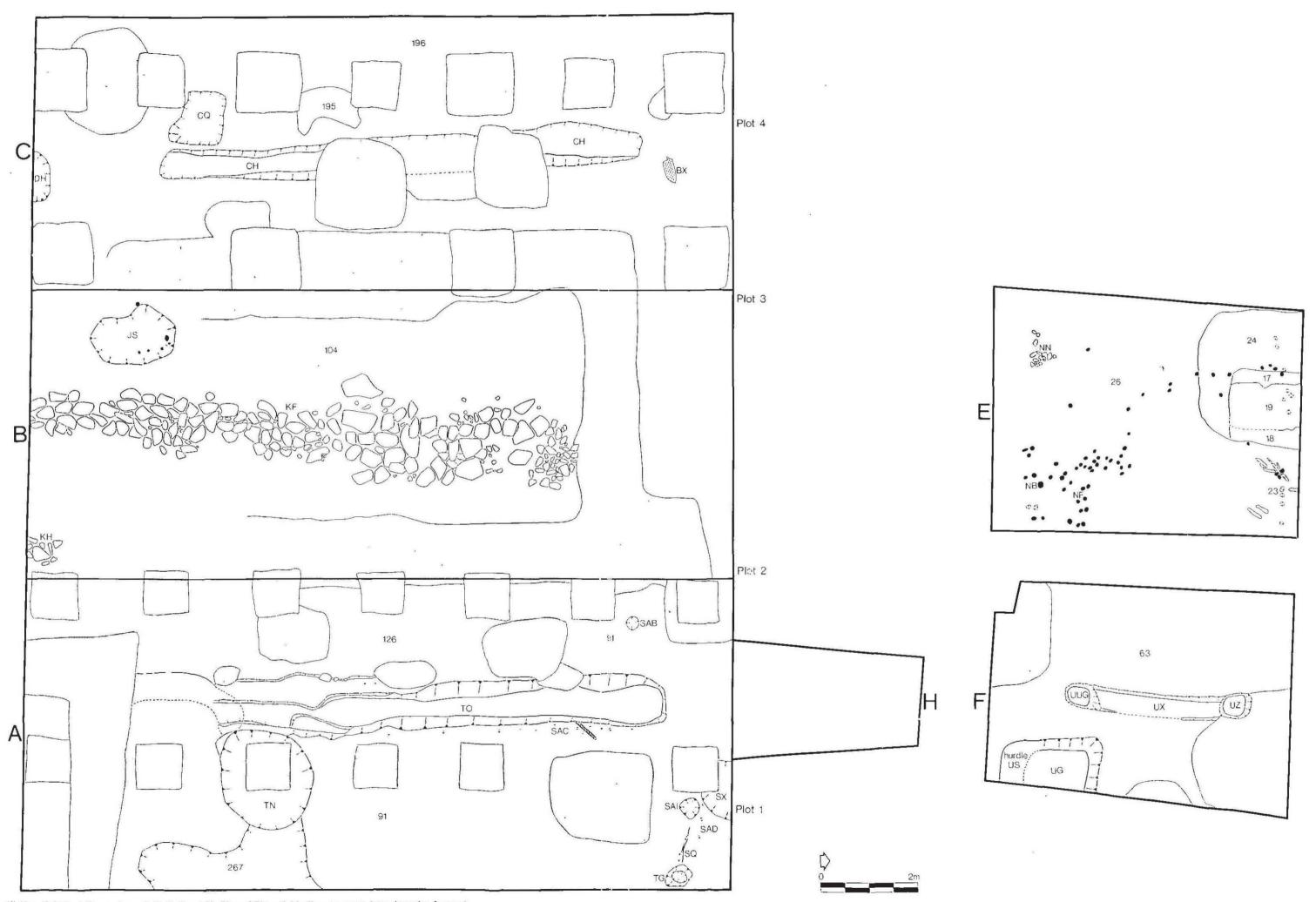
The S end of Plot 1 was cut by a series of large shallow rubbish dumps which cut one another and the underlying levels. They were filled with very compact organic material containing a lot of pottery, bone, leather etc. The duration of the dumping was difficult to determine. The dumps in the SW (A272) might have been earlier but the main dumps (A89, A257, A261) cut the edge of ditch TO and must have belonged to Phase 8. The Phase 7 cellar/storage pit UG fell into disuse at this stage and was filled with rubbish.

A series of large post-holes (TK, TL, TM, TR, TS, TV) formed parallel lines on either side of the boundary, overlapping Plots 1 and 2. Post-hole TU and the pit/post-hole TT may have been part of this structure. TT cut the boundary fence TX. These post-holes may have belonged to a rectangular structure built over both plots, temporarily destroying the boundary. This is, however, purely speculative as there were no further traces of this structure.

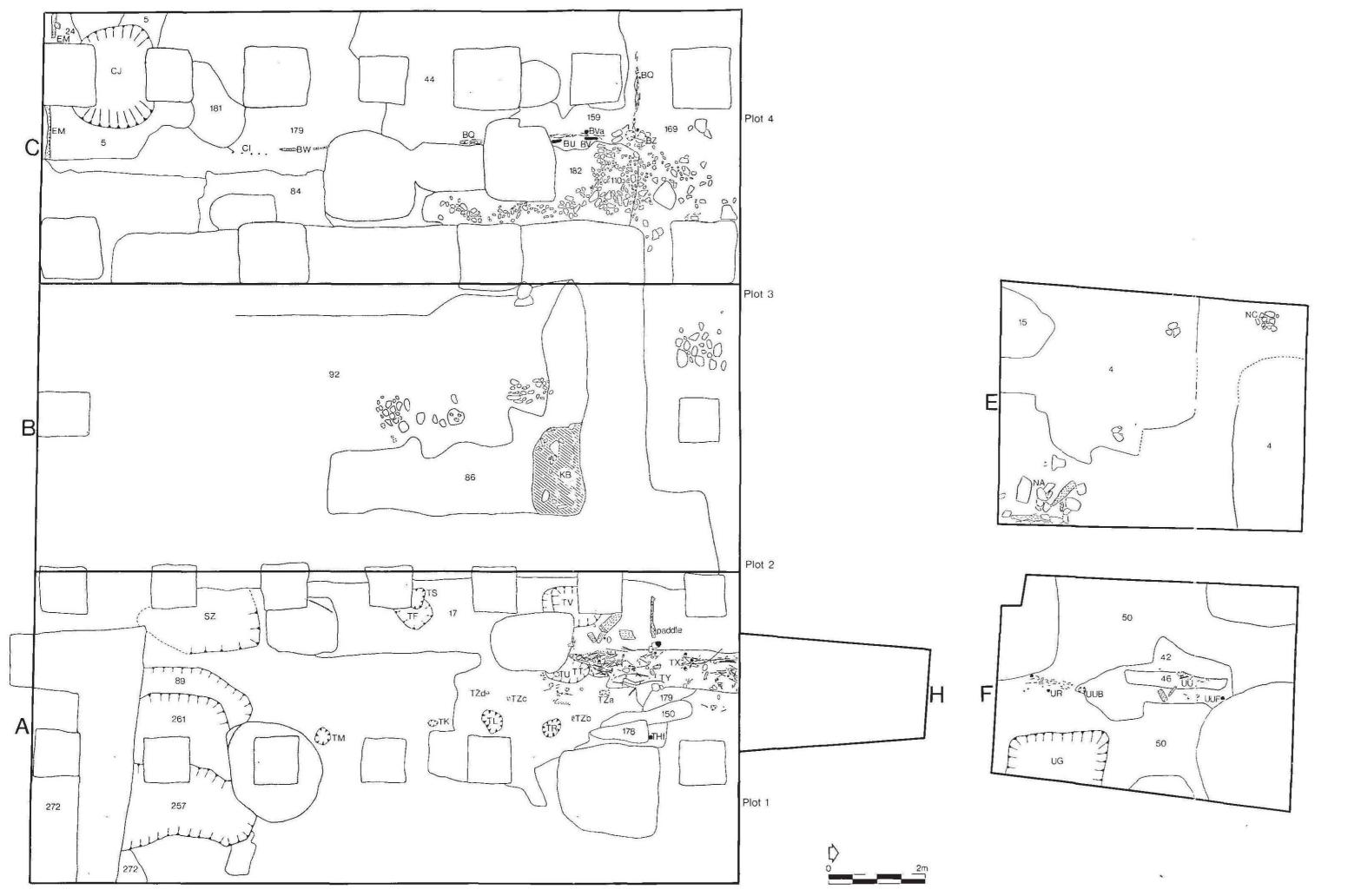
A large open hearth (KB) stood on the W side of Plot 2. There was no evidence of any industrial usage and the hearth was not related to any structure found on the site, so it may simply have been an area where rubbish was burnt.

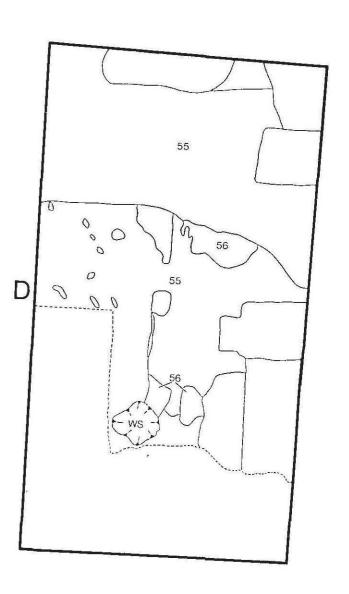
Plot 3 had been much disturbed by the later stone building (Phase 11) but an organic layer (B92) covered part of the area.

Before the sand layer was deposited, a post-and-wattle structure (BQ) was built along the centre of Plot 4. A series of organic layers containing wood fragments (C184, C191, C193) lay inside the building and may have been associated with its construction. Similar layers (C183, C187, C199) were found outside the building. At the S end of the excavated area, C191 had been cut by a pit (CJ).



Ill 30: 42 St Paul Street, Areas A-C, E. F and H. Plan of Phase 7 (shading represents later, intrusive features)





Ill 31: 42 St Paul Street, Areas A-F and H. Plan of Phase 8 (hatching represents ash, shading represents later, intrusive features)

As there was no evidence of the S end of the building, it is difficult to know if the pit was in use before the house was built or during its lifetime. The pit was sealed by a sand layer (C5/C23) which appears to have been a floor inside the building but which was contemporary with the sand layer (C84/C181) which acted as a yard surface outside the building and which was part of the general sand deposit over the whole site.

By Phase 8, the percentage of Low Countries wares was decreasing and this, combined with a very high percentage of Scarborough ware and the first appearance of Rouen ware (504-507) on the site suggests a date in the early 14th century.

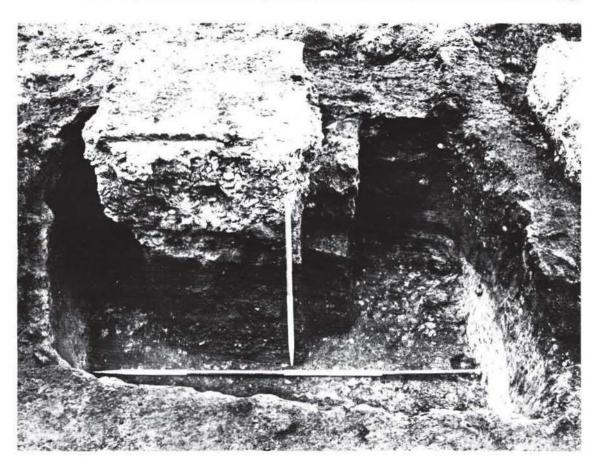
Associated pottery: 457-510.

Associated finds: wooden bowl 1, barrel staves 3, 4, 5, paddle 8, weaving sword 9, wood 13, sharpening wheel 34, sheet copper alloy 72, barrel padlock 75, leather 101, 102, 105, 106, 110, 111, 118, 119, 120, 132, 150, flint 184.

Catalogue of features: Table 7 mf.

# PHASE 9 (III 33)

A series of generally organic/clay layers (A74, A90, A128, A130, B54, B63, B72, B82, C43, C86, C92, C93, C139, C140, C176, F6) accumulated over Plots 1, 3, 4 and part of Plot 2, sealing Phase 8 features. The overwhelming impression was that, in this period, this area was used as backyards, full of pits and rubbish. The only definite boundary was the one between Plots 1 and 2 which was marked by a wattle wall (SE). It is possible that this wall might have been part of a structure, as it bordered the edge of a contemporary clay floor (A98) to the W in Plot 2 and there was slight evidence that the organic layer (A90, A128, A130) E of the wall might have extended around the N and S limits of clay floor A98, coinciding with the limits of wall SE. If this had been a building,



Ill 32: 42 St Paul Street, Area A. Pit SM (with modern intrusive pillar base): Phase 9

Plots 1 and 2 would appear to have been united at this stage, although they were separated again by Phase 10. In balance, however, the evidence that this was a building was not convincing, so SE has been regarded as a fence.

The ditch (WQ) in Area D could not be related to any of the other boundaries. It was roughly in line with the Plot 2/3 boundary in Area B but there was no evidence of this in the intervening Area E.

Four pits were in use in Plot 1 during this period (SJ, SM, UC and UH). The most interesting of these, SM (Ill 32), appeared to have been a cellar. The three post-holes at either end could have held posts supporting some sort of roof or covering and there were traces of a wooden lining around the sides of the pit. There was no evidence of a structure on ground level to which the pit could have been related but a demolished sill based construction would not necessarily have left any trace. After a fairly short period, the cellar became disused and the pit was filled by a series of rubbish layers. SJ and UC were also rubbish pits, but pit UH was filled with alternate layers of cess and clean sealing layers of sand (with the exception of the basal rubbish layer F29).

A few posts and fragments of wattle at the N end of the plot may have been part of a structure, but the evidence was very vague. At the S end of the site there was a small E-W gully (SN). Parallel to it, to the S, there was a flimsy stone wall foundation (SG, TE). It is possible that these were on an E-W property division as the layers to the S of them were different from the layers to the N.

The central part of Plot 2 was covered by a deposited layer of clean hard yellow clay (A98), 0.10 m thick. This was like a flooring but may have been an external surface. The N end of Plot 2 merged with Plot 1, both being covered by the same peaty-organic layer (A74, A90, A128, A130, F6). Two large posts (UK, UL) may have been part of the same structure indicating that the N ends of Plots 1 and 2 may have been unfenced at this period.

There were four pits in Plot 2 (TA, TB, TD and UP). TB, TD and UP were all cess pits, TD and UP having had cess fills alternating with sealing layers of sand or peat. UP appeared to have been emptied at least once as the lowest fill (F86) consisted of sand and silt washed down from the sides sealing thin lenses of cess in the base of the pit. At one stage the sides of this pit had been revetted with brushwood (UW).

Plot 3 had been badly disturbed by the later stone building, but there appeared to have been a build up of a general organic layer (B63, B72, B82) over which there was a layer of brown clay (B42, B54). The latter may have been contemporary with clay A98 but this was not certain. The only other surviving feature was a tangled mass of broken wattle fragments (B76/JT) dumped on Layer B63 and sealed by stones (B49: not planned). This may have been used to level a sunken area but it had no apparent structural significance.

The boundary between Plots 3 and 4 was not clear. A series of clay and organic soils (C43, C86, C92, C93, C139, C140, C176) lay over the W area of Plot 3 and over Plot 4. A large number of pits had been dug into these layers (BB, BE, BN, BS, CG, DB). Although there was no clear boundary, BB, BE, BN, BS, CG and DB all fall along a N-S line just E of the previous boundary, so there may have been a division which has not survived. These pits appeared to have been rubbish pits with mixed fills. BE had traces of a wattle and wooden lining and may originally have been a storage pit of some sort. DB had a post-hole at the base, possibly an earlier one cut by the pit rather than one associated with it.

To the W, more pits (BM, BO, CZ) were also cut into these levels. BO and CZ were rubbish pits. BM was the base of a barrel set into a packing of clean clay. It was presumably used as a waterbutt. As the layers sealing it had been disturbed, it is possible that this was a later feature, the base of which had survived at this level.

To the N, in Area D, there was some indication of an E-W bank (D25 and D51) which might have formed a distinct boundary at the back of the properties. This was not absolutely definite as D51 also appears to have extended into the SE part of Area D.

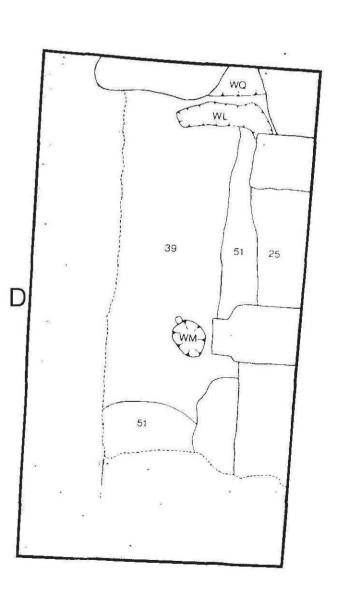
The pottery assemblage suggests a date in the early 14th century.

Associated pottery: 511-618.

Associated finds: wooden bowl 2, wooden lid 10, whetstone 41, copper alloy buckle 54, copper alloy strapping 68, roof finial? 99, leather 113, 121, 133, 136, 144, 147, 152, 153.

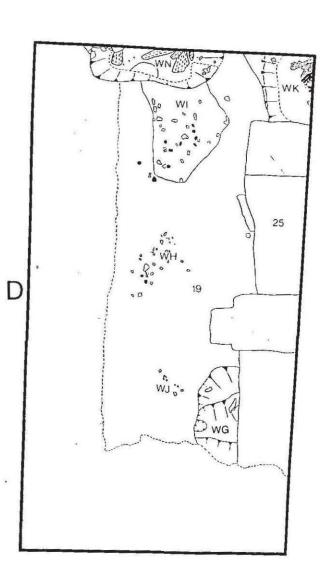
Catalogue of features: 8 mf.





Ill 33: 42 St Paul Street, Areas A-F and H. Plan of Phase 9 (chevrons represent clay, shading represents later, intrusive features)





Ill 34: 42 St Paul Street, Areas A-F and H. Plan of Phase 10 (hatching represents ash, shading represents later, intrusive features)

# PHASE 10 (Ill 34)

Phase 10 was the final medieval phase on the site. In Areas A, C, E, F and H it lay directly below the concrete and rubble belonging to the levelling and flooring of the Farquhar and Gill warehouse. In Area B there were traces of a mixed black organic layer (B41, B45) but most of the other evidence had been totally destroyed by the later stone building (JC: Phase 11).

The only boundary that could still be seen was the one between Plots 1 and 2. There was no wall on the line (except stray strands of wattle UI) but, in Plot 1, clay (A22, A26, A48, F5, H2) had been deposited on top of the generally organic layers of Phase 9 and was distinct from the contemporary organic layers W of the boundary line (A30, F6, H3). The Plot 3/4 boundary was not visible at this stage, except possibly in the line between clay (C79) and organic earth (C87).

A small stone-kerbed and lined hearth (SF) lay in the centre of Plot 1. It appeared to have been industrial as it had been fired to such a heat that some of the stones had fused and vitrified and



Ill 35: 42 St Paul Street, Area C. Drain AK with collapsed wooden cover in foreground looking NW, Phase 10

the underlying layer (A22) had been affected by heat. Ash (A18) surrounded it, with a depth of 0.19 m of ash in the area of the hearth itself. There was no slag in these layers.

In Plot 2, two horizontal timbers (SR) appeared to be the remains of a flimsy stucture. It was not possible to reconstruct them or to determine their function, although as they were pegged into the ground they must have been in their original position. Part of a pit (UUC) was found at the N end of this plot.

Plot 3 had been destroyed by the Phase 11 stone building (JC). A large open hearth (JB) at the S end of the plot may have been nothing more than the result of rubbish burning. A stone-lined wooden drain or culvert (AK: Ill 35) extended E-W across Plots 3 and 4. It was not clear if this had been a drain or a freshwater supply, the E end had slumped badly and the direction of flow could not be assessed. It could not be associated with any other feature.

The only surviving features in Plot 4 in this phase were a barrel (AR: probably a water-butt like BM in Phase 9) and a few small unrelated posts and post-holes.

The pottery assemblage suggests a date in the 14th century.

Associated pottery: 619-719.

Associated finds: spindle whorl 38, copper alloy pin 56, staple 62, iron knife blade 87, ceramic object 97.

Catalogue of features: Table 9 mf.

# PHASE 11 (III 40)

There was no evidence belonging to this period in Areas A and C. In Area B there were the foundations of a stone building (JC: see building report) which covered Plots 2 and 3. This building appeared to have combined these two central plots and the central boundary did not reappear.

There was little direct dating evidence as the deep foundations had churned up much residual medieval pottery but some later fabrics (eg 752) are present which may date to as late as the 16th century. The building, therefore, cannot be dated more closely than between the 15th and 17th centuries.

Associated pottery: 720-752.

Associated finds: pin beater 27, sharpening wheel 35, copper alloy pin shaft 58.

Catalogue of features: Table 10 mf.

# PHASE 12

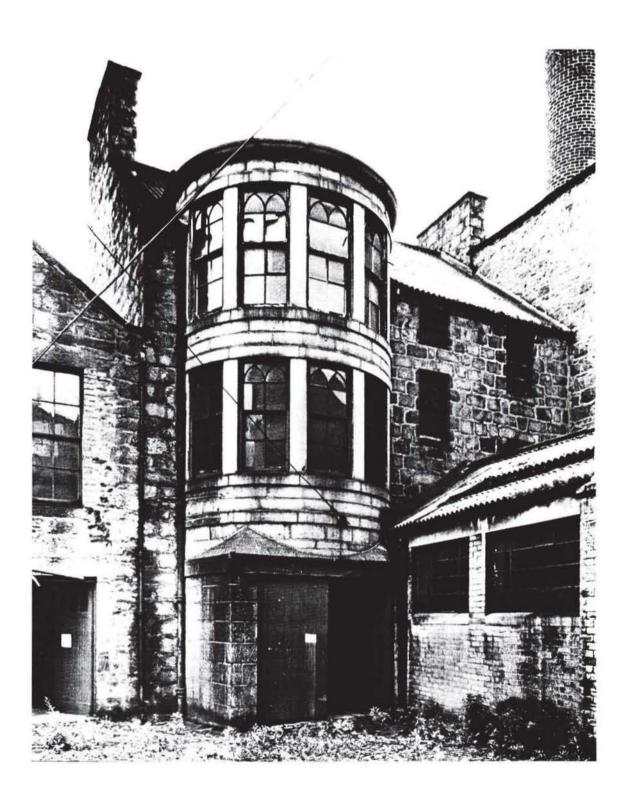
A corner of a building was found in Area D (WA, WB). The N-S wall WB had been strengthened by internal revetting (WD). The walls were identified as the foundations of part of Anderson's Mansion built on the back of Plot 2/3 in about 1741 and demolished in 1977. After its initial use as a dwelling, the mansion had been reused as the Boys' Hospital and was later incorporated into the Farquhar and Gill warehouse (Ill 36).

Associated pottery: 753-760.

Catalogue of features: Table 11 mf.

# PHASE 13

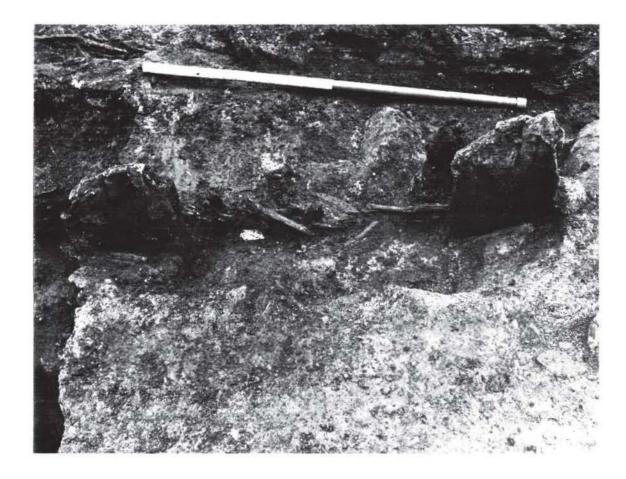
All the foundations and levels associated with the Farquhar and Gill warehouse, with the exception of the 18th-century Anderson's Mansion (Phase 12), were assigned to Phase 13. The main part of the warehouse had been built using iron pillars set on square concrete pillar-bases. These pillar-bases cut through the medieval layers in all areas and are shown on the plans as intrusive features. Attempts to remove them created considerable disturbance, so they were mostly left in position. They destroyed all levels to natural. Finds touching the sides of the pillar bases were treated with some caution as there was an obvious possibility of contamination.



Ill 36: 42 St Paul Street, Phase 12. Anderson's Mansion prior to demolition in 1977

# INDUSTRIAL FEATURES JUDITH STONES

Towards the NE corner of this site, close to the line of St Paul Street, there was a modern underground complex, possibly of 18th-century date. It consisted of two circular chambers, with walls and vaults of stone, connected to each other and entered by a corridor and flight of steps. Present access to the complex is by a manhole from the surface. The floors of both chambers and of the corridor were of bricks laid as stretchers. In the chambers the bricks were laid in concentric circles, both chambers having in the centre a circular cavity reaching down at least 1 m below floor level. In the larger chamber a stone surround to the central cavity and a hole in the roof above it suggested a mounting for a piece of machinery. Built into the floors of the larger chamber and the corridor were a number of drains leading towards the central cavity. Against one wall was a freestanding brick structure with the remains of an iron tray beneath it. The dense black material which filled this tray had overflowed on to the floor of the chamber. Behind this structure a 'tunnel', about 300-400 mm square led off to the SW as far as the eye could see. Although various interpretations have been considered, including a possible use as an ice house, no single explanation has yet accounted for all the features of these chambers. It is hoped that they will be published fully elsewhere at a later date.



Ill 37: 42 St Paul Street, Area C. Building BQ, detail of entrance looking W: Phase 8

### CATALOGUE OF BUILDINGS

For an explanation of the wall types see Chapter 5.

# BUILDING BQ (Phase 8: Ill 31)

#### Dimensions

Part of N and E walls of post-and-wattle building, N-S: 3.80 m + E-W : 2.50 m +

#### Structure

Post-and-wattle wall: Group 1a construction. Posts, diameter: 0.03-0.06 m, 0.10-0.20 m apart (centres). Wattles, diameter: 0.01-0.02 m. Post CI and wood fragments BW may have been part of the E wall but the relationship was not clear. Freestanding posts: 1. BZ, post-hole outside corner of wall. 2. Two posts, diameter: 0.06 m, 0.06-0.15 m outside N wall. Entrance: Vertical planks BU, BV and post BVa form the jambs and doorpost of an entrance c 0.50 m wide, near the end of one lateral wall (III 37).

Internal details: There was a sandy floor at the N end of the building (C44). A very similar surface (C5, C23) to the S may have been within the structure. It extended to the S limit of the excavation, c 12 m from the N wall of BQ.

#### Associated lavers

C5, C23 Hard compacted sand. C44 Yellow/brown compacted sand.

# Associated pottery and finds

9 Weaving sword. In C23. Possibly outside building, but contemporary.

75 Barrel padlock. In C23. Possibly outside building, but contemporary. Pottery: 496.

### Date

Early 14th century.

# Interpretation

The wall of BQ was very flimsy and the building would have needed additional freestanding posts or planks to support the roof. BZ and the two small posts outside the N wall may have been supports of this nature but insufficient evidence remained to attempt a reconstruction.

The pattern of the property boundaries make it almost certain that BQ was a relatively long, narrow building lying N-S along the property. The full width was not excavated but, based on the 5.5-6.0 m width of these later properties, it is unlikely to have been more than 5.5 m. There was no clear evidence to show whether BQ extended to include C5, C23, in which case it was at least 12 m long, or if it extended for the length of C44, some 5.0 m.

### BUILDING CO (Phase 5: Ill 24)

### Dimensions

Part of N, S and E walls of post-and-wattle building. N-S: 7.70 m E-W: 2.00 m+

### Structure

Post-and-wattle wall: Group 1b construction. Posts, diameter: 0.03-0.04 m, 0.18-0.36 m apart (centres). Wattles, diameter: 0.01 m. The wall was built in a foundation gully (CW, DA, DC, DE). Clay daub was found on the N wall and on the N end of the E wall. It was thickest on the inner face of the wattle and around the base of the wall. Matted cow hair identified in this clay appears to have been used as binding.

A plank CCa was incorporated in the wattle of the N wall.

Freestanding posts: 1. Planks CU, CV, CX, DG outside the E wall. 2. Post-hole DD, in the gap between the two sections of wall gully in the E wall. 3. Post CRa outside S wall, 0.50 m from SE corner.

Entrance: There was a gap, 0.70 m wide, in the E wall, c 1.90 m from the SE corner. It was flanked by two of the freestanding planks (CV, DG). There was a vertical groove in the S face of plank CV.

There was a second gap, 0.40 m wide, in the E wall between post-hole DD and wall-gully CW, c 1.50 m from the NE corner.

Internal details: There was a gravel floor inside the N end of the building (C235) and in the yard outside the building (C208). It had been laid down after the wall was built as it sealed the gully of the N wall.

### Associated layers

C208 Yellow/brown sandy gravel.
C235 Compact sandy gravel mixed with yellow loam.
C247 Compact fine grey/white clay. Daub on inside of wattle N wall.

### Date

Mid-to late 13th century.

### Interpretation

CO was one of the more complete buildings excavated. The complete N-S dimension was, without doubt, the length as there was a consistent pattern of long narrow properties on the site throughout the period. The average width of the plots in this earlier phase would limit the width of the building to c 4.5-5.5 m.

This building had two possible entrances in the E wall. The need for two entrances in such a small building may be explained by the fact that the interior was divided into two distinct parts, a N part with a gravel floor and clay daubed walls and a S part with an earth floor and no evidence of daub on the wall. There was no evidence of a partition and the differences may be a reflection of the different uses of the two areas; the N end may have been a dwelling, while the S end may have been a store, byre or work area.

The main weight-bearing elements in the structure were the planks alongside the E lateral wall. It can be assumed that similar planks existed outside the unexcavated W wall. A reconstruction comparable to that proposed for SAN, with a ridge supported by end posts is likely. No ridge posts were found but they may have been outside the excavated area. The irregular spacing of the planks in the E wall makes it unlikely that the planks in the opposing wall were exactly paired, so that rafters dependent on the planks would have been individually tied or jointed to the ridge and not paired. There was no evidence of the type of jointing, but the use of planks and the grooves in CV make it possible that simple joints were used in this structure.

# BUILDING DI (Phase 3: Ill 22)

### Dimensions

Part of S and E walls of post-and-wattle building. Possible N wall. N-S: 5.5 m + , if EB is accepted as N wall: 9.60 m. E-W: 2.60 m +

#### Structure

Post-and-wattle wall: Group 1a construction. Posts, diameter: 0.03-0.04 m, 0.25-0.30 m apart (centres). Wattles, diameter: 0.02 m. Posts DK were slightly E of the wall line but were contemporary and appeared to belong to it.

The wood had been identified as birch and willow (J S Murray, Dept of Forestery, Aberdeen University).

Gully EB was cut into the layer (C277) on which the building had been constructed. EB was sealed by the same layer (C273) which sealed floor C280. It was therefore, contemporary to the building and may have been the foundation gully of the N wall.

Freestanding posts: 1. A post-hole, diameter: 0.06 m, at the SE corner. 2. Post EC, 0.40 m from gully EB, appeared to be cut into C273, the layer which sealed EB and C280, but the top of the post may have been forced up through C273 as the layers compacted, so it is possible that it could have belonged to the building. 3. Post-hole DW cut into C277, the layer on which the building was constructed, but was sealed by the floors C282, C285. It could have belonged to a primary phase of the building before the floors were laid. Internal details: There was an area of gravel flooring at the S end of the building (C282). A similar layer, (C280) lay to the N extending as far as gully EB. A layer of stones (C276) stretched between the two areas of gravel and may also have been part of the floor although it may have been later as several of the stones lay between the posts DK.

Patches of clay (C285) lay below floor C282 and on the floor surface (C281).

### Associated layers

C276 Stone scatter.

C280 Yellow/brown sandy gravel, redeposited natural.

C281 Patches of hard white/grey clay in limited areas on C282.

C282 Compact yellow/brown sandy gravel.

C285 Patches of thin white/grey clay below C282.

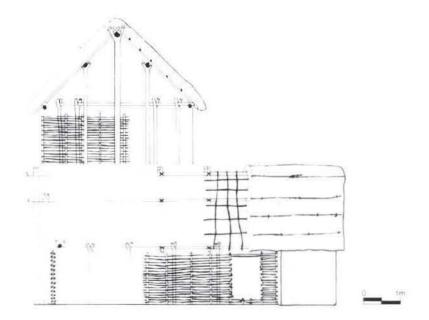
#### Date

Early to mid-13th century.

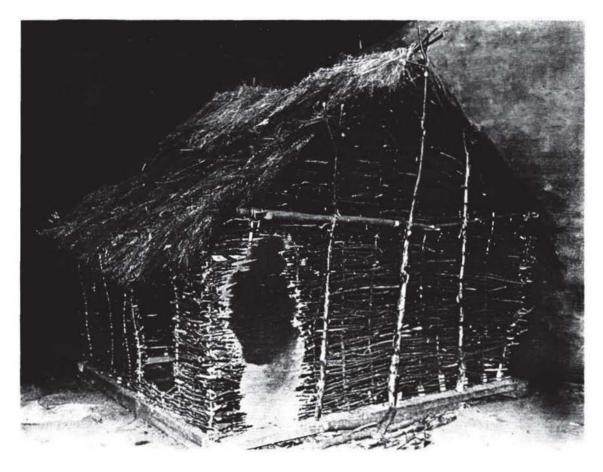
### Interpretation

The wall of this building only survived at the S end but it is probable that gully EB was the foundation of the N wall and that C280 was part of the floor. On stratigraphic grounds these are all contemporary to the building. According to this interpretation DI would have been c 9.6 m long. The width can be roughly estimated, by comparison with the plot width, as c 4.5-5.5 m.

With the exception of the small post-hole at the SE corner, there was no evidence that freestanding planks or posts had stood alongside the wattle wall. This presupposes that either the roof was very light or that the wall had been strengthened by clay, dung or turf cladding. No daub was found on the surviving section of wall and the only slight support for this theory was the clay C281 and C285, which lay in patches in the interior of the building. Post EC, c 2.5 m from the E wall, could have been a ridge support. Post-hole DW was the same distance from the E wall and could also have been a ridge support but only in the primary phase of the building as it was sealed by floor C282. No corresponding post was found to the S within the area excavated.



Ill 38: 42 St Paul Street. Hypothetical reconstruction of building SAN (reconstruction H K Murray)



Ill 39: Full-scale reconstruction based on building SAN (reconstruction H K Murray in Aberdeen Art Gallery, 1980)

# BUILDING SAN (Phase 5: Ill 24)

# Dimensions

S and W walls of post-and-wattle building. N-S: 5.80 m + E-W: 2.80 m +

# Structure

Post-and-wattle wall: Group 1b construction. Posts, diameter: 0.03 m, 0.20-0.30 m apart (centres). Wattles, diameter: 0.01-0.02 m.

The wood has been identified as willow (J S Murray, Dept of Forestry, Aberdeen University).

The posts were occasionally paired. There was no direct evidence of daub or other cladding, but the floor and yard surfaces stopped 0.04-0.14 m away from the inner and outer faces of the wall, suggesting that the wall surfaces were covered to this thickness when the floor was laid down.

Freestanding posts: 1. Additional posts stood alongside the inner face of the W lateral wall (SAP, SAQ) and along the inner and outer faces of the S wall (posts: SAT, SAW, SAX; post-holes: SAU, SAY). Posts, diameter: 0.06-0.07 m, 0.50-1.00 m apart (centres), 0.11-0.17 m from centre line of wall. 2. One large post (TAX) stood outside the S wall, c 1.80 m from the SW corner.

Internal details: A gravel floor (A208) survived in the SW corner of the building where it was covered by a thin occupation deposit (A207).

A hearth SAM was set on this floor in the SW corner. It had an oval setting of clay and stones.

### Associated layers

A207 Dark brown soft organic layer, c 0.01 m thick. A208 Compact yellow gravel. A209 Burnt clay, some ash. Hearth SAM.

### Date

Mid-to late 13th century.

### Interpretation

Only half of building SAN was within the area excavated but there was sufficient detail to draw a hypothetical reconstruction (III 38). The length can be estimated as 7-8 m by comparison to CO. It may have been longer for, although there was no return wall in Areas H or F, the large pits along the E side of Area F may have cut away any evidence. The essential structure is not, however, greatly altered by the length unless it was greater than the available timber, necessitating some form of intermediate support. The width can be estimated more closely as 3.8-4.0 m by comparing the position of the building with the established rig widths.

The wall was of wattle. No evidence of daub survived, but the gap between the face of the wattle and the edge of the floor suggests that there may have been some form of cladding on the wall when the floor was laid down. Mud or dung are possible, neither of which are easily identified; there

was no evidence of clay although it was used on part of Building CO. The wall height has been estimated as c 1.25-1.50 m by comparison with later vernacular buildings. Some confirmation comes from near contemporary wattle buildings elsewhere; calculating the height at which angled buttresses met the top of the wall, the wall height can be estimated as 1.30-1.40 m in Dublin (Murray 1977, 233) and 1.70 m in Viborg (Nielsen 1968, 30). In a Perth example (Murray 1980, 43) it was only c 0.70 m but in this case the buttresses may not have been part of the original design.

The entrance was not in the excavated part of the building so it has been drawn in the unexcavated E wall, opening towards the boundary where they may have been an earlier path on the line of the later pend (Kirkgate Court). This position is comparable to CO and BQ. The width of the entrance has been drawn at 0.70 m, by comparison with CO. It may have been narrower, the entrance in building BQ being only 0.50 m wide. The wattle has been drawn across the base of the doorway, this feature was found in BQ and is common in wattle buildings in Dublin (Murray 1977) and Perth (Murray in PHSEC). The full-scale reconstruction of SAN (Ill 39) confirmed the opinion that this considerably strengthened the whole wall, avoiding splaying at the doorway. For the same reason the wattle was continued across the top of the entrance. Plank jambs were not always necessary as the wattle could be turned back around the flanking wall posts. No doors have been identified; plank doors of the type found at Hedeby (Schietzel 1969, fig 20) and Southampton (Platt and Coleman-Smith 1975, fig 235: 1697, 1699-1701) may have been used. It is probable, however, that wattle or straw mat doors of the type recorded for 19th-century Irish vernacular buildings (Lucas 1956, 18) could have been used in many cases; they would not have required elaborate hanging.

The reconstruction of the roof is based on two assumptions: that the additional posts beside the wall bore much of the roof weight and that the post excavated outside the estimated centre of the S end wall supported a ridge. Both features can be paralleled in the contemporary Perth buildings (Murray in PHSEC). The main structure has therefore been reconstructed as a ridge held on posts outside the gable ends of the building (the excavated S post being shown on plan). The additional posts flanking the ridge support post outside the end wall, have been reconstructed holding horizontal poles to support the rafters at their mid points; in reconstruction this was found to be especially necessary in view of the very flexible nature of fresh branch wood of the small diameter indicated by the excavated timber. The lower ends of the rafters could have been supported in one of two ways. They could have been individually held by the uprights along the inside of the side walls. Alternatively, as in the drawn reconstruction (III 38) these additional posts could have held horizontal poles acting as pseudo wall-plates. In the full-scale reconstruction (III 39) it was found that by having a similar horizontal pole held by the additional posts inside each of the gable walls and by notching and lashing these four horizontal poles together at the corners of the building, an extremely strong framework was formed and outward splaying of the rafter supports was avoided. This reconstruction is also favoured as it proffers an explanation of the posts inside the gable wall. All the joints have been drawn using naturally forked posts and notched-and-bound joints. There was no evidence of more elaborate joints and it would have been difficult to cut them in the very small diameter of round posts found. The simple jointing suggested was used in the full-scale reconstruction and was found to be remarkably effective.

There was no evidence regarding the roof covering. Thatch on a base of wattle, brushwood or sods is the most probable. It is clearly impossible to be certain what material was used in the thatch; from the botanical evidence (Chapter 7) it is known that soft reed, heather and sedges were all in

use on the site and broom is possible although it was not identified (legume seeds rarely survive). Any of these are perhaps more likely than straw as they could have been gathered free in marginal land. The roof angle has been drawn as approximately 45° to allow adequate drainage, a steeper roof would probably have placed undue strain on the walls.

As a hearth was found inside the building near the S gable, it is suggested that small smoke vents may have been left open at the apex of the gable walls, although the wattle would otherwise rise to the full height of the gable.

### BUILDING TAB (Phase 4: III 23)

#### Dimensions

SE corner of post-and-wattle structure. N-S: 1.70 m + E-W: 0.09 m +

#### Structure

Post-and-wattle: Group 1b construction. Posts, diameter: 0.03-0.06 m, 0.25-0.35 m apart (centres). Wattles, only fragments remaining.

Freestanding posts: 1. Post, diameter: 0.08 m, at corner of wall. 2. post TAE W of the wall. 3. Post-hole TAD to E of wall line, contemporary but not definitely related. 4. A small vertical plank stood S of the S wall.

Internal details: A possible floor (A216) was confined to the area enclosed by wall TAB.

### Associated layers

A216 Grey gritty earth with patches of yellow sand. A229 Clean yellow sand around posts of TAB, A235 Very soft black organic fill of post-hole TAD. A236 Mixed sand and grey/brown loam. Fill of post-hole TAE.

# Date

Mid-13th century.

### Interpretation

This appears to have been part of a small building with a wattle screen wall and independent freestanding load-bearing posts. The W side of the building had been destroyed by the Phase 11 stone building. The only estimate of its size that is possible is that the width was probably 4.5 m or less by comparison with the plot width and that the length was probably less than 8 m as there was no evidence of the N wall in Area F.

# BUILDING TAP (Phase 3: III 22)

### Dimensions

Part of E wall of post-and-wattle structure. N-S; 2.00 m + E-W; 1.50 m + E-W

# Structure

Post-and-wattle wall: Group 1b construction. Posts, diameter: 0.03-0.06 m. 0.26-0.40 m apart (centres). Wattles, diameter: 0.01-0.02 m.

Freestanding posts: 1. Four posts, diameter: 0.03-0.04 m, 0.30-0.40 m apart (centres), 0.20 m outside wall. 2. Post, diameter: 0.06 m, 0.40 m outside wall. 3. Two posts.

diameter: 0.06 m, 0.45 m apart (centres), 0.15 m inside wall. Internal details: Gravel A265 appeared to be a floor associated with wall TAP. A small pit/post-hole TAS cut this floor but may not have been related to the structure.

### Associated layers

A265 Compact yellow gravelly sand with small stones.

#### Date

Early to mid-13th century.

### Interpretation

This appears to have been part of a small building with a wattle screen wall and independent freestanding load-bearing posts.

# BUILDING JC (Phase 11: Ill 40)

### Dimensions

N-S: 10-10.20 m external, 6.80 m internal. E-W; 7-7.40 m external, 4.40-4.80 m internal.

#### Structure

Stone wall foundations. The wall foundations survived on the N, E, W and part of the S sides of the building. The S wall had what appeared to be a secondary wall built alongside its outer edge. The main primary wall foundations were 1.30-1.70 m wide, built of rounded rubble stones. The E wall was thinner in places, but this appearance may have been due to the degree of disturbance by the pillar bases of the modern warehouse. The foundations were built in trenches 0.63-0.74 m deep which had been cut through the medieval levels into natural. The W foundation had been cut into the soft fill of an earlier boundary ditch which appeared to have been dug out and filled with large stones to give a firmer base to the wall. The S wall was not so deeply bedded. Larger stones had been used in the construction of the N and S foundations than in those to the E and W. There was no trace of mortar through the foundations but there was some mortar on their surviving top surface; however as the foundations had been reused by later walls it is not possible to tell if the mortar was associated with their primary useage. Nor was it possible to determine the level from which the foundations had been cut, as all contemporary levels had been destroyed by the later warehouse.

A circular stone feature (JM), 0.90 m in internal diameter, abutted the external face of the N wall at the NE corner. Its base was paved with small stones set in a thick layer of clay. There was an opening 0.45 m wide in the SE side giving access from outside the building. The clay had been burnt red and the whole interior had clearly been subject to intense or prolonged heat although no ash or charcoal remained.

An oval pit (JA),  $1.30 \times 1.85$  m internally and c 1.00 m deep, abutted the outer, secondary, S wall. The pit was lined on three sides by drystone walling for its full depth but on the N side the lower 0.30 m of its depth was unlined and only the upper part had three courses of drystone walling. This blocking formed part of the secondary wall. One of the basal course of lining stones projected 0.30 m towards the centre of the pit. The top of this stone was c 0.30 m above the base of the pit.

### Internal details

Due to the destruction of contemporary levels it is impossible to decide whether the interior of the building was at or below the contemporary ground level. The interior appeared to have been levelled by a foundation of grit (B38) sealed by a layer of clay (B47). Over this, two successive gravel floors had been laid. Both were restricted to the W side of the interior; B17 extended to a line c 1.20 m from the E wall and B5/9/15 extended to a line c 2.05 m from the E wall. Between the two floors was a layer of ginger earth (B13/16) which extended over the whole interior. A total of four small posts were found in the interior; two near the edge of B5/9/15, one near the edge of B17 and one by the E wall.

# Associated layers

B5/9/15 Gravel. B13/16 Ginger earth. B17 Gravel. B38 Pink grit. B47 Green clay. B48 Fill of JM.

# Associated pottery and finds

It was difficult to isolate any finds in a primary association to the building as the foundations cut through medieval levels redistributing much earlier material. Modern disturbance and the reuse of the foundations caused further contamination. 27 Pin beater.

Pottery: 733, 736, 737, 740, 746, 748.

#### Date

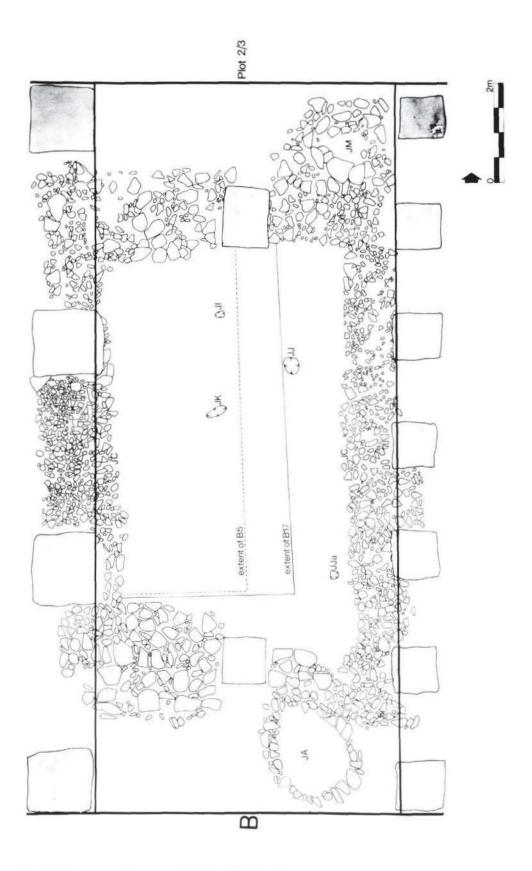
The foundations of the building cut through 14th-century levels but the contemporary ground level from which they had been cut had been destroyed by the warehouse subfloor levelling. As a result it is impossible to date it by archaeological means more closely than between the 15th and 17th centuries.

#### Interpretation

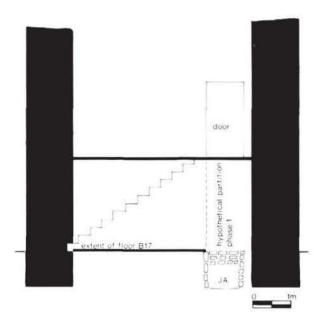
JC was 7×10 m externally, at right angles to the street but c 18 m behind the present street frontage. It appears to have been totally freestanding and to have taken over the two central properties, to achieve this size. These two central properties, which were separate in the 14th century, had been amalgamated by the time of the first historical reference to the plot in the mid-15th century. The properties cannot be identified with any exactitude on Gordon's map of 1661 (III 47). Interestingly, by this stage he depicts, with what degree of accuracy it is hard to say, all the backland buildings at this part of Upperkirkgate as conjoined.

The only internal evidence consists of two successive gravel floors. The earlier gravel floor (B17) extended to a line 1.20 m from the inner face of the E wall and the later gravel floor (B5) to a line 2.05 m from the inner face of the E wall. In neither case did they extend fully to the face of the S wall at its central point. This evidence suggests a passage along the E side of the interior. The very straight edges of both floors suggests a partition existing when the floors were laid and in use; (if, for example, the E side had been covered by storage bins, the edge of the floor would have had considerable wear on this side, which was not the case). There was no stone wall on this line and the partition may have been a wooden construction, possibly based on a ground sill as there were no convincing earthfast posts. There must have been an interval, possibly very short, between the use of the two floors when the partition did not exist or was being repaired and B13/16 accumulated. The partition was replaced further to the W and floor B5 was laid down. The post-holes may have been involved in these partitions but were too small and too randomly placed to have been major supports. There may have been a door from the passage into the ground floor room at the centre part of the S end.

A possibly contemporary building recorded from Inverkeithing (Mears 1913, fig 3, 4) had a passage with a



III 40: 42 St Paul Street, Area B. Plan of Building JC: Phase 11



Ill 41: 42 St Paul Street. Forestair projected onto partially reconstructed cross-section of building JC (reconstruction H K Murray)

similar size and position running from front to back in the building, although in this case the passage gave direct access between the street and the backland and had no surviving access to the ground floor room. It can be regarded as an example of the original passage between properties having been absorbed into the building to allow the space over it to be used fully. It is possible that in the primary phase, building JC might have had similar access to the front, if the forestair and structure JA were really secondary as opposed to merely secondary in the construction order, but this must remain speculative.

There was no direct evidence of a doorway from the passage to the back, N end, but there is likely to have been one to give access to feature JM which was almost certainly an oven opening in the yard behind the building. Similar ovens abutting hall buildings have been found, for example in 14th-century contexts at Kings Lynn (Clark and Carter 1977, 105, fig 44) and East Haddlesey (Le Patourel 1973, 35, fig 12). It is more usual for these ovens to open into the interior of the building but this does not appear to have been the case with JM.

The width and depth of the wall foundations suggest that building JC was at least two storeys high. There was little evidence of the type of bonding. Some mortar along the top level when excavated may have belonged to a later reuse of the foundations; it is possible that the wall was claybonded. The workshop wall in Castle Terrace (Chapter 2: 9) was clay-bonded in its original phase in the early 17th century, and repointed and partially rebuilt with mortar in the mid-17th century. This gives some indication of the date to which clay-bonding was in use in the city, although this would probably vary in different grades of building.

There was no evidence of cut stone; however it should be noted that there was very little stone rubble of any nature and the site must have been razed and totally cleared at the demolition. For this reason it is perhaps dangerous to be too certain as to whether some form of vaulting may have been used inside the building or whether the interior was divided by timber floors which could have been supported on runners held by corbels along the side walls. There was no evidence regarding the form or material of the roof.

With the exception of the S wall, no other details of the walls survived, although it is worth noting that the presumably load-bearing E and W walls had deeper foundations, certainly than the S wall. On plan it appears that larger stones were used in the N and S walls but this may reflect a difference in the level to which they survived rather than be of any real significance.

The S wall had an outer wall c 1 m thick, built along its outer face, beginning c 0.75 m from the SW corner. As contemporary ground levels had been removed during or before the building of the 19th-century warehouse, it is impossible to compare the levels at which each of the S walls was built. However it is clear that the inner S wall was bonded to the E and W walls and was therefore part of the main primary structure. The outer S wall was clearly built after the inner one as, if it had been built at the same time, it would almost certainly have been bonded to it, rather than create an unnecessary weakness. Beyond this it is impossible to say how long after or whether it was a part of the original design. The lack of bonding suggests that it was not part of the main load-bearing structure and Stell (pers comm 1981) has suggested that it might have been a forestair. Following this suggestion, a forestair starting 0.75 m from the SW corner where the foundation begins, and reconstructed with a rise of 35° to the horizontal would reach a height of c 2.50 m at c 1.50 m from the inner face of the E wall, giving plenty of room for a first floor entrance at this point (Ill 41). It is interesting to note that this door position is almost directly over the edge of the primary floor B17 where a passage has been postulated at ground level. Forestairs of this type can be seen in Queen Mary of Guise's House, Edinburgh (MacGibbon and Ross 1892, iv. 416-17) or on a house in Port Glasgow dated to c 1577 (MacGibbon and Ross 1892, v, 14-15).

The only remaining puzzle of the S wall is feature JA (III 42). It was built at the same time as the outer or forestair wall and is bonded into it. It would have been partly underneath the highest part of the stair and partly projecting to the front of the building. It does not appear to have been a cess pit, not only unlikely in respect of its position, but because the fill was clean stoney rubble and there was no

residue, or even staining, on or between the lining stones. Another possibility is that it was a water cistern (it is not deep enough for a well) but the unlined side to the N (below the top three courses) makes this appear improbable as this would cause seepage below the house. At present the best suggestion appears to be some form of dry storage, possibly of fuel, but this is probably not the final answer. A very similar but equally enigmatic structure was found in Castle Terrace

(Chapter 2: 9).

The evidence concerning the function of building JC is enigmatic. In view of the lack of historical reference in the sasines to a public building on the property and taking into account the existence of the oven, the writer would consider it to have been at least in part a dwelling. Its size, construction and position taking up what were formally two plots suggests that it belonged to a fairly prosperous family.



Ill 42: 42 St Paul Street, Area B. Feature JA in building JC looking N: Phase 11

# THE DOCUMENTARY EVIDENCE J A CRIPPS

# NOTES ON SOURCES

The writs for the property purchased by the Town Council in 1973 begin only in 1801 (City Charter Room Box 33/13) and the principal documentary source has been the series of burgh sasine registers. (Burgh Sasine Registers (SR) 1484-1679 are in the City Charter Room. Later volumes for 1680-1931 are in the Scottish Record Office.) Although these provide a frame of reference in terms of proprietary rights beginning in 1484, sasines record tenancy and occupation only incidentally. No assumptions about the prosperity of an area can be made from the record of land ownership alone. Other sources have been the printed registers of the bishopric of Aberdeen (Innes 1845) and St Nicholas Kirk (Cooper 1888, 1892). The Aberdeen Council registers beginning in 1398 would doubtless repay systematic study, but this is not at present a practicable proposition. The following survey is in any case impressionistic and based on a preliminary investigation of the evidence.

#### SURVEY

Although the street name Upperkirkgate is documented from the 14th century (Anderson 1909, 19: 1382) the earliest reference so far traced to the properties under discussion (Ill 46) is a mid 15th-century grant of an annual rent from Rig 2/3 to the Chaplain of St Peter's altar in the parish kirk (Innes 1845, 1, 262: undated but 1449×1459). The presence of such proprietors as Master John Cadiou, MP for the burgh in 1449 and probably Town Clerk (Rig 2/3), and John de Scroggs the younger, provost 1449-51 and 1455-6 (Rig 4) and the evidence of the substantial building JC on Rig 2/3 together suggest that this part of Upperkirkgate was in fact a wealthy area in the 15th century. Occupation was certainly sparse, for the rigs stretched from the Upperkirkgate frontage to the edge of the Loch (Rig 4, 1473, Council Register VI/260).

Retreat of the Loch in the early 16th century is indicated by the appearance of 'the vennel leading to the loch' as the boundary of Rig 1 in 1526 (SR V¹/176). This later became Gordon's Wynd, renamed St Paul Street. The whole block of properties continued to be bounded on either side by tenements fronting Upperkirkgate until c 1800, when Drums Lane was cut lengthways through the site of Lady Drum's Hospital and became the boundary of Rig 4 (MS plan of site of Drum's Hospital. Town Clerk's Library).

The first documentary evidence for division of the rigs comes in the early 1500s, when foreland and inland are first mentioned, suggesting more intensive occupation of the ground (Rig 1, 1508. SR III/25). The inlands of Rigs 1 and 4 were disponed in 1556 to Alexander Rutherford by decendants of their 15th-century owners, who finally disposed of their forelands in 1563 and 1576 respectively (SR VIII/290, 305; XI/698; XVII/14 March 1575/6). Rig 2/3 remained undivided until 1627. Division of ownership appears to reflect change in occupational status of the area, for the new owners of the forelands were tradesmen who probably lived on the premises. A saddler, shoemaker, carpenters and glaziers are found between 1575 and 1680. On the inlands were weavers and a litster; in 1611 a weaving shed at the S end of the garden in Rig 1, was conveyed by one weaver to another (SR XXXII/94).

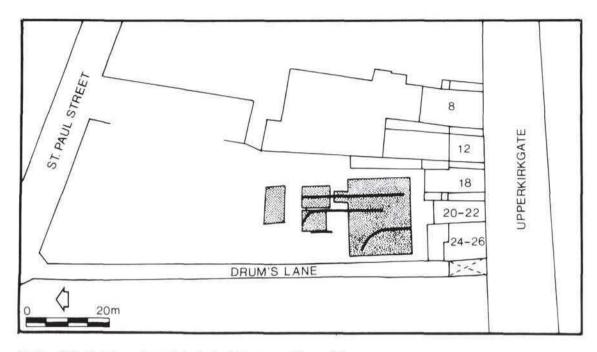
Subsequently the inlands were much divided, and the most notable building on the site was the house apparently built in 1741 by Patrick Anderson of Bourtie (III 36, 49) a decendant of John Anderson of Torry, skipper and merchant, who acquired title to the back inland of Rig 2/3 in 1659 (SR XLIII/26 May 1659). The Anderson family gradually acquired all the divided properties on Rigs 2/3 and 4, except the foreland of 2/3, and the whole property was rouped in 1828 by the coheirs of Alexander Anderson. The purchasers were John Farquhar and David Gill, painters and glaziers, who sold the mansion house to the Managers of the Poor's Hospital. The house accommodated a Boy's Hospital (ie orphanage) until 1871, when it was bought back by the firm of Farquhar and Gill. This area formed the nucleus of the paint factory, which by 1920 had extended over the whole of Rig 1 behind the frontage occupied by the Kirkgate Bar, and where a row of houses had stood in the 18th and 19th centuries, partly on the site of a soap works fronting St Paul Street. Farquhar and Gill went into liquidation in 1972, and the site was acquired by the Town Council in 1973 for incorporation into the Central Development Area.

#### DISCUSSION

#### SITE LAYOUT 1200-1980

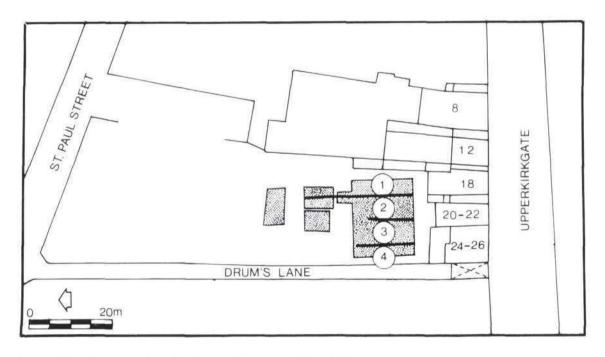
The results of both archaeological and historical investigations of the site, combined with the map evidence, give a fairly full picture of the changes in the layout of this part of the Upperkirkgate from the early 13th century to the present.

From c 1200 (Ill 43) four properties were laid out behind the frontage buildings, at right angles



III 43: 42 St Paul Street, boundaries in the 13th century (Phases 2-6)

to the Upperkirkgate. The rigs were of unequal width and the boundaries varied in detail, suggesting that this had been a fairly piecemeal development. There was no evidence that these boundaries extended to the street as the frontage was not excavated. However, the coincidence of the line of the E boundary with the modern frontage and the historical evidence that in the mid-15th century the frontage was under the same ownership as the land directly behind it, both suggest that the



III 44: 42 St Paul Street, boundaries in the 14th century (Phases 7-10)

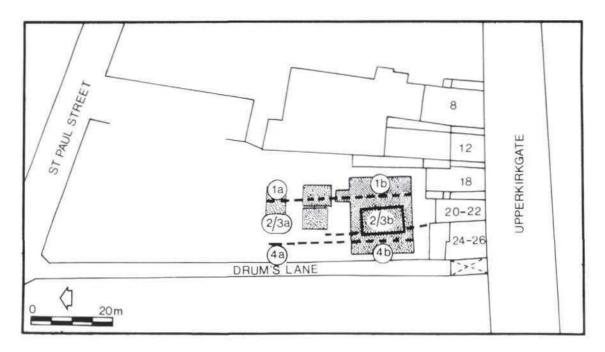


Ill 45: 42 St Paul Street. The site looking S to the backs of the standing buildings of 18-26 Upperkirkgate (1978) with the 14th-century medieval boundaries TO and CH (Phase 7) superimposed

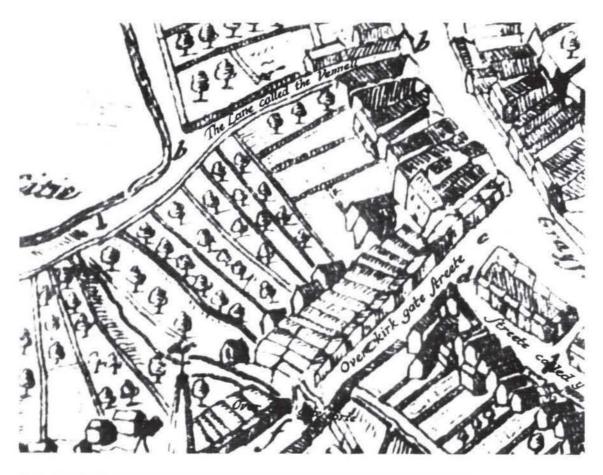
boundary lines would have run right back from the street frontage. There is no evidence of the position of the paths and passages at this period but some access to the frontage is likely.

Later, at the beginning of the 14th century (III 44) the boundaries were reorganised to create more regular rigs 5.5-6.0 m wide. Both the E and W boundaries of this period are reflected in the modern frontage; the E was on the line of the W wall of 18 Upperkirkgate and the W was on the line of the W side of a former passage which was (prior to 1981 renovation) indicated by the position of the windows, the former archway and the building line of the 17th-century building 24/26 Upperkirkgate. During the 14th century, however, there was no passage on that line, the only passage serving the two central rigs being a cobbled path running between them.

In the 15th-17th centuries the two central properties were amalgamated to make way for a large stone building (Ill 46). The central path was obliterated and it is likely that at this stage new paths were established, one between 18 and 20 Upperkirkgate, known until recently as Boys' Hospital Court, and one between 20/22 and 24/26 Upperkirkgate, the former existence of which is argued above. The W boundary of Plot 2/3 is likely to have moved to its modern position at this point as there do not appear to have been any boundary changes after the mid-15th century when the historical records begin. It is possible that it became standard from this stage that the passage to the E of a rig belonged to it (thus incorporating the passage between 20/22 and 24/26 into Plot 4). This is certainly true of this area of the town in the modern period and there are numerous historical references concerning the closes and their access to the Upperkirkgate. Gordon's map of 1661 (Ill 47) is little help in a detailed study of the layout, partly because it is impossible to recognise specific plots but



III 46: 42 St Paul Street. Boundaries in the 15th to 17th centuries with the outline of building 3C (Phase 11) superimposed



Ill 47: Detail of Parson Gordon's map of 1661, showing the area of the 42 St Paul Street site

primarily because there is no way of assessing the degree to which he generalised. Archways or passages do, however, appear to be shown between most of the buildings on the frontage.

All the archaeological evidence of boundaries applies primarily to the 35 m or so directly behind the frontage buildings, to a point some 45 m N of the actual street line. N of this, towards St Paul Street, the evidence of medieval boundaries is non-existent and as trial trenching in Area G showed little medieval activity, this end of the site may be interpreted as having been gardens or open land.

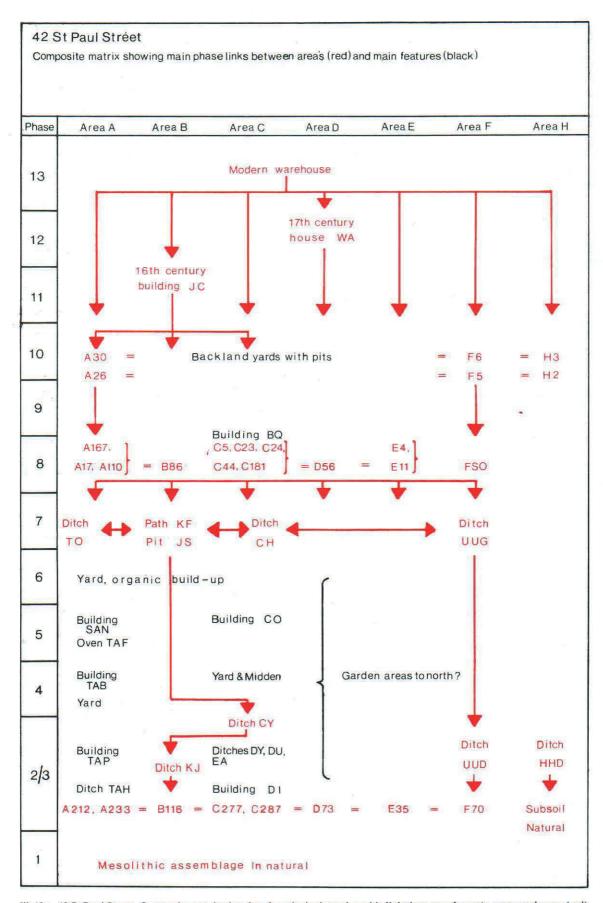
There were slight archaeological indications of E-W boundaries. In Phases 2 and 3, a ditch (DX/DY) curved around the N end of Plot 4, creating a possible N boundary. The N end of Plot 3 may have been marked by another ditch (NH) in Phase 2 and extended slightly by ditch NI in Phase 3. Later, in Phase 9, an E-W bank across the N end of Area D was suggestive of a boundary along the back of Plot 2 but as excavation of the full length was not possible, interpretation must be cautious. As it was probably largely up to the individual property owners to build a suitable boundary at the end of their plot, a very regular E-W boundary should not be expected. Some of the apparent E-W boundaries might be no more than stock barriers to keep animals away from the more domestic part of the property. From the late 15th century the historical sources appear to refer to the full length of the rig and in 1661 Gordon's map depicts all the rigs extending back to St Paul Street (the Vennel).

## FUNCTION AND STATUS

As no excavation was possible on the frontage it is difficult to know whether this was built up prior to the development of the excavated backlands. Botanical samples of the subsoil in the backland, archaeologically dated to c 1200, have yielded mainly weed seeds and some heathland plants suggesting that this was uncultivated until its development; it may have been used for rough grazing. There was no evidence (tree root disturbance in natural etc) to suggest that the area had been afforested at this period.

As discussed, the boundaries suggest piecemeal development and each plot can probably initially be regarded as the yard and garden belonging to the corresponding frontage building, without separate ownership of the backland and frontage. This appears to have continued to be true until the late 16th to early 17th century. The first references to Plot 1, for example, show that it was all still under one ownership in the period 1475-1556. Plot 2/3 was not subdivided until 1627 and Plot 4 until 1556. These records, of course, reflect the lack of multiple ownership rather than of multiple occupation but they can be regarded as giving some indication of a limited pressure on the land on this site. This is in marked contrast to the archaeological evidence from Perth High Street, which shows repletion of the backlands well advanced by the 13th and 14th centuries. In this context, the finds and structures must be assessed as being as much related to the unexcavated frontage buildings and their occupants as to the excavated backlands buildings. The oven, for example, is of a capacity probably domestic rather than commercial; all the burgesses had the right to a bread oven and if this is not pure legal fantasy then the oven most probably belonged to a burgess. As there was no building in the excavated part of the plot, one can presume that he lived on the frontage and that the whole of Plot 2 was his yard. Similarly, many of the finds could be regarded as the refuse of possible burgess families living on the frontage; this may make it easier to understand the large percentage of imported wares in the 13th-century levels, which suggest a slightly wealthier way of life than was indicated by those buildings which have been excavated in the related backlands. The bone evidence could also be assessed in this way as, in contrast to the Queen Street Midden Area, the animal bone from 42 Loch Street yielded large quantities of beef bones as opposed to pork, suggesting a more expensive diet for the Loch Street/Upperkirkgate inhabitants (Chapter 6).

The backlands buildings could be regarded in any of four main ways; as the dwellings of dependants of the frontage inhabitants, as dwellings of independent tenants, as outhouses, or as workshops. The lack of any quantity of identifiable industrial debris makes it unlikely that they were workshops. It is impossible to determine the function of the more fragmentary buildings and they may have been little more than sheds, for storage or possibly even for livestock. Buildings CO (Plot 4) and SAN (Plot 1), both in Phase 5, had some slight evidence of domestic use and could



Ill 48: 42 St Paul Street. Composite matrix showing the principal stratigraphic links between the main excavated areas (red) and the main features (black)

be regarded as the dwellings of tenants or of dependants related to the frontage owners. Comparison with the size range of contemporary buildings in High Street, Perth, suggests that these were typical of the dwellings of the poorer urban inhabitants who, including the lesser craftsmen and their families, must have constituted a large part of the town's population.

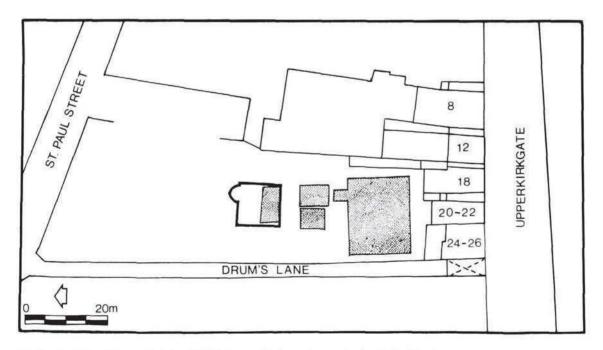
After the alteration of the boundaries in Phase 7, c 1300, there was some change in the use of these properties (III 48). The number of pits more than doubled and there were large middens established at the front of Plots 1, 2? and 4. Some of the pits (for example SM Plot 1, Phase 9) may have had storage or other special functions but the majority appeared to have been rubbish or cess pits. There was some slight industrial evidence; pit UG (Plot 1, Phase 8) may have been used in the dyeing process, albeit on a small scale and hearth SR (Plot 1, Phase 10) appears to have been fired at very high temperatures and was probably industrial rather than domestic although there were no associated waste products or related features.

There was only one building in any of these backland plots in the 14th century (BQ, Phase 8), in contrast to the 13th-century phases when there was a total of five buildings, one or two of which were in existence at any one time. This must reflect a reduction in land pressure in this particular area of the town in the 14th century.

This stage coincided with an abrupt change in the character of the pottery; in contrast to the Continental imports of the earlier period, the bulk of the pottery at this date was English and Scottish imports with, for the first time, a sizeable proportion of recognisable local products. At present, however, this appears to have been a major trend in Aberdeen rather than a reflection of the vagaries of the wealth or taste of the inhabitants of this particular site (Chapter 3).

From the late 16th century there are clear historical references to workshops, booths and shops on these properties and to the various craftsmen including weavers, a saddler and shoemakers who, at different periods, owned and probably lived and worked there. There was no contemporary archaeological evidence with the exception of the foundations of the stone building JC, which on structural grounds is likely to have been built between the 15th and 17th centuries.

Gordon's map of 1661 gives an impression of the area in the 17th century although it is not possible to identify the actual plots with any certainty. By this stage there was some repletion of the backlands with two or three buildings behind the frontage properties. The N end of the area is shown as orchard or garden ground, which accords with the archaeological evidence which suggests



Ill 49: 42 St Paul Street. Position of 18th-century Anderson's mansion in the backlands

little activity at this end of the site, other than possible cultivation, prior to the later industrial development.

In the mid-18th century the Anderson family built their new mansion on the middle area of Plot 2/3 (Ill 49). By the late 18th century there was a soapworks in Plot 1 and in the early 19th century the Mansion was re-used as the Boys' Hospital, both suggesting a decline in the status of the area. The underground chambers at the N end of the site may belong to this period.

Subsequently the whole backland area was used as the Farquhar and Gill warehouses behind small shops with dwellings above on the Upperkirkgate frontage.

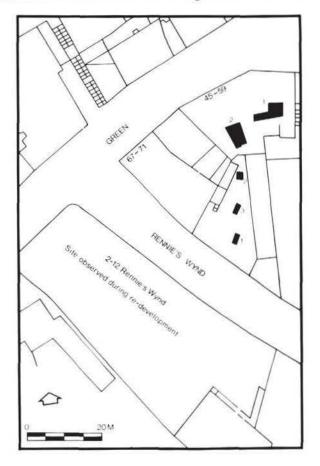
# 2:6 45-59 GREEN 1976 J C MURRAY AND

# JUDITH STONES

# THE SITE

The area known as the Green is a low-lying area, dominated since the early 19th century by the raised level of Union Street, but in the medieval period lying W of St Katherine's Hill (Ill 131). The origin of the name Green is uncertain, but it seems to have long been applied principally to the thoroughfare which runs SW-NE through the area, and upon which the present site lies. Until the construction of Union Street this had the importance of being the main route into Aberdeen from the S. However the name Green is also used to designate the entire area surrounding the street to N and S. Whether the name, which dates back at least to the 13th century (Anderson 1909, 13) suggests a market 'green', or whether the street led originally to a green area on the banks of the Denburn to the W is still a matter of debate.

There is little detailed information about the configuration of the Green area in medieval times,



Ill 50: Location map of 45-59 Green, 67-71 Green and 2-12 Rennie's Wynd

but it has sometimes been thought of as the earliest nucleus of settlement in Aberdeen (Wyness 1972, 10-18), a theory upon which it was hoped that excavation would throw light.

It has been known that from the late 13th until the mid-16th century a major feature of the area was the presence there of two orders of friars, the Carmelites and the Trinitarians. Until recently, the precise location of the Carmelite Friary was unknown, although its general position could be conjectured from the placing of Carmelite Street and Carmelite Lane some 30 m E of this site. In 1980-81 an excavation at 12 Martin's Lane uncovered the remains of some of the Friary buildings. At the N end of that site, a portion of a building was interpreted as part of a church of late 14th or 15th-century date. The SW angle of this building lay no more than 5 m S of the S extremity of the 45-59 Green site (Grid ref: NJ941060). It is very probable that the Green street formed the N boundary of the Carmelite precincts, and in that case the present site lay within that boundary.

After the Reformation, the possessions of the Carmelite Friary went through various changes of hands before being acquired in 1587 by George Keith, 5th Earl Marischal, and used as part of the endowment of Marischal College.

Parson Gordon's map of 1661 (Ill 130) gives us a clear idea of the layout of the Green area some 100 years after the Carmelite Friary had ceased to exist and its precincts had been turned over to secular use. By 1661, the S frontage of the Green street, including the front portion of the present site, appears to have been heavily built up. This pattern, once established, continued much until the present day with a gradual tendency to develop the back areas as well as the street frontage. Alexander Milne's map of 1789 also shows buildings on the frontage only, but by the time of the 1901 Ordnance Survey map at least part of the rear of the site is shown as built up.

The site was cleared for use as a car park in the 1960s.

#### THE EXCAVATION

As the front portion of the site was known to have been occupied by 19th-century buildings, it was expected that their cellars would have destroyed any earlier deposits. However, in the light of experience on the Broad Street and Queen Street excavations, it was hoped that two pends or entrances shown on the 1901 Ordnance Survey map as crossing the front part of the site, would not have been disturbed, and the intention was to excavate along their length as well as testing the rear part of the site.

Unfortunately, however, attempts to explore the front portion of the site proved that this entire area had in fact been destroyed by cellarage. The two trenches which were eventually excavated were both situated at least 8 m back from the present pavement (III 50).

The stratigraphy of this site can be divided into five phases. To excavators expecting to explore a wholly medieval site and hoping to examine the origins of urban settlement in the area, the most unexpected discovery, here represented by Phase 1, was the presence of a mesolithic flint working area on the natural gravel in Trench 2. Phases 2 and 3 cover the bulk of the medieval material, Phases 5 and 6 the post-medieval to modern development of the site.

# TRENCH 1

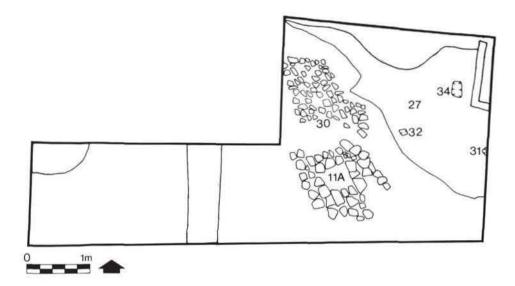
This trench, which was L-shaped, lay towards the E end of the site and covered an area of c 16 sq m.

#### Phase 1

There was no evidence of mesolithic activity in this trench.

#### Phase 2a (Ill 51)

The earliest deposits in the trench were found lying directly over the natural sand and gravel at the



Ill 51: 45-59 Green. Plan of Trench 1, Phases 2a and 2b

N end of the trench. A layer of burnt charcoally material (27) was c 150 mm thick. Nearby, a patch of small rough cobblestones (30) measured c 0.80 m×1.40 m.

# Phase 2b (Ill 51)

This phase is unlikely to be greatly separated in date from Phase 2a, but it is distinguished here because some Phase 2b features cut the Phase 2a Layer 27.

The rough cobbling 30 was overlain by a layer of grey clay (29), and a sandier material (28). Layer 28 yielded several sherds of cooking pottery of late 12th/early 13th century date (eg 769).

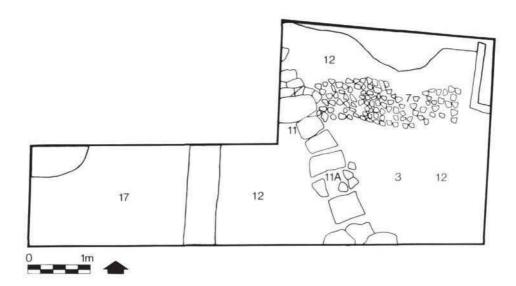
Three probable post-holes (31, 32, and 34) were cut through Layer 27 and down into the natural gravel. 31 contained at the bottom the remains of an almost square wooden post measuring  $110 \text{ mm} \times 100 \text{ mm}$ . 32 was of similar dimensions to 31 and was about 130 mm deep, but there was no trace of wood surviving in it. 34 was considerably larger than the other two, measuring  $160 \text{ mm} \times 240 \text{ mm}$ , and had a clean sandy fill. Towards its W end, however, it had some traces of organic material, possibly wood and also two stones which might have been the remnants of packing material.

#### Phase 3 (Ill 52)

Above this series of features lying on or cut into the natural sand and gravel, there was a considerable accumulation of dark brown garden soil extending over the whole trench. At the W end of the trench, in the absence of earlier features, the garden soil lay directly over the natural. The garden soil was about 0.50 m deep and probably accumulated over quite a long period of time. Because of its depth, it was recorded as a number of different layers, notably 12, 17, 18, and 19. There was not a great deal of pottery within these layers, but the small quantity there was would suggest that the accumulation of the garden soil extended from the 14th century. At a fairly early stage during the build up of soil, Feature 7, a longitudinal area of roughly laid cobbles, may have served as a path, as it had garden soil both below and above.

#### Phase 4 (Ill 52)

Both the garden soil and the cobbling were cut by a stone drain (11), running approximately NW/SE across the E portion of the trench. This drain was of drystone construction, with four to five courses of stones lining the sides, and large slabs forming the cover. Below these capstones the fill of the drain was composed of two layers. The upper fill (11/2) was a soft loamy earth, and contained a



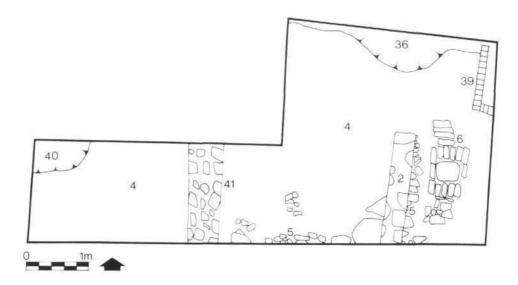
III 52: 45-59 Green, Plan of Trench 1, Phases 3 and 4

number of broken roof tiles, while below that was a layer of greasy silt immediately above the base of the drain. The base lay on the natural sand.

Towards the S end of the excavated length of the drain was a stone feature (11A), approximately 0.40 m square, visible first as a gap in the capstones of 11. Feature 11A had a foundation below the base of 11, consisting of an outer kerb of large stones and an inner area of small cobbles at the very bottom. This foundation was set into a trench which had cut c 0.50 m into the natural sand.

The position of the Green as a low-lying area between the rising ground of St Katherine's Hill to the N, the Dee estuary to the S and the Denburn to the W must have caused a drainage problem throughout the history of the area. The drain 11 and Feature 11A, which should probably be seen as one of a series of soakaways placed at intervals along the length of the drain, clearly represent part of an effort to alleviate this problem.

Stratigraphically, the possible date range for the construction of such a drainage system is wide, as Features 11 and 11A cut the garden soil, which accumulated over a considerable period. Unfortunately, no finds were made from the actual structures of drain and soakaway and the only



III 53: 45-59 Green. Plan of Trench 1, Phase 5

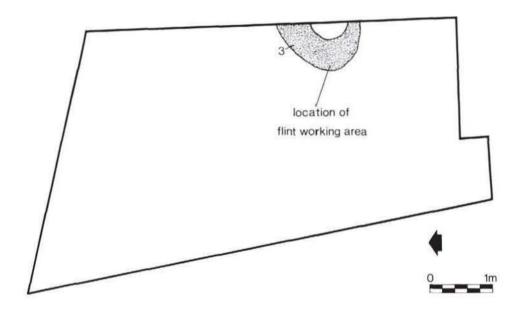
material recovered was from the accumulated layers within the drain. This included some medieval material, but the bulk of it, including a penny of George III, was of late 18th or 19th-century date.

## Phase 5 (Ill 53)

The latest features in Trench 1 were all 19th or 20th century in date and were probably associated with the most recent buildings on the site. They consisted of three portions of stone and mortar walls, of which one (41) cut across the W part of the trench, another (2) lay towards the E end, and the third (9) was fragmentary. There were also two brick features (6, 39) and a final layer of concrete slabs (1), which covered the entire trench with the exception of Feature 2.

#### TRENCH 2

This trench, situated towards the W end of the site, covered an area of c 22 sq m. After attempts to break the surface by hand failed owing to an extreme frost, most of the trench was excavated by machine, which, it was felt, would in this case test the levels adequately.



Ill 54: 45-59 Green. Plan of Trench 2, Phase 1

#### Phase 1

The earliest feature in Trench 2, which also constituted evidence of the earliest activity on the site as a whole, was an amorphous area (Ill 54: Layer 3) roughly semi-circular in shape,  $0.80 \times 0.90$  m, extending into the E section. Scattered over this area was a large quantity of partially worked flints, waste flakes and cores, probably indicating a flint working area of Mesolithic date (p 212).

# Phases 2-5

Owing to unusually deep frost penetration, the upper levels of this trench were largely removed by mechanical excavator. However, observation of this process indicated that the material above the mesolithic levels consisted of garden soil (4), very similar to the equivalent layers in Trench 1. A

small pit (5), which cut the Phase I flint working area, was difficult to date because its fill was indistinguishable from the garden soil 4, but it was probably medieval. No other medieval features were identified, although the garden soil included a range of pottery extending from the 13th century. The garden soil was sealed by modern earth and rubble and the car park surface.

#### CONCLUSIONS

It was most unfortunate that the front area of the site had been so seriously damaged by cellarage. This completely destroyed any traces of the buildings visible on Parson Gordon's map of 1661, which would have had much the same frontage as the cellared 19th-century buildings, and indeed any evidence for earlier buildings along the S frontage of the Green.

However, the rear portion of the site produced evidence about its use during the medieval period, even if some of that information was of a negative variety. Only a handful of medieval features were recognised—a small patch of cobbles, a few post-holes and a possible cobbled path—and they could not be significantly related to each other or their surroundings. There was no archaeological evidence of substantial development of the backlands behind the Green frontage in the medieval period. This confirms the impressions gained from Parson Gordon's map and later maps, that the rear areas were not greatly built up until the 18th or 19th centuries.

A notable aspect of this excavation was the small amount of medieval material recovered. There was little pottery and practically no animal bone or food refuse. Nor was there the accumulation of organic deposits which one would expect if the area had been a centre of activity from an early stage. Indeed over much of the medieval period the excavated portion of the site was probably gardens.

There was, therefore, little structural or material evidence found on this site to confirm any theory of the Green as the earliest nucleus of Aberdeen. Although the area covered by the excavation was in use from the late 12th century onwards, it was obviously not the scene of concentrated activity. However, it is most important to emphasise the relatively small area which was excavated, the degree of disturbance, and our complete lack of archaeological knowledge of the frontage area here or at any point along the line of the Green street.

Other archaeological work in the Green area has thrown some light on the configuration and growth of this part of the town. During the entire medieval period the Green must have been greatly affected by its topographical position. The excavation at 67-71 Green and the observation at 2-12 Rennie's Wynd produced evidence that these areas were heavily affected by flooding from the Denburn or were indeed tidal. Paradoxically, however, there was no such evidence at 12 Martin's Lane, not even at the very S end of the site.

The development of this portion of the Green must have been partly conditioned by the presence of the Carmelite Friary. Although the buildings excavated at 12 Martin's Lane were perhaps late 14th or 15th century in date, the Carmelites had probably been settled in the area from the late 13th century. There is still much work to be done in identifying the boundaries of the Friary lands at any given time and the uses to which they were put; it is hoped that further documentary research, as well as excavation, will be of assistance here.

# 2:7 67-71 GREEN 1977 JUDITH STONES

#### THE SITE

The area known as the Green has been traditionally thought of as the earliest nucleus of settlement in Aberdeen (Wyness, 1972, 10-18). It is a low-lying area, dominated since the early 19th century by the raised level of Union Street, but in the medieval period lying in the shadow of St Katherine's Hill (Ill 131). It is close to the harbour and the estuary of the River Dee. In medieval times the area was intersected by a number of streams, in particular the Denburn, flowing from W of Aberdeen towards the Dee, and the Putachie burn, an effluent of the Loch which lay in the NW part of the town.

This excavation (Grid ref: NJ940060) was one of a series designed to explore the origins of this part of the city, as well as being a rescue operation prior to the development of this particular site. A previous excavation at 45-59 Green, immediately to the N, produced rather ephemeral medieval remains and, unexpectedly, a scatter of mesolithic flints within a semi-circular working area on the natural gravel. It was anticipated that these might extend into the area of the present site as well. A recent excavation (1980-81) on an adjoining site to the E at 12 Martin's Lane, revealed for the first time the location of the Carmelite Friary founded c 1273.

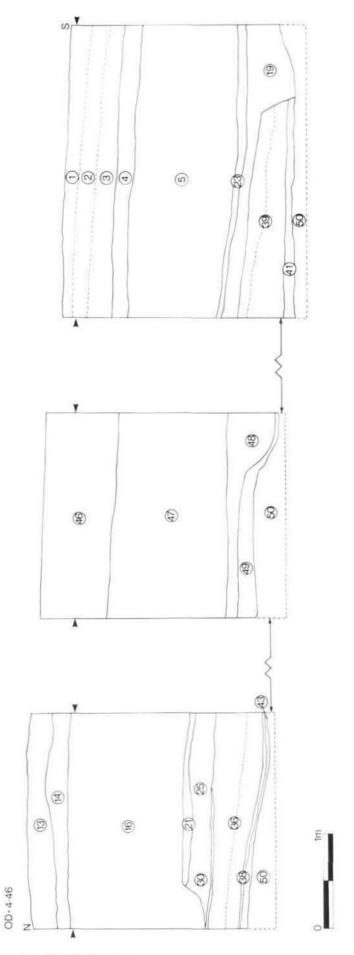
There is little historical information about the detailed configuration of the Green area in medieval times, but it is probable that the present site also lay within the lands of the Friary. At the time of Parson Gordon's map of 1661 (Ill 130) the site was in an open area behind buildings fronting on the Green. Alexander Milne shows the area to have been rather more built up by 1789, but the site has probably never been fully covered by buildings. At the time of the excavation, the site was the backyard of 67-71 Green, although it opened on to Rennie's Wynd.

## THE EXCAVATION

The available area was small, measuring 220 sq m, and was surrounded by buildings. Two trenches were excavated at first, at the N and S ends of the site. When soil conditions and levels in these trenches were found to be very dissimilar, a third, intermediate trench was dug by machine in an attempt to establish the cause of this disparity. In all trenches, problems of depth, necessitating shoring, and of waterlogging were encountered. Stratigraphy was not complex and the site has been divided into three main phases: (1) prehistoric (Mesolithic), (2) medieval and (3) post-medieval to modern. Because of the problems inherent in dating deep accumulations of garden soil and waterlaid deposits, two intermediate or linking sub-phases have been introduced. In Trenches 1 and 2, Phase 2a covers the considerable depth of garden soil ranging from the 14th century to the 19th century. In Trench 2, Phase 1a represents the waterlaid sands between the prehistoric and the medieval deposits.

#### TRENCH 1

This covered 5.10 sq m and lay at the S end of the site, c 4.50 m N of Rennie's Wynd. It was excavated to a depth of 2.45 m, at which point the natural gravel was encountered.



III 55: 67-71 Green. Simplified E-W section

#### Phase 1

No prehistoric activity was discerned in this trench.

#### Phase 2

Above the natural grey sand (50) was a series of alternating layers of blue clay and organic material (23, 19, 39 and 41) (Ill 55). Of these, the two lower layers, 39 and 41, contained little pottery, but the quantity of medieval sherds increased considerably in Layers 23 and 19. At the S end of the trench, the dense sticky organic Layer 19 filled a deep channel (AH), 0.35 m deep and 0.95 m wide, cutting through Layers 39 and 41. The sides of this channel were very irregular and it had several smaller dips and crevices within it. In view of this and the fact that Layers 39 and 41 were obviously waterlaid clays, the conclusion was drawn that the channel was a natural tidal or riverine feature. These intermingled waterlaid clays and sticky organic deposits were very similar to the conditions found at 2-12 Rennie's Wynd (Ill 50) during observation of building works.

#### Phase 2a

Above the organic and clay layers was a very thick deposit (1 m deep) of grey-brown garden soil (5), very friable and stonefree, and dry in contrast to the layers below. Because of its depth, this deposit was excavated in seven spits. The garden soil contained pottery from late medieval to 19th century in date, the medieval sherds being concentrated in the lowest two spits, from OD + 3.01 to OD + 2.86 m.

#### Phase 3

Above the garden soil 5, another much thinner layer of garden soil (4) was reddish brown, stonier, and contained clay and mortar flecks. Layers 1-3 above this were all modern material, with 1 being the cinder and chippings surface of the modern yard.

Cut from Layer 2 into Layers 3-5 were the remains of a wooden barrel (AA). Latterly, it had been filled up with modern debris—wood chippings, bone and corroded iron—but a thin layer of greenish mud and clay below the rubbish may have been the traces of an earlier use. Presumably the barrel had been dug in for storage purposes, possibly as a water butt, or indeed for rubbish.

## TRENCH 2

Lying at the N end of the site, this extended over 2.90 sq m and was excavated to a depth of 2.50 m.

#### Phase 1

The existence of this phase in this trench was the most striking aspect of this particular site, although not entirely unexpected in view of the prehistoric material previously found in Trench 2 of 45-59 Green, 12 m N of the present trench. Below interspersed layers of waterlaid sand and organic material, a thin layer of black gritty sand with some stones (38) contained a number of worked mesolithic flints. These were of the same character as the flints recovered from Trench 2 at 45-59 Green, but unlike those, the flints from the present site were not associated with any recognisable feature (p 89).

#### Phase 1a

Layers 21, 25, 30 and 36 were sand layers, alternating with thin patches and lenses of a brown peaty substance. Layers 21 and 25 each contained two sherds of medieval pottery, while Layers 30 and 36 produced no material at all. While all these layers were definitely waterlaid, it is difficult to be sure about the period over which they were deposited.

#### Phase 2a

Layer 16 represents an accumulation of garden soil similar to Layer 5 in Trench 1, and like Layer

5, it was removed in spits. The lower 0.20 m contained only medieval pottery, the upper levels including also mixed post-medieval and modern material.

#### Phase 3

There were no modern features in this trench. Layers 13 and 14 represented the most modern material, with 13 being equivalent to Layer 1 in Trench 1.

#### TRENCH 3

The discrepancy between the waterlogged clays in the lower levels of Trench 1 and the sand deposits in Trench 2 required further investigation, as did the apparently considerable drop (c 0.80 m) in the level of the natural gravel from the N end of the site to the S end. Accordingly, a third trench was excavated by machine mid-way between the other two trenches. This measured 1.20 m  $\times$  2.20 m and was 2.40 m deep. It was only possible to clean up and draw the sections before the trench became too dangerous to work in, but the essential information was retrieved.

#### Phase 1

No trace was found of any prehistoric activity in this trench.

#### Phase 1a

A grey sand Layer 49 overlay the natural gravel 50. Above 49 was a layer of grey-blue clay 48, ranging in depth from 0.12 m at the N end of the trench to 0.55 m at the S end. At the S end, Layer 48 deepened so much that only a thin lens of 49 overlay the natural gravel 50. This grey-blue clay 48 was very similar to 39 in Trench 1.

#### Phase 2a

Layer 47, some 1.20 m of garden soil, was the equivalent of Layer 5 in Trench 1 and Layer 16 in Trench 2. As in the other trenches, this garden soil included material ranging in date from medieval to 19th century, with the medieval material being concentrated in the lower levels.

#### Phase 3

Layer 46 represents the thick band of modern deposits in this trench.

# CONCLUSIONS

The excavation provided a number of pieces of information about the natural topography and the development of this area from very early times. It is clear that there was some mesolithic activity at the N end of the site, on what would then have been the banks of the Denburn. However, the fact that the flints were not nearly so numerous or concentrated as at 45-59 Green, together with their absence from Trenches 1 and 3, would suggest that their S extremity has been reached in Trench 2.

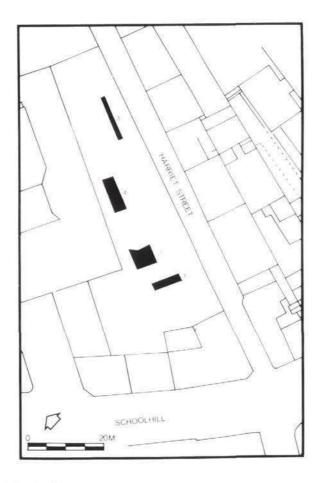
The fall in the level of the natural gravel from the N to the S end of the site was approximately 0.80 m. This was not particularly unexpected in an area sloping down towards the Denburn and the River Dee. The clay layers in Trench 1 would suggest that the S part of the site was much affected by flooding and waterlogging during at least part of the medieval period. The Denburn meets the River Dee only a short distance to the SE of the present site in an area depicted on Parson Gordon's

map of 1661 (Ill 130) as 'Marsh Ground overflowed by each tyde'. Similar conditions of waterlogged clays containing medieval material prevailed at 2-12 Rennie's Wynd, just to the S of the present site, immediately next to the modern culverted line of the Denburn, below the Aberdeen-Inverness railway line. During medieval times the Denburn would naturally have been wider and free flowing, and there is little doubt that flooding and tidal water were then commonplace in the Green. Tradition relates that the lands of the Carmelite Friars were subject to frequent flooding from the Putachie burn, which ran to the E of the Green (Wyness 1972, 42). It is likely that they were also encroached upon from the S by the Denburn. It is possible that later in the medieval period the area became less waterlogged, perhaps through deliberate attempts at land reclamation. This would account for the beginning of the accumulation of garden soil, which continued almost up to modern times. No evidence was found to confirm the tradition of the early settlement of the Green area. The land represented by the present site and by 2-12 Rennie's Wynd would have been most undesirable for building during much of the medieval period. The bulk of the medieval pottery found was 13th-14th century in date.

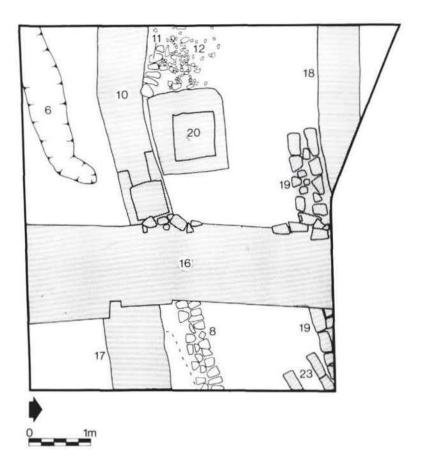
# 2:8 2-16 HARRIET STREET 1977 JUDITH STONES

# THE SITE

The site (Grid ref: NJ939065) lies just above the 60 ft contour to the E of the plateau formed by the top of Schoolhill, and therefore slopes moderately to E and S. It was occupied until 1971-2 by the premises of Mitchell and Muil's bakery, and previously by dwellings along the W side of Harriet Street. Harriet Street itself was not a medieval thoroughfare, appearing first on a map of 1822. Earlier, judging from the maps of Parson Gordon in 1661 and Alexander Milne in 1789, the area was feued out as backlands to the buildings along the frontage of Schoolhill. It was hoped that this excavation might produce remains of these or earlier buildings, or some evidence of the N-S boundary walls separating the feus. Moreover, the site is immediately to the E of the supposed position of the Dominican Friary, founded in the late 13th century, and possibly within its lands. Various building works in the area W of the present site, the most recent being the construction of Robert Gordon's College swimming pool in 1935, have produced burials associated with the Blackfriars.



Ill 56: Location map of 2-16 Harriet Street



III 57: 2-16 Harriet Street. Plan of Trench 2

# THE EXCAVATION (III 56)

The area available for excavation was extremely large, stretching 80 m N-S along Harriet Street and 20 m E-W. The intention was to sample as much of the area as possible. The placing of trenches was further conditioned by the need to avoid those drains and underground structures whose presence was obvious from the surface. An additional hazard was presented by the layer of concrete over the entire site, c 0.10-0.20 m thick and in places unbreakable even by machine.

#### TRENCH 1

At the S end of the site, and at right angles to Harriet Street, this trench was rectangular and covered an area of 16 sq m. It was excavated by machine to a depth of 1.70 m which included a cut of 0.70 m into the natural gravel. Immediately above the natural lay 1.00 m of rubble and concrete. There was no intervening soil level at all, except in the N side where a slight amount of soil c 0.50 m deep appeared in section below the disturbance.

# TRENCH 2 (III 57)

This was the only trench in which any substantial soil cover remained. The trench extended over 30 sq m and lay towards the SE end of the site. The depth of the soil varied according to the natural

slope of the ground from 0.50 m on the W to 1.00 m on the E side of the trench. The existence of soil here when in most of the rest of the site it was absent can perhaps be explained by the situation of this trench nearest to the top of Schoolhill.

The trench was bisected by the main flue of the Mitchell and Muil's bakery complex (16), an elaborate brick structure, 1.50 m wide, running N-S, cutting deep into the natural. Additional modern disturbance was caused by three subsidiary E-W flues (10, 17, 18), a mortared granite foundation (19) giving support to one of these lesser flues and a massive granite block set in mortar (20), which presumably had functioned as a base for a piece of machinery.

Only two small areas in the middle of the trench had escaped disruption by the modern bakery emplacements. In one of these areas to the E of the main bakery flue (16) a linear feature (8), 0.30 m wide, composed of small to medium sized rounded stones, ran approximately E-W. Its W extremity lay very close to the E side of the main flue, and it had been cut by the foundation trench for this flue, which was no more than 50 mm wider than the flue on either side. At its E end, Feature 8 entered the E section of the trench, but further excavation in this direction was made impossible by the thickness of the concrete cover. Feature 8 was found to contain pottery of the late 14th or 15th century.

In the W side of the trench were found the remains of two features. A small patch of cobbling (12)  $1.00 \text{ m} \times 1.20 \text{ m}$  was cut to the E by the mortar and granite base (20). Abutting the S edge of the cobbling, a line of larger stones two courses deep (11) might possibly have been the vestiges of a second wall aligned E-W. The possibility that this was a W extension of Feature 8 on the other side of the flue was considered. No dating evidence for Feature 11 was recovered, and it was too badly disrupted by one of the bakery flues (10) for its alignment to be certainly defined, but the few stones which remained did not suggest an alignment identical to that of Feature 8.

A handful of pottery was recovered from this trench, ranging in date from the 13th to the 19th centuries. Except for that in Feature 8, however, none of it was stratified, and the abraded nature of the earlier sherds reinforces the theory that much of the trench had been heavily disturbed.

#### TRENCH 3

This trench, covering 19.50 sq m, was long and narrow, running N-S at the N end of the site, and was excavated solely by machine. In the whole length of the trench the natural gravels were found immediately under the concrete, and thus no more than 0.25 m below the surface.

#### TRENCH 4

This was rectangular and covered 27 sq m. Again the natural gravel was very close to the surface, c 0.20 m at the N end of the trench. At the S end it was rather deeper, but this was because of excavations for a drain and for the foundation of the chimney of the bakery furnace, which cut into a substantial part of the SW corner of the trench.

#### CONCLUSIONS

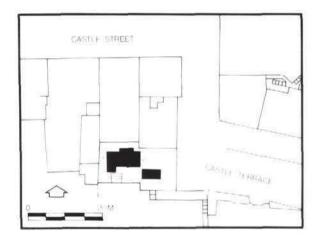
The most striking aspect of this site was the total lack of soil over most of the excavated area, with the natural gravel lying in most places immediately below the concrete floor of the most recently demolished buildings. This can only be attributed to some sort of deliberate levelling procedure, either when the dwellings along the W side of Harriet Street were constructed in the 19th century, or in the 18th century during the process of building Robert Gordon's College.

Apart from the remains of the bakery complex, the only undisturbed features on this site were the patch of cobbling (12) and the possible walls (8 and 11) in Trench 2. Of the walls, one (11), whose very existence is uncertain, was of indeterminate date, and the other (8) was probably late 14th or 15th century. Feature 8 constitutes the only structural evidence of medieval activity on the site, and that is hardly substantial. It should be pointed out that Feature 8 was very approximately parallel to the line of Schoolhill, and one might be tempted to speculate about its being a boundary wall related to buildings on the N frontage to Schoolhill. Archaeologically, nothing is known about this frontage in the 14th and 15th centuries. Our only positive information is from Parson Gordon's map of 1661, which shows the entire frontage area as occupied by buildings, including the Grammar School, by that date. Prior to the Reformation, it is quite possible that the whole area was within the boundaries of the Dominican Friary, and it is not clear how this affected the frontage or to what extent it was built up. At present, therefore, it is not wise to offer any statement about the function of Feature 8, other than to note its probable date. It is most unfortunate that no other medieval features survived the modern disruption caused by the bakery. However, if the site was on the periphery of the Dominican Friary, as is quite possible, it might have been garden land in the medieval period and would have yielded little, even had the disturbance been less comprehensive.

# 2:9 6-8 CASTLE TERRACE 1977 HILARY MURRAY

## THE SITE

Excavation took place in a yard (Grid ref: NJ945063) between the former Royal Aberdeen Hospital for Sick Children (6-8 Castle Terrace), which had originally been built as a private house c 1720, and a dwelling house (4 Castle Terrace) built c 1760.



Ill 58: Location map of 6-8 Castle Terrace

#### THE EXCAVATION

Three trenches were excavated (Ill 58), each approximately  $3 \times 6$  m. Trenches 1 and 2 were finally joined and treated as a single area.

In Trenches 1 and 2 the natural levels proved to be a series of sand and gravel layers with two layers of very hard compacted clay containing stones. These levels appeared to slope down from N to S and possibly also from E to W, in accordance with the present topography. This sequence was in complete contrast with the natural levels in Trench 3, where fine sand extended to a depth of at least 2 m below the base of the occupation deposits. This may not have been the highest level in Trench 3, which had been scarped, but does illustrate the difference between Trenches 2 and 3 over a distance of c 2 m.

#### TRENCHES 1 AND 2

A total of eight phases of activity could be distinguished in this area. The phasing is purely stratigraphic; there is no implication that the phases were of equal duration (Catalogue of features Table 18 mf. Stratigraphic matrix Table 19 mf).

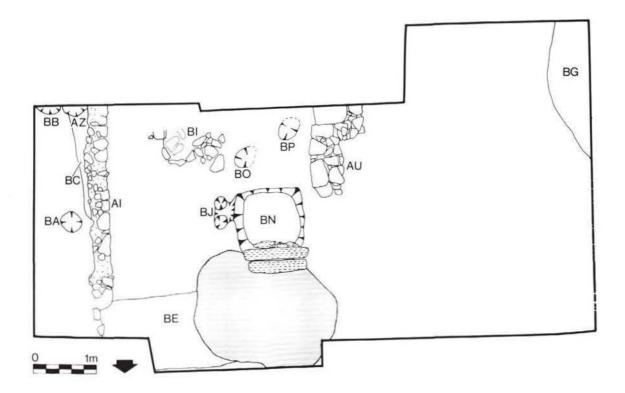
### Phase 1 (Ill 59)

The Phase 2 cellar and the Phase 6 dumps had cut away nearly all earlier levels with the possible exception of three small areas: Trench 2 E of the wall (AI), the truncated pit (BG) and the small triangle of undisturbed levels between the W cellar wall (AU) and the later dumps. Unfortunately, the layers E of AI, including several small pits or post-holes, were only sealed by modern levelling and could not be dated with any certainty. Similarly pit BG was only sealed by Phase 6 dumps and could have belonged to any preceding period. Both of these areas may be medieval on the basis of the lack of later material and the presence of some medieval sherds. The only totally undisturbed area was the triangle between wall AU and the dumps AV, an area less than  $0.70 \times 1.00$  m and liable to contamination from the surrounding disturbed area. Layers 72-79 were a series of clay layers in this area, with varying charcoal contents. Pottery from these layers consisted of four medieval sherds and one post-medieval sherd. The latter may be due to contamination from the dumps or cellar but this cannot be proved.

In summary, Phase 1 may equally well be interpreted as the traces of otherwise destroyed medieval activity or as residual medieval material in later contexts. The stratigraphic statement that, with the possible exception of BG, all these Phase 1 areas precede the building of the cellar is, however, reasonably certain.

# Phase 2 (Ill 59)

During Phase 2, a cellar was cut into natural. Due to the underlying slope, the cellar floor was 0.90 m below contemporary ground level to the E but only some 0.20 m below it to the W. The E and W sides of the cellar were lined by clay-bonded rubble stone walls with well finished internal faces. There had been an entrance in the W wall with a stone step up to the external level; as the later dumps cut the W wall alongside the entrance it is possible that a further room had been destroyed. The width of the excavated room was 3.20 m internally.



III 59: 6-8 Castle Terrace, Trenches 1 and 2. Plan of Phases 1 and 2

To the S the building extended beyond the possible limits of excavation. To the N there was no surviving wall but there were indications of the position of the N end of the building. Wall AI stopped roughly on a line with the Phase 2 floor foundations (96, 97). The line was reiterated by Phase 3 post-holes and by the extent of the rubble in the later demolition (Phases 4, 5, Layers 22, 45). BE, a trench cut along this line during the later demolition, may be a robber trench of a N wall, although as discussed in Phase 4 there are problems concerning this interpretation.

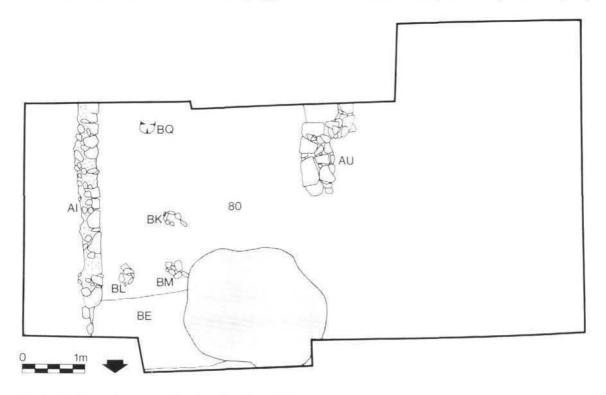
A series of floor levels belonged to this phase (96, 97, 82, 83, 84). The foundation of sand (96) over clay (97) had been laid in a shallow excavated depression, presumably to level the interior. A thin layer of charcoal (84) and a thin clean floor of sand (83) were built up on this foundation. During the period when these layers were formed, a small stone-kerbed hearth (BI) was built inside the building opposite the W doorway. A wood and brushwood-lined pit (BN) was found near the W wall. In section it appeared to have been cut from floor Layer 83 and to be sealed by the Phase 3 floor (80). On excavation, stones set in the natural appeared to follow the W edge of the pit and were originally interpreted as a kerb. Some of these stones were, however, deeply embedded in undisturbed natural clay and as these strata of natural included large boulders it is probable that the appearance of a kerb was coincidental.

Although iron slag in quantity was only found from Phases 3 and 4, it is possible that both the hearth and the pit were associated with some industrial activity, possibly a small scale smithy. The form of the building itself will be discussed in greater detail in Phase 3. With the exception of one early or mid 17th-century clay pipe stem (p 216) from Layer 90 (see matrix Table 19 mf), there was no pipe from Phase 2. This might suggest that Phase 2 preceded c 1630 when clay pipes first became popular in Aberdeen, but a pipe stem in Phase 3, Layer 80, which sealed Phase 2 was mid to late 17th century in date and Phase 2 is most likely to belong to the mid-17th century.

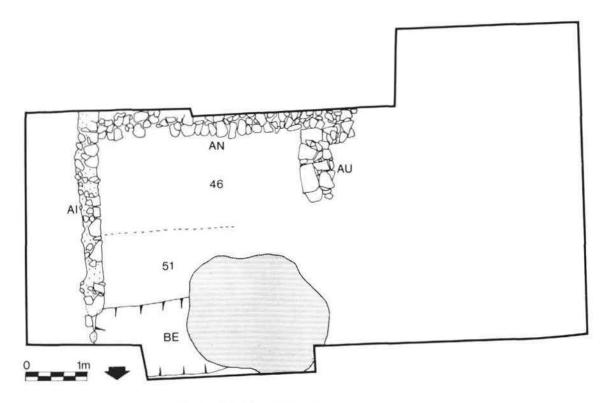
## Phase 3 (Ill 60)

There was no abrupt break from Phase 2 to Phase 3, but a new floor (80) was laid down in the cellar, sealing both the earlier hearth and the pit.

The main structure of the building appears to have been unaltered, but two post-holes (BL,



III 60: 6-8 Castle Terrace, Trenches 1 and 2. Plan of Phase 3



Ill 61: 6-8 Castle Terrace, Trenches 1 and 2. Plan of Phase 4

BM) cut into the Phase 3 floor were possibly the remains of a line of four posts placed at regular intervals across the N end of the building. They were on a line with the end of wall AI and the edge of the earlier floor foundations. Their spacing, and their position on an end wall rather than a side wall line is unusual and one possible interpretation would be that this building was open ended at this N end, with a row of four posts possibly supporting the N edge of the roof in Phase 3. There is no evidence concerning the structure of a N wall in Phase 2, although as discussed it appears to have followed the same line. If a stone wall on this line had been demolished between Phase 2 and 3, there would have been an interruption of the internal layers and at least some rubble; no such evidence existed at this stage.

Phase 3 may be dated to the mid to late 17th century on the basis of a single Dutch clay pipe stem (p 216), dating to the second half of the 17th century, which was found in floor level 80.

# Phase 4 (Ill 61)

The Phase 3 building appeared to have been burnt down or demolished. The whole area between walls AI and AU was covered by a layer of charcoal (69) which was up to 0.15 m thick in places. This also sealed the step in wall AU and filled the post-holes BL, BM. A series of layers including a spread of stoney rubble (70) lay over this.

Walls AI and AU appear to have remained in use although they were either rebuilt or more probably repointed at this level using mortar bonding in contrast to the earlier use of clay-bonding. Towards the end of Phase 4 a new rough drystone wall (AN) was built across the S end of the excavated part of the structure, extending between walls AI and AU and blocking the doorway in AU (III 62).

At the same period, a trench (BE) was dug on the line of the N end of the building. It extended W from a point nearly level with the N end of wall AI. The actual relationship at the junction was unclear as the N end of AI was very broken. The W end of trench BE had been cut away by a later pit (AF). However BE appeared to have extended across the full width of the N end of the building, as sand 51 which is identical to the natural sand through which the base of BE was cut, appeared to have been thrown up along the edge of BE and this Layer 51 survived across the full width of the building. Interpretation of BE is difficult; if, as seems likely, sand 51 had been thrown up as



Ill 62: 6-8 Castle Terrace. Trench I looking S showing walls AI, AU and AW, post-holes BL and BM, hearth BI and feature AF in foreground

BE cut into natural, then the layers which were over natural should have been found below 51 in the building but no such layers were identified. If BE was a robber trench of a wall, it remains to explain why no trace of the wall rubble remained, why only this wall had needed foundations deep enough to be dug out with a trench 0.65 m deep and why post-holes BL, BM would have existed so close to the hypothetical wall in Phase 2. There is no obvious solution, but some direct relationship to the building is probable as the fill of BE (64, 67) gave no indication of a separate function.

Large quantities of iron slag, scrap iron, coal and charcoal were found in all the layers over 69 (eg 46) and suggest that the area within the walls was associated with a smithy. There was no evidence to indicate whether it was roofed or open at this period.

M Spearman, who examined a sample (1.25 kg: eight pieces) of metal working debris from Layer 46, has commented that it contained substantial quantities of iron smithing waste including fragments of iron slag, coal cinders and hammer scales. The work carried out in the Castle Terrace building would appear to have been forging and smithying making use of prepared bloom.

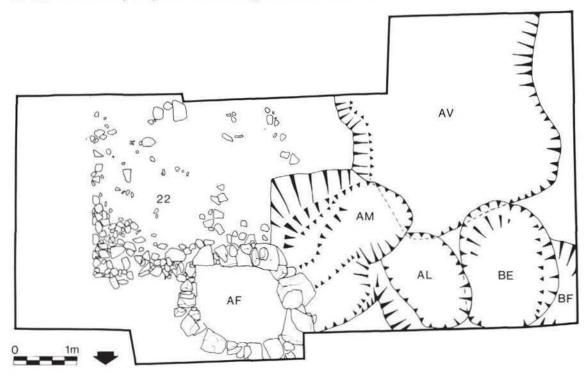
Clay pipes of late 17th-century date have been found in the layers associated with this place. A jug (815), part of which was from Phase 4 and part from Phase 5, is consistent with this date.

# Phase 5 (Ill 63)

Shortly after wall AN was built, the whole area inside the building appeared to have been abandoned and filled with layers of rubble and mortar (21, 22, 23) which presumably represent the final demolition of the structure.

# Phase 6 (Ill 63)

After the deposition of the rubble layers at the E end of the site, the W end was cut by a series of very deep excavations (AL, AM, AV, BD, BF), possibly the result of gravel quarrying. The hollows were filled by a series of interrelated dumps which included rubbish layers with bone and pottery (30), stoney and brick rubble (37), organic earth (65) and a layer containing fragments of rammed earth walling with a yellow plaster facing (61). None of these fills can be directly related to features on the site and they may have been brought in from elsewhere.



Ill 63: 6-8 Castle Terrace, Trenches 1 and 2. Plan of Phases 6 and 7

#### Phase 7 (Ill 63)

At some time after the last dump (AL, AM) was filled, a stone-lined pit AF was dug. The function of this pit was not clear. The fill was of clean stoney rubble with no traces of cess or rubbish, even between the lining stones. It is unlikely to have been a well as the base was on a layer of impermeable natural clay. It is possible that it was used for storage, perhaps as a domestic water supply, but in this case it is hard to understand why the S side was never stone-lined. An almost identical feature was found on the site at 42 St Paul Street (JA: Ill 42) attached to the corner of a stone building of 15th-17th century date.

#### Phase 8

The site was levelled with rubbish and covered by a granite yard associated with the 1720 building at 6-8 Castle Terrace. The granite blocks had been lifted to insert service pipes and did not, therefore, provide an absolute sealing layer. The clay pipes in the layers below the yard surface were, however, all of types which probably pre-date 1720. This confirms that the yard was contemporary with the house and suggests that there was relatively little contamination from the later disturbance.

#### TRENCH 3

The area covered by Trench 3 appeared to have been levelled, possibly in the 18th century, removing

all traces of earlier occupation. As a result, natural sand was found directly below a cobbled yard which was sealed by the modern concrete. The cobbled yard may have been cut and replaced when modern service pipes had been inserted. The sand was excavated by machine to a depth of c 2 m to ensure that it was undisturbed natural.

#### DATING

There is little dating evidence for Phase 1 with the exception of a few sherds of medieval pottery. The lack of clay pipe and of any significant amount of post-medieval pottery suggests that Phase 1 may be medieval. The dating is however questionable as all the Phase 1 areas were susceptible to later contamination and as already discussed the stratigraphy was not very clear.

The features from Phases 2-7 inclusive all appear to date to the 17th century. No clay pipe earlier than 1630 was found but pipe in the layer sealing Phase 2 can be dated to the mid 17th-century, suggesting an early or mid 17th-century date for the original phases of the building. Its secondary use in Phase 4 can be dated to the late 17th century on the basis of pipes dated to 1680±15 and 1682±10. The yard of Phase 8 was built in c 1720 forming a fairly undisturbed seal on all the preceding phases.

The pottery can not be closely dated but is of types which appear to be post-medieval (813-823) and would broadly confirm the clay pipe dating of the site.

#### DISCUSSION

This site showed that although there may have been some medieval activity in the area, the evidence had been almost totally destroyed both by scarping and by later intrusive features. The nature of any medieval activity cannot therefore be assessed.

In the early or mid-17th century a small building was constructed. It may have been open-walled to the N, possibly with a row of posts supporting the roof on this side, although evidence for this was only found in Phase 3. It appears to have been used as a workshop, possibly a smithy. Open-fronted workshops, including smithies, are illustrated in Diderot's 18th-century *Encyclopedia of Trades and Industries* (Gillespie (ed) 1959, 1, pl 165, 166, 171. II 293).

After its partial destruction, the building continued to be used as a work area or dump associated with iron working. It was not clear if it was still roofed at this stage.

The Phase 6 dumps appear to be the infill of possible gravel quarrying, the area was presumably semi-derelict when this took place. From Phase 7 it would appear to have been a yard: the possible water tank (AF) must have belonged to a building outside the excavated area, possibly an earlier building on the site of 4 Castle Terrace. The paved yard belonged to 6-8 Castle Terrace which was built c 1720.

The sequence of events on the site appears to show an upgrading of the area from its 17th-century use for iron working to its use in the 18th century for a fairly elegant small mansion (6-8 Castle Terrace). Due to the fire hazards associated with industries like ironworking, it is likely that this was near to the edge of the limit of the 17th-century town at this point. This is probable in any case as the ground slopes abruptly down to Virginia Street from the S side of the site.

The site cannot be accurately identified on Gordon's map of 1661 (Ill 130) which shows buildings along the street frontage, but open ground behind in the area where the 17th-century smithy was.

# 2:10 SMALL SITES AND OBSERVATIONS UP TO

# **DECEMBER 1981**

# VIRGINIA STREET STEPS, CASTLE LANE 1974 COLVIN GREIG

Due to the construction of a dual carriageway at Virginia Street it was felt that members of Aberdeen Archaeological Rescue Group should keep a watching brief on the site (Grid ref: NJ946063) as its proximity to Castle Hill could produce some archaeological evidence of medieval Aberdeen. Medieval pottery sherds were collected from the site and after cleaning an exposed section the decision was made to mount a small weekend excavation, making use of volunteer labour.

The excavation was of necessity, restricted to a shelf roughly 11.1 m long, 1.5 m wide and 1.2 m deep. In spite of the small area excavated, a number of interesting archaeological strata were exposed which yielded a large quantity of medieval pottery.

Below the disturbance caused by services lay a badly disturbed road surface consisting of well worn stones and large beach pebbles, with a few sherds of 14th-century pottery. Immediately underlying this road was a much cruder road surface. Post-excavation research suggests that the excavation had revealed the original Futty Wynd which led from the Castlegate to Futty and that the pottery would date this construction to the 14th century.

Previous to the construction of the road, the area had been used as a midden. In places 0.73 m of midden deposits were revealed, including a most interesting shell midden filled with mussel shells, animal bones, pottery sherds and a few oyster shells. The pottery from this horizon ranged in date from the late 13th to mid-14th century (III 82, 83: Nos 189-246).

The natural profile of the site consists of hard packed sandy gravel with large pebbles, above which lies a layer of sand and upon this rests a thick stratum of grey, sandy clay. This latter feature was not present in the section and its place had been taken by the late 13th or early 14th-century midden deposit. The clay had been removed and to assist this operation, which must have occurred in the 13th century, a rough pebbled track had been laid, probably to assist the passage of wheeled vehicles. The clay must, therefore, have served some industrial purpose in medieval Aberdeen, such as use as a building material or perhaps use by a medieval potter.

There was no great time lag between the quarrying for clay, the dumping of rubbish on the site and the final levelling for Futty Wynd. It can therefore be assumed that by the mid-14th century, a settlement had been so firmly established at Futty that it warranted proper access to the Castlegate. Ill 1:26.

# REAR OF ABERDEEN ART GALLERY AND MUSEUM, BLACKFRIARS STREET 1977 JUDITH STONES

Observation of two small pits (Grid ref: NJ938063) dug during the construction of an extension in the car park to the rear of the Art Gallery and Museum produced no medieval levels. There was

a great deal of modern disturbance with apparently natural sand and gravel some 300 mm below the tarmac surface. The Art Gallery and Museum lies within the area of the Dominican Friary, founded in the late 13th century, and burials were found during the construction of the Gallery in the late 19th century and of the adjacent Cowdray Hall in the 1920s. However, this small car park, sandwiched between the Gallery and the buildings of Robert Gordon's College, would clearly have suffered considerable disturbance during the erection of these substantial buildings. Ill 1:1.

#### 28 HARRIET STREET 1977 JUDITH STONES

Observation during building work (Grid ref: NJ939064) revealed natural levels with no overlying deposits, conditions similar to those found over much of the site at 2-16 Harriet Street. Ill 1:2.

# 104 GREEN 1977 JUDITH STONES

Observation of trenches within the standing building (Grid ref: NJ940060) prior to major alterations revealed only natural levels. Ill 1:14.

### 2-12 RENNIE'S WYND 1977 J C MURRAY

The site of 2-12 Rennie's Wynd (Grid ref: NJ940060), along the W side of the Green was observed during demolition prior to the construction of Littlewoods Extension. This area was shown on the 1954 OS map as the possible site of the Carmelite friary, although subsequent excavation at 12 Martin's Lane has proved this to have been further to the N. It was also felt to be an opportunity to investigate the extent of medieval occupation of the W end of the Green.

However, as the contractors worked, it became clear that there had been no extension of medieval activity in this area and that occupation would have been impossible as the presence of waterlaid deposits showed that the area would have been esturine, and that it was possible that this was the site of an earlier bed of the Denburn. More recent excavations at 67-71 Green revealed the same waterlaid deposits at a slightly higher level overlaid by some medieval garden earth suggesting that this higher N margin of the estuary was being reclaimed by c 13th century. However, there was no comparable evidence at 2-12 Rennie's Wynd and it appears likely to have remained waterlogged until a later period; it is shown as garden ground with a few buildings on Parson Gordon's map of 1661. No artefacts were recovered from the site. Ill 1:15.

#### 17 VIRGINIA STREET 1978 JUDITH STONES

A small trial pit excavated here (Grid ref: NJ945062) revealed only natural levels. III 1:21.

# DONALD'S COURT, 16 SCHOOLHILL 1978 JUDITH STONES

A small trial pit (Grid ref: NJ940063) excavated prior to alterations here revealed natural gravel beneath the car park surface in the court. Ill 1:4.

# 56-58 WEST NORTH STREET/MEALMARKET STREET 1979 JUDITH STONES

Observation of construction trenches here (Grid ref: NJ943066) showed no evidence of medieval features, but indicated that this area, low-lying in relation to the rising ground of Gallowgate to the W, might have been marshland in the medieval period. Ill 1:10.

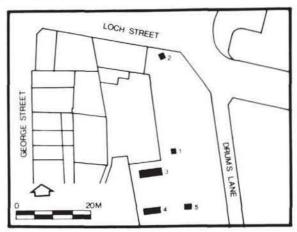
# 42 LOCH STREET, 14-21 DRUM'S LANE 1979

#### HILARY MURRAY

A total of five trenches was excavated in this backland area (Grid ref: NJ940065). The main aim was to establish how far medieval activity extended towards the Loch. In all the trenches the stratigraphy was a simple sequence of post-medieval garden earth and medieval garden earth over natural. There was a greater depth of medieval deposits at the S end, possibly due to dumping behind the Upperkirkgate properties.

A cess pit was found in Trench 2. It was sealed by post-medieval garden earth and may be medieval or early post-medieval in date. It yielded shell, bone and nut fragments but no pottery or datable finds. It is interesting in showing some activity in the very waterlogged ground near the edge of the Loch.

A possible E-W trench cut into natural was excavated in Trench 5. In the limited confines of the excavated area it was not possible to determine if it was a natural feature. It had a maximum



Ill 64: Location map of 42 Loch Street

depth of 0.30 m and extended for at least 2 m. The base fill was a fine black silt, sealed by garden earth. It was a least 0.70 m wide, but the S edge was beyond the S edge of the trench which could not be extended safely. If it was a ditch it should have extended into Trench 4, but it did not.

Prior to excavation, demolition workers on the site found two sterlings of Edward I (49, 50). These appeared to have been machined from the medieval garden earth in the proximity of Trenches 3 and 4. Ill 1:15, Ill 64.

#### 56 GALLOWGATE 1979 HILARY MURRAY

The pavement in front of Greyfriars House, Gallowgate (Grid ref: NJ941066) was excavated to a depth of 1.50 m to provide foundations for a new entrance and ramp. Observation showed the site to be within the 19th-century cellars and to have been disturbed to a level just above natural. A humic soil above natural, which may have been medieval, yielded bone but no datable finds. The original E frontage of Gallowgate is now below the street due to road widening earlier in the century. Ill 1:9.

# REAR OF 101 HIGH STREET, OLD ABERDEEN 1979

#### J C MURRAY

A well was uncovered during the construction of the Geography Department extension, Aberdeen University (Grid ref: NJ938084). It had an internal diameter of 1.00-1.50 m and a surviving depth of 1.50 m. The upper two or three courses were built of red brick but the lower courses were drystone. Ill 65:6. A broken grave slab was found in the well. The inscription read:

HEER LYES T . . . .

OE HENRY KIL . .

BVRGES IN ABD-DE . . .

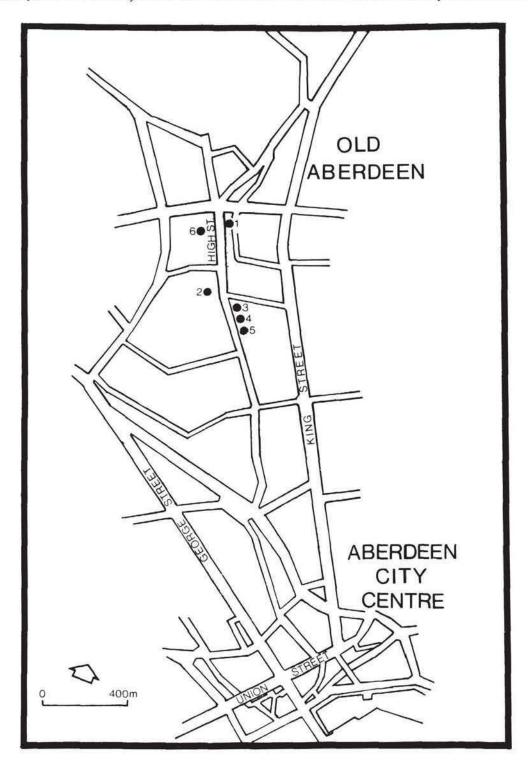
OCTOBER. 1660 HIS AGE 96

AND ELIZABETH ANDER
. . ON . . . SPOVS WHO
. . . . . . . . . . . 1659

# BRITISH TELECOM TRENCHES 1979 HILARY MURRAY

A series of service trenches was observed during the laying of a new major telephone cable along St Paul Street, Loch Street, Gallowgate, Upperkirkgate and Littlejohn Street (Grid ref: NJ940064, NJ941064, NJ940065, NJ941065, NJ942065). Thick organic medieval deposits were observed in Gallowgate, Upperkirkgate and the E end of St Paul Street. There was little medieval evidence from the W end of St Paul Street or from Loch Street.

In Littlejohn Street there were thick organic midden layers at the W end, from the top of the hill to approximately halfway down the hill where they ceased abruptly. This confirms the estimated extent of the medieval town in this direction. There was no surviving evidence of a ditch or any boundary, but it is unlikely that a fence would have been identifiable in the very narrow trenches.



Ill 65: Location map of sites observed in Old Aberdeen. 1) 104 High Street. 2) Music Dept building. 3) 32 College Bounds. 4) 40 College Bounds. 5) 42 College Bounds. 6) Rear of 101 High Street

The trenches cutting across Gallowgate and Littlejohn Street road surfaces revealed no evidence of earlier street surfaces as the ground was totally disturbed by existing service trenches.

All the medieval layers yielded a quantity of medieval pottery, leather, slag and bone. Ill 1:6.

# 32, 40, 42 COLLEGE BOUNDS, OLD ABERDEEN 1980

#### J C MURRAY

The natural ground surface was exposed directly below the modern demolition level (Grid ref: NJ939080). Ill 65:3, 4, 5.

# MUSIC DEPT BUILDING, ABERDEEN UNIVERSITY 1980 J C MURRAY

Observation of a small development beside the Music Department of Aberdeen University (Grid ref: NJ938080), proved negative. Ill 65:2.

# 104 HIGH STREET, OLD ABERDEEN 1980 J C MURRAY

Observation of a development on the property (Grid ref: NJ939084) revealed that the modern levels lay directly on the natural ground surface. Ill 65: 1.

# 4-6 LITTLE BELMONT STREET 1980 HILARY MURRAY

The site (Grid ref: NJ940062) was observed while the foundations of an extension to Cameron's Inn were being excavated. Below the yard surface there was c 0.90 m of homogenous loam which was interpreted as cultivated earth. There was a little medieval and post-medieval pottery in this deposit but no features were observed. When the natural surface was cleaned, however, a small oval pit was revealed. It was  $1.95 \times 1.00$  m with vertical sides and a depth of 0.60 m. The fill included dark loam and charcoal below soft burnt clay. It was sealed by the medieval garden earth and appeared therefore to be an early medieval feature. The fill contained pottery including Yorkshire fabrics of mid-13th or early 14th-century date.

The size and shape of the pit, its E-W orientation and its proximity to St Nicholas churchyard initially suggested that it might have contained a burial but this was disproved by the contents. It

was also clearly not part of a property boundary. The location of a medieval pit at this point, well to the W of the Upperkirkgate Port and outside the town boundary suggests some form of suburban occupation, possibly associated with a farm. Ill 1:11.

# 12A-13 CORRECTION WYND 1981 HILARY MURRAY

During conversion work two small trial trenches were excavated through the floor of the standing building (Grid ref: NJ941062). They revealed that the existing ground level of the building was semicellared and cut into natural, any occupation layers having been destroyed. Observation of the small yard at the rear of the property, the surface of which was 0.50 m above the ground floor, revealed no undisturbed levels. Ill 1:12.

# EAST NORTH STREET/CASTLE STREET 1981 HILARY MURRAY

A new main sewer trench, c 2 m deep, was cut across the market stance between East North Street and Castle Street (Grid ref: NJ949064). Observation showed that over the whole area, the existing car park surface lies directly on top of natural sand and gravel. The only intrusions into natural were modern drains and no medieval or post-medieval material was observed. The lack of any soil over the sand and gravel suggests that the area was levelled, possibly to provide gravel for the building up of Union Street. Ill 1:27.

# 2:11 PRELIMINARY REPORTS ON MAJOR SITES

# **EXCAVATED 1979-1981**

#### 21-37 VIRGINIA STREET 1979 JUDITH STONES

Most of this large area (c 4000 sq m) had been cut down to natural gravel during 19th-century development (Grid ref: NJ945063). At the E end, four posts ( $110 \times 140$  mm) and sand levels containing 14th-century pottery were found. III 1:23.

# NO 3 BONDED WAREHOUSE VIRGINIA STREET 1979

#### JUDITH STONES

This site (Grid ref: NJ944062), on the S periphery of the medieval burgh, close to the harbour area, produced little structural evidence. A midden area, possibly associated with dwellings on the Castlegate N of the site, ranged in date from 14th century to post-medieval. In one of the lowest levels of the midden were some sherds of green-glazed Siegburg stoneware, rare in Scotland. Below the midden, three posts may have been remnants of a N-S boundary. Ill 1:20.

# 45-47 GALLOWGATE 1979 HILARY MURRAY

Excavation in a pend opening on to Gallowgate (Grid ref: NJ941065) yielded a succession of fifteen occupation phases from late 12th century to 19th century in date. A period of dumping in the late 12th or 13th century was followed, as Gallowgate developed, by the construction of a building with a grooved sill-beam on a stone foundation. This had been destroyed by a ditch which was replaced by a wattle lined drain, both near to the boundary which was continued throughout the 14th century by a series of wattle fences. Later in the 14th century, two sill beam structures were successively built on the site and a floor and wattle wall may have been part of a building or yard, all respecting this boundary. Only fragments of the buildings were in the excavated area; the rest had been cut away by the later cellars. In the 15th and 16th centuries a pend was established on the boundary, with three superimposed paths, the uppermost of well set cobbles. This appeared to have become an internal passageway in the 19th-century building which was demolished several years prior to excavation. Ill 1:8.

# 42 VIRGINIA STREET 1979 JUDITH STONES

An extremely solid metalled surface sealed a single course L-shaped stone foundation (Grid ref: NJ946062). At a lower level, in the natural sand, were three posts, one of which was wedged into place by another shaped timber. III 1:25.

# 12 MARTIN'S LANE 1981 JUDITH STONES

Excavation here (Grid ref: NJ941060) has revealed part of the Carmelite Friary, founded c 1270, whose exact location was previously unknown. Portions of three buildings were examined, probably dating from the 14th century, including the SW corner of a probable church. More than 120 burials were excavated within this building. A large quantity of window glass fragments, several painted or stained, was also recovered. Further excavation may be possible prior to future development of the site. III 1:18.

# 3 THE POTTERY J C MURRAY

With contributions by Catherine Brooks, Pamela Clarke, George Haggarty, Marjorie Kenworthy and Lizbeth Thoms

#### INTRODUCTION

This is a report on all the ceramic from the sites excavated in Aberdeen between 1973 and 1978. The bulk of the material is medieval with only a very small amount of post-medieval ceramic from 45-59 Green, 67-71 Green and 6-8 Castle Terrace.

The pottery from the pre-1976 excavations (with the exception of the material from Virginia Street Steps) was examined by Lizbeth Thoms, George Haggarty, Marjorie Kenworthy and Catherine Brooks. The material from sites excavated since 1976 by the Aberdeen Archaeological Unit has been examined by the writer and other members of the Unit. A large group of unstratified pottery from Broad Street, Queen Street and Virginia Street is also published and although collected prior to 1976 is discussed by the writer who is grateful to Mr George Leiper for kindly making available the unstratified material from Virginia Street.

As a result of close collaboration a large degree of uniformity has been achieved between the pre-Unit and Unit pottery reports. The results of the analysis of the pottery fabrics, although done separately by both groups of researchers, have been amalgamated for publication and uniform fabric descriptions are used throughout the report. The illustrations have also been standardized. The same degree of standardization was not possible for Shore Brae as the material was lost up to the time of publication; here a report written by Catherine Brooks in 1974 has been included in its original form as the only record of the ceramic from this site. A reassessment of this material may be possible in the future should the pottery come to light.

The analysis and description of the pottery fabrics is the work of Marjorie Kenworthy. The catalogue of the Queen Street and Broad Street material (Nos 1-188) is by George Haggarty. The remainder of the catalogue (Nos 189-823) and the discussion are by the writer. Many people have assisted in the identification of the pottery and they are gratefully acknowledged in the main acknowledgments or in the text as appropriate.

## METHODOLOGY

In total, forty-one different fabrics have been analysed and where possible the source has been identified. As only a handful of post-medieval sherds has been recovered no attempt has been made at classification and so these have been described more fully in the catalogue; fuller classification must await a larger corpus of material.

The pottery is presented by fabric within phase or feature for each individual site rather than as an amalgamated presentation of the fabric groups regardless of site, phase or feature. By this approach it is hoped that trends in the ceramic evidence can be more easily observed, especially with

sites such as 42 St Paul Street where a complex reliable stratigraphical sequence has been established for a large corpus of material.

#### ANALYSIS OF THE FABRICS M KENWORTHY

The pottery was examined under a binocular microscope at  $\times 20$  magnification. The classification of the fabrics is based on differences in the general texture, the appearance of the clay matrix, and the nature, size and quantity of the mineral inclusions.

Texture has been described on a scale: very fine, fine, medium fine, medium coarse, coarse and very coarse. Assessment in these terms is necessarily subjective, in that there is no exact criterion for the measurement of this aspect of pottery.

There are many possible variations in the clay matrix, due to the composition of the clay, the way in which it is worked and the temperature and atmosphere of firing, but it is impossible to determine these without neutron activation analysis and experimental refiring, so that one must rely on the necessarily subjective description of the appearance of the matrix as compact, gritty etc, and on a statement of the typical colours of each fabric, together with an estimate of its firing atmosphere.

It is not possible to determine the firing atmosphere from colour alone, as the colour which any fabric will attain is determined not only by the oxidizing, neutral or reducing atmosphere but also by the chemical composition of the clay, particularly its iron content, and which of the many compounds of iron is present. It is true that fabrics displaying colours in the range red-orange-pinkcream are oxidized, but whether or not complete oxidization has taken place could only be determined by refiring. When a fabric is described as wholly oxidized, therefore, this is intended to mean that the entire sherd has reached the same stage of oxidization, as opposed to partly oxidized fabrics, where only the area next to one or both surfaces is oxidized, leaving part of the sherd a darker colour, implying that this part is either reduced or simply not oxidized or less oxidized. This effect of particoloured sherds is probably due to exposure to an oxidising atmosphere taking place only towards the end of the firing process and being maintained at the necessary temperature only long enough for the part of the sherd nearest to one or both surfaces to be affected. Similarly, a wholly dark sherd cannot always be ascertained to be reduced as, depending on the composition of the clay, a dark colour may be the result of a neutral atmosphere. A further problem is presented by fabrics with no significant iron content in the clay, as these may have the same colour whether oxidized or reduced.

The definition of colours is in accordance with the Munsell soil colour chart notation; it should be noted that the Munsell names of the colours are sometimes rather different from what one would normally tend to call them. It must be stressed too that both the estimation of firing atmosphere and the definition of colour apply to clean fractures of the sherd only and not to its surfaces which may have been considerably affected after manufacture by use (eg exposure to heat and smoke in cooking) and by soil conditions after archaeological deposition.

The description of the mineral inclusions in the fabrics begins with the individual minerals and goes on to the fragments of rocks, where present. (I wish to thank Professor John Allen and Dr A R MacGregor for their help with the identification of mineral inclusions, while retaining responsibility myself for any errors which may have occurred.) No attempt has been made to differentiate between inclusions occurring naturally in the clay and those deliberately added as temper, as there are many instances where it is impossible to determine this with the method of examination used. It may be noted, however, that where feldspar occurs in a weathered state, it is rather likely to be part of the clay, as it decomposes to form kaolin, one of the main clay minerals.

In many cases, inclusions cannot be conclusively identified, mainly because of very small size. Other factors also make it difficult to distinguish between particular minerals with the method of examination used and only examination of thin sections of the fabrics with a petrological microscope could solve these problems. With no method of examination, however, can it ever be claimed that

the list of inclusions present is totally exhaustive, as particular inclusions may not be evenly distributed throughout the fabric and may thus not occur in the sherds examined; this is obviously particularly problematic in the case of very rare inclusions.

The frequency and size of the inclusions is stated; it must be stressed that the description given is for typical sherds of the type and some degree of variation is possible within a fabric. Frequency is defined on a scale: occasional, sparse, moderate, abundant; these descriptions are subjective and not based on measurement because clustering and uneven distribution of inclusions throughout a fabric make measurements of frequency inaccurate. Where a mineral or rock is merely said to be present, without indication of frequency, uncertainty of identification makes it impossible to estimate frequency.

The definition of the size of inclusions is based on measurement; very fine: less than 0.25 mm; fine: 0.25-0.50 mm; medium: 0.50-1.0 mm; coarse: 1.0-2.0 mm; very coarse: over 2.0 mm.

#### DESCRIPTIONS OF THE FABRICS

#### Local

Fabric 1: Texture very coarse. Matrix gritty. Partly oxidized. Typical colours 2.5YR 5/6 red and 10YR 5/1 grey. Contains abundant quartz, medium to coarse; moderate mica; unidentified dark grits are present.

Fabric 2: Texture very coarse. Matrix fairly compact. Sometimes partly oxidized. Typical colours 2.5YR 5/6 red and 7.5YR 5/0 grey, 2.5YR 4/0 dark grey. Contains moderate to abundant quartz, fine to coarse; sparse to moderate muscovite mica, very fine to medium; occasional grains of a ferromagnesian mineral, fine to medium. Feldspar (?) is present and there are occasional medium fragments of granite.

Fabric 3: Texture medium coarse. Matrix compact. Wholly or partly oxidized. Typical colours 2.5YR 5/8 red and 5YR 5/1 grey. Contains abundant quartz, very fine to medium; moderate muscovite and biotite mica, very fine to medium; another ferromagnesian mineral, very fine to medium, may possibly be present. Feldspar (?) is present.

Fabric 4: Texture coarse. Matrix compact. Odixized or not oxidized/reduced. Typical colours 10R 4/6 red and 2.5YR 2.5/0 black. Contains abundant quartz, fine to medium; moderate muscovite and biotite mica, very fine to fine; feldspar is present, up to coarse in size including some in a weathered state.

Fabric 5: Texture coarse. Matrix fairly compact. Wholly or partly oxidized. Typical colours 10R 5/8 red and 7.5YR 5/0 grey. Contains abundant quartz, very fine to medium (occasionally up to coarse); sparse muscovite and biotite mica, very fine; another ferromagnesian mineral, very fine to fine, is probably present. Feldspar is present, including some in a weathered state and there are occasional rock fragments, probably granite.

Fabric 6: Texture fine. Matrix compact. Wholly or partly oxidized. Typical colours 10R 5/8 red and 2.5YR 3/0 very dark grey. Contains sparse to moderate quartz, very fine to medium; sparse to moderate muscovite and biotite mica, very fine to fine; another ferromagnesian mineral, very fine to fine, may possibly be present. Feldspar is present and there are occasional medium to coarse fragments of granite and occasional coarse fragments of metamorphic rock, some of which is probably a schist.

Fabric 7: Texture coarse. Matrix fairly compact. Wholly or partly oxidized. Typical colours 2.5YR 4/6 red, 2.5YR 6/6 light red and 10YR 6/1 grey. Contains moderate quartz, very fine to coarse; sparse to moderate muscovite and biotite mica, very fine to fine; occasional red iron oxide, very fine to fine. Another ferromagnesian mineral, very fine to fine, is probably present. Feldspar is present, including some in a weathered state and there are occasional fine to coarse fragments of granite and schist.

Fabric 8: Texture very fine. Matrix sandy, hard. Wholly or partly oxidized. Typical colours 2.5YR 5/8 red, 2.5YR 5/6 red and 10YR 5/2 greyish brown. Contains occasional quartz, very fine; occasional feldspar, very fine; moderate muscovite and biotite mica, very fine; another unidentified dark mineral, sparse and very fine, may possibly be present.

# Possibly local

Fabric 9: Texture fine. Matrix rather gritty. Partly oxidized. Typical colours 2.5YR 6/8 light red and 10YR 5/1 grey. Contains sparse quartz, very fine to fine, occasionally up to medium; sparse biotite mica, very fine; another ferromagnesian mineral, sparse and very fine, is present and feldspar is probably present, including some in a weathered state.

Fabric 10: Texture medium coarse. Matrix fairly compact. Partly oxidized. Typical colours 2.5YR 6/6 light red and 2.5YR 4/0 dark grey to 2.5YR 3/0 very dark grey. Moderate quartz, fine to medium coarse. Moderate mica, fine; unidentified dark grits, fine to medium coarse.

#### Perth ware?

Fabric 11: Texture medium fine. Matrix sandy. Wholly or partly oxidized. Typical colours 5YR 6/6 reddish yellow, 2.5YR 6/8 light red, 2.5YR 5/8 red and 7.5YR 5/0 grey. Contains occasional to sparse quartz, fine to medium; moderate to abundant muscovite and biotite mica, very fine to fine; occasional to sparse black and red iron oxide, fine to medium; occasional fine to medium fragments of rock, probably schist.

# Scottish E coast gritty wares

Fabric 12: Texture medium fine. Matrix gritty. Wholly or partly oxidized. Typical colours 7.5YR 8/2 pinkish white and 7.5YR 5/0 grey. Contains sparse to moderate quartz, very fine to medium; sparse muscovite mica, very fine to fine; sparse red and black iron oxide, very fine to medium. Feldspar is present and there are occasional medium to coarse fragments of an iron-stained quartzitic rock. Fabric 13: Texture medium fine. Matrix compact. Wholly or partly oxidized. Typical colours 7.5YR 8/2 pinkish white and 7.5YR 4/0 dark grey. Contains moderate quartz, very fine to medium, occasionally up to coarse; moderate muscovite mica, very fine to fine; sparse to moderate red and black iron oxide, very fine to coarse. Feldspar is present and there are occasional coarse fragments

of sedimentary rock, possibly shale and occasional coarse fragments of two other rocks, probably granite and hornfels.

Fabric 14: Texture medium coarse. Matrix compact. Partly oxidized, most not oxidized. Typical colours 2.5YR 5/6 red, 2.5YR 5/2 weak red and 5YR 5/2 reddish grey. Contains moderate quartz,

coarse to very fine; sparse mica, fine; sparse unidentified dark grits, medium to fine. Fabric 15: Texture medium fine to coarse. Matrix gritty. Wholly or partly oxidized, occasionally not oxidized or reduced. Typical colours 10YR 8/4 very pale brown, 7.5YR 8/2 pinkish white, 2.5YR 6/6 light red and 7.5YR 5/0 grey to 7.5YR 3/0 very dark grey. Contains moderate quartz, very fine to medium; sparse muscovite mica, very fine to fine (biotite mica may occasionally also be present); sparse iron oxide, mainly red but sometimes black, very fine to coarse. Feldspar is probably present and there are occasional medium fragments of a metamorphic rock (possibly phyllite) and occasional coarse fragments of a sedimentary rock, probably a shale.

Fabric 16: Texture medium fine. Matrix fairly compact. Not oxidized (?) Typical colour 10YR 6/1 grey. Contains sparse to moderate quartz, very fine to medium; sparse red iron oxide, very fine. Feldspar is present, including some in a weathered state.

# Possibly Scottish

Fabric 17: Texture coarse. Matrix compact. Sometimes wholly or partly oxidized, sometimes not or incompletely oxidized. Typical colours 7.5YR 7/4 pink and 7.5YR 7/0 light grey. Contains abundant quartz, fine to medium; occasional muscovite and biotite mica, very fine; sparse iron oxide, mainly black but sometimes red, very fine to medium. Feldspar is present, including some in a weathered state and there are occasional very coarse fragments of a sedimentary rock and occasional coarse fragments of a metamorphosed rock, possibly hornfels.

#### Scarborough ware

Fabric 18: Texture medium coarse. Matrix gritty. Wholly oxidized. Typical colours 7.5YR 8/2

pinkish white, 2.5YR 6/8 light red. Contains moderate to abundant quartz, very fine to fine, occasionally medium; sparse red iron oxide, very fine to medium, occasionally coarse; sparse black iron oxide, very fine to fine; occasional fine to medium fragments of metamorphic quartzite.

Fabric 19: Texture medium fine. Matrix fairly compact. Wholly or partly oxidized. Typical colours 10YR 8/4 very pale brown, 10YR 6/4 light yellowish brown, 7.5YR 8/6 reddish yellow, 10YR 7/1 light grey, 10YR 5/2 greyish brown and 7.5YR 4/0 dark grey. Contains sparse to moderate quartz, very fine to fine; occasional to sparse red iron oxide, very fine to fine; occasional fine fragments of metamorphic quartzite and occasional coarse fragments of an unidentified rock containing quartz and feldspar.

#### Yorkshire wares

Fabric 20: Texture medium fine. Matrix fairly gritty. Wholly or partly oxidized. Typical colours 2.5Y 8/0 white, 2.5Y 7/2 light grey and 2.5Y 6/0 grey. Contains moderate quartz, fine to medium; sparse red and black iron oxide, very fine to medium.

# Developed Stamford ware

Fabric 21: Texture very fine. Matrix compact. Wholly oxidized. Typical colours 5YR 8/2 pinkish white, 5YR 7/6 reddish yellow. Contains moderate quartz, very fine; occasional to sparse red iron oxide, very fine to fine, occasionally medium; occasional to sparse black iron oxide, very fine; occasional coarse grains of iron-stained quartz. Identified Kilmurry.

### E Anglian wares?

Fabric 22: Texture coarse. Matrix compact, slightly laminated. Partly oxidized. Typical colours 2.5YR 5/6 red and 7.5YR 5/2 brown. Contains abundant quartz, very fine to medium, including some with iron staining; occasional muscovite and biotite mica, very fine to fine; occasional red iron oxide, fine.

Fabric 23: Texture coarse. Matrix gritty, laminated in irregular curves. Partly oxidized. Typical colours 7.5YR 7/4 pink and 7.5YR 5/0 grey. Contains moderate to abundant quartz, very fine to medium; medium grains of an unidentified dark mineral are occasionally present; feldspar may possibly be present, including some in a weathered state.

Fabric 24: Texture fine. Matrix compact. Apparently reduced, sometimes with a thin white slip applied to the exterior surface. Typical colour 2.5YR 2.5/0 black. Contains moderate quartz, very fine to fine; feldspar is present, including some in a weathered state.

Fabric 25: Texture fine. Matrix gritty. Partly oxidized. Typical colours 2.5YR 5/8 red, 7.5YR 7/4 pink and 2.5YR 4/0 dark grey. Contains abundant quartz, very fine to fine; sparse black iron oxide, very fine; feldspar is present, including some in a weathered state.

# S English? Shelly ware

Fabric 26: Texture coarse. Matrix fairly compact. Partly oxidized. Typical colours 7.5YR 6/4 light brown and 7.5YR 3/0 very dark grey. Contains sparse to moderate quartz, very fine to medium; sparse to moderate shell, very fine to coarse; occasional red iron oxide, fine; occasional coarse fragments of flint; occasional medium to very coarse fragments of greensand.

# S English ware?

Fabric 27: Texture medium fine. Matrix rather gritty. Partly oxidized. Typical colours 10YR 5/1 grey to 10YR 6/1 grey. Contains abundant quartz, very fine to fine; sparse mica, very fine; sparse unidentified dark grits.

#### French wares

Fabric 28: Texture very fine. Matrix gritty. Oxidized. Typical colour 10YR 8/2 white. Contains

moderate to abundant quartz, very fine, occasionally up to fine; occasional red iron oxide, very fine to fine. Saintonge.

Fabric 29: Texture very fine. Matrix compact. Oxidized. Typical colours 7.5YR 8/2 pinkish white and 5YR 8/4 pink. Contains sparse to moderate quartz, very fine, occasionally up to fine; sparse red iron oxide, very fine to fine; occasional fragments of a quartzitic acid igneous rock. N French? Fabric 30: Texture very fine. Matrix compact. Oxidized. Typical colour 10YR 8/3 very pale brown. Contains sparse quartz, very fine to fine; occasional red iron oxide, very fine; occasional very fine fragments of an unidentified dark rock. Rouen ware.

#### Rhenish ware

Fabric 31: Texture medium coarse. Matrix compact, sintered, laminated. Reduced (?) Typical colour 10YR 8/1 white (only the surfaces have the distinctive blue-grey colour which gives the type the name blue-grey ladle fabric). Contains abundant quartz, very fine to medium; occasional feldspar, very fine to fine, with occasional grains up to coarse and in a weathered state; occasional coarse fragments of sedimentary rock. Paffrath.

#### Low Countries

Fabric 32: Texture fine. Matrix rather gritty. Partly oxidized. Typical colours 2.5YR 6/8 light red, 2.5YR 5/8 red and 5YR 5/1 grey. Contains moderate quartz, very fine to medium; occasional red iron oxide, very fine to medium; feldspar is present, including some in a weathered state. Aardenburg type ware. Identified by Verhaeghe.

Fabric 33: Texture medium fine. Matrix gritty. Partly oxidized. Typical colours 2.5YR 5/8 red and 5YR 5/4 reddish brown. Contains abundant quartz, very fine to fine; sparse red iron oxide, very fine to fine; feldspar is present and garnet may possibly be present. Sparse, very fine, dark grains without cleavage remain unidentified but might possibly be olivine. Aardenburg type ware. Identified by Verhaeghe.

Fabric 34: Texture medium fine. Matrix sandy. Partly oxidized. Typical colours 2.5YR 5/8 red and 2.5YR 5/0 grey. Contains moderate to abundant quartz, very fine, occasionally up to fine. Low Countries? Examined by Verhaeghe.

Fabric 35: Texture medium fine. Matrix rather gritty. Partly oxidized. Typical colours 5YR 6/6 reddish yellow and 10YR 4/1 dark grey. Contains moderate to abundant quartz, fine to medium; moderate mica, very fine; moderate unidentified dark grits, very fine to coarse. Low Countries? Examined by Verhaeghe.

Fabric 36: Texture medium fine. Matrix rather gritty. Not oxidized. Typical colours 10YR 6/1 grey to 10YR 7/1 light grey. Contains abundant quartz, very fine to medium; sparse mica, fine; moderate unidentified dark grits, very fine to fine. Low Countries?

Fabric 37: Texture coarse. Matrix compact, laminated. Reduced. Typical colours 7.5YR 5/0 grey to 7.5YR 3/0 very dark grey. Contains abundant quartz, very fine to medium, occasionally coarse; occasional muscovite mica, fine. Low Countries grey wares.

#### Unidentified wares

Fabric 38: Texture fine. Matrix fine sandy. Partly oxidized. Typical colours 5YR 7/4 pink to 5YR 6/4 light reddish brown and 7.5YR 5/0 grey. Contains moderate quartz, fine to medium; sparse mica, fine; moderate iron oxide, fine.

Fabric 39: Texture medium fine. Matrix rather gritty. Oxidized. Typical colours 5YR 6/6 reddish yellow to 5YR 5/6 yellowish red. Contains abundant quartz, very fine to fine; abundant unidentified dark grits, very fine to fine.

Fabric 40: Texture very fine. Matrix fine hard. Partly oxidized. Typical colours 7.5YR 6/0 grey and 7.5YR 6/4 light brown. Contains moderate quartz, very fine to fine; moderate mica, fine. Protostoneware.

Fabric 41: Stoneware, Identified Hurst,

# DISCUSSION

A total of 823 pottery vessels are illustrated from nine sites excavated in the town. The greater bulk of the published material came from the three main sites: Queen Street Midden Area (1-131), 12-26 Broad Street (133-188) and 42 St Paul Street (334-768). Tables 20, 21 and 22 provide minimum vessel counts for each of these sites, these are based on rims only; asterisks denote the presence of a fabric in a form other than a rim (handle, base etc). Catalogue numbers 246-333 form a group of unstratified material which has been included to extend the vessel forms that occur in the various fabrics. As the catalogue is arranged by site and phase, an index to all the material by fabric has been prepared for cross reference (Table 23).

#### LOCAL WARES

Although no pottery kilns have been excavated in Aberdeen a range of local products (Fabrics 1-8) have been identified and two others (Fabrics 9 and 10) are of possible local origin. In an initial examination of Fabrics 3 and 5 Dr N Trewin identified the clay as originating in the Aberdeen area. However, a detailed programme of thin-sectioning in the future may extend the identification of local wares. These local products include both jugs and cooking pots. The only definite tubular-spouted jugs are in Fabrics 1 (423), 5 (9) and 9 (703). Other rim forms are generally plain with pinched spouts. In Fabric 3, the most common of the local products found at 42 St Paul Street, jugs have tall necks with internally bevelled rims (535-549), most have rod handles but strap handles do occur.



III 66: Group of local Aberdeen wares, catalogue nos: 42, 247, 727, 284, 532 (left to right)

A combination of jugs and cooking pots also occurs in Fabric 5 (665-672 give a good indication of the range of rim forms). Unique to this fabric is a range of very well made thin-walled beaker-like vessels usually with a cream slip but also sometimes glazed. 276-281 from the unstratified Virginia Street material give their overall shape. The thinness of the vessel walls and the absence of sooting would indicate a possible use as drinking vessels rather than as cooking pots. Fabrics 6 and 7 also include a combination of jugs and cooking pots, while Fabric 8 consists almost exclusively of jug forms.

Shore Brae fabrics 1 and 2 are identified as local by Brooks et al (p 00) but, due to the loss of the pottery, these cannot be related.

Clearly the local potters were producing the normal range of medieval ceramic with the emphasis on the production of jugs and cooking pots. The influence of imported Yorkshire and Scarborough wares on the products of these local potters is evident and a fragment of a face-mask jug (238) in Fabric 5 shows that the more highly decorated imported wares were also copied.

# OTHER SCOTTISH WARES

The second largest group of fabrics in Aberdeen is the range of wares identified as being E coast Scottish gritty wares (Fabrics 12-16). Although cooking pots predominate, large quantities of jugs were also found. Due to the fragmentary nature of the material, rims are abundant but complete profiles are very few. On the basis of the limited profiles which do exist three basic forms of cooking pot may be seen. The straight-sided cooking pot is probably the most common, the rim is slightly everted and the body cylindrical (40, 69, 769). The second group retains the everted rim but with a slight shoulder and a gently curving profile (135, 440 are good examples). A more rounded, full-bodied profile makes up the third group in which the maximum girth of the pot is almost 1½ times the diameter of the rim. Where bases occur they are invariably flat.

The same range of cooking pot profiles, albeit with more squared rim forms have been noted by Brooks (1980) at Colstoun, but as a direct comparison between the Aberdeen and Colstoun material has not yet been attempted, none of the Aberdeen Fabrics 12-16 can be assigned to this group.

The jug fragments in these fabrics show a comparable similarity to the Colstoun material. The characteristic jug has a squared rim with a sharp ridge or carination half-way down the neck (54, 55, 321-333) where a strap handle is attached. Here again the influence of Yorkshire jug forms is clearly visible.

# **ENGLISH IMPORTS**

Scarborough ware (Fabrics 18, 19) makes up the major portion of the imported English wares into Aberdeen and accounts for about 16% of the total amount of ceramic illustrated. Following Farmer (1979), the Scarborough pottery has been divided into Farmer phase I (Fabric 18) and Farmer phase II (Fabric 19) with a fair measure of success although one or two pieces may have been wrongly ascribed where the distinctions were not clearly marked. Almost all the ornate Scarborough ware forms recognised by Rutter (1961) are represented. Fragments of at least five knight jugs have been found; three from 12-26 Broad Street (153, 154, 187) and two from 42 St Paul Street (601, 683). Number 601, while made of a typical Scarborough fabric and glaze is extremely crudely executed. Bearded face-mask jugs are also well represented, 126 being the most complete example. One jug (742) has a zoomorphic spout in the form of a pig's or a beast's head and is a comparative rarity in the Scarborough assemblage. Two zoomorphic jug spouts have been found in Hartlepool, one of which is very similar to the Aberdeen example (pers comm L Addis, 1978).

Closely related to, and in some cases difficult to differentiate from the Fabric 19 Scarborough ware, are a range of jugs probably of York or Yorkshire origin (Fabric 20). The rims are generally squared with a sharp carination midway on the neck (20, 155 are good examples). Handles when they occur are usually of the strap type and there are at least two examples of strap-struts from tubular spouted jugs (122, 123). At 42 St Paul Street they occur in the earlier phases prior to the

arrival of Scarborough wares but continue through to the later phases, albeit it in decreasing quantities (Table 24).

A small amount of Developed Stamford ware has been found in Aberdeen, occurring mainly in the earlier phases of 42 St Paul Street, the examples in the later phases may have been residual (Table 24).

The remainder of the English imports are probably derived from E Anglia (Fabric 22-25) although further research will be necessary before this can be verified. For the most part they are cooking wares (Fabric 22) but a small number of jugs are present (Fabrics 23-25). The Broad Street and Queen Street excavations did produce a few examples of slightly shelly wares (Fabric 26) and it is possible that these have a S English origin. Sherd 571 (Fabric 27) is an imitation of Rouen-type ware with applied pellets and strips and could also possibly have been made in S England.

#### CONTINENTAL IMPORTS

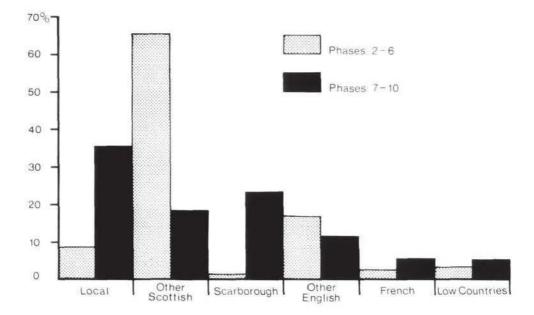
Continental imports account for 103 of the illustrated pieces. Of these 9 are German, 25 are French and 69 have a possible Low Countries origin.

The German wares comprise fragments of six blue-grey ladles (Fabric 31) and three stoneware vessels (Fabric 41).

The majority of the French wares (Fabrics 28-30) are Rouen-type but fragments of one Saintonge polychrome jug were found (713). The paucity of French imports is not surprising in view of the geographical position of Aberdeen.

More than 50% of the Low Countries imports are grey cooking wares, the remainder being jugs. Portions of at least four of the very distinctive hump-shouldered jugs have been identified (50, 109, 157, 637). These have been found at Lampernisse in Belgium (Verhaeghe 1970) and are dated to towards the second half of the 14th century. These jugs have been found elsewhere in Scotland at Elgin and Perth (pers comm W Lindsay and G Haggarty). Low Countries glazed wares were almost totally absent on the Broad Street and Queen Street sites but Low Countries grey wares account for approximately 15% of the total of wares illustrated from Queen Street and 9% of the wares from Broad Street. At 42 St Paul Street the trend is reversed with 5% Low Countries glazed wares and only 3% grey cooking wares.

Of the glazed wares, Fabric 32 has been identified as Aardenburg-type and Fabric 33 has been identified as Low Countries (identified by Verhaeghe). Fabrics 34-36 have many similarities to Fabrics



III 67: Pottery. 42 St Paul Street. Percentages of fabric groups

32 and 33 but although grouped as wares of Low Countries origin there are no direct parallels and this must remain conjectural.

A number of classic Aardenburg-type wares occur in Fabric 32, for example the raspberry roundel on 705, but perhaps the most significant piece is no 706. This consists of four fragments of a jug with impressed decoration. This belongs to a highly ornate type of a jug with impressed decoration, the main zones depicting musicians beneath arches. One example from Welsrijp, Friesland is described by Dunning (1976, 190), while a more complete example from Peterskirke, Tønsberg (Norway) bearing two separate zones of mould impressed figures is described by Molaug (1979). The upper zone on the Peterskirke jug is made up of musicians, both fiddlers and bagpipers, in the lower zone the figures are identified as noblemen. The left arm of the noblemen is raised with a hawk sitting on a gloved hand raised level with the head, the right hand rests on the hip and holds a fleur-de-lys at right angles to the forearm. The Aberdeen example would also appear to be a nobleman as the right arm rests on the hip and is not in the attitude of one playing a musical instrument, the portion bearing a possible lily is missing. These figure jugs are comparitively rare but in addition to the Aberdeen example another piece has been found in Scotland in an unstratified context in Perth (PEJ 82 1000: information from Linda Blanchard). The Perth fragment would also appear to be a nobleman as a hawk is clearly identifiable, probably held in the left hand although not raised to head height. A date of c1300 is suggested for the Tønsberg jug (Molaug 1979, 125). The stratigraphy of the Aberdeen example would also suggest a 14th-century date.

#### 42 ST PAUL STREET: THE TRENDS IN THE CERAMIC EVIDENCE

More than half the total of illustrated pots were recovered from 42 St Paul Street, a site with thirteen distinct archaeological phases (Chapter 2: 5). The size of the corpus and the complex archaeological stratigraphy (Stratigraphic matrices: Tables 12mf-17mf in microfiche) make further analysis of the pottery possible. Table 24 is an analysis, based on weight, of the fabrics by phase as a percentage of the fabric total between Phases 1-12 (Phase 13 is clearance), this includes all the pottery from the site. Ill 67 synthesizes this data and makes possible a comparison between the trends in the earlier phases (2-6) and the later phases (7-10); for the purposes of this analysis the pottery from the post-medieval Phases 11 and 12 has been excluded as it is almost certainly residual in these contexts.

In Phases 2-6 the predominant pottery was the E coast Scottish gritty wares (Fabrics 12-16) which account for some 66% of the total. The quantity of local ware was minimal (9%) and almost exclusively represented by Fabrics 2 and 6. The number of English imports was high (17%) and included Yorkshire wares (Fabric 20) and Developed Stamford ware (Fabric 21) but Scarborough ware was scarcely evident between these phases and comprised only marginally more than 1% of the total. The two illustrated pieces, both from Phase 5, were 407 (Farmer phase II) and 408 (Farmer phase I). Only a small amount of pottery was imported from the Continent during these phases, in total 6%. Of this  $2\frac{1}{2}$ % was of French origin and the remaining  $3\frac{1}{2}$ % was almost exclusively Low Countries grey cooking ware.

The dramatic change in land use at 42 St Paul Street in Phases 7-10 was also marked by a change in the balance of the pottery. Between these phases the local pottery industry flourished and local wares accounted for 36% of the pottery found. New local fabrics appeared, particularly Fabric 3 which included the greatest variety of different forms. The E coast Scottish gritty wares continued to be imported throughout this period but their decline in popularity was evident as they only amounted to 18% of the total.

During these phases the importation of Scarborough products into Aberdeen was at its height, amounting to 23% of the total. As this is a sizeable corpus of Scarborough ware some general comments can be made. Farmer (1979) divided the Scarborough products into two fabrics (phase I and II) and advanced arguments to date his phase I pottery to between the mid-12th century and 1225 and his phase II pottery to between 1225 and 1350. In Aberdeen, on the St Paul Street site, the amount of Farmer's phase I (Fabric 18) that was found was small (Table 24) and when it did occur it was found in the same contexts as Farmer's phase II (Fabric 19), that is almost exclusively between phases 7-10, with some residual material in Phase 11. As the dating suggested by Farmer

for his Phase I pottery would accord generally with the apparent date range of Phases 2-6 at 42 St Paul Street (based on Developed Stamford ware), it seems odd that more of this earlier Scarborough ware did not reach Aberdeen during this period; that contact then existed between Aberdeen and the Yorkshire area is attested by the presence in these phases of other Yorkshire wares (Fabric 20). On the Aberdeen evidence as it stands, therefore, it would appear that Farmer's dating of the Scarborough phase I (Fabric 18) is not applicable in this area of Scotland. Future research will show whether this is true throughout the rest of Scotland.

Continental imports also increase during this period and cumulatively amount to 11% equally divided between the Low Countries and France. The French imports are almost all Rouen-type wares, while the Low Countries imports during these phases were almost all glazed wares of Aardenburgh type.

It is possible to suggest a date range for Phases 2-10 on the St Paul Street site extending from the mid-12th century to the mid-14th century. The mid to late 12th-century dating of the earliest phases on the site is suggested by the presence of Developed Stamford ware (Fabric 21). Rouen-type wares occurring in Phases 7 and 8 could date to the late 13th century and it is also in these phases that the Scarborough wares began to make an impact. By Phases 9-10 the Scarborough wares (Fabrics 18, 19) were at their peak and probably date these phases to the early to mid-14th century. The occurrence of a Low Countries hump-shouldered jug (637) in Phase 10, dated by Verhaeghe to around the middle of the 14th century, would support this dating.

Clearly, therefore, we are now in a position to identify some of the trends of medieval ceramic in Scotland; the imminent publication of comparable sites such as those in Perth and Inverness may confirm the Aberdeen evidence.

Table 20. Minimum vessel count: Queen Street Midden Area

	No of vessels		No of vessels		
Fabric	(rims)	Fabric	(rims)		
1	0	21	0		
2	1	22	3		
3	1	23	1		
4	1	24	1		
5	1	25	1		
6	3	26	5		
7	11	27	5 0 0		
1 2 3 4 5 6 7 8	0*	28			
9	1	29	0		
10	0	30	1		
11	1	31	1		
12	5	32	0		
13	16	33	0		
14	0	34	1		
15	27	35	0		
16	1	36	0		
17	1	37	16		
18	0	38	1		
19	8	39	0		
20	4	40	1		
1703507	1	41	Ô		

Total rims: 111. Asterisk denotes fabric present but no rims.

Table 21. Minimum vessel count: 12-26 Broad Street

	No of vessels		No of vessels		
Fabric	(rims)	Fabric	(rims)		
1	0	21	0		
2	I.	22	1		
2 3 4 5 6 7	1	23	0		
4	0	24	1		
5	5	25	0		
6	10	26	2		
7	6	27	0		
8	0	28	1		
9	0	29	0		
10	0	30	0		
11	1	31	0		
12	2	32	1		
13	4	33	0		
14	0	34	0		
15	8	35	0		
16	O	36	0		
17 18	0	37	0 5 0		
	0*	38	0		
19	0*	39	0		
20	2	40	0		
		41	0		

Total rims: 51. Asterisk denotes fabric present but no rims.

Table 22. Minimum vessel count: 42 St Paul Street

	No of vessels		No of vessels		
Fabric	(rims)	Fabric	(rims)		
1	1	21	3		
2	10	22	18		
2 3 4 5 6 7 8	50	23	1		
4	0	24	0*		
5	13	25	0		
6	10	26	0		
7	4	27	0*		
8	4	28	1		
9	1	29	6		
10	5	30	3		
11	0	31	3 2 5 7		
12	24	32	5		
13	38	3.3	7		
14	9	34	0*		
15	15	35	4		
16	0	36	0		
17	0	37	10		
18	8	38	ī		
19	38	39	î		
20	18	40	0		
		41	1		

Total rims: 311. Asterisk denotes fabric present but no rims.

Table 23. Fabric index of illustrated sherds: all sites (except Shore Brae)

```
Fabric
                Illustrated sherds
Local
               46, 113, 167, 245, 301, 347-9, 416-417, 477, 524-527, 632, 758
146, 189-190, 247, 268-269, 272-273, 284, 287, 289-290, 293,295-296, 303, 305, 307, 311, 426, 455, 481-485, 511, 533-549, 551-555, 643-661, 721-729, 753-756, 762-765, 771-773, 786, 789-790, 794-799,
 2
 3
 4
                9, 139, 145, 162, 185-186, 191-197, 213-219, 233-235, 240, 243-244, 276-283, 288, 556-559, 665-673, 730,
 5
                816
                45, 63-64, 134, 142-144, 161, 170, 172-173, 183-184, 292, 297, 309, 353-355, 376-377, 380, 412-415
 6
                1-8, 42-44, 59-62, 65, 131, 133, 140-141, 171, 181, 188, 286, 298, 313, 319, 478-479, 531-532, 788, 812,
 8
                18-19, 41, 199, 236, 310, 333, 442, 578-580, 664, 731, 766, 780, 783-784, 791
Possibly local
                125, 226-227, 285, 294, 308, 595, 662, 703-704, 757
                198, 663, 701-702, 743-744, 768, 779, 785
10
Perth
                17, 152
11
E coast Scottish gritty wares
                40, 95-97, 119, 129, 149-150, 321-327, 335, 344, 357-360, 364-366, 384, 399-400, 441, 457, 460-465, 476,
                512, 521-523, 627, 631,720
               24-26, 34, 86-94, 98, 101-102, 115, 148, 151, 166, 180, 302, 304, 317, 320, 334, 346, 361-363, 373-375, 395-398, 409-411, 429-440, 466-475, 513-520, 628-630, 769-770, 818
13
14
                369-372, 427, 530, 619-624
15
                32-33, 35-39, 54-56, 69-85, 135-138, 147, 165, 174-175, 300, 314-315, 341-343, 345, 367-368, 387-394,
                458-459, 528-529, 625-626
16
Possible Scottish
               99-100
Scarborough ware
               132, 153-154, 205, 229, 263, 271, 274, 408, 610, 675, 695, 699, 737-742, 775, 792
11-16, 57, 121, 126-127, 176, 187, 200-204, 206-211, 222-225, 228, 237-239, 246, 248-262, 264-267, 407.
18
19
               447-454, 488-496 597-609, 611-618, 676-694, 696-698, 700, 736
Yorkshire wares
                10, 120, 122-123, 155, 177, 312, 356, 385-386, 403-406, 443-446, 497-503, 582-592, 674, 719, 732-735, 759,
20
               809
Developed Stamford ware
                337, 339-340, 596, 718, 751
E Anglian
                20, 22, 49, 110, 179, 316, 318, 350-352, 378-379, 401-402, 418-421, 572-573, 638-642
23
               28, 306, 510, 594
Possibly E Anglian
               117, 168, 422
24
25
               31, 124
S English Shelly ware
               66-68, 111-112, 169, 182, 299
S English
               571
French wares
28
               164, 713, 823
29
               242, 270, 338, 382-383, 508-509, 581, 714-717, 750, 767
30
               58, 275, 456, 504-507, 749
Rhenish
31
               27, 332, 425, 486, 712, 745
```

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Low Countries
                163, 231, 561-563, 705-708, 746
220-221, 291, 564-565, 709-711, 747-748
118, 566
567-570, 774, 793
32
33
34
35
                212, 232
21, 23, 30, 47-48, 50-53, 103-109, 156-160, 230, 241, 328-331, 381, 424, 487, 574-577, 633-637
36
37
Unidentified
                130, 336
593, 752
38
39
Proto-stoneware
                 128
40
Stoneware
                 760-761
```

Post-medieval wares 776-778, 781-782, 787, 800-808, 813-815, 817, 820-822

Table 24. Fabric by phase as a percentage of the fabric total (by weight): 42 St Paul Street

Phase Fabric	2	3	4	5	6	7	8	9	10	11	12	Total Weight
1		_	_	-	_	100	_	_	_		-	272.5 g
2	-	24.97	6.87	-		10.37	18.45	11.15	12.64	11.10	4.45	831.4 g
3	0.06	0.07	_	0.21	0.03	2.63	3.08	20.22	36.15	35.17	2.37	15622.1 g
4	- Contract		-		_	_	20.75	53.98	25.26			66.5 g
	-	0.45	1.18	0.16	-	2.21	5.45	36.67	50.71	4.17	0.03	2393.7 g
5	-	24.46	22.14	5.79	3.23	23.32	4.56	4.29	9.53	2.69	_	740.9 g
7	_	-	_	_		3.28	9.80	76.56	5.57	0.64	4.15	1398.6 g
8	-	2.40	_	-	-	9.23	2.22	28.75	42.58	14.80	1	1295.1 g
9	-	2.08	_	1.53	-	0.94	3.95	14.47	56.77	0.73	19.54	1212.1 g
10	-	_	_	_		35.82	1.05	17.38	25.86	17.63	2.25	1049.3 g
11	-	-	_	-		3737.6800.0			-	70.18300	-	
12	0.61	5.09	16.77	8.57	0.43	11.46	18.83	20.06	13.42	4.76	1000	7635.4 g
13	0.45	6.50	14.80	14.04	5.89	16.84	16.92	18.50	5.88	0.19	-	4168.9 g
14	- NOTE OF THE PARTY OF THE PART		30.77	21.84	1.13	4.92	6.79	8.68	18.92	6.95	-	503.7 g
15	1.89	7.74	23.34	22.68	-	6.29	14.06	12.43	3.47	8.10	-	3319.8 g
16	2000	0.0000	41000	2300000000	-			0.000	_	2000	200	
17	-	-	_	_	_	_	_	-	-	_	-	
18	-	-	-	2.37	0.11	0.07	0.15	6.05	30.50	59.46	1.29	2261.6 g
19	0.02	0.21	0.09	0.29	0.02	6.53	6.18	31.20	47.49	7.65	0.33	11481.3 g
20	0.08	2.77	3.44	1.02		28.40	16.79	28.86	9.81	7.24	1.06	3935.6 g
21	18.51	43.94	-		_		_	15.77	17.69	4.09	-	208 g
22	1000000	3.23	20.30	8.04	-	8.03	25.59	17.27	15.73	1.82	_	2193.4 g
23			13.52	28.83		STEPHEN I	41.07	16.58	0.211000	- C. S.	777	156.8 g
24	-	3.77	3.40	5.03	6.23	30.03	5.64	23.11	17.18	5.15	-	835.3 g
25	-	-	200			100		_	_	_	0.00	_
26	-		_	_	_	_	_	_	_	_	-	_
27	page 1	11.71	2.55	20.87	-	1.43	_	36,02	17.59	9.83	-	447.5 g
28	_		_	_	_		_	_	100	_	-	42.8 g
29	-		_	6.19	-	10.22	12.54	10.25	45.42	15.39	777	305.4 g
30		5.37	4.53	2.51	-	24.13	18.84	15.45	25.24	3.92	-	262.7 g
31	-	_	10.18		_	19.14	16.34	7.47	18.30	28.57	-	107.1 g
32	_	-	11.000		-	22.51	000000000	26.98	40.94	9.57	-	266.5 g
3.3	-		-	5.78	-	9.38	-	11.99	45.83	27.01	-	211.0 g
34	1.89	1.94	1.35	-	-	1,22	4.56	19.13	8.83	59.74	1.33	1213.9 g
35	-	2000	0.1500	-	-	(1550) TS	_	59.45	40.55		0.000	32.8 g
36	-		-	-	_	100	_	-	Med Em	-	-	20.5 g
37	_		12.74	-	_	0.95	1.94	31.94	50.83	1.60	-	1004.1 g
38	_	100	V	_	_	CB45,640	-	SUSPECIA	57.77W		-	3.1 g
39	_		-	_	-	_	-	8.72	69.91	18.93	2.45	355.6 g
40	-	-	-	-		-		_	_	_	_	_
41	-	-	0.53	_	-		=	_	36.14	11.78	51.55	380.2 g

Total c 66,531 g

#### THE CATALOGUE

#### **QUEEN STREET MIDDEN AREA**

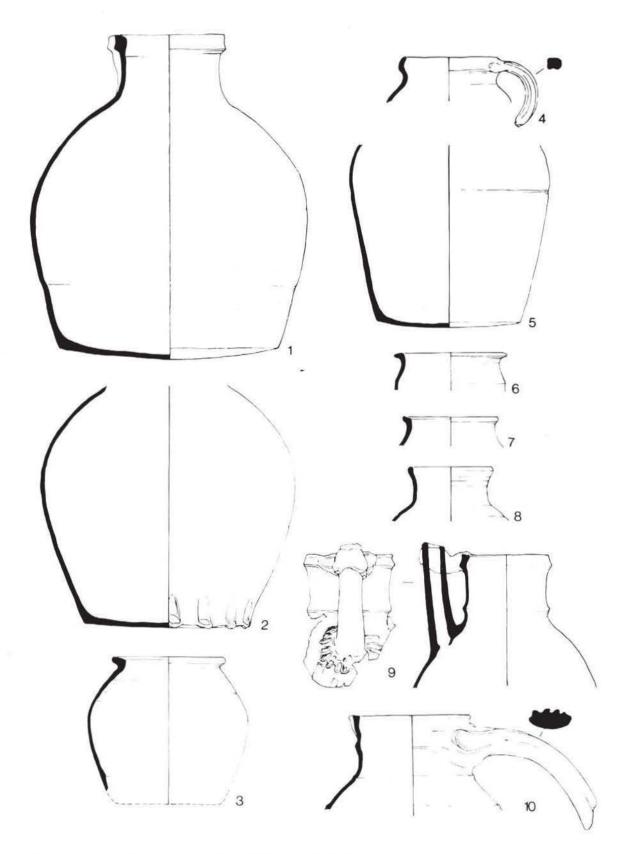
#### Phase I (III 68-71)

- Jug. Finger pinched spout. Stacking scar on base. Fabric 7. External brown glaze on neck and shoulder, white internal slip. Context FN57.
- 2 Jug. Thumb impressed base. Fabric 7. External brown glaze on shoulder, white internal slip. Context FN57.
- 3 Cooking pot. Fabric 7. White slip on both surfaces and sooted exterior. Context FN57.
- 4 Rim and handle fragment from small jug (?) Fabric 7. Context FN57.
- 5 Jug fragment. Fabric 7. White slip on interior and green/brown glaze over white slip on upper exterior. Context FN57.
- 6 Cooking pot. Fabric 7. Sooted exterior. Context FN57.
- 7 Cooking pot. Fabric 7. Sooted exterior. Context FN57.
- 8 Jug rim fragment. Fabric 7. Context FN57.
- 9 Tubular bridge spout, finger impressed around base, from a jug. Fabric 5. External brown glaze over white slip and pellet decoration. Context FN57.
- Jug fragment, ribbed strap handle, finger pinched spout, Fabric 20. External light green glaze. Context FN57.
- Bridge spouted jug, thumb impressed base. Fabric 19. External green glaze on neck and shoulder, applied vertical strips for decoration. Context FN57.
- 12 Jug, thumb impressed base. Fabric 19. External green glaze, applied pellets on shoulder. Context FN57.
- 13 Rim fragment with bridge spout from face-mask jug. Fabric 19. Badly abraded. Context FN57.
- 14 Body sherd with arm fragment (?) Fabric 19. Applied alternate vertical bands of strips and scales. Lustrous green glaze. Context FN57.
- 15 Jug rim. Fabric 19. Lustrous green glaze. Context FN57.
- 16 Jug rim. Fabric 19. Lustrous green glaze. Context FN57
- 17 Cooking pot rim. Fabric 11. Context FN57.
- 18 Jug base, Fabric 8, Traces of external glaze, Context FN57.
- 19 Large fragment of jug base, Fabric 8. Blobs of lead have run into thumb impressions on base. Context FN57
- 20 Cooking pot rim, Fabric 22, Context FN57,
- 21 Cooking pot rim. Fabric 37. Context FN57.
- 22 Handle, possibly from a skillet. Fabric 22. External green glaze. Context FN57.
- 23 Jug. Fabric 37. Prominent neck rilling. Decomposed brown glaze. Context FN57.
- 24 Jug. Fabric 13. External green/brown glaze on upper half. Context FN57.
- 25 Cooking pot rim, finger impressed. Fabric 13. Context FN57.
- 26 Cooking pot rim. Fabric 13. Sooted exterior. Context EN57
- 27 Fragments of blue-grey ladle. Fabric 31. Context FN57
- 28 Jug, neck with rows of horizontal stabbing. Fabric 23. Context FN57.
- 29 Cooking pot rim. Fabric 4. Sooted exterior. Context FN57.
- 30 Cooking pot rim, Fabric 37, Context FN57.

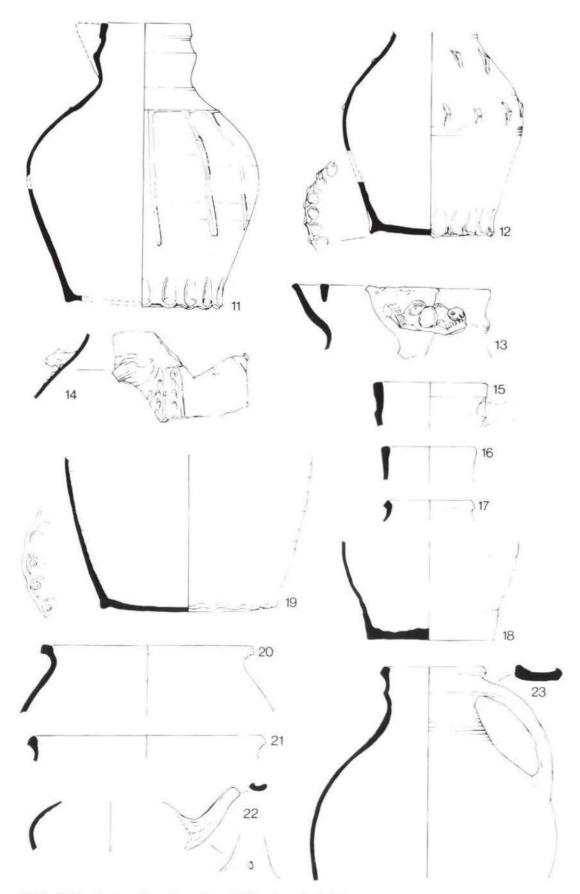
- 31 Baluster jug, thumb impressed base, finger pinched spout. Fabric 25. Vertical columns of applied pellets. White slip on exterior and badly decomposed glaze. Context FN57.
- 32 Rim from straight sided cooking pot. Fabric 15. Context FN57.
- 33 Jug rim. Fabric 15. Context FN57.
- 34 Jug rim. Fabric 13. Context FN57.
- 35 Cooking pot rim. Fabric 15. Context level 5.
- 36 Cooking pot rim. Fabric 15. Context level 5.
- 37 Jug rim, finger pinched spout. Fabric 15. Splashes of yellow glaze. Context FN22.
- 38 Rim of straight sided cooking pot. Fabric 15, Context FN22.
- 39 Jug rim. Fabric 15. Pink wash on exterior. Context FN22.
- 40 Rim of straight sided cooking pot. Fabric 12. Context FN22.
- 41 Jug base, thumb impressed base. Fabric 8. Context FN17. Phase 4, out of sequence.
- 42 Jug. Fabric 7. Internal and external slip and patchy green/brown glaze on upper portion. Context FN30.
- 43 Cooking pot rim. Fabric 7. Sooted exterior. Context FN30.
- 44 Jug rim. Fabric 7. Decomposed external glaze over white slip. Context FN30.
- 45 Cooking pot. Fabric 6. Sooted exterior. Context FN13.
- 46 Cooking pot rim. Fabric 2. Sooted exterior. Context FN30.
- 47 Rim of bowl (?) Fabric 37. Context FN13.
- 48 Rim of bowl (?) Fabric 37. Context FN13.
- 49 Cooking pot rim. Fabric 22. Context FN13.
- 50 Rim, possibly of hump-shouldered jug. Fabric 37. Context FN13. (Verhaeghe 1970, fig 1).
- 51 Cooking pot rim. Fabric 37. Context FN30.
- 52 Flared cooking pot rim. Fabric 37. Context FN49. Phase 4, out of sequence.
- 53 Bowl rim. Fabric 37. Wavy line decoration along top of rim. Context FN30.
- 54 Rim with handle scar, Fabric 15, External green glaze, Context FN30.
- 85 Rim with strap handle attached, Fabric 15, External green glaze, Stacking scar on rim. Context FN30.
- 56 Cooking pot rim. Fabric 15. Sooted exterior. Context FN13.
- 57 Jug rim, Fabric 19. External green glaze. Context FN30.
- 58 Jug rim. Fabric 30. External pale yellow glaze. Context FN30.

#### Phase 2 (III 72-74)

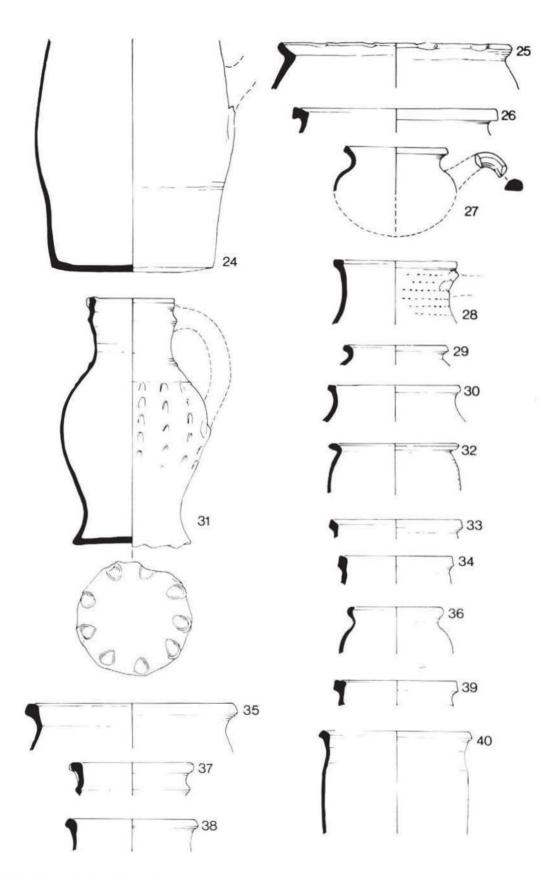
- 59 Jug. Fabric 7. Badly decomposed brown glaze on exterior. Context midden.
- 60 Small face sherd, possibly a lug handle. Fabric 7. Applied pads impressed in the centre to form eyes, a slashed mouth and an applied nose. Context midden.
- 61 Cooking pot rim. Fabric 7. Sooted exterior. Context midden.
- 62 Jug. Fabric 7. Badly abraded external brown glaze on upper half. Context midden.



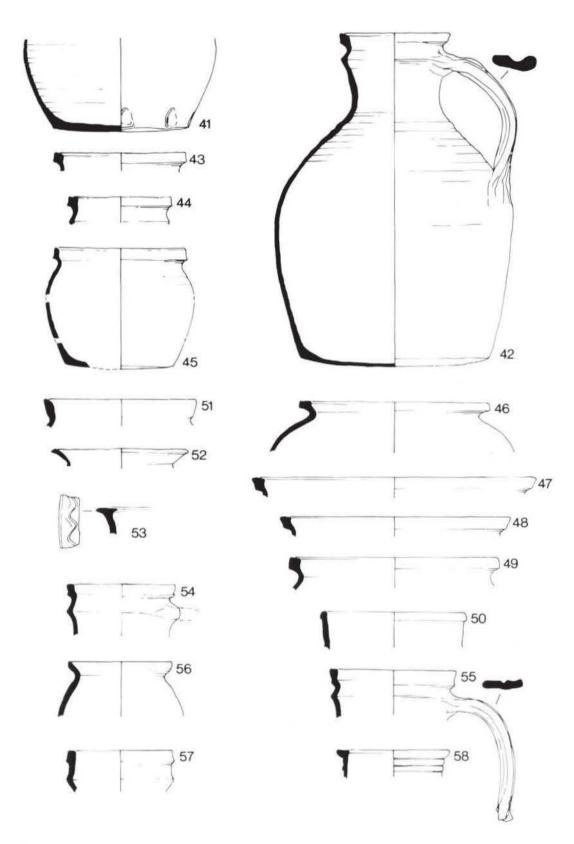
III 68: Medieval pottery from Queen Street Midden Area. Scale 1/4



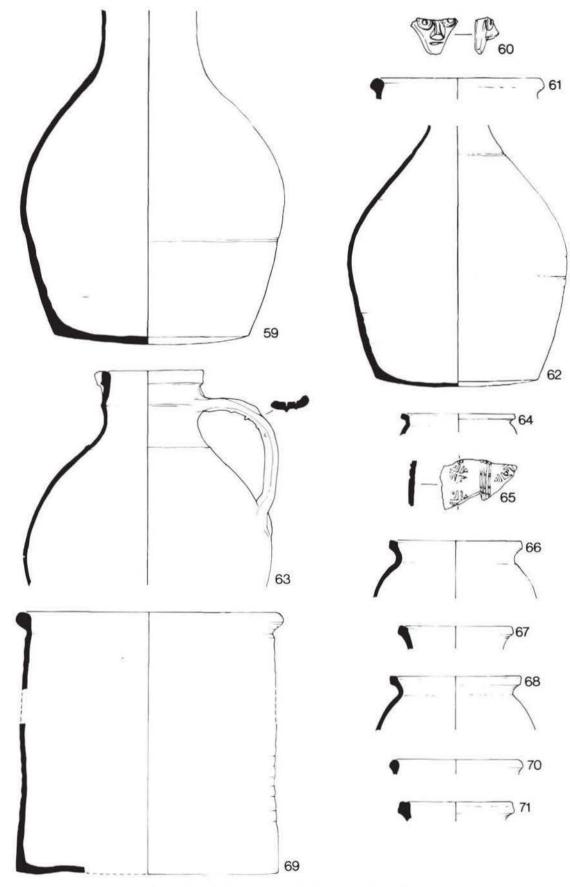
III 69 : Medieval pottery from Queen Street Midden Area. Scale 1/4



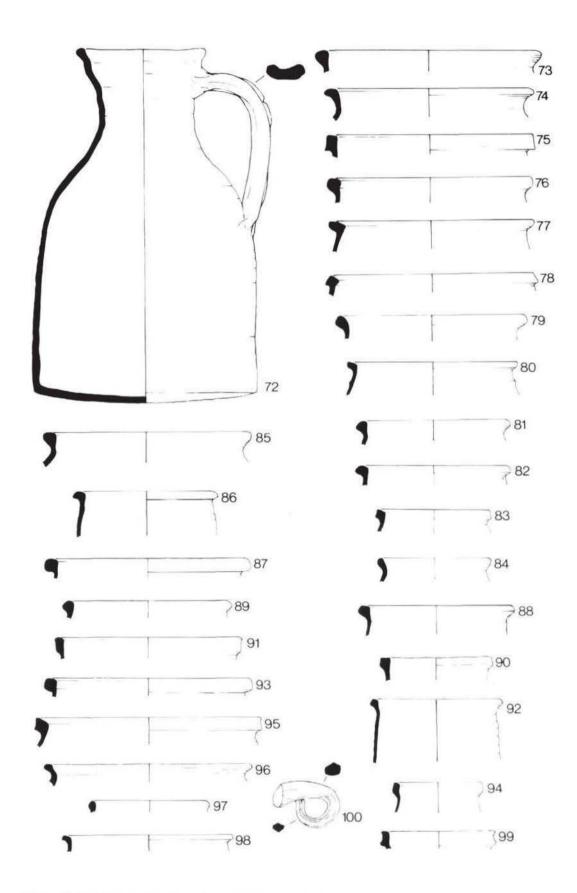
III 70: Medieval pottery from Queen Street Midden Area. Scale 1/4



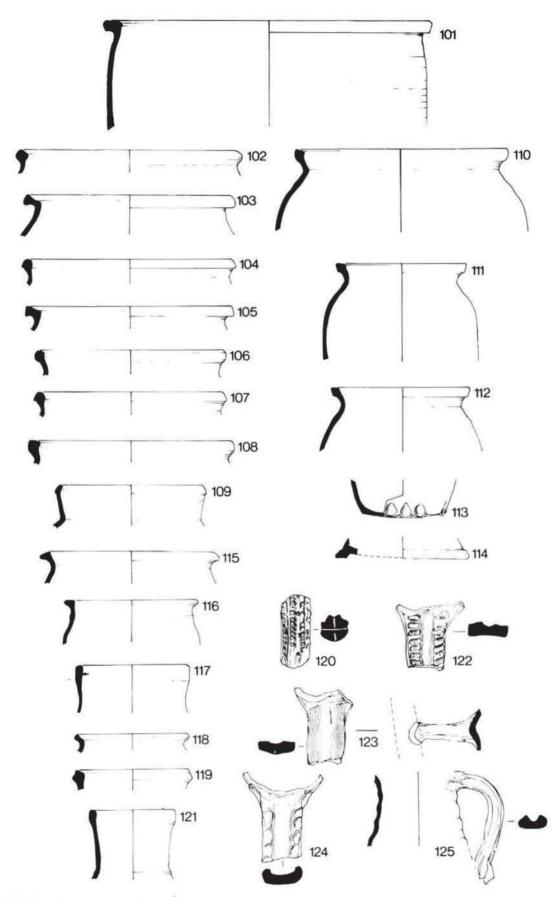
III 71: Medieval pottery from Queen Street Midden Area. Scale 1/4



III 72: Medieval pottery from Queen Street Midden Area. Scale 1/4 except 60 at 1/2



III 73: Medieval pottery from Queen Street Midden Area. Scale 1/4



Ill 74: Medieval pottery from Queen Street Midden Area. Scale 1/4

- 63 Upper half of jug, finger pinched spout. Fabric 6. External brown glaze over white slip. The handle is pierced by two columns of holes. Context midden.
- 64 Cooking pot rim. Fabric 6. Context midden.
- 65 Body sherds. Fabric 7. Decorated with vertical bands of 5 tooth comb stabbing and a stamp consisting of a cross with a small triangle in each corner. Traces of glaze on exterior. Context midden.
- 66 Cooking pot rim. Fabric 26, Same as 299, Context midden.
- 67 Jug rim. Fabric 26. Context midden.
- 68 Cooking pot rim. Fabric 26. Immediately prior to publication 68, 111, 112 were found to be parts of the same vessel. Context midden.
- 69 Large straight sided vessel. Fabric 15. Context midden.
- 70 Rim. Fabric 15. Context midden.
- 71 Rim. Fabric 15. External orange slip. Context midden.
- 72 Large jug with strap handle. Fabric 15. External yellow/green glaze. Context midden.
- 73 Cooking pot rim. Fabric 15. Burnt off-white surfaces. Context midden.
- 74 Cooking pot rim. Fabric 15. Context midden.
- 75 Cooking pot rim. Fabric 15. Context midden.
- 76 Cooking pot rim. Fabric 15. Context midden.
- 77 Cooking pot rim. Fabric 15. Context midden.
- 78 Cooking pot rim. Fabric 15. Context midden.
- 79 Cooking pot rim. Fabric 15. Sooted exterior. Context midden.
- 80 Cooking pot rim. Fabric 15. Sooted exterior. Context midden
- 81 Cooking pot rim. Fabric 15. Sooted exterior. Context midden.
- 82 Cooking pot rim. Fabric 15. Sooted exterior. Context midden.
- 83 Cooking pot rim. Fabric 15. Context midden.
- 84 Cooking pot rim. Fabric 15. Context midden.
- 85 Cooking pot rim. Fabric 15. Burnt surfaces. Context midden.
- 86 Rim of straight sided cooking pot. Fabric 13. Sooted exterior. Context midden.
- 87 Cooking pot rim. Fabric 13. Context midden.
- 88 Rim of straight sided cooking pot. Fabric 13. Sooted exterior. Context midden.
- 89 Cooking pot rim. Fabric 13. Sooted exterior. Context midden.
- 90 Jug rim. Fabric 13. External pink slip, Context midden.
- 91 Cooking pot rim. Fabric 13. Sooted exterior. Context midden.
- 92 Straight sided cooking pot, Fabric 13. Sooted exterior. Context midden.
- 93 Cooking pot rim. Fabric 13. Context midden.
- 94 Cooking pot rim. Fabric 13, Sooted exterior. Context midden.
- 95 Cooking pot rim. Fabric 12. Context midden.
- 96 Cooking pot rim. Fabric 12. Context midden.
- 97 Cooking pot rim. Fabric 12. Context midden.
- 98 Cooking pot rim. Fabric 13. Context midden.
- 99 Jug rim. Fabric 17. Pale yellow slip and external glaze. Context midden.
- 100 Skillet or ladle handle. Fabric 17. Spots of glaze. Context midden.
- 101 Cooking pot. Fabric 13. Context midden.
- 102 Cooking pot rim. Fabrie 13. Context midden.
- 103 Cooking pot rim. Fabric 37. Sooted exterior. Context midden.
- 104 Cooking pot rim. Fabric 37. Context midden.

- 105 Cooking pot rim. Fabric 37. Context midden.
- 106 Cooking pot rim. Fabric 37. Context midden.
- 107 Cooking pot rim. Fabric 37. Sooted exterior. Context midden.
- 108 Cooking pot rim. Fabric 37. Heavily sooted exterior. Context midden.
- 109 Rim of hump-shouldered jug. Fabric 37. Context midden. (Verhaeghe 1970, fig 1: 2)
- 110 Cooking pot rim. Fabric 22. Context midden.
- 111 Cooking pot rim. Fabric 26. Internal finger marks. See 68. Context midden.
- 112 Cooking pot rim. Fabric 26. Heavily sooted exterior. See 68. Context midden.
- 113 Base of small jug. Fabric 2. Thumbing consisting of three sets of three impressions. External green glaze. Context midden.
- 114 Basal angle sherd, possibly from a baluster jug. Fabric 33. Green glaze on base and orange glaze on the sides. Context midden.
- 115 Cooking pot rim. Fabric 13. Burnt surfaces. Context midden.
- 116 Cooking pot rim. Fabric 16. Burnt surfaces. Context midden.
- 117 Jug rim. Fabric 24. External green glaze. Context midden.
- 118 Rim. Fabric 34. Green glaze. Context midden.
- 119 Jug rim. Fabric 12. Traces of yellow glaze on exterior. Context midden.
- 120 Rod handle, Fabric 20. Green glaze. Four vertical lines of raised notches and a series of pierced holes. Context midden.
- 121 Jug rim and shoulder. Fabric 18. Lustrous green glaze. Context midden.
- 122 Strap strut from tubular spouted jug. Fabric 20. Mottled green/brown glaze. Fine pronged combing and slashing down each side. Context midden. (cf Rackham 1972, fig 51).
- 123 Strap strut from tubular spouted jug. Fabric 20. Light green glaze. Fine pronged combing down each side. Context midden. (cf Rackham 1972, fig 51).
- 124 Handle, Fabric 25, Green glaze, Thumbing down each side. Context midden.
- 125 Fragments including strap handle. Fabric 9. Possibly post-medieval. Lustrous green glaze. Context midden.

#### Phase 3 (III 75)

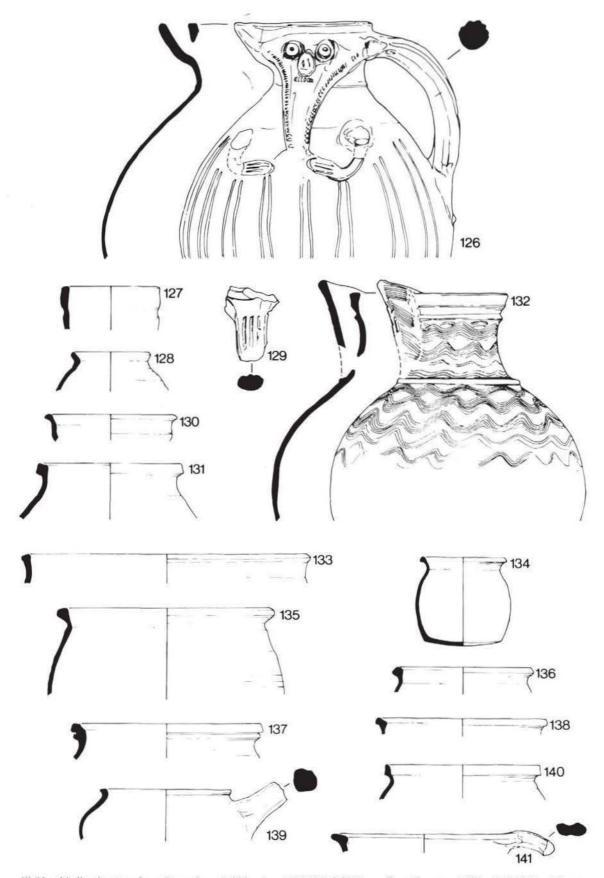
- 126 Face-mask jug. Fabric 19. Lustrous green glaze. Context FN26.
- 127 Jug rim. Fabric 19. Lustrous light and dark green glaze. Context FN26.
- Rim. Fabric 40. Proto-stoneware, possibly Siegburg (cf Kings Lynn; Clarke and Carter 1977, fig 103: 1,
   2). Context FN26.
- 129 Jug rim with rod handle, Fabric 12. Yellow/green glaze. Context FN26.

#### Phase 2 (Ill 75)

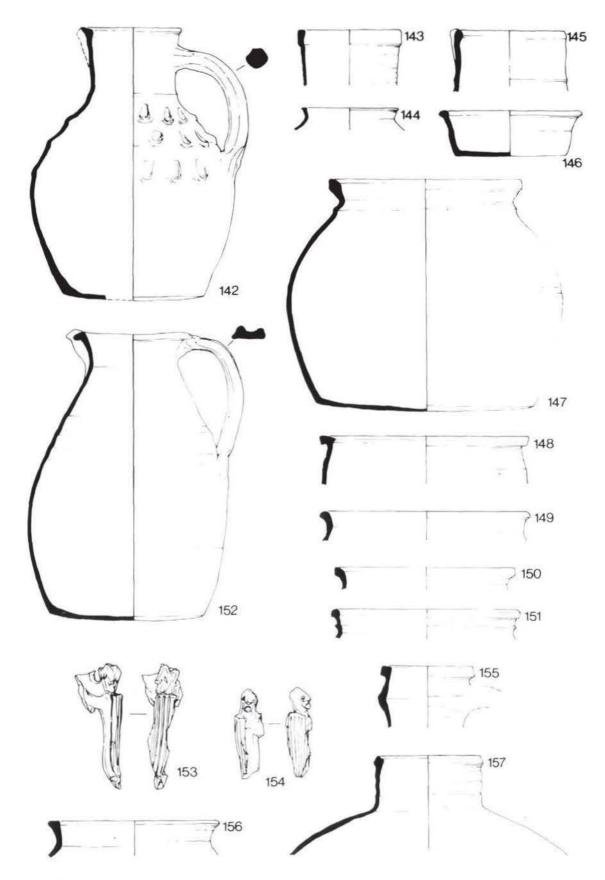
130 Rim. Fabric 38. Context midden.

#### Phase 4 (Ill 75)

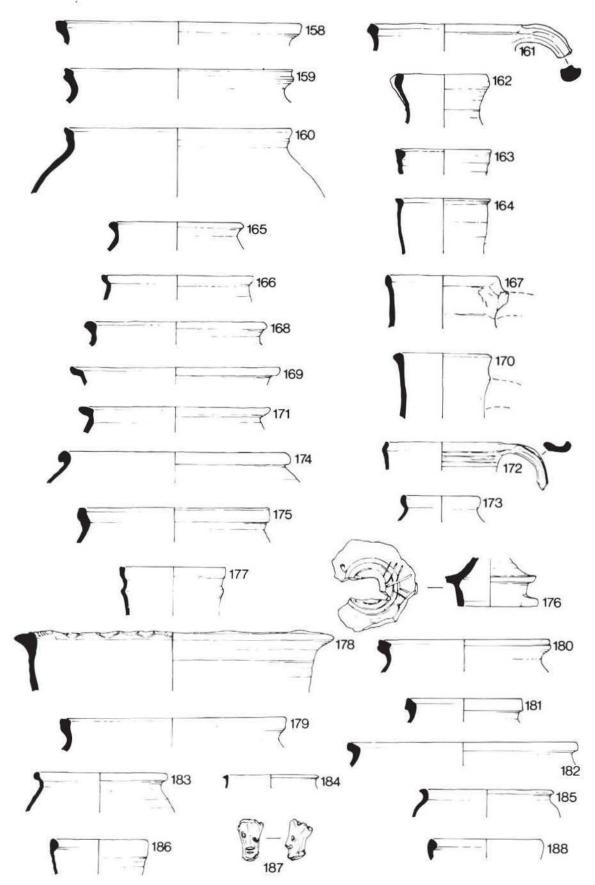
131 Cooking pot. Fabric 7. Internal and external white slip and runs of purple/brown glaze on exterior. Context FN56.



Ill 75: Medieval pottery from Queen Street Midden Area (126-131), 2-28 Queen Street Frontage (132) and 12-26 Broad Street, Phases 1-3 (133-141). Scale 1/4



Ill 76: Medieval pottery from 12-26 Broad Street, Phase 3. Scale 1/4



III 77: Medieval pottery from 12-26 Broad Street, Phases 3-5. Scale 1/4

#### 2-28 QUEEN STREET FRONTAGE (III 75)

132 Bridge spouted jug. Fabric 18. Neck cordon and bands of combed wavy line decoration. External green glaze. Context FN14. (cf Rackham 1972, fig 57).

# 12-26 BROAD STREET

#### Phase 1 (III 75)

- 133 Cooking pot rim. Fabric 7. Trench 2, Layer 20.
- 134 Small pot. Fabric 6, Trench 1, Layer 31.
- 135 Cooking pot. Fabric 15. Trench 3, Layer 25.
- 136 Cooking pot rim. Fabric 15. Trench 2, Layer 16.
- 137 Cooking pot rim. Fabric 15. Trench 1, Layer 31.

#### Phase 2 (Ill 75)

138 Cooking pot rim. Fabric 15. Trench 1, Layer 28.

#### Phase 3 (Ill 75-77)

- 139 Skillet rim with hollow handle fragment. Fabric 5. Sooted exterior. Trench 2, Layer 4.
- 140 Rim. Fabric 7. Sooted exterior. Trench 1, Layer 27.
- 141 Rim and handle. Fabric 7, Burnt surfaces. Trench 1, Layer 24.
- 142 Rod handled jug. Fabric 6. External orange glaze. Three bands of finger impressed decoration on the shoulder. Trench 1, Layer 24.
- 143 Jug rim. Fabric 6. Decomposed external glaze over white slip. Trench 3, Layer 8.
- 144 Rim. Fabric 6. Heavy external red/brown glaze. Trench 1, Layer 24.
- 145 Jug rim with finger pinched spout. Fabric 5. External green glaze and white slip. Trench 3, Layer 8.
- Small dish. Fabric 3. Internal dirty yellow glaze and sooted exterior. Trench 3, Layer 8.
- 147 Cooking pot. Fabric 15. Traces of green glaze, sooted on base. Trench 1, Layer 27.
- 148 Cooking pot rim. Fabric 13. Trench 1, Layer 27.
- 149 Cooking pot rim. Fabric 12. Trench 3, Layer 22.
- 150 Cooking pot rim. Fabric 12. Trench 1, Layer 27.
- 151 Cooking pot rim. Fabric 13. Sooted exterior. Trench 1, Layer 27.
- 152 Jug. Fabric 11. External green glaze over white slip. Trench 3, Layer 8.
- 153 Knight jug fragment comprising crowned head and part of a shield. Fabric 18. Lustrous glaze. The head has pierced eyes, no mouth. Faces left. Trench 1, Layer 27.
- 154 Knight jug head fragment. Fabric 18. Lustrous glaze. Pierced eyes and slashed mouth. Faces left. Trench 1. Layer 27.
- 155 Jug rim with handle scar. Fabric 20. Pale green glaze. Trench 1, Layer 27.
- 156 Cooking pot rim. Fabric 37. Trench 1, Layer 27.
- 157 Neck and shoulder of hump-shouldered jug. Fabric 37. Trench 1, Layer 24. (Verhaeghe 1970, fig 1).
- 158 Cooking pot rim. Fabric 37. Trench 3, Layer 8.
- 159 Cooking pot rim. Fabric 37. Trench 3, Layer 8.
- 160 Cooking pot rim. Fabric 37. Sooted exterior. Trench 1, Layer 27.
- 161 Rim and handle. Fabric 6. Traces of glaze on handle. Trench 3, Layer 24.
- 162 Jug rim with finger pinched spout. Fabric 5. Prominent rilling on neck, external green glaze. Trench 3, Layer 8.
- 163 Rim. Fabric 32. Trench 1, Layer 5.

- 164 Jug rim and neck. Fabric 28. Glaze varying through pale grey and yellow to mottled green. Trench 1, Layer 27.
- 165 Cooking pot rim. Fabric 15. Trench 1, Layer 27.
- 166 Cooking pot rim. Fabric 13. Trench 3, Layer 8.
- 167 Jug rim including handle scar. Fabric 2. External green glaze. Trench 1, Layer 24.
- 168 Cooking pot rim. Fabric 24. Trench 3, Layer 8.
- 169 Rim. Fabric 26. Trench 1, Layer 27.
- 170 Jug rim with handle scar. Fabric 6. Trench 3, Layer 24
- 171 Cooking pot rim. Fabric 7. External green glaze. Trench 1, Layer 25.
- 172 Rim with handle, Fabric 6. Decomposed external brown glaze. Trench 3, Layer 13.

#### Phase 4 (Ill 77)

- 173 Cooking pot rim. Fabric 6. Brown glaze and sooted exterior. Trench 1, Layer 6.
- 174 Cooking pot rim. Fabric 15. Trench 3, Layer 4.
- 175 Cooking pot rim. Fabric 15. Trench 1, Layer 8.
- 176 Jug lid. Fabric 19. Slashed decoration pointing to the locking lip. Trench 1, Layers 6 and 8.
- 177 Jug rim. Fabric 20. External light green glaze. Trench 3, Layer 13.
- 178 Cooking pot rim. Fabric 3? Traces of glaze, sooted exterior. The rim has been folded back and smoothed down and then a cording of clay has been laid along the inside lip and finger impressed. Trench 3, Layer 2.
- 179 Cooking pot rim. Fabric 22. Trench 3, Layer 2.
- 180 Cooking pot rim. Fabric 13. Sooted exterior. Trench 3, Layer 4.
- 181 Cooking pot rim. Fabric 7. Sooted exterior. Trench 1, Layer 8.
- 182 Cooking pot rim. Fabric 26. Sooted exterior. Trench 3, Layer 4.

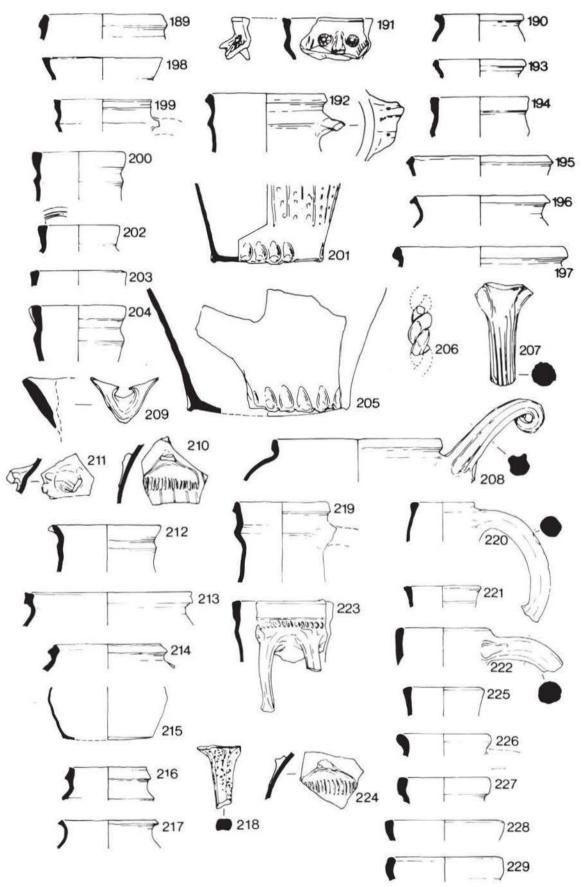
#### Phase 5 (Ill 77)

- 183 Cooking pot rim, Fabric 6, Sooted exterior, Trench 3, Layer 1.
- 184 Rim. Fabric 6. Sooted exterior. Trench 3, Layer 1.
- 185 Rim of small vessel, Fabric 5, Trench 3, Laver 1.
- 186 Rim. Fabric 5. External green glaze. Trench 1, Layer
- 187 Crowned head from a knight jug. Fabric 19. Pierced eyes, slashed mouth. Lustrous green glaze. Trench 1, Layer 1.
- 188 Jug rim. Fabric 7. External red glaze. Trench 1, Layer 1.

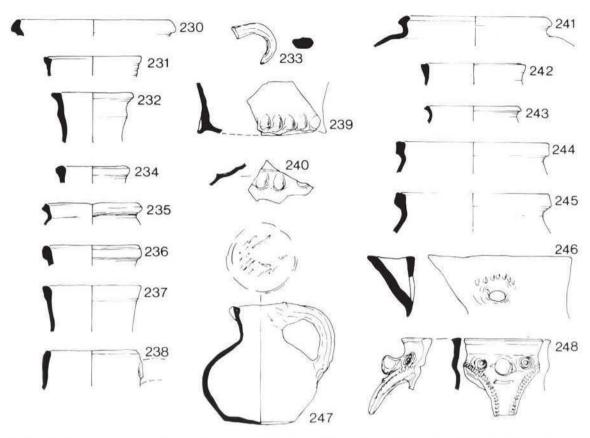
#### VIRGINIA STREET STEPS

#### Context F3 (III 78)

- 189 Jug rim. Fabric 3, Context F3.
- 190 Cooking pot rim. Fabric 3. Heavily sooted. Context F3
- 191 Face-mask jug. Fabric 5. Traces of creamy white slip. Stamped eyes. The pinched elongated nose occurs at Colstoun (Brooks 1980, fig 4: 54). Context F3.
- 192 Jug. Fabric 5. Context F3.
- 193 Jug rim. Fabric 5. Dark brown glaze on external rim bottom. Context F3.
- 194 Jug rim. Fabric 5. As 193. Context F3.
- 195 Jug rim. Fabric 5. Traces of trailed white slip, Context F3.
- 196 Beaker rim. Fabric 5. External green/brown glaze. Context F3.



III 78: Medieval pottery from Virginia Street steps. Scale 1/4

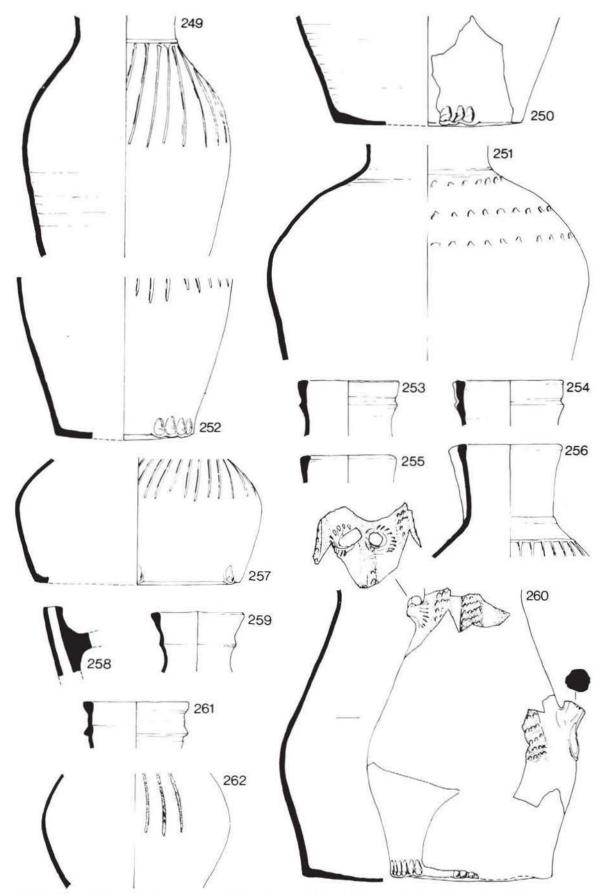


Ill 79: Medieval pottery from Virginia Street steps (230-246) and Virginia Street Observation 1975 (247-248). Scale 1/4

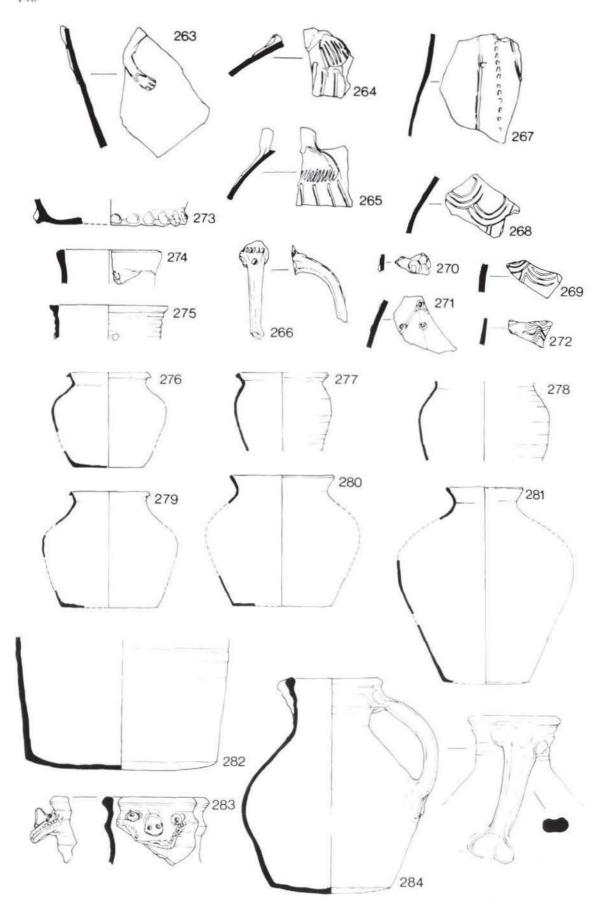
- 197 Cooking pot rim. Fabric 5. Traces of internal white slip. Context F3.
- 198 Jug rim. Fabric 10. Splashes of purple/brown glaze. Context F3.
- 199 Jug rim. Fabric 8. Areas of purple/brown glaze. Context F3.
- 200 Jug rim. Fabric 19. External lustrous light green glaze. Context F3.
- 201 Jug. Fabric 19. Lustrous green glaze on vertical bands of scale decoraion. Context F3.
- 202 Jug rim. Fabric 19. As 200. Context F3.
- 203 Jug rim. Fabric 19. Lustrous green glaze to inner lip of rim. Context F3.
- 204 Jug rim. Fabric 19. As 200. Context F3.
- 205 Jug. Fabric 18. As 200. Context F3.
- 206 Twisted handle. Fabric 19. Lustrous green glaze. Context F3.
- 207 Rod handle, Fabric 19, Lustrous green glaze, Context F3.
- 208 Skillet. Fabric 19. Patches of green and yellow external glaze. Context F3.
- 209 Bridge-spouted jug. Fabric 19. Lustrous green glaze. Context F3.
- 210 Decorated jug handle piece. Fabric 19. As 209. Context F3.
- 211 Jug handle. Fabric 19. Thick yellow glaze. Scale decoration. Context F3.
- 212 Jug rim. Fabric 36. Context F3.
- 213 Cooking pot rim. Fabric 5. Context F3.

# Context F6 (III 78-79)

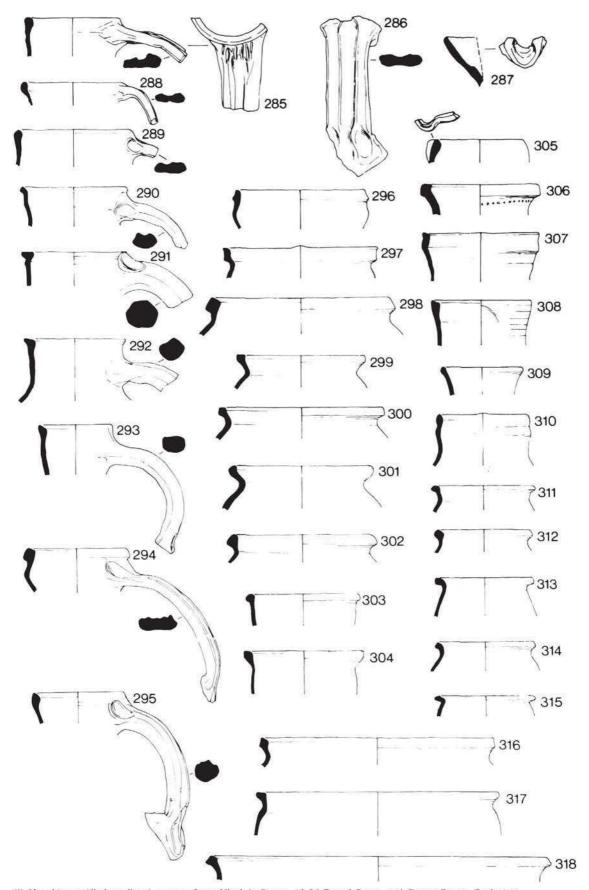
- 214 Jug rim. Fabric 5. Context F6.
- 215 Thin-walled beaker, Fabric 5, Covered in creamy white slip. Context F6.
- 216 Jug rim, Fabric 5, As 214. Context F6,
- 217 Thin-walled beaker. Fabric 5. As 215. Context F6.
- 218 Skillet handle. Fabric 5. Spot of brown glaze. Irregular deep prick marks. Context F6.
- 219 Jug rim. Fabric 5. External dark purple glaze. Context F6.
- 220 Jug. Fabric 33. Orange glaze with spots of dark green on painted white slip. Context F6.
- 221 Jug rim. Fabric 33. Very abraded. Trace of external yellow glaze. Context F6.
- 222 Jug. Fabric 19. Abraded. Lustrous green glaze. Context F6.
- 223 Jug. Fabric 19. Lustrous green glaze. Context F6.
- 224 Decorated jug handle. Fabric 19. As 210. Context F6.
- 225 Jug rim. Fabric 19. Thick greeny yellow glaze. Context F6.
- 226 Jug rim. Fabric 9. Spots of brown/green glaze. Context F6.
- 227 Jug rim. Fabric 9. As 226. Context F6.
- 228 Jug rim. Fabric 19. Abraded. Context F6.
- 229 Jug rim. Fabric 18. Lustrous green glaze to inner lip. Context F6.
- 230 Cooking pot rim. Fabric 37, Context F6.
- 231 Jug rim, Fabric 32. Orange/brown glaze. Context F6.
- 232 Jug rim. Fabric 36. Context F6.



III 80 : Unstratified medieval pottery from Virginia Street, 12-26 Broad Street and Queen Street. Scale 1/4



III 81: Unstratified medieval pottery from Virginia Street, 12-26 Broad Street and Queen street. Scale 1/4



Ill 82 : Unstratified medieval pottery from Virginia Street, 12-26 Broad Street and Queen Street. Scale 1/4

# Context F1 (III 79)

- 233 Ladle handle? Fabric 5. Spots of brown glaze. Context F1.
- 234 Jug rim. Fabric 5. No glaze. Context F1.
- 235 Jug rim. Fabric 5. No glaze. Context F1.
- 236 Jug rim. Fabric 8. Possibly post-medieval. Context F1.
- 237 Jug. Fabric 19. Eroded external surface. Traces of lustrous green glaze. Context F1.
- 238 Jug rim. Fabric 19. Lustrous green glaze. Context F1.
- 239 Jug base, Fabric 19, External orange glaze, Context F1.
- 240 Jug. Fabric 5. Finger impressed decoration on shoulder, covered by drab olive green glaze. Context F1.
- 241 Cooking pot rim. Fabric 37. Heavily sooted. Context F1
- 242 Jug rim. Fabric 29. Internal and external mottled green glaze. Context F1.

# Context RF (III 79)

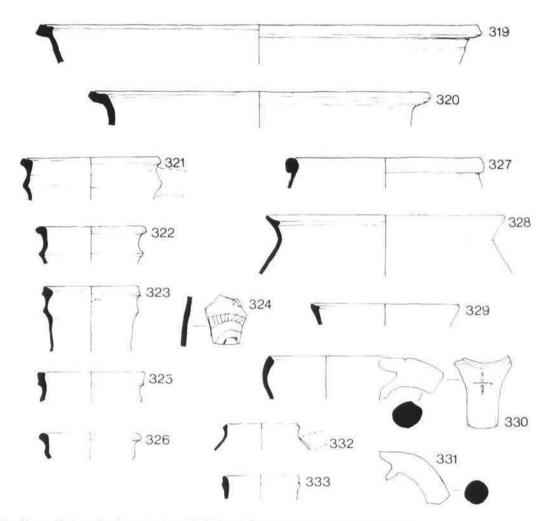
- 243 Cooking pot rim. Fabric 5. Sooted exterior. Context RF.
- 244 Cooking pot rim. Fabric 5. Context RF.
- 245 Cooking pot rim. Fabric 2. Traces of creamy white trailed slip. Context RF.

# Unstratified (III 79)

246 Bridge-spout, Fabric 19. Lustrous green glaze. Unstratified.

# UNSTRATIFIED POTTERY FROM VIRGINIA STREET, QUEEN STREET AND BROAD STREET (III 79-83)

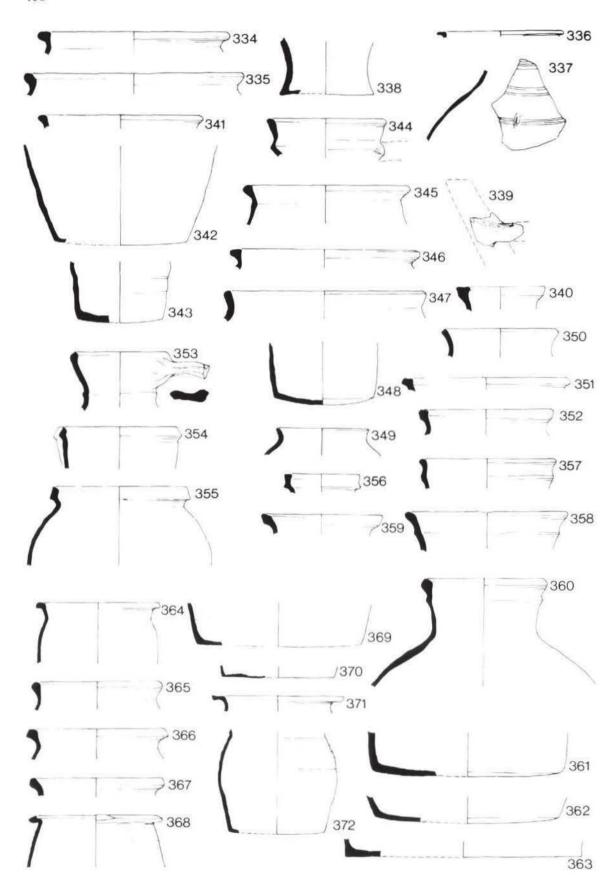
- 247 Small jug. Fabric 3. Drab olive green glaze on upper part. Rod handle. Deep slash marks on interior of base. Virginia Street.
- 248 Face mask jug. Fabric 19. Lustrous green glaze to inner rim. Virginia Street.
- Jug. Fabric 19. Green glaze with patches of yellow glaze to below lines of vertical decoration. Virginia Street.
- 250 Thumbed base. Fabric 19. No glaze. Virginia Street.
- 251 Jug. Fabric 19. Green glaze on horizontal bands of applied scales. Virginia Street.
- 252 Jug. Fabric 19. As 249. Virginia Street.
- 253 Jug. Fabric 19. Lustrous green glaze to inner lip of rim. Kiln scar on top of rim. Virginia Street.
- 254 Jug. Fabric 19. As 253. Virginia Street.
- 255 Jug rim. Fabric 19. As 253. Virginia Street.



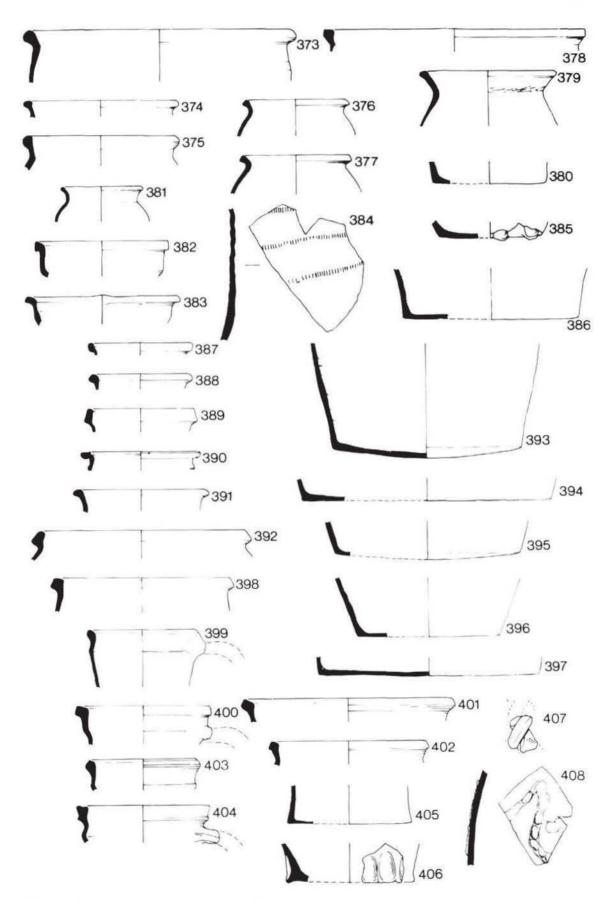
III 83: Unstratified medieval pottery from 12-26 Broad Street and Queen Street. Scale 1/4

- 256 Jug. Fabric 19. As 253. Virginia Street.
- 257 Jug. Fabric 19. Green glaze to bottom of vertical line decoration. Virginia Street.
- 258 Tubular spout. Fabric 19. Green glaze. Queen Street.
- 259 Jug. Fabric 19. External lustrous green glaze. Virginia Street.
- 260 Jug, Fabric 19. Light olive green glaze with dark purple-green glaze on panels of scale decoration. Virginia Street.
- 261 Jug. Fabric 19. External thin yellow green glaze. Broad Street.
- 262 Jug. Fabric 19. Clear yellowish glaze on applied vertical lines, glazed alternately with dark green and dark brown glaze. Virginia Street.
- 263 Jug. Fabric 18. Exterior light varied green glaze on portion of applied arm. Queen Street.
- 264 Jug handle. Fabric 19. Lustrous green glaze. Queen Street
- 265 Jug handle. Fabric 19. As 264. Virginia Street.
- 266 Handle. Fabric 19. Lustrous green glaze. Deep indentation below finger impressed decoration. Virginia Street.
- Jug. Fabric 19. Applied scale decoration covered with dark brown glaze between vertical lines. Overall drab olive green glaze. Queen Street/Broad Street.
- 268 Jug fragment. Fabric 3. Incised concentric line decoration covered by drab greenish brown glaze. Oueen Street.
- 269 Jug Fragment. Fabric 3. As 268. Queen Street.
- 270 Decorated fragment. Fabric 29. Applied petal decoration covered with light green glaze. Queen Street.
- 271 Jug fragment. Fabric 18. External lustrous green glaze on raised dot and line decoration similar to 742. Broad Street.
- 272 Decorated jug fragment. Fabric 3. As 268 with incised wavy line decoration, Queen Street.
- 273 Thumbed base. Fabric 3. Green glaze and kiln scars on bottom of base. Broad Street.
- 274 Jug rim. Fabric 19. Lustrous green glaze to inner lip of rim. Trace of finger impressed decoration. Virginia Street.
- 275 Jug rim, Fabric 30. External yellow glaze. Applied dot decoration. Broad Street.
- 276 Small beaker. Fabric 5. Covered with creamy white slip. Virginia Street.
- 277 Small beaker. Fabric 5. External green-brown glaze on upper portion. Virginia Street.
- 278 Small beaker. Fabric 5. External green-brown glaze. Virginia Street.
- 279 Small beaker. Fabric 5. As 276, Virginia Street.
- 280 Small beaker. Fabric 5. Green-brown glaze below rim only. Virginia Street.
- 281 Beaker. Fabric 5. As 280. Queen Street.
- 282 Sagging base. Fabric 5. Traces of external greenorange glaze. Queen Street.
- 283 Face-mask jug. Fabric 5. External dull olive green glaze. The style and manner of decoration makes it an almost exact copy of a Scarborough type face-mask jug. Virginia Street.
- 284 Complete jug. Pinched spout. Fabric 3. External glaze on upper portion of jug of alternate green and greenish brown stripes. Queen Street.
- 285 Jug rim and handle. Fabric 9. Incised lines at top of handle. Partial olive green glaze. Virginia Street.
- 286 Jug handle. Fabric 7. Thick browny glaze. Broad
- 287 Jug spout. Fabric 3. Abraded, with traces of yellowgreen glaze. Queen Street.

- 288 Jug rim and handle. Fabric 5. No glaze. Queen Street.
- 289 Jug rim and handle. Fabric 3. Spots of purple-brown glaze. Broad Street.
- 290 Jug rim and handle. Fabric 3. As 289. Broad Street.
- 291 Jug rim and handle. Fabric 33. Two applied thumbed pieces at top of handle. Partial dull green glaze. Broad Street.
- 292 Jug neck and handle. Fabric 6. No glaze. Queen Street
- 293 Jug rim and handle. Fabric 3. Abraded, no trace of glaze. Queen Street.
- 294 Jug rim and handle. Fabric 9. Orange/green glaze. Virginia Street.
- 295 Jug rim and handle. Fabric 3. Green/brown glaze on handle. Oueen Street.
- 296 Jug rim with handle scar. Fabric 3. Patches of purplebrown glaze. Queen Street.
- 297 Cooking pot rim, Fabric 6. Sooted exterior. Broad Street.
- 298 Cooking pot rim. Fabric 7. Sooted exterior. Queen Street.
- 299 Cooking pot rim. Fabric 26. Sparse shell tempering. Same as 66. Oueen Street.
- 300 Cooking pot rim. Fabric 15. Sooting on rim. Queen Street.
- 301 Cooking pot rim. Fabric 2. Heavily sooted. Queen Street.
- 302 Cooking pot rim. Fabric 13. Sooting on exterior. Queen Street.
- 303 Jug rim. Fabric 3. Spots of purple glaze. Queen Street.
- 304 Cooking pot rim. Fabric 13. Sooted. Queen Street.
- 305 Jug rim and pinched spout. Fabric 3. Spot of purple glaze. Virginia Street.
- 306 Jug rim. Fabric 23. Band of rouletting below rim. Broad Street.
- 307 Jug rim. Fabric 3. Patches of dirty green glaze. Queen Street.
- 308 Jug rim. Fabric 9. Traces of decomposed green glaze. Oueen Street.
- 309 Jug rim. Fabric 6. Trace of trailed brown slip. Queen
- 310 Jug rim. Fabric 8. Partial drab olive green glaze. Oueen Street.
- 311 Jug rim. Fabric 3. Patches of yellow-green glaze.
  Oueen Street.
- Jug rim. Fabric 20. Thick dull green glaze to inner lip of rim. Queen Street.
- 313 Cooking pot. Fabric 7. Heavily sooted. Virginia Street.
- 314 Cooking pot rim. Fabric 15. Heavily sooted. Queen Street.
- 315 Cooking pot rim. Fabric 15. Sooted. Broad Street.
- 316 Cooking pot rim. Fabric 22, Sooted. Queen Street.
- 317 Cooking pot rim. Fabric 13. Some sooting. Queen Street.
- 318 Cooking pot rim. Fabric 22. Some sooting. Queen Street.
- 319 Cooking pot rim. Fabric 7. Creamy white slip. Some external sooting. Broad Street.
- 320 Cooking pot rim. Fabric 13. Queen Street.
- 321 Jug rim. Fabric 12. Splashes of external green/yellow glaze. Queen Street.
- 322 Jug rim. Fabric 12. Spots of yellow glaze. Queen Street.
- 323 Jug rim. Fabric 12. External olive green glaze. Queen Street.
- 324 Body sherd. Fabric 12. Incised concentric line decoration, covered by drab olive green glaze. Broad Street.



Ill 84: Medieval pottery from 42 St Paul Street, Phases 1-4, Scale 1/4



III 85: Medieval pottery from 42 St Paul Street, Phases 4-5. Scale 1/4

- 325 Jug rim. Fabric 12. Splashes of orange/yellow glaze. Oueen Street.
- 326 Jug rim. Fabric 12. Spot of orange glaze. Broad Street.
- 327 Cooking pot rim? Fabric 12. Splashes of yellow-green glaze on top of and below rim. Queen Street.
- 328 Cooking pot. Fabric 37. Lid seated. Queen Street.
- 329 Cooking pot rim. Fabric 37. Lid seated. Queen Street.
- 330 Jug rim and handle. Fabric 37. Deep indentation where handle joins body. The incised cross on top of handle done after firing. Queen Street.
- 331 Jug handle. Fabric 37. Deep indentation where handle joins body. Queen Street.
- 332 Ladle rim. Fabric 31. Grey metallic finish. Queen Street.
- 333 Jug rim. Fabric 8. Lustrous browny glaze. Possibly post-medieval. Queen Street.

# 42 ST PAUL STREET

### Phase 2 (III 84)

- 334 Cooking pot rim. Fabric 13. Splash of light green glaze on top of rim. Area A, Layer 247.
- 335 Cooking pot rim. Fabric 13. Heavily sooted on exterior. Area A, Layer 247.
- 336 Jug rim (?) Fabric 38. Trace of glaze on side of rim. Area E, Layer 31.
- 337 Body sherd. Fabric 21? Fine white fabric with mottled green glaze. Distinctive grooved decoration on neck and shoulder. Area A, Layer 247.

# Phase 3 (Ill 84)

- 338 Jug base. Fabric 29? Splashes of glaze. Area C, Layer 273.
- 339 Portion of bridge spout. Fabric 21. Mottled green glaze; grooved line decoration. Kilmurry spout form 23? (Kilmurry 1980, 310). Area B, Layer 98.
- 340 Bottle rim. Fabric 21. Partially glazed. Kilmurry form 6-10 (Kilmurry 1980, 264). Area C, Layer 275.
- 341 Cooking pot rim. Fabric 15. Area A, Layer 212.
- 342 Cooking pot. Fabric 15. Area B, Layer 98.
- 343 Cooking pot. Fabric 15. Area C, Layer 275.
- 344 Jug rim. Fabric 12. Clear honey glaze on exterior. Area A, Layer 212.
- 345 Cooking pot rim. Fabric 15. Area C, Layer 277.
- 346 Cooking pot rim. Fabric 13. Area F, Layer 70.
- 347 Cooking pot rim. Fabric-2. Area B, Layer 112.
- 348 Cooking pot. Fabric 2. Area E, Layer 32.
- 349 Cooking pot rim. Fabric 2. Area A, Layer 177.
- 350 Cooking pot rim. Fabric 22. Heavily sooted on exterior. Area B, Layer 98.
- 351 Cooking pot rim. Fabric 22. Area B, Layer 112.
- 352 Cooking pot rim. Fabric 22. As 351. Area A, Layer 212.
- 353 Jug. Fabric 6. Brown glaze on handle. Area C, Layer 277
- 354 Jug rim with pinched spout. Fabric 6. Area B, Layer 110.
- 355 Cooking pot. Fabric 6. Area A, Layer 212.
- 356 Collared rim. Fabric 20. Area E, Layer 32.

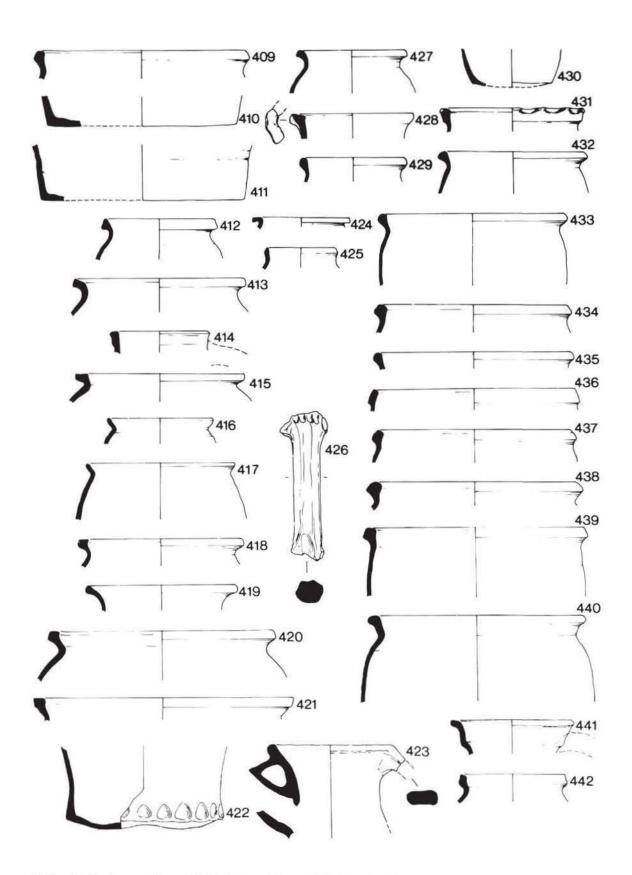
# Phase 4 (Ill 84-85)

- 357 Jug. Fabric 12. Splash of yellow glaze. Area A, Layer 271.
- 358 Jug rim. Fabric 12. Area A, Layer 210.
- 359 Jug rim. Fabric 12. Area C, Layer 256.

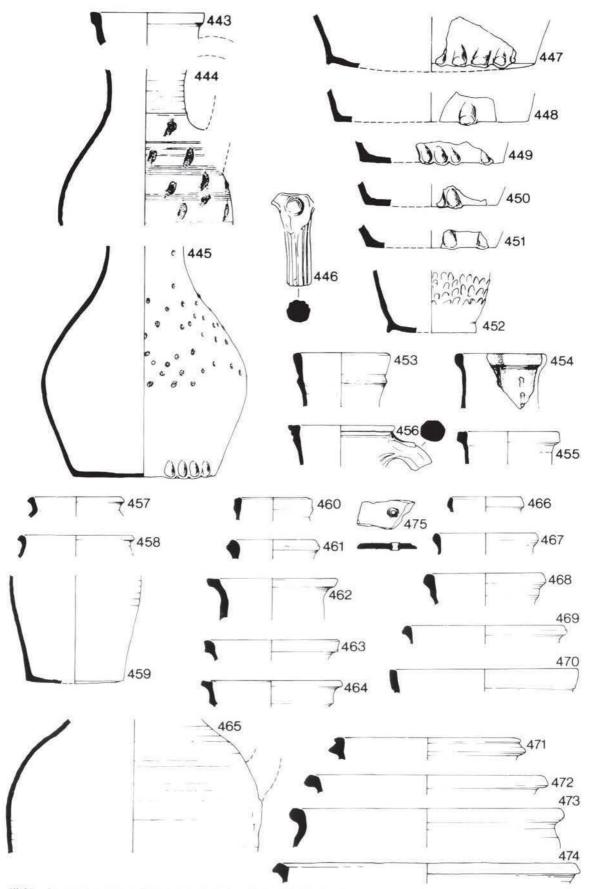
- 360 Jug. Fabric 12. Extensive orange glaze. Area A, Layer 271
- 361 Cooking pot base. Fabric 13. Area A, Layer 269.
- 362 Cooking pot base. Fabric 13. Burnt exterior. Area A, Layer 210.
- 363 Cooking pot base. Fabric 13. Knife trimmed base. Area C, Layer 256.
- 364 Cooking pot. Fabric 13. Heavily sooted on the exterior. Area C, Layer 257.
- 365 Cooking pot rim. Fabric 13. As 364. Area C, Layer 212.
- 366 Cooking pot rim. Fabric 13. As 364. Area A, Layer 271.
- 367 Cooking pot rim. Fabric 15. Area C, Layer 257.
- 368 Cooking pot. Fabric 15. Lid seated rim. See 390. Area A, Layer 188.
- 369 Jug base, Fabric 14. Splash glazed, Area C, Layer 256.
- 370 Cooking pot base. Fabric 14. Heavily sooted. Thinwalled vessel. Area C, Layer 257.
- 371 Cooking pot rim. Fabric 14. Heavily sooted. Area C, Layer 257.
- 372 Cooking pot rim. Fabric 13. Burnt exterior. Area A, Laver 188.
- 373 Cooking pot rim. Fabric 13. Sooted on exterior. Area A, Layer 188.
- 374 Cooking pot rim. Fabric 13. As 373. Area C, Layer 267.
- 375 Cooking pot rim. Fabric 13. As 373. Area C, Layer 217.
- 376 Cooking pot rim. Fabric 6. Area C, Layer 256.
- 377 Cooking pot rim. Fabric 6. Area C, Layer 279.
- 378 Cooking pot rim. Fabric 22. Area C, Layer 256.
- 379 Cooking pot. Fabric 22. Distinct marks at junction of neck and body. Area A, Layer 188.
- 380 Jug base. Fabric 6. Area A, Layer 188.
- 381 Cooking pot. Fabric 37. Area C, Layer 267.
- 382 Rim. Fabric 29. Area of green glaze on exterior. Area C, Layer 269.
- 383 Jug rim. Fabric 29. As 82. Area C, Layer 256.
- 384 Body sherd of jug. Fabric 12. Bands of rouletted decoration with light yellow/green glaze on exterior. Area A, Layer 210.
- 385 Jug base. Fabric 20. Thumbed base. Area C, Layer 217.
- Jug base. Fabric 20. As 385 with no thumbing on base. Area C, Layer 257.

# Phase 5 (Ill 85)

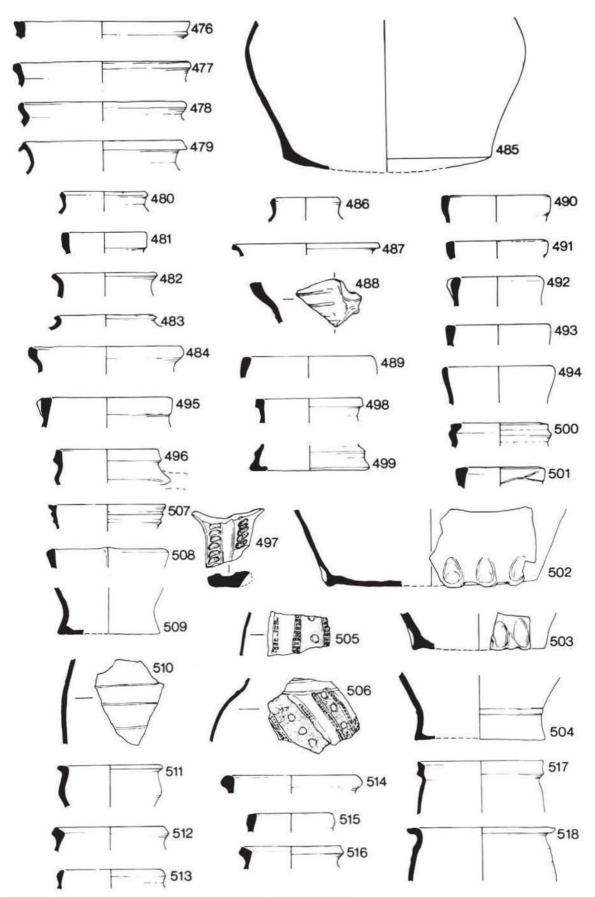
- 387 Cooking pot rim. Fabric 15. Area C, Layer 241.
- 388 Cooking pot rim. Fabric 15. Heavily sooted exterior. Area C, Layer 244.
- 389 Cooking pot rim. Fabric 15. Area C, Layer 204.
- 390 Lid seated cooking pot rim. Fabric 15. Heavily sooted exterior. See 368. Area A, Layer 270.
- 391 Cooking pot rim. Fabric 15. As 388. Area C, Layer 270.
- 392 Cooking pot rim. Fabric 15. Area C, Layer 231.
- 393 Cooking pot? Fabric 15. Splashes of yellow glaze on sooted exterior. Area C, Layer 244.
- 394 Cooking pot base. Fabric 15. Heavily sooted. Knife trimmed base. Area A, Layer 259.
- 395 Cooking pot base. Fabric 13. Area C, Layer 261.
- 396 Cooking pot base, Fabric 13. Area C, Layer 223.
- 397 Cooking pot base. Fabric 13. Area C, Layers 267, 270.
- 398 Cooking pot rim. Fabric 13. Area A, Layer 230.
- 399 Jug. Fabric 12. Traces of yellow glaze on exterior. Area C, Layer 241.



Ill 86: Medieval pottery from 42 St Paul Street, Phases 6-7. Scale 1/4



III 87 : Medieval pottery from 42 St Paul Street, Phases 7-8. Scale 1/4



III 88: Medieval pottery from 42 St Paul Street, Phases 8-9. Scale 1/4

- 400 Jug. Fabric 12. As 399. Area A, Layer 264.
- 401 Cooking pot rim. Fabric 22. Area C, Layer 224.
- 402 Cooking pot rim. Fabric 22. Area C, Layer 231.
- 403 Jug. Fabric 20. Splashes of thick green glaze. Area C, Layer 190.
- 404 Jug. Fabric 20. As 403. Area C, Layer 18.
- 405 Jug base, Fabric 20, Sooty exterior, Area A, Layer 220.
- 406 Jug base. Fabric 20. Area C, Layer 223.
- 407 Twisted rod handle. Fabric 19. Lustrous green glaze. Area C, Layer 243.
- 408 Jug body sherd. Fabric 18. Lustrous green glaze on exterior. Area C, Layers 232, 2.

### Phase 6 (III 86)

- 409 Cooking pot rim. Fabric 13. Burnt on exterior. Area A, Layer 185.
- 410 Cooking pot base. Fabric 13. As 409. Area A, Layer 82
- 411 Cooking pot base. Fabric 13. Area A, Layer 82.

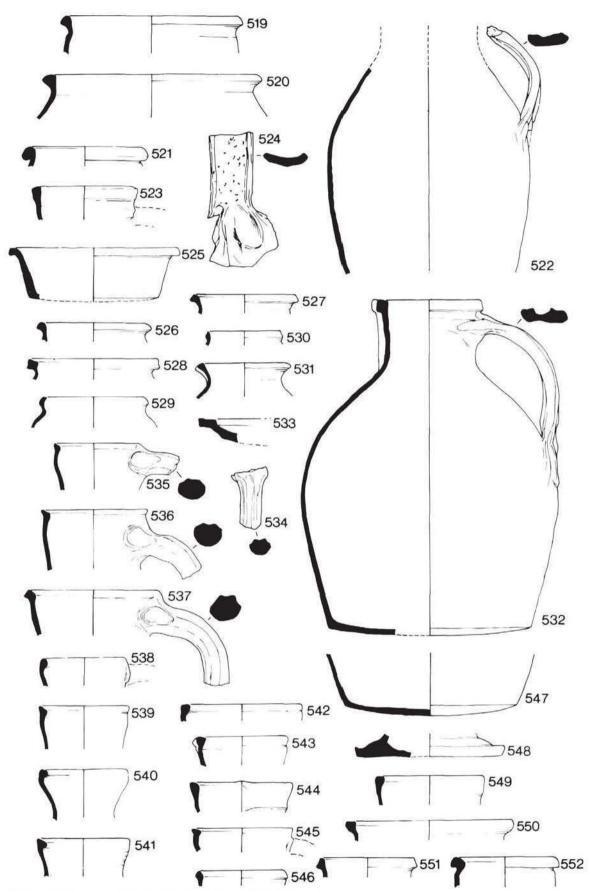
#### Phase 7 (III 86-87)

- 412 Cooking pot rim. Fabric 6. Heavily sooted on exterior. Area A, Layer 126.
- 413 Cooking pot rim. Fabric 6. As 412. Area A, Layer 183.
- 414 Jug rim. Fabric 6. As 412 with traces of white slip. Area A, Layer 267.
- 415 Cooking pot rim. Fabric 6. As 412. Area A, Layer 91.
- 416 Cooking pot rim. Fabric 2. Area A, Layer 146.
- 417 Cooking pot. Fabric 2. Hand made. Heavily sooted on exterior. Area A, Layer 91.
- 418 Cooking pot rim. Fabric 22. Area A, Layer 142.
- 419 Jug. Fabric 22. Area A, Layer 91.
- 420 Cooking pot rim. Fabric 22. Area A, Layer 149.
- 421 Cooking pot rim. Fabric 22, Area A, Layer 146.
- 422 Jug base. Fabric 24. Splashes of green glaze on thumbing. Area B, Layer 66.
- 423 Bridge-spouted jug. Fabric 1. Hand made. Area B, Layers 102, 119.
- 424 Rim. Fabric 37. Area A, Layer 146.
- 425 Ladle, Fabric 31. Area C, Laver 214.
- 426 Handle, Fabric 3. Purple glaze, Area B, Layer 66.
- 427 Cooking pot. Fabric 14. Heavily sooted surfaces. Area A. Layer 91.
- 428 Jug rim. Fabric 3. Yellow-green glaze on exterior. Area A, Layer 146.
- 429 Cooking pot rim, Fabric 13, Sooted, Area C, Layer 213.
- 430 Cooking pot base, Fabric 13, Sooted, Area C, Layer 195.
- 431 Frilled rim, Fabric 13, Sooted, Area C, Layer 195.
- 432 Cooking pot. Fabric 13. Sooted. Area A, Layer 149.
- 433 Cooking pot. Fabric 13. Sooted exterior. Area A, Layer 91.
- 434 Cooking pot rim. Fabric 13. Sooted. Area A, Layer 149.
- 435 Cooking pot rim. Fabric 13. Area A, Layer 91.
- 436 Cooking pot rim. Fabric 13. Area C, Layer 228.
- 437 Cooking pot rim. Fabric 13. Area A, Layer 91.
- 438 Cooking pot rim. Fabric 13. Area A, Layer 267.
- 439 Cooking pot. Fabric 13. Area A, Layer 183.
- 440 Cooking pot. Fabric 13. No sooting. Area A, Layer 75.
- 441 Jug rim. Fabric 12. Very eroded surfaces. Area A, Layers 75, 82.
- 442 Jug rim. Fabric 8. Splash of green glaze on top of rim. Area A, Layer 126.

- 443 Jug rim. Fabric 20. Thick green glaze from top of rim. Area B, Layer 102.
- 444 Jug. Fabric 20. Horizontal bands of lightly incised decoration. All over browny green glaze with applied purple glazed pellets. Area A, Layers 85, 91, 125, 180, 181, 183.
- 445 Jug. Fabric 20. Very eroded surfaces. Traces of purple glaze. Raised pellet decoration. Area A, Layer 139.
- 446 Handle. Fabric 20. Thick light green glaze. Area E, Layer 20.
- 447 Thumbed base. Fabric 19. Spots of green glaze on bottom of base. Area E, Layer 13.
- 448 Thumbed base. Fabric 19. As 447. Area C, Layer 169.
- 449 Thumbed base. Fabric 19. As 447. Area A, Layer 139.
- 450 Thumbed base. Fabric 19. As 447. Area E, Layer 27.
- 451 Thumbed base. Fabric 19. As 447. Area A, Layer 91.
- 452 Jug base with foot ring. Fabric 19. All over thick green glaze on round scale decoration. Area F, Layer 47.
- 453 Jug rim. Fabric 19. As 452. External lustrous green glaze. Area E, Layer 10.
- 454 Jug rim. Fabric 19. Alternate bands of green and honey clear glaze. Raised scale decoration. Area A, Layer 143.
- 455 Jug rim. Fabric 3. Olive green glaze on cream slip. Area C, Layer 228.
- 456 Jug rim. Fabric 30. Bright mottled green glaze. Area C., Laver 196.

#### Phase 8 (Ill 87-88)

- 457 Cooking pot rim. Fabric 12. Area E, Layer 4.
- 458 Cooking pot rim. Fabric 15. Area A, Layer 20.
- 459 Cooking pot. Fabric 15. Ribbing on exterior. Area C, Layer 218.
- 460 Jug rim. Fabric 12. Area C, Layer 206.
- 461 Jug rim. Fabric 12. Honey splash glazing on rim. Smooth exterior finish. Area B, Layer 103.
- 462 Jug rim. Fabric 12. Surface erosion. Smooth exterior finish. Area C, Layer 192.
- 463 Jug rim. Fabric 12. Splashes of honey green glaze on rim. Area C, Layer 209.
- 464 Jug rim. Fabric 12. Area A, Laver 87.
- 465 Jug. Fabric 12. Trailed green glaze. Area C, Layers 187, 226.
- 466 Jug rim. Fabric 13. Area C, Layer 201?
- 467 Jug rim? Fabric 13. Sooting on exterior. Area C, Layer 187.
- 468 Jug rim. Fabric 13. Area C, Layer 179.
- 469 Jug rim. Fabric 13. Area B, Layer 86.
- 470 Jug rim, Fabric 13. Area C, Layer 186.
- 471 Cooking pot rim. Fabric 13. Sooted exterior. Area A, Layer 114.
- 472 Cooking pot rim. Fabric 13, Sooted interior. Area C, Layer 205.
- 473 Cooking or storage (?) pot rim. Fabric 13. Area A, Layer 136.
- 474 Cooking pot rim. Fabric 13. Heavy sooted surfaces. Area A, Layer 261.
- 475 Base, Fabric 13. Perforation. Heavily sooted. Area C. Laver 186.
- 476 Jug rim. Fabric 12. Splash of green glaze on exterior. Area C, Layer 209.
- 477 Cooking pot rim. Fabric 2. Area A, Layer 21.
- 478 Cooking pot rim. Fabric 7. Area A, Layer 138.
- 479 Cooking pot rim. Fabric 7. Area A, Layer 20.
- 480 Cooking pot rim, Fabric 7. Context lost.
- 481 Jug rim. Fabric 3. Splashes brown glaze on exterior. Area A, Layer 20.



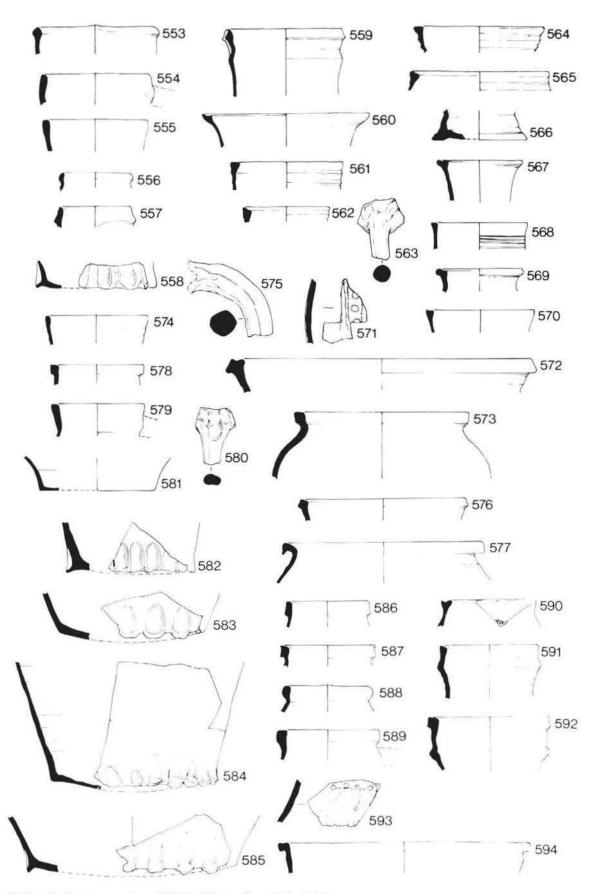
Ill 89: Medieval pottery from 42 St Paul Street, Phase 9. Scale 1/4

- 482 Cooking pot rim. Fabric 3. Sooted on exterior. Area A, Layer 150.
- 483 Cooking pot rim. Fabric 3. Area A, Layer 136.
- 484 Jug rim. Fabric 3. Splashes of green glaze on exterior. Area A, Layer 138.
- 485 Jug. Fabric 3. Area A, Layers 166, 138.
- 486 Ladle. Fabric 31. Area B, Layer 92.
- 487 Cooking pot rim. Fabric 37. Heavily sooted on exterior. Area C, Layer 206.
- 488 Aquamanile fragment. Fabric 19. Thick lustrous green glaze. Area E, Layer 5.
- 489 Jug rim. Fabric 19. External thick green glaze. Area E, Layer 5.
- 490 Jug rim. Fabric 19. External clear honey glaze. Area E. Layer 4.
- 491 Jug rim. Fabric 19. Thick green glaze externally to inner lip of rim. Area A, Layer 21.
- 492 Jug rim. Fabric 19. Patchy external green glaze. Area A, Layer 51.
- 493 Jug rim. Fabric 19. Thick lustrous green glaze. Kiln scars on top of rim. Area F, Layer 50.
- 494 Jug rim. Fabric 19. External thick lustrous green glaze. Area E. Laver 4.
- 495 Jug rim. Fabric 19. Patchy external green glaze. Area C, Layer 84.
- 496 Jug rim. Fabric 19. As 494. Area C, Layers 5, 23.
- 497 Jug strap-handle. Fabric 20. Thick green glaze. Deep slashes on sides of handle. Area C, Layer 179.
- 498 Jug rim. Fabric 20. Spot of yellow glaze on top of rim. Area C, Layer 187.
- 499 Base fragment of jug. Fabric 20. External orange glaze. Area A, Layer 51.
- 500 Jug rim. Fabric 20. Surface erosion but traces of orange glaze remain. Area E, Layer 4.
- 501 Jug rim. Fabric 20. Incised line below rim and splash of light green and clear glaze. Area E, Layer 4.
- 502 Jug base. Fabric 20. Green glaze. Kiln scar on thumb impressions. Area A, Layer 173.
- 503 Jug base. Fabric 20. As 502 with green glaze on underside of base. Area C, Layer 169.
- 504 Jug base. Fabric 30. Burnt on interior. All over external mottled green glaze. Area C, Layer 191.
- 505 Jug body sherd. Fabric 30. Applied pellet and strip decoration. Stippled area on ill is brown glaze on all over creamy yellow glaze. Area B, Layer 64.
- 506 Jug body sherd. Fabric 30. As 505. Area C, Layer 181.
- 507 Jug rim, Fabric 30. External yellow glaze. Area A, Layer 80.
- 508 Jug rim. Fabric 29. Thick mottled green glaze internally and externally. Area A, Layer 56.
- 509 Jug base. Fabric 29. Surfaces very eroded, no glaze survives. Area C, Layer 179.
- 510 Jug. Fabric 23. Horizontal lines of incised decoration. Area A, Layer 89.

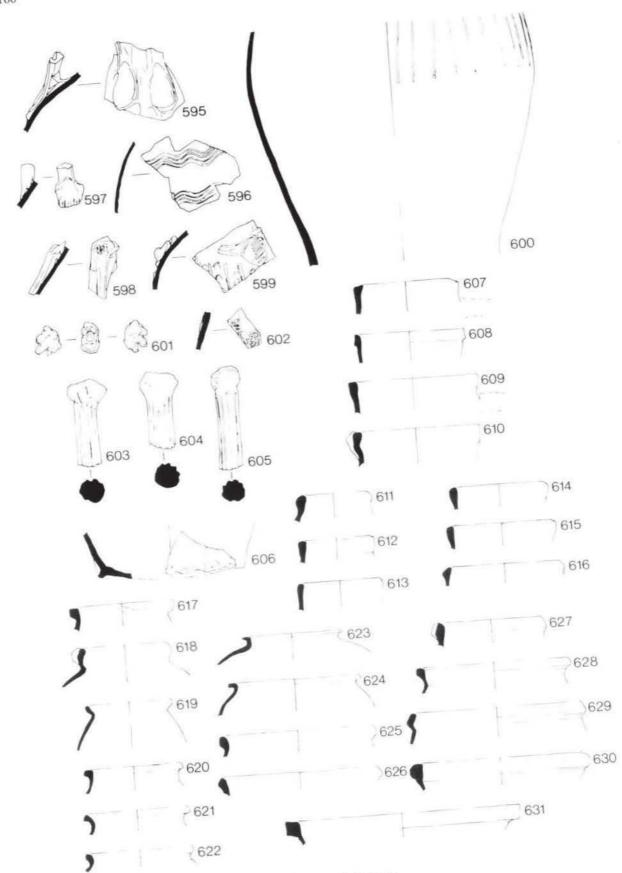
# Phase 9 (III 88-91)

- 511 Jug rim, Fabric 3, External green glaze, Area B, Layer 82.
- 512 Jug rim? Fabric 12. Spots of yellow glaze on rim. Area C, Layer 155.
- 513 Jug rim. Fabric 13. Area B, Layer 63.
- 514 Cooking pot rim. Fabric 13. Sooted exterior. Area F. Layer 13.
- 515 Jug rim. Fabric 12. Spot of yellow glaze below rim. Area A, Layer 129.
- 516 Jug rim. Fabric 12. Spot of yellow glaze on rim. Area D, Layer 41.

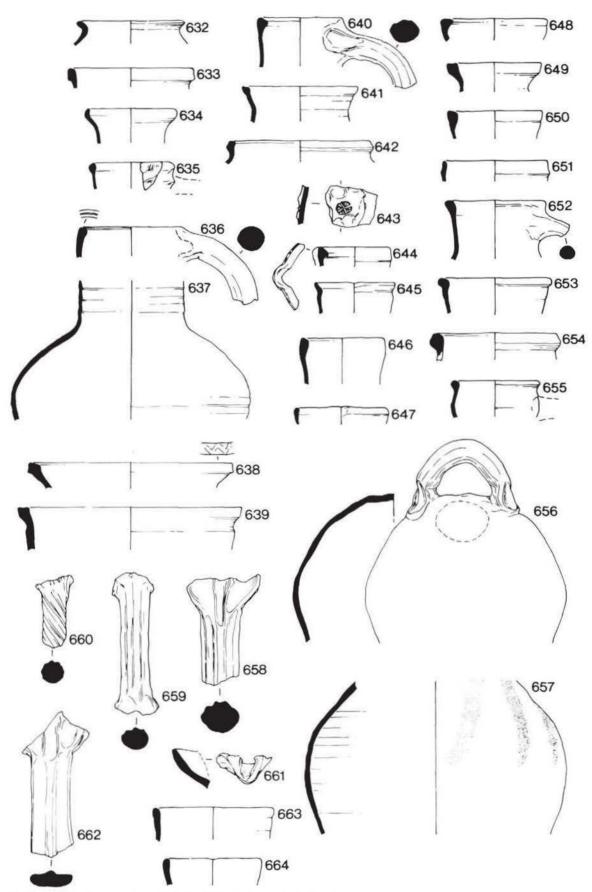
- 517 Cooking pot. Fabric 13. Sooted on exterior. Area A, Layer 128.
- 518 Cooking pot, Fabric 13. As 517. Area A, Layers 85, 92.
- 519 Cooking pot. Fabric 13. Area B, Layer 63.
- 520 Cooking pot. Fabric 13. Area A, Layer 50.
- 521 Cooking pot rim. Fabric 13, Heavily sooted, Area C, Layer 246.
- 522 Jug. Fabric 12. Partial dull green glaze on exterior and handle. Area A, Layers 2a, 74.
- 523 Jug rim, Fabric 12. Spots of orange glaze, Area F, Layer 56.
- 524 Jug handle, Fabric 2, Green/brown glaze, Deep perforations on handle, Area A, Layer 26.
- 525 Cooking bowl. Fabric 2. Internal brown glaze. Area D. Layer 62.
- 526 Cooking pot rim. Fabric 2. Area F, Layer 6.
- 527 Cooking pot rim? Fabric 2. Area C, Layer 39.
- 528 Cooking pot rim. Fabric 15. Sooted exterior. Area A, Laver 42.
- 529 Cooking pot rim. Fabric 15. As 528. Area A, Layer 85.
- 530 Cooking pot rim. Fabric 14. Area A, Layer 130.
- 531 Jug rim, Fabric 7. Area A, Layer 90.
- 532 Jug. Fabric 7. Traces of brown external glaze remain. Area A, Layers 85, 26, 28, 57, 42.
- 533 Drip pan, Fabric 3. Dull green glaze. Area B, Layer 42.
- 534 Jug handle, Fabric 3, Area D, Layer 25.
- 535 Jug. Fabric 3. Spots of brownish green glaze. Area F, Layer 6.
- 536 Jug. Fabric 3. As 535. Area F, Layer 4.
- 537 Jug. Fabric 3. As 535. Area F, Layer 4.
- 538 Jug rim. Fabric 3. As 535. Area F, Layer 6.
- 539 Jug rim. Fabric 3. External brown splash glaze. Area F, Layer 4.
- 540 Jug rim. Fabric 3. Spots of brown glaze. Area A, Layer 81.
- 541 Jug rim. Fabric 3. Area F, Layer 6.
- 542 Jug rim. Fabric 3. Area B, Layer 60.
- 543 Jug rim, Fabric 3, As 539, Area B, Layer 60,
- 544 Jug rim. Fabric 3. Spots of external brown glaze. Area F, Layer 4.
- 545 Jug rim. Fabric 3. Spots of green/brown glaze. Area B, Layer 61.
- 546 Jug rim. Fabric 3. Area B, Layer 61.
- 547 Sagging jug base. Fabric 3. Spots of brown glaze beneath base with kiln scars. Area C, Layer 161.
- 548 Pedestal base? Fabric 3. External brown glaze. Area A, Layer 36.
- 549 Jug rim. Fabric 3. Area B, Layer 60.
- 550 Jug rim? Fabric 3. Area F, Layer 6.
- 551 Jug rim. Fabric 3. As 544. Area C, Layer 177.
- 552 Jug rim, Fabric 3. External partial purple glaze, Area F, Layer 4.
- 553 Jug rim, Fabric 3, Area F, Layer 4.
- 554 Jug rim, Fabric 3, Area F, Layer 4.
- 555 Jug rim, Fabric 3, Area C, Layer 139.
- 556 Jug rim. Fabric 5. Traces of white slip. Area D, Layer
  25
- 557 Jug rim. Fabric 5. Area C, Layer 171.
- 558 Jug base. Fabric 5. Internal buff slip. Area A, Layer 85
- 559 Jug rim. Fabric 5. Area C, Layer 133.
- 560 Jug rim, lid seated. Fabric 5. Purple brown glaze. Area F. Layer 15.
- 561 Jug rim. Fabric 32. External clear orange/brown glaze. Area B, Layer 76.



III 90 : Medieval pottery from 42 St Paul Street, Phase 9. Scale 1/4



III 91: Medieval pottery from 42 St Paul Street, Phases 9-10. Scale 1/4



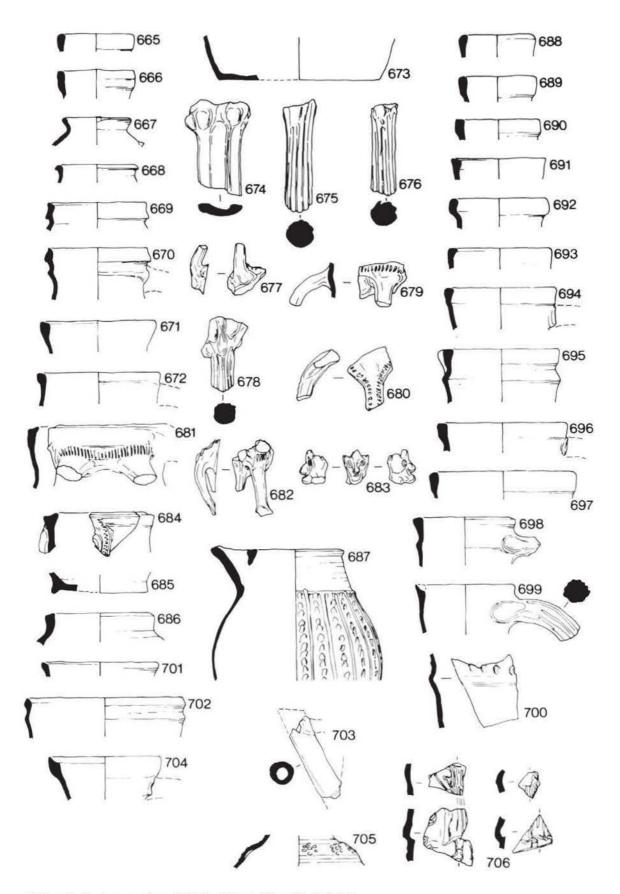
Ill 92: Medieval pottery from 42 St Paul Street, Phase 10. Scale 1/4

- 562 Jug rim. Fabric 32. As 561, with traces of external white slip. Area D, Layer 39.
- 563 Jug handle. Fabric 32. External green glaze on white slip. Area C, Layer 101.
- 564 Jug rim. Fabric 33. External yellow glaze on thick white slip. Area F, Layer 4.
- 565 Jug rim. Fabric 33. External clear red/brown glaze. Area C, Layer 99?
- 566 Jug rim. Fabric 34. External partial green glaze. Area A, Layer 74.
- 567 Jug rim. Fabric 35. External clear glaze with copper additions. Area A, Layer 74.
- 568 Jug rim. Fabric 35. External yellow glaze on white slip. Area F, Layer 4.
- 569 Jug rim. Fabric 35. Pale olive green external glaze. Area A. Layer 92.
- 570 Jug rim. Fabric 35. As 569. Area F, Layer 4.
- 571 Jug. Fabric 27. Imitation Rouen decoration. Stippled area on ill is purple glaze on olive green glaze. Raised strip and dot decoration. Area F, Layers 4, 6.
- 572 Cooking pot rim. Fabric 22. Area C, Layer 2; Area B, Layer 81; Area A, Layer 92.
- 573 Cooking pot. Fabric 22. Area C, Layer 106.
- 574 Jug rim. Fabric 37. Area C, Layer 163.
- 575 Rod handle. Fabric 37. Deep indentation at junction of handle and body. Area A, Layer 36.
- 576 Cooking pot rim. Fabric 37. Area C, Layer 246.
- 577 Cooking pot rim. As 576. Area A, Layer 24; Area F, Layer 4.
- 578 Jug rim. Fabric 8. Area C, Layer 139.
- 579 Jug rim. Fabric 8. Thick purplish external glaze. Area F, Layer 19.
- 580 Jug handle. Fabric 8. Splashes of purple glaze. Area F, Layer 4.
- 581 Jug base. Fabric 29. Internal light green mottled glaze. Burnt exterior. Area C, Layer 78.
- 582 Jug, thumbed sagging base. Fabric 20. Area C, Layer 93.
- 583 Jug. Fabric 20, Area A, Layer 96.
- 584 Jug. Fabric 20. Partial external pale olive green glaze. Area A, Layers 86, 88?
- 585 Jug. Fabric 20. Area B, Layer 97.
- 586 Jug rim. Fabric 20. Area D, Layer 62.
- 587 Jug rim. Fabric 20. External olive green glaze. Area C, Layer 212.
- 588 Jug rim. Fabric 20. Area C, Layer 140.
- 589 Jug rim. Fabric 20. Splashes of external green glaze. Area B, Layer 49.
- 590 Jug rim, lid seated. Fabric 20. External green glaze. Area B, Layer 73.
- 591 Jug rim. Fabric 20. As 589. Area A, Layer 47.
- 592 Jug rim. Fabric 20. As 589. Area C, Layer 93.
- 593 Jug. Fabric 39. Decorated with crossed lines of cream glaze on orange/brown glaze with raised brown glazed dots. Area A, Layer 57.
- 594 Cooking pot rim? Fabric 23. Area B, Layer 81.
- 595 Jug. Fabric 9. External partial purple glaze. Area F, Layer 15.
- 596 Jug. Fabric 21? Incised wavy line decoration with external olive green glaze. Area A, Layers 89, 128, 115.
- 597 Jug handle. Fabric 19. Thick dark green glaze. Area A, Layer 74.
- 598 Jug handle, probably from face-mask jug. Fabric 19. External thick dark green glaze. Area C, Layer 130.
- 599 Face-mask jug fragment? Fabric 19. As 598. Area A, Layer 97.
- 600 Jug. Fabric 19. Raised vertical line decoration.

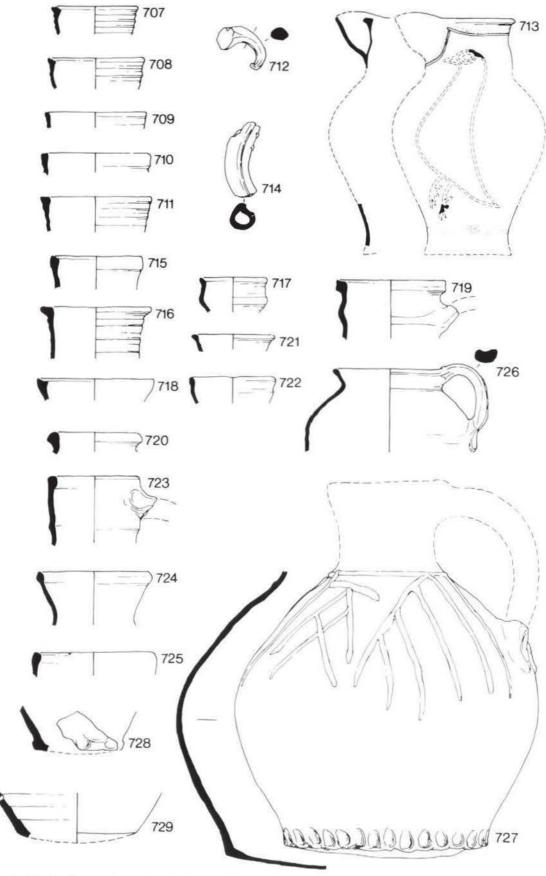
- External dark green glaze to bottom of vertical lines. Area C, Layer 163.
- 601 Knight jug head(?) crudely executed. Fabric 19. Thick green glaze. Area A, Layer 41.
- 602 Jug sherd. Fabric 19. Lattice decoration. Thick light green glaze. Area B, Layer 63.
- 603 Rod handle. Fabric 19. Thick dark green glaze. Area C. Layer 133.
- 604 Rod handle. Fabric 19. As 603. Area C, Layer 133.
- 605 Rod handle. Fabric 19. As 603. Area C, Layer 132.
- 606 Jug. Thumbed base, Fabric 19. Spots of external green glaze on bottom of base. Area F, Layer 38.
- 607 Jug rim. Fabric 19. Thick external dark green glaze to internal top of rim. Area C, Layer 101.
- 608 Jug rim. Fabric 19. As 607. Area F, Layer 57.
- 609 Jug rim. Fabric 19. As 607. Area F, Layer 4.
- 610 Jug rim. Fabric 18. Spots of external green and orange glaze. Area C, Layer 99.
- 611 Jug rim. Fabric 19. As 607. Area C, Layer 151.
- 612 Jug rim. Fabric 19. As 607. Area A, Layer 47.
- 613 Jug rim. Fabric 19. As 607. Area F, Layer 4.
- 614 Jug rim. Fabric 19. As 607. Area C, Layer 132.
- 615 Jug rim. Fabric 19. As 607. Area C, Layer 133.
- Jug rim. Fabric 19. As 607. Area C, Layer 155.Jug rim. Fabric 19. No glaze. Area A, Layer 103.
- 618 Pinch spouted pouring vessel. Fabric 19. External crazed light olive green glaze. Area C, Layer 133.

# Phase 10 (Ill 91-94)

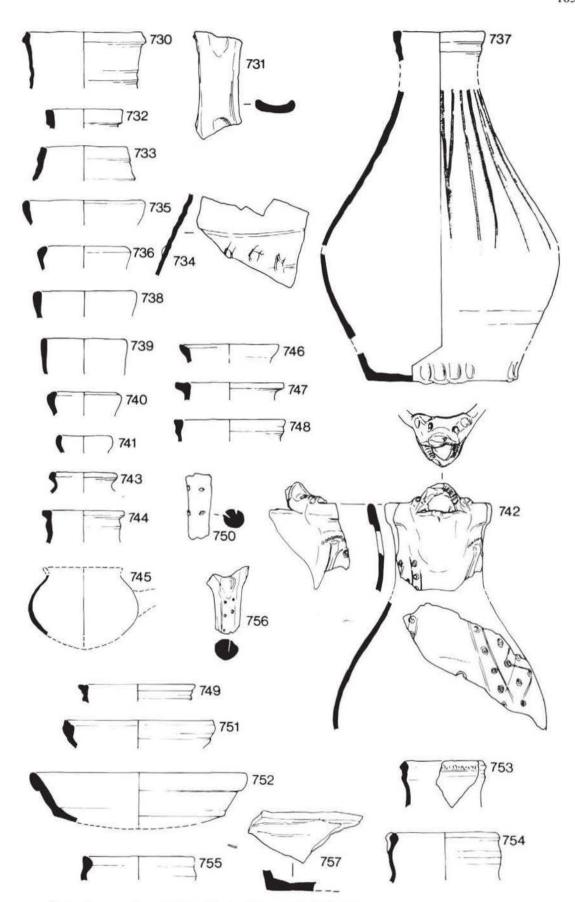
- 619 Cooking pot. Fabric 14. Heavily sooted exterior. Area C, Layer 2.
- 620 Cooking pot rim. Fabric 14. As 619. Area F, Layer 5.
- 621 Cooking pot rim. Fabric 14. Heavily sooted exterior. Area D, Layer 29.
- 622 Cooking pot rim. Fabric 14. As 621. Area D, Layer 66.
- 623 Cooking pot rim. Fabric 14. Heavily sooted exterior. Area C, Layer 2.
- 624 Cooking pot rim. Fabric 14. No external sooting. Area D, Layer 13.
- 625 Cooking pot rim. Fabric 15. Sooted exterior. Area D, Layer 23.
- 626 Cooking pot rim. Fabric 15. Area A, Layer 2a.
- 627 Jug rim. Fabric 12. Area A, Layer 2a.
- 628 Cooking pot rim. Fabric 13. Sooted exterior. Area C, Layer 2,
- 629 Cooking pot rim. Fabric 13. Heavily sooted exterior. Area D, Layer 29.
- 630 Cooking pot rim. Fabric 13. Area D, Layer 7.
- 631 Cooking pot rim. Fabric 12. Area D, Layer 57.
- 632 Cooking pot rim. Fabric 2. Heavily sooted. Area A, Layer 2a.
- 633 Jug rim ? Fabric 37. Area A, Layer 2a.
- 634 Jug rim. Fabric 37. As 633. Traces of exterior vitrified dark olive green glaze. Area A, Layer 2.
- 635 Jug rim. Fabric 37. As 633. Area A, Layer 2a.
- 636 Jug rim and handle. Fabric 37. As 633. Deep indentation at junction of body and handle. Incised line at top of rim. Area A, Layers 16, 2a.
- 637 Jug, hump-shouldered? Fabric 37, Area B, Layer 52. (Verhaeghe 1970, fig 1)
- 638 Cooking pot rim. Fabric 22. Incised wavy line on top of rim. Area B, Layer 28.
- 639 Cooking pot rim. Fabric 22. Area C, Layer 2.
- 640 Jug rim and handle, Fabric 22. Some exterior burning. Area F, Layer 5.
- 641 Jug rim. Fabric 22, As 640. Area A, Layer 26.
- 642 Jug rim. Fabric 22. As 640. Area A, Layer 26.



III 93: Medieval pottery from 42 St Paul Street, Phase 10. Scale 1/4



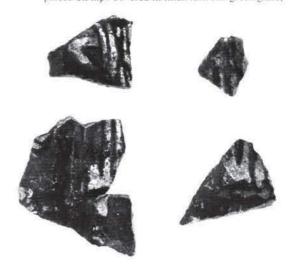
III 94: Medieval pottery from 42 St Paul Street, Phases 10-11, Scale 1/4



III 95: Medieval pottery from 42 St Paul Street, Phases 11-12. Scale 1/4

- 643 Body sherd. Fabric 3. Stamped cartwheel decoration on raised applied piece, probably at base of handle. External dull olive green glaze. Area A, Layer 2a.
- 644 Jug rim. Fabric 3. Area F, Layer 3.
- 645 Jug rim. Fabric 3. Area C, Layer 60.
- 646 Jug rim. Fabric 3. External rough green/brown glaze. Area B, Layer 52.
- 647 Jug rim. Fabric 3. Area A, Layer 26.
- 648 Jug rim. Fabric 3. Area A, Layer 2a.
- 649 Jug rim. Fabric 3. Area F, Layer 12.
- 650 Jug rim. Fabric 3. External splashes of green/brown glaze. Area C, Layer 60.
- 651 Jug rim. Fabric 3. Trace of external creamy pink slip. Area D, Layer 57.
- 652 Jug. Fabric 3. External dirty olive green glaze. Area D, Layer 13.
- 653 Jug rim. Fabric 3. No glaze. Area A, Layer 26.
- 654 Jug rim. Fabric 3. Indication of possible bridge spout. Area D, Layer 13.
- Jug rim. Fabric 3. As 652. Area D, Layer 13.
   Urinal, Fabric 3. External trailed olive/brown glaze.
- (Cruden 1953, 169). Area A, Layer 2a. 657 Urinal? Fabric 3. As 656, Area B, Layer 52.
- 658 Jug handle. Fabric 3. As 644. Brown uneven glaze. Impression of wavy line decoration has been left on the inside of the handle where it joins the body (Not shown on illustration). Area F, Layer 5.
- 659 Jug handle. Fabric 3. Patches of yellow and brown glaze. Area F, Layer 2.
- 660 Pulled and twisted handle, Fabric 3. Dirty olive green/brown glaze, Area D, Layer 13.
- 661 Jug spout. Fabric 3. As 660. Area A, Layer 22.
- 662 Handle. Fabric 9. Partial purple glaze, Area A, Layer 2.
- 663 Jug rim. Fabric 10. Area A, Layer 30.
- 664 Jug rim. Fabric 8. Patches of external purple glaze. Area D, Layer 18.
- 665 Jug rim. Fabric 5, Cream slip with external dull olive green glaze. Area A, Layer 18.
- 666 Jug rim. Fabric 5. External purple glaze. Area A, Laver 26.
- 667 Jug rim? Fabric 5. External purple glaze. Area F, Layer 3.
- 668 Jug rim? Fabric 5. No glaze. Area D, Layer 19.
- 669 Jug rim. Fabric 5. Area A, Layer 2a.
- 670 Jug rim. Fabric 5. Patch of external green/brown glaze. Area A, Layer 2a.
- 671 Jug rim. Fabric 5. Spots of external brown glaze. Area A, Layer 18.
- 672 Jug rim. Fabric 5. Cream slip with thick external purple glaze. Area D, Layer 57.
- 673 Flat base. Fabric 5. Area A, Layer 2a.
- 674 Strap handle, Fabric 20, Mottled green glaze, Area F, Layer 5.
- 675 Rod handle, Fabric 18. Thick green/brown glaze. Area C, Layer 2.
- 676 Rod handle, Fabric 19. Mottled green glaze. Area C. Layer 133.
- 677 Handle from face-mask jug? Fabric 19. Thick dark green glaze. Area A, Layer 26.
- 678 Rod handle. Fabric 19. As 676. Area A, Layer 26.
- 679 Handle. Fabric 19. As 677. Deep incisions on top of handle. Area A, Layer 2a.
- 680 Handle from (?) bottom of bearded face-mask jug? Fabric 19. Thick dark green glaze. Area A, Layer 2a.
- 681 Jug. Fabric 19. Area A, Layers 26, 16.
- 682 Portion of knight jug (?) Fabric 19. Thick dark olive green glaze. Area A, Layer 26.

- 683 Finely moulded head from knight jug. Eyes pierced, mouth slashed. Fabric 19. Lustrous dark green glaze. Area C, Layer 2.
- 684 Jug, with corner of eye of face mask. Fabric 19. Thick external lustrous green glaze. Area A, Layer 18.
- 685 Jug base. Fabric 19. Area D, Layer 57.
- 686 Jug rim. Fabric 19. Thick dull green glaze to inner rim. Kiln scar on top of rim. Area C, Layer 2.
- 687 Jug. Fabric 19. External green glaze over applied scale decoration between applied vertical lines. Area A, Layer 30.
- 688 Jug rim. Fabric 19. Lustrous green glaze on top and inner lip of rim. Area A, Layer 18.
- 689 Jug rim. Fabric 19. External green glaze below rim. Area A, Layer 18.
- 690 Jug rim. Fabric 19. As 688. Area C, Layer 14.
- 691 Jug rim. Fabric 19. External lustrous green glaze. Area A, Layer 26.
- 692 Jug rim. Fabric 19. External lustrous green glaze to inner lip of rim. Area D, Layer 50.
- 693 Jug rim. Fabric 19. As 689. Area D, Layer 13.
- 694 Jug rim. Fabric 19. As 688. Area A, Layer 2a.
- 695 Jug rim. Fabric 18. External thick lustrous green glaze. Area D, Layer 23.
- 696 Jug rim. Fabric 19. As 689. Area A, Layer 2a.
- 697 Jug rim. Fabric 19. As 689. Area F, Layer 5.
- 698 Jug rim. Fabric 19. External thick lustrous green glaze to inner lip of rim. Burnt on exterior. Area C, Layer 2.
- 699 Jug handle, Fabric 18, As 695, Area C, Layer 2.
- 700 Jug sherd. Fabric 19. External pale orange glaze on applied scale decoration with darker orange glaze. Area A, Layer 26.
- 701 Jug rim. Fabric 10. Thick very dark green glaze. Area A, Layer 2b.
- 702 Jug rim. Fabric 10. Traces of trailed white slip. Area A, Layer 28.
- 703 Tubular spout. Fabric 9. Dull olive green glaze with spots of brown glaze. Area D, Layer 29.
- 704 Jug rim. Fabric 9. No glaze. Possibly local. Area D, Layer 13.
- 705 Jug fragment. Fabric 32. The 'raspberry' bosses are pushed out into a mould and covered by a thick green glaze. There is no trace of the white slip usually associated with Aardenburg-type wares of this sort. Area A, Layer 18.
- 706 Jug. Four fragments of mould-impressed figure dressed in calf-length sleeveless tunic, the right hand placed on hip. Covered in thick lustrous green glaze,



- traces of underlying white slip in places but not all over. See discussion p 125. Area A, Layers 2b, 81 and Area F, Layer 4.
- 707 Jug rim. Fabric 32. External yellow glaze on white slip. Area A, Layer 30.
- 708 Jug rim. Fabric 32. As 707. Area C, Layer 2.
- 709 Jug rim. Fabric 33, External clear orange/brown glaze. Area F, Layer 9.
- 710 Jug rim. Fabric 33. As 709. Eroded surfaces. Area C, Layer 2.
- 711 Jug rim. Fabric 33. External patchy green/brown glaze. Area A, Layer 30.
- 712 Ladle handle. Fabric 31. Dark grey metallic finish. Area A, Layer 30.
- 713 Saintonge polychrome jug. Fabric 30. Stippled bands on ill are light green with possible bird motif in purple, below creamy clear glaze. Area B, Layers 52, 12, 36, 66, 74, 87.
- 714 Tubular handle. Fabric 29. Areas of mottled green glaze. Two perforations in handle. (Barton 1966, 75). Area D, Layer 13.
- 715 Jug rim. Fabric 29. Patches of light olive green glaze. Area C, Layer 2.
- 716 Jug rim. Fabric 29. External olive green glaze. Area A, Layers 2b, 30.
- 717 Jug rim. Fabric 29. As 716. Area C, Layer 2.
- 718 Bottle. Fabric 21. External clear glaze with flecks of mottled green. Kilmurry form 18-12 (Kilmurry 1980, 292). Area C, Layer 2.
- 719 Jug rim. Fabric 20. External drab olive green glaze. Area F, Layer 5.

# Phase 11 (Ill 94-95)

- 720 Jug rim. Fabric 12. Area B, Layer 38.
- 721 Jug rim. Fabric 3. Spots of purple/brown glaze. Area B. Layer 32.
- 722 Jug rim. Fabric 3. As 721. Area B, Layer 10.
- 723 Jug rim. Fabric 3. No glaze. Area B, Layer 87.
- 724 Jug rim. Fabric 3. As 723. Area B, Layer 10.
- 725 Jug rim. Fabric 3. Traces of external purple/brown glaze. Area B, Layer 32.
- 726 Handled cooking vessel. Fabric 3. Patches of external dull olive green glaze. Area B, Layers 32, 11, 40.
- 727 Large jug or pitcher. Fabric 3. Applied line decoration on upper portion of body forming panel containing stylised 'A'. All over purple/brown glaze. Thumbed sagging base. Area B, Layer 40.
- 728 Base. Fabric 3. Area B, Layer 32.
- 729 Base. Fabric 3. Heavily sooted. Perforation in wall of vessel. Area B, Layer 40.
- 730 Jug rim. Fabric 5. Purple glaze on top of rim and trailing down external surface. Area B, Layer 75.
- 731 Handle. Fabric 8. Purple glaze. Local? Area A, Layer 9.
- 732 Jug rim. Fabric 20. External olive green glaze. Area B, Layer 37.
- 733 Jug rim. Fabric 20. As 732. Area B, Layer 47.
- 734 Jug. Fabric 20. As 732. Applied pellet decoration. Area B, Layer 58.
- 735 Jug rim. Fabric 20. As 732. Area B, Layer 29.
- 736 Jug rim. Fabric 19. Thick lustrous green glaze to inner lip of rim. Area B, Layer 15.
- 737 Jug. Fabric 18. External orange glaze and green glazed vertical stripes. Area B, Layer 38 (Area E, Layer 92).
- 738 Jug rim. Fabric 18. Thick lustrous green glaze to inner lip of rim. Area C, Layer 42.
- 739 Jug rim. Fabric 18. As 738. Area B, Layer 32.
- 740 Jug rim. Fabric 18. As 738. Area B, Layer 13.

- 741 Jug rim. Fabric 18. As 738. Area B, Layer 36.
- 742 Zoomorphic jug. Spout in form of beast's head. Fabric 18. Pattern of raised dot and circle decoration, some joined by zig-zag lines, covered by thick lustrous green glaze. (see 271). Area B, Layers 40, 42, 32.



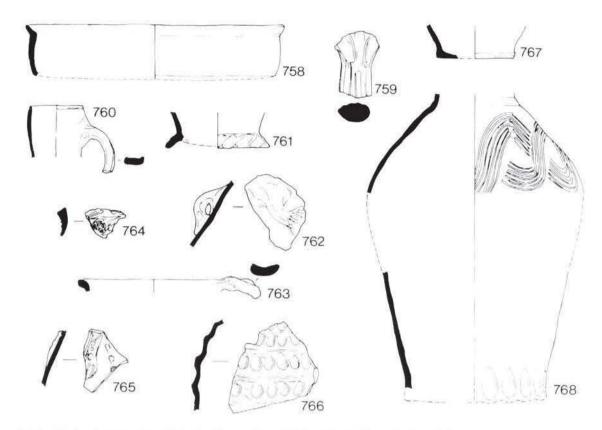
- 743 Jug rim? Fabric 10. Thick dark olive green glaze. Area B. Laver 55.
- 744 Jug rim. Fabric 10. As 743. Burnt exterior. Area B, Layer 34.
- 745 Ladle. Fabric 31. Area C, Layer 172.
- 746 Jug rim. Fabric 32. External green glaze on white slip. Area B, Layer 15.
- 747 Jug rim. Fabric 33. External olive green glaze. Area B. Laver 26.
- 748 Jug rim. Fabric 33. External thick orange glaze. Area B, Layer 38.
- 749 Jug rim. Fabric 30. Traces of external glaze. Area B, Layer 18/35.
- 750 Handle. Fabric 29. Mottled green glaze. Deep perforations in handle. Area C, Layer 121.
- 751 Bottle rim. Fabric 21. Kilmurry form 18-13 (Kilmurry 1980, 292). Area C, Layer 26.
- 752 Dish. Fabric 39. Rim folded over. Bright red internal surfaces with orange glaze. Sooting on exterior. Area B, Layer 57.

# Phase 12 (Ill 95-96)

- 753 Jug rim. Fabric 3. Crude rouletting around outside of rim. Area D, Layer 2.
- 754 Jug rim. Fabric 3. Trail of external purple glaze. Area D, Layer 4.
- 755 Jug rim. Fabric 3. Area D, Layer 2.
- 756 Jug handle. Fabric 3. Deep prick marks in handle. Area D, Layer 2.
- 757 Drip pan? Fabric 9. Uneven olive green/brown glaze. Area D, Layer 4.
- 758 Cooking pot. Fabric 2. Spots of yellow glaze on top of rim. Heavily sooted. Area D, Layer 4.
- 759 Jug handle. Fabric 20. Light olive green glaze. Area D, Layer 4.
- 760 Jug rim and handle. Fabric 41. Area D, Layer 2.

# Phase 13 (Ill 96).

- 761 Jug base. Fabric 41. Area E, Layer 1.
- 762 Jug. Fabric 3. External dull purple glaze with spots of olive green glaze. The handle is possibly shaped like an arm with incised lines where the 'hand' joins the body. Very similar to Grimston Ware decorated



III 96: Medieval pottery from 42 St Paul Street, Phases 12-13 and 768, Phase 10. Scale 1/4

- jugs (Kings Lynn: Clarke and Carter, 1977, fig 91: 13). Area A, Layer 16.
- 763 Jug rim and handle. Fabric 3. Gritty micaceous fabric. Area C, Layer 1.
- 764 Jug fragment. Fabric 3. External olive green/brown glaze over circular stamp with diagonal crossing lines in a square. Area A, Layer 15.
- 765 Fragment of decorated jug. Fabric 3. Dirty green glaze on applied arm. Applied scale decoration covered with purple glaze. cf Kings Lynn (Clarke and Carter 1977, fig 91: 19)
- 766 Jug fragment. Fabric 8. External dark purple green glaze on horizontal bands of finger impressed decoration. Area F, Layer 1.
- 767 Jug base, Fabric 29, Internal and external spots of mottled green glaze. Area E, Layer 2.

# Phase 10 (III 96)

768 Jug, Fabric 10. External dark brown glaze. Bands of incised line decoration on shoulder. Area D, Layers 7, 19.

#### 45-59 GREEN (III 97)

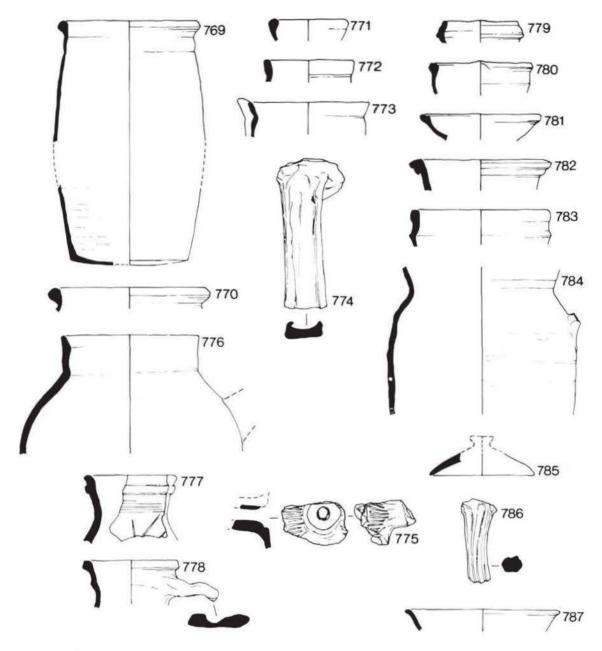
- 769 Cooking pot. Fabric 13. Heavily sooted exterior. Trench 1, Layers 24, 28.
- 770 Cooking pot rim. Fabric 13. Trench 1, Layer 24.
- 771 Jug rim. Fabric 3. Abraded. Trench 1, Layer 24.
- 772 Jug rim. Fabric 3. Abraded. Trench 1, Layer 24.
- 773 Jug rim. Fabric 3. Abraded, traces of glaze on interior. Trench 1, Layer 24.
- 774 Jug rim Fabric 35. Abraded. External mottled green glaze. Trench 1, Layers 21, 24.

- 775 Scarborough Ware jug. Possibly bottom portion of tubular spout. Fabric 18. Trench 1, Layer 24.
- 776 Jug. Post-medieval. Very abraded. Buff-red to fine micaceous fabric. Traces of external and internal green glaze. Trench 1, Layer 17.
- 777 Jug. Post-medieval. Red, fine micaceous fabric with some grit inclusions. External thick brown glaze on incised line decoration. Trench 1, Layer 24.
- 778 Jug. Post-medieval. As 776. Trench 1, Layer 20.
- 779 Jug rim. Fabric 10. Abraded. Trench 1, Layer 20.
- 780 Jug rim. Fabric 8. Spots of external glaze, decomposed. Trench 1, Layer 24.
- 781 Dish? Post-medieval. Buff-brown, fine micaceous fabric. Internal green/brown glaze. Trench 1, Layer
- 782 Jug rim. Post-medieval. As 781. Trench 1, Layer 18.
- 783 Jug rim. Fabric 8. Very abraded, traces of external purple glaze. Trench 1, Layer 19.
- 784 Jug. Fabric 8. Abraded. Traces of internal greenbrown glaze. Trench 1, Layer 19.
- 785 Lid. Fabric 10. Traces of purple glaze. Trench 1, Layer
- 786 Jug handle. Fabric 3. Green-brown glaze. Trench 1, Layer 38.
- 787 Jug rim. Post-medieval. Red-brown, fine micaceous fabric. Internal purple glaze. Trench 1, Layer 11.

# 67-71 GREEN

### Medieval (Ill 98)

- 788 Cooking pot rim. Fabric 7. Traces of pinkish slip. Layer 26.
- 789 Jug rim. Fabric 3. Splash of green-brown glaze above handle. Layer 19.

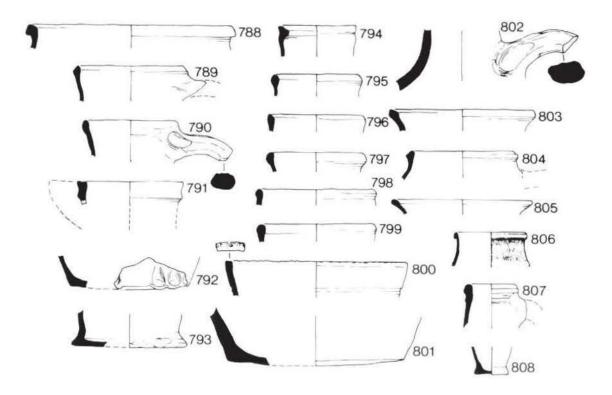


III 97: Medieval pottery from 45-59 Green. Scale 1/4

- 790 Jug rim and handle, Fabric 3. No trace of glaze. Layer 19.
- 791 Jug rim. Fabric 8. Traces of green-brown glaze. Layer 19.
- 792 Thumbed base.. Fabric 18. Thick lustrous green glaze. Layer 40.
- 793 Jug base. Fabric 35. Spots of dirty green glaze. Layer 40.
- 794 Jug rim. Fabric 3. Spot of brown glaze. Layer Se.
- 795 Jug rim. Fabric 3, No glaze. Layer 5f/g.
- 796 Jug rim. Fabric 3. No glaze. Layer 5f/g.
- 797 Jug rim. Fabric 3. No glaze. Layer 5e.
- 798 Jug rim. Fabric 3. No glaze. Layer 5c.
- 799 Jug rim. Fabric 3. No glaze. Layer 16b.

# Post-medieval (III 98)

- 800 Fine red sandy micaceous fabric. Internal yellowbrown glaze, external to outer rim. External sooting. Probably local. Layer 5c.
- 801 Jug base. Pink-buff outer surface on grey core. Fine micaceous fabric with quartzite grit inclusions. Spots of green-brown external glaze. Probably local. Layer 16c.
- 802 Jug handle. As 801. Layer 5.
- 803 Jug rim. Red sandy micaceous fabric with quartzite inclusions. Very abraded, traces of yellow-green glaze. Local? Layer 16c.
- 804 Jug rim. Red surfaces on grey core. Fine, sandy micaceous fabric, some quartzite inclusions. Possibly local. Layer 5c.



III 98: Medieval pottery from 67-71 Green. Scale 1/4

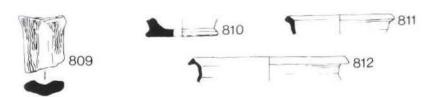
- 805 Jug rim. Grey-brown fine sandy micaceous fabric. Internal green-brown glaze. Possibly local. Layer 16b.
- 806 Rim. Red-brown, fine fabric with small quartz inclusions. Horizontal bands of white slip on top and side of rim and base of neck are covered by a clear glaze. Possibly local. Layer 16.
- 807 Stoneware bottle. Grey, with external clear glaze and internal brown glaze. Layer 16.
- 808 Base. Grey, fine sandy fabric. Internal and external green glaze, partly decomposed. Layer 16c.

# 2-16 HARRIET ST (III 99)

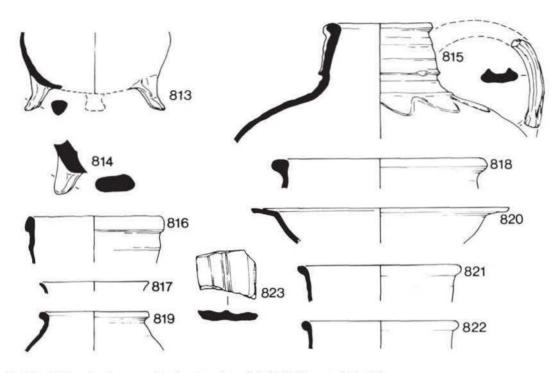
- 809 Jug handle. Fabric 20. Very abraded. Incised wavyline decoration. Traces of green glaze. Layer 15.
- 810 Jug base, Fabric 3, Very abraded, Traces of yellowgreen glaze, Layer 2.
- 811 Jug rim. Fabric 3. Abraded. Spots of brown glaze. Layer 7.
- 812 Cooking pot rim. Fabric 7, Very abraded. Traces of cream slip. Layer 10.

# 6-8 CASTLE TERRACE (III 100)

- 813 Pipkin base and leg. Reddish buff, fine very micaceous fabric. Internal green-brown glaze. Layer 69, Phase 4.
- 814 Pipkin foot? As 813. Layer 71, Phase 4.
- 815 Jug, Grey, fine, micaceous fabric with occasional black inclusions. Incised wavy-line decoration on shoulder. Traces of thick grey green glaze remain. Layers 22, 45, Phases 4/5.
- 816 Jug rim. Fabric 5, Spots of brown-green glaze. Layer 48, contaminated.
- 817 Jug rim, As 805, Layer 68, Phase 4.
- 818 Cooking pot rim. Fabric 13. Layer 21, Phase 5.
- 819 Cooking pot rim. Fabric 7. Traces of cream slip. Sooted on rim. Layer 27, Phase 6.
- 820 Bowl, Red, fine, hard fabric. Thick internal white slip covered by clear glaze, streaked green and brown. Possibly Perth. Layer 14, Phase 8.
- 821 Jar? Red, fine, slightly micaceous fabric. Possibly Perth. Layer 21, Phase 5.
- 822 Jar. As 821. Possibly Perth. Layer 4, Phase 8.
- 823 Handle fragment, probably from jug or jar with strap and bucket handles. Fabric 28. (cf Platt and Coleman-Smith 1975, fig 190: 1074). Layer 14, Phase 8.



III 99: Medieval pottery from 2-16 Harriet Street. Scale 1/4



Ill 100: Medieval and post-medieval pottery from 6-8 Castle Terrace. Scale 1/4

# THE POTTERY FROM SHORE BRAE

# C M BROOKS, G R HAGGARTY, L M THOMS

The following report on the pottery from Shore Brae and the drawings in Ill 101 were prepared after the 1974 excavations. Subsequently the pottery has been lost, so the report is published in full as the only record of this material. No attempt can be made to cross refer the fabrics with those catalogued from the other sites.

# DISCUSSION

The pottery from this site dates from the late 14th century at the earliest through to the 18th century, with only occasional residual 13th-14th century sherds, such as a few small fragments of Scarborough ware. Most appears to have been locally made, and has been divided for the purpose of this report into three main fabric types.

Fabric 1, the most common fabric, is smooth and micaceous, fired under oxidizing conditions, and varying in colour from pale buff to shades of red. The glaze is usually yellowish-green or reddish-brown. That this fabric is local is indicated by comparison with the fragments of burnt daub from the site, which are very similar in colour and quantity of mica. This ware is found throughout the site and in the earliest levels is associated with late 14th-century Siegburg and Langerwche stoneware (see stoneware report) and Aardenburg blue-grey ware. In the later levels it is possible

that some of the fabric 1 material is residual, as nearly 50% of the 14th-15th century stoneware, for example, is found in post 16th-century contexts. However, it seems likely that this fabric may also have continued in production into the 16th and 17th centuries as it is so common.

Fabric 2 is similar to fabric 1, smooth and micaceous, but it is fired under reducing conditions to grey, mostly light grey. The glaze tends to be dull green to brownish-green. The interior surface is sometimes brown or dark red. This fabric seems to be fired at a higher temperature than fabric 1. Though a local fabric, in its appearance and forms it very much resembles the general type of late medieval and post-medieval reduced wares in Scotland (Brooks, unpublished report) at Linlithgow West High Street, fabrics 1 and 2 are co-existent, but fabric 2 sherds are outnumbered by fabric 1 sherds throughout. In the 16th-century infill level, there

are 38 sherds of fabric 1 to 24 sherds of fabric 2; below that level there are 93 sherds of fabric 1 to 30 of fabric 2, and above that level there are 51 sherds of fabric 1 to 30 of fabric 2.

Fabric 3 is a reddish ware, heavily sand-tempered, and often with large mica plates. There are also quite large angular quartz grits. The glaze, often decomposed, tends to be a greenish-yellow. This fabric, again local, hardly occurs after the 16th-century infill level (5 sherds). In this level (13 sherds) and in the earlier levels (19 sherds) it appears by its often abraded and fragmentary condition to be residual. It probably dates from the 13th-14th centuries.

Other pottery includes a few residual 13th-14th century sherds, including Scarborough ware, and imports from Germany (see stoneware report), France, Spain and Holland.

The finds of Scarborough ware are particularly interesting, and one sherd in Layer 24 appears to be a local imitation of Scarborough ware. Scarborough ware has been known for some time in Scottish contexts (Dunning 1963; Coutts 1967; Laing and Robertson 1970; Laing 1972) but has occurred in quite large quantities in recent excavations at Aberdeen and Perth, thus testifying to the importance of the E coast trade route (Dunning 1968). In the N of of England Scarborough ware is both imported and copied locally, as for example Hartlepool type ware (Addis 1976). The kilns at Colstoun in East Lothian were producing pottery much influenced by Scarborough ware.

The later pottery is treated first, then the pottery from the 16th-century infill level and lastly all pottery sealed below that level.

#### CATALOGUE

# PHASE 4

#### Layers 4, 5

- 2 rim sherds from large open bowl, hard brick-red fabric, unglazed. Smoke blackened. Probably 18th century. Ill 101:1.
- 2 small sherds of Pearl ware.
- 1 sherd white glazed earthenware, soft white fabric, probably local.
- I sherd blue transfer-printed teacup.
- 3 small sherds brown glazed earthenware, red fabric.
- 1 upright jug rim sherd, dark grey fabric, soot blackened surface. Splashes of brown glaze on interior. Ill 101:2.
- 1 body sherd of slipware bowl, conjoins sherd in Layer 10. III 101:29
- 2 basal angle sherds, Fabric 1; 1 from a large jug, reduced internally; 1 from a small fairly straight-sided jug.
- 2 small body sherds, residual medieval; 1 with streaky green glaze and an applied strip, pink, smooth fabric, 1 with greenish-yellow glaze and dark brown glaze as decoration, buff gritty fabric.
- 8 body sherds, Fabric 1; 5 green glazed, 3 brown glazed, 1 with combed decoration.
- 4 green glazed body sherds, Fabric 2.
- 9 pieces moulded roofing tile.

# Layer 9, FN4

- I body sherd, Fabric 2, brown glaze.
- I tiny sherd blue transfer-printed earthenware.

# Layers 6, 8, FN 1

- 1 sherd from shoulder of jug, Fabric 2, olive green glaze. 1 small fragment of strap handle, Fabric 2, yellowish-green glaze.
- I fragment of grooved rod handle, Fabric 3, traces of green glaze.
- 1 small fragment of strap handle, non-micaceous red fabric, dark greenish-brown glaze.
- An abraded jug basal angle sherd, Fabric 1.
- 2 conjoining rim sherds, bowl or jar, green glazed internally and externally, smooth red fabric reduced grey in places. Ill 101:4.

- I tiny abraded sherd of Scarborough ware, decorated with a rouletted applied strip and applied scales, green glaze, pale buff fabric.
- 1 basal angle sherd with pronounced thumbing, lustrous brown and green glaze internally, external splashes of brown glaze. Dark reddish-brown fabric, smoke blackened. Ill 101:28. Similar to sherd in Layer 30, Ill 101:27.
- 1 body sherd, thin grey sandy fabric, possibly same vessel as sherd in Layer 24.
- 13 body sherds, Fabric 2, with external dull green glaze.
- 9 body sherds, Fabric 1; 4 with internal green/brown glaze, 5 with external green glaze (1 with combed decoration).

#### FN 8

1 tiny sherd of Pearl ware.

# PHASE 3

#### Layer 12

- I body sherd, Fabric 2, dull green glaze.
- 4 body sherds, Fabric 1, glazed green or brownish green. 2 small body sherds, Fabric 3, glazed yellowish-green (1 with
- brown glaze decoration). Abraded.
- I tiny sherd in smooth cream fabric, unglazed. Possibly French.
- I small body sherd, possibly Scarborough ware, smooth pinkish fabric, decorated with a vertical row of applied scales and glazed in vertical zones of apple-green and yellow.
- I body sherd in hard grey micaceous fabric, thin walled, burnt black on exterior and interior.

#### Layer 10

I large sherd, with horizontal handle, of trailed slipware bowl. Internal brown glaze with concentric circle design in creamyellow slip. Red fabric, non-micaceous. Traces of decomposed brown glaze externally. Conjoins sherd from Layer 5; another sherd from same vessel in Layer 11. Late 17th-early 18th century. Ill 101:29

I green glazed body sherd, slightly gritty fabric, burnt black.



III 101: Medieval and post-medieval pottery from Shore Brae. Scale 1/4. Separate number sequence

### Layer 11

7 conjoining sherds of small vessel, possibly a pirlie pig or a small jug. Fabric 1, reduced internally. Knife trimmed base. III 101:11

1 sherd of slipware bowl, same vessel as bowl in Layer 10, III 101:29.

1 rim sherd, Fabric 1, unglazed.

2 tiny body sherds; 1 with internal brown glaze, Fabric 1.

#### FN 13

I small basal angle sherd, Fabric I.

2 body sherds, external green-brown glaze; 1 in Fabric 1, 1 in Fabric 2.

1 small residual sherd, Fabric 3 with grey core, splashed pale green glaze externally.

2 lumps of daub, micaceous.

### Layer 19

3 small jug rim sherds, Fabric 1, with traces of yellowishgreen glaze externally.

1 body sherd, sandy red fabric, heavy external brown glaze, soot blackened externally; possibly from Dutch pipkin. Rod handle, Fabric 1. III 101:18.

5 body sherds, 2 green glazed externally, Fabric 1.

2 body sherds, dull green glaze externally, Fabric 2.

#### Laver 26

Part of a horizontal handle, probably from a bowl or dish, Fabric 1. Ill 101:22.

Basal angle sherd, probably of oval dish, Fabric 1, with grey core, traces of glaze on underside of base.

1 small body sherd, Fabric 1, tiny splashes of greenish-yellow

5 body sherds, Fabric 2; 4 green glazed, 1 brown glazed.

#### FN 10

I tiny sherd, Fabric 1, brown glazed.

# PHASE 2

# Layer 16

Jug rim sherd in Fabric 1 with grey core, handle scar for straphandle. One other similar rim sherd, Ill 101:15.

2 tiny rim sherds, Fabric 1; 1 with patches of yellowish glaze internally and externally, 1 brownish glazed internally and externally.

2 rim sherds in Fabric 3, Ill 101:3, 4.

1 rim sherd, dark brown quartz gritted fabric, fired black on exterior. III 101:7.

Rim and handle of Dutch pipkin, red non-micaeeous fabric, brown splashed glaze on exterior, smoke blackened. III 101:16.

Tiny fragment of handle and body of posset cup (?), soft red sandy fabric, brown glazed internally and splashes of glaze on handle.

Fragment of grooved rod handle, splashes of green glaze. Non-micaceous buff fabric with pale grey core.

Fragment of strap handle with body sherd attached, Fabric 2, unglazed.

Small strap hadle, Fabric 1, unglazed. Ill 101:19.

Fragment of strap handle, thumbing at base. Fabric 1, unglazed. III 101:20.

Fragment of horizontal handle from chafing dish, Fabric 1 with grey core, traces of internal green glaze on body. Ill 101:23.

Basal angle sherd, Fabric 1 with grey core, Ill 101:13. Basal angle sherd, Fabric 1, burnt.

Basal angle sherd, Fabric 1 with grey core. Ill 101:8.

I small sherd from brimmed plate in Spanish lustreware, in

typical pink fabric with merging off-white margins. The front bears traces of a design in blue on a gold background. The pattern on the reverse, in gold on a whitish background, is distinctive: a polylobate leafed plant encircled by delicate stems linked by a rectangular device (eg Frothingham 1951, fig 73). This decoration was probably applied to open forms between c 1430 and 1480. The vessel was probably made within the province of Valencia. (Identified H Blake).

28 body sherds, Fabric 1; 21 glazed (glaze varies from green/brown to brown), 1 sherd brown glazed internally.

23 body sherds, Fabric 2, 21 glazed externally (dull green to green/brown); 2 of the glazed sherds also have combed decoration.

7 residual sherds, gritty whitish fabric, green-glazed.

11 body sherds; 6 green glazed. 1 basal angle sherd. Fabric 3.

2 floor tile fragments, brick red slightly micaceous fabric. Piece of daub, buff micaceous fabric.

#### PHASE 1

#### Layer 20

2 conjoining jug rim sherds, Fabric 1. III 101:5.

2 glazed body sherds, Fabric 1.

I green glazed body sherd, Fabric 2.

1 small basal angle sherd, Fabric 1. Ill 101:12.

2 pieces of roofing tile.

### Layer 23

I tiny jug rim sherd, finger pinched spout. Fabric 1.

I tiny basal angle sherd, thumbing on angle. Fabric 1.

I tiny green glazed sherd, pinkish smooth fabric, with applied strip decoration, possibly a Yorkshire import.

5 body sherds, Fabric 1; 2 green glazed.

I fragment of floor tile, unglazed.

#### Layer 30

2 tiny jug rim sherds, Fabric 1, 1 with external green glaze. 1 fragment of broad strap handle, Fabric 1, unglazed, III 101:26.

Basal angle sherd, very pronounced thumbing; perhaps a local imitation of the thumbed bases on vessels imported from the Low Countries. Micaceous fabric reduced dark brown, spots of brown glaze on interior and exterior; smoke blackened. Ill 101:27.

1 basal angle sherd, very abraded, probably from a squat jug. Fabric 2, dark brownish glaze externally.

I small basal angle sherd of straight-sided jug. Fabric 2, splashed yellow-brown glaze externally.

I small basal angle sherd of footed vessel, interior green glazed, exterior smoke blackened. Sandy grey fabric fired dark grey on exterior. Ill 101:9.

I body sherd, heavy dark brown glaze and smoke blackening externally, very highly fired micaceous fabric, orange/buff interior surface. Similar to fabrics from earlier stratigraphic contexts elsewhere in Aberdeen.

1 body sherd, Fabric 3, brownish-yellow splashed glaze.

5 body sherds, Fabric 2; 4 glazed externally (green to green/brown glaze).

I small piece unglazed floor tile.

#### Layer 31

- I tiny sherd in non-micaceous buff fabric, green glazed, possibly Scarborough ware.
- 13 small body sherds in Fabric 1; 9 glazed externally (varies from traces of decayed glaze to green or honey-coloured glaze).
- 4 pieces of daub, buff micaceous fabric.

#### Layer 35

- 4 dark grey body sherds. Blue grey ware as III 101:24, 25, Layer 24.
- 6 tiny sherds, Fabric 1; 4 with traces of green or brown glaze.
- 7 tiny sherds, Fabric 3; 3 with traces of dark brownish glaze.
- 2 tiny sherds in whitish fabric; 1 with near black glaze.
- 2 small pieces of daub.

# Layer 22

- 2 jug rim sherds from different vessels, similar in form to Ill 101:15. 1 in Fabric 1, 1 in Fabric 2, with green glaze.
- 1 tiny jug rim sherd, Fabric 1.
- I fragment of rod handle with 'barley-sugar' twist, Fabric 3, dark green glaze.
- I jug basal angle sherd in Fabric I with grey core.
- I basal angle sherd, slightly concave base, non-local red fabric with heavy internal brown glaze and glaze spots on exterior. Smoke-blackened externally.
- 12 body sherds, Fabric 1, greenish-brown glaze externally.
- 7 body sherds, Fabric 2, dull olive-green glaze externally.
- 5 body sherds, Fabric 3, decayed greenish glaze externally.
- 2 body sherds in red fabric, soot blackened. Possibly from Dutch pipkin.

#### Layer 24

- 2 jug rim sherds in Fabric 1, from different vessels, same form as III 101:15. 1 has finger pinched spout. Splashed yellowish glaze.
- I small jug rim sherd, Fabric 1.
- 1 rod handle. Blue-grey ware. Ill 101:25.
- 1 strap handle scalloped on edges. Blue-grey ware. Ill 101:24. It is difficult to place this material with any certainty as it seems to have been found all over the Low Countries. However, good parallels for handles with scalloping can be found in Aardenburg (Trimpe Burger 1963).
- I fragment of broad strap handle, similar to Ill 101:26. Fabric 1 with splashes of green glaze.
- I spout in Fabric 1 with a hole pierced through the wall. Exterior glazed dull greenish brown, interior surface abraded. III 101:17.
- I tiny body sherd, possibly from a Dutch pipkin.
- I body sherd, off-white smooth non-micaceous fabric, yellow glaze with dark brown applied strip.
- I thin basal angle sherd, dark grey sandy fabric, traces of finger pinching at angle; fired to almost stoneware.
- 1 tiny sherd of Scarborough ware, off-white fabric, dark green glaze with tiny applied vertical strips.
- I body sherd, Fabric 1, copying Scarborough ware, much abraded. Partially glazed in yellowish-green, with 2 incised horizontal bands and 4 glaze filled stab marks where some sort of applied decoration has peeled off.
- 13 body sherds, Fabric 1; 10 glazed yellowish-green.
- 10 body sherds, Fabric 2, all dull green glazed.
- 2 fragments of unglazed floor tile, Fabric 1.

#### Laver 25

6 body sherds; 3 conjoining. 1 tiny rim sherd of a small jug, Fabric 1, yellowish glaze externally.

1 tiny body sherd, Fabric 1, greenish brown glaze.

#### Laver 28

1 body sherd, Fabric 3, decomposed green glaze on external surface. Abraded.

# Laver 34

2 conjoining sherds of small strap handle, thumb impressed at base. Fabric 1, yellowish glaze. Abraded. Ill 101:21.

2 conjoining sherds, Fabric 3, much abraded. Part of strap handle, possible same handle as in Layer 46.

1 body sherd, Fabric 1, yellowish glaze externally, probably same vessel as jug in Layer 25.

# Layer 38

I body sherd, unglazed, Fabric 3 with grey internal surface.

# Layer 37

3 body sherds, Fabric 1 with grey core, external greenish glaze. 1 body sherd, sandy red fabric with grey core, little mica, external green glaze and a row of 4 applied scales.

# Layer 39

1 body sherd in rather gritty Fabric 1, external yellowish brown glaze.

I body sherd, dark grey non micaceous fabric.

### Laver 45

3 small body sherds, Fabric 1, with traces of brown glaze externally.

1 body sherd in non-local brick red fabric, brown glaze internally and splashed externally.

# Layer 32

- 4 body sherds, Fabric 1, with external brownish and green glaze.
- 2 body sherds, Fabric 2, with external dull green glaze.

#### Layer 41

- 1 body sherd, Fabric 2 with quartz grits, external dark green glaze.
- 1 thick body sherd with pronounced rilling, from a large vessel, whitish smooth fabric with occasional large grits, slightly micaceous; reduced grey core, burnt black in places. I fragment of roof tile.

#### Laver 43

- 3 body sherds in Fabric 1, unglazed.
- 1 body sherd in Fabric 2, unglazed.
- I much abraded rim sherd, red fabric, not micaceous.
- I body sherd and I tiny rim sherd, internal brown glaze, blackened on exterior, possibly from a Dutch pipkin.
- 1 body sherd, similar to thick white sherd in Layer 41. Offwhite fairly smooth fabric, fired pale grey in places. External surface has a patch of dark green glaze.

# Layer 46

- 1 body sherd, Fabric 1, external brownish glaze.
- 1 small fragment of strap handle, Fabric 3 with grey core, traces of brownish glaze. Very similar to 2 sherds from Layer 34.

#### THE STONEWARE PVCLARKE

#### SIEGBURG

Three sherds were found comprising a base and two body sherds, from at least two and probably three, Siegburg jugs of Beckmann type 83 (Beckmann 1974, 214, fig 13).

# Layer 19

Sparsely glazed body sherd from the lower portion of a jug near the base. As this context is above the 16th-century sealing level it is presumably a rubbish survival.

#### Layer 30

Sparsely glazed sherd showing patchy light brown colouration typical of Siegburg ware, from the body of a jug, associated with 3 sherds of Langerwehe (Layer 30, below).

# Laver 37

Unglazed sherd from the frill footed base of a Siegburg jug associated with 1 sherd of Langerwehe (Layer 37, below) Ill 101:10

### LANGERWEHE

Sherds from about seventeen individual Langerwehe vessels, including only 1 rim sherd (a Type III bevelled rim), part of the shoulder of a medium jug and sherds probably from 2 other medium and 2 large jugs were found (Hurst 1976). The fragmentary nature of the material makes it impossible to classify it further. The group is closely comparable with a group from the Edinburgh High Street excavations (Clarke 1976) dated 1375-1475, in composition if not in quantity. The absence of Raeren plain jugs (current 1475-1575) makes it unlikely that this pottery is significantly later in date than that from Edinburgh. In order to aid comparison of the two groups this material has been described using the system of classification adopted for the Edinburgh material. This consisted of grouping and coding the sherds according to the appearance of the internal surface which falls into more distinct groups than the external surface, and then grading these groups according to the degree of brown colouration shown on the exterior, on a scale from 1 (lightest) to 9 (darkest). The codes used to describe sherds in this report are described below.

# Internal Surface Description

- ED C Thin to glossy clear glaze giving a grey coloured internal surface.
- ED D Grey unglazed interior with a yellowish-grey thin speckled appearance possibly due to a thin wash.
- ED E Grey unglazed interior with a pinky-grey appearance varying from a slight speckling to a thin coat, possibly a wash.
- ED F Glazed internal surface showing a light yellowish brown coloured sparse to glossy glazed surface.
- ED G Purplish brown wash presumably the same as under exterior glaze, surface can be glazed with a clear glaze, or unglazed.

# External Surface Description

- ED 1 Clear salt glaze, showing a grey surface colour.
- ED 2 Salt glaze predominantly clear, with speckles of brown colouration, possibly indicating the presence of small quantities of iron.
- ED 3 Salt glaze showing a patchy grey and brown colouration, probably indicating greater quantities of iron than in 2.

- ED 4 Brown surface colour, with a matt finish, less pitted than 1-3 above, and with some traces of purplish drips.
- ED 5 Salt glaze with a presumed wash beneath, giving a grey and purple speckled surface colouration.
- ED 7 Matt purple surface.

#### Layer 5

Small body sherd, interior ED D, exterior ED 4, with the corrugations typical of Langerwehe vessels.

Small body sherd, interior ED F, exterior ED 4.

#### Layer 8

Small body sherd, internal surface ED F, external surface ED 1.

#### FN 10

Sherd from the neck of a type III bevel rim jug, interior ED G, exterior ED 3. III 101:6.

#### FN 13

Small body sherd, interior ED D, exterior ED 3.

#### Layer 16

Sherd from the shoulder of a medium jug (?), interior ED E, exterior ED 4.

Shoulder sherd from a second medium jug, showing a tooled groove on the shoulder, interior ED E, exterior ED 3.

### Layer 22

Sherd in earthenware fabric, internal surface ED E, exterior ED 2.

Minute body sherd from the shoulder of a vessel showing a grooved cordon, interior ED F, exterior ED 1.

# Layer 24

Minute sherd in earthenware fabric, interior ED E, exterior ED 2. Sherd possibly from a large jug, with heavy corrugation, interior ED C, exterior ED 7; this is the purple wash that is thought of as typical Langerwehe material, but which in fact occurs on only a small proportion of material found.

#### Laver 25

Sherd from a large jug (?), interior ED F, exterior ED 3.

# Layer 30

Associated with Siegburg.

Sherd from the neck of a large jug (?) interior ED D, exterior ED 3.

Very small body sherd, interior ED E, exterior ED 1.

Body sherd probably from a large jug, interior ED C, exterior ED 5.

### Layer 34

Small body sherd, interior ED D, exterior ED 3.

# Layer 37

Associated with Siegburg.

Sherd from the neck of a jug, possibly of medium size, interior ED F, exterior ED 3.

# Layer 41

Extremely small sherd, possibly from the shoulder of a jug, interior ED E, exterior ED 5.

# 4 THE SMALL FINDS JUDITH STONES

With contributions by Dr Helen Bennett, Dr David Caldwell, P J Davey, Dr A Fenton, Alison Goodall, Dr Ian Goodall, J B Kenworthy, Arthur MacGregor and Dr Nigel Trewin.

# INTRODUCTION

With very few exceptions the small finds described and illustrated here were recovered from the Broad Street, Queen Street and 42 St Paul Street excavations. The present writer has taken overall responsibility for the production of this report, and she is greatly indebted to a number of experts for their substantial contributions. These contributions are acknowledged at the beginning of each section of the catalogue. Where there is no such attribution, the present writer is the author. She is also most grateful for advice from other sources, which is acknowledged at the appropriate place within the text.

# CATALOGUE

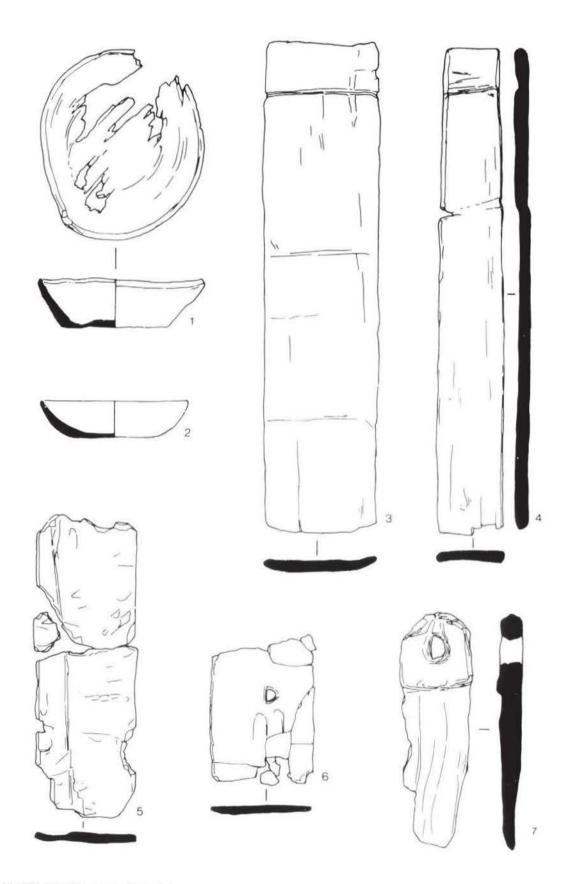
In the catalogue the description of each object is followed by details of the site, area, trench and layer in which it was found, as appropriate. Where possible, a phase number is also included, referring to the phases detailed in the excavation report of that particular site. Most items in the catalogue are also followed by a small find number, given to the object immediately upon excavation, each site having a separate numbering system for this purpose. It will be noticed that certain items in the catalogue have no small find numbers. This simply reflects differences from site to site in the practice of allocating these numbers. The small finds have been deposited at Aberdeen Art Gallery and Museum, with the exception of catalogue nos 49 and 50.

# WOODEN OBJECTS NO 8 BY A FENTON

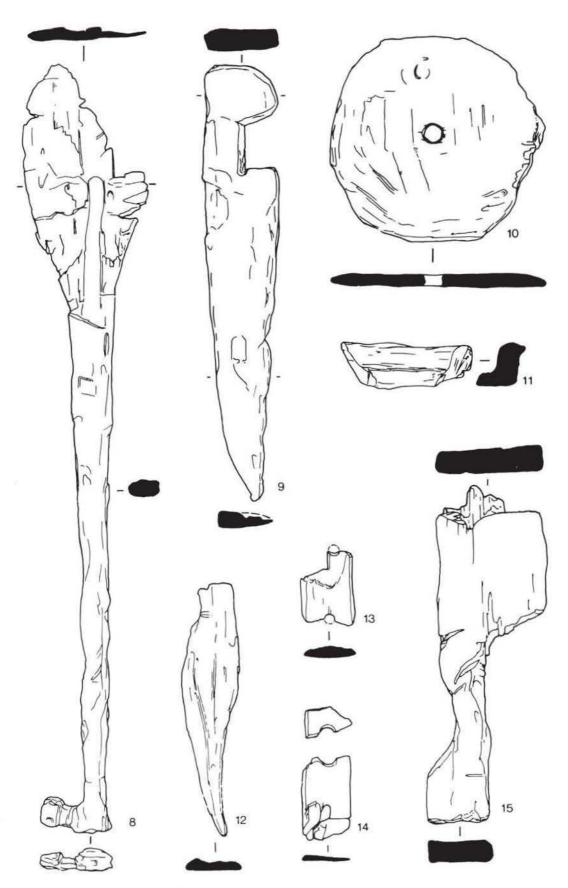
All worked wood, except obviously structural pieces, has been included in this catalogue, whether or not its function can be satisfactorily identified. The species of wood, identified by J S Murray (Department of Forestry, University of Aberdeen), is given only where it could be established without damage or before the urgent conservation which all wooden objects required.

# BOWLS (Ill 102)

Birchwood. Maximum diameter: 180 mm. Groove on interior near rim, irregularly placed 20-60 mm below rim, 2 mm deep. Broken and warped. Burnt patch, 40 mm × 60 mm on base and wall inside. 42 St Paul Street, Area F, Layer 55, Phase 8, (Small Find 792).



III 102: Wooden objects. Scale 1/4



III 103: Wooden objects. Scale 1/4

Birchwood. Maximum diameter: 160 mm. Part of base and wall remaining. Undecorated. 42 St Paul Street, Area F, Layer 29, Phase 9, (Small Find 784).

### BARREL STAVES (III 102)

- 3 Length: 522 mm. Shallow groove 2 mm deep, 50 mm from upper end. 42 St Paul Street, Area F, Layer 55, Phase 8, (Small Find 804a).
- 4 Length: 522 mm. Groove c 3 mm deep, 55 mm from upper end. 42 St Paul Street, Area F, Layer 55, Phase 8, (Small Find 804b).
- 5 Fragmentary. 42 St Paul Street, Area F, Layer 55, Phase 8, (Small Find 804c).
- 6 Flat object. Part of barrel stave (?) with triangular hole (bung-hole?) towards one end. 42 St Paul Street, Area C, Layer 217, Phase 4, (Small Find 733).

# MISCELLANEOUS (III 102, 103)

- 7 Upper part of bucket stave with handle hole. 42 St Paul Street, Area A, Layer 139, Phase 7, (Small Find 809).
- 8 Oak paddle? Length: 820 mm. Handle originally T-shaped. Probably used for propelling small boat or currach. 42 St Paul Street, Area A, Layer 166, Phase 8, (Small Find 738).

A paddle still extant in Elgin Museum (1978: 1516), belonging to an 18th-century currach, has a T-shaped handle, although the blade is rectangular and longer than the Aberdeen example. The Elgin paddle, discussed in Fenton 1972, is approximately 1.14 m long. The Aberdeen one, originally c 0.90 m, is shorter and therefore just feasible as a paddle. Jenkins (1974, 137-8) illustrates the paddles used in Welsh coracles, one of which, the Teifi paddle, has a claw at the end of the handle to slip under and engage the basal bar of the seat support when the coracle is hoisted on the owner's shoulders. The claw also makes a good finger grip when

paddling straight ahead with the paddle used over the bow.

In spite of the greater size of the Welsh examples, it seems at present reasonable to interpret the Aberdeen object as a paddle. The oval shape is certainly unusual, but the T-handle and the one-sided convexity are compatible with such an explanation.

9 Weaving sword? Length: 470 mm. Used to close the weft threads after passing them through a vertical loom. 42 St Paul Street, Area C, Layer 23, Phase 8, (Small Find 696).

A lack of comparative examples makes this identification necessarily tentative. The closest parallel so far is one in Perth Museum (92), but it is not well provenanced, having been a chance find in the Watergate in 1898 and is therefore of little use in determining the true function of the Aberdeen example. The Perth sword is more slender than the Aberdeen object and probably shorter, 0.50 m to the 0.82 m of the Aberdeen example, although the exact original length of the Perth sword is uncertain because is is now in two pieces. Knowledge of cloth preparation in medieval Scotland is still very limited, but the finding of this possible weaving sword on an urban site raises the question of the continued use of the vertical loom at this period.

- 10 Lid? Diameter: c 217 mm with central perforation, diameter: 22 mm. 42 St Paul Street, Area C, Layer 185, Phase 9, (Small Find 747).
- 11 Portion of base or lid of container? 42 St Paul Street, Area C, Feature CC, Phase 5, (Small Find 810).
- 12 Curved spatulate object, flat on reverse side. Length: 270 mm. 42 St Paul Street, Area F, Layer 36, (Small Find 799).
- Fragmentary object with remains of circular hole at each end. 42 St Paul Street, Area F, Layer 55, Phase 8, (Small Find 804d).
- 14 Small broken object with irregular hole towards one end. 42 St Paul Street, Area A, Layer 139, Phase 7, (Small Find 740).
- 15 Large object, fashioned into curve at narrower end. Broken at both ends. 42 St Paul Street, Area A, Layer 222, Phase 3, (Small Find 758).

# BONE, ANTLER AND IVORY OBJECTS A MACGREGOR (except 17)

A feature of this group of objects is the use of antler. In many urban settlements it is possible to demonstrate widespread utilisation of antlers, sometimes on a scale indicative of a well-developed industry in professional or semi-professional hands. In the British Isles such intensive utilisation can be demonstrated at Dublin (*Viking and Medieval Dublin*, 15-16) and York (MacGregor 1978, 46-8). As yet we have only the few artefacts mentioned below (16, 17, 20, 21, 25, 30) and three offcuts (31-33) from Aberdeen to suggest that the same practice may have been followed here. The extent to which this craft was practised in medieval Aberdeen will be established only by further excavation in appropriate areas, the evidence from which will be crucial in identifying key aspects of the early development of the City's economy.

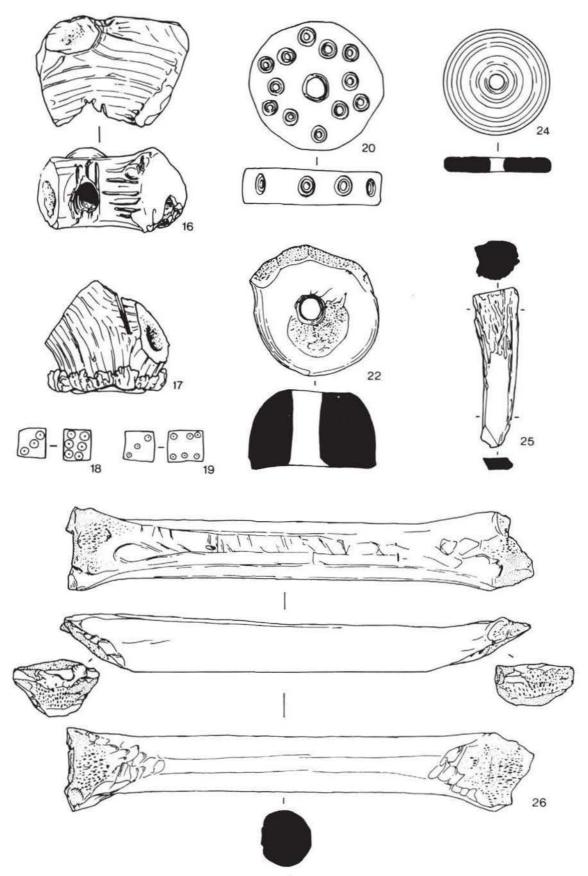
# ANTLER HAMMERS (III 104)

16 Base of shed antler of red deer, severed above base of brow tine; brow tine sawn off. Transversely drilled at base of brow tine, some flattening at the burr from

- hammering. Saw-cut 1.5 mm wide at base of brow tine. Queen Street, Midden Area, FN57A, Phase 1, (Small Find 38).
- 17 Base of shed antler of red deer, severed above base of bez tine; bez and brow tines sawn off. Transversely drilled at base of brow tine, damaged at burr and in centre of beam. Broad Street, Trench 8, unstratified, (Small Find 17a).

These belong to a relatively uncommon class of implement. One example comes from a multi-period site at Staines, Middlesex, where it was found in a destruction level of the 18th century (Crouch 1976, 124-5, figs 27, 37) and another (unpublished) from York (Yorkshire Museum 55.33.38). Features common to all these pieces are the transverse perforation, apparently for the insertion of a narrow haft, and the damage displayed on the base (that is, the burr) from repeated use.

The limitations placed on the size (and hence the strength) of the handle by the small diameter of the drilled socket suggests that it was a craft tool, perhaps for working sheet metal, rather than a general purpose hammer.



III 104 : Bone, antler and ivory objects. Scale: 16, 17, 24- $\frac{1}{2}$ 6 at 1/2; 18-20, 22 at 1/1

# BONE DICE (III 104)

- 18 9 mm × 8 mm × 8 mm. Queen Street Midden Area, Layer 2, Phase 2, (Small Find 7).
- 19 8 mm × 8 mm × 8 mm. Queen Street Midden Arca, Layer 3, Phase 2, (Small Find 8).

Diminutive bone dice of the type represented by 18 and 19, with numerical values shown in incised ring-and-dot motifs. have a long history stretching from the Roman to the late medieval period. While those of pre-Norman date are, like present day dice, generally numbered so that the values on opposite faces always total seven (that is, 1 is opposite 6, 2 is opposite 5 and 3 is opposite 4) it appears that medieval dice often followed a different convention: in these 1 is opposite 2, 3 is opposite 4 and 5 is opposite 6. Examples of dice with this method of numbering include ten from Dublin (Viking and Medieval Duhlin, 13), nine from Winchester, found in contexts ranging from the 13th to the 15th century in date (Brown forthcoming), a 13th-century example from Southampton (Platt and Coleman-Smith 1975, 271, fig 247: 1927) and another from a pit containing 16th-century material at Streatley, Bedfordshire (Dyer 1974, 19-20, fig 4), while an unstratified die of this type was found on a medieval site at Water Newton, Huntingdonshire (Green 1964, 80, fig 5, 12).

Although dice such as these could have been used to determine the moves of pieces on a board, it is perhaps more probable that they were used on their own in games of hazard. Coming as they do from adjacent layers of the Queen Street midden, they may well originally have formed a pair.

# SPINDLE WHORLS (III 104)

- 20 Antler, Diameter: 34 mm. Queen Street Midden Area, Feature 22, Phase 1, (Small Find 21).
- 21 Antler. Edge fragment, decorated on obverse and reverse surfaces with incised ring-and-dot motifs. Thickness; 7 mm. Broad Street, unstratified, (Small Find 29). Not illustrated.
- 22 Bone, Cut from a (?) pig femur-head, eccentrically perforated. Diameter: 35 mm. Broad Street, Trench 1, Layer 27, Phase 3, (Small Find 36).
- 23 Bone, Cut from (?) femur-head, cancellous tissue only surviving. Diameter: 30 mm, diameter of central hole: 10 mm, thickness; 13 mm. Broad Street, Trench 5, unstratified, (Small Find 18). Not illustrated.
- 24 Ivory, Lathe-turned disc cut from an elephant tusk. Diameter: 55 mm. Queen Street Midden Area, FN 63, Phase 1, (Small Find 30).

Centrally perforated antler discs such as 20 are usually interpreted as spindle whorls. The natural plano-convex shape of the femur-heads of certain animals also recommended them for utilisation as whorls. 22 is one of these femur-head whorls, although its off-centre perforation would certainly have defracted from its effectiveness.

It may be that 23 is also derived from a femur-head, although all the compact surface tissue has been lost, rendering positive identification impossible.

Whether or not the large disc of ivory, 24, is another whorl is uncertain; no parallels for it have been noted. The identity of the raw material in this case is confirmed by the concentric curving lines of alternating lighter and darker tissue visible on the edge, characteristics which clearly show that the disc was cut in the longitudinal axis from an elephant task (Penniman 1952, 13-20, pl 1, 11).

# MISCELLANEOUS (III 104, 105)

25 Antler wedge. Tine, cut into a flat rectangularsectioned point. Longitudinally striated on the tip. hammered on the base. Length: 82 mm. Broad Street, Trench 8, unstratified, (Small Find 176).

Antler wedges, represented here by 25, have been found in varying degrees of elaboration elsewhere, notably at York (MacGregor 1978, 48, fig 31:1-5). The naturally pointed tines of red deer antlers needed little additional shaping for this purpose, while the inherent toughness of antler rendered it particularly suitable for use in this way. Whether they were used in splitting material such as timber or for making fast or clamping some device has not yet been established.

26 Bone skate, made from a horse metatarsal. Length: 246 mm. All the projecting features on the upper (posterior) surface have been trimmed flat. The front (distal) end shows signs of having been pointed but is now broken. On the lower (anterior) face both the articular ends have been roughly cut to give an upswept profile at either end. A slight facet marked by longitudinal striations from contact with the ice has been worn on the lower surface. Queen Street Midden Area, Layer 2-4, Phase 2, (Small Find 122).

Most of the features of the Aberdeen skate can be paralleled on bone skates elsewhere (MacGregor 1976). Trimming of the upper surface provided a firm and comfortable foot-hold for the skater, while a pointed and upswept front would have been an advantage in a light snow covering or on irregular ice. Only the upswept rear end is unusual and appears to serve no useful purpose. Perhaps there was some initial confusion on the part of the maker as to which end would serve as the front: the pointing of the distal end shows that he eventually followed the practice invariably adopted on other skates.

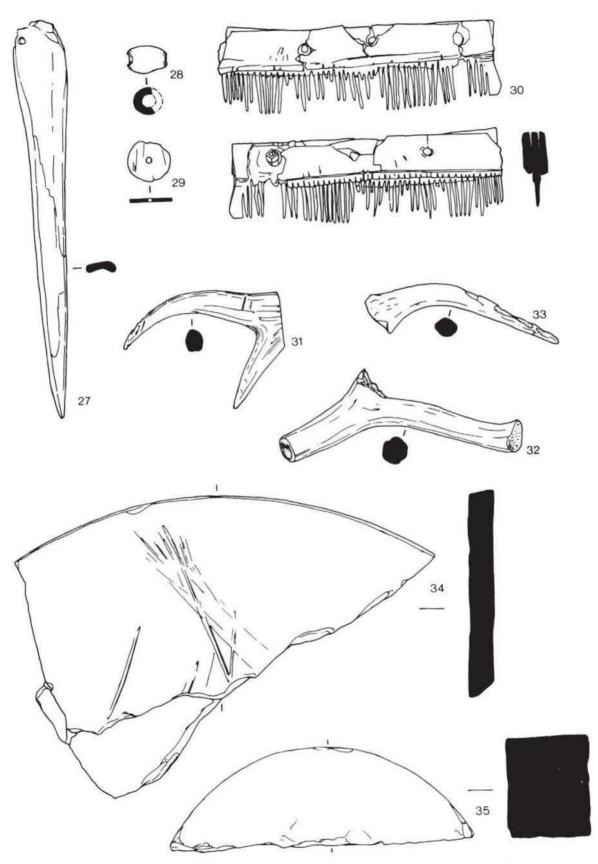
On some examples the face destined to form the contact surface with the ice was ground flat before use, but the Queen Street skate, along with many others, shows that this was an optional process. The characteristic wear on the bottom (MacGregor 1975) indicates only limited use before the skate was lost or abandoned.

There are no fastening holes on the Aberdeen skate and this too is quite common: fourteen of the horse metapodial skates noted in a survey (MacGregor 1976, Table 1) had neither toe nor heel holes. Recent accounts of their use confirm that fastenings were often eschewed, especially by skilled skaters. This was made possible by the method of use, in which the skates stayed permanently in contact with the ice while the skater pushed himself along with a spiked pole. The technique has therefore more in common with ski-ing than with present-day skating, except that one pole only was normally used and bone skates were used on ice and not on snow.

The earliest examples recovered from stratified contexts in Britain are of the 8th century AD, but earlier skates dating back to the Bronze Age have been recorded on the Continent. They survived in use in some areas up to the present century.

- 27 Bone pin beater? Oval in section at eye, crescentic at middle, oval at point. Length: 213 mm. 42 St Paul Street, Area B, Layer 38, Phase 11, (Small Find 704).
- 28 Bone bead fragment. Diameter: 4 mm. Length: 5 mm. Queen Street Frontage, unstratified, (Small Find 114).
- 29 Bone button or button former? Diameter: 10 mm. In use this would have been covered with textile matching the material of the garment on to which it was sewn. Broad Street, Trench 4, Layer 1, (Small Find 65).
- 30 Antler comb. Five tooth plates survive, connected by flat straight-backed side-plates fixed with iron rivets. Incised marginal line on lower edge of each side-plate. Length: 74 mm. 42 St Paul Street, Area A, Layer 212, Phase 3, (Small Find 768).

This small composite comb is a late example of the type which was first introduced into the British Isles in the late Roman period and which was eventually displaced during the medieval period by single-piece combs in bone, wood and horn. An example of a stylistically earlier comb of this type



III 105: Bone, antler and stone objects: Scale 31-33, 35 at 1/4; 27, 34 at 1/2; 29, 30 at 1/1; 28 at 2/1

which is thought to have been found in Aberdeen is in the collection of the Society of Antiquaries of London: according to the catalogue (Way 1847, 24-5) it is 'apparently the comb found at a depth of 19 feet in Skipraw [Shiprow] Street, Aberdeen, in 1761', where it was 'supposed to have been buried when the city was burned by Edward III'. The curving back and angular-section side-plates ornamented with linked ring-and-dot motifs suggests a date some three centuries earlier, however. The flat outlines of the St Paul Street comb are more in harmony with the 12th or 13th century. The method of construction of these composite combs is now well established (Ambrosiani 1981). The antler tooth-plates and side-plates were cut, shaped and riveted together, following which the individual teeth were finally cut: evidence for this

sequence of events can be seen on 30, where the saw marks from the cutting of the teeth are extended in a more-or-less decorative manner on to the underside of the side-plate.

31 Antler offcut. Terminal times (2) sawn from red deer

- 31 Antler offcut. Terminal tines (2) sawn from red deer antler. Some small secondary cuts. Broad Street Trench 1, Layer 31, Phase 1, (Small Find 106).
- 32 Antler offcut. Section of beam of red deer antler, sawn at both ends. One tine has been broken from the central area. Queen Street Frontage, Layer 16, (Small Find 62a).
- 33 Antler offcut, Sawn tine of red deer antler. The tip is much eroded, but probably not from systematic utilisation, Queen Street Frontage, Layer 16, (Small Find 62b).

#### STONE OBJECTS N H TREWIN

#### SHARPENING WHEELS (III 105)

- 34 Medium-grained laminated sandstone. The large flat surfaces are natural lamination planes. The sandstone contains small fossil burrows of a type found in the Old Red Sandstone. Lithology and the trace fossils are identical with lower Old Red Sandstone deposits in Kincardine and Angus. The rock is possibly from a quarry in the Forfar area. Since the wheel is broken and the rock naturally splits parailel to the lamination, the full original thickness of the wheel may not be preserved. Original diameter c 380 mm. 42 St Paul Street, Area A, Layer 166, Phase 8, (Small Find 798).
- 35 Worn around outside edge. Sandstone with patchy quartz cement. Resembles some of the Permo-Trias sandstones of the Elgin area, or could possibly be from the Devonian (Old Red Sandstone) or Carboniferous of the Midland Valley. Original diameter c 366 mm. 42 St Paul Street, Area C, Layer 172, Phase 11, (Small Find 728).

# SPINDLE WHORLS (III 106)

- 36 Diameter: 30 mm. Broad Street, Trench 8, unstratified, (Small Find 40).
- 37 Diameter: 32 mm. Broad Street, unstratified, (Small Find 16).

Both 36 and 37 are made of identical material, weathered green micaceous mudstone which has been slightly metamorphosed. Probably of local origin. It is likely that the material was soft and weathered before the whorls were carved from it.

38 Decorated with horizontal scratches. Fine-grained metamorphic rock with small scale 'spotting' due to recrystallisation of minerals. Probably local, from NE Scotland; similar rocks occur commonly in the Buchan area. Diameter: 30 mm. 42 St Paul Street, Area F, Layer 16, Phase 10, (Small Find 779).

# WEIGHTS (III 106)

39 Loom or net weight? Possibly a lump of calcareous tufa (deposit of a carbonate rich spring). Easily carved but not very heavy. Diameter: 110 mm. 42 St Paul Street, Area B, Layer 44, Phases 8-11, (Small Find 702). 40 Part only remaining. Coarse mica-schist, probably of local origin. Could be found within Aberdeen. 42 St Paul Street. Area G, Layer 7, (Small Find 776).

#### WHETSTONES (III 106)

It is difficult to be certain how many of these objects are complete, but it is probable that only numbers 45 and 47 survive to their original length.

- 41 42 St Paul Street, Area B. Layer 49, Phase 9, (Small Find 705).
- 42 42 St Paul Street, Area C. Layer 257, Phase 4, (Small Find 745).
- 43 42 St Paul Street, Area A, Layer 210, Phase 4, (Small Find 750).

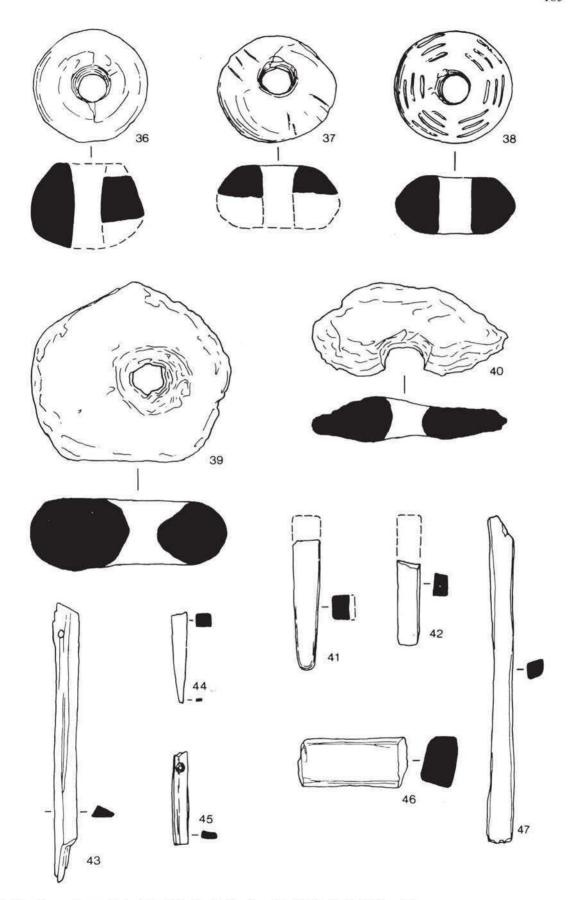
41, 42 and 43 are of a very similar rock type, probably from a single locality. The rock is a slate which splinters naturally into rod shapes suitable for use as hones with little modification of the natural form. Probably local in origin (NE Scotland, N of the Highland Boundary Fault).

- 44 Metamorphic quartzite, brown colour, probably of local origin. Queen Street Midden Area, unstratified, (Small Find 118).
- Originally a fine-grained silty mudstone weakly metamorphosed, Probably local, perhaps from the Macduff Slate group of the Upper Dalradian, outcropping from Macduff on the Moray Firth Coast inland to the Glens of Foudland, about thirty-five miles NW of Aberdeen, Length: 47 mm. 42 St Paul Street, Area A, Layer 149, Phase 7, (Small Find 736).
- 46 Fine-grained greenish micaceous quartzite. Broad Street, Trench 1, Layer 5, Phase 4/5, (Small Find 35).
- 47 Fine-grained blue-grey micaceous quartzite. Fractured at centre. Length: 335 mm. Queen Street Midden Area, FNS7A, Phase 1, (Small Find 35).

The rock types of 46 and 47 are very similar and are probably of local origin.

# MISCELLANEOUS

48 Piece of grey-white limestone with fossil fragments. Not of local origin, possibly part of building stone imported to the area. Probably from a Jurassic limestone, the nearest likely localities being Yorkshire or the Bath-Cotswolds area. Broad Street, Trench 1, Layer 8, Phase 4, (Small Find 119). Not illustrated.



Ill 106 : Stone objects. Scale: 47 at 1/4; 39, 40, 43, 46 at 1/2; 36-38, 41-42, 44-45 at 1/1

## COINS DAVID CALDWELL

- 49 Sterling of Edward I, Fox group X c-e, crown 2, 42 Loch Street, unstratified. Not illustrated.
- 50 Sterling of Edward 1, Fox group C e-e, crown 1, colon at end of obv. legend. 42 Loch Street, unstratified. Not illustrated.

## COPPER ALLOY OBJECTS NO 64 BY A R GOODALL

## BROOCHES (III 107)

51 Annular brooch, Diameter: 42 mm. Virginia Street, unstratified.

Probably in original state had four diamond-shaped attachments on front of ring. A brooch of similar form, although of silver, occurred in the Langhope hoard, deposited in the 14th century and now in the National Museum of Antiquities of Scotland in Edinburgh (Callander 1924, fig 5), John Cherry, to whom I am grateful for parallels for 51, 52 and 53, suggests a 1275-1350 date range for the Aberdeen object.

52 Brooch? Width: 26 mm. Half of pelletted oval surmounted by two opposed bird or reptile heads. Probably both heads originally indentical, but left one broken off at beak. No decoration on reverse. Broad Street, Trench 3, unstratified, (Small Find 75).

A similar object, found at Sandwich in Kent and privately owned is complete but undated. It has the form of an annular brooch. The birds have stylised 'feet' at the lower end of the oval, and a pin across the middle. In the place of the pellets of the Aberdeen example there are raised settings for stones. Both objects are very similar in size, the Sandwich object being c 37 mm long and c 27 mm wide.

# BUCKLES (III 107)

- 53 Width: 61 mm. Virginia Street, unstratified. A fairly common type dated by Fingerlin (1971, 66: 51,52) to the latter half of the 13th century.
- 54 Buckle and plate. Width: 26 mm. One rivet still in position on plate. 42 St Paul Street, Area A, Layer 93, Phase 9, (Small Find 708).
- 55 Part of buckle and plate. Two rivets still in place in plate, prong bent back. Queen Street Midden Area, FN26, Phase 3, (Small Find 24).

# PINS (III 107)

56 Spiral ornament at top of shaft and cross motif on head. Length: 92 mm. 42 St Paul Street, Area B, Layer 52, Phase 10, (Small Find 703).

An example from excavations at Cramond, near Edinburgh (CR 78 V 2 Small Find 22) is identical except that its spiral has six rings, while the Aberdeen one has five. The Cramond example would seem to show superior workmanship. (Information from N M McQ Holmes, Archaeological Officer, Edinburgh City Museums and Art Galleries).

57 Head formed by passing wire 1½ times round shaft. Length: 92 mm. 42 St Paul Street, Area A, Layer 13, Phase 13, (Small Find 577). 58 Shaft of pin? 42 St Paul Street, Area C, Layer 11, Phase 11, (Small Find 691).

# BUTTONS (III 107)

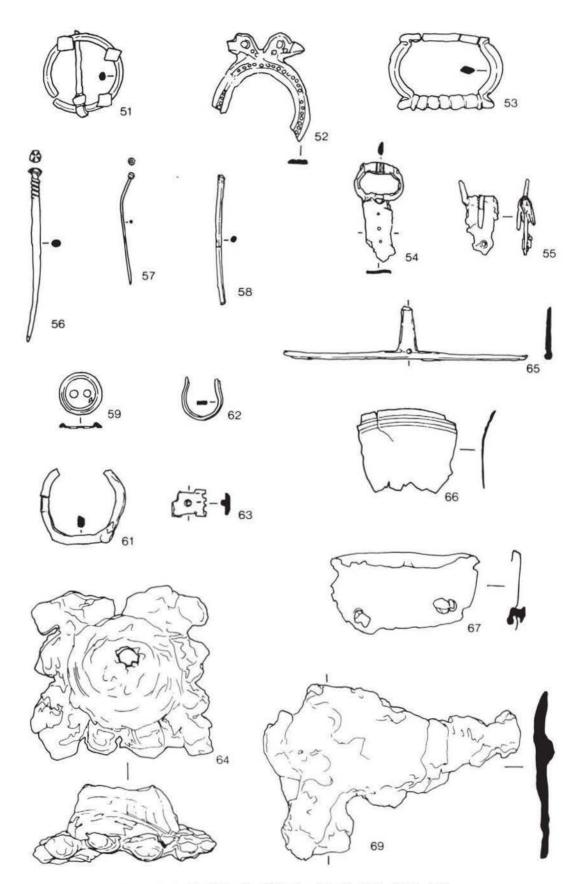
- 59 Button or button former, perhaps covered with textile in use, Diameter: 6 mm. Queen Street Midden Area, FN57A, Phase 1, (Small Find 34a).
- 60 Button or button former, identical to 59. Diameter: 6 mm. Queen Street Midden Area, FNS7A, Phase 1, (Small Find 34b). Not illustrated.

## MISCELLANEOUS (III 107)

- 61 Part of ring, Width: 22 mm, Broad Street, Trench 3, Layer 22, Phase 3, (Small Find 20).
- 62 Staple, 42 St Paul Street, Area B, Layer 52, Phase 10, (Small Find 711).
- 63 Fragment of clasp? Queen Street Midden Area, Layer 2, Phase 2, (Small Find 3).
- Annular boss, 90 mm × 85 mm, with twelve projecting arms with perforated terminals; two retain pins. Four of the arms are longer so that the boss is approximately square when viewed from the top. Queen Street Midden Area, FN57B, Phase 1, (Small Find 59).

The object is reminiscent of the gilt eight-armed mounts found for instance at Lydford Castle, Devon (Goodall, A R 1980) and Baile Hill, York (Addyman and Priestley 1977, 142, 145, fig 11:82) and may belong to the same class of fittings which are dated to the 12th and 13th centuries.

- 65 Balance arm, broken at both ends. Queen Street Midden Area, FN57B, Phase 1, (Small Find 125).
- 66 Curved fragment with linear decoration on one edge. Broad Street, Trench 4, unstratified, (Small Find 65).
- 67 Thin plate, one edge bent over. Two irregular rivers in small holes (5 mm diameter). A third hole lies immediately adjacent to the right hand hole. Broad Street, Trench 1, Layer 21, Phase 3, (Small Find 8).
- 68 Two fragments of strapping? 10 mm×15 mm. One piece has a small punched hole 5 mm from its end. 42 St Paul Street, Area A, Layer 95, Phase 9, (Small Find 694). Not illustrated.
- 69 Piece of folded sheet. Queen Street Midden Area, FN57B, Phase 1, (Small Find 60).
- 70 Flat sheet, laminated or folded, 130 mm × 90 mm × 3 mm. Queen Street Midden Area, FN57B, Phase 1, (Small Find 41). Not illustrated.
- 71 Fragments of curved and folded sheet, possibly remains of bowl or other vessel. Queen Street Midden Area, FN57B, Phase 1, (Small Find 59). Not illustrated.
- 72 Two fragments of thin sheet, each 10 mm × 5 mm × 5 mm. 42 St Paul Street, Area B, Layer 92, Phase 8, (Small Find 807). Not illustrated.



Ill 107: Copper alloy objects. Scale: 51, 53-56, 64, 67-69, 69 at 1/2; 52, 57-63, 65-66 at 1/1

# IRON OBJECTS NO 73 BY I H GOODALL

## BARREL PADLOCKS (III 108)

73 Iron barrel padlock, now incomplete, but originally having a case with keyhole and bolt entry in opposing ends, a side fin with outer tapering tube and a Ushaped padlock bolt. The case, strengthened and decorated by seven horizontal straps set between encircling end straps, has lost the keyhole but the stub of a fin and part of a bolt with three spines, all with double leaf springs, survive. The padlock has copious traces of the copper base brazing fluid used in its construction. Queen Street Midden Area, FN57A, Phase 1, (Small Find 129).

Barrel padlocks of this type were in common use during the medieval period, and are found as late as the 14th century. Perth has produced several examples (PHSEC, forthcoming), and a similar but larger one is known from North Elmham Park, Norfolk (Goodall, 1 H 1980, 509, fig 265:9).

- 74 Part of iron barrel padlock, 42 St Paul Street, Area G, Layer 4, (Small Find 781), Not illustrated.
- 75 Fragments of iron barrel padlock. 42 St Paul Street, Area C, Layer 23, Phase 8, (Small Find 707). Not illustrated.

## NAILS AND CLENCH BOLTS (III 108)

- 76 Clench bolt. Queen Street Midden Area, FN26, Phase 3, ((Small Find 90).
- 77 Clench bolt. As 76.

The Broad Street and Queen Street excavations produced the remains of eight clench bolts, of which four were complete. These may have been used originally in boat construction, but their abundance on domestic sites is probably attributable to re-used timber. Clench bolts consist of an ordinary nail

and a diamond-shaped plate. After the nail had been fastened through two overlapping boards, the plate was hammered flat onto its point.

- 78 Nail. Broad Street, Trench 2, Layer 15, Phase 1/2, (Small Find 9).
- 79 Nail. As 78.
- 80 Nail. As 78.
- 81 Nail. Queen Street Midden Area. FN7, Phase 3, (Small Find 96).
- 82 Nail. Queen Street Midden Area, FN57, Phase 1, (Small Find 85).

From the Broad Street and Queen Street sites a total of 22 iron nails, complete or fragmentary, was recovered. Their advanced state of corrosion lessens the effectiveness of illustration, but a representative selection is shown and catalogued. Most conform to a similar pattern, with the shank square and the head approximately circular. Shank length varies from 40 mm to 110 mm, with diameter of head ranging from 5 mm to 25 mm. Two examples (78 and 79) had wood impressions over the head and upper portion of the shaft.

# MISCELLANEOUS (III 108)

- 83 Iron horseshoe. Queen Street Midden Area, unstratified, (Small Find 53).
- 84 Iron shears, Broad Street, Trench 3, Layer 8, Phase 3, (Small Find 128).
- 85 Iron link? Queen Street Midden Area, Phase 1, FN57, (Small Find 80).
- 86 Iron handle? Very fragmentary. Queen Street Midden Area, FN63, Phase 1, (Small Find 78). Not illustrated.
- 87 Part of iron knife-blade. 42 St Paul Street, Area D, Layer 34, Phase 10, (Small Find 751).

# LEAD OBJECTS

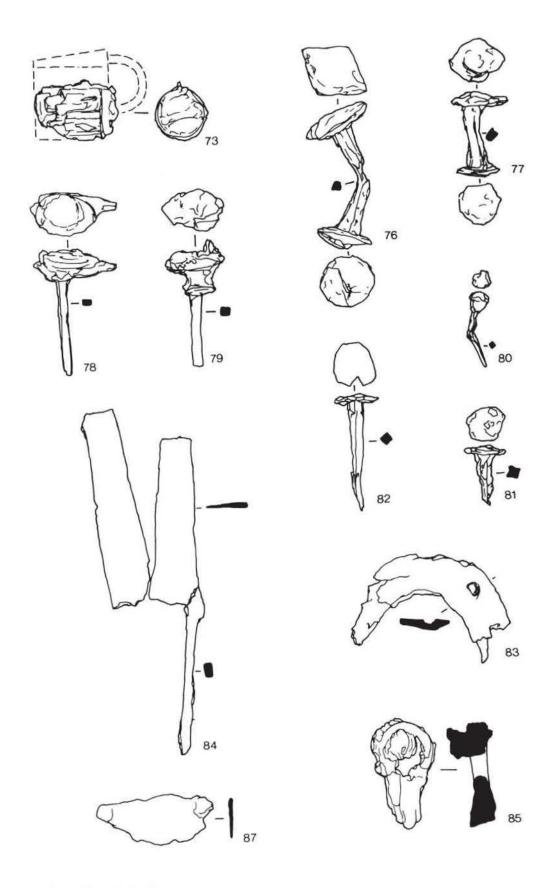
#### MISCELLANEOUS (III 109)

88 Cloth seal. Diameter of upper lobe: 13 mm. Broad Street, Trench 3, FN8, Phase 3, (Small Find 24).

Lead seals were used in the later medieval period for sealing cloth and other merchandise. Two other Scottish examples, from the Tron Kirk, Edinburgh (Holmes 1975, 149, pl xxiv, xxv) and from Huntly Castle, Aberdeenshire (Peterhead Museum H662) are of a different character. An example from London (Swan Lane, layer 2063, find no 2246) has a cross on one side and an incomplete device on the other. This may be from a late 13th or early 14th-century deposit, but is more likely to be from later (perhaps 17th-century) contamination (Information from Geoffrey Egan, Department of Urban Archaeology, Museum of London). The context of the Aberdeen seal, although apparently 13th-14th century, may

also have suffered some later disturbance; at present such seals are not considered to be earlier than the late 15th century.

- 89 Weight, Queen Street Midden Area, FN33, Phase 4 (Small Find 124).
- 90 Rectangle, with semicircle roughly cut out at one side. Queen Street Midden Area, Layer 2, Phase 2, (Small Find 17).
- 91 Waste piece. Queen Street Midden Area, Layer 2, Phase 2, (Small Find 92).
- 92 Waste piece. Queen Street Midden Area, FN57B, Phase I, (Small Find 55).
- 93 Fragment, Queen Street Midden Area, Layer 2, Phase 2, (Small Find 100).
- 94 Lead/copper alloy fragment. Queen Street Midden Area, Layer 4, Phase 2, (Small Find 46).



Ill 108: Iron objects. Scale 1/2



Ill 109: Lead and ceramic objects. Scale 1/2

# CERAMIC OBJECTS

# MISCELLANEOUS (III 109)

- 95 Part of rim of small glazed vessel. Estimated diameter: 47 mm. Vitrified patch on external surface might suggest a crucible. 42 St Paul Street, Area G1, Layer 33, (Small Find 814).
- 96 Portion of mould, local fabric, showing outline of two or possibly three? pin heads and upper parts of shafts. Rectangular decorated head on left, in centre circular head. Impression on extreme right may indicate shaft of third pin. Broad Street, Trench 2, unstratified, (Small Find 10).
- 97 Fragmentary object, in pinkish mottled fabric. Surviving length: 60 mm. Three edges fractured, the other (left in ill) smooth and curved. Flat on side not shown, illustrated side rounded. This bears remnants

of what might be a figure in relief, possibly part of a naked limb with associated drapery. 42 St Paul Street, Area B, Layer 12, Phase 10, (Small Find 815).

The identification of a ceramic fragment from Southampton (Platt and Coleman-Smith 1975, vol 2, 94: no 570, pl 84) makes speculation tempting although it is in practise difficult to fit this particular piece into such a context, especially in view of its small size.

- 98 Water spout? Longitudinal streak of dark staining inside and over rim, but pronounced flange inside rim might reduce its efficacy as a spout. Fabric 7. Queen Street Midden Area, Layer 2-3, Phase 2, (Small Find 130).
- 99 Portion of roof finial? Fabric 8, with remnants of green/brown external glaze. 42 St Paul Street, Area A, Layer 95, Phase 9, (Small Find 816).

#### LEATHER OBJECTS

The medieval leather discussed and catalogued here comes from the Broad Street, Queen Street and 42 St Paul Street excavations. The pages which follow do not represent the fullest possible publication of the leather. No attempt has been made to identify species, for example, and it is hoped that a more thorough examination may be made available in the future. Shoe remains constitute by far the greatest quantity of material. However, several belts and a number of other pieces are also included. The three sites together produced a vast quantity of leather pieces. It would be wasteful to illustrate or catalogue every single item, particularly some of the smallest fragments. Therefore, the following selective process has been used. Only the most complete soles and uppers are illustrated, and in addition a number of the less fragmentary ones are catalogued.

Apart from main sole and upper pieces, a selection of other distinctive items, such as patches and binding strips, has been illustrated or catalogued. The catalogue follows the order: Uppers, Soles, Two-Part Soles, Repair Pieces and Cobbling Scrap, Non-Shoe Leather. The only exception to this is the one case where an illustrated sole (139) has a number of additional upper pieces associated with it, which are too fragmentary to illustrate. These fragments are included in the catalogue entry dealing with the sole.

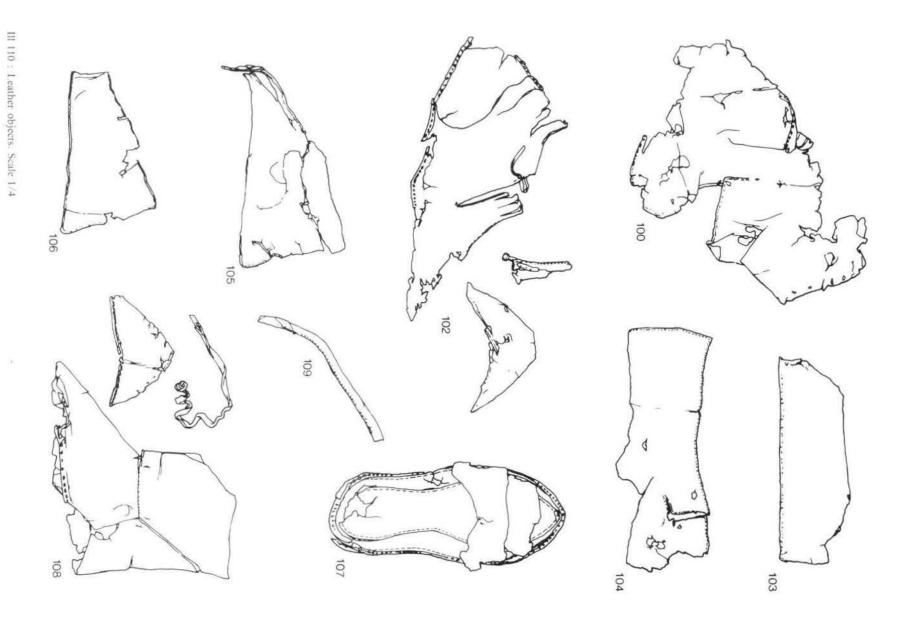
All the shoe material discussed here follows the standard medieval turnshoe pattern, by which the sole and upper were stitched together while inside out and then turned. One sole (126) has been shown in section to illustrate the rounded profile resulting from the poor fit of such footwear. Where several parts of an upper remain, it is evident that the pieces were attached to each other by means of edge-flesh, butt-seamed joints.

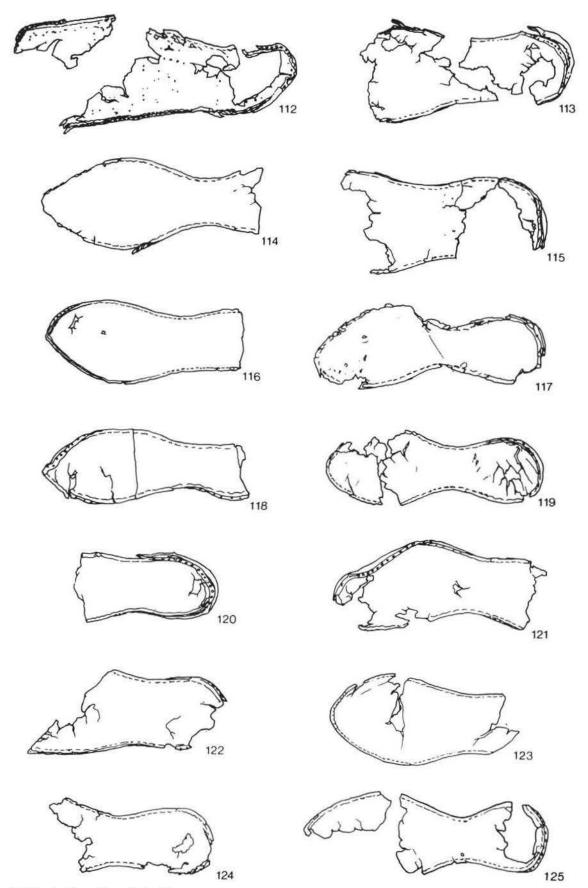
As so many of the soles were severely delaminated or split into several layers, thicknesses have not normally been given.

#### UPPERS (III 110)

100 Substantial portion of two-piece upper of ankle boot, one main piece missing, very similar in construction

- to 108. Remains of stitching on edges, both for joining and for addition of binding strips. Five possible lace holes on quarters. Probably belongs to sole 125. 42 St Paul Street, unstratified.
- Sub-rectangular piece of leather, 190 mm × 160 mm. Stitching along two edges and part of a third, elsewhere edges badly torn. Slight signs of shaping on one edge. May be part of upper. 42 St Paul Street, Area A, Layer 89, Phase 8. Not illustrated.
- One large piece and several small fragments comprising substantial portion of vamp. Small piece of lace remains attached at throat. On a detached piece another thong has been fashioned into a leather 'button', presumably to fasten through one of the slits on the main portion of the vamp. The crescent-shaped piece may be a heel stiffener. 42 St Paul Street, Area E, Layer 4, Phase 8.
- 103 Part of quarters. Stitching on one long edge and part of another. Queen Street Midden Area, Layer 2, Phase 2.
- 104 Quarters, leg flap and part of vamp. Stitching on two sides and within L-shaped slit. May belong to same shoe as 139. 42 St Paul Street, Trial Trench 1, unstratified.
- 105 Portion of upper, possibly part of vamp. Stitching on three edges, other edge has been torn away. 42 St Paul Street, Area A, Layer 261, Phase 8, (Small Find 796).
- 106 Portion of upper. Remains of stitching visible on all edges. Several much deteriorated pieces of vamp (not illustrated), from the same layer, probably belong to the same upper. 42 St Paul Street, Area A, Layer 89, Phase 8.
- Left sole and part of vamp. Sole much worn at toe and seat with evidence of patching on underside. A second, more waisted sole appears to have been slipped (not stitched) inside the shoe as an improvised insole. No sign of stitching on vamp. 42 St Paul Street, Area A, Layer 190, Phase 4, (Small Find 743).
- 108 Three piece upper of ? right ankle boot. Triangular strengthener at heel. The triangular piece has been





III 111: Leather objects. Scale 1/4

punched for stitching on one edge and has evidence of rough hem stitching on others. The lace was originally knotted at both ends. Queen Street Midden Area, Layer 3, Phase 2.

# BINDING STRIPS (III 110)

Only a handful of these pieces has been found, mostly dissociated from their uppers. They were used to bind the exposed edges of uppers to finish and protect them. Made from a narrow (c 10 mm wide) strip of leather, they were folded over and stitched on to the edge of the upper.

- 109 42 St Paul Street, Area, A, unstratified.
- 110 42 St Paul Street, Area C, Layer 174, Phase 8. Not illustrated.
- 111 42 St Paul Street, Area C, Layer 187, Phase 8. Not illustrated.

# SOLES (III 111, 112, 113)

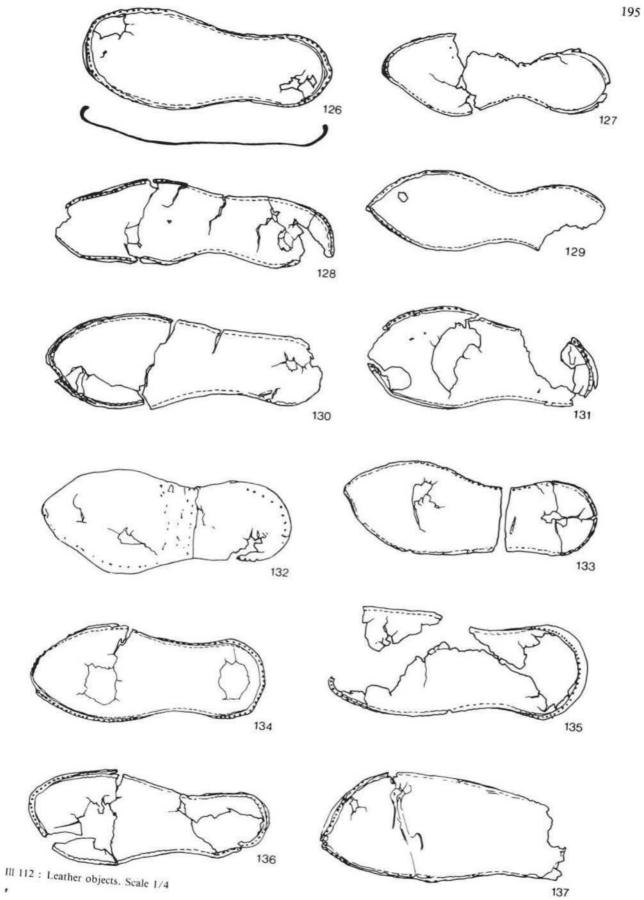
- 112 Fragmentary? right sole. Frequent patching indicated by many stitch holes. 42 St Paul Street, Area F, Layer 70, Phase 3, (Small Find 797).
- 113 Very fragmented? right sole, 42 St Paul Street, Area C, Layer 170, Phase 9, (Small Find 724).
- Part sole. Severely worn at toe, worn and cut across seat. Queen Street Midden Area, Layer 3, Phase 2.
- 115 Very fragmented sole. Signs of patching to seat and forepart. 42 St Paul Street, Area A, unstratified.
- 116 Left sole delaminated to only 1 mm thickness. Much of seat eroded. Six fragments upper (not illustrated) from same layer probably belong to the same shoe. 42 St Paul Street, Area B, Layer 120, Phase 5.
- 117 Right sole, much worn on underside. Queen Street Midden Area, Layer 3, Phase 2.
- 118 Right sole, worn away at seat. 42 St Paul Street, Area A, Layer 261, Phase 8.
- 119 Fragmentary? right sole. 42 St Paul Street, Area C, Layer 194, Phase 8.
- 120 Right sole, delaminated at seat and cut across forepart. Also one large and several small pieces vamp (not illustrated) from the same layer, probably belonging to same shoe. 42 St Paul Street, Area A, Layer 261, Phase 8, (Small Find 796).
- 121 Right sole, worn at toe and seat. 42 St Paul Street, Area C, Layer 170, Phase 9.
- 122 Right sole, forepart and left side of seat eroded. 42 St Paul Street, Area C, Layer 277, Phase 3.
- 123 Left sole, worn and partly cut away at seat. 42 St Paul Street, Area A, unstratified.
- 124 ?Right sole. 42 St Paul Street, Area C, Layer 243, Phase 5.
- 125 Fragmentary sole. Found with upper 100 and probably part of the same shoe. 42 St Paul Street, unstratified.
- 126 Large left sole. Much worn at right toe and left heel. Both forepart and seat have been patched, originally with stitching only half-way through the sole, but stitches have torn right through in time. Queen Street Midden Area, Layer 3, Phase 2.
- 127 ?Left sole. Broken across forepart and very fragmented elsewhere. 42 St Paul Street, Area C, Layer 196, Phase 7.
- 128 Right sole, in pieces and worn. 42 St Paul Street, Area B, Layer 98, Phase 3, (Small Find 737).

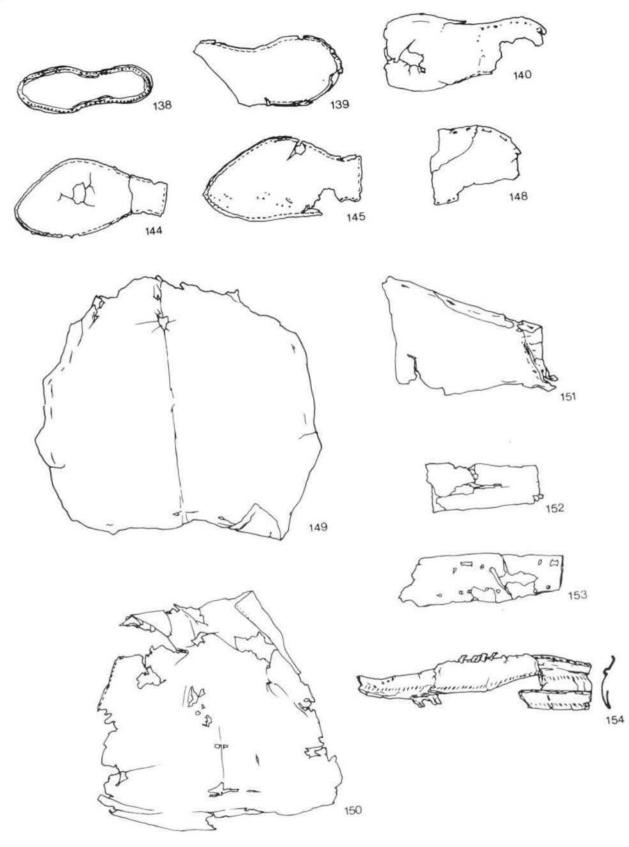
- 129 Left sole, worn away at left side of seat and right toe. 42 St Paul Street, Area A, Layer 222, Phase 3.
- 130 Right sole, in three parts, worn particularly at left toe and right seat. 42 St Paul Street, unstratified.
- Right sole, worn away at right side of seat. Worn and cut, possibly for patching, at toe and waist, although little sign of patch stitching holes. 42 St Paul Street, Area A, Layer 270, Phase 4.
- 132 Right sole, worn at seat, waist and toe. Patch stitching holes on underside at waist and seat. 42 St Paul Street, Area F, Layer 36, Phase 8, (Small Find 791).
- 133 Left sole. Forepart and seat worn and split at waist. No evidence of patching. 42 St Paul Street, Area C, Layer 175, Phase 9.
- 134 Right sole, much worn at seat and forepart. 42 St Paul Street, Area A, Layer 222, Phase 3.
- 135 Greatly worn and fragmented sole. 42 St Paul Street, Area B, Layer 102, Phase 7.
- 136 ? Left sole, much fragmented. Worn at forepart and left side of seat. Cut at seat, probably for patching. A few possible stitch holes for patching on seat. 42 St Paul Street, Area C, Layer 133, Phase 9, (Small Find 727).
- 137 Waist and forepart of very large right sole. Seat worn away. Greatly eroded on underside. Queen Street Midden Area, Layer 2, Phase 2.
- 138 Sole of child's shoe, remarkably little worn. 42 St Paul Street, Area B, Layer 120, Phase 3, (Small Find 777).
- Seat and waist of sole, forepart has been cut off. A substantial upper piece, (104), a binding strip, a possible heel stiffener and several small fragments (not illustrated), may belong to the same shoe. 42 St Paul Street, Trial Trench 1, unstratified.
- 140 Sole, heavily worn. All-through stitches for patching on seat. 42 St Paul Street, Area C, Layer 277, Phase 3.
- 141 Forepart and waist of left sole, with heel portion totally worn away. 190 mm long, 80 mm at widest part of forepart. Queen Street Midden Area, Layer 3, Phase 2. Not illustrated.
- 142 Very fragmentary sole c 260 mm long, 110 mm at widest point of forepart. Broken into three pieces. 42 St Paul Street, Area C, Layer 257, Phase 4, Not illustrated.
- Seat and waist portions of sole. Forepart has been cut away. Worn at left side of seat. 150 mm long, 60 mm wide at waist, 750 mm wide at seat. 42 St Paul Street, Area A, Layer 183, Phase 7. Not illustrated.

## TWO-PART SOLES (III 113)

A few of the Aberdeen soles are of this variety, presumably adopted to finish up small pieces of leather. Forepart and heel are joined by a seam which is usually at the waist, although it can occur further back towards the seat.

- Forepart of two-part sole. Very narrow waist. 42 St Paul Street, Area A, Layer 74, Phase 9, (Small Find 710)
- 145 Forepart of two-part sole. Worn towards waist and evidence of patching on underside. 42 St Paul Street, Area B, Layer 84, Phase 8-11, (Small Find 726).
- 146 Very worn remains of forepart of two-part sole, stitching across waist. 60 mm wide at waist. 42 St Paul Street, Area A, unstratified. Not illustrated.
- 147 Heel portion of two-part sole, stitching across waist side of seat. 75 mm long, 75 mm wide at widest point. 42 St Paul Street, Area A, Layer 184, Phase 9. Not illustrated.





III 113: Leather objects. Scale 1/4

# REPAIR PIECES AND COBBLING SCRAP (III 113)

Almost without exception, the Aberdeen shoe-soles showed extremely heavy wear; in many cases parts of the sole were entirely worn away. There was some evidence of patching in the form of patch pieces themselves and stitch marks in worn soles. The majority of such stitches, although rough, were only half way through the sole, presumably to make the mend more watertight. A total of nine clump soles or patches, mostly for the seat area, but including a few forepart clumps, were recovered from the three sites which produced leather remains. One example is noted below. Repairs were probably done using both new and old leather. A number of soles appeared to have been cut up, presumably to patch others, but there were also a number of concave-sided triangular scraps of new leather. These may have been offcuts from repairs, but it seems likely that at least some of them were by-products of the shoe-making process itself.

Part of seat clump sole or patch. Stitching originally half way through thickness of leather. 42 St Paul Street, Area C, Layer 269, Phase 4.

#### NON-SHOE LEATHER (III 113)

149 Large piece of leather, ranging in thickness from e 2 mm towards top end to c 1 mm at bottom end. Irregular slits along all sides, except at top right and top left. At bottom left, the edge has probably been torn away along the line of the slits. Folded vertically across middle. Queen Street Midden Area, Layer 3, Phase 2.

- 150 Large sub-rectangular piece of very thin, delaminated leather. Many marks of folding on surface. Area of stitching on one edge, but no other distinctive features. 42 St Paul Street, Area C, Layer 159, Phase 8, (Small Find 723).
- 151 Sub-rectangular piece of leather, probably not shoe leather. Two edges have been folded over and have rough slits on either side of the folds. 42 St Paul Street, Area F, Layer 47, Phase 7.
- 152 Fragments of possible belt? No visible stitching. Possible slit(s) down centre, but decay and delamination make positive identification difficult. 42 St Paul Street, Area A, Layer 184, Phase 9?
- 153 Part of belt, simple construction. Originally one layer of leather, c 2 mm thick, now split into two layers. Fastened with leather thongs passed through punched holes c 7 mm apart. Appears to narrow towards the right hand side, as drawn, which is probably an original end. Three pieces of thong remain. 42 St Paul Street, Area C, Layer 164, Phase 9.
- 154 Belt or knife sheath. As this object is incomplete it is difficult to be certain which of these two possible functions it served. It tapers slightly towards one end, although it does not seem to have the pronounced shaping often found in knife sheaths. Three punched holes towards one end might have been a means of suspension from a belt if it was a sheath. It is a single flat piece of leather, folded inwards, grain side out, and butt-seamed at the join. Slits c 2 mm apart down both sides form a simple decoration. Queen Street Midden Area, Layer 2, Phase 2.

## TEXTILES HELEN BENNETT

The Broad Street, Queen Street and 42 St Paul Street sites together yielded just seven woven fabrics; in addition, there were two finds of yarn or unspun wool. Although small in number, the finds exhibit an interesting diversity of quality and kind: the cloths range from an imported silk luxury fabric to a coarse and ill-made wool textile which may have been the local medieval equivalent of sacking. These may be compared with other medieval textiles found in Scotland, most notably the corpus of nearly four hundred, covering a period from pre 1150 to the later 14th century, excavated from the High Street site in Perth.

# FIBRES

With the exception of the single piece of silk, all the finds are of wool. Samples were submitted to Dr M L Ryder for analysis and his findings are incorporated in the catalogue. One further sample, a fibre found in the blade of the weaving sword (9) from 42 St Paul Street, also proved to be wool: the fleece type was hairy medium, with slight natural pigmentation.

Eleven of the sixteen samples (including the fibre from the weaving sword) had slight natural pigmentation, indicating a light grey or roan wool. The predominant fleeces were hairy medium and generalised medium types. These Dr Ryder considers to be the products of hairy and woolly sheep of a type 'perhaps comparable with the surviving short-tailed and vari-coloured Orkney/Shetland breeds. . . .' This, he argues (1981), was the predominant sheep type in the Middle Ages. An interesting discovery was the true fine wool used in the 2/2 twill cloth (155) from the Queen Street site. Although unusual, Dr Ryder considers that this need not necessarily be regarded as an import because occasional fleeces as fine as this are found in the modern Orkney breed. Overall, the Aberdeen wools included more finer types than those from Perth High Street, although Dr Ryder cautions that the Aberdeen sample is small and may not be representative. Further technical details and comparisons with medieval wools from other sites in Britain may be found in Ryder 1981.

# THE WOOL CLOTHS

#### Structure and parallels

The six wool cloths are all in basic weaves without woven or coloured patterning. There are four examples of 2/1 twill (also known as three-shaft twill), a weave which figures prominently in material from medieval sites. Of the 293 wool cloths from Perth High Street, for example, nearly 70% are three-shaft twills. One of the four from Aberdeen, 159, is a worsted: the yarn has been spun from fibres which have been prepared by combing, a process which removes the shorter fibres and aligns the remainder, resulting in a smooth, often hard, yarn. The fabric is firm to the touch, and the

weave is clearly visible. In this case similar Z spun yarn has been used for both systems, but one system, probably the warp, predominates and has a thread count nearly twice as high as the other. The Perth High Street site produced nearly fifty three-shaft, ZZ worsteds of light and medium weight. In most cases warp and weft are more or less balanced, but there is one piece (A09.0023b) similar to 159: this has a thread count of 18/8, and was taken from an early 14th-century deposit.

The remaining three 2/1 twills are woollens: the fabrics are softer and the weave less crisp in appearance. This is the result of using yarn in which the fibres have not been aligned before spinning, but worked into a light and aerated mass, probably by carding. All three fabrics have Z spun yarn in one system, probably the warp, and S spun yarn in the second. This combination was often used where the cloth was to be dressed, that is, after fulling to compact the fabric, the surface would be brushed to raise the nap and then sheared. This treatment obscured the weave and gave the cloth a smooth finish. None of the three, however, appears to have been dressed. Undressed fabrics of this type are plentiful among the Perth High Street finds, particularly from 13th and 14th-century levels.

The 2/1 twills are of undistinguished appearance, although it should be said that they are brittle and in poor condition. The fine, even 2/2 twill (also known as four-shaft twill) from Queen Street (155), by contrast, is of unmistakeably high quality. Although fragmentary, the professional standard of spinning and weaving is clearly evident, and the dressing has been expertly carried out, leaving a smooth and velvet-like finish on both surfaces. There are a number of four-shaft twills from Perth High Street, but none has been napped or approaches this quality. Indeed there is no comparable cloth from elsewhere in Scotland. In the Queen Street example S spun yarn has been used in both systems, a feature which seems to be unusual in 13th and 14th-century material. The SS combination is found in two fabrics from Threave Castle (Bennett) and one from Kirk Close, Perth (Bennett a), but all three are 2/1 twills and from probable 15th-century contexts. Among published material, the nearest parallels to the Queen Street example are from Newcastle-upon-Tyne, where the Castle ditch yielded a group of napped four-shaft twills woven from S spun yarns, the earliest of which came from the first half of the 15th century (Walton 1981, 193-8). This suggests the possibility that the Queen Street piece should be placed slightly later than the 14th century.

The heaviest and least well made of the Aberdeen textiles is the tabby woven from 2 ply yarn (157). A fragment of similar structure, and probable medieval date, was found in a cist near Kelso Abbey, Roxburghshire, and is now recognised to be of wool rather than vegetable fibre as was originally thought. When discussed by Miss Henshall (1952, 17) the piece was without parallels. Since that time, however, excavations in Perth have produced plentiful materials of this type: of variable weight, they are marked by the use of coarse hairy fibres, a harsh texture and, frequently, an uneven appearance. Similar material has also been recovered from London, from 9th to 10th-century and 14th-century contexts. (Pritchard 1982, fig 1), and from a number of sites on the Continent, notably in Scandinavia, Germany and Holland (Kjellberg 1982, 138; Vons Comis 1982, 155).

# Use

All the pieces are reduced to rags and bear no indication of the use to which they have been put. The best that can be said is that the five examples of twill are of appropriate weights for clothing. The high quality 2.2 twill would have been eminently suitable for a woman's fashionable gown. 158a and 158b, found matted together, may represent the main fabric and lining of a garment, but their juxtaposition could equally well be fortuitous.

The tabby made from 2 ply yarn is too rough and inflexible for clothing purposes. In Lund, Sweden, fabric of this type was used for shrouds (Lindström 1982, 181) but the regularity with which it appears on habitation sites suggests that it was also in more general use. It is difficult to imagine a function other than matting for the coarsest of this material, but the more closely woven pieces, including the sample from Aberdeen, would have been suitable for sacking.

#### Discussion

As yet, our view of the Scottish medieval textile industry is indistinct and is hampered, in particular, by the paucity of documentary material. On the available evidence, it is generally held that during the medieval period Scotland was essentially an agricultural community, and one in which crafts were of relatively little importance, providing goods mainly for local consumption. Whereas in the late Middle Ages, England had a flourishing cloth industry, Scotland's commerce continued to rely on the export of raw materials, wool included, while the bulk of manufactured commodities were imported (eg Grant 1930, 111-2, 410). There are indications that dyed, fulled and sheared cloth was being made in the burghs in the 12th and 13th centuries, yet, it is clear from Andrew Halyburton's account book, for example, that two centuries later bolts of cloth were being sent from E Scotland to the Low Countires to be dyed, and, presumably, finished; this suggests that at the end of the 15th century textile skills in the area were poorly developed (Halyburton's Ledger, 209). Similarly, at the end of the 16th century Scottish cloth had a well-established reputation for coarseness and low quality (Gulvin 1973, 13-37). It is possible that the textile industry in Scotland was in a healthier state in the 13th century than it was at the end of the Middle Ages, following on the War of Independence and the later troubles. Yet, if so, this is not reflected in the large body of textiles of the 12th and 13th century from Perth, the general standard of which is moderate to poor.

In view of this, the fine 2/2 woollen fabric, a clothing material of high quality, might be expected to be an import, say from England or the extensive cloth industry of the Low Countries. Although Dr Ryder comments that the true fine wool used in its manufacture could have been produced in Scotland, the balance of probability is against the piece having been locally made. The three-shaft twills are a different matter. As has been seen, they compare well with the material from Perth High Street: fabrics of this type appear in such quantity in the Perth group that it seems reasonable to suppose that some at least were local products.

There are only a few indications of loom types in medieval Scotland. It has been suggested that the change from vertical to horizontal looms, and with it a change from domestic production by women to professional production by men, began about 1000 AD in W Europe (Hoffmann 1964, 258-65). As Hoffmann has shown, however, (1964, 51-2) the warp-weighted loom survived in domestic contexts and in outlying areas for a considerable period after this—in the Shetlands, Orkney, Iceland and the Faeroes as late as the 18th century. It is therefore quite feasible that the warp-weighted loom could have been in use in E Scotland in the 13th and 14th centuries, at least on a domestic basis. The finding of a weaving sword (9), pin beater (27) and a possible loom weight (39), all items used with the warp-weighted loom, at 42 St Paul Street, confirms this possibility for Aberdeen.

# THE SILK

Only a tiny fragment of the silk (160) remains, but the diminutive decorative edging strongly suggests that it was part of a very narrow textile, probably a ribbon, rather than a

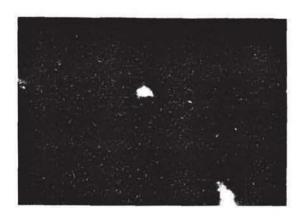
broader width of fabric (the use of picoted edgings to ornament ribbons has continued into this century). A number of medieval silks have been recovered from Scotland—from sites in Perth, and from the tomb of Robert the Bruce and those of two 16th-century bishops (Henshall et al 1956)—but all are from clothing silks. As yet, no parallel has been found elsewhere.

There is no doubt that the piece was an import as there was no silk industry in medieval Britain. The most likely source is Italy: in the 13th and 14th centuries that country not only manufactured silk textiles, but served as the entry point to Europe for high quality silks from the E Mediterranean and even further afield (Pounds 1973, 392-3).

# CATALOGUE

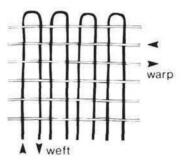
The direction of the spinning twist of the yarn is indicated by the letters Z (for anti-clockwise) and S (clockwise); all yarn is single ply unless otherwise stated. Except where the existence of a selvedge has allowed the warp and weft to be identified with certainty, the systems are simply designated 1 and 2; the likely warp, however, is given first. The sign + against the fleece type indicates the presence of slight natural pigmentation, that is up to 20% of pigmented fibres.

Fifteen fragments of rich mid-brown, fine, light weight woollen cloth, all probably part of the same fabric; about 400 sq cm in all. The weave is 2/2 twill and both spinning and weaving are exceptionally even and well executed. The fabric is soft and smooth to the touch, with the nap on both surfaces raised and sheared; the finish has been worn away in places. There are a number of cut edges but no indications of sewing. System 1, fine S spun yarn, 28-30 threads per 10 mm. System 2, the same. Fleece types: fine in system 1, generalised medium in system 2 (sample from Small Find 67). Queen Street Midden Area, FN57A, Phase 1, (Small Finds 39, 67 and 68). Illustrated below (×2 magnification).



- Four fragments of mid-brown, light-medium weight woollen cloth, soft to the touch; surface area about 14 sq cm. The weave is 2/1 twill. Although there are traces of felting, this appears to be the result of wear or burial rather than a finishing process. The quality is similar to 158a. System 1, Z spun yarn, about 10 threads per 10 mm. System 2, softer S spun yarn, 10-11 threads per 10 mm. Fleece type: generalised medium in both systems. Broad Street, Trench 1, Layer 2, Phase 4, (Small Find 45). Not illustrated.
- 157 Eight fragments of mid-brown, extremely coarse and heavy wool cloth, harsh to the touch; one piece has

75 mm of selvedge on one edge; surface area about 200 sq cm. Some of the pieces are in a poor state of preservation and although they appear similar it is not certain that all belong to the same fabric. The weave is tabby, and the selvedge is of the simplest kind, with no measures to strengthen the edge (illustration below). A 2 ply yarn has been used in both systems; there are considerable variations in the thickness of the yarn, the result of uneven spinning. System 1, warp, 2 ply yarn, weak S spun, and Z plyed, 3-4 threads per 10 mm. System 2, weft, the same. Fleece type: hairy + in both warp and weft. Broad Street, Trench 1, Layer 2, Phase 4, (Small Find 49).



158 Two irregular fragments, caked together, of midbrown woollen cloth, brittle and poorly preserved; about 75 mm × 50 mm.

a. light-medium weight Z/1 twill, soft to the touch but with no observable nap. System 1, Z spun yarn, 10-11 threads per 10 mm. System 2, similar S spun yarn, 10-11 threads per 10 mm. Fleece type: generalised medium + in both systems.

b. medium weight 2/1 twill without nap, of uneven appearance. System 1, Z spun yarn, about 8 threads per 10 mm. System 2, slightly thicker and softer S spun yarn, about 6 threads per 10 mm. Fleece types: generalised medium + in system 1, fine/generalised medium + in system 2. 42 St Paul Street, Area B, Layer 108, Phase 7, (Small Find 812). Not illustrated.

One piece, roughly rectangular, of dark brown medium weight worsted cloth, hard to the touch; 175 mm×75 mm. The weave is 2/1 twill, evenly executed but with some weaving faults. System 1, firm, glossy Z spun yarn, 15 threads per 10 mm. System 2, similar, but less tightly spun, Z spun yarn, 8 threads per 10 mm. Fleece types: true medium in system 1, and true medium + in system 2. 42 St Paul Street, Area C, Layer 257, Phase 4, (Small Find 813). Not illustrated.

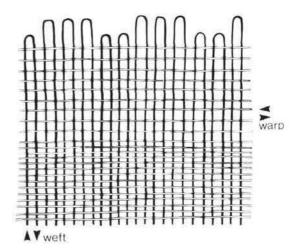
160 Fragment of woven silk, now a rich mid-brown, with a selvedge on one long edge; probably part of a ribbon; 75 mm × 8 mm. The main weave is a warpfaced satin in which each warp runs alternately under one and over four weft threads. The outermost ten warps at the closed edge are woven in tabby (that is, 1/1 plain weave) to form a firm selvedge; at the closed edge three out of every five weft loops have been extended to provide a tiny decorative picoted edging (illustration below. Photograph × 2 magnification).



System 1, warp, very weak (?) S spun yarn, about 120 threads per 10 mm (calculated from a count over the satin weave). System 2, no observable twist, 22-3 threads per 10 mm. Queen Street Midden Area, FN57A, Phase 1, (Small Find 39).

Small clump of unspun wool containing both dark brown and mid-brown fibres; the latter have a pink tinge which may be the result of dyeing. The fleece types are hairy medium + and generalised medium respectively. Broad Street, Trench 1, Layer 2, Phase 4. (Small Find 45). Not illustrated.

Strand of reddish-brown wool (?)yarn; 110 mm long and up to 8 mm in diameter. The fibres are loosely and irregularly twisted together in S direction but it is possible that this has occurred accidentally rather than as the result of spinning. Fleece type: hairy medium + . 42 St Paul Street, Area B, Layer 113. Not illustrated.



#### THE FLINT J B KENWORTHY

#### INTRODUCTION

The flintwork from these sites has been examined using normal conventions, with some modifications explained below. The material from each site has been divided into the following categories:

- 1 Mesolithic or of Mesolithic technology
- 2 Prehistoric, post-Mesolithic or not definitely Mesolithic
- 3 Undiagnostic pieces which cannot be attributed to any other group by material, technology or context; also 'natural' pieces from local drift or beach deposits
- 4 Chalk flint ballast (E Anglian?)
- 5 Other ballast flint

For flaked pieces in categories 2-5, the normal division into primary (100% cortex dorsally), secondary (partly cortical) and tertiary (no cortex dorsally) has been adopted. For the mesolithic material a division reflecting the lithic reduction sequence followed by the knappers has been used, analogous to that proposed by Jacobi (Jacobi et al 1978). Full details will be published elsewhere; for present purposes it is sufficient to give the main categories used: waste (small and large), cores, core preparation flakes, core trimming flakes, flakes, bladelets and fragments/segments of these, tool production waste, and tools. Pieces are described as if held with the proximal end (the struck end) towards the viewer and with the dorsal face upwards. A detailed catalogue including each piece has been prepared; publication in this detail for such small groups is not warranted, but it is available in archive. Summary statistics for some aspects are given here and only those pieces which merit description are listed. Where tool-types are given, these are conventional descriptions, supported by limited microscopic examination (at  $20 \times -120 \times$ ); pieces thought to be unmodified but utilized have also been checked microscopically in an attempt to distinguish natural damage (from trampling, soil movement etc) from genuine use-wear.

It is important to bear in mind that not all pieces have been checked microscopically and apparently undamaged pieces may have been utilized, and that the author cannot claim any expertise in the field of microwear analysis and all conclusions must remain provisional.

# QUEEN STREET AND BROAD STREET (III 116, 117)

The material consists of 180 pieces, all of flint with the exception of one small split pebble of felsite; it may be categorized as follows:

Table 25 Queen Street and Broad Street. Flint by category.

Category	No of pieces	Percentage
1 (a) Primary	101	56.11% } 79.44%
(b) Derived	42	23.33%
2	4	2.22%
3	18	10.00%
4	1	0.56%
5	14	7.78%

With the exception of category 1 (Mesolithic) where pieces in a primary (or nearly primary) context are treated separately, no attempt has been made to treat the material by phase.

# 1 Mesolithic

A total of 143 pieces belong to a characteristic later Mesolithic 'narrow blade' industry; 101 come from apparently primary contexts, 7 from Phase 2 contexts appear to be homogeneous with these and are included for the purpose of analysis, and 35 come from derived contexts. The main concentration was in 12-26 Broad Street as shown in Table 26.

Table 26 Queen Street and Broad Street. Flint by area.

	Primary	Derived
Queen St frontage	0	11 (5 unstratified)
Queen St Midden Area	15	10
12-26 Broad St	86	21 (11 unstratified)

The primary material is in the main fresh and unworn, only 3% being iron-stained, 2% slightly corticated and 4% slightly patinated. Of the derived pieces, 14% are iron-stained,

9% corticated and 11% patinated, the higher figures being due to the more chemically active nature of the medieval deposits. The raw material is nodular flint from beaches and rivers, with possibly a small amount derived from the Buchan inland deposits; the colours reflect those still to be found in such contexts in NE Scotland: 51.6% yellow-honey, 7.5% medium brown, 17.2% cream, 22.6% grey, 1.1% red-brown. Pieces affected by fire are relatively uncommon: only 2.8% are calcined, 5.6% burnt, and c 1% slightly heated (for the basis of these divisions see Masson 1981). This suggests that although there were fires in the area of the site, there were no long-term hearths.

There can be no certainty that the primary material

represents one episode of activity, but its homogeneity suggests that the period of time involved was not extensive. As noted above, the main concentration was in 12-26 Broad Street, where 79 pieces came from one group (Trench 8, Layer 6). The concentration of cores from Queen Street Midden Area, subsoil layer 5, is also noteworthy. In both areas, groups of material from the same nodule reinforce the idea of a short period of limited activity on the site. As Table 27 shows, all stages of working flint, as well as other activities, have been carried on in the area, though never intensively given the low numbers of flints recovered. In Table 27 both numbers of primary pieces (and percentage of total primary material) and overall numbers are given.

Table 27 Queen Street and Broad Street. Analysis of mesolithic flint

	No of pieces and	
	percentages in	
Type of flint	primary contexts	Overall totals
Waste	14 (13.0%)	18 (12.6%)
Angular	2 (1.9%)	3 (2.1%)
Cortical	2 (1.9%)	3 (2.1%)
Spalls	6 (5.6%)	7 (4.9%)
Chips	2 (1.9%)	2 (1.4%)
Split nodules	2 (1.9%)	3 (2.1%)
Cores	7 (6.5%)	9 (6.3%)
Complete	7 (6.5%)	8 (5.6%)
Fragment	0	1 (0.7%)
Core preparation	21 (19.4%)	23 (16.1%)
Initial flakes	3 (2.8%)	3 (2.1%)
Complete flakes	8 (7.4%)	10 (7.0%)
Fragments/Segments	21 (19.4%)	23 (16.1%)
Core trimming	26 (24.1%)	38 (26.6%)
Complete flakes	17 (15.7%)	26 (18.2%)
Fragment/Segments	9 (8.3%)	12 (8.4%)
Flakes	3 (2.8%)	7 (4.9%)
Bladelets	16 (14.8%)	17 (11.9%)
Flake/Bladelet segments/fragments	15 (13.9%)	20 (14.0%)
Tool production waste		
Microburins	$2(1.9\sigma_0)$	2 (1.4%)
Tools and tool elements	4 (3.7%)	9 (6.3%)
Microliths	1 (O.90%)	1 (0.7%)
Miscellaneous retouched	0	1 (0.7%)
Scrapers/small edge tools	2 (1.9%)	5 (3.5%)
Burins	1 (0.9%)	2 (1.4%)

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The main categories for primary material are shown graphically in Ill 114, with information on breadth/length ratios and a dispersion diagram for these dimensions for complete flakes and bladelets (Ill 115). It is clear that the industry had as its aim the production of typically later Mesolithic bladelets. Apart from the modified pieces discussed below, 5 primary and 1 derived pieces show probable use-wear, and another 8 pieces (6 primary) have edge damage which is possibly due to use.

Microlith: Among the group of flints from Broad Street, Trench 8, Layer 6, is a scalene triangle microlith of medium brown flint made on the distal segment of a bladelet by steep direct retouch along the left edge. The date range for such typically later Mesolithic pieces is from the seventh to fourth millennia bc. Length: 15 mm, breadth: 3.5 mm, thickness: 2 mm. (Archive No 40). 162 Retouched piece: From derived context. The distal end of a (core-trimming?) flake or blade of medium brown flint with fine shallow direct microflaking along the left-hand edge and the tip. Use-wear consists of multiple microstep scarring and possible polish on the dorsal face along the right-hand edge. Length: 18 mm, breadth: 13 mm, thickness: 3.5 mm. (Archive No 138). Broad Street, Trench 3, Layer 1.

Microburins: Two proximal microburins, the waste from microlith production, come from the same context as the microlith.

- Medium brown flint, from the same core as the microlith, with a right-hand punched notch. Length: 13 mm, breadth: 10 mm, thickness: 2.5 mm. (Archive No 41). Broad Street, Trench 8, Layer 6.
- 164 Yellow-brown flint with a slight retouched left-hand notch. There is fine abrupt direct retouch on the left

hand edge. Length: 13.5 mm, breadth: 12 mm, thickness: 3 mm. (Archive No 42). Broad Street, Trench 8, Layer 6.

Notched piece: A greyish-cream (tertiary) flake with patination and slight cortication, from the same context as the microlith. The left-hand edge has a notch 8.5 mm wide and 2 mm deep formed by abrupt direct retouch, possibly later than the patination of the surface. There is abrupt direct retouch over 6 mm of the right-hand edge, with some inverse microflaking which may indicate use. Length: 26 mm, breadth: 17 mm, thickness: 4 mm. (Archive No 68). Broad Street, Trench 8, Layer 6.

Scrapers and edge tools: There are 5 of these tools, 2 from primary contexts.

- Derived context. Convex scraper on the edge of a large flake of red-brown flint. The tool edge is formed by invasive parallel shallow scalar retouch, and the edge angle is 81°. Use is indicated by direct multiple step microflaking of the entire working edge and a poorly-developed polish along the edge of the ventral face. Length: 30 mm, breadth: 28 mm, thickness: 14 mm. (Archive No 123). Queen Street Midden Area, FN26, Phase 3.
- 167 End 'scraper' on the snapped-off distal end of a large hinge flake of pale brownish-grey flint. The slightly convex working-edge is formed by steep direct multiple small scalar retouch, and the edge angle is 76°. Wear traces include direct microstep and scalar damage to the working-edge which has been partly snapped off at the right-hand side.

There is slight polish on the dorsal arris and the distal ventral edge, and the latter area bears parallel oblique striations 0.1 to 0.05 mm apart, oblique to the edge. Length: 20 mm, breadth: 26 mm, thickness: 5 mm. (Archive No 139). Broad Street, unstratified.

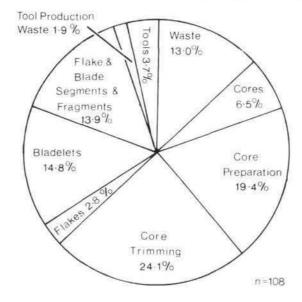
Derived context. A fragmentary (side?) scraper of yellowish-cream cherty flint. The dorsal surface is of smooth iron-stained cortex. 13 mm of the working edge, formed by steep notched direct retouch, survives. The edge angle is 68°. Use is indicated by direct multiple microstep flaking of the edge. Length; 16.5 mm, breadth: 14.5 mm, thickness: 7.5 mm. (Archive No 128). Queen Street Midden Area, Midden, Phase 2.

- From the same context as the microlith 161, and probably from the same core. A light-duty end scraper formed by oblique convex truncation of the distal end of a bladelet of medium brown flint. The edge angle is 72°. Use-wear is not confined to the working-edge. This bears some direct microstep damage, while the central part of the right-hand edge bears continuous inverse microscalar removals, and there are some scattered microflake scars on the proximal and distal parts of the same edge. This suggests that the tool may have been used for more than one purpose. Length: 32 mm, breadth: 11 mm, thickness: 4 mm. (Archive No 43). Broad Street, Trench 8, Layer 6.
- Light-duty end scraper formed by oblique convex truncation of the proximal end of a bladelet of brownish cream flint. The edge angle is 71°. The left hand edge has been modified by continuous inverse small scalar retouch on the mesial and distal portions, to give an edge angle of 58°. Both edges bear slight damage on the dorsal surface; it is uncertain whether this is due to use. Length: 31 mm, breadth: 10 mm, thickness: 4 mm. (Archive No 44). Broad Street, Trench 8, Layer 6.

All of these pieces may be matched in later mesolithic contexts elsewhere, but they are not chronologically distinctive. Nos 169 and 170 cannot readily be paralleled in local contexts, but analogues come from Wawcott III, Berkshire (Froom 1976, 155, 158) where they are interpreted as light-duty scrapers, and it is noted that the truncations may be either proximal or distal.

Burins: Two of these tools used for cutting grooves in hard materials have been recovered, one from a derived context.

171 From a derived context. An angle burin made on the proximal end of a thick secondary flake. Of pale brownish flint, the piece bears slight cortication and iron-staining on all surfaces. The main dorsal arris has been crushed, and some transverse scalar flakes removed before cortication, from the left-hand edge, suggesting that there was re-use perhaps as an anvil during the employment of microburin technique. The burin edge has been formed by the removal of a single burin spall using the unmodified proximal end of the flake as a platform; this produced a facet 14.5 mm long and c 2 mm wide along the left-hand edge, making an angle of 86° with the 2.5 mm remaining of the flake platform and 80° with the ventral surface



Ill 114: Flint, Queen Street and Broad Street, Primary mesolithic flints, percentages of types

of the flake. Use-wear is well-developed: the bit edge is markedly rounded when seen under magnification, as are the leading edges of the facet, especially the ventral edge, and there is a well-developed polish on these areas which is possibly the result of working antler (cf Keeley 1980); the proximal end of the facet bears parallel striations at right angles to the bit edge and extending for c 2 mm. Length: 43.5 mm, breadth: 17.5 mm, thickness: 10.0 mm. (Archive No 114). Queen Street frontage, Layer 3a.

From a primary context. An angle burin made on the proximal end of a thick hinge flake of yellow-brown

flint. A hinged burin spall has removed the entire proximal end, leaving a facet 12 mm long and 4 mm wide which makes an angle of 52° with the left hand dorsal flake scar and 121° with the ventral surface. There is some miscellaneous small scalar damage to all edges and a scalar flake has been removed from the burin bit on the face opposite the facet. There appears to be some microscopic use-polish, but it is not as well-developed as on the first example. Length: 28.5 mm, breadth: 11.5 mm, thickness: 7 mm. (Archive No 16). Broad Street, Trench 1, Layer 30. 173-Cores: Eight complete cores were recovered, one from a derived context, as was the fragmentary core. As well as cores, there are three split flint nodules, one (Archive No 126) possibly a core blank. The cores themselves range from worked-out examples which have been abandoned after considerable use to aborted cores which have been rejected soon after initiation. The distribution of cores on the sites is interesting: although more flints came from Broad Street, there are only two cores from primary contexts there; 5 of the 14 pieces from Queen Street Midden Area subsoil (Layer 5) are cores, however, suggesting a difference in activities between the two areas. The forms of the cores are typically mesolithic. Three are prismatic with one striking platform (173, 176, 178: Archive Nos 45, 4, 122), two are pyramidal with single platforms (Archive No 2 having been abandoned half-developed, and 175: Archive No 3, to which a trimming flake (Archive No 11) can be rejoined) and two are pyramidal with two opposed plaforms (177: Archive No 21, and Archive No 5). In one case (Archive No 6) the first platform was unsuccessful, a second was tried with equal lack of success, and the core was abandoned.

Measurement of complete flake scars on the cores (Ill 115) shows that bladelets were the main products and therefore the most likely to have been removed from the site. These scars tend to be shorter than the flakes and blades from the site, but it should be remembered that as the core develops the flakes become shorter. In fact the mean height of the cores, c 30 mm, corresponds with the modal flake/blade length.

Several of the cores have their platform edges 'scrubbed' to remove projections. Such scrubbing has sometimes in the past led to the identification of 'core scrapers': in most cases these are not the result of use as a scraper.

Unmodified pieces: Little need be said about this material. The low percentage of small waste (chips and spalls) would normally suggest the virtual absence of primary flintworking, but the presence of cores, preparation and trimming debris shows this to be untrue. The reason for the absence is discussed below. The use of two-platform cores is attested by a few basal core-trimming 'tablets' (removed to form the second platform) and some inverse trimming flakes, but the debitage shows clearly that one-platform cores were the norm. Core initiation and preparation was by direct percussion, presumably with a hammerstone in most cases, but occasionally with a soft (wooden or antler) hammer. Core trimming was carried out equally often with a soft or a hard

hammer and rarely by indirect percussion with a punch. This last method was used for the production of bladelets, the main aim of the knapper.

In conclusion, then, this group of flints represents a few episodes of transitory occupation during which various activities concerned with the maintenance of equipment, rather than its production, took place. This occupation took place during the later mesolithic period.

# 2 Other prehistoric material

Three pieces from Queen Street, two of pale grey, one of yellowish-brown flint, have been deliberately flaked but seem not to belong to a mesolithic industry. They are a longitudinally split tertiary flake 39 mm long, iron stained and slightly patinated (Archive No 145, unstratified), a tertiary flake 13 mm long by 21 mm (Archive No 146, unstratified), and a thick tertiary flake 18 mm long by 23 mm (Archive No 147, Queen Street Midden Area, FN63, Phase 3). All are from previously flaked cores. Precise dating is impossible, and they may not be derived from the local subsoil. Archive Nos 145 and 147 bear some edge damage.

179 Barbed-and-tanged arrowhead: Of more interest than the above is an arrowhead of greyish white flint from Broad Street, early in the site's history. It may well have been brought to the site from elsewhere; although sufficient similar finds have been made within the area of modern Aberdeen to establish an Early Bronze Age presence, occupation on this site cannot be assumed. Length: 22 mm, (originally c 29 mm), breadth across barbs 21 mm, thickness: 4 mm. (Archive No 144). Broad Street, Trench 1, Layer 5.

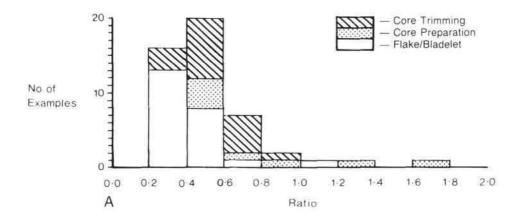
The reasons for the occurrence of flint arrowheads in medieval and later contexts has been discussed elsewhere (Kenworthy, forthcoming). The arrowhead has straight unserrated edges, unequal rounded barbs and a rounded tang. It is an 'everyday' form belonging to Green's (1980, 45-57) Sutton b category, its dimensions coinciding with those modal for the type. The associations of such arrowheads, probably the most common type in Scotland, are with Early Bronze Age ceramics, most particularly with Step 2-5 Beakers, indicating a date range of c 1900-1200 bc. There is a notable concentration of Beakers of these stages in NE Scotland. The white flint is unusual for the area, where red-brown and yellow-brown flint are more commonly used, but examples do occur sporadically throughout the NE.

# 3 Undiagnostic pieces

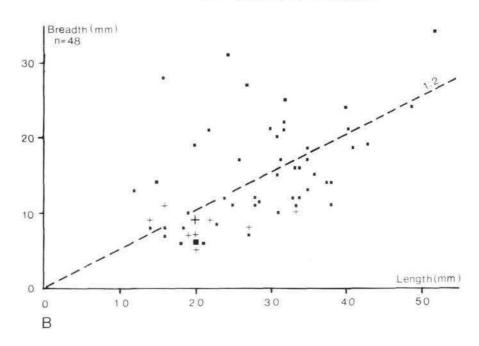
17 pieces (7 unstratified) lack any diagnostic features. Included are a vesicular flint nodule, a flaked nodule (Archive No 148: possibly an abandoned mesolithic piece), and a naturally split felsite pebble (Archive No 160). 11 are angular fragments devoid of features, and 2 are possibly (though not certainly) deliberately flaked; the distal end of a possible secondary flake of grey-brown flint (Archive No 154) and a large calcined secondary flake (Archive No 162). (Archive Nos 148-164).

#### 4 Chalk flint ballast

One piece, a broken projection from a nodule of medium brown-grey flint with characteristic rough chalky cortex, was found in Queen Street Midden Area, FN57B, Phase 1 (Archive No 165).





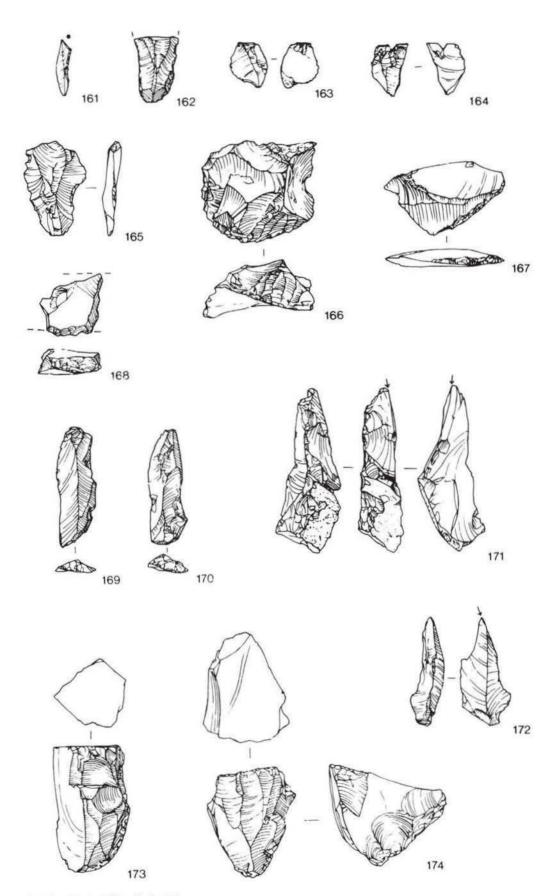


411 115 : Flint, Queen Street and Broad Street, a) Breadth: length ratios, b) Breadth: length dispersion diagram

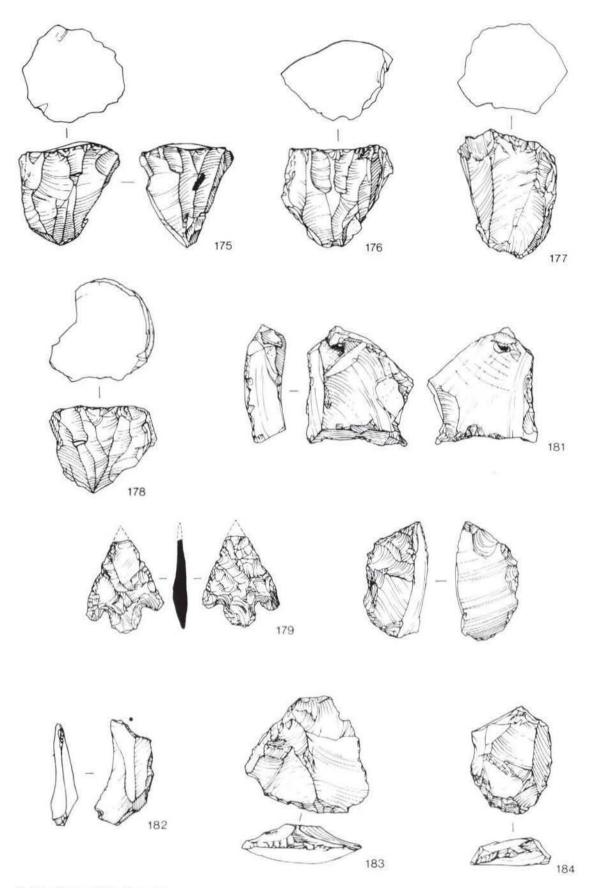
# 5 Other ballast flint

15 pieces were recovered, of which 7 are unstratified. 6 are from Queen Street frontage, 4 from Queen Street Midden Area, and 5 from Broad Street. They range in size from  $72 \times 33 \times 59$  mm to  $4 \times 4 \times 3$  mm, and are mainly variegated pale, medium or dark grey in colour. Most of the material

is from beach nodules. None of the broken surfaces shows any patination or cortication, but one has slight ironstaining. There are 2 split nodules, 6 cortical fragments, 5 cortical flakes, and 2 non-cortical fragments. 7 have been shattered naturally without pattern, the others show flaking by very heavy blows, in all cases probably through natural agencies. (Archive Nos 166-180).



III 116: Worked flint. Scale 1/1



III 117: Worked flint, Scale 1/1

## SHORE BRAE (III 117)

39 pieces were recovered from 14 contexts; they may be categorized as follows (contexts given in rough stratigraphic order):

Table 28 Shore Brae. Flint by category and context

			Category	15	
	1	2	3	4	5
Context/Layer					
Phase I					
Harbour infill					
35			1		2
41			1		1
31				1	1
Harbour wall					
38					1
39			1		
25			1		
36		1			
Phase 2					
Nil					
Phase 3					
FN 10			4		9
13	1		1	1	9 4 1 1
12				1	1
10					1
Phase 4					
8			2		
8 5 4					1
4			1		1
Total	2	0	12	3	22

Two pieces, a hinge flake of pale flint from Layer 13 and an incomplete bladelet from Layer 36, are of mesolithic technology and presumably derive from a site in the vicinity of the harbour. The material in category 3 is made up mainly of naturally occurring waterworn pieces from local beach deposits. Only one piece in this category, from FN10, may have been deliberately struck. Not surprisingly, the ballast flint brought in by ships is the largest category. There are three pieces of high quality chalk flint in category 4, and 22 of the pale to dark-grey cherty flint, mainly in the form of fragments of beach nodules, in category 5. There is a wider variety in category 5 than there is from other sites in Aberdeen, with one large piece of tabular flint and some fragments of the same being the most notable; these suggest that ballast from more than one source is included in category 5 on this site. Only one piece requires detailed mention. This is a probable strike-a-light from Layer 31 (180). It is a longitudinally-snapped hinge flake of category 4 high-quality dark grey-brown flint, 31 mm long, 15 mm broad and 7.5 mm thick, with marked edge crushing and flaking.

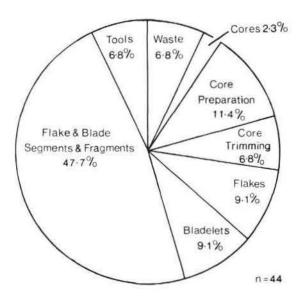
# 42 ST PAUL STREET (III 117, 120)

The main excavations and the 1974 trial excavation produced a total of 141 pieces of flint and 4 pieces of quartzite, categorized in Table 29.

Table 29 42 St Paul Street. Flint by category

	Number of	
Category	Pieces	Percentage
1 (a) Primary		50.0
(Phases 1-3)	48	33.10% 33.79% 66.89%
(b) Derived	49	33.79% 66.89%
2	8	5.52%
3	15	10.34%
4	8	5.52%
5	17	11.72%

11 pieces cannot be attributed to a phase; the distribution of the other 130 is shown in Table 30.



Ill 118: Flint. 42 St Paul Street. Primary mesolithic flints, percentages of types

Table 30 42 St Paul Street. Flint by category and phase

Category				
1	2	3	4	5
35				
2				
7	1	1		1
1	2			2
2	1		1	1 2 1
		1		
14		2	1	2
6	1	2	1	
8		2	1	3
5	1	4	1	
8	1	1		2
			1	
I		1	2	1
	2 7 1 2	1 2 35 2 7 1 1 2 2 1 14 6 1	1 2 3 35 2 7 1 1 1 2 2 2 1 14 2 6 1 2	35 2 7 1 1 2 2 1 1 14 6 1 2 1 8 2 1 8 1 1 1 1 1 1 1 1 1

The distribution of categories by area is discussed below. Excluding the quartzite and pieces from the trial trenches, it is shown in Table 31 (for category 1, the number of pieces in primary contexts is given in brackets following the total).

Table 31 42 St Paul Street. Flint by category by area

	Area					
	A	В	C	D	E	F
Category						
1	16(5)	53(35)	4(0)	3(0)	7(1)	5(0)
2	0	2	5	1	0	0
3	2	3	1	5	2	1
4	3	0	1	3	0	1
5	2	5	3	1	0	1

# 1. Mesolithic

A total of 93 pieces apparently belong to an industry of mesolithic technology, probably later Mesolithic; 44 came from Phases 1-3 and may be considered to be primary. Three deliberately flaked pieces of quartzite and one burnt piece of quartzite (?) are associated with the latter. The distribution shows a marked concentration in Areas A and B, especially the latter. 22 of the 35 primary pieces in Area B came from a limited area, little over 1m<sup>-</sup>, near the N end. Despite the

small number of pieces, statistical consideration of the distribution pattern can give some useful information. Two questions which need to be answered are:

- (a) does the derived material originate from the site or was it brought in, for example with dumped soil?
- (b) does it support the division between derived category 1 pieces and those of categories 2 and 3, which might be questioned?

The derived mesolithic material is more widely distributed over the site than the primary pieces, but there is a high positive correlation (r = 0.86) between the distributions, suggesting that despite this difference, much of the derived material may originate on site. There is no correlation, on the other hand, between derived mesolithic and category 2-5 flints (r = 0.05) suggesting that their presence is due to different agencies. This is supported by the results of a chi-square test (p = c 0.02). There is no significant difference between the ballast (categories 4, 5) and the other non-mesolithic material (categories 2, 3); these show a weak positive correlation, but the pattern may well be random. We cannot be sure that none of the derived mesolithic material is extraneous, however, and for purposes of assemblage analysis it has been excluded. In answer to the second question, there is a weak negative correlation between derived mesolithic and category 2-3 material and a chi-square test shows a significant difference between the groups, giving a measure of support to the separation of category 2 and 3 material from derived category 1 pieces.

The primary material is fresh and unworn, with the exception of two slightly worn pieces, but 20% of the derived material shows some degree of abrasion. 16 of the primary pieces have slight patination and 2 are slightly corticated; of the derived material 8 are lightly patinated and 5 slightly corticated. The flint used is similar to that from the Queen Street and Broad Street sites but pieces affected by fire are more common: of the primary material one piece is heated, 7 are burnt and 12 calcined, making 45% of the total; of the derived material, 3 pieces are burnt and 7 calcined (20% of the total). Of the primary group in Area B already mentioned, 12 have been in a fire, suggesting that there was a hearth close by. The assemblage is too small to provide information for detailed comparative purposes, but represents all stages of flint-working, with flake and blade segments and fragments predominating.

Table 32 42 St Paul Street. Analysis of mesolithic flint

	No of pieces and percentages in	
Type of flint	primary contexts	Overall totals
Waste	3 (6.8%)	7 (7.5%)
Angular	1 (2,3%)	1 (1.1%)
Cortical	0	1 (1.1%)
Spalls	0	1 (1.1%)
Chips	2 (4.5%)	2 (2.2%)
Split nodules	0	2 (2.2%)
Cores	1 (2.3%)	3 (3.2%)
Core preparation	5 (11.4%)	16 (17.2%)
Initial flakes	0	4 (4.3%)
Complete flakes	1 (2.3%)	5 (5.4%)
Fragments/segments	4 (9.1%)	7 (7.5%)
Core trimming	3 (6.8%)	14 (15.1%)
Complete flakes	2 (4.5%)	11 (11.8%)
Fragments/segments	1 (2.3%)	3 (3.2%)
Flakes	4 (9.1%)	11 (11.8%)

Bladelets	4 (9.1%)	7 (7.5%)
Flake/bladelet fragments/segments	21 (47.7%)	28 (30.1%)
Tool production waste	0	2 (2.2%)
Microburin	0	1 (1.1%)
Burin spall	0 0 0	1 (1.1%)
Tools	3 (6.8%)	5 (5.4%)
Scrapers/small edge tools	3 (6.8%)	4 (4.3%)
Wedge	0	1 (1.1%)

The main categories for primary material are shown graphically (Ill 118) together with statistical information for complete flakes and bladelets (Ill 119). The quartzite, all from the 'primary group' in Area B, consists of 1 flake, a broken flake, a flaked piece and a burnt piece. Use of material other than flint is common in parts of Scotland where the latter is rare, but is slightly surpising in NE Scotland.

Microburin: A bladelet of dark grey flint lacking the proximal end and with the remains of a notch (lefthand) formed by retouch. Length: 29 mm, breadth: 15 mm, thickness: 6.5 mm. From the 1974 trial trench. (Archive No 94).

Scrapers and edge tools: Four in all, one from a derived context.

- 183 Convex end scraper on the distal end of a coretrimming flake. Length: 32 mm, breadth: 33 mm, thickness: 10 mm. (Archive No 44). Area A, Layer 212, Phase 3.
- On right hand part of distal end of the distal segment of a core-trimming flake of medium brown flint. Edge angle 77°. Length: 26 mm, breadth: 24 mm, thickness: 8 mm. (Archive No 70). Area C, Layer 169, Phase 8.
- Light duty end scraper formed by oblique convex truncation of the distal end of a plunging bladelet of mottled olive flint. Edge angle 80°. Use-wear is present: microstep flaking of the working-edge and some polish and slight striation on the contact aspect. Length: 43 mm, breadth: 16 mm, thickness: 4 mm. (Archive No 2). Area B, Layer 117, Phase 1.
- Light duty end scraper, on the distal end of a cortical (probably core-trimming) bladelet of pale to dark grey flint. Edge angle 83°. Use-wear is similar to that on 185. Length: 25 mm, breadth: 12 mm, thickness: 3.5 mm. (Archive No 46), Area B, Layer 98, Phase 3.

The comments on the scrapers from Queen Street apply to the above. The last two pieces are close to Archive Nos 43 and 44 from that site.

Wedge: A split nodule of pale yellow-brown flint from a Phase 8 context in Area B shows 'bipolar' flaking and slight edge crushing, consonant with use as a wedge. Similar pieces (often called *outils écaillés*) are found on many Scottish mesolithic sites. Length: 40 mm, breadth: 30.5 mm, thickness: 13 mm. (Archive No 69). Area B, Layer 92, Phase 8. Not illustrated.

Burin spall: No burins have come from the site, but a probable secondary burin spall from a Phase 9 context in Area A attests to the resharpening of at least one. (Archive No 74). Area A, Layer 95, Phase 9. Not illustrated.

Cores: Three cores were recovered, one from a probably primary context (Phase 3), one from Phase 7 and one from Phase 11. The first (Archive No 42) was aborted soon after initiation, the second (Archive No 60) was prismatic in form but was undeveloped, and the third (Archive No 88) was pyramidal and developed. They range from 25 mm to 42 mm in height.

Unmodified pieces: A few pieces bear slight edge damage or polish which is most likely due to natural agencies. Two pieces, however, bear more convincing use-wear.

These are two bladelets from Phase 1 in Area B, one
 (Archive No 15. Layer 125) with cutting wear, the other (Archive No 14. Layer 122) with possible whittling wear.

The small number of pieces precludes useful analysis of the debitage, although the high proportion of flake and bladelet pieces may be noted. The techniques used conform to those reported for the Queen Street and Broad Street sites.

There was, then, only a slight and short-lived mesolithic presence on the site, centred in Area B, where there was a small hearth. Microliths were absent, and there is no close dating evidence.

# 2 Other prehistoric material

Eight pieces of prehistoric flintwork (Archive Nos 98-105) seem not to be mesolithic, but cannot be closely dated. They include two complete and two fragmentary tertiary flakes, two fragmentary secondary flakes, one primary flake and an angular fragment. Their disposition by phase and area has been given above, with the exception of one piece (Archive No 105) which comes from an unphased 13th-century context. All except one piece from Phase 3 come from clearly derived contexts and, as has been discussed above, show a distribution probably different from that of the mesolithic material. Two pieces require further comment:

- 187 Trapeze-shaped mesial segment of a primary flake of cream flint. One edge shows scalar and step microflaking, probably due to use. Length: 21 mm, breadth: 19.5 mm, thickness 2.5 mm. (Archive No 105). Area B, Layer 101, contaminated.
- 190 A calcined tertiary flake from a Phase 4 midden with invasive direct microflaking along the left hand edge, possibly due to use. Length: 39 mm, breadth: 37 mm, thickness: 12 mm. (Archive No 99). Area C, Layer 257, Phase 4.

# 3 Undiagnostic pieces

Fifteen pieces (Archive Nos 106-120) all from Phase 6 or later, except for one from Phase 3, and consisting of nodular and angular fragments, together with a few burnt pieces, cannot be allocated to any other group.

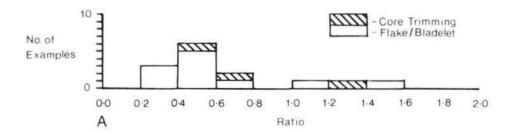
# 4 Chalk flint ballast

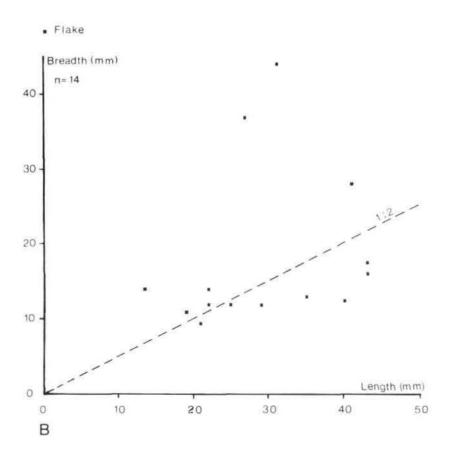
Eight pieces (Archive Nos 121-128), ranging from Phase 5 to Phase 13, belong to this group of characteristic, usually medium to dark grey flint. Only

one piece (Archive No 121) requires comment. It is a fragment of a large flake with crushing and flaking along two edges, probably the result of use as a strikea-light. Area C, Layer 270, Phase 5.

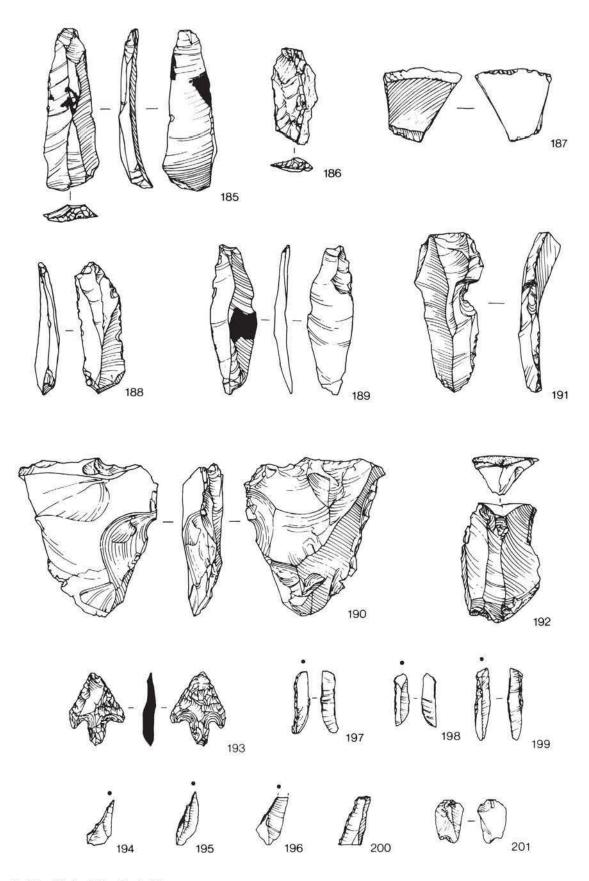
## 5 Other ballast flint

Seventeen pieces (Archive Nos 129-145), five from unphased contexts, of variegated light to dark grey flint from beach or drift nodules. Two pieces may have had flakes removed deliberately, otherwise they have been broken by accident and sometimes bear chance edge damage.





Ill 119 : Flint. 42 St Paul Street. a) Breadth: length ratios. b) Breadth: length dispersion diagrams



Ill 120 : Worked flint. Scale 1/1

## 67-71 GREEN (III 120)

27 pieces were recovered, four from probably primary positions in Layers 37-8; five from Layer 19, one from Layer 22 and one from Layer 39 were fairly close to natural, while from later contexts, eleven pieces came from Layers 1-5, four from Layers 16b-d, and one was unstratified. The small size of this group makes detailed comment useless; there is no concentration of finds. Ballast flint is represented by one piece of category 4 flint and three of category 5, all from the later contexts. One of the category 5 pieces is of a tabular flint recorded otherwise only from Shore Brae. Six pieces, all from later contexts (with the exception of two from Layer 19) are undiagnostic. A primary flake from Layer 19, another from Layer 5e and a spall from Layer 39 are deliberately struck but probably not mesolithic in date.

Barbed-and-tanged arrowhead: From Layer 5e comes a small example of Green's Sutton b type of arrowhead (for discussion of these and the significance of the find see above No 179). It is of yellow-brown flint, with curved edges, asymmetrical barbs and a relatively long tapered and rounded tang. The tip has been slightly fractured. Length: 19 mm, breadth across barbs: 15 mm, thickness: 3 mm.

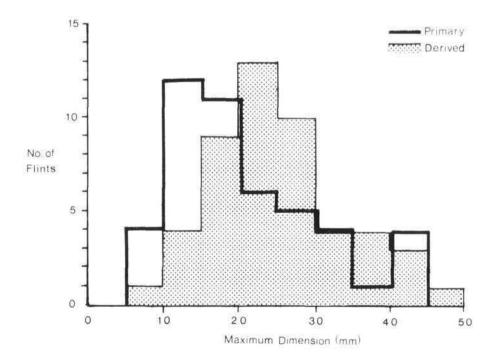
The remaining thirteen pieces are probably mesolithic, including the four from Layers 37-8, two from Layer 19, one from Layer 22, five from Layers 1-5 and one unstratified. The four primary pieces are of interest, all being of the same pale grey flint, a material apparently commoner at the start of the NE Scottish mesolithic sequence, which is the dating suggested by the size of two pieces, one a bladelet 60 mm long and 24 mm wide, the other a bladelet with the proximal end snapped off, but with a punched notch on the left hand side presumably in preparation for microlith production. It is 41 mm long and 18 mm broad (Ill 120: 191). It would have produced a microlith larger than those normal for the later

Mesolithic of the NE. The other two pieces with these are a possible aborted core and a core preparation flake. The derived material, on the other hand, fits well into the normal pattern. It consists of a worked-out uniplane core (Ill 120: 192), two core preparation flakes, four core trimming flakes, one regular flake and a bladelet lacking the proximal end. It is possible that this material originated off the site, though perhaps not far away.

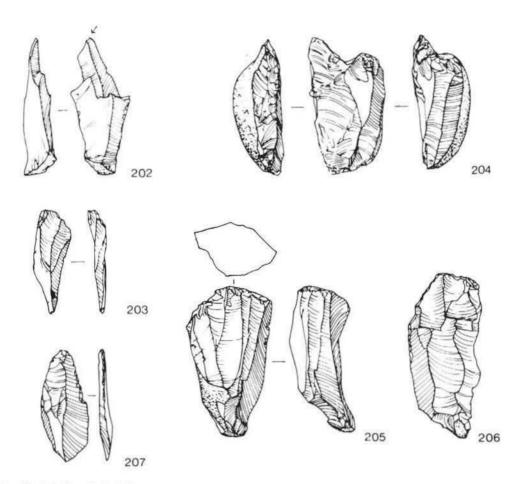
## 45-59 THE GREEN (III 120, 122)

#### 1. Mesolithic

This is the most interesting of the flint assemblages so far recovered from Aberdeen. 297 pieces came from a limited area in Trench 2, apparently half of an approximately circular scatter 0.8 m across. This, then, is a unitary later mesolithic group with no likelihood of admixture of different periods of occupation. Details of the distribution of various categories of debitage are lacking, thus limiting the extent of interpretation possible. The employment of sieveing to some extent has had one effect which must be mentioned. The low percentage of waste, especially fine waste, at the other sites has been noticed; in this case the percentage has doubled when compared with the Queen Street material. The other reason for this effect is that the concentrated nature of the finds will have led to closer watch being kept for flints by the excavators; this can be seen to some extent in the St Paul Street site: while the range of sizes of flints found in primary and derived contexts was roughly the same, the size distribution shows a statistically significant skewing toward larger pieces in derived contexts (which is, of course, no criticism of the excavation). In excavating the primary material, a careful watch would be kept for flints, and more of the smaller pieces found. This is shown graphically (III 121).



Ill 121: Flint. Differentiation in size between flints from primary and derived contexts on 42 St Paul Street



Ill 122: Worked flint. Scale 1/1

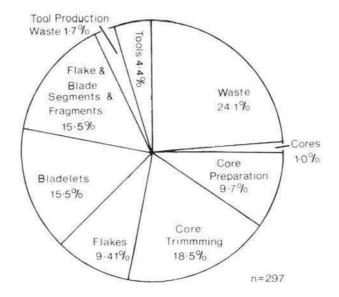
The flints are fresh, unstained and lack cortication or patination. The raw material is the same as that from the other sites, mainly beach and river nodules. Refitting pieces and a number of groups of distinctive material suggest that a limited number of nodules was flaked on site. In group terms the colour range represented is: 60.9% yellow-honey, 14.3% medium brown, 8.8% cream, 13.3% grey, 2.7% red-brown. Only two pieces have been burnt and one heated, showing that there is unlikely to have been a hearth in the immediate vicinity of the concentration. The analysis of the assemblage is in Table 33.

Table 33 45-59 Green. Analysis of mesolithic flint

No of pieces and percentages in
primary contexts
72 (24.2%)
22 (7.4%)
11 (3.7%)
38 (11.7%)
0 (0.0%)
1 (0.03%)
3(1.0%)
29 (9.7%)
6 (2.0%)
17 (5.7%)
6 (2.0%)

Core trimming	55	(18.5%)
Complete flakes	49	(16.5%)
Fragments/segments	6	(2.0%)
Flakes	28	(9.4%)
Bladelets	46	(15.5%)
Flake/bladelet		
fragments/segments	46	(15.5%)
Tool production waste	5	(1.7%)
Microburins	4	(1.4%)
Burin Spall	1	(0.3%)
Tools and tool elements	13	(4.4%)
Microliths	7	(2.4%)
Scrapers/small edge tools	2	(0.7%)
Burins	2	(0.7%)
Awls	2	$(0.70^{\circ})$

This information is summarised in graphic form (III 123), together with breadth/length ratio information for complete flakes and bladelets (III 124). The production of bladelets and the modification of these into tool elements was the major aim of debitage. In addition to the modified pieces, 13 (4.4%) pieces show probable use-wear, and a further 25 (8.4%) bear edge damage which might be due to use but is equally likely to be non-cultural.



Ill 123: Flint, 45-59 Green. Primary mesolithic flints, percentages of types

194-6 Microliths: Of the 7 recovered, 3 (Archive Nos 1-3; Ill 210: 194-196) are obliquely blunted distal segments of blades, probably akin to scalene triangles, 3

197-9 (Archive Nos 4-6; Ill 120: 197-199) are laterally blunted blade distal segments, again possibly to be categorised

as 'scalene pieces', and the seventh (Archive No 7; Ill 120: 200) is atypical being the proximal end of a snapped bladelet with the bulb removed by retouch and the right-hand edge blunted. This and nos 2, 3, 4 and 6 all bear fine steep retouch, almost microscopic, along the edge opposite the blunting. This is idiosyncratic and may indicate manufacture by a single person. The absence of rod microliths, true scalene triangles and quadrilateral forms, all common in the NE Scottish later Mesolithic, may have chronological significance, or may merely reflect the variety of tool or weapon being made or repaired at this site. The microliths range in length from 11 to 19 mm and from 4-6 mm in breadth.

Microburins: Although 4 pieces are listed under this category, three (Archive Nos 8-10) are more correctly 'notched and split' and lack the characteristic oblique ventral facet, but the same purpose was served as with a microburin proper.

201 Two of these pieces are distal, and one mesial. The final piece (201: Archive No 11) is a right hand notched microburin on the proximal end of a bladelet.

Burins: A dihedral burin on the proximal end of a flake of pale grey-brown flint, the bulbar end of which has been removed by two step flakes and the burin facet (6 mm×1 mm) formed by an oblique blow. The facet makes an angle of 58° with the opposing flake scar. Both edges show microflake damage. Length: 36.5 mm, breadth: 16 mm, thickness: 6.5 mm. (Archive No 14).

203 Possible burin on the distal end of a bladelet of yellow-brown flint. The facet is 14 mm long and 0.5 mm wide, removed from the left hand edge. Length: 27 mm, breadth: 9 mm, thickness: 3 mm. (Archive No 15). There is also a possible primary burin spall (Archive No 16).

204 Scrapers and edge tools: Two pieces fall into this group. The first (204: Archive No 12) appears to be a worked-out core, one of whose long edges has been retouched for scraper use, giving an edge angle of 70°. Length: 36 mm, breadth: 23 mm, thickness: 15 mm. The second is a core-trimming flake with apparently deliberate retouch centrally to the right hand edge.

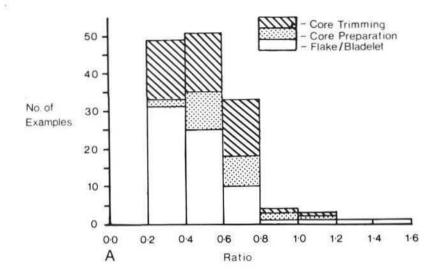
206 The second is a core-trimming flake with apparently deliberate retouch centrally to the right hand edge, giving an edge angle of 85°. Length: 44 mm, breadth: 21 mm, thickness: 5.5 mm. (206; Archive No 13).

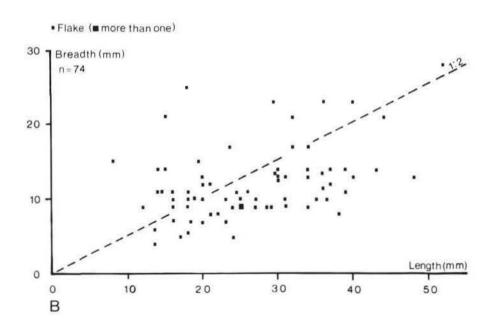
Awls: Two pieces, not illustrated (Archives Nos 16, 17), a core-trimming flake and a blade, seem to have been used for boring or piercing holes.

Cores: Two complete and one possibly fragmentary core. An unsuccessfully trimmed pyramidal core (Archive No 18) can be connected with some of the debitage from the site. The worked out core (Archive No 12) reused as a scraper has already been mentioned. The piece listed as fragmentary (205: Archive No 19) may be in fact a core developed on a large flake, rather than the result of over-enthusiastic trimming. Technique of production corresponds with that from the other sites in Aberdeen and need not be detailed here. Basal core trimmings and inverse trimming flakes show that at least some of the cores used at the site were developed with two platforms. Preparation and trimming were carried out with hard or soft hammers, a punch sometimes being used for the trimming and always for the production of bladelets

207 Unmodified pieces: An example of the possibly utilised pieces is illustrated (207: Archive No 20). It is not possible to infer the activities carried out on site without detailed microwear study, not carried out in this case. The rest of the assemblage requires no further comment.

In conclusion, it would appear that this assemblage of flints was produced by a single flintworker over a relatively short period of time. All phases of production are present and the work involved seems to have been the maintenance or replacement of (hunting?) equipment. Presumably the worker came from a short term camp situated nearby. The assemblage may be dated to the later Mesolithic, but in the absence of dated sequences for the area, it is not possible to attribute the probably diagnostic group of microliths more closely.





Ill 124: Flint. 45-59 Green. a) Breadth: length ratios. b) Breadth: length dispersion diagram

# THE CLAY PIPES P J DAVEY

The following report considers 278 clay pipe fragments recovered during recent excavations in Aberdeen. 266 of these came from seven sites and around sixty-two archaeological contexts. The other twelve were collected during observation of other sites in the town. 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 lists and record sketches of all bowls and decorated fragments are held in the excavation archive. Throughout the report letters in brackets refer to this archive material.

The report is divided into two parts. First, a summary of the evidence provided by the pipes for each site is given. Secondly, the evidence provided by the excavations for the nature of pipe production, importation and use in Aberdeen is assessed.

## THE PIPES IN RELATION TO THE SITES

The Aberdeen pipes present a number of problems. The lack of detailed research into the Scottish industries and the absence of large, well-stratified groups from the area for comparative purposes make their interpretation problematic. The fact that the majority of the pipes are from sites which lacked good post-medieval stratigraphy and appear in groups of mixed date minimises their usefulness as chronological indicators. The very small numbers involved (Table 34), with only three sites producing even fifty fragments and the low context average of just over four sherds, indicate that any dating or socio-economic implications of the pipes should be treated with considerable caution. In addition to these difficulties which relate specifically to the nature of the Aberdeen finds, the widely recognised problems of residuality, pipe mould life and changes of rubbish disposal patterns should also be borne in mind. In spite of all this it remains possible to make some minimal statements about the pipes from each site.

#### Shore Brae

The nine contexts only produced twenty-seven fragments. With the exception of context AH, which is mainly of 19th-century types the other eight contain material dating from 1650-1720.

## Queen Street

Half of the thirty-nine sherds were unstratified. Apart from a few probably residual 17th-century sherds from Queen Street frontage all the finds are of 19th-century date, probably from the period 1840-1900.

#### Broad Street

Nine contexts produced fifty-two pipe fragments ranging in date from 1620-1900. Two of the contexts (Trench 5, Layer 1, Phase 5 and Trench 1, Layer 27, Phase 3) included fragments of kiln furniture of 19th-century type, whilst Broad Street, Trench 4 had a number of decorated stems from the same mould, with casting seams untrimmed and apparently unsmoked. At least thirty of the forty-six pieces from this layer were of 19th-century date. This material would appear to derive from a production site in the town, (Ill 127: 240-241).

## 45-59 Green

The nine fragments from six contexts all appear to belong to the period 1620-1720.

#### 6-8 Castle Terrace

The three trenches excavated produced a total of seventy-six fragments of clay tobacco pipe, including four recognisable bowls, seven decorated stems and one stamped heel. Trenches 1 and 2 account for sixty-eight of the pieces from fourteen contexts, which, exceptionally for Aberdeen, form part of a good stratified post-medieval sequence culminating in the construction of a small town house in around 1720. Trench 3, which produced the remaining eight fragments, was totally disturbed by service pipes and scarping. (Chapter 2:9).

Phase 2: There were no pipes from Phase 1 and only a single stem fragment from Phase 2 (Layer 90). The position of this layer in the matrix is not closely fixed. It is known to be earlier than Layer 80 (Phase 3) and later than Layer 83 (lower down Phase 2). The stem is probably of early to mid 17th-century date and in view of the burnishing, of Dutch origin. If this phase produced reasonable quantities of other artefacts of this date, it would be tempting to suggest that, given the paucity of pipes from it, it dates from before the first major pipe using phase in Aberdeen, which, from the evidence of other sites, appears to be 1620-40. It would be very dangerous, however, to date the whole of Phase 2 to this period on the basis of a single stem which is from a layer which is floating in the matrix and which may in any case be residual.

Phase 3: A decorated stem from Layer 80 (Archive AL) is of a Dutch type popular during the third and fourth quarter of the 17th century and is unlikely to pre-date 1660.

Phase 4: Most of the pipes from the site, fifty-six fragments, come from this phase. All are consistent in terms of bowl form, stem decoration and stem-bore measurements. The two bowls (Ill 125:214. Archive AG, AK), are of a type current in Holland during the last thirty years of the 17th century and probably date from 1665-1695. All five decorated stems are of similar date. The stem-bore determination of 1683±15 for the phase, though based on a small number of measurements, agrees well with this.

A feature of a number of stems in this group is that they have been re-fired in conditions well in excess of their original firing temperature. In one case soil in the stem bore has been completely vitrified with the stem itself. This probably provides a close link with the iron working on the site.

Phase 5: The two stems from Layer 22 cannot be distinguished in date from either Phase 4 or Phase 6 material, but are not inconsistent with either.

Phase 6: The five fragments from Layers 24 and 47 are inseparable from both Phase 5 and Phase 7 pipes.

Phases 7 and 8: The stem bore results are indistinguishable from the previous phases. Unfortunately the Scottish three-lettered heel stamp (Ill 125:219. Archive AB) is of a type which cannot yet be accurately dated, though is very unlikely to post-date 1720.

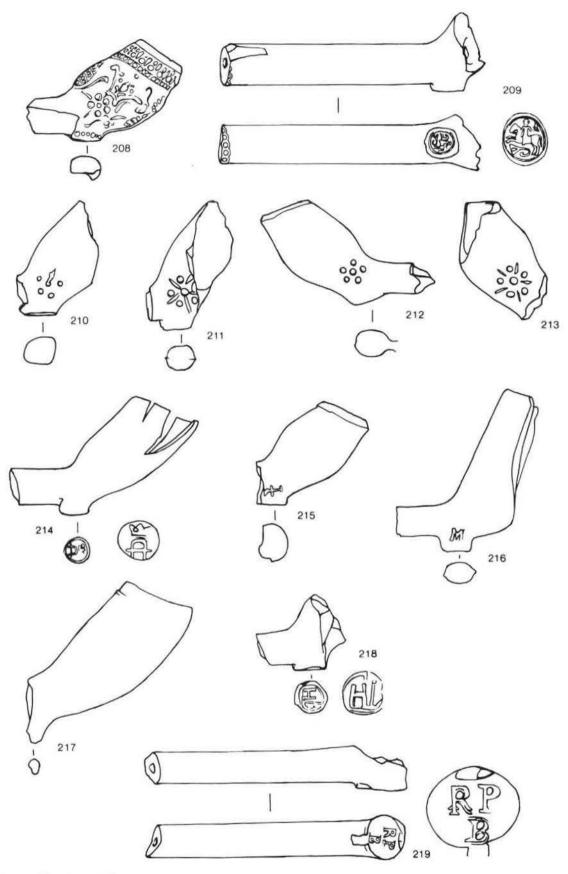
Trench 3: Seven of the eight fragments from this trench are of middle to late 17th-century date and must reflect much the same activity as Trenches I and 2. A single stem in Layer 40 is probably of 19th-century date.

# 67-71 Green

The fifty fragments from ten contexts are, again, far too few to allow for confident chronological discrimination between them. The range of bowl types covering the period 1620-1740, together with a bore date of 1695±15 imply a largely 17th-century activity in Layers 5 and 16 (Phase 2a).

# 42 St Paul Street

All thirteen fragments appear to be of 19th-century date.



Ill 125 : Clay pipes. Scale 1/1

#### CATALOGUE OF ILLUSTRATED PIPES

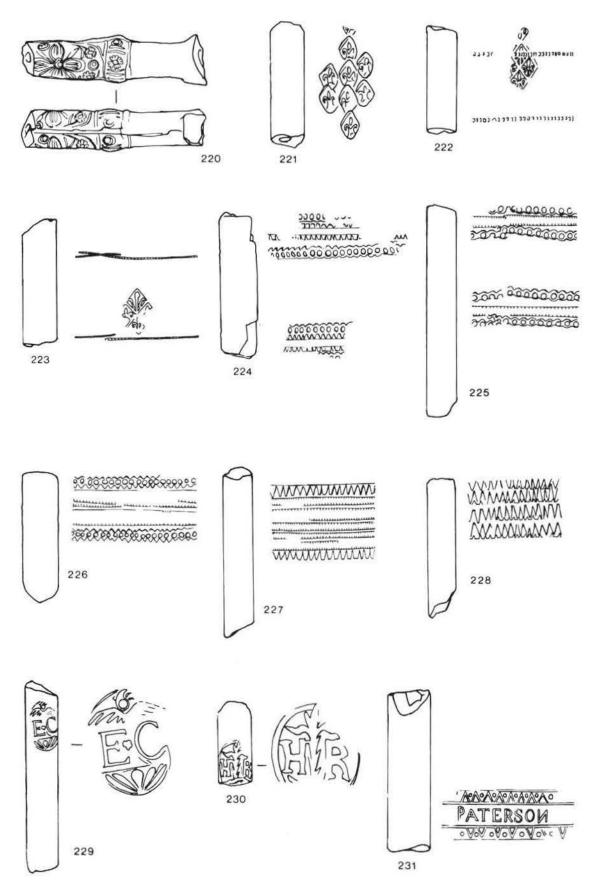
Although the pipe evidence may not be very helpful for site interpretation in the majority of cases quoted above, the collection of this number of examples from Aberdeen does provide a first look at the patterns of pipe use, loss and importation in an area at present little understood.

The actual data from the excavations has been presented in Table 34. The illustrations (Ill 125-127) attempt to present all bowl forms and stamping and decorative variations present.

The illustrated pipes are described in the following order: Publication number; brief description; stem bore diameter in /64", where measurable; site and context code; followed, in brackets, by archive sketch reference (AA-GC) and archive page number (A1-A9); comparisons, where available; followed (in brackets) by the date or date range ascribed by the authority concerned; further comments; illustration number.

- 208 Dutch moulded bowl, 8/64"; 45-59 Green, Trench 1, Layer 18; (GC-A9); Friederich 1975, 104: 3 and 4 (1620 and 1625 respectively); Duco 1981, 235: 156a (1630-1650); probably made in Amsterdam, 1630-1650. III 125.
- 209 Dutch bowl and heel fragment, with 'ring of pearls' stem decoration and a horse and rider heel stamp; 7/64"; Shore Brae, Trench 1, Layer 10; (CD-A6); stem decoration of Duco 1981, 246; 46 (c 1670); heel stamp of Duco 1981, 247; 81—the Aberdeen example is from a different, though very similar die; probably made in Amsterdam, 1660-1680. Ill 215.
- 210 Dutch 'moulded rose' bowl; 6/64"; 67-71 Green, Layer 5b; (BK-A4); Friederich 1975, afb 34: 6 (1625); Duco 1981, 244: 33 (1630-1650); probably made in the W Netherlands, 1630-1650. Ill 215.
- 211 Bowl as 210; 6/64"; 67-71 Green, Layer 5c; (BD-A3); Friederich 1975, afb 35: 3 (1635); Duco 1981, 244; 37 (1625-1645); W Netherlands. Ill 215.
- 212 Bowl as 210; 6/64"; Shore Brae AE; (CF-A6); Friederich 1975, afb 33: 1 (1630); Duco 1981, 244: 31 (1650-1670); W Netherlands. Ill 215.
- 213 Bowl as 210; 7/64"; 57-71 Green, Layer 5; (BA-A3); comparisons as 219. III 215.
- Dutch bowl with stirrup or civic purse heel stamp; 7/64"; 6-8 Castle Terrace, Layer 68, Phase 4; (AGA2); Friederich 1975, 98: 7 (1660-1715); Duco 1978, 120-46: 391 (the mark is first registered with Jan Vertoren in Gouda in 1725), but on the basis of form should belong to the period 1680-1710 (cf Duco 1981, 224, 359 and 296-7); probably made in Gouda, 1680-1710. III 215.
- Bowl, with a moulded crossed 1 or J on the side; 6/64"; 6-8 Castle Terrace, Trench 3, Layer 25; (AC-A1); Lawson 1980, 177, fig 8: D-G (1640-1660); probably Scottish and from the Edinburgh area. Ill 215.
- Bowl, with a moulded M on the side; 5/64"; 45-59 Green; (GA-A9); probably British, early 18th century. III 125.
- 217 Spurred bowl; 6/64"; 45-59 Green; (GB-A9); Brown and Gallagher 1980, 23-6, fig 4:24 (1680-1710); probably made in the Gateshead area. III 125.
- 218 Heel fragment, stamped HB; 7/64"; unstratified; (FD-A9); origin unknown, probably Dutch, 1650-1680, 1ll 125.
- Heel, with three-letter stamp; 6/64"; 6-8 Castle Terrace, Layer 24, Phase 6; (AD-AI); Oswald 1975, 85, fig 14:1; A typically Scottish mark, 1650-1700.
   III 125
- 220 Moulded Dutch stem; 7/64"; Broad Street, Trench 4; (EB-A7); from a pipe similar to 208; probably made in Amsterdam, 1630-1650. Ill 126.

- Dutch stem, with nine individually applied fleur-de-lys stamps; 8/64"; 67-71 Green, Layer 16b; (BO-A5); Duco 1981, 249: 122 (1625-1650); the stamps were applied from top to bottom. Ill 126.
- Dutch stem with four-part fleur-de-lys stamp; 7/64"; Queen Street, unstratified; (EU-A8); Duco 1981, 249: 118 (1645-1665); possibly early Gouda; the milling has been applied after the stamp. Ill 126.
- 223 Stem as 222, but stamped using a different die; 7/64"; Queen Street, unstratified; (EV-A8). Ill 126.
- Dutch roller-stamped stem; 6/64"; 67-71 Green, Layer 5c; (BG-A4); Friederich 1975, 66 (mainly 1635-1655); Duco 1981, 246: 46 (c 1670); unburnished and badly damaged in a number of places. Ill 126.
- 225 Stem as 224; 6/64"; 67-71 Green, Layer 5c; (BF-A4); burnished and polished. III 126.
- 226 Stem as 224; 7/64"; 6-8 Castle Terrace, Layer 46, Phase 4; (AF-A2); unburnished. III 126.
- Dutch roller-stamped stem; 6/64"; Broad Street, Trench 4; (EK-A7); Friederich 1975, 66 (1640-1750); Duco 1981, 246: 44 (1670-1680); burnished; probably made in Gouda, 1670-1700. Ill 126.
- Dutch roller-stamped stem; 5/64"; 67-71 Green, Layer 5b; (BL-A5); Friederich 1975, 66 (1650-1725); Duco 1981, 250: 130 (c 1700); the stamp was applied four times, the fourth overlapping the third; probably made in the W Netherlands. Ill 126.
- Stem, with oval stamp containing the initials EC; 6/64"; unstratified; (FJ-A9); Oswald 1975, 76-7, fig 13:6 (Edward Crages of Gateshead, 1707-1717). III 126.
- 230 Stem as 229 oval stamp with initials HR; 6/64"; 67-71 Green, Layer 16; (BH-A4); no other exampes known but for a similar HR stamp in a lozenge frame cf Brown and Gallagher 1980, 21-22, fig. 2:2; probably made in the Gateshead area, 1690-1720. Ill 126.
- 231 Roller-stamped stem bearing the name PATERSON (N retrograde); 8/64"; Shore Brae, Trench 1, Layer 5; (CB-A5); a very unusual stamp on a low fired, coarse fabric with numerous inclusions and a wide bore; possibly a product of John Pattison (sic) of Gateshead, 1669-1675 (cf Oswald 1975, 169). Ill 126.
- 232 Bowl, plain on the right side and with moulded gauntlet, dirk and date 1888 on the left; 4/64"; Queen Street, unstratified; (ER-A8); presumably Scottish there is a further fragment from the same mould from Broad Street, Trench 4 (EJ-A7); 19th century. III 127.
- Bowl, a moulded anchor on the left side and crossed thistles on the left; 5/64"; Queen Street, unstratified; (ES-A8); presumably Scottish; 19th century. Ill 127.
- 234 Bowl fragment, with a partial stamp on the front; 67-71 Green, Layer 16; (BI-A4); date and source uncertain, Ill 127.
- Bowl fragment, with a moulded star and? altar on the left side; Broad Street, Trench 4; (EH-A7); probably made for a local masonic lodge; 19th century, III 127.
- 236 Bowl fragment, with a moulded 8-point star with dots on the points, on the left side; unstratified; (FA-A9); probably local; 19th century. Ill 127.
- 237 Bowl fragment, with random moulded dots; Queen Street, unstratified; (ET-A8); there is a further fragment from Broad Street, Trench 4; (EI-A7); probably made locally; 19th century. III 127.
- 238 Bowl fragment, with a moulded St Andrew's cross on the right side; Queen Street frontage, FN24; (EN-A8); presumably Scottish; 19th century. Ill 127.
- 239 Fragment of fired pipe clay; Broad Street, Trench 5, Layer 1; (EA-A7); probably from a 19th-century kiln site. III 127.



Ill 126: Clay pipes. Scale 1/1

- 240 Stem with moulded floral decoration; Queen Street, unstratified; (EQ-A8); this design was commonly used to disguise the moulded seams, but here is on the sides of the stem; there are five further fragments of very similar or identical moulds from Broad Street, Trench 4 (EC/ED-A7), thus very likely to be a local product; 19th century. See too no 241 below. Ill 127.
- 241 Spur and stem fragment; 5/64"; Broad Street, Trench 4; (EF-A7); probably from the same mould as 240 above. Ill 127.
- 242 Stem with maker's name moulded on either side, EVERIDGE/ABERDE . . : 4/64"; Unstratified; (FF-A9); a product of William Beveridge of Aberdeen; 1882-1913. Ill 127.
- 243 Stem as 217, W.BEVE . . . . / . . . RDEEN; 4/64"; 42 St Paul Street, Area C, Layer 1; (DB-A6); William Beveridge, as above but a different mould. III 127.
- Stem, stamped W.BEVERIDGE (D retrograde) on the left side and ABERDEEN on the right; 4/64"; Unstratified; (FG—A9); the stem is oval in section and the stamp has been placed on the narrow side—there is a similar stem, unstratifed (FE-A9); William Beveridge, as above. Ill 127.
- 245 Stem stamped BATCHELOR/DUNDEE: Broad Street, Trench 4; (EE-A7); a Dundee maker recorded in Directories 1860-1886 (Oswald 1975, 205 and pers comm). III 127.
- 246 Stem stamped THOMSON & PORTEO.../ EDINBU...; 4/64"; Unstratified; (FI-E9); probably made during the second half of the 19th century. III 127.
- 247 Stem stamped MACDONAL./ALLOA; 5/64°; Unstratified; (FH-E9); Oswald (pers comm) notes a further example in the Hammond Collection; 19th century. Ill 127.
- Bowl fragment, stamped SWINYARD MAKER LO..., in a circular frame on the front; Broad Street, Trench 4; (EP-A8); either Thomas or James Swinyard of Westminster 1828-1854 and 1836-1853 respectively (Oswald 1975, 145-6). Ill 127.
- 249 Bowl fragment stamped SWINYARD in an oval frame on the front; Unstratified; (FB-A9); as above. Ill 127.
- 250 Bowl fragment stamped SW . . . . in an oval frame on the front; Queen Street, unstratified; (EO-A8); very probably Swinyard as 249 but a different die. Ill 127.
- 251 Bowl fragment stamped BALME MILE END on the front; 4/64"; Unstratified; (FC-A9); either Thomas Balme (1805-1845), William Balme (1856-1861) or George Balme (1867-1876) all recorded in Directories as in Mile End Road, or Paul Balme (1832-1866) listed at Mile End Wharf (Oswald 1975, 131-3). Oswald (perscomm) suggests George as the most likely as a number of examples occur in the London area with G/B on the spur. (Bow excavations; Le Cheminant Collection and New Fresh Wharf Excavations). Ill 127.
- 252 Bowl fragment stamped BAL . LONDON; 4/64"; Broad Street, Trench 4; (EG-A7); Oswald (pers comm) suggests Paul as the stamp occurs in London on bowls with P/B on the spur. (Bow excavations; Le Cheminant Collection). Ill 127.

#### DISCUSSION

The Aberdeen pipes fall into two major chronological groups. The first, from around 1620-1720, accounts for a majority of the finds. The second, from around 1840-1900, comprises almost all the rest. This polarisation of the material must partly be accounted for by the nature of the sites themselves. Whilst Queen Street and 42 St Paul Street produced almost exclusively 19th-century material, the finds from 45-59 Green,

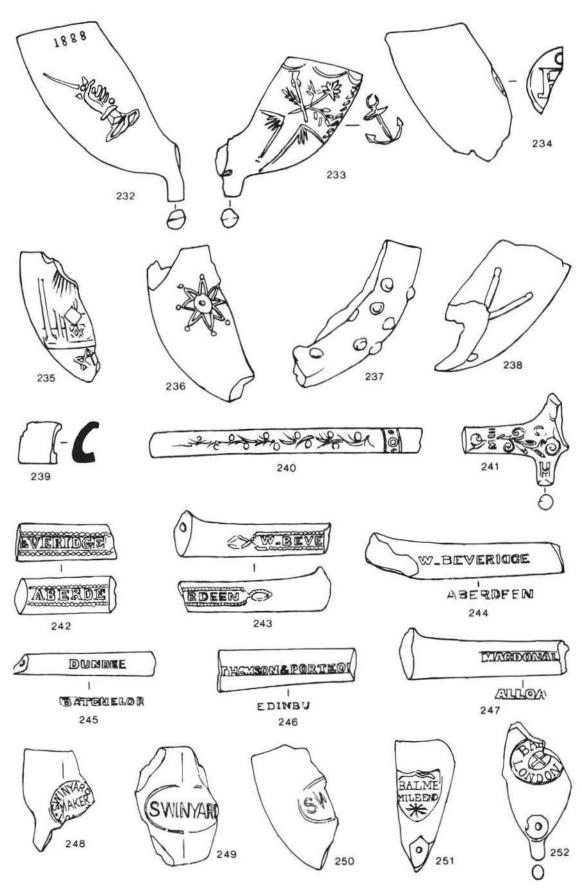
6-8 Castle Terrace and 67-71 Green belonged almost equally exclusively to the 17th century. Shore Brae and Broad Street were the only sites to show a possible continuous range of finds from the 17th to 19th centuries and, even so, no distinctively 18th-century bowls or marks were recovered. This lack of pipe finds from around 1720 to 1840 inevitably restricts the scope of any general remarks about pipe use in Aberdeen.

#### 1620-1720

The first pipes appear around 1620, but do not become common until after 1640. There are none of the early London products of late 16th-century date which are a feature of many centres. There are also no Aberdeen finds which can be attributed to a 17th-century production centre in or near the town. The nearest source is probably the Edinburgh area, represented by a single bowl (AC, Ill 125: 215). This dates to the period 1640-1660 and can be compared with the finds from St Mary's Street, Edinburgh, recently published (Lawson 1980). A larger group of pipes appears to derive from NE England and in particular from the Gateshead area. This consists of a single bowl (GB, Ill 125: 217) and probably three marked stems (FJ, BH and CB, Ill 126:229-231) all of which fall into the date range 1670-1720. Apart from two bowl fragments whose origins are unknown, all the rest of the identifiable bowls and marked stems are of Dutch origin.

The importance of the Dutch material can be estimated in a number of ways. Given that Scottish products of this date do not appear to have been burnished and those from N England only occasionally and crudely so, over one third of all the pipes in this date range must be Dutch. As half of the recognisable Dutch pipes found in Aberdeen are not burnished or finely finished at least half of the whole collection can probably be assigned to that source. If all the bowl fragments and all the decorated stems are considered, 35 out of 43 pipes are of Dutch origin (81%). This compares with 2 Scottish (5%) and 4 NE English products (9%). Two of the pipes remain unidentified (GA and FD, Ill 125:216, 218). An examination of the fabrics would appear to confirm this impression. Although detailed identification is not possible using a hand lens alone, some 75% to 90% of all the pipes seem to be Dutch.

This picture of pipe importation and use in the 17th and the early part of the 18th century can be compared with three other recently published groups from NE Britain, those from St Mary's Street, Edinburgh (Lawson 1980), Stirling Castle (Davey 1980) and Hartlepool (Brown and Gallagher 1980). The thirteen bowls from St Mary's Street, Edinburgh, were all of Scottish type, dating to 1620-1660, and were probably made in the Edinburgh area itself. There were no English or Dutch imports. By contrast the eleven bowls from Stirling Castle, dated to 1640-1660, included five Dutch products and fabric analysis suggested that 34% of the whole sample (80) fragments in all) derived from that source. The Hartlepool study is of a much larger group (746 pieces), from a 'night soil' deposit of slightly later date, 1680-1720. Of ninety identifiable bowls or stem stamps, sixty-nine were from Gateshead or NE England (77%), thirteen (14%) from Yorkshire or further S in England, five (6%) were Dutch and three (3%) Scottish. Thus in three sites which span the range of the Aberdeen finds there are marked variations in the numbers of pipes being supplied from the same sources. In the cases of Edinburgh and Hartlepool once indigenous production had begun this effectively squeezed out Dutch competition. At Stirling Castle and Aberdeen, however, where there is no evidence for local 17th-century production, the Dutch products remained predominant until at least well into the 18th century.



III 127 : Clay pipes. Scale 1/1

	9	8	7	6	5	4	5	В	M	W	U	T	$T^{j}$	T.	Binford	Bowl-Form	III Nos	Comments
Shore Brae		4(3)	7	9(3)	5	2	26	1				6	27	27		1650-1720	209, 212, 231	
Queen Street		I	3	9	13	2 10	26 33	3			3		36	39		1620-1900	222, 223, 232, 233,	Mainly 19th cent.
																	237, 238, 240, 250	
Broad Street		3	8(1)	6(3)	8	15	34	3	3	6	6	4	40	52		1620-1900	220, 227, 235, 239,	Mixed
																	241, 245, 248, 252	
45-59 Green		1	4(1)	2	2		6	3				Î	9	9		1620-1720	208, 216, 217	Mostly 17th cent.
6-8 Castle Terrace																		
Trench 1/2																		
Phase 2			1(1)				1					1	1	Ï				
Phase 3			1(1)				1					1	1	1				
Phase 4			27(8)	26(9)			51	2			3(2)	19	53	56	1683±15	1670-1710	214, 226	
Phase 5				L	1(1)		2				7.1	1	2	2				
Phase 6			3(1)	8	100.00		5					1	5	5		1650-1700	219	
Phase 7			1(1)	1(1)			2					2	2	2			CW0.00	
Phase 8			1	77.0			1						1	1				
Trench 3			5	2(1)		E	6	2				1	8	8		1640-1710	215	
Sub-total			39(12)		1(1)	1	69	2			3(2)	26	73	76	1685±15	10 50 6 50 C F 10 50 C	07.170	All consistent
30.00.0							1,00.4				-1-1	-	F 857					Comments and Comme
67-71 Green		3(1)	14(2)	19(7)	10(1)		41	5			4(1)	12	46	50		1620-1900	210, 211, 213, 221,	Mostly late 17th cent.
W. 11 - 11 - 12 - 13 - 13 - 13 - 13 - 13 -		2417	5.05	1.000	5.504,415		0.05.80				201000	3.00	10000	F1.50			224, 225, 228, 230,	The state of the s
																	234	
42 St Paul Street				1	6	2	6	2	1	1	3		9	13		1800-1900	243	All 19th cent.
Unstratified			3(1)	î	6	2	8	2		1170	18	1	11	13 12			218, 229, 236, 242,	State Sciencesias
The Manual Assessment St. 40.												-					244, 246, 247, 249,	
																	251	
TOTAL		12(4)	78(17)	79(24)	47(2)	35	223	24	4	7	20(3)	50	251	278			5701	

KEY: 9-4 Stem bore measurements in /64"

() Number of burnished examples

T Total number of burnished fragments

Binford Bore date (cf Oswald 1975, 92-95; Davey 1981, 5.22)

Bowl-Form Date range (cf Davey 1981, 5.21)

III Nos refer to publication III 125-127

Comments Consistency or dating of whole group

Table 34. Clay pipe: Details of all excavated pipes.

S Number of stems measured

B Number of bowls measured

M Number of mouthpieces measured

W Number of wasters or pieces of kiln debris

U Unmeasurable fragments

Total number of measured bores

T Total number of clay pipe fragments

#### 1840-1900

The 19th-century finds provide a marked contrast. There are no Dutch products, a few imports from England in the form of five maker marked London pipes by Swinyard (3) and Balme (2), who were working during the middle years of the century (III 127:248-252) and three marked stems from other Scottish centres, namely Alloa (Macdonald), Dundee (Batchelor) and Edinburgh (Thomson and Porteous) (Ill 127:245-247). The major difference lies, however, in the evidence for local production. There are three stems marked Beveridge/Aberdeen (III 127:242-244) and a probable kiln group from Broad Street which includes kiln furniture together with untrimmed and unsmoked pipes. This implies at least one or two production sites in the town and probably accounts for much of the remaining 19th-century material recovered from excavations in the town. This assessment of the 19th-century material is provisional, based on the archaeological evidence; no full search of the documentary evidence has yet been possible.

### William Beveridge

A summary of his life is provided by *In Memoriam*, (1908, 15). He was born in Edinburgh in 1845, educated at Dunfermline and went as a young man to work for the Dundee pipemaker P MacLean (cf Oswald 1975, 205), for whom he ultimately travelled. He went to Forres in 1869 and set up his own pipemaking business there. Thirteen years later in 1882 he moved to Aberdeen and transferred the firm there.

He retired early in 1908 and died, aged 63, on November 22 of that year. This account is confirmed by entries in the Aberdeen City Directory, which also gives details of what happened to the business after his death. There is no reference to Beveridge in the 1881/2 Directory, but a continuous series from 1882/3 to 1907/8. The business address is given as Cotton Street from 1882/3 to 1885/6, as 30 Cotton Street from 1886/7 to 1887/8 and 30 and 32 Cotton Street from 1888/9 onwards. John Simpson is listed under Beveridge as his successor until 1912/13. In the latter entry Simpson's address is given as 164 Constitution Street, where he is

listed under his own name as a pipemaker until 1919/20. In 1921/22 John Auld is listed for tobacconist and hardware at 4 Exchange Street and in 1930/31 this entry is changed to '4 Exchange Street, 12 Hadden Street and 24 Bridge Street, Clay Pipe Factory 164 Constitution Street.' This form of words last appears in 1932/33. Thus Beveridge's site in Cotton Street appears to have been worked by him from 1882 until 1908 and by John Simpson from 1908 until 1912. John Simpson then appears to have moved the business to 164 Constitution Street where it was apparently taken over by John Auld, probably in 1920. He seems to have continued the factory there until 1932. The situation is further complicated by the presence in the Aberdeen Art Gallery Collections of Swinyard moulds, apparently used by Beveridge, together with a group of Beveridge pipes. As the Swinyards cease to be recorded in the London Directories by 1854 (Oswald 1975, 145-146) and Beveridge did not start up in Forres until 1869, it seems likely that he bought in the Swinyard moulds after they had finished trading altogether. In that case it seems surprising that Beveridge continued to apply the Swinyard stamps to otherwise plain pipes. This evidence suggests that the majority of the 19th-century finds were actually made in Aberdeen.

#### SUMMARY

The Aberdeen pipes provide important evidence for pipe importation and production during the 17th and later 19th century in an area which is, so far, poorly understood. A great deal still requires investigation. The dating of the first Aberdeen production, the reasons for the Dutch influence and the chronology and mechanisms of its decline, the establishment of criteria for the detailed socio-economic interpretation of the pipe evidence and the study of marketing patterns all demand much further work. A programme of documentary research, both into pipe makers and port and trade records, together with excavations designed to elucidate specifically post-medieval problems will be necessary before much further progress can be made.

## 5 THE EXCAVATED SECULAR BUILDINGS

## HILARY MURRAY

### INTRODUCTION

At present (1981), the archaeological evidence of medieval and post-medieval secular buildings in Aberdeen is derived from five sites: 42 St Paul Street, 12-26 Broad Street, 2-28 Queen Street, 6-8 Castle Terrace and 45-47 Gallowgate. The total number of buildings excavated is very small, covering as it does a date range of late 12th to 17th century and a spatial range including both frontage and backlands sites. We can, however, begin to define some of the construction types in use and to isolate those areas, particularly of the medieval town, where we should concentrate future effort. Comparison between the Aberdeen buildings and those from other Scottish burghs, in particular the large sample from Perth, allows some very tentative conclusions concerning the status of the builders.

The structural groups based on the walling are the same as those used in the report on the buildings from Perth High Street (Murray, in PHSEC, forthcoming) and in a general discussion of the Aberdeen and Perth buildings (Murray, 1980).

### MEDIEVAL PERIOD, LATE 12TH TO 14TH CENTURY

For the medieval period most of the evidence comes from the backlands site of 42 St Paul Street and from the frontage sites on Broad Street and Gallowgate.

#### Plan

No complete ground plan has been excavated but the position of the buildings in relation to the rig boundaries often allows some assessment of their size. All the buildings were rectangular, some having rounded corners owing to the wattle construction. The backlands buildings lay with their long axis at right-angles to the street, along the rigs. No complete width was excavated but they can be estimated as 4-5 m by comparison with the position of the property boundaries, as the width of the buildings was probably limited by the width of the rigs (as in Perth). Increase in size would generally have been lengthwise. The length variation on the 42 St Paul Street site was from CO which was 7.70 m to DI which was 9.60 m. SAN and BQ may have been up to 12 m long but this can only be based on negative evidence. There was no evidence of internal partitions but CO appeared to have had two separate zones within the building; the N end which had a gravel floor and where the wattle was clay daubed could be interpreted as the 'better' or possibly living end, while the S end may have been the working area or possibly even the byre. A contemporary building in Perth High Street (B4) had a small byre attached to, but not communicating with, one end of the house and these buildings may represent a fairly simple stage of development when a number of animals were kept in the backland rigs. Of the Aberdeen buildings only SAN had a surviving hearth, but for various reasons such as floor cleaning and the use of external hearths and possibly braziers, hearths alone do not appear to be a reliable indicator of function.

Evidence of the ground plans of the frontage buildings is piecemeal as in both 12-26 Broad Street and 45-47 Gallowgate excavation was limited to small areas in the undisturbed passages between the cellars of later buildings. Such evidence as there is appears to suggest, surprisingly, that some of the frontage buildings may have stood with their long axis parallel to the street but that they were smaller than the backlands buildings. In 45-47 Gallowgate one end of a frontage building (AP) survived. It was 3.60 m wide externally and, if projected to the nearest rig boundary, the length parallel to the street would have been c 5-6 m. Similar calculations on the Broad Street site yield possible ground plans of c 4.3-4.5 × 6 m, with the long axis parallel to the street. On both sites the buildings were set a couple of metres back from the apparent street frontage. The main impression, therefore, is of small buildings filling most or all of the frontage width. The evidence is slight but it does not at present suggest multi-storied structures in these areas at this period. A few very deep post-pits could be interpreted as associated with the support of a gallery or upper floor, but this cannot be substantiated until more complete plans are excavated. This interpretation of the frontage structures is, as stated, based on fairly piecemeal evidence but it does, as far as it goes, agree with the Perth High Street evidence. It should be stressed, however, that the frontages could be expected to have varied from one end of the town to the other. On more important commercial frontages, multi-storied buildings may have been in use quite early, while on the lesser streets and on the limits of the roads leading out of town, single-storied structures may have continued in use much later.

## Wall construction

The bulk of the excavated information concerns wall material. Within the period two main types of wall material have been identified; post-and-wattle and heavier timber used for ground sills. The most common material was wattle and this can be subdivided according to its relationship to the weight-bearing structure. In Group 1a there were no additional supports and although a very light roof could have been supported solely by the wattle it is arguable that the wattle was in fact merely the revetting of a thick cladding of turf, manure, mud or clay (although clay is less likely as it would be expected to have survived in the archaeological evidence). Two of the St Paul Street buildings (BQ, DI) appeared to be of this construction but, as they were badly damaged by later intrusive features, this suggestion must remain tentative. Part of a wattle building on Gallowgate (AR) was only identified by post-bases, but did not appear to have had any larger posts or planks beside the wall.

In Group 1b there is some evidence of additional support posts or planks alongside the walls of the building. There were four examples from 42 St Paul Street (CO, SAN, TAB, TAP). Two were fragmentary but apparently similar to SAN which had additional posts along the inside of the lateral wall and on both sides of the gable wall. CO had planks along the lateral wall. As no complete plan was excavated it is impossible to decide to what extent these supports were paired across the building, but the fairly irregular positions of the surviving posts and planks suggests that pairing was unlikely.

Wattle buildings of Group 1b construction have been found in 12th- to 14th-century contexts in Perth (Murray 1980, 40-1) and Kings Lynn (Clarke and Carter 1977, fig 29). The same structural idea, using planks on either side of a light post-and-wattle wall has been found in a mid 11th-century building excavated in Pederstraede, Viborg (Nielsen 1968, 31-2) and in late 10th- to early 11th-century walls in Lloyds Bank site in York (Addyman 1974, fig 12:4 and pers comm 1981 concerning dating). Walls with planks on one side of the wattle only, comparable to CO, have also been found in York (Addyman 1974, fig 12:1).

There was no clear Group 1c (double wattle wall) or 1d (wattle set in a ground-sill) but Group 1d is a possible interpretation of the ground-sills discussed in Group 2 where there was no evidence of the type of infill material. One burnt structure in Gallowgate which appeared to have had a wall based on a sill may have been of this construction as there was a large amount of twig charcoal in the debris. In Scotland, this construction has only been definitely identified in Kirk Close, Perth (Blanchard 1980, 36, fig 3).

Daub has only been found with any certainty in building CO where clay containing cow hair for binding (see p 000) was found on the inside of the N wall of the building. There was no other positively identified daub but the flooring in the interior and yard of SAN stoppped 0.06-0.14 m

away from the inner and outer faces of the wattle, suggesting that some form of cladding had covered this width when the flooring was laid down; mud, manure or turf are all possible. Equally some wattle structures may never have had any cladding (cf Washington Wilson photograph, Loch Duich) and its use may be dependant on the function of the building. The general lack of evidence may, however, often be a reflection of the limitations of archaeological observation rather than of a real absence of daub. Burnt daub from a midden context in Queen Street comprised a thick heather core with clay daub, the original association was lacking but this may have come from a building.

There are several details of wattle construction which can be paralleled elsewhere. Wattle crossing the base of an entrance, as in BQ, has been found in 12th- to 14th-century contexts at Perth (Murray, PHSEC, forthcoming) and in 11th-century contexts in Dublin (Murray 1981, 60, fig 12, 13). A full-scale reconstruction in Aberdeen has confirmed the view that an unbroken band, 0.10-0.20 m high at the base of the entrance and a similar band above the door opening, stop the wattle from splaying on either side of the entrance and avoid weakening of the whole structure.

The vertical groove up the inner face of the N jamb in building CO may be due to reuse of the timber, but in Dublin (Murray 1981, fig 10) similar grooves were used in the outer faces of the jambs to contain the loose ends of the wattle wall and it is possible that this groove in the jamb of CO may have been used to house one end of a wattle hurdle used as a door, the other side perhaps being pegged to the S jamb. Doors of this type were in use in 19th-century Ireland (Lucas 1956, 18) and may have been more common than more expensive plank doors.

No complete building plan with a heavier timber wall on a ground sill (Group 2) has been found in Aberdeen. Portions of five timber sill-beams have been found and several low stone foundations may have held others. Most of the sills (Gallowgate: AAE, AT, BE; Broad Street: Trench 5: FN19, Trench 1: FN 18; St Paul Street: SR) were very decayed but one of the Gallowgate examples (AAE) had a clear groove along the upper surface and this was tentatively recognised on one of the others. There was no trace of the superstructure in any of these examples (except as referred to above with reference to the Gallowgate structure AP where only the sill foundation survives but which may have been in Group 1d construction). Some of the sills were on a foundation of a single line of flat stones, others lay directly on the earth. At least two were associated with earthfast vertical timbers but none of the sections of sill recovered showed any evidence that the sills had been jointed to the uprights or that uprights had been mortised into the sills.

### Roofing

Some evidence of roofing came from 42 St Paul Street, buildings CO and SAN, and Broad Street, Phase 4, Plot 2, all of which had posts or post-pits on the longitudinal axis or at the centre of the gable, indicating a directly supported ridge. As discussed in the reconstruction of SAN the simplest reconstruction consistent with the general standard of construction would be a series of rafters inclined between the ridge and the wall-line. At the wall they could be supported either individually by the additional supports or by a pseudo wall-plate held by the supports. There is no direct evidence for the roofing material (for possibilities see reconstruction of SAN).

### POST-MEDIEVAL PERIOD, 15TH TO 17TH CENTURY

The only excavated domestic structure from Aberdeen that can be attributed to this period is building JC on 42 St Paul Street (p 73). The archaeological dating evidence is scant but appears to place it between the 15th and 17th centuries and Stell (pers comm 1981) has suggested that, on structural grounds, it could be mid-16th century in date. It can be reconstructed as a two or more storied building with probably clay-bonded rubble-stone walls. In the initial phase there may have been a ground level entrance opening into a passage running the length of the building, in fact the passage between properties absorbed into the building. However, at some stage, possibly soon after the original

construction, what appears to have been a forestair was added to give a front access at first floor level and any possible ground floor front access was blocked.

An iron smithy or blacksmith's workshop excavated at 6-8 Castle Terrace (Chapter 2:9) could be dated to the 17th century. The original early 17th-century structure was a semi-cellared building built into a slope with clay-bonded walls and possibly an open ended frontage held on timber posts. In the mid-17th century, it was rebuilt and the walls were mortar-bonded.

The only other excavated structures of this date in the town are short scrappy lengths of wall that cannot be interpreted.

### CONCLUSIONS

Excavated in isolation, such a small number of fragmentary buildings would render general theories impossible but a comparison of the medieval structures with the very similar comtemporary buldings, not only from towns outside Scotland, such as Kings Lynn but more particularly within the Scottish context from Perth, shows that the wattle buildings were fairly typical of the smaller buildings of 13th- and 14th-century Scottish burghs. They may tentatively be interpreted as the houses and workshops of the poorer inhabitants and lesser craftsmen, the majority of the urban population. The pressure on frontage sites for shops and prestige dwellings makes it likely that most of these lesser buildings would have been in the type of location in which we have so far found them: the backlands.

The materials used in the wattle of the smaller medieval buildings are relatively quickly replenished. Willow, ash or rowan, for example, once cut will sprout straight branches from around the stool, causing coppicing, albeit accidental or deliberate. The branch growth is ideal for wattles at three to five years. This lighter timber is easy to cut and light to transport. Moreover, these buildings needed no specialist craftsmen for their construction and are likely, in most cases, to have been built by their occupants.

There is a very slight indication from the Gallowgate and Broad Street sites that more elaborate buildings with ground sills were in use in the medieval period on some frontages in Aberdeen but even these appear to have been fairly simple structures using earthfast upright timbers and with no apparent or surviving (we cannot tell which) jointing between sill and vertical. There is not yet any evidence here of a true timber-framed tradition preceeding the use of predominantly stone building techniques, albeit that there is evidence elsewhere in Scotland (Stell 1980 and Hay 1976) that timberframed techniques were known by the 16th century when they were quite commonly used in association with stone structures, for example in the construction of galleries and frontages. The apparent absence of a tradition of wholly timber-framed buildings may reflect an archaeological problem rather than the real structural sequence. To positively identify such structures by excavation, we would need well preserved timbers, but these late medieval and frontage layers are in the very levels and areas where disturbance by cellarage and by the deep foundations of stone buildings is greatest and where the timbers are less likely to be sealed in conditions that will preserve them. If, as is possible, the sills were put on substantial stone foundations then our chance of identifying the possible superstructure diminishes. The best that one can yet say is that the Group 1d wattle construction and the Group 2 constructions contain elements that show some move towards such a tradition in the late 14th century and there are, as mentioned, relics of a timber-framed tradition in some 16thand 17th-century buildings (Stell 1980). It seems probable that, at some social level, the timber-framed tradition may indeed have been adopted in Scotland but that factors such as the limited availability of suitable timber may have encouraged an early transition to stone.

Unfortunately, isolated stone foundations are often difficult to interpret or even to date. Often they have been reused as foundations for later walls and all related levels destroyed: lacking any architectural detail, dating is often very vague. Both of the secular stone buildings of the post-medieval

period excavated so far in Aberdeen are of types not surviving among the few standing buildings of this date which are all fairly big townhouses (Provost Ross House: 1593; Wallace Tower, Benhoim Lodging: 16th century; Provost Skene's House: 17th century). Building JC from 42 St Paul Street, which may have been domestic, is smaller in scale than these but appears nevertheless to have been a multi-storied building, possibly in its initial phase incorporating the rig passage into the structure to gain the maximum width in the available space. Its freestanding position makes it unlikely to have been a tenement and it may possibly be interpreted as a burgess dwelling.

The Castle Terrace building is really an example of a separate development, the increasing specialisation of workshops. As a small smithy, one of the main considerations in its construction would be to minimize the fire risk. This type of structure rarely survives as a standing building as, when new industrial techniques are introduced, new buildings are often needed.

In these excavated structures we are really glimpsing bits of two separate traditions. The medieval frontage structures and post-medieval building JC show the development of the types of buildings probably built by specialist craftsmen for clients who were burgesses. These are most likely to have been open to the influence of outside fashions and would have had the most freedom, in real as well as legal terms, in their choice of building materials. In contrast, the medieval wattle buildings of the backlands may be seen as the self-built homes and workshops of the poorer inhabitants of the town and these are most likely to have used simpler materials and to have been more closely linked to the traditions of the rural hinterland and could be expected to have adopted new fashions more slowly.

One of the interesting possibilities for future research will be to see to what date the wattle tradition continued and what succeeded it in towns such as Aberdeen. Did a tradition of self-building continue or was it largely replaced by properties being developed as tenements and rented out by rich entrepreneurial burgesses. Certainly this would appear to have been largely true in centres of population pressure such as Edinburgh (for a more detailed discussion see: Stell 1980, 4-5), but it may not have been true to the same extent in Aberdeen where the pressure on land was much less.

There are obviously many questions left to answer but these structures indicate some of the problems to which future work can be directed.

## 6 THE ANIMAL BONE

G W I HODGSON

AND

# A JONES

An analysis of animal bone from 42 St Paul Street and Queen Street Midden Area

## INTRODUCTION

#### SUMMARY

The relative frequencies of species and of bones at these two medieval sites within the burgh of Aberdeen have been compared with a view to understanding the diet and some of the economic activities of the people. Evidence has been advanced to show that beef was the major source of meat and hides may have been the primary product of cattle raising.

Mutton, goat and pig flesh were also eaten but venison was not in plentiful supply. Bird and fish were eaten but these remains have not been identified as to species. The marked differences between the killing patterns of sheep and goats for the two sites are examined. Prime lamb and young mutton were consumed in greater proportions at 42 St Paul Street as was younger beef. Carcass analysis suggests that the best joints or cuts of beef and mutton were consumed at this site.

At the Queen Street site low meat yield bones and fish remains were more frequent: this may reflect the close proximity of this site to the fish and meat markets.

The sizes of the bones of cattle, sheep, goat and horse fall mainly within the size ranges of these animals reported for medieval Perth. These data confirm the existence in medieval Scotland of cattle, sheep and horses which were smaller in stature and more gracile than their counterparts in medieval England and Holland.

Some large pig bones have been reported on; these may have come from wild boar. The remains of dogs, puppies, cats and kittens have been described. It is argued that some of these animals may have been only loosely associated with the community and have lived a semi-feral existence.

At both sites the number of horn cores of cattle, sheep and goat is less than the number of half mandibles. It seems unlikely therefore that horn cores were imported to either site or that the material represents commercial or industrial waste specifically associated with a horn industry. A single horse metacarpal from 42 St Paul Street was identified as an ice-skate (Cat No 26: Ill 104).

## MATERIAL

The animal remains from two sites within the medieval burgh of Aberdeen are reported on according to site, feature and date. The sites are 42 St Paul Street and Queen Street Midden Area.

## METHODOLOGY

#### Identification

The material was identified as to species and bone by direct comparison with modern comparative material. No attempt was made to identify or to record rib fragments, butchers' chippings or vertebrae other than the first two neck vertebrae.

Boessneck's (1964, 1-129) and Payne's (1969, 295-305) criteria were applied to sheep and goat remains in order to distinguish them. Erosion often made this distinction impossible, therefore they are recorded as sheep/goat.

The bones of birds have been identified only as to bone and not by species. The fish bones have not been identified as to species.

#### Measurements

Measurements were taken in accordance with the scheme proposed by Driesch (1976). These data are lodged in the National Archive at Edinburgh.

#### Nomenclature

The zoological nomenclature adopted is in accordance with that recommended by Clutton-Brock (1977). For this reason no attempt is made to relate the animal remains to distinct breeds of animals found in Scotland today.

### DISCUSSION OF THE MATERIAL

# NUMBERS OF BONES IDENTIFIED

Table 35 Numbers of bones identified from each site (excludes fish bones)

42 St Paul Street	Total
Phase 2 (late 12C)	46
Phase 3 (late 12C/early 13c)	99
Phase 4 (13C)	79
Phase 5 (13C)	62
Phase 6 (13C)	19
Phase 7 (1300-1325)	214
Phase 8 (14C)	272
Phase 9 (14C)	474
Phase 10 (14C)	232
Overall total	1,497
Queen Street Midden Area	
Phase 1 (13C)	142
Phase 2 (14C)	784
Overall total	926

### SPECIES PRESENT

The following species were present at both sites: cattle, sheep/goat, pig, horse, red deer, dog, cat, bird and fish. There is no evidence of small mammals which is surprising in view of the numbers of small fish bones retrieved.

## RELATIVE FREQUENCIES OF SPECIES AS A GUIDE TO DIET

Two methods have been adopted to estimate the contribution of species to diet. These consist of estimating (a) the minimum number of each species present and (b) the percentage of bones from each species present.

# Minimum number of animals present

The minimum numbers of each species present at each site are shown in Tables 36a and b.

Table 36a The minumum number of each species present: 42 St Paul Street

Species	Min number	Based on
Cattle	29	Left metatarsal
Sheep/goat	13	Left humerus
Goat	16	Left horn core
Pig	7	Left humerus
Horse	3	Right humerus
Red Deer	3 2	Right radius
Cat	3	Right innominate
Dog	2	Right mandible
Bird	6	Right femur

Table 36b The minimum number of each species present: Queen Street Midden Area

Species	Min number	Based on
Cattle	16	Right metatarsal
Sheep/goat	9	Right scapula
Goat	6	Right horn core
Pig	12	Left tibia
Horse	1	Left/right metatarsal
Red Deer	1	Left radius
Cat	1	Right ulna
Dog	2	Right mandible
Bird	5	Right humerus

These data indicate the important role of cattle in the economy of both sites. The relatively high numbers of goats may be due to some kind of industry such as horn production. The numbers of cattle are estimated from metapodials which are low meat yield bones therefore they too may be associated with an animal based industry such as the production of neats foot oil and gelatin from hooves or they may be the result of carcass dressing.

The ratios of cattle:pig are strikingly different at the two sites, being 4:1 at 42 St Paul Street and 4:3 at Queen Street. The higher ratio reported at the former site, which is well removed from the market area, suggests that it was a richer part of the burgh. At the medieval High Street sites of Perth (Hodgson 1979) and Elgin (Hodgson and Jones forthcoming) the cattle:pig ratios were 5:2 and 1:1 respectively. The ratios of cattle:sheep and goat are almost the same at both Aberdeen sites (1:1). The ratios at Perth High Street and Elgin High Street are 1:1.1 and 0.75:1 respectively.

The minimum numbers of animals estimated for each phase are given in Table 37a and b.

Table 37a Minimum numbers of animals estimated for each phase; 42 St Paul Street

		Sheep								
Phase	Cattle	goat	Goat	Pig	Horse	Deer	Cat	Dog	Bird	Date
2	3	1		1	1					late 12C
3	3	2	1	2	1	1			1	late 12C/early 13C
4	2	2	2	1			1	1	2	13C
5	6	1	1	1	1				1	13C
6	2	1		1						13C
7	5	3	1	3	1	1	1	1	2	1300-1325
8	5	3	4	2	1	1	2	1	2	14C
9	10	6	3	4	2	1	1	2	2	14C
10	5	4	2	1	1	1	1	1	1	14C

Table 37b Minimum numbers of animals estimated for each phase, Queen Street Midden Area

		Sheep/								
Phase	Cattle	goat	Goat	Pig	Horse	Deer	Cat	Dog	Bird	Date
1	5	3	4	2		1	1	1	2	13C
2	14	9	3	10	1	1	2	1	4	14C

These and other data reflect the heavy economic reliance of the burgesses of Aberdeen and other medieval Scottish burghs, for example Perth (Hodgson 1979) and Elgin (Hodgson and Jones 1979) on cattle. Cattle were a source of meat, milk, blood (iron), horn, neats foot oil, bone, gut, leather, sinew and fat. Fat would provide tallow for candles, and act as a source of food. The crown derived revenue from the export of hides and wool-fells (sheep skins with the wool on them) (Dickinson 1961, 111) and these commodities could only be legally exported from royal burghs such as Aberdeen, Elgin, Perth and Dundee. The royal burghs had a monopoly which was protected by law. Cattle normally came to market alive, 'on the hoof', and were slaughtered within sight of the Flesh Market Cross

The remains of cats and dogs apparently all came from domestic animals which may have belonged to the community rather than have been individually owned. Some of the cats may have led a semi-feral existence while the dogs may have roamed the burgh rather like the pariah dogs in Indian villages. Both animals would serve the community as scavengers and by keeping down rats or mice. There is no evidence to suggest either animal was eaten because their bones were not smashed for marrow extraction. Documentary evidence exists to show that there was a considerable import trade in dog skins at London, the skins being Scottish in origin (Record Office (Kew) Manuscript Customs 3, Vol I, part 2, 48). Horses, being valuable animals as a means of transport and traction, were probably raised for these purposes. On death they would be available as food if only to feed dogs and other animals. Armitage (1978, 33) has cited evidence to show that in medieval London the Church forbad the eating of horseflesh by humans.

The birds have not been identified as to species but they range from those which were as large as geese or swans to those as small as pigeons. The bird bones probably constitute the remains of animals eaten as food.

## Percentages of bone present

The percentages of deer bones fluctuate from phase to phase but, perhaps surprisingly, the highest percentage at 42 St Paul Street is in Phase 10 (mid-14th century). Deer were subject to the Justinian Law of *res nullius* and as such were the property of no man and could be hunted across another man's land. Gilbert (1979, 227-34) has traced the erosion of *res nullius* in Scotland from the 12th century when it was almost universally observed to the 14th and 15th centuries when the commoners lost access to a place to hunt rather than the right to hunt. This may have been more true of lowland burghs where the problems of deforestation and overhunting also reduced the amounts of venison available to the burghs.

The Queen Street site was near to both the Flesh Market and the Fish Market crosses while 42 St Paul Street was at a distance from them (Ill 130) yet the percentages of cattle bones at both sites remains fairly constant (Table 38a and b). This may be indirect evidence for supposing that the animal remains represent domestic refuse rather than commercial waste from butchery or hide preparation. Perhaps, significantly, the Queen Street site was rich in fish bones whereas they were present in only small amounts at 42 St Paul Street.

Table 38a Percentages of bones for each species, 42 St Paul Street

		Sheep/							
Phase	Cattle	goat	Pig	Horse	Deer	Dog	Cat	Bird	Date
2	84.8	8.7	2.2	4.3					12C
3 4	58.6	21.2	11.1	3.0	2.0			4.0	12C/13C
4	44.3	16.4	8.9			1.3	12.7	16.4	13C
5	79.0	9.7	8.1	1.6				1.6	13C
6	89.4	5.3	5.3						13C

		Sheep/							
Phase	Cattle	goat	Pig	Horse	Deer	Dog	Cat	Bird	Date
7	70.1	14.5	9.3	1.4	1.9	1.4	0.5	0.9	1300-1325
8	58.4	18.8	9.6	1.1	2.6	1.1	4.4	4.0	14C
9	65.2	22.3	8.4	1.1	0.5	0.7	0.9	0.9	14C
10	67.2	21.1	5.6	1.7	2.6	0.4	0.4	0.9	14C

Table 38b Percentages of bones for each species, Queen Street Midden Area

		Sheep/							
Phase	Cattle	goat	Pig	Horse	Deer	Dog	Cat	Bird	Date
1	62.7	16.2	7.7		2.8	0.7	2.8	7.0	13C
2	51.6	26.0	13.5	0.3	0.8	1.8	0.9	5.1	14C

Tables 37 and 38 show a shift towards a pig based economy in the 14th century at Queen Street. Such a shift is often associated with times of economic hardship. It is tempting to speculate that the national economic crisis caused by the need to raise a ransom for David II's return would have triggered off such a change in dietary habit but the shift towards pig flesh in the 14th century is not reflected at 42 St Paul Street.

The overall percentages of bones for the main food forming species excluding birds and fish are given in Table 39.

Table 39 Percentages of bone of main food bearing species

		Sheep/				
	Cattle	goat	Pig	Horse	Deer	Date
42 St Paul Street	68.8	19.5	8.5	1.6	1.5	12C-14C
Queen Street	58.1	26.7	13.7	0.2	1.2	13C-14C

A breakdown of the Queen Street data into two phases (Table 40) shows a dramatic shift from cattle to sheep/goat and pig from the 13th to the 14th century but there is no parallel at 42 St Paul Street.

Table 40 Percentages of bones of main food bearing species by phases at Queen Street Midden Area and 42 St Paul Street.

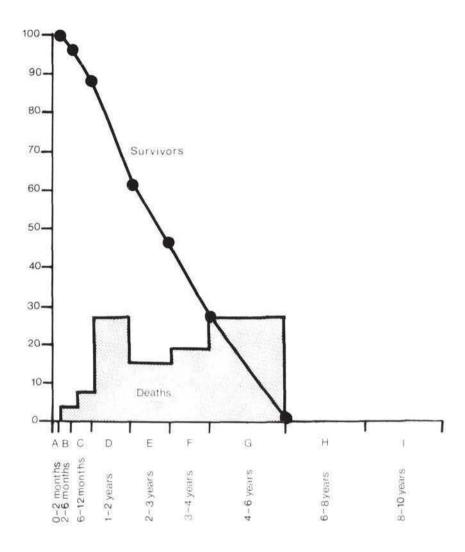
Queen Str	eet, Midden Area						
90.200 per per 90.000			Sheep/				
	Phase	Cattle	goat	Pig	Horse	Deer	Date
	1	70.1	18.1	8.7		3.1	13C
	2	56.0	28.2	14.7	0.3	0.8	14C
42 St Pau	1 Street						
			Sheep/				
	Phase	Cattle	goat	Pig	Horse	Deer	Date
	2	84.8	8.7	2.2	4.3		12C
	3	61.1	22.1	11.6	3.2	2.1	12C/13C
	4	63.6	23.6	12.7			13C
	5	80.3	9.8	8.2	1.6		13C
	6	89.4	5.3	5.3			13C
	7	72.1	14.9	9.6	1.4	1.9	1300-25
	8	64.6	20.7	10.6	1.2	2.8	14C
	8	66.9	22.8	8.6	1.2	0.4	14C
	10	68.4	21.5	5.7	1.8	2.6	14C

### AGES OF ANIMALS ON SLAUGHTER

## Cattle

Evidence derived from the eruption and wear of teeth and from the frequency of certain long bones which lack fused articulatory surfaces suggests that most of the cattle were at least five years old when killed.

Specifically, on the assumption that the third permanent lower molar did not begin to wear until after the age of five, it appears that 93.7% of cattle from the Queen Street site (14th-century levels) and 83.3% from 42 St Paul Street were at least five years old when they were slaughtered. Clutton-Brock (1976, 21) argues that, in a medieval context, cattle were not slaughtered until they were mature (between 5 and 6 years old) in order that the hides were in optimum condition.



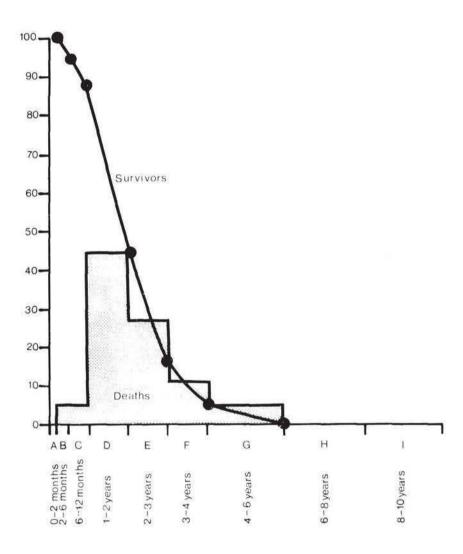
n = 28	А	В	С	D	E	F	G	Н	
% Deaths	-	3-8	7-7	26.9	15-4	19:2	26-9	-	-
% Survivors	100	962	88 5	61-6	46.2	27 0	0-1	-1	==

Ill 128: Animal bone. The kill-off pattern of sheep and goats. Queen Street Midden Area (after Payne, 1969)

The late killing ages reported for both sites are taken as evidence that the cattle were raised primarily for the production of hides and that meat was merely a by-product. 12.5% of the cattle at 42 St Paul Street were killed between the ages of 4 and 5 years while only 4.2% died under the age of nine months.

## Sheep and goats

In our present state of knowledge it is not possible to distinguish sheep and goat mandibles. The ages of death (culling) of the sheep and goats was assessed by applying Payne's criteria (1973, 281-303) to the teeth in the lower jaws (mandibles). The killing curves for the two sites are markedly different and may reflect a different standard of living at them (Ill 128, 129). The 42 St Paul Street site shows a higher incidence of sheep aged between 1 and 3 years old, ie of prime lamb and young mutton.



n = 18	A	В	С	D	Ε	F	G	Н	1
% Deaths	-	5.6	5.6	44-4	27-8	11-1	5.6	a=0	-
% Survivors	100	94-4	888	44.4	16 6	5 5	0	1421	n-

Ill 129: Animal bone. The kill-off pattern of sheep and goats. 42 St Paul Street, medieval levels (after Payne, 1969)

These animals would include the castrated male lambs and possibly some young ewes which were not able to hold the service.

The Queen Street site shows a higher incidence of older mutton, ie animals aged between 3 and 6 years of age. The animals probably represent barren ewes or those which had become broken mouthed or otherwise prevented from remaining part of the breeding stock.

## Pig

The pig mandibles were aged according to criteria proposed by Silver (1963, 264). The distribution by age and site is given in Table 41.

Table 41 Frequencies of pigs by age and site

	Ages of Pigs					
	>3 years	2-3 years	1½-2 years	<1 year		
Queen Street	33.3%	16.7%	50.000			
42 St Paul Street	50.0%	8.3%	25.00%	16.7%		

The presence of young pigs including piglets is limited to 42 St Paul Street, this agains suggests that this site was a richer area than Queen Street. At 42 St Paul Street the oldest pigs occurred in Phases 7 and 9 while piglets occurred in Phase 10. These were all 14th-century levels.

### Horse

There is no evidence of young horses being killed or dying at Broad Street but at 42 St Paul Street a single horse femur was from a young animal. A half mandible had the third permanent molar in wear and presumably came from an animal approaching five years of age.

### Deer

There is no evidence of young red deer at either site; all the cervine remains apparently came from mature animals.

### Dog

26 dog bones were recovered; 11 from 42 St Paul Street and 15 from Queen Street. The latter included 3 half mandibles from puppies, these being the only evidence of young dogs. The puppy jaw bones came from a 14th-century midden area.

### Cat

There is evidence of young cats being killed at both sites. More cat bones were recovered from 42 St Paul Street. The percentage of cat long bones with unfused articulatory surfaces (ie young cats) from this site are shown in Table 42.

Table 42 Percentages of cat long bones with unfused epiphyses at 42 St Paul Street

Bone	No	% Unfused	Articulatory surface
Humerus	5	20	proximal end
Femur	4	50	proximal end
Tibia	5	40	distal end

At the Queen Street site, two out of seven cat long bones lacked fused articulatory surfaces.

## SEX, SIZE AND TYPE OF ANIMALS

#### Cattle

11 horn cores from the Queen Street site and 27 from 42 St Paul Street were assessed as to sex in accordance with the scheme proposed by Armitage and Clutton-Brock (1976, 331-2).

Most of these horn cores apparently came from oxen and a few came from cows. None of the horn cores were attributed to bulls.

Most of the cattle bones fall within the size ranges reported from the medieval levels at Perth High Street (Hodgson 1979). In thirteen cases the lower limits of these size ranges are extended by the Aberdeen cattle while in only four cases the Perth upper limits are exceeded. These few larger bones are a scapula, a radius, a metatarsal and an atlas vertebra which are all wider than similar bones from Perth.

Even with these exceptions the bones appear to come from small, light boned cattle probably of a Celtic shorthorn variety.

## Sheep/goat

The bones of the two species, apart from horn cores, are treated together because they are eroded and therefore difficult to distinguish on the basis of Boessneck's (1964, 1-129) criteria.

Five skull or major skull fragments of sheep were all horned. No polled skulls were found. It is assumed that roughly equal numbers of male and female lambs were born and that most of the male lambs were castrated in their first year. In some primitive breeds of sheep the presence of horns is not sex limited therefore the presence of horns cannot be taken as a guide to sex.

None of the horn cores were sufficiently entire to be assessed as to sexual status by Hatting's method (1975, 345-51). No evidence of four-horned sheep was found. The long bones are mainly within the size ranges reported from the medieval levels of the High Street site at Perth (Hodgson 1979) and seen to have come from small spindly legged animals. Four bones are narrower than any reported from Perth, these being a scapula, a humerus, a metacarpal and a metatarsal.

Four bones were wider or longer than the Perth material but they may have come from goats rather than sheep. Two types of goat horn cores were found, these were a large scimitar type and a second, shorter, straight spiked type. These compare in size and shape with the two types of goat horn core reported from Perth (Hodgson 1979) and interpreted by Ryder and Woolliams (1978 pers comm) to be males and females of the same variety rather than different breeds.

## Pig

It is not possible to distinguish male and female pigs by direct measurement (Armitage 1978, 95) mainly because pig bones recovered from archaeological sites are eroded. No sexual differences could be detected in the lower canines because of damage by butchery.

The presence of large pig bones is often taken to indicate the presence of breeding boars whether wild or domestic. Three pig bones are significantly wider than those reported from the medieval levels at Perth High Street (Hodgson 1979) and may be from such animals. The bones are: a scapula (G.L.P. = 3.1 cm), a femur (Bd. = 4.6 cm) and a tibia (Bd. = 3.3 cm). Whether these bones came from wild or domestic animals is impossible to say but they do come from large pigs in a Scottish medieval context. When pigs were put out into the forests for *pannage* to feed on mast and acorns they would have been serviced by wild boars therefore it seems unlikely that large domestic boars would have been kept locally.

## Horse

Only 20 horse bones were recovered. One of these was a half mandible (lower jaw) which lacked a canine and therefore may have been female. The horses were apparently small in stature, ranging in size from a pony to a small horse. There were no signs of large draught animals being present.

#### Deer

The deer remains were all from red deer. Several fragments of skull bearing antlers indicate that male deer were hunted. None of the deer remains are from large animals.

#### Dog

No evidence as to the sex of the dog remains is available. Two heavily butchered skulls were recovered; one being a small domed skull, the other being a long skull bearing a long narrow muzzle.

### Cat

No evidence as to the sex of the cats is available. None of the remains came from wild cat.

### CARCASS ANALYSIS

The frequencies of bones of cattle, sheep/goat, pig, horse and deer arranged by species are shown in Tables 43mf and 44mf. From this data it is possible to compare the numbers of high meat yield bones (ie joints or cuts of meat) with those of low meat yield bones. High ratios seem to indicate a higher standard of living while low ratios suggest that carcasses were butchered or dressed near to the site and the better joints were exported from it.

When the ratios of the numbers of femur, humerus, tibia and radius (high meat yield bones) are compared with the number of mandibles (low meat yield bones) the higher ratios for cattle and sheep are obtained for 42 St Paul Street. It seems that the inhabitants of this site were better off than those of the Queen Street site.

## Pathology

None of the bones examined showed any signs of disease or injury sustained during life.

## Butchery

None of the bone or horn cores shows signs of having been sawn. Where bones are broken this has been achieved by chopping blows. There were no signs of knife marks on bones as would be expected if metapodials (cannon bones), scapulae (shoulder blades) and innominate (aitch) bones had been 'boned out' with a knife.

Whole skulls are lacking, even those of dogs have been smashed.

# 7 PLANT REMAINS M FRASER AND J H DICKSON

An analysis of botanical samples from 42 St Paul Street and Queen Street Midden Area

## INTRODUCTION

Plant remains from the excavations at 42 St Paul Street and Queen Street Midden Area were examined to provide information on the environment of medieval Aberdeen and on the importance of plants in the economy and diet of its inhabitants. Large scale investigations of the palaeobotany of medieval urban sites have been undertaken in a number of English cities but so far no comparable work has been published on medieval urban sites in Scotland. Thus the results of this study should provide a useful basis for comparison with future work on Scottish sites.

### SAMPLING

The bulk of the Aberdeen material has been preserved under waterlogged conditions where the anaerobic environment reduces decomposition to a minimum. The majority of samples had a pH value in the range 4.0-5.0, the high acidity increasing the resistance of tanning complexes present in the plant material to decomposition. A few cereal grains, weed seeds and shoots and leaves of heather (*Calluna vulgaris*) and bog heather (*Erica tetralix*) were however carbonised.

The plant remains were recovered by wet sieving of soil samples. In total, thirty-two samples were examined. Samples taken from 42 St Paul Street cover a wide range of archaeological contexts and a timespan from early 13th century to late 14th century. Samples were examined in subsamples of 100 cm<sup>3</sup>; three replicate 100 cm<sup>3</sup> subsamples were looked at from Area A and Area C samples and two from Area F samples. The material was washed through a sieve of mesh width 250  $\mu$ m using a gentle stream of warm water. Samples were previously dispersed if necessary in a dilute solution of NaOH. The resulting plant remains were sorted and identified by comparison with modern reference material and subsequently preserved in a fluid consisting of equal volumes of methanol, glycerol and formaldehyde.

Nomenclature of plants follows Clapham et al (1962) and Smith (1978). Table 45mf is a species list of plants from 42 St Paul Street and Queen Street Midden Area. The plant species are divided into the following groupings: plants useful to man; trees; weeds of waste places and arable land; heathland plants; plants of wet habitats. The boundaries between these groupings are not rigid and some plants fit into more than one category while others do not fit well into any. Table 46mf is a species list for selected samples from 42 St Paul Street and Queen Street Midden area showing the numbers of plant parts recovered. The full sample analysis is in archive.

## DISCUSSION

## INTEGRATION OF RESULTS WITH ARCHAEOLOGICAL CONTEXT

#### 42 St Paul Street

Most of these samples contained a range of seeds of weedy plants which either grew on the site or

were present in nearby arable fields and subsequently brought into the town with produce. The seeds of some of these plants may also have been gathered in times of scarcity.

Heathland plants including mosses were well represented although usually only by small fragments. Peat was probably brought in from nearby bogs for use as fuel. Heather, bracken and mosses may also have had other uses such as thatching, bedding or packing.

Rush seeds were present in almost all samples along with small numbers of other plants of wet habitats. Little can be deduced from the number of rush seeds in any sample since large quantities are produced by each flowerhead.

Scattered representatives of plants potentially useful to man were found. The bulk of the material from sample AS229 (Layer A228: Phase 5), which came from below and around the hearth of the post-and-wattle building SAN, consisted of carbonised florets and floret bases of oats (*Avena sativa*). This may be a result of accidental burning during parching of the oats to release the grain from the surrounding husks. Many small pieces of charcoal were also present; hazel and alder were identified. Sample AS239 (Layer A247: Phase 2) which came from the fill of pit TAH likewise contained a lot of burnt material.

Two samples (AS237, Layer A212: Phase 3 and AS245, Layer A233: Phase 3) consisted of subsoil directly over the natural. These samples contained primarily weed seeds, probably part of the natural seed bank of the soil, and small quantities of heathland plants which may have been blown in.

Sample CS48 (Layer C163: Phase 9), the fill of pit BE, was of interest being the only sample from 42 St Paul Street to contain fig seeds. Eighty-seven were recovered from the subsample, this number however is only a small proportion of the number of seeds contained in one fig. Other food plants were present: one carbonised grape pip, raspberry and blaeberry seeds, uncarbonised grain fragments of wheat and oats. There is therefore a distinct possibility that this pit was used as a cess pit. Sample CS66 (Layer C234: Phase 5), which filled a slot along the outside of a wattle wall in building CO, contained large quantities of short lengths of hair. These were matted together and may have been used to bind wall cladding.

The bulk of the organic material in CS68 (Layer C270: Phase 5), which came from a yard build-up layer, consisted of delicate transparent grains of oats

Three samples from pit UG in Area F were looked at. Sample FS715 (Layer F59: Phase 7) was a very thin layer in the base of the pit sealed by silting of natural sand and therefore might be expected to provide information about the original use of the pit. However, although a wide variety of plants including some food plants, were recovered no specific function for the pit was indicated, suggesting that either it was a general purpose cess/rubbish pit or that the sample consisted of secondary rubbish fill, the primary fill having been removed or destroyed. The legume seed coat fragments and the single opium poppy seed fragment from this sample are noteworthy. Other samples of fill from the same pit consisted of secondary rubbish fill above the silted sand. They contained a much smaller range of plants and very few useful ones.

The pit UUA (Phase 3), also in Area F, which contained extremely smelly cess-fill did not produce much in the way of food plants with the exception of occasional uncarbonised grain fragments of wheat.

# Queen Street Midden Area

The richest botanical material produced from the Aberdeen excavations came from Queen Street Midden Area, FN 57/57A/57B. The samples were from two medieval pits cut into subsoil and filled with organic material.

Six 100 cm<sup>3</sup> subsamples were looked at, these contained a variety of plants of economic use as well as many weeds. Mosses were present in large quantities in three of the subsamples. From the combination of possible food plants present (figs, raspberries, brambles, blaeberries, uncarbonised grain fragments of cereals) there is a strong possibility that the pit was used as a cess pit. A large proportion of the organic material in the subsamples was cereal debris which was similar in appearance to material from a ditch at Bearsden Roman fort which has been shown by biochemical means to be sewage (Knights et al 1983). Further evidence supporting this hypothesis comes from the presence of numerous eggs of the roundworm parasite *Trichuris* which were seen on slide preparations of cereal grain-fragments and on leaves of the moss *Rhytidiadelphus loreus*. One egg of another worm,

Ascaris, was also seen. Ascaris and Trichuris are common intestinal parasites of man and his domestic animals, especially pigs. Also present in these subsamples were large numbers of fly puparia which suggest the presence of stagnant conditions (Pike 1975). Other animal remains found included quantities of small bones, feather fragments and animal hair.

Robust hypnoid mosses (eg *Hylocomium splendens, Rhytidiadelphus loreus, Hypnum cupres-siforme*) were abundant in most of these subsamples. These are heathland and woodland mosses and may have been utilised as toilet 'paper'.

The large number of flax seeds is interesting and may indicate a local textile industry. No flax fibres were however observed and it is possible that flax was grown for its oil-rich seeds. Two seeds of weld or dyer's rocket (*Reseda luteola*) were also found; other plants which may have been utilised for dyeing, in addition to other possible uses, included blaeberry, (*Vaccinium myrtillus*), heather (*Calluna vulgaris*), tormentil (*Potentilla erecta*), bracken (*Pteridium aquilinum*), blackthorn (*Prunus spinosa*), bramble (*Rubus fruticosus*), fat hen (*Chenopodium album*) and redshank (*Polygonum persicaria*).

### NOTES ON SOME SPECIES OF INTEREST

## Oats (Avena sativa)

Five carbonised grains and one fragment were recovered, three of which were sufficiently well-preserved for measurement (dimensions of range  $4.0-5.0\times1.4-1.9\times1.4-1.7$  mm). One very well preserved carbonised floret was found in the Queen Street samples but the diagnostic lemma tips were broken off. The hearth sample AS229 (Layer A228: Phase 5) contained an abundance of carbonised florets and floret bases while sample CS68 (Layer C270: Phase 5) contained many uncarbonised grains and the Queen Street samples (Midden Area: FN57) were rich in uncarbonised grain fragments.

The evidence from the material recovered points towards the oats belonging to Avena sativa L. (common white oat). Sample AS229 (Layer A228: Phase 5) which contained many floret bases had none with a distinctive suckermouth base such as is characteristic of A. fatua L. (wild oat). Neither were any of the floret bases noticeably prolonged into a short stalk as they are in A. strigosa Schreb. (bristle-pointed oat). On the better preserved florets no sign of an awn was seen. A. sativa bears a short weakly twisted awn on its lower floret but the upper floret is always awnless, in contrast to A. strigosa and A. fatua which have awns on both lower and upper florets.

According to Handley (1953) A. sativa (white oat) was uncommon in the Highlands until after 1746, while in the rest of the country it was confined to the infields of the best farms for a considerable time after the Union of 1707. However Anderson (1794 in Findlay 1956) in his General View of the Agriculture of the County of Aberdeen states that 'the great corn included all the diversities of the common oat cultivated throughout this Island (Avena sativa)'. A strigosa (also known as the grey or small oat) was sown on the poorest soil in the outfield in the high-lying districts (see Findlay 1956); it is much more resistant to adverse weather although much less productive than A. sativa.

## Barley (Hordeum vulgare)

Only one carbonised grain  $(4.1 \times 2.6 \times 1.8 \text{ mm})$  and a fragment were found while uncarbonised grain fragments were occasional in a few samples. A number of rachis segments (from the axis of the spike) were also recovered which indicated that the lax-eared variety (bere) with grains in four longitudinal rows was probably grown (Hordeum vulgare tetrastichum, H. tetrastichum Kcke.). This was more tolerant of soil acidity than two-row barley H. distichum L, which apparently did not come into common use until liming was practised (Symon 1959).

## Wheat (Triticum aestivum s.1.)

No carbonised grains of wheat were found although the distinctive uncarbonised grain fragments were abundant in the postulated sewage from the Queen Street samples. Wheat was cultivated only on the best of the infield land.

## Fig (Ficus carica), Grape (Vitis vinifera)

Both figs and grapes are examples of food plants that must have been imported. They were probably imported as dried products, the grapes as raisins. Figs were an important source of sugar in medieval times and have been frequently found at medieval sites such as Hull (Williams 1977), Southampton (Dimbleby 1975) and Dublin (O'Riordain 1971). In Scotland they have been recorded from the Roman fort at Bearsden (Knights et al 1983) and work in medieval Elgin has produced a large number of seeds. Only one carbonised grape pip was recovered from the samples; more however have been found in Elgin samples. It is most unlikely that the climate in NE Scotland was ever sufficiently warm and sunny for figs or grapes to ripen.

## Opium Poppy (Papaver somniferum)

One fragment of a seed was recovered from the primary fill from the base of pit UG in Area F (Phase 7). Seeds of this plant have long been used as an opiate and sedative and have been found at other medieval sites (Hull: Williams 1974; Dublin: Mitchell unpub.) and at the Roman fort of Bearsden in Scotland (Knights et al 1983). Opium was used to alleviate malaria (ague) in the Fenland and poppyhead tea was often given to children during teething (Godwin 1978). Trail (1923) mentions opium poppy as 'a frequent casual on town refuse and on waste ground around Aberdeen'. The poppy seed was probably imported and the plant grown for the opium which is obtained from the latex of the capsule.

## Flax (Linum usitatissimum)

A small patch of flax was raised in most places for domestic purposes (Handley 1953), each family making its own linen. It was not however until the 18th century that linen manufacture became Scotland's greatest industry (Turner 1972). Flax was commonly grown as an alternative to oats or as a companion crop for grasses.

## Weld, Dyer's Rocket (Reseda luteola)

According to De Wit in Godwin (1975) the family *Reseduceae* is not naturally part of the British flora: *Reseduceae* probably having been introduced intentionally as a dye plant and *R. luta* (wild mignonette) adventitiously.

Dickie (1860) mentions weld as being rare and found in waste places. He lists five sites for Aberdeenshire including three in Aberdeen itself. Trail (1923) mentions that it is 'not native near Aberdeen, probably surviving as little more than a casual, from the time when it was cultivated as a useful plant'. Weld, which produced a yellow dye, was one of the three staples of the dyer's craft along with madder (*Rubia tinctoria*) and woad (*Isatis tinctorum*) (Grigson 1958). Thurstan (1949) states that it produces the best and most permanent of all vegetable dyes. Weld seeds have also been found in medieval York (Godwin and Bachem 1959) and Roman London (Willcox 1977). Willcox comments that weld seeds, unlike woad seeds, occur at the place of dyeing. It is interesting to note that Thurstan recommends that care should be taken to collect weld before it seeds as otherwise the colour is very poor. Grigson also mentions that English farmers in the 18th century followed the odd practice of sowing weld with corn (barley or oats). It would be interesting to find out if this was also practised in Scotland.

## Corn Cockle (Agrostemma githago)

This was formerly a very common and troublesome weed. Its seeds containing a toxic saponin, githagenin, which makes bread and flour unpalatable. Godwin (1975) mentions it as being very closely associated with rye crops although Gardiner (1847) in his *Flora of Forfarshire* states that it is very plentiful in wheat fields but seldom seen among other cereal crops.

Most of the seeds were recovered as fragments. The presence of corn cockle in the samples may be due to poor seed cleaning of cereal crops, some of the seeds remaining with the grain after winnowing. In the Queen Street samples the seed coat fragments were found in association with uncarbonised grain fragments of wheat and oats suggesting that the seeds had been ingested, doubtless with adverse effects on the consumer. The seeds were also used for medicinal purposes. Wilson (1975) gives much detail on the poisonous nature and possible uses of corn cockle.

## Blaeberry (Vaccinium myrtillus), Rowan (Sorbus aucparia)

Blaeberry seeds were numerous in samples postulated as cess pits (CS 48: Layer C163: Phase 9 and Queen Street Midden Area FN57) and were probably gathered in surrounding moorland areas. Rowan seeds were also common in these samples and it seems likely that they were consumed. Rowan berries can be used to make jellies etc (McNeill 1974). A few rowan seeds were found in cess pits in medieval Southampton (Dimbleby 1975) and medieval Dublin (O'Riordain 1971).

## Bramble (Rubus fruiticosus), Raspberry (Rubus idaeus)

Brambles and raspberries probably grew locally and formed an important seasonal item of diet.

## Corn spurrey (Spergula arvensis)

This very common weed has been used as an utility plant in Denmark and has been ground into meal in Shetland in historic times (Jakobsen 1932). Godwin (1975) mentions it as being a constant weed in flax crops.

Fat Hen (Chenopodium album), Nipplewort (Lapsana communis), Black Bindweed (Polygonum convolvulus), Pale Persicaria (P. lapathifolium), Wild Radish (Raphanus raphanistrum), Charlock (Sinapis arvensis), Chickweed (Stellaria media), Nettle (Urtica dioica).

It is likely that the carbohydrate-rich seeds of many of these plants and in some cases their green leaves were gathered in times of scarcity to supplement produce from cultivated plants (see for example Helbaek 1960, Lucas 1959, McNeill 1910).

## Bog Myrtle (Myrica gale)

Distinctive glandular leaf fragments of bog myrtle were found in a number of St Paul Street Area A samples. One carbonised fruit was recovered from the hearth sample (AS 229 Layer A228: Phase 5) and anthers, identified by their pollen grains, were found in another sample. Fruits and seeds of bog myrtle have also been found in medieval Oslo (Griffin 1977) although leaf fragments are not mentioned. Bog myrtle may have been employed in a number of ways; for example in beermaking, for use as brooms, repelling insects and as a dye. Use of the plant as a broom may account for the carbonised fruit in the hearth sample.

## Mosses

Mosses were found in varying quantities in nearly all the samples, the largest quantities being from Queen Street Midden Area pit FN57.

Hylocomium splendens was the most frequent and abundant moss; this is so in other archaeological contexts eg Vindolanda (Seaward and Williams 1976). Other large hypnoid mosses were also well represented (Hypnum cupressiforme, Rhytidiadelphus spp, Pleurozium schreberi) and large acrocarpous species (Aulacomnium palustre, Dicranum scoparium, Polytrichum spp) were found in smaller quantities. Sphagnum, a moss which still has economic uses, was frequent in many samples.

Since it is unlikely that any of the mosses found (with the possible exception of *Ceratodon purpureus*) were actually growing on the site, the mosses may have been gathered fortuitously with heather etc, but it is probable that many were gathered for use as packing materials or for their absorbant qualities (cf Queen Street pits).

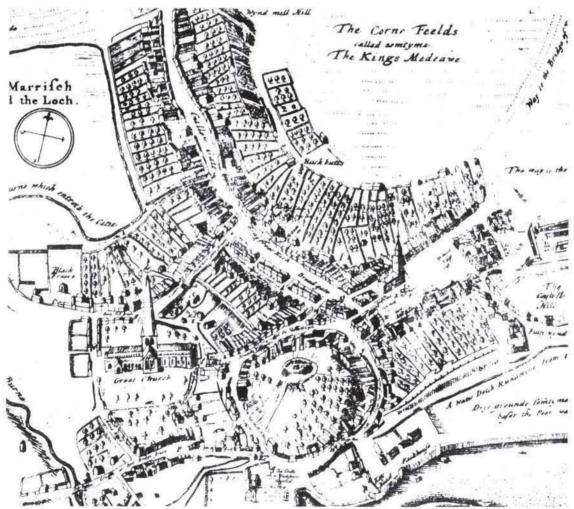
Polytrichum commune, which was found in a few samples, has in the past been twined to make small ropes (Dickson 1973) but no evidence of this was found here.

*Ulota crispa*, shoots of which were found in one sample, is rather different from the other mosses present since it is characteristically epiphytic, occuring in small tufts on branches of trees and shrubs (Smith 1978).

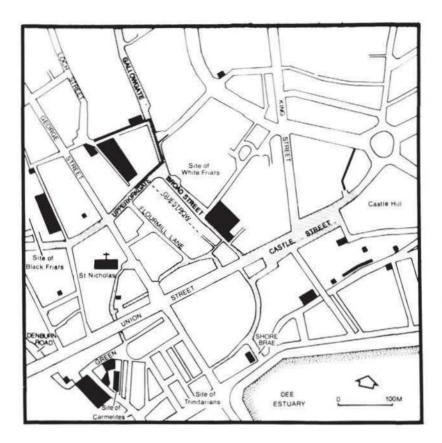
# 8 CONCLUSIONS JC MURRAY

With the publication of this volume, archaeology in Aberdeen is at a watershed. Eight years of generally fairly small scale excavations allow us to reach some tentative conclusions concerning the town's development, topography and economy in the medieval period. Now, with the imminent onslaught of a major central development, such an assessment is vital in order to focus the aims of our future archaeological involvement before a large area of the medieval town is destroyed.

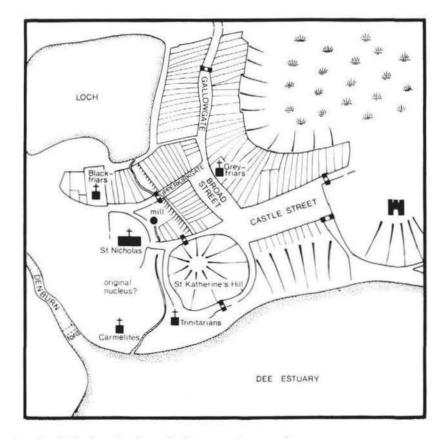
The granting of trading privileges to the town by David I (1124-53) presupposes that the nucleus of a settlement already existed in the early to mid-12th century. None of the excavations within the area enclosed by the ports has produced anything that can be dated earlier than, arguably, the late 12th century. It is therefore worth examining the hypothesis that the original settlement moved. Several local historians (Wyness 1972, 11) have argued that the original settlement was in the area of the Green in the 12th century. However, excavations at the W end of the Green at 2-12 Rennie's Wynd



Ill 130: Detail of Parson Gordon's map of 1661: the medieval burgh



Ill 131: Map of Aberdeen showing the excavated sites in relation to the surviving medieval street pattern



Ill 132: Map of medieval Aberdeen showing main features and topography

(Ill 1:15), 45-59 Green (Ill 1:17) and 67-71 Green (Ill 1:16) have revealed no medieval structures and little artefactual evidence. The S end of 67-71 Green and the site of 2-12 Rennie's Wynd appear to have been largely estuarine and 45-59 Green may be interpreted as garden or cultivated ground attached to the Carmelite Friary in the medieval period. If such an early nucleus existed therefore, and the ex-urban position of St Nicholas church is a strong argument that it may have, it seems reasonable to suggest that it may have stretched from the E end of the Green, N to the church, skirting the base of St Katherine's Hill. Negative archaeological evidence from Harriet St (Ill 1:2) and the Art Gallery extension (III 1:1) suggests that it did not extend N of the church. Evidence is very slight, but the church itself appears to have been at least a 12th-century foundation (Hunter, 1974, 240) and among the finds from Hunter's excavation in the church was a coin of Malcolm IV (1153-65). If such had been the site of the original settlement it not only explains the position of the church, but perhaps also the reason for the movement of the town. Expansion on the Green site would have been difficult; to S and W were the estuaries of the Dee and Denburn, to the E was the steep W slope of St Katherine's Hill (so steep that it was still not built up in 1661 when Parson Gordon drew his map). So, one might suggest that by the late 12th century there was a gradual move of the focus of the settlement to the more defensible area to the W on the higher ground near the castle. Incidental support for this is suggested by the position of the lands granted to the religious orders in the mid-13th century (Ill 132). Without exception, they were on the margins of this hypothetical early settlement. Comparison with other towns such as Perth (Stavert 1981, 10) or Canterbury (Tatton-Brown 1981, fig 5) shows that lands granted to the religious orders were generally on marginal or less valuable land and this would accord with the decline of the Green-St Nicholas area as the main settlement became established.

By the late 12th or early 13th century it is clear from a mixture of archaeological and historical sources that the main streets within the ports existed. The street pattern, apparently largely dictated by topography, consisted of two main streets (both meeting near the base of St Katherine's Hill): Broad Street/Gallowgate, with the important route to N and W, and Castle Street, leading to Castle Hill.

Although the main medieval market in Aberdeen was on Castle Street where the flesh and fish crosses remain, it is possible that a second, possibly earlier market existed in Broad Street; the island blocks of 7-67 Broad Street between Guest Row and Broad Street, may represent the colonization of this market area. Indeed Parson Gordon in the commentary to his map refers to the fact that this area, built up by 1661, had formerly been one street (Parson Gordon 1842, 11). There appears to have been no attempt to develop a parallel street system behind either of the two streets, on the pattern which Adams (1978, 33) proposes for some of the early E coast burghs, particularly in the Forth/Tay area. Again, this may be partly topographical, due to the sloping ground on either side of these two streets, or possibly it is due to a lack of pressure on land resulting in the rigs not being sufficiently built up in the medieval period to necessitate a back access. Of the other streets within the medieval area, Upperkirkgate, leading to the church, is well attested archaeologically and Netherkirkgate with its Port existed from at least 1400, as did Futty Wynd and Ship Row. The Vennel/St Paul Street is shown on Gordon's map of 1661 and there is a reference to it in 1526 (see p 77) but it probably did not exist in the medieval period; there was no evidence in the British Telecom trenches along and across the street and there was no evidence in 42 Loch Street, 42 St Paul Street Area G or 45-47 Gallowgate, of any medieval properties with access to it. The town, as it developed by the 13th century, extended on the high ground between St Katherine's Hill to the W, the quayside on the Dee estuary to the S stretching E to the Castle, and on the N to the Loch. It was not a walled town but there appears to have been a considerable degree of natural defence; to the N there was the Loch, along the E margin of the town there was a steep slope down to marshy ground (seen in British Telecom trenches in Little John Street (Ill 1:6) and in an observation site in West North Street (Ill 1:10) and to the S there was a very steep slope to the waterline. The actual line of the shore was probably considerably further inland than at present. The Shore Brae (III 1:19) and the Virginia Street sites (III 1:20, 21, 23-26) show considerable post-medieval land reclamation which has altered this line. The quay at Shore Brae gives a fair indication of the late-medieval shore line. To the SW, St Katherine's Hill formed a considerable barrier. The only side not naturally defended was the W side, facing St Nicholas church. However, Gordon's map of 1661 shows what may be a bank along

a line between the Netherkirkgate Port and the Upperkirkgate Port and N to the Loch. This may include the culverting of the stream from the Loch mentioned in Gordon's commentary (1842, 10) but it also appears to form some sort of minor defence or, at the least, definition of the edge of the town at this side, which in any case was further protected by the Denburn itself to the W.

One result of the town's position was that, as the settlement grew, it was again confined by natural boundaries, the high spur towards Gallowgate being one of the few areas for expansion, which possibly explains why the position of this port, generally based on the name Porthill (Gordon fails to mark its position on the map), is so far N. The Port may have moved as the town extended. It is hoped that future work on the Gallowgate may plot the exact extent of the town in this direction in the medieval period.

It is generally suggested (eg Adams 1978, 37 who quotes Aberdeen Burgh Records xviii) that the only man-made defence to the burgh other than the ports (without reference to the W bank on Gordon's map), consisted of strong walls at the end of each rig. Certainly Gordon shows a stylised wall or bank around each property in 1661, and Sharpe's Prospect of Aberdeen looking from the NE shows garden walls at the ends of the properties behind Broad Street in 1732. However, excavation does not altogether confirm that this was the case in the earlier period. On the 42 St Paul Street site there was evidence of a possible E-W boundary in Area D, appearing to have taken the form of a bank (D51). Unfortunately this could only be excavated in a small area so that it was not altogether clear if it was indeed a rig end boundary, or a feature within a rig. It did, however, appear to have been near to the N edge of medieval activity on this plot. Nothing comparable was excavated in 42 Loch St/Drums Lane but there was a noticeable reduction in the amount of medieval material N of this point. The British Telecom trench along St Paul Street showed an almost total lack of medieval material until it was level with the backs of the properties fronting on the Gallowgate, where the levels became rich with medieval deposits. Equally, observation of the British Telecom trenches in Little John St showed an abrupt break in medieval deposits about halfway down the hill, unaccompanied by any observed traces of bank or wall; however the traces of a removed wattle fence might not have been seen in the conditions of the observation.

To summarize, the backs of the rigs were possibly less formally defined in the medieval period than is often suggested. Such boundaries as there were may, in the early period, have been mainly intended to control any livestock that were kept in the rig.

Archaeology is beginning to reveal the detailed planning within the town. The long narrow rigs lying at right angles to the street were particularly clear in 42 St Paul Street and to some extent in Broad Street. On 42 St Paul Street, where the boundaries were examined in detail, the 13th-century plots can be shown to have been initially fairly irregular in size. During this period there were substantial buildings on the Broad Street and Gallowgate frontages and the backland areas of Queen Street (Midden Area) and 42 St Paul Street were partially built up.

At the end of the century, c 1300 according to the pottery dating, there was a change. On the 42 St Paul Street site, the boundaries extending back from the Upperkirkgate were redefined, creating more regular plots of 5.5-6.0 m width; whether this was an isolated instance or whether some degree of planning was imposed by the Burgh Council, will only be shown by comparable excavations in other parts of the town.

The actual appearance of the properties is only patchily understood; the frontages on Broad Street and Gallowgate both included remains of buildings which may have stood with their long axis parallel to the street. The structure of these frontage buildings is uncertain but there is an indication that they may have been more sophisticated than the contemporary backlands buildings excavated on 42 St Paul Street. These small post-and-wattle buildings lay along the rigs at right angles to the street, behind the frontage properties, with access up lanes on some of the boundary lines. One such cobbled lane has been excavated. Unlike the comparable site of High Street Perth, the backland area in St Paul Street was not fully built up, nor was there any degree of subdivision within the medieval backlands on sites yet excavated in Aberdeen; only building SAN stood within its own enclosed yard. The overall impression is, therefore, of buildings which were not fully independent of the frontage owners, the occupiers being perhaps poorer craftsmen and their families, or others dependent on the frontage owners. There is no evidence that any craft was undertaken on the excavated

sites with the exception of 6-8 Castle Terrace. At 42 St Paul Street there was a baking oven in one rig but this may have been for domestic use.

The small degree of backland building on this site in the 13th century ceased almost totally during the 14th century when the rigs were used primarily as yards. Throughout the 13th and 14th-century phases there is no impression of population pressure in this area of the burgh. Equally, the fact that the Queen Street (Midden Area) site became a midden in the 14th century and that a large area of Broad Street/Gallowgate could be given to the Franciscans in the 1460's cumulatively suggest a lack of land pressure at this period. Although on the St Paul Street site there was one substantial 15th/17th-century building in the backland, there was relatively little build up of the rigs even in the 17th century when Gordon shows in general only one or two structures directly behind the frontage block and the back of the rigs remaining as garden land.

The large garden areas within the rigs in the medieval period underline an impression that in the 13th and 14th centuries, some animals may have been kept in the burgh. The weed seeds noted in the botanic report may also have come from these backland areas. One might suggest that some herbs and vegetables were grown, but the botanic evidence neither confirms nor denies this. Certainly the areas excavated at 42 St Paul Street Area G and 42 Loch Street, yielded what appeared to be homogenous cultivated earth with some medieval pottery.

This somewhat rural aspect is emphasised by the strong evidence of contact between the town and its surrounding countryside. Not only was Aberdeen a point of export for wool and skins but it was also a consumer of many products from the hinterland. The bone report identifies the bones of domestic food animals many of which must have been brought into the town for slaughter, and the deer, bird and fish bones suggest hunting and fishing in the hinterland. Equally, in the botanic report, a number of wild foods are noted which must have been gathered outside the town: fruits such as blaeberry, rowan, bramble and raspberry, also marginal food plants such as fat hen and nettle. It is clear that moss was gathered for a number of uses. Cultivated cereals such as barley and oats were also brought in.

The post-and-wattle construction of many of the buildings and fences stresses the interaction with the hinterland still further, even a small wattle building (3 m²) needs in the region of 1000 wattles, posts, clay for daubing and broom, heather, straw or rushes for thatch. All these materials would have been easily available near the town and it has been suggested that the backland buildings were often built by their occupants, so it is probable that they would have cut and gathered the materials themselves.

There was little evidence of the craft industries on the sites excavated to date. While there is a fair amount of leatherwork, of presumably local origin, there are few offcuts to suggest a workshop in the vicinity of any of the excavated sites. The evidence of spinning and weaving and the presence of seeds of flax and of possible dye plants, all suggest cloth production, but generally on a small domestic scale rather than as a craft industry. The fabric of some of the pottery (Chapter 3) has been identified as being of local clay but again there is not yet any indication of the location of the potteries, although they were probably peripheral to the town, perhaps in the Clayhill area to the SW of the medieval burgh. The 17th-century smithy on the Castle Terrace site provides the only excavated evidence of metal working other than random slag samples. It must be stressed however that the lack of evidence of any of the craft industries is almost certainly a reflection of the areas excavated to date, as these appear to have been predominantly residential in the 13th and 14th centuries although the historical records for the St Paul Street site show that by the 16th and 17th centuries there were several workshops and shops there.

Trade is well illustrated by the archaeological material. In particular by the pottery, the source of which can often be readily identified. The main emphasis is on N Sea trade, along the E coast to SE Scotland, E England, particularly Yorkshire and Humberside, and across the N sea to the Low Countries. The scarcity of Scottish pottery in Bergen would suggest little contact between Aberdeen and N Scandinavia at this period. The French products may have reached Aberdeen through entrepôts rather than directly and the isolated sherds of Spanish lustreware and French polychrome must be regarded as strays, possibly due to an individual traveller or to an isolated contact. The odd luxuries from the Mediterranean, such as the Italian silk, the figs and grapes, and the ivory spindle whorl may also have been derived from trade through an entrepôt.

The emphasis on the Low Countries is continued as late as the 17th century, clay tobacco pipes of Dutch manufacture having been found, in particular on the Castle Terrace site. However, it must be stressed that these are a very small item of trade and would, at most, have been a small part of a much larger load.

Before examining the apparent shifts in trade patterns reflected by the pottery it is worth taking note of Colin Platt's remarks that in Southampton, there were some major discrepancies between the picture of trade given by the pottery and that given by the very full customs records of Southampton (Platt and Coleman-Smith 1975, 35-36). Pottery is one of the few identifiable and surviving objects of trade, but one must remember that it must often have been an incidental one and that by far the greater number of the imports may have been food or other organic products which have not survived. It is perhaps only in relation to Scarborough ware that one can see a trade in ceramic per se.

In conclusion, we are beginning to build a more complete picture of Aberdeen in the medieval period. This is possibly all the more important in any assessment of the Scottish burghs because Aberdeen appears from the archaeological evidence of the medieval period to have been a burgh of moderate size and prosperity and therefore perhaps more typical than Perth with its great range of exotic imports and highly built up backlands.

This is perhaps a useful counterbalance to the assessments of the purely documentary evidence which have placed Aberdeen in the 13th and early 14th centuries as one of the most prosperous burghs in Scotland. In the records for Customs receipts quoted in the Historical Atlas of Scotland (McNeill and Nicholson (eds) 1975, 63-4, fig 69), Aberdeen trade was very high in the early 14th century, rivalled only by Berwick and Edinburgh and to a lesser extent by Dundee. Although there is some apparent decline in the later 14th century, the Customs Receipts still show it to have been one of the major E coast ports outside the Firth of Forth. Perhaps this predominance is most explicable when it is realised that the taxable exports in this period were wool, fleeces and hides and that Aberdeen as the main NE port would have been the primary outlet for a very considerable rural hinterland. In the assessment of burgh taxation (McNeill and Nicholson (eds) 1975, 64, fig 70), the percentage paid by Aberdeen in 1326-31 exceeds that of any of the other burghs for which records were available: it is almost twice that of Perth although this may reflect a difference in the number of burgesses taxed. Yet while both sets of statistics show Aberdeen in the early 14th century as a very rich burgh, a comparison between Aberdeen and Perth, the two Scottish burghs where most excavation has yet taken place, shows that the apparent standard of living in Perth was considerably higher with more exotic imports and on the excavated sites the backlands were far more highly built up. The picture is equally true if Aberdeen is compared with English towns such as Southampton (Platt and Coleman-Smith 1975) or Kings Lynn (Clark and Carter 1977).

Although it may be argued that choice of excavated sites may change the emphasis, the coverage of sites in Aberdeen, although lacking much in the Castle Street area, is otherwise sufficient for a fairly valid comparison. Aberdeen was an important and wealthy port but this need not necessarily be equated with a sophisticated urban environment. Not withstanding the travels of its merchants and the occasional presence of the Crown, Aberdeen should be regarded as generally isolated from the centres of medieval fashion and as therefore perhaps all the more typical of the majority of Scottish medieval burghs.

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