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# Excavations at the Abbey National Building, 103 High Street Perth

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## Introduction

A nine-week excavation by the Scottish Urban Archaeological Trust was carried out between February and April 1992 (Site Code PE10), prior to the redevelopment of Abbey National's offices at 103 High Street (Illus 1 & 2). The demolished structure had been built in the early 19th century, with a modern facade added in the early 20th century. Its cellarage exposed medieval deposits, which would be disturbed by piling work for the new building. Permission and funding for an excavation was granted by Abbey National, and a suitable window in their construction schedule was provided by Hall & Tawse Scotland Ltd.

The excavated area was on the north side of the High Street, between 1.5 m and 5.5 m north of the present day street frontage, and lay within the cellar of a demolished building, with standing buildings on either side.

## Historical background and previous work

Perth, which received its burgh charter in the early 12th century, during the reign of David I (1124–1153), is situated on the River Tay in a location both favourable for sea trade and fordable for overland communications from north to south (Turner Simpson & Stevenson 1982, 1). It has been argued that Perth was already established as a trading settlement before this time, although until recently no archaeological or documentary evidence had been found to bear this out.

Most of the burghs created in the 12th century were probably not on green-field sites, and were located on strategic positions associated with old names (Lynch 1991, 62). Perth fulfils these criteria as it lies on a ford of the Tay, and has a place-name of P-Celtic origin. *Perth*, was a Pictish word signifying 'copse' or 'wood', probably related to the modern Welsh *perth*, meaning 'bush', 'brake' or 'copse'. This indicates that Perth received its name prior to, or a little after, the mid 9th century, when the Pictish kingdom of Perthshire was taken over by the Scots (Bowler *et al* forthcoming). Work by the Scottish Urban Archaeological Trust at the nearby 80–86 High Street has now produced evidence of a pre-burghal wattle-lined ditch dated to cal AD 998–1039 (Moloney & Coleman 1997, 710–2). This has been interpreted as a possible boundary, defining an early ecclesiastical precinct around the site of the present St. John's Kirk (Moloney & Coleman

1997, 775). This church stands on the highest area of land within the medieval town, the relative dryness of which would have been an incentive for early settlement. It has been argued that the earliest settlement of Perth was located on the present Watergate (Spearman 1988, 46), placing it on the same area of raised land. The site at 103 High Street would also have stood on an area of dry land, now over 7.0m above sea level, which was probably largely free of the danger of flooding in medieval times (Bowler *et al* forthcoming). Duncan has speculated that the layout of early rigs in the burgh points to the 11th century town having stood along the High Street, between Meal Vennel and Watergate (Duncan 1974, 36), a zone within which 103 High Street stood. Thus an urban centre of religion and trade apparently existed in the century prior to the granting of burghal status. It was hoped that this excavation might also reveal evidence of pre-burghal settlement, or, failing this, shed light on the speed and quality of post-charter expansion.

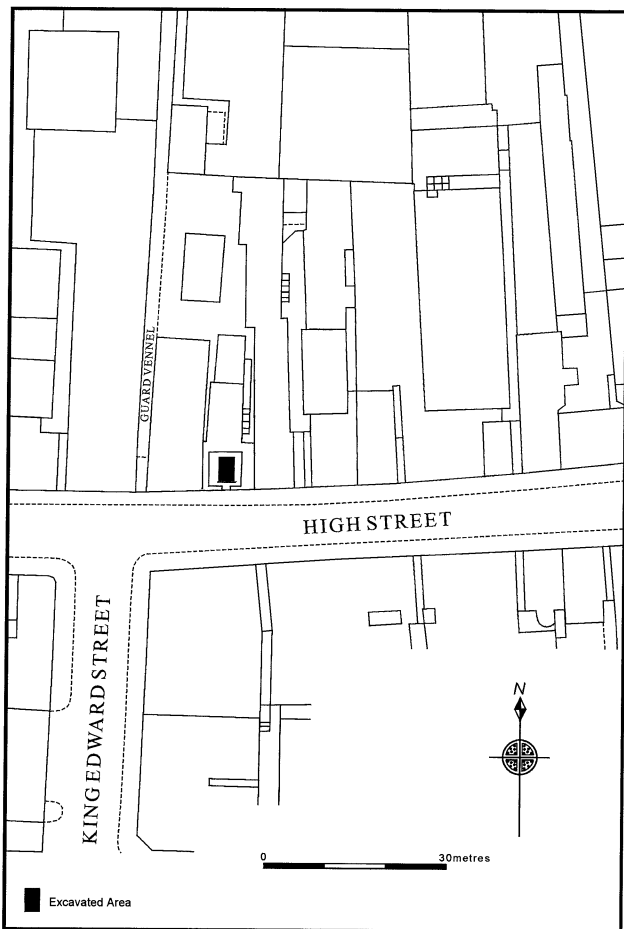
Previous work on the opposite side of the High Street (Clark & Blanchard 1995, 936–7) suggested that the original road and south frontage alignment was parallel to but possibly slightly south of its present-day course, and that archaeological deposits survived below modern basement level (Clark & Blanchard 1995, 931). Specifically, the trench was sited in order to reveal the form and structure of the back wall of a north frontage property, with its attendant external and internal deposits. It was also hoped that artefacts recovered would provide evidence of Perth's earliest industries, trade links, and daily life.

## The excavation

The excavation was carried out by four archaeologists from the Scottish Urban Archaeological Trust over nine weeks, from February to April 1992. Demolition had exposed the cellar floor at 1.75 m below present street level. A rectangular trench 2.4 x 3.8 m, long axis north to south, was sunk through this floor. As this was a confined site, in a narrow space between standing buildings, for safety reasons the trench was stepped in 2 m from the west cellar wall and 1 m from the others. The need for shoring was anticipated, but natural deposits were reached before this became necessary.



Illus 1 Location map.

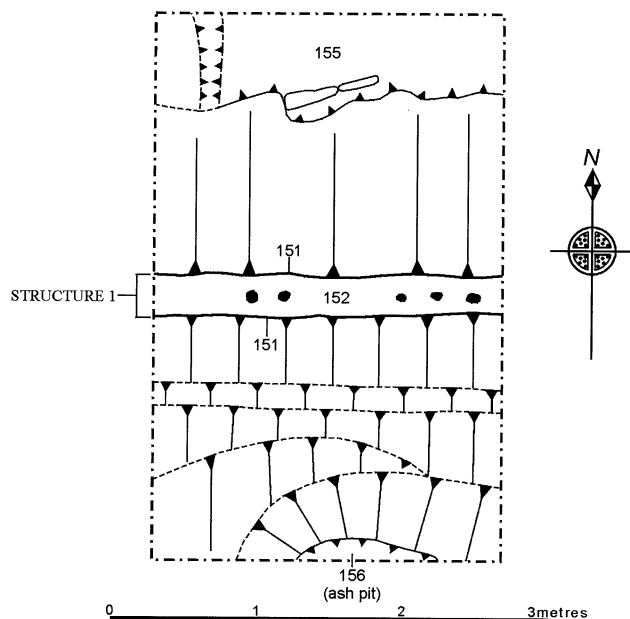


Illus 2 Trench location.

PE10



Illus 4 Stakehole line 152.



Illus 3 Phase 1.

## The archaeological sequence

### Phase 1, the first wattle building and oven (Illus 3)

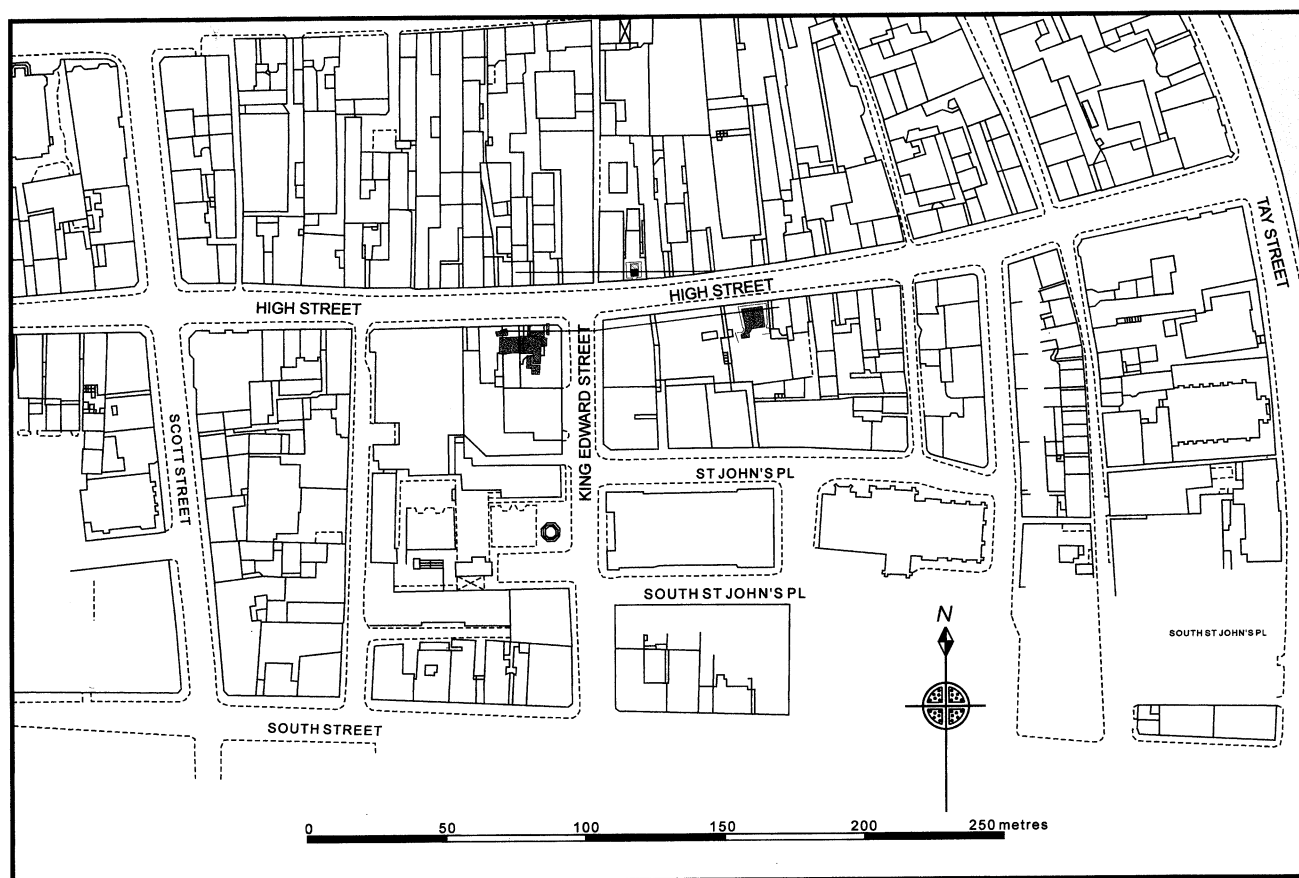
#### Description

The earliest structure encountered was built directly on the natural clay sand, which was cut away both to north and south by cut 151 to produce an upstanding east–west ridge. The scarping to the south of the ridge created a crude terraced effect. A stakehole line (152), representing a single wattle wall (Structure 1), was established along the ridge, and lay parallel to but 3.5 m. north of the present day High Street frontage (Illus 4).

South of the wall, a sandy loam (147; not illustrated) formed a flat deposit, containing ferrous slag, five cattle scapulae perhaps used as makeshift implements, and also fragments of pure clay, possibly derived from wall cladding. This soil obscured the crude steps formed by the terracing action of cut 151.

North of Structure 1, a clean sand floor ran north to the edge of a large clay lined oven or furnace (155). An ash pit (156) was cut into soil 147 (not illustrated) south of the wall—its fills appeared only slightly humic and contained thin lenses of sand.

This phase produced no pottery, although fragments of worked leather were found in 147. Thus there is a lack of adequate dating evidence for this phase.



Illus 5 *High Street frontages.*

### Discussion

Previous work on the opposite early High Street frontage at the junction with King Edward Street (Clark & Blanchard 1995, 936–7) has suggested it also lay a short distance back from the present day alignment. This was again seen during subsequent excavations at 80–86 High Street (Moloney & Coleman 1997). If contemporary with the north frontage, this would indicate that the High Street was substantially wider (perhaps by as much as 5 metres) in medieval times (Illus 5).

The surface of the natural exposed just south of the opposite frontage also lay over 1.00 m deeper than the natural exposed by cut 151: the north side of the High Street may have once formed a low ridge, sloping down to the south. The terracing formed by cut 151 to the south of the wall line probably had a drainage function, but it is not known why a scarping cut might have been necessary to the north.

The town's original nucleus probably lay on the present-day Watergate, nearer the river to the east, but on higher, less flood-susceptible ground (Spearman 1988, 46–7). There may also have been an early settled area near St John's Kirk, evidenced by a wattle-lined ditch of pre-burghal date, uncovered at 80–86 High Street (Moloney & Coleman 1997, 775–777). Later a new axis probably developed on the line of Skinnergate and Kirkgate, following Skinnergate's insertion and the building of Perth Castle around 1160 (Spearman 1988,

48). Apparently this axis had changed by the end of the 12th century to an east–west orientation, along South Street and the High Street (Turner Simpson & Stevenson 1982, 7). The Skinnergate axis was short-lived because the destruction of the castle in 1209/1210 removed its rationale. High Street then resumed its former prominence, and expansion westward continued.

If the north side of the High Street once formed a low ridge, with adequate drainage, it would seem to have been another likely site for early settlement outwith, or prior to, the establishment of the town. Unfortunately, cut 151, by exposing natural, would have removed any previous topsoil or traces of earlier activity. Spearman's analysis of the growth of Perth suggests that settlement existed just to the west of the 103 High Street site, at the former Parliament Close, by the 12th century (Spearman 1988, 49). Without dating evidence for this phase it is impossible to say whether it represented pre-burghal settlement, or the earliest settlement after the granting of the charter in the early 12th century.

Cut 151 may have removed a good depth of overlying deposits—no root or burrowing action was noted in the exposed natural. Early wattle structures found elsewhere in Perth (Sermon & Cox 1996, 737) were built on subsoil with no attendant topsoil. Stripping to natural sand would seem a practical method of establishing a

clean and manageable construction base—though the original depth of topsoil on natural need not have been great.

The west part of clay-lined feature 155 was scorched, and its surface displayed a crude semi-cylindrical channel running north–south. The clay ran north into the section—any high temperature process it contained would have lain beyond this. Two upright flat sandstone slabs, held in alignment within the clay, were of unknown function. The feature seemed too large to have been a simple domestic hearth. The slag recovered from 147 was too sparse to securely ascribe to metal-working associated with feature 155, but it may have functioned as a furnace or oven.

Wall line 152 of Structure 1 separated internal and external deposits, and fronted on what became the High Street. The sand floor and oven/furnace suggest the structure represented here was roofed. The sand floor did not display a recognisable occupation surface, though this was probably removed by the initial truncating cuts in phase 2. The external soil layer 147 was very humic and might have been grassed over.

The absence of pottery in the deposits probably reflected a non-domestic function for Structure 1, rather than a pre-ceramic date. Alternatively, the initial phase 2 truncating cuts may have removed any pottery associated with the phase 1 occupation layers.

The terracing of the natural deposits south of the wall, and the siting of the ash pit, possibly point to the existence of forelands, although the pronounced slope to the south, and the position of the ash pit suggest the absence of trading fore-stalls (present in phase 3). Additionally, the apparent anti-social use of the presumed forelands, and the presence of a high-temperature process (a potential fire hazard) may indicate that this structure stood isolated from the main nucleus of Perth.

## **Phase 2, the second post-and-wattle building and the first road surface (Illus 6)**

### *Description*

Sealing the phase 1 stakeholes, humic clay loam 145 formed an east–west ridge along the wall line, raising its base above the street deposits. Posthole 148 lay centrally on this wall ridge, and probably accommodated a roof or wall support. The top of its associated post-pipe was noted on the surface of 104 (not illustrated), the latest external phase 2 deposit.

Although the tops of their pipes appeared on several internal and external deposits throughout this phase, when taken together, all small stakeholes associated with this phase (including 57, 74, 113, 120, 122, 125, 129) respected a double east–west line along the north and south edges of the wall ridge. This probably indicated a stake-and-wattle double or cavity wall of a building, which replaced Structure 1. This is referred to as Structure 2. The space between the stakehole lines was 0.30 m thick. Murray, in discussing Viking and

medieval buildings in Dublin, states that the space between the walls in double post-and-wattle wall structures was commonly between 0.07 and 0.3 m (Murray 1983, 23). There was no direct evidence of the cavity filling, although the high humic content of wall ridge 145 and subsequent deposits that raised the height of the ridge—112 and 99 (not illustrated) suggested an organic material such as dung may have been employed. It is also possible that the outer line of stakeholes might merely have represented a low retaining wall around the foundations of Structure 2 (Murray 1983, 23). Larger stakeholes 74 and 57, on the north and south edges of the wall ridge, probably represented wall supports. Possible large posthole 95 lay on the wall ridge, central to the present day plot boundaries, and may have recut an earlier setting for a substantial upright support.

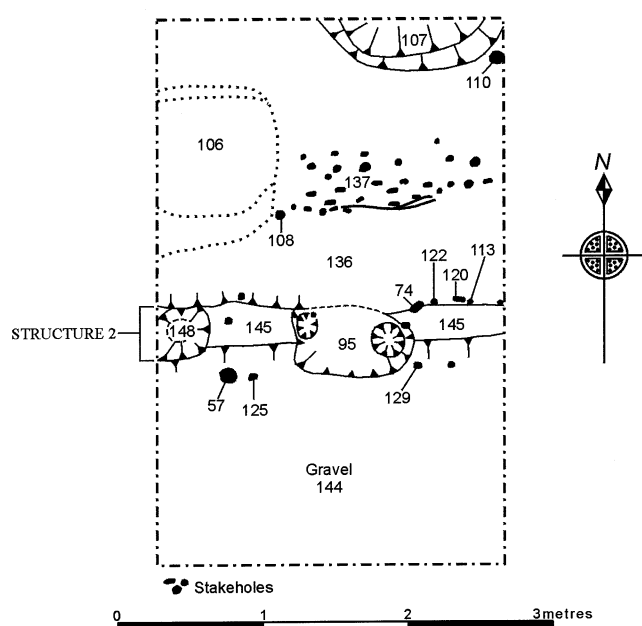
The larger load-bearing elements of the structure appeared to have remained in place whilst floor and road renewals built up on either side, although the flimsier wattle and daub walling may have been replaced more than once. Many fragments of daub and clay were found in both internal and external deposits.

The stakehole fills were invariably decayed wood fragments displaying voids, suggesting the stakes had rotted or were snapped off at ground level.

On the northern (inward) side of the double wall, the phase 1 floor had been truncated by cut 140 (not illustrated), which contained a thin charcoal spread 141 (not illustrated) sealed by loamy sand 139 (not illustrated). This latter deposit was mixed with burnt daub, ash, and clay, and used as bedding for pebble spread 138 (not illustrated). Rubbish pit 106 was cut into the surface of 138 and contained both humic and ashy fills.

A series of four sand or clay-sand floors 136, 130, 93, 66 (only the first of which has been illustrated) then sealed these features. The first, 136, sealed pit 106, and contained an east–west aligned array of small stakeholes (137) 1.00 m north of the wall, possibly representing the site of an internal division or work-bench within Structure 2 (Illus 7). Overlying 136, the surface of floor 130 (not illustrated) was cut by rubbish pit 107, similar in its fills to 106. Around the edge of this pit, floor 130 held a lens of grey sandy silt 133 (not illustrated), similar to the fill, 105 (not illustrated), of the pit, which had probably been raked out from it.

The surfaces of floors 130 and 136 displayed thin hard skins of iron sand, possibly leached down from overlying sand floor 93 (not illustrated). The surface of floor 93 was hardened by iron and copper corrosion products. At this time, the sealed fills of the two internal pits started to compact and collapse, causing 93, and all subsequent deposits, to slump into the resulting voids, where the floors overlay the pits. Around pit 107, this slumping necessitated sand repair 92 (not illustrated) to the surface of floor 93. Two round-bottomed impressions (108, 110) in 93, at the south-east edges of the slump zones, may have held in place rigid coverings to prevent or mask further slumping. A broken and irregularly sheared fragment of slate found in floor 93 may have derived from discarded



Illus 6 Phase 2.

roofing, but may equally have been a makeshift implement. Sealing 93, sand floor 66 (not illustrated) had no occupation surface or artefacts, and may have been truncated by the building work which heralded phase 3. The underlying floors contained few artefacts, residual or otherwise: the sand and clay-sand may have been freshly dug clean material.

The first road or pathway to respect the double wall line of Structure 2 was a well-made pebble and sand spread (144), which lined a truncating cut through the southern edge of wall ridge 145. This was sealed by a humic soil, which was littered with probable wall repair debris and was in turn sealed by a thin clay surface (134; not illustrated). This external deposit seemed unsuited to exposure to the elements, and may have been protected by an overhanging roof or awning. It was in turn sealed by a layer of sand, 132 (not illustrated), and then a heavily littered soil, 128 (not illustrated), which appeared to have accumulated over a period of time. Overlying 128, sand spread 119 (not illustrated) may have acted as bedding for pebbly soil 112/127 (not illustrated), which also raised the wall ridge east of posthole 95. This was sealed by sand bedding for pebble spread 104 (not illustrated), which formed a surface identical to 144.

Over 104, sandy loam 99 (not illustrated) then raised the wall ridge west of posthole 95, thinning out to the south but re-appearing against the south baulk, where it backfilled a shallow rectangular impression, possibly a setting for a robbed-out post-pad. Sealing 104, and the fill of posthole 95, soil 69 (not illustrated) produced daub and clay fragments where the deposit approached the wall: these fragments were probably derived from wall rendering. Limited copperworking evidence from 69 may have been contamination from the overlying phase 3 deposits.

All the external phase 2 deposits slumped markedly into the collapsed fills of phase 1 pit 156.



Illus 7 Stakeholes 137.

### Discussion

The continued sequence of internal and external deposits separated by a wall suggested that Structure 2 fronted onto the north side of the High Street. The presence of well-built, if not well maintained, roads or pathways running past the frontage wall pointed to the structure being fully incorporated into a complete frontage running west from the Market Cross.

Soil wall ridges would usually have served to prevent water draining through the wall, by raising the wall base above the level of the street, but in this case the street deposits would have drained south from the base of the wall and the raised wall ridge might point to an awareness or fear of flooding from the Tay, although the structures would not have been able to resist a substantial flood. A major destructive flood was recorded in 1209 (Duncan 1974, 39), though this probably post-dates both phases 2 and 3. Perth is susceptible to flooding to this day.

The north side of the double wall lay on the line of the phase 1 wall of Structure 1—the south side thus slightly encroached on the road space. Postholes encountered to the north of the southern frontage of the High Street during excavations at King Edward Street also pointed to the encroachment of medieval structures into the High Street and a subsequent narrowing of the thoroughfare (Clark & Blanchard 1995, 937).

The roads and floors associated with Structure 2 appeared to have built up around the major roof-supporting elements of the wall. The depths of the road deposits were very similar to the thicknesses of the floors. While the successive roads and floors could not be stratigraphically paired in most cases, it is possible that a fresh floor was laid once a new road was in place, in order to keep the internal deposits slightly higher than the road surface—thus preventing outside water draining through the wall. If so, the amount of road repair and re-laying compared to the probable lifespan of a wattle structure may indicate a rapid increase in traffic, if not trade, during the lifetime of the building. By way of comparison, wattle buildings in 18th century Scotland have been estimated as having a life of between eight and twenty years (Allen 1979, 4), and Murray has estimated that the larger structures in medieval Dublin had a probable life of between ten and twenty years, though these structures had problems of subsidence (Murray 1983, 33). The variations in road construction quality may have reflected fluctuations in the local economy, or pressures on time and/or material. Problems with drainage and road maintenance would naturally have led to the raising of street levels.

At most, only the southernmost third of the available floor space within Structure 2 was exposed by excavation. While small-scale metalworking could be inferred from slag and iron scale found in and on the internal and external surfaces, there was no evidence for any associated high temperature processes, and these may have lain in the unexcavated part of the floor space, or in the backlands, outwith the excavation area. The floors, particularly pebble floor 138, still pointed to a non-domestic function for the structure.

The external phase 2 deposits were almost flat, their surfaces being affected only by slumping into pit 156. This may indicate that the downslope to the south noted in phase 1 had been levelled up, and that the High Street this far west of the Market Cross had become firmly incorporated into the street system of medieval Perth.

The first phase 2 floor, 138, was bedded with burnt clay and wattle, possibly derived from the wall of Structure 1. Clay and daub found in most phase 2 external deposits probably derived from discarded rendering associated with the repair or renewal of the flimsier, easily replaced elements of the frontage wall.

Soil 128 was the only deposit to exhibit thickening over pit 156, possibly due to natural accumulation. The subsequent deposits, although slumped, displayed no such thickening, suggesting that the pit fill compaction took place quite late, after all the sealing layers were in place.

It seems possible that Structure 2 had a roof or upper storey overhanging the street. Clay surface 134 and sandy loam 69 appeared unsuited to exposure to rain, and the southern element of 99 may have marked the site of a support for any such overhang. There was, however, no direct evidence for a frontage booth in this phase, perhaps due to the surface of 69 being heavily

truncated during phase 3 rebuilding work.

The considerable apparent width of High Street at this point, taken with the apparent levelling and sturdiness of the roads, may point to an expansion of the market place west from the Market Cross. A frontage booth might have taken advantage of the enhanced commercial opportunities provided thereby.

The pottery evidence suggested a 12th century date for this phase. This accords well with the 12th century or earlier pottery located nearby which showed that settlement had already extended as far as Parliament Close, a little to the east, by the 12th century (Spearman 1988, 49).

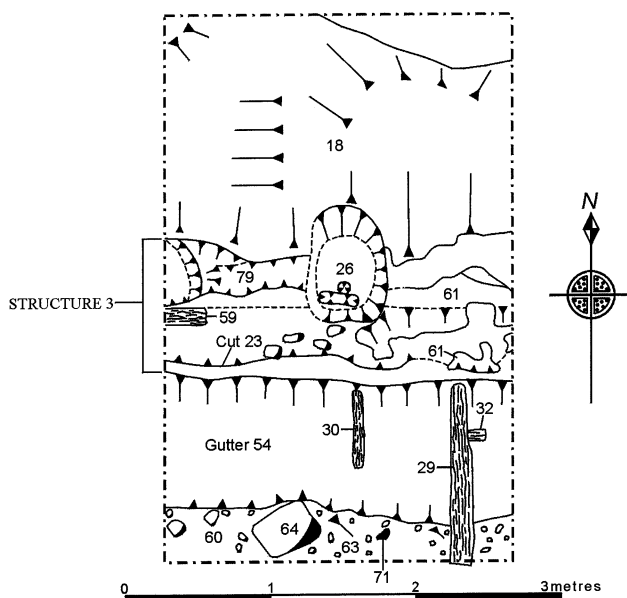
The recovered bone was predominantly discarded or residual domestic refuse, with no indication of industrial treatment. A wooden handle (Artefact Cat. no. 12), recovered from littered soil 128, was decorated to resemble deer antler, confirming the scarcity and prestige accorded this animal and its by-products during the Middle Ages.

### **Phase 3, sill-and-plank building with forebooth (Illus 8)**

#### *Description*

This phase was marked by the major rebuilding of the frontage wall, with the replacement of the double wattle wall with one of groundsill and upright plank slot construction, whilst the same frontage alignment was maintained. This new building, Structure 3, was marked by beam slot and bedding 23/61 (Illus 9); the associated beam fragment 59; probable doorstep setting 79, and plank and post setting 26, which recut posthole 95. All structural stakeholes previously associated with the wall line appeared to have been truncated and sealed by this activity. The thin soil and clay floors (21, 17, 15; not illustrated) were bedded flush with the beam slot surface using charcoal (18) and wattle and daub debris mixed with sandy loam (24; not illustrated). These were probably derived from the demolition of Structure 2.

Road deposit 60 overlay 69, but stopped 1.30 m. south of the wall and, with probable post-pad 64, sand ridge 63, and stakehole 71, may have marked the southern extent of any overhang and thus available booth space south of the frontage wall of Structure 3. Gutter 54, running east–west and separating the wall from the roadway, may have been a temporary drainage measure during construction. It was backfilled before the booth space was in commercial use and presumably covered. The fill (50; not illustrated) of the gutter contained evidence of copperworking in the form of copper alloy offcuts, mould fragments with cuprous waste attached, and one fragment of crucible (see artefacts report above). Similar mould fragments, however, were found in small quantities in the uppermost phase 2 deposits, and in the levelling debris used as bedding for the first phase 3 floors. As such, it may have been residual from phase 2 activity, and used in deliberately backfilling gutter 54.



Illus 8 Phase 3.

Gutter fill 50 was sealed by thin clay layer 34 (not illustrated), on which a wooden plank (30) had been laid to establish a frontage booth. The base of the booth, with 34, had been truncated by road repair, but was re-established (29, 32) shortly thereafter. The booth was apparently floored with pebbles in sand (28; not illustrated)—similar to the phase 2 road/pathways 104 and 144—over clay surface 34, but these pebbles may have derived from the lower elements of phase 4. A clay surface would have served equally well for a booth as for an internal floor, if the booth were protected from rainfall, as seems likely. The clay booth floor, and the internal floors, yielded no evidence as to the purpose of the booth.

#### Discussion

This phase represented the remodelling and probable heightening and strengthening of the structure fronting onto the High Street, due either to the increased wealth or needs of the owner, or to the need for a structure employing improved building techniques.

The roadways were made from pebbles and angular stones in sandy silt loam, rather than sand: it may be that surface rather than sub-surface drainage became necessary, perhaps due to an increase in noxious surface litter. Road repair 45/33 (not illustrated) did not truncate the entire booth space south of the wall, although it approached and abutted beam slot 23, due south of short slot 79, reinforcing the assumption that 79 accommodated a doorstep.

Clay floors 15 and 17 (both not illustrated) contained lenses of ashy clay, pointing to the possibility of a hearth lying on the unexcavated floor beyond the northern baulk. Two flat sandstone fragments in 15 may have been remnants of a robbed slab floor. Both 15 and 17 were very thin in places, and may have been heavily scrape-cleaned whilst in use, or levelled before replacement.



Illus 9 Beam slot 23.

The recovered pottery again pointed to a 12th century date for these deposits, suggesting that successive rebuilds took place within a short timespan, as did the general rise in ground level occasioned by the build-up of road deposits.

Copperworking evidence from gutter fill 50 and other deposits in this phase may point to the continuation of metalworking from phase 2.

Thus the structure built on the burgage plot during this phase apparently represented a burgess's property with attendant trading booth fronting and again encroaching onto the High Street, in a favourable location just west of the Market Cross.

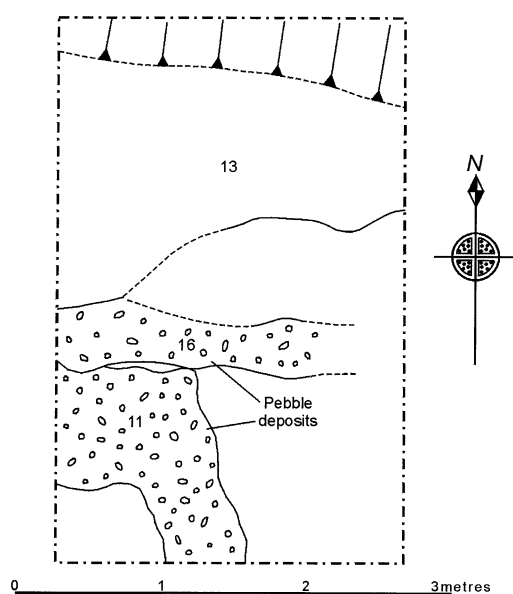
#### Phase 4, disuse (Illus 10)

##### Description

Charcoal-rich loam 13, and pebble deposits 11 and 16 marked the backfilling of the frontage wall beam slot of Structure 3, and the sealing of all internal and external deposits associated with it. This indicated that the structure had been demolished, and the plot given over to horticultural use. There was apparently a reversion to the former frontage, with the removal of the frontage booth.

##### Discussion

Pottery recovered from this phase pointed to a date in the 13th, or perhaps the 14th, century, compared with a



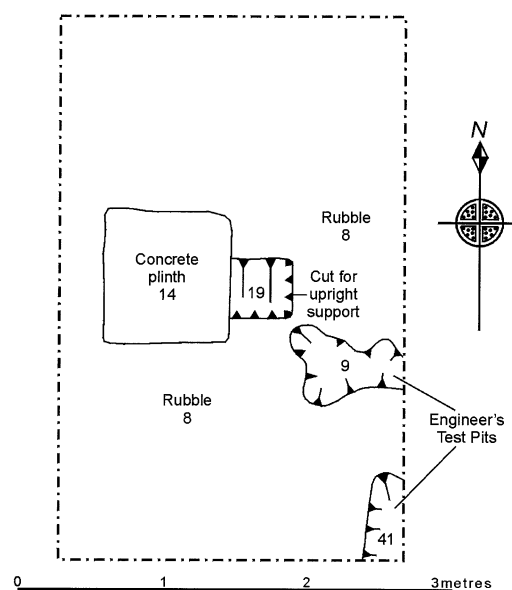
Illus 10 Phase 4.

12th century date for phases 2 and 3. Deposit 13 contained bone gnawed by dogs, and cat bones, both suggestive of an open area. This would suggest that the plot was being used for horticultural rather than domestic purposes. At the King Edward Street site to the south, a similarly vacant building plot was located during a medieval phase (Clark & Blanchard 1995, 937). Phases 7 and 8 of the 80–86 High Street site (14th century) also showed little activity—particularly phase 7 of that site, where in three plots only one frontage structure was encountered (Moloney & Coleman 1997, 727–730). It has been suggested that this lack of domestic occupation might reflect “a period of local or burgh-wide economic decline” (Clark & Blanchard 1995, 937). The retention of the High Street frontage line along the interface between soil 13 and gravel spread 16 indicated that the former (phase 1 and 2) street frontage was probably still maintained by neighbouring structures. Pebble and sand deposit 11 may have functioned as a pathway beside the road.

The lack of archaeological deposits from the 15th to 18th centuries was probably due to their removal during the insertion of a tenement building in the 19th century (phase 5).

#### Phase 5, modern (19th/20th century) cellar (Illus 11)

Modern activity commenced with the excavation and walling of a cellar in the 19th century that remained in use until 1992. This activity apparently removed deposits from the 15th to the 18th centuries. This cellar was apparently sunk from the present ground level, and removed almost 2 m of stratigraphy. The frontage of the building associated with this cellar also lay around 3.5 m to the south of the frontage line established in phase 1. The base of the cellar displayed two seemingly random cuts (9, 41) that were probably engineers’ test pits. These were backfilled and sealed with rubble (8), associated with the building of the cellar walls.



Illus 11 Phase 5.

A square cut, 19/20, may have held an upright support. This was replaced with a square concrete plinth, 14. It is worth noting that both of these more or less overlay the site of posthole 26 (phase 3). This centring of major structural uprights suggested that the plot had maintained its width throughout the centuries.

An early 20th century rebuild of the east cellar wall left builders’ debris 6 (not illustrated) sealing the cellar floor. Disturbed cobbles in 6 may have derived from the original floor surface over 8. The rubble, 6, was sealed by cinder spread 5 (not illustrated), which formed bedding for a modern concrete floor. The fills of pit 107 (phase 2), almost exposed by the truncating cellar cut 43 (not illustrated), must have been again compacted after centuries of being sealed—the truncation surface and rubble spreads directly over the pit displayed a dip, levelled by a localised thickening of cinder spread 5, which acted as bedding for a modern concrete floor.

### The pottery (Illus 12)

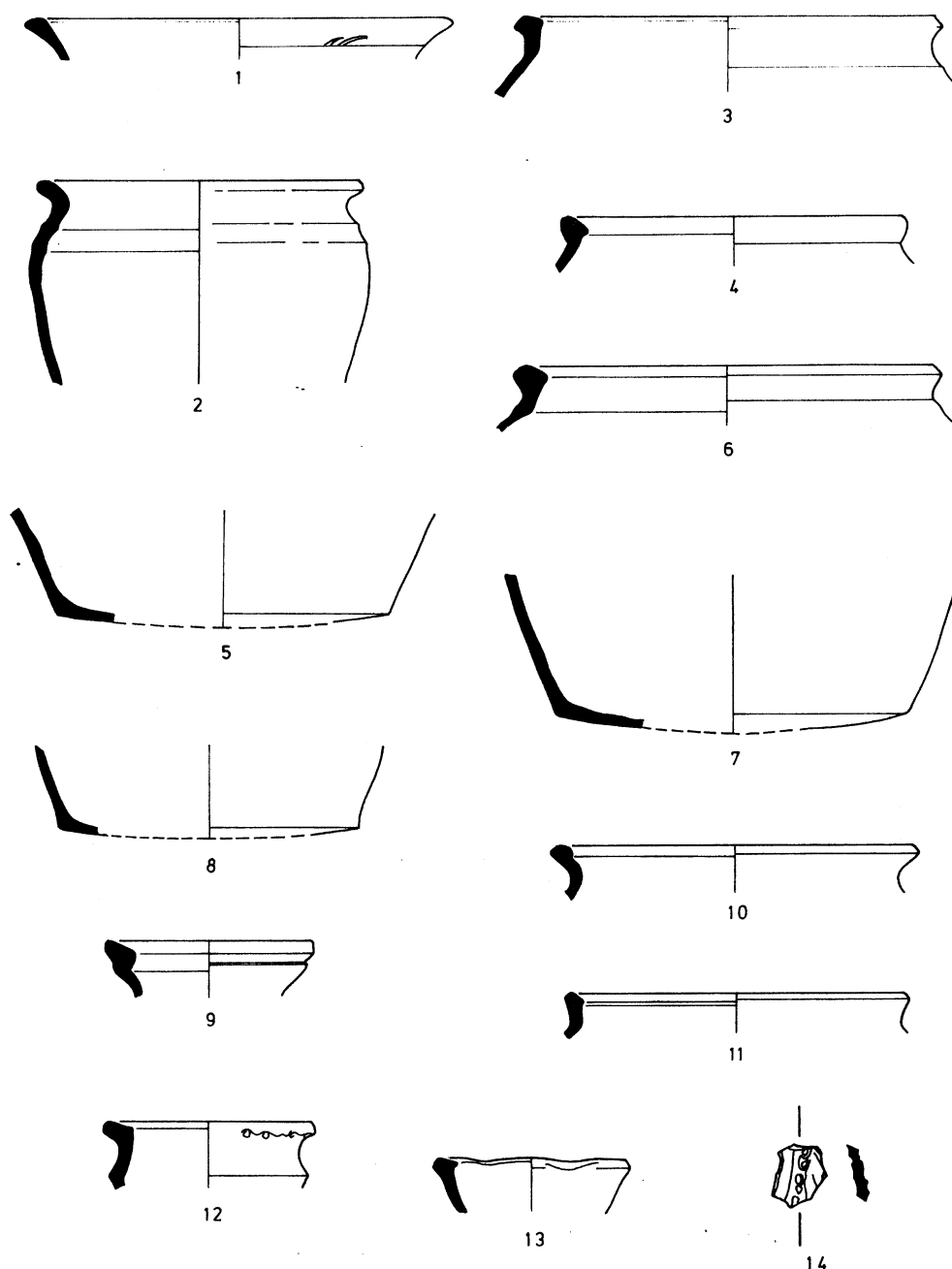
Derek W Hall

#### Introduction

This excavation produced a small assemblage of pottery (170 sherds). This material has been examined by eye and where possible assigned its recognised fabric name. No petrological analysis has been undertaken.

#### Possible local ware

This fabric group contains a variety of sherds with similar characteristics, with a fabric which is similar to the Local East Coast Redwares (see below). However, the vessel forms represented are mainly cooking pots and this fabric may be an early local product. It is designated ‘possible local’ in the discussion and PoLo



**Illus 12** *Medieval Pottery. 1–5 possible local ware, 6 Scottish white gritty ware, 7–8 shelly ware, 9 Stamford ware, 10–14 unidentified. Scale 1:4.*

in the pottery tables. This fabric was first identified in the excavated assemblage from King Edward Street, Perth (Hall 1996, 952–59) and is also present in the group from 75 High Street, Perth (Hall forthcoming). There are 29 sherds in this assemblage with the majority being present in phase 2.

#### East coast redware

More than 15 years of archaeological excavations in the Scottish east coast burghs have identified this fabric type as forming a tradition of native pottery production apparently dating from the 13th to the 15th

centuries (Hall 1996, 126). It is poorly represented in this assemblage, with there being only two sherds in phases 3 and 4.

#### Scottish white gritty ware

Recent work has identified three potential production centres for this fabric in Lothian, Borders and Fife regions (Haggarty *et al.* 1984; Hall 1997). It has been found on previous excavations in Perth in association with 12th century fabrics and appears to predate the Redware industry and may have ceased production by the 15th century. It is most commonly highly fired to a

white or grey colour and contains quartz inclusions. There are 27 sherds in this fabric in this assemblage from 15 jugs and 11 cooking pots.

### Shelly ware

These coarse shell-tempered vessels are thought to originate on the south-east coast of England, although similar fabrics were also produced in Frisia in the 9th and 10th centuries (Stilke 1995, 11–17). Very few sherds of vessels in this fabric have been recovered from Scotland, the largest groups being from King Edward Street, Perth (Hall 1996b, 952–59) and the assemblage from 75 High Street (Hall forthcoming). In England the early version of this fabric is dated to the 10th and 11th centuries, with a suggestion that in Oxford and London it disappears from the archaeological record by the early years of the 11th century (Vince 1985, 31). There are 14 sherds from this excavation which are all from cooking pots.

### Stamford ware

This fabric has been recovered from other sites in Perth (Hall 1996b, 952–59) and from excavations in Aberdeen (Murray 1982, 123). The vessels represented are very well made glazed jugs, and the fabric dates to the late 11th/early 12th centuries (Kilmurray 1980). There are 19 sherds present in this assemblage.

### Yorkshire type ware

Vessels in these distinctively glazed fabrics are the most common imports in the east coast burghs in the 13th and 14th centuries (McCarthy and Brooks 1988, 227–52). There is only one sherd in phase 5.

### London type ware

This fabric is similar in appearance to the Low Countries Redwares, being an orange-red colour with a grey core. Jugs in this fabric are produced in London in the mid to late 12th century and have been found on previous excavations in Perth and Aberdeen (Pearce et al 1985, 7). There are six sherds from phases 2 and 3.

### Paffrath ware

There are only four sherds from vessels in this very distinctive silvery blue-grey fabric which is dated to the 11th/12th to early 13th centuries. These sherds appear to be all from ladles and only appear in phases 2 and 3.

### Unidentified

The unidentified fabrics from this site are liable to all be from imports. Where there is some uncertainty about the exact provenance of a fabric it has been given this designation. Included amongst this material are some sherds which are very similar to unidentified

material from the 75 High Street excavations (Hall forthcoming) and material from the King Edward Street excavations which had originally been incorrectly identified as being from the Low Countries (Hall 1996, 952–959). Recently the author has shown this fabric to two Danish archaeologists who have suggested that it may originate from Jutland (pers comm J.Hjermind, P.Kristian Madsen), work is in progress to confirm or deny this identification

### Modern ceramic

There are 26 sherds from phase 5 that are all from early modern china and earthenware vessels.

### Discussion and conclusions

Although this assemblage is a fairly small one, it is of great interest due to its apparent early date. Phases 2 to 3 would seem to date to the 12th century based on the fabrics present. The limited number of sherds of East Coast Redware would seem to confirm previous suggestions that this local fabric did not start production until the 13th century (Hall 1996, 952–959). The complete absence of early Low Countries Greyware fabrics is quite marked in this assemblage and may add further weight to the idea that the presence of certain imported vessel types could reflect the presence of foreign merchants on certain burgage plots.

Table 1

#### Fabric glossary

|        |                     |
|--------|---------------------|
| ECR    | East coast Redware  |
| PoLo   | possible local ware |
| WG     | white gritty ware   |
| Shelly | shelly ware         |
| Stam   | Stamford ware       |
| Yorks  | Yorkshire type ware |
| Lon    | London type ware    |
| Paff   | Paffrath ware       |
| Mod    | modern ceramic      |
| Unid   | unidentified        |

| Phase        | ECR      | Polo      | WG        | Shelly    | Stam      | Yorks    | Lon      | Paff     | Mod       | Unid      |
|--------------|----------|-----------|-----------|-----------|-----------|----------|----------|----------|-----------|-----------|
| 2            | 0        | 17        | 3         | 8         | 3         | 0        | 3        | 3        | 0         | 12        |
| 3            | 1        | 9         | 14        | 2         | 11        | 0        | 3        | 1        | 0         | 24        |
| 4            | 1        | 1         | 5         | 4         | 4         | 0        | 0        | 0        | 0         | 5         |
| 5            | 0        | 2         | 5         | 0         | 1         | 1        | 0        | 0        | 26        | 1         |
| <b>total</b> | <b>2</b> | <b>29</b> | <b>27</b> | <b>14</b> | <b>19</b> | <b>1</b> | <b>6</b> | <b>4</b> | <b>26</b> | <b>42</b> |

170 sherds in total

### Pottery illustration catalogue

#### Possible local

- 1 Everted rimsherd from cooking pot with external smoke blackening. Context 85 phase 2

- 2 Rim and sidewalls from cooking pot with external smoke blackening. Context 100 phase 2
- 3 Rimsherd from cooking pot with external smoke blackening. Context 033/013 phase 3/4
- 4 Rimsherd from cooking pot with traces of external smoke blackening. Context 013 phase 4
- 5 Basesherd and sidewall from cooking pot with external smoke blackening. Context 105 phase 2

#### White gritty ware

- 6 Rimsherd from cooking pot with external smoke blackening. Context 013 phase 4

#### Shelly ware

- 7 Basesherd and sidewalls from cooking pot with external smoke blackening. Context 131 phase 2
- 8 Basesherd from cooking pot with external smoke blackening. Context 027 phase 3

#### Stamford ware

- 9 Rimsherd from jug glazed speckled green. Context 008 phase 5

#### Unidentified

- 10 Rimsherd from unglazed jug. Context 100 Phase 2
- 11 Rimsherd from unglazed jug. Context 100 Phase 2
- 12 Rimsherd from jug glazed lustrous green brown. Context 013 Phase 4
- 13 Rimsherd from vessel with flrilled rim. Context 013 Phase 4
- 14 Bodysherd from jug glazed lustrous green with applied notched pad glazed brown. Context 33/13 phase 3/4

## The Artefacts (Illus 13)

Adrian Cox

This excavation provided a rare opportunity to examine an artefact assemblage from a frontage site on the High Street. Analysis of such assemblages provides valuable evidence for the nature of trade and industry in early Perth and sheds light on the function and dating of the features revealed by excavation. The evidence presented below of a variety of small-scale craftworking activities (copper alloy working, woodworking and spinning) may reflect the opportunities for commercial enterprises afforded by this site's location on a main route into the medieval burgh.

The artefacts are discussed below by material category. Measurements are expressed to the nearest 1 mm, except where they are less than this, when they are expressed to the nearest 0.1 mm.

### Copper alloy objects

#### *Casting evidence*

Nos 1–5 are pieces of once-molten copper alloy, recovered from the fill of a gutter or drainage channel in Phase 3. No 2 may represent overspill from the gate or sprue-cup of a mould. Part of the object has a

regular cross-section, suggesting that it solidified in contact with the interior of the gate. This may also be true of No 3. Several of the ceramic mould fragments (see No 25) may be from a mould gate. Nos 1, 4 and 5 show no signs of having been in contact with a mould but may be associated with casting activity. Pottery evidence indicates a 12th-century date for these finds.

The rod fragments (No 6) were found in association with the casting waste described above. They are too small and heavily corroded to allow secure identification, but may possibly represent fragments of a chaplet. Chaplets were used in the lost wax (*cire perdue*) method of casting to hold the core of the mould in position within the outer mould.

#### *Miscellaneous*

Found in a deposit interpreted as bedding for a concrete floor in Phase 5, No 7 is a button of early 20th-century date. A needle (No 8), recovered from a stony deposit in Phase 3, is of a medieval type. It is of slender form and was probably used in the sewing of textiles. No 9 is possibly the middle section of a pin. However, the shaft of the object tapers only very slightly and this characteristic, along with its thickness, suggests that the object may have had a different function.

**1 Casting waste** Length 29 mm; width 25 mm; thickness 9 mm  
Piece of once-molten waste. (Not illustrated).  
Context 50; Find No 18; Phase 3.

**2 Casting waste** Length 15 mm; width 17 mm; thickness 11 mm  
Piece of once-molten waste representing overspill from a casting mould. Part of the object has a tapering, lozenge-shaped cross-section, where it solidified in contact with the interior of the mould. (Not illustrated).  
Context 50; Find No 51; Phase 3.

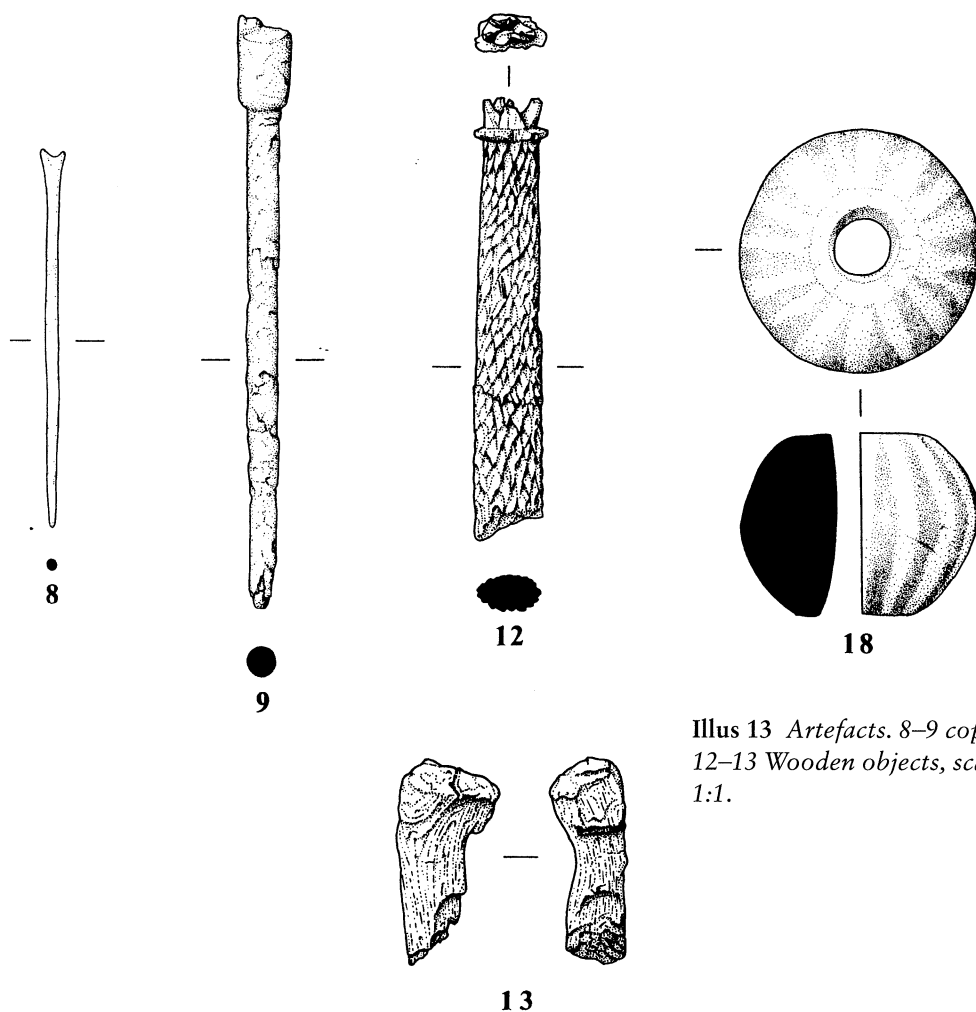
**3 Casting waste** Length 8 mm; width 7 mm; thickness 5 mm  
Piece of once-molten waste. This piece possibly solidified in contact with the interior of a mould, as it has traces of straight edges and is roughly triangular in cross-section at one end. (Not illustrated).  
Context 50; Find No 52; Phase 3.

**4 Casting waste** Length 10 mm; width 7 mm; thickness 6 mm  
Piece of once-molten waste. (Not illustrated).  
Context 50; Find No 53; Phase 3.

**5 Casting waste** Length 9 mm; width 6 mm; thickness 5 mm  
Piece of once-molten waste. (Not illustrated).  
Context 50; Find No 54; Phase 3.

**6 Rod** Largest fragment: Length 26 mm; width 3 mm; thickness 3 mm  
Two fragments interpreted as parts of a single object. Both are roughly circular in cross-section and are broken at both ends. Both are heavily corroded. (Not illustrated).  
Context 50; Find No 13; Phase 3.

**7 Button** Diameter 17 mm; thickness 3 mm  
Circular button with a central recess accommodating four circular thread holes. All surfaces are painted black. Bordering the face is the legend 'N.M.BLACK◇PERTH◇', in relief. (Not illustrated).  
Context 5; Find No 55; Phase 5.



Illus 13 Artefacts. 8–9 copper alloy objects, scale 1:1. 12–13 Wooden objects, scale 1:2. 18 Stone object, scale 1:1.

**8 Needle** Length 50 mm; width at eye 3 mm

Needle, roughly oval in cross-section, broken across the eye. There is a slight bend or curve in the shaft near the point. See Illus 13.

Context 60; Find No 19; Phase 3.

**9 Pin or rod** Length 78 mm; max diameter 7 mm

Pin or rod, circular in cross-section. The object has a shoulder and widens near to one end. It has possibly been sawn across this end. The other end is broken. Corroded. See Illus 13.

Context 100; Find No 49; Phase 2.

### Lead alloy object

A single lead alloy strip (No 10) was recovered from a deposit interpreted as bedding for a concrete floor in Phase 5.

**10 Strip** Length 35 mm; width 30 mm; thickness 2 mm

Rectangular strip with cut edges and a roughly oval perforation near to one end. The strip has been folded once. (Not illustrated).

Context 5; Find No 2; Phase 5.

### Iron object

Recovered from a plaster and clay deposit containing modern pottery, No 11 is part of a handle from a

folding knife with bone scales. X-radiography reveals the presence of a possible cutler's mark on the blade. Species identification of the bone components is by C Smith.

**11 Knife handle** Length 52 mm; width 17 mm; thickness 8 mm

Part of a handle from a folding knife. The bone scales are derived from a large ungulate long bone shaft. These enclose fragments of the iron side plates and knife blade. The components are held together by means of small iron rivets, two of which survive. A triangular mark near to the broken ends of the side plates and blade, visible by X-radiography, may be a cutler's mark. (Not illustrated). Context 8; Find No 38; Phase 5.

### Wooden objects

Two wooden artefacts (Nos 12 and 13) were recovered from a path or road surface in Phase 2. The precise function of No 12 is unknown, although it may represent some form of handle. The terminal has been carved to form four short spines, which would have been unable to support a heavy attachment such as a metal blade. The form of the terminal indicates that it may have been designed to hold a lightweight object made from a flexible substance such as wax. One possibility is that the object was used to hold a small candle from which other candles could be lit. No 13

probably represents a peg, made from a curving branch. Three small, roughly rectangular chips of wood, representing offcuts, also came from this context.

**12 Handle?** Length 115 mm; max width 18 mm; max thickness 11 mm

Possible handle, roughly oval in cross-section, tapering towards one end. The narrower end terminates in a small flange, from which four roughly triangular spines project. The sides of the handle have been carved to form a patterned surface resembling that of antler. The wider end of the object is broken and there are two scars on its side. See Illus 13  
Context 128; Find No 23; Phase 2.

**13 Peg?** Length 51 mm; width 24 mm; thickness 18 mm

Probable peg, crudely made from a curving branch. The object has been roughly squared at one end, possibly to form a head, and is carved to a rectangular cross-section. The shaft is broken. See Illus 13.

Context 128; Find No 26; Phase 2.

### Stone objects

Nos 14–16 are small, roughly circular or oval discs of slate. Nos 14 and 15 were recovered from a disturbed deposit assigned to Phase 5 and may have been residual in this context. No 16 was from an earlier deposit. Several similar counters of various sizes were recovered from an excavation at King Edward Street, Perth, and have been interpreted as possible gaming pieces (Ford 1995, 965, Illus 24, Nos 380a & 380e). Four examples, of micaceous stone, were also found during a watching brief at Castle Gable, Perth (Cox 1994). The very rough shaping of Nos 14 and 16, in particular, suggests that they may have been fashioned to serve only a temporary purpose. A probable roof slate fragment (No 17) was recovered from a clay deposit interpreted as a possible floor surface.

A decorated spindle whorl (No 18) was found in a plaster and clay deposit associated with cellar construction in Phase 5. It was probably residual in this context, although the use of spindle whorls in domestic contexts continued until recent times and appears to have been commonplace in the Hebrides as late as the mid-19th century (Grierson 1985, 8). Spindle whorls of globular form have been recovered from other recent urban excavations, for instance at Meal Vennel, Perth and Castlecliffe, St Andrews, where examples decorated by horizontal grooves were found in contexts dating from the 15th and 16th centuries respectively (Cox 1996, 784, Illus. 26, No 569; Caldwell 1996, 644, Illus. 33, No 77). Cellar construction on the High Street site is likely to have involved the disturbance of any deposits of 15th- and 16th-century date.

**14 Disc** Length 26 mm; width 22 mm; thickness 2 mm

Roughly oval piece of slate with rough edges. (Not illustrated).  
Context 10; Find No 43; Phase 5.

**15 Disc** Length 37 mm; width 36 mm; thickness 3 mm

Roughly circular piece of slate. (Not illustrated).  
Context 10; Find No 44; Phase 5.

**16 Disc** Length 29 mm; width 28 mm; thickness 2 mm

Roughly circular piece of slate with rough edges. (Not illustrated).

Context 15; Find No 42; Phase 3.

**17 Roof slate?** Length 131 mm; width 113 mm; thickness 15 mm

Probable roof slate fragment with one surface broken away. It has broken across a hole at one end. (Not illustrated).

Context 93; Find No 45; Phase 2.

**18 Spindle whorl** Max diameter 30 mm; thickness 22 mm; diameter of hole 9 mm

Globular spindle whorl, decorated by 16 roughly equidistant, vertical bands of pigment or paint. The bands are now brown to black in colour and have worn away in places. There are signs of abrasion bordering the hole. See Illus 13.

Context 8; Find No 39; Phase 5.

### Bone object

No 19, recovered from a plaster and clay deposit, is a handle, probably from a razor. It is probably of 19th- or early 20th-century date. Fragments of bone scales are also present on part of a folding knife from the same context (No 11, above). Species identification is by C Smith.

**19 Handle** Length 83 mm; width 18 mm; thickness 6 mm

Part of a handle, probably from a razor, consisting of a bone scale attached by means of a copper alloy rivet to an end plate. The scale is derived from a large ungulate long bone shaft. The name 'Douglas' has been scratched onto the scale. (Not illustrated).

Context 8; Find No 37; Phase 5.

### Leather

An assemblage of small pieces of leather was recovered from Phases 1 to 3. Selectively catalogued below, it includes three stitched pieces, possibly from shoe uppers (e.g. Nos 20 and 21), three small scraps (e.g. No 22) and a single slender offcut (No 23).

Two of the possible upper fragments and all of the scraps came from a flat, humic deposit lying to the south of the wattle wall in Phase 1, which represents the earliest structure identified on the site. The absence of pottery from this structure may be an indicator of a non-domestic function. This minor concentration of leather fragments does not include offcuts, however, and therefore cannot be readily interpreted as evidence of a leather-working function for the excavated structure. No 21 came from a possible path or road surface in Phase 2.

**20 Upper fragment?** Length 69 mm; width 41 mm; thickness 3 mm

Fragment with two surviving edges, possibly from a shoe upper. One edge is possibly a butt seam, with regularly spaced stitch holes (stitch length 3–4 mm). The other is a cut edge. (Not illustrated).

Context 147; Find No 59; Phase 1.

- 21 Upper fragment?** Length 88 mm; width 42 mm; thickness 2 mm  
Fragment with two surviving edges, possibly from a shoe upper. Both edges have regularly-spaced stitch holes (stitch length 4–5 mm). The flesh side is delaminated. (Not illustrated).  
Context 128; Find No 21; Phase 2.
- 22 Scrap** Length 52 mm; width 34 mm; thickness 1 mm  
Scrap with no surviving edges. Abraded. (Not illustrated).  
Context 147; Find No 58; Phase 1.
- 23 Offcut** Length 71 mm; width 10 mm; thickness 1 mm  
Slender offcut strip. (Not illustrated).  
Context 50; Find No 17; Phase 3.

### Ceramic crucible and mould fragments

A probable crucible fragment (No 24) was found in association with the copper alloy casting waste (Nos 1–5) and ceramic mould fragments (No 25). The fragment is too small to allow the form or volume of the crucible to be determined.

Nos 25–8 are mould fragments. Each catalogue entry describes those fragments recovered from a single context. A total of 39 fragments was recovered, the majority from the fill of a gutter or drainage channel (No 25). The remaining fragments (Nos 26–8) were found in deposits closely related stratigraphically to this feature.

The fragments appear to represent the remains of more than a single mould. Several have ridges and grooves on their internal surfaces, in common with the mould fragments recovered from excavations at Canal Street, Perth (Spearman 1987, 158). Spearman suggested that the Canal Street fragments might be from simple, two-piece moulds. Nos 25–8 may likewise be from piece-moulds, but the occurrence of a single perforated piece and the possible chaplet fragments (No 6) gives rise to the possibility that the fragments derive from the lost wax casting process. In this process, destruction of the mould would have been required in order to retrieve the cast object (Hodges 1989, 72).

Several fragments have a curved, flaring form. These may be parts of a gate or sprue-cup, through which molten alloy would have been poured into the body of the mould.

- 24 Crucible fragment?** Length 17 mm; width 11 mm; thickness 5 mm  
Probable crucible fragment in a fine, grey fabric with a reddish, vitrified external surface. The fragment has a smooth curvature. (Not illustrated).  
Context 50; Find No 60; Phase 3.
- 25 Mould fragments** Largest fragment: Length 47 mm; width 30 mm; thickness 16 mm  
Thirty-six mould fragments in a fairly fine, micaceous fabric, buff to reddish where oxidised and grey to black where reduced. The fabric contains linear voids and grass or straw impressions. The fragments possibly represent the remains of more than one mould. None conjoin. Parts of the interior

surfaces of the mould or moulds survive on several fragments. The fragments exhibit a moderate degree of abrasion. (Not illustrated).

Context 50; Find No 61; Phase 3.

- 26 Mould fragment** Length 32 mm; width 27 mm; thickness 10 mm  
Mould fragment in a fairly fine, pink to dark grey, micaceous fabric. The fabric contains linear voids and grass or straw impressions. There is one surviving edge. (Not illustrated).  
Context 55; Find No 64; Phase 3.
- 27 Mould fragment?** Length 32 mm; width 21 mm; thickness 11 mm  
Probable mould fragment in a fairly fine, pink to dark grey, micaceous fabric. The fabric contains linear voids and grass or straw impressions. (Not illustrated).  
Context 69; Find No 62; Phase 2.
- 28 Mould fragment?** Length 28 mm; width 18 mm; thickness 7 mm  
Probable mould fragment in a fairly fine, pink to light grey, micaceous fabric. The fabric contains linear voids and grass or straw impressions. (Not illustrated).  
Context 73; Find No 63; Phase 2.

## The animal bone

Catherine Smith

### Methods and measurement

Animal bones from undisturbed contexts at 103 High Street are reported on. Those from contexts known to contain disturbed or modern material are omitted. Identifications were made by direct comparison with modern skeletal material. Mammalian and bird bones were, where possible, identified to particular element and species level, while fish bones were merely recorded as such. Ribs and vertebrae, with the exception of the first two cervical vertebrae, the atlas and axis, were described as either large ungulate or small ungulate, depending on size. In addition, long bone fragments were described as large ungulate, small ungulate or indeterminate mammal on the basis of size and relative cortical thickness. Measurements were mainly those of von den Driesch (1976) and are expressed in millimetres.

### Nature of sample

The assemblage was small, consisting of only 689 bone fragments. Their condition was generally good, the material well preserved and the fragment size relatively large. Many of the unidentifiable fragments were burned or calcined by heat.

Eleven soil samples from contexts which contained animal bone were tested for acidity using a small portable pH meter intended for testing garden soil. The pH of the samples was found to range from a slightly acidic 6.4 in the fill of a cesspit (Phase 2, Context 100) to a neutral 7.0 in a sandy loam (Phase 4, Context 13). The mean pH was 6.8.

It is interesting to compare the pH range at 103 High Street with that at Meal Vennel, Perth, where the mean value for ten samples was only slightly more acidic at 6.6, range 6.2 to 6.8 (Smith, unpublished). However, the condition of the bone at Meal Vennel was noticeably much poorer than at 103 High Street, and since there was only a slight divergence in soil acidity between the two sites, other taphonomic factors such as relative water content of the soil and length of time of exposure before burial may have had noticeable differential effects on preservation.

### Ages of animals at death

Very little indication of ages at death could be gleaned from the material. One cattle mandible in which the teeth were at Grant's (1982) mandible wear stage (MWS) of 42–44 was presumed to have come from an adult animal (Phase 3, Context 34). Two other mandibles with incomplete cheek tooth rows had wear stages estimated to lie between 34 and 44 and were also thought to have come from adults (Phase 3, Contexts 34 and Phase 1, Context 147).

A sheep/goat mandible containing teeth at Grant's mandible wear stage 8, corresponding to Payne's (1973) Stage C, probably came from a lamb of between 6 and 12 months in modern terms (Phase 3, Context 50).

Two pig mandible fragments bearing second incisors probably came from animals at least 18 months old (Habermehl quoted in Bull and Payne 1982, 56).

The state of epiphyseal fusion of long bones of cattle and sheep/goat was assessed as a guide to age, the number of attributable bones of each species arranged by age category appearing in Tables 4 and 5. The majority of bones of cattle and sheep/goat to which ages could be attributed fell into the immature/adult or adult categories; however it should be reiterated that these figures may be affected by the small sample size, and in addition that epiphyseal fusion evidence is never as reliable as that from tooth wear and eruption.

As regards other animals for which evidence was available, both immature and adult categories appear to have been present, while all the domestic fowl bones would seem to have come from mature birds.

### Relative frequencies of animals

The total numbers of bones and teeth identified from undisturbed contexts are shown in Table 2. Minimum numbers of animals, based on the most frequently occurring bones found throughout the site as a whole, are shown in Table 3.

Given the limitations of such a small sample a few general observations may be made regarding the relative frequencies of the animals. It would appear that cattle and sheep/goats occurred more frequently than any other species. Pig bones were found in small numbers, as were those of cat and dog. The single bone of hare (*Lepus capensis*) was the only evidence for the

presence of wild mammals. Birds were represented almost exclusively by bones of domestic fowl (*Gallus gallus*), while a single bone of duck could have come from a mallard (*Anas platyrhynchos*), which it matched very well as regards size and morphology, or from a domestic bird. Bones of horses and deer were absent at 103 High Street, not unsurprising in view of the small assemblage size.

Table 2 *Numbers of bones and teeth identified.*

| species                                | no. of bones | no. of teeth | total |
|----------------------------------------|--------------|--------------|-------|
| cattle                                 | 131          | 1            | 132   |
| sheep/goat                             | 44           | 6            | 50    |
| goat                                   | 1            |              | 1     |
| pig                                    | 29           | 6            | 35    |
| dog                                    | 1            |              | 1     |
| cat                                    | 12           |              | 12    |
| hare ( <i>Lepus capensis</i> )         | 1            |              | 1     |
| domestic fowl ( <i>Gallus gallus</i> ) | 26           |              | 26    |
| duck ( <i>Anas platyrhynchos</i> )     | 1            |              | 1     |
| fish                                   | 11           |              | 11    |
| sub-total                              | 257          | 13           | 270   |
| large ungulate                         | 204          |              | 204   |
| small ungulate                         | 70           |              | 70    |
| indeterminate mammal                   | 145          |              | 145   |
| sub-total                              | 419          |              | 419   |
| total                                  | 676          | 13           | 689   |

Table 3 *Minimum numbers of animals present, based on most frequently occurring bones.*

| species    | based on               | min. no. |
|------------|------------------------|----------|
| cattle     | L metatarsal, proximal | 3        |
| sheep/goat | L radius, proximal     | 3        |
| goat       | L/R horn core          | 1        |
| pig        | L ulna                 | 3        |
| dog        | L metacarpal V         | 1        |
| cat        | R ulna                 | 4        |
| hare       | R radius, proximal     | 1        |
| fowl       | L coracoid             | 3        |
| duck       | L ulna, distal         | 1        |

Table 4 *Numbers of cattle long bones arranged by age category, based on epiphyseal fusion*

| age category      | no. of bones | %    |
|-------------------|--------------|------|
| juvenile          | 1            | 2.9  |
| juvenile/immature | 1            | 2.9  |
| immature          | 1            | 2.9  |
| immature/adult    | 19           | 55.9 |
| adult             | 12           | 35.3 |
| total             | 34           | 99.9 |

**Table 5** *Numbers of sheep/goat long bones arranged by age category, based on epiphysial fusion.*

| age category      | no. of bones | %     |
|-------------------|--------------|-------|
| juvenile          |              |       |
| juvenile/immature | 1            | 7.1   |
| immature          |              |       |
| immature/adult    | 9            | 64.3  |
| adult             | 4            | 28.6  |
| total             | 14           | 100.0 |

**Table 6** *Expected and actual numbers and percentages of cattle and sheep/goat bones.*

| bone              | expected |       | actual cattle |       | actual sheep/goat |      |
|-------------------|----------|-------|---------------|-------|-------------------|------|
|                   | no.      | %     | no.           | %     | no.               | %    |
| horn core         | 2        | 2.15  | 19            | 14.5  | 2                 | 4.4  |
| skull             | 1        | 1.08  | 10            | 7.6   | 1                 | 2.2  |
| maxilla           | 2        | 2.15  | 3             | 2.3   | 1                 | 2.2  |
| mandible          | 2        | 2.15  | 14            | 10.7  | 4                 | 8.9  |
| atlas             | 1        | 1.08  | 1             | 1.08  |                   |      |
| axis              | 1        | 1.08  |               |       | 1                 | 2.2  |
| scapula           | 2        | 2.15  | 8             | 6.1   | 2                 | 4.4  |
| humerus           | 2        | 2.15  | 2             | 1.5   | 6                 | 13.3 |
| radius            | 2        | 2.15  | 4             | 3.1   | 7                 | 15.6 |
| ulna              | 2        | 2.15  | 4             | 3.1   | 1                 | 2.2  |
| carpal            | 10       | 10.75 | 1             | 0.8   |                   |      |
| innominate        | 2        | 2.15  | 8             | 6.1   | 6                 | 13.3 |
| femur             | 2        | 2.15  | 7             | 5.3   | 1                 | 2.2  |
| tibia             | 2        | 2.15  | 8             | 6.1   | 6                 | 13.3 |
| patella           | 2        | 2.15  |               |       |                   |      |
| os malleolare     | 2        | 2.15  |               |       |                   |      |
| astragalus        | 2        | 2.15  |               |       | 1                 | 2.2  |
| calcaneum         | 2        | 2.15  |               |       |                   |      |
| naviculo-cuboid   | 2        | 2.15  | 2             | 1.5   |                   |      |
| lateral cuneiform | 2        | 2.15  |               |       |                   |      |
| metapodial        | 4        | 4.30  | 20            | 15.3  | 3                 | 6.7  |
| 1st phalange      | 8        | 8.60  | 8             | 6.1   | 3                 | 6.7  |
| 2nd phalange      | 8        | 8.60  | 5             | 3.8   |                   |      |
| 3rd Phalange      | 8        | 8.60  | 6             | 4.6   |                   |      |
| sesamoid          | 18       | 19.35 | 1             | 0.8   |                   |      |
| hyoid             | 2        | 2.15  |               |       |                   |      |
| total             | 93       | 99.9  | 131           | 100.1 | 45                | 99.8 |

### Carcass analysis

It would be unwise to attempt to draw detailed conclusions based on evidence of the frequency of different body parts. For example, Table 5 would appear to indicate a higher than expected percentage of cattle horn cores. In reality, many of these consisted only of small fragments bearing no evidence of butchery, thus it cannot be assumed that their presence is indicative of horn working. However, the evidence of the long bones is slightly more convincing, since these generally consisted of much larger fragments. As regards cattle, metapodials, which are low meat yielding bones, were

well represented at 15.3% of the total, when compared with pairs of high meat yielding bones such as the humerus and femur together, at 6.8%. Where sheep/goats were concerned, the situation seems to have been reversed, metapodials accounting for only 6.7% of the total, humerus and femur together providing 15.5%, while the radius and tibia accounted for 28.9% of the total sheep/goat fragments. It would seem that the assemblage could as easily be interpreted as either originating solely from domestic sources, or from a commercial and domestic mixture.

Despite the small sample size at 103 High Street, it is however, interesting to note that at other sites in Perth, such as Mill Street, Meal Vennel (Smith 1996) and the 1975–77 excavation at 75 High Street (Hodgson *et al* forthcoming), similarly high proportions of cattle metapodials were found suggesting that human activities rather than factors of differential preservation were involved.

### Butchery

Marks observed on many of the bones of domestic animals were interpreted as the result of butchery of carcasses.

#### Primary butchery

The sole evidence of horns having been removed from the head was seen in a sheep skull fragment from which the horn core had been struck near its junction with the frontal bone (Phase 3, Context 33).

Carcasses may be divided either by suspending the animal by its hind legs and cleaving down the vertebral column, thus providing two equal sides of beef or mutton, or by the more primitive method of cleaving along the flanks of the carcass while it is lying on a flat surface. Evidence of the former process, vertebrae which had been halved in the sagittal plane, were in the minority at 103 High Street. Only three cattle vertebrae were split in the sagittal plane while 24 were split along their lateral edges, indicative of the latter method (Armitage 1982, 98). In particular, a group of 13 cattle vertebrae from the fill of a cesspit (Phase 2, Context 105) which were presumed to have come from a single beast, were divided laterally. The larger sacral vertebrae were further chopped dorso-ventrally, probably to produce smaller, more manageable joints of beef.

There was no clear evidence of a preferred method of dividing mutton carcasses. Three sheep vertebrae were split sagittally and three laterally; however a sheep/goat innominate was chopped in half at the pubic symphysis, suggesting division into sides had occurred in at least this instance (Phase 3, Context 50).

Several metatarsals of cattle bore marks indicating the point at which the lower limbs had been severed, two examples indicating that two separate oblique blows, one apparently directed from the lateral and one from the medial side of the shaft, were required to

detach the foot (Phase 2, Context 128 and Phase 1, Context 147).

A cattle naviculo-cuboid tarsal whose posterior edge was chopped in a medio-lateral direction probably also indicated limb removal, the blow being directed at a higher point on the leg than in the previous examples (Phase 1, Context 147).

#### *Secondary butchery—disjointing*

Disarticulation of the femur from the tibia probably led to the chopping of the proximal tubercles from two cattle tibiae (Phase 4, Context 13 and Phase 3, Context 33). Similarly butchered tibiae have been observed at Meal Vennel, Perth and at 53–59 Gallowgate, Aberdeen (Smith 1996).

Separation of the femur from the innominate may have resulted in an obliquely chopped cattle femur head (Phase 2, Context 100) as well as a cattle innominate from which the acetabulum rim had been chopped (Phase 3, Context 50). Removing the femur in this crude way rather than by severing the femero-pelvic ligament with a sharp knife, as is the modern practice, has also been observed at other medieval sites in Perth (Smith 1996).

Similarly, the humerus seems to have been roughly removed in some cases by chopping across the neck of the articulating scapula, as in the case of a cattle scapula with hack marks in this position (Phase 3, Context 50) and a pig scapula chopped across the blade (Phase 2, Context 100). Two cattle scapulae, however, survived in an almost intact state and although the evidence of abrasion on the blades was somewhat inconclusive, it is possible that these bones may have been employed as rough and ready shovels for a short time before being discarded (Phase 2, Context 100 and Phase 1, Context 147).

#### *Tertiary butchery*

Fine cut marks presumed to have been made by metal knives, probably inflicted when meat was removed, were observed on bones of cattle, sheep/goat and domestic fowl.

Many long bones of cattle were deliberately split in the sagittal plane, probably in order to extract the marrow. Cattle mandibles were also deliberately chopped, usually parallel with the tooth row, perhaps for the same reason.

One skull fragment of pig, part of the frontal bone, was chopped in the sagittal plane (Phase 4, Context 13) as were two sheep frontal fragments (Phase 3, Context 33), probably in order to remove the brain. A cattle skull fragment was hacked in the region of the orbit, and although this may provide evidence of brain removal, it is possible that the intention may have been to remove the horn core, the blows being badly aimed (Phase 3, Context 50). The production of pig's cheek may be responsible for a pig mandible having been chopped at the symphysis (Phase 2, Context 138).

#### *Evidence for butchery implements*

Physical evidence from the bones suggests that cleavers or axes were used in limb removal, division of carcasses, disjointing and splitting marrow bones and skulls, while metal knives with thin blades seem to have been used to remove meat from the bones. There was only a single instance of a saw having been employed on a large ungulate rib, but since a relatively large sheep radius was also found in the same context (Phase 3, Context 60) it is possible that contamination with post-medieval material may have occurred, saws being little used for common fleshing purposes in the medieval period. Material remains of the tools themselves was not found in any of the medieval deposits at the site.

#### **Size of animals**

A summary of bone size ranges is presented in Table 7. All measurements of cattle and sheep/goat fell within the ranges of the large sample recovered from the 1975–77 excavation at 75 High Street, Perth (Hodgson 1983, 27–31). One pig scapula whose greatest length of glenoid (GLP) was 33.2 mm, was slightly larger than the largest specimen measured at 75 High Street (GLP = 32.0 mm). Several measurements of cat bones were also larger, although not to any great extent: a radius, distal breadth (Bd) of 13.0 mm (75 High Street Bd = 10.0 mm) and three ulnas, anconaeal depth (DPA) of 8.5 mm, 8.8 mm and 9.5 mm (75 High Street DPA = 8.0 mm).

#### **Abnormal bones**

Bones and joints displaying abnormalities were few. One cattle metatarsal was affected by arthritic eburnation and extension of the proximal surface medially as well as eburnation laterally, but it was not possible to suggest a cause for its condition (Phase 3, Context 50). Two instances of interarticular lesions were observed in cattle proximal metatarsals (Phase 4, Context 13 and Phase 1, Context 147). Such small lesions are commonly seen in this position in medieval cattle metapodials. Three cattle first phalanges exhibited similar small lesions, corresponding to Baker and Brothwell's Type 1 depressions (1980, 109–114) in their proximal and distal articular surfaces (all from Phase 1, Context 147). These depressions are relatively common in modern cattle and may not be pathological in origin (*ibid.*)

#### **Conclusions**

The very small sample size at 103 High Street rendered interpretation of the bone assemblage somewhat difficult. However, the collection did not differ greatly in character from other sites excavated elsewhere in the burgh, where cattle predominate over the other domestic species while wild animals are only poorly represented (Smith 1996, 794). As regards ages at death, the majority of animals were probably mature at slaughter in keeping with other sites of similar date in Perth.

Anatomical measurements indicated that the animals were of a similar stature to those of the large assemblage recovered at 75 High Street.

**Table 7** *Bone size range summary.*

Measurements are in accordance with the scheme of von den Driesch (1976) with the following additions:

Max maximum diameter

Min minimum diameter

HT maximum height of trochlea

HTC minimum height of trochlea\*

\* after Legge and Rowley-Conwy (1988, 124)

All measurements are in millimetres

#### **cattle**

| <i>bone</i>       | <i>measurement</i> | <i>range</i> | <i>n</i> |
|-------------------|--------------------|--------------|----------|
| scapula           | SLC                | 40.6–49.5    | 4        |
|                   | GLP                | 46.6–64.5    | 4        |
| scaphoid (carpal) | GB                 | 20.0         | 1        |
| metacarpal        | Bp                 | 51.0         | 1        |
|                   | Dp                 | 32.4         | 1        |
| tibia             | Bd                 | 52.3         | 1        |
| naviculo-cuboid   | GB                 | 44.5–52.8    | 1        |
| metatarsal        | Bp                 | 38.8–43.4    | 5        |
|                   | Dp                 | 38.5–41.8    | 5        |
|                   | Bd                 | 46–48.2      | 2        |
| 1st phalange      | Glpe               | 47.6–57.0    | 5        |
|                   | Bp                 | 23.5–28.6    | 5        |
|                   | Bd                 | 20.6–26.6    | 6        |
| 2nd phalange      | GL                 | 33.5–36.6    | 3        |
|                   | Bp                 | 24.8–28.3    | 3        |
|                   | Bd                 | 19.5–23.5    | 2        |
| 3rd phalange      | DLS                | 60.8–67.5    | 3        |
|                   | Ld                 | 45.0–48.5    | 3        |

#### **goat**

| <i>bone</i> | <i>measurement</i> | <i>range</i> | <i>n</i> |
|-------------|--------------------|--------------|----------|
| horn core   | Max                | 32           | 1        |
|             | Min                | 24           | 1        |

#### **sheep/goat**

| <i>bone</i>  | <i>measurement</i> | <i>range</i> | <i>n</i> |
|--------------|--------------------|--------------|----------|
| radius       | Bp                 | 29.0         | 1        |
| ulna         | DPA                | 25.0         | 1        |
|              | SDO                | 21.5         | 1        |
| innominate   | LAR                | 22.0         | 1        |
| tibia        | Bd                 | 22.8         | 1        |
| metatarsal   | GL                 | 132          | 1        |
|              | Bp                 | 18.6–19.6    | 2        |
|              | Dp                 | 18.2         | 1        |
|              | SD                 | 10.9         | 1        |
| astragalus   | GLI                | 26.6         | 1        |
|              | Bd                 | 17.6         | 1        |
| 1st phalange | Glpe               | 32.7         | 1        |
|              | Bp                 | 11.5         | 1        |
|              | Bd                 | 11.7         | 1        |

#### **pig**

| <i>bone</i>    | <i>measurement</i> | <i>range</i> | <i>n</i> |
|----------------|--------------------|--------------|----------|
| axis           | SBV                | 30.4         | 1        |
| scapula        | SLC                | 21.6         | 1        |
|                | GLP                | 33.2         | 1        |
| humerus        | Bd                 | 33.5–46.6    | 2        |
|                | HT                 | 25.6–30.0    | 2        |
|                | HTC                | 17.6–23.1    | 2        |
| radius         | Bp                 | 24.8         | 1        |
| metacarpal III | GL                 | 66.0         | 1        |
|                | Bp                 | 16.0         | 1        |
|                | Bd                 | 16.0         | 1        |

#### **cat**

| <i>bone</i> | <i>measurement</i> | <i>range</i> | <i>n</i> |
|-------------|--------------------|--------------|----------|
| humerus     | GL                 | 83.0         | 1        |
|             | Bp                 | 14.3         | 1        |
|             | Bd                 | 15.1         | 1        |
|             | SD                 | 6.4          | 1        |
| radius      | GL                 | 77.9         | 1        |
|             | Bp                 | 6.4          | 1        |
|             | Bd                 | 13.0         | 1        |
|             | SD                 | 4.9          | 1        |
| ulna        | GL                 | 92.4         | 1        |
|             | DPA                | 8.5–9.5      | 3        |
|             | SDO                | 8.0–8.5      | 3        |

#### **hare (*Lepus capensis*)**

| <i>bone</i> | <i>measurement</i> | <i>range</i> | <i>n</i> |
|-------------|--------------------|--------------|----------|
| Radius      | Bp                 | 8.0          | 1        |

#### **domestic fowl (*Gallus gallus*)**

| <i>bone</i>      | <i>measurement</i> | <i>range</i> | <i>n</i> |
|------------------|--------------------|--------------|----------|
| scapula          | Dic                | 11.3         | 1        |
| coracoid         | GL                 | 52.9–56.3    | 2        |
|                  | Lm                 | 49.6–53.45   | 2        |
|                  | BF                 | 11.45–15.4   | 2        |
| humerus          | GL                 | 64.6         | 1        |
|                  | Bp                 | 12.9         | 1        |
|                  | Bd                 | 13.25        | 1        |
| radius           | GL                 | 60.2–68.0    | 2        |
|                  | Bd                 | 7.4          | 2        |
|                  | SD                 | 3.45         | 1        |
| ulna             | GL                 | 70.75        | 1        |
|                  | Bp                 | 9.65         | 1        |
|                  | Did                | 9.9          | 1        |
| carpo-metacarpus | GI                 | 35.75        | 1        |
|                  | Bp                 | 11.0         | 1        |
|                  | Did                | 7.5          | 1        |
| innominate       | Dia                | 8.05         | 1        |
| femur            | Bp                 | 11.7         | 1        |
| tibio-tarsus     | Dip                | 18.6         | 1        |
|                  | Bd                 | 10.25–11.75  | 3        |
| tarso-metatarsus | Bp                 | 11.0         | 1        |

#### **duck (*Anas platyrhynchos*)**

| <i>bone</i> | <i>measurement</i> | <i>range</i> | <i>n</i> |
|-------------|--------------------|--------------|----------|
| ulna        | Did                | 14.0         | 1        |

## Discussion

A sequence of three medieval structures (Structures 1–3) was uncovered, fronting on the north side of the High Street, parallel to the present-day alignment. The frontage line encountered was consistent with the earlier encountered evidence of a wider High Street in medieval times (Clark & Blanchard 1995, 936–7; Moloney & Coleman 1997, 716). It seems likely that any established routeway from the west along the High Street would have run just south of Structure 1, at the base of the terraced slope which rose immediately south of the phase 1 frontage wall. The front wall line established during phase 1 (possibly 12th century) remained constant throughout phases 2 to 4, suggesting that fixed plot boundaries, normally associated with the formalised land division and street layout provided for by the burgh charter, already existed when Structure 1 was built. A pre-charter date could, however, be possible for Structure 1 if it had formed part of an unofficially developed street fronting onto an already established routeway. In comparison, the properties uncovered by SUAT at 80–86 High Street had apparently been laid out in the mid to late 12th century, according to ceramic evidence (Moloney & Coleman 1997, 712).

At 103 High Street signs of any structure that predated the laying out of tofts would have been removed by the ground preparation for the phase 1 building work, but a few early sherds of ceramic material did point to possible pre-burghal occupation. Fourteen sherds of Shelly ware, found in the south-east of England from the 10th to the early 11th century were recovered from the site, the majority from Phase 2 contexts. Nineteen fragments of Stamford ware, with a late 11th/early 12th century date were also recovered (Hall, see below). Such material may be residual, but it does indicate that some level of occupation was occurring in the vicinity, during the 11th, or even 10th century. This adds to the evidence already uncovered at 80–86 High Street that there was a settlement at Perth a century before the granting of burgh status (Moloney & Coleman 1997, 775).

The presence of worked and perforated leather fragments, and the need for small-scale light industrial processes suggested that a diversity of crafts had been locally established at this time.

The rapid build-up of gravel paths and levelling external deposits during phases 2 and 3 (12th century) formed over 30% of the stratigraphic depth from undisturbed natural to the present day. This raising of land level may have been in response to the possibility of destructive flooding. This part of the High Street may have been a locally boggy spot, a hollow between the dry 'island' of St John's to the south and the slope rising to the burghage plot under 103 High Street.

The levelling of the roadway to the south of the phase 2 and 3 structures would have allowed a westward expansion of the market area from the Market Cross. The presence of a trading forestall in phase 3

suggests that by this period the property was probably utilised by merchant burgesses, and lay within the market area. Evidence of similar frontage activity was encountered at the nearby 80–86 High Street (Moloney & Coleman 1997, 778).

During phase 4 the plot apparently lay vacant, perhaps being used for horticultural purposes. This may have been related to a local down-turn in the economy. Unfortunately this phase cannot be accurately dated, but probably represents a 13th or 14th-century episode. Later medieval and post-medieval layers will have been removed by the insertion of the modern cellar in the 19th century.

The existence of possible horticultural soil in phase 4 (13th or 14th century) was reminiscent of such deposits recorded in medieval layers elsewhere, notably at St Andrews (Clark 1997, 142). This evidence, together with the possible periods of disuse of building plots identified at other High Street sites in Perth, is strongly suggestive of a period of economic down-turn. Moloney and Coleman, in discussing the last two phases at the 80–86 High Street site, note a down-turn in activity, which they link to the 'general economic decline in Scotland during the 14th century' (Moloney & Coleman 1997, 778). This has been discussed in greater detail by Coleman, in the context of the lull in activity seen during the 14th century in burghage plots uncovered at Canal Street, Perth (Coleman 1996, 728).

The lifespan of timber buildings similar to those recovered has been estimated at between eight and twenty years (Allen 1979, 4). It may, however, have been practicable and profitable to replace the structural components of a building piecemeal—some timbers would be better protected from rapid organic or physical decay than the more exposed parts of the building. Stakes of all sizes, wattle and daub walling, and major structural uprights may have been replaced *in situ* as the need arose, using the old stake and post holes. Thus only major changes in plan form and building technique would be easily visible in the archaeological record, and the plans of the buildings revealed in phases 1, 2, and 3 may have remained unchanged for considerably more than 40 years each. On this site, however, there would have been problems of rising damp and splashing of rainwater from the eaves, which might have led to the timbers having had a limited lifespan.

The absence of imported Low Countries Greyware fabrics in the ceramic assemblage may add credence to the hypothesis that other burghage plots in Perth yielding a high proportion of certain imported vessel types might reflect occupation of those plots by foreign merchants.

Taken together, these results confirm the hitherto recognised sequence of burgh expansion and development. Although a precise chronology for this expansion could not be deduced, especially as pottery was not recovered from phase 1, the existence of a tofted

property suggested a date around that of the granting of the burgh charter in 1124. Evidence of earlier occupation may have been removed by the construction of Structure 1, but residual ceramic material does add to the likelihood of the existence of a pre-burghal settlement. The repeated raising of ground level that began in phase 2 was possibly prompted by fears of flooding and apparently commenced in the 12th century.

The phase 3 remains, with the trading fore stall and evidence of small-scale, if not delicate, copperworking, point to more active local economy than in previous phases.

The phase 4 remains suggested a downturn in the fortunes of the area with horticulture apparently gaining in importance to trading during the 13th or 14th century: it has been seen elsewhere in Perth that there was less activity during the 14th century (Coleman 1996, 728).

No traces were found of post-medieval occupation, as this had been removed by 19th century construction.

The permanent narrowing of the High Street, associated with the building of the original phase 5 cellar (and following the encroachment by temporary structures in medieval times) may have occasioned the removal of the nearby Market Cross in 1765 (actually a Restoration replacement of the medieval original), which was noted as impeding the progress of traffic due to the narrowness of the road (Marshall 1849, 475).

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### Abstract

Between February and April 1992, SUAT carried out an excavation at 103 High Street, Perth, funded by Abbey National. Excavation within the cellar of the existing property identified five phases of activity, from at least the 12th century to modern times, with traces of commercial and perhaps industrial activity as the market area of the High Street expanded westwards from the Market Cross. Evidence was uncovered of stake and wattle buildings on the northern frontage of the High Street, lying 3.5 m back from the modern frontage, with the wooden sills of a temporary booth encroaching onto the street. The High Street has apparently been narrowed by as much as 5 m since medieval times. The street and floor surfaces had been raised from phase 2 onwards, perhaps due to the dangers of flooding, and the processes of repair and resurfacing. The area may have been used for horticulture rather than habitation during phase 4 (13th or 14th century), perhaps indicating economic decline.

### Keywords

High Street frontage  
12th-century ceramics

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