Excavations at Green’s Playhouse, 106–110 Nethergate, Dundee

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with contributions by Derek W Hall, Adrian Cox, Catherine Smith and Timothy G Holden

Over a four-week period in May and June 1996 the Scottish Urban Archaeological Trust Ltd (SUAT) carried out an excavation funded by Top Rank Mecca Ltd in advance of redevelopment at the site of the former Green’s Playhouse Social Club (NGR NO 4019 2996). The excavation provided a rare opportunity to test the archaeological preservation of the medieval burgh of Dundee in a controlled manner. Few medieval archaeological features were uncovered, but those that were, two wells, a garden soil with furrow mark, rubbish pits, and a possible property boundary, clearly demonstrate that despite significant modern development Dundee still retains an archaeological resource.

The medieval remains, together with later structural features, established a sequence of activity on the site spanning some 600–700 years to the present day. Of particular importance, in both a local and national context, was the discovery of a significant medieval pottery assemblage. Included in this assemblage are rare imported fabrics which indicate a high status for the occupants on the nearby Nethergate. The results of animal-bone study and the first environmental analysis of a garden soil in Dundee also provided an interesting insight into medieval Dundee.

Background (Illus 1)

The city of Dundee is situated on the northern bank of the Tay Estuary with the core of the town built mainly over late-glacial marine deposits, much of which represents raised beach deposition. Second only to the Tay, outcrops of volcanic rock at Corbie Hill, Castle Rock and the larger Dundee Law are the dominant features of the area. Two burns, the Scouringburn and the Dens Burn, were also relevant in shaping the local topography. This topography, combining gently sloping beach deposits and a natural harbour with water-courses and strong defensive rocky outcrops, would have provided attractive reasons for settlement even in prehistoric times.

Evidence for prehistoric activity has been found at Stannergate where a Mesolithic shell midden was found (Millar 1925, 13; Lacaille 1954) and on Dundee Law where an Iron Age fort has been identified (Driscoll 1996, 1091–1108).

The features that proved favourable for settlement in prehistory were also the main factors in the establishment and development of an urban settlement at Dundee in the Middle Ages. The earliest focus of settlement is thought to have originated in the area currently occupied by Seagate (Illus 1), with the nearby Castle Rock being developed for defensive reasons. The gently sloping shorelines was utilised for mooring or beaching ships.

This settlement is thought to have existed by the early 11th century (Torrie 1990, 19) and it soon became a favoured residence of the Scottish crown. There is evidence to indicate that the town was granted burgh status during the reign of William I (1165–1214) (Torrie 1990, 23). Once granted such status the burgh grew, and a sheltered bay, between the Castle Rock (Illus 1: no 1) and St Nicholas Craig (Illus 1: no 2), was exploited as a harbour. This influenced the development pattern of the early burgh as settlement expanded from Seagate to the west around the harbour. This harbour is mentioned in the 1327 charter of Robert I (1306–29) and apparently already existed in the reign of Alexander III (1249–86) (Torrie 1990, 36). Westward expansion was also heavily influenced by the local topography, as to the immediate north lay meadows which were too wet to develop and a ridge which was technically impractical to develop until the 18th century.

As the focus of settlement shifted with the development of the harbour, the Market Cross was moved, possibly in the mid-14th century, from...
Seagate west to the Marketgate, now known as the High Street. The town then continued to grow westwards with the gradual development of the Nethergate (formerly known as Flukergate) and the Overgate. The location of the former Green’s Playhouse lies on the south side of Nethergate close to its western extremity (Illus 1). Burgh development was not thought to have reached this stage until the 15th century (Torrie 1990, 53).

This expansion of the urban settlement was fuelled by Dundee’s growth as an economic centre. The harbour allowed Dundee’s burgesses to develop important trade links to England and northern Europe. In a charter granted by King John
of England (1199-1216) in 1207 there is a record that Dundee’s merchants and shipping were to be protected during the transport of goods traded between England and the rich abbey at Arbroath. Dundee was also used as the trading port for the produce of the monastery at Coupar Angus, possibly the richest Cistercian house in Scotland (Torrie 1991, 31). Trade further boosting Dundee’s importance was obtained by Dundee burgesses as they exercised control over the large fertile hinterland to the north.

The trading privileges recognised in Dundee’s charters of 1327 and 1359 created great potential for conflicts of jurisdiction with surrounding burghs, such as Brechin, Forfar and Montrose. Dundee also became involved in conflict with Perth as the two burghs contested control over the waters of the Tay. This matter was not resolved until the early 17th century when Dundee emerged as victor (Torrie 1991, 31-3).

By 1600 Dundee had grown to become second only to Edinburgh as a commercial centre in Scotland, but as little as 60 years later this trend was to be reversed; Dundee had suffered, with many other Scottish burghs, during the Wars of Independence, but it was during General Monk’s raids at the time of the civil war that the economy of the town was most severely affected. In 1651 thousands of Dundee’s inhabitants were killed by General Monk’s army. Many buildings were damaged and a significant proportion of the burgh records were destroyed. Recovery came, however, in spite of the advent of coal-mining in Lanarkshire, the growth of west coast ports, and the development of transatlantic trade links. Dundee found new markets and developed a flourishing linen industry, utilising its harbour again and the Scouringburn and Dens Burn.

The 19th century brought industrialisation and large-scale redevelopment, as Dundee became one of the leading industrial cities in modern Scotland. Redevelopment continued into, and throughout the 20th century, resulting in the partial loss of the medieval street plan. The most archaeologically destrcutive of these building schemes have been the development of the Caird Hall in the 1930s and the later shopping and business centres of the Wellgate, Overgate, Nethergate, and the Keller Centre, all of which cover large areas of the historic core. Unfortunately, little or no archaeological investigation took place during these 20th-century redevelopment schemes. Only during the Overgate development was any work carried out, when a large assemblage of medieval pottery was recovered by surface collection (City of Dundee Museums Service, unpublished collections).

It was due to such significant redevelopment in central Dundee over the past 250 years that the Dundee Burgh Survey stated: ‘It is unlikely that archaeological deposits of any depth or extent survive beneath modern Dundee’ (Stevenson and Torrie 1988, 3). However, archaeological investigations since 1988 have shown that remains of medieval Dundee do survive in places. A medieval cemetery and a ditch were found and excavated during environmental improvements at the City Churches Precinct in 1992/93 (DES 1993, 98) (Illus 1: no 3). Trial excavations at John Gardynes Land (Illus 1: no 4) revealed a medieval garden and soil and cultivation marks in the backlands area. A significant pottery assemblage was also recovered (DES 1995). Evidence of medieval activity was also retrieved during work at South High Street / Commercial Street / Murraygate (DES 1993, 98) (Illus 1: no 5) and at East Port (DES 1993, 98) (illus 1: no 6). However, the handful of other investigations carried out over recent years have provided mainly negative evidence, such as trial work at the Nethergate (site of the former St Enoch’s Church) (DES 1994, 84) (illus 1: no 7); a watching brief at South High Street (DES 1994, 84) (Illus 1: no 8); and trial work at 152-154 Nethergate (Cachart unpublished) (Illus 1: no 9).

Cartographic sources provide important information regarding the history of the site of Green’s from the late 18th century. Crawford’s map, dated 1776, shows development across the frontage of the site with open rigs down to the Yeaman Shore (it is worth noting that Yeaman Shore lies close to what was the northern bank of the River Tay; the land between Yeaman Shore and the present north bank of the Tay was reclaimed in modern times). Crawford’s later map, dated 1793, indicates that the frontage buildings had been cleared and a two-storey townhouse constructed 15m to the rear of the frontage, and possibly facing the river. The backlands are still open down to Yeaman Place. No significant changes occur until 1851-52, when, in Collie’s map, buildings are illustrated as occupying the north side of Yeaman Shore and part of the backlands.

Substantial development occurred between Collie’s map and the publication of the revised Ordnance Survey of 1871-72. Small units, part of a set known as the McKenzie buildings, were built on the Nethergate frontage, in front of the townhouse. To the rear of the townhouse an ornamental garden is shown measuring 25m x 30m. To the south, beyond the garden and down to the Yeaman Shore, the backlands are densely packed with rectangular buildings. Little changed between this time and 1936, except that in 1902 the townhouse appears named as the University Staff Club (Ordnance Survey 1902).

In 1936 all of the buildings then standing on the site were levelled and the different property boundaries amalgamated in preparation for the construction of the Green’s Playhouse. This development occupied the frontage of 106-110 Nethergate, and extended 95m southward to Yeaman.
Shore (South Marketgait inner ring road) as does the proposed redevelopment. Since the 1930s the site has intruded into parts of the neighbouring properties on the east and it now straddles about eight original rigs. At its widest point the site is 45m in width.

During initial development of the Playhouse an Art-Deco advertising tower was constructed on the Nethergate frontage. Many local people did not appreciate the architecture of the day as the tower was soon branded 'the Nethergate disgrace'. Nevertheless, the Playhouse, complete with tower, remained until 1992 when the building was badly damaged by fire. It is as a result of this fire that Top Rank Mecca wished to demolish what remained of the 1930s building and build a new social club on the site. The tower, which is now a listed building, as it is the sole surviving example in Scotland (and one of only two in Britain; the other, also owned by Top Rank Mecca, is in Kilburn, London), was to be dismantled and rebuilt as part of the new development.

The excavation

It is against this background that an evaluation was carried out by SUAT in December 1995 to assess the possibility of surviving archaeological deposits on the site of the former Green’s Playhouse prior to redevelopment. The frontage building and tower were still standing at the time of the evaluation so this area could not be reached. It was clear, however, that all archaeological deposits had been displaced from the frontage as the building had been terraced into the slope on the south side of Nethergate to create a basement.

Trial trenches were excavated throughout the remainder of the site. These revealed that the area closest to Yeaman Shore, and much of the backlands, had been extensively disturbed by modern development, thereby removing everything of archaeological interest.

Archaeological remains were found in the area occupied by the 19th-century ornamental garden. A buried medieval garden soil and property boundary walls were found. In addition, sherds of imported pottery, such as Saintonge ware rarely found in Scotland, were recovered. It was thought possible that where the garden soil survived perhaps other medieval remains could be identified. The extent of the redevelopment proposals would certainly have destroyed this evidence and so an excavation was initiated to further examine the newly identified archaeologically sensitive area.

An area measuring 21m x 8m was opened by machine removing c 1m of recent demolition debris and modern overburden. An extension measuring 8m x 6m was then machined to track the extent of the medieval garden soil towards the Nethergate frontage (Illus 2). An 8m strip was required to be left close to the western boundary of the site to allow access for contractors, for demolition of the still-standing frontage building and the dismantling of the listed tower was to take place during the excavation. The excavation was carried out over a four-week period May–June 1996.

The archaeological sequence

For ease of reporting, the archaeological sequence has been divided into six identifiable phases of activity. The evidence for these phases overlay an undisturbed raised beach deposit of coarse orange sand.

Phase 1: Early burgh activity (Illus 3)

The earliest evidence of activity on the site comprised four small truncated rubbish pits. Pit 79 was the largest as it measured c 2m x 1.2m and had a depth of 0.28m. Pit 81 was the smallest and measured 65m x 70m with a depth of 0.32m. All of the pits contained a single homogeneous fill from which sherds of 13th to mid- / late-14th-century pottery were recovered. Animal bone fragments were also found. A soil sample taken from the fill of pit 81 established the presence of grains of bread / club wheat, oat and a fragment of hazel shell.

To the east of these pits were the partial remains of a circular well (82). The cut for this well was 2m in diameter and contained two deposits of back-fill. The upper fill was found to be 1.2m deep. The lower fill proved impossible to remove entirely due to constant water seepage and so the base of the well was not reached. A remnant of the well was exposed, thus establishing that it was of a drystone construction. Most of the stone walling had slumped from the edges of the cut. The pottery recovered from both back-fill deposits indicates that the well was redundant by the early 14th century. Soil samples revealed little of note.

Discussion. It is possible that the features identified in this phase represent backland activity relating to Nethergate frontage properties. Dating provided by the pottery assemblage indicates a date for this activity sometime in the late 13th or early 14th centuries; documentary evidence indicates that the westward expansion of Dundee was reaching this part of the Nethergate in the 13th century (Torrie 1990, 40, 49). It should be noted that there was no evidence for property boundaries in this phase and, so, if the frontage had been developed the backlands were still left relatively unattended.

The backland location and small size of the well indicate private rather than communal use, perhaps by a single household, providing water for domestic, semi-agricultural and / or livestock
purposes. The main town wells were located to the east, close to Seagate and High Street, and so it is possible that smaller wells were excavated for localised needs. Indeed, there have been many discoveries of wells, unfortunately mostly undated, spread throughout the historic core of Dundee. Wells would have been an integral part of the medieval and post-medieval burgh as the Dens Burn and especially the Scouringburn were heavily polluted by toxic industrial processes, such as tanning (Torrie 1990, 83–5).

Phase 2: the establishment of cultivation practices (Illus 3)

Following on from the limited use of the backlands, identified in Phase 1, came a concerted attempt to adapt the land for cultivation purposes. The raised-beach deposit and all of the features identified in Phase 1 were sealed by a homogeneous, mid-brown sandy loam garden soil. This layer, previously identified during the trial evaluation, was probably imported and then developed
Phase 1
Earliest activity

Phase 2
Cultivation practices

Illus 3. Phases 1 and 2.

over time as it was utilised. It had a surviving maximum depth of 0.5m at the eastern extent of the excavation thinning to only 0.15m at the western extent. Careful cleaning of the surface of the garden soil revealed only one partial cultivation mark. This confirmed that the garden soil had in fact been truncated by later activity.

The garden soil provided only limited archaeological interest in itself but careful excavation enabled the recovery of a substantial pottery and animal-bone assemblage (see Hall and Smith below), evenly distributed throughout the garden soil. A variety of imported pottery fabrics were identified, including a piece of Saintonge ware and a decorated rod handle of Valencian lusteware. Both of these fabrics, and others recovered, are rare finds in Scotland and clearly demonstrate the wealth of at least some of the residents of Dundee. The imported wares also provide a very good date for this second phase of activity, originating in the mid-late 14th century. No pottery fabrics were recovered from this garden soil post-dating the 15th century, so it can be assumed that this phase of activity represents a period of 100–150 years.

As part of this second phase, and therefore contemporary with the garden soil, was a second well (72). This well was c 2m in diameter and was of a more substantial construction than well 82, although it too was of a drystone build. The well contained a single back-fill from which sherds of pottery, including pieces of Rhenish stoneware dated to the 14th and 15th century, were recovered. The full depth of the well could not be excavated as it was also affected by water-seepage, but it had a minimum surviving depth of 0.6m. It is interesting to note the shift of only 3m from well 82. This indicates, firstly, that there was a good supply of underground spring water at this point.
and, secondly, that there was a possible increase in demand for water as the backlands were used more intensively, requiring a more robust well construction to cope.

In addition to the pottery and bone assemblages, soil samples were taken from three areas of the garden soil in an attempt to highlight any spatial variability within it. The garden soil was found to be characterised by large quantities of coal slag and large amounts of fish bone. The main cereals represented were oat (*Avena* sp) and bread / club wheat (*Triticum aestivum-compactum*) with lesser amounts of hulled barley (Holden, archive report). Curiously, an anomaly was discovered in the three samples. Sample no 1 (Illus 3: S1) contained far more wheat grains than the other two, but the concentration of the other cereals remained more or less the same. This concentration of remains in just one area would seem likely to be the result of a single event in which burning and subsequent dumping of higher than average quantities of wheat occurred (see Holden, below).

**Discussion.** It is highly probable that this part of Nethergate was developed by the beginning of the second phase, if not before. Broken pottery provides an indication of the wealth and status of the nearby inhabitants and the animal-bone assemblage provides an interesting insight into the species of domestic animals being stalled in the backlands. The presence of game birds such as red grouse and grey partridge poses the question: were these birds reared in the urban environment or where they simply imported from the rich hinterland to the north? Whichever, they certainly would have contributed to the human diet.

The varied animal bone found on this site has no doubt found its way into the archaeological record as a means of fertilisation. Of most interest in this respect is the presence of substantial quantities of fish bone. As Dundee is a coastal burgh, this type of find is hardly surprising. As with the mammal bone, the fish bone may have found its way into the archaeological record as a result of disposing organic rubbish across the backlands as fertiliser. It is also possible that fish bone may have been deposited in the garden soil as a result of passing through the gut of large ungulates, possibly stalled in the backlands. Further comparative study between garden soils in Dundee and within a wider context may help to define which activities were taking place.

Also of interest is the presence of substantial quantities of coal slag. This may represent the disposal of rake-out from domestic hearths spread across the backlands. It may have been acceptable to spread such inert wastes, thereby saving the needless labour of burying them in rubbish pits. Domestic ash may also have been thought benefi-

cial to garden soil, or included incidentally with other refuse used as fertiliser. There are references in 19th-century Dundee to ashes being added to human waste to render it less offensive as garden fertiliser.

**Phase 3: a possible medieval property boundary (Illus 4)**

Cut into the medieval garden soil and overlying the back-filled well identified in Phase 2 was a linear cut (6). This cut was c 1m wide and had a maximum surviving depth of 0.4m. It contained a single sandy loam fill from which sherds of pottery dating from the 15th century were recovered. This clearly demonstrates that well 72 was in use for under 100 years.

**Discussion.** It cannot be stated with certainty that this cut feature was a property boundary, but its shape and alignment are strong indications. It is also roughly in line with the projected existing frontage property boundary, which is another indicator of its function as an early boundary.

**Phase 4: a second garden soil (not illustrated)**

A second distinct garden soil was identified across the majority of the excavation area. This layer sealed the earlier medieval garden soil of Phase 2 and the property boundary of Phase 3. There was some grading at the interface between this later garden soil and the medieval garden soil, but the upper of the two was still clearly distinct. It had a higher sand content, making it less loamy, and was very dark, almost black in appearance.

This second garden soil had a uniform depth of 0.6m. Disturbance had occurred at the northern extent due to modern development. A substantial assemblage of residual medieval pottery was recovered with some sherds of late 18th / 19th-century pottery, all evenly distributed throughout the garden soil.

One small pit (16), containing a dog burial, was found cut into the medieval garden soil of Phase 2. This pit was filled by a deposit indistinguishable from that of the later garden soil.

**Discussion.** Because of the wide cross-section of pottery dates recovered from the garden soil it is difficult to establish when the change between Phase 3 and Phase 4 occurred. Garden soil can be worked over a long period of time, and it is likely, in this instance, that the change in matrix occurred very gradually, and was not a single episode of importation. This gradual change is supported by the wide variety of datable pottery recovered and indicates that the original medieval garden soil was probably worked until the 19th century. This clearly demonstrates that the backlands area of this
Phase 3
A possible property boundary

Illus 4. Phase 3.

part of the Nethergate remained undeveloped up until the late 18th / 19th century. This is in keeping with the cartographic evidence.

The change in colour and texture from the medieval garden soil to this later garden soil indicates a probable change in use and certainly a change in the material deposited either as waste or as fertilisation. This deposit also contained coal slag and ash but in a higher percentage, hence the blackness of its colour. Sieved soil samples from this garden soil indicate a low concentration of charred plant remains relative to the distinctly medieval garden soil (this is discussed in Holden below).

Phase 5: late 18th / 19th-century development (Illus 5)

The earliest structures within the excavation area were found to follow the pattern mapped on the earliest cartographic evidence. A linear, east-west aligned foundation wall (47) and associated stone-slab drain (45) were found towards the northern extent of the excavation area some 30m to the rear of the Nethergate frontage. This wall clearly represents the back wall of the townhouse built between 1776 and 1793 which later became known as the University Staff Club. A second wall (55) was also found relating to this building.

To the east, the remains of another stone slab drain (9) and the foundations of two mortared stone block property walls (64 and 67) were found. A remnant of the free-standing portion of one of the walls was also found (66). In addition, the remains of a gravel path, which undoubtedly relates to the ornamental garden, and several 19th-century rubbish pits were found.
Phase 5
18th/19th-century development

Phase 6: Green's Playhouse (Illus 5)

It was in 1936 that the development of the Green's Playhouse removed all buildings standing earlier on the site and fundamentally reshaped this part of the burgh by incorporating the earlier property boundaries into one block. The construction method of the Playhouse did not destroy all surviving archaeological remains but it did have a major impact. A series of equally spaced square concrete foundation plinths were set to support the structure of the Playhouse. All of these plinths cut through the earlier garden soils.

The pottery
Derek Hall

The excavations at Green's Playhouse, Nethergate, Dundee produced a sizeable assemblage of pottery, 1120 sherds. These sherds have been identified and catalogued by fabric type and are described in this report in fabric order. No petrological analysis has been undertaken.

East Coast Redware

Fifteen 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.

There are 204 sherds of this fabric in this assemblage. Most of the sherds are glazed and the fabric is red-brown in colour with a red-brown core. They are all from jugs. There is at least one sherd in this fabric which appears to be an attempt
to copy a Yorkshire ware style of decoration (cat 17).

East Coast White Gritty Ware

Recent work has identified three potential production centres for this fabric in Lothian, Borders and Fife regions (Haggerty et al 1984; Hall 1996 b). It has been found in Perth in association with 12th-century fabrics and appears to pre-date the East Coast Redware industry. It seems to cease production by the 15th century. It is most commonly highly fired to a white or grey colour and contains quartz inclusions. It is the most common fabric in this assemblage, being represented by 828 sherds. Most of these sherds are from glazed jugs although a few domestic cooking pots are present.

Gritty stoneware

This fabric has only recently been identified on excavations at the Abbot House, Dunfermline (Hall 1996 a). It is argued that it represents an attempt by the White Gritty potters to copy stoneware vessels that began to arrive in Scotland from Germany in the mid-to-late 14th century (see Rhenish stoneware below).

Yorkshire 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). There are 22 sherds in this assemblage from jugs glazed a lustrous green colour.

Saintonge ware

Decorated jugs in this fabric were very popular in the 13th and 14th centuries (Dunning 1968). Occasional sherds have been recovered from excavations in Perth and Elgin (Thoms 1983) but it is more commonly recovered from southern England, the west coast and Ireland due to trade routes associated with the French wine trade (Platt and Coleman-Smith 1975, 23). The single sherd from the trial excavation is from a highly decorated polychrome jug decorated with a bird.

Rouen ware

Distinctively decorated jugs in this fabric are commonly recovered from excavations in Perth (Hall 1996 c). It is dated to the 13th century (Hurst 1968) and the three sherds from this excavation are residual.

Valencian lustreware

Vessels in this very distinctively glazed and decorated fabric are not very common finds from excavations in Scotland. This is largely because deposits of this date, the late 14th / 15th centuries, are often missing from excavated sites. The two sherds from this excavation seem to represent the two periods of the industry, the sherd from Phase 2 being an early Valencian lustreware rim and the sherd from Phase 3 a mature Valencian lustreware rod handle, exhibiting the very distinctive floral decoration for which this fabric is so well known (Hurst et al 1986, 40).

Low Countries wares

There are seven sherds from vessels in Low Countries Redwares and Greywares. The Greywares began arriving in Scotland during the mid-to-late 12th centuries and were gradually replaced by Redwares in the mid-14th century. There are also seven sherds in Aardenburg-type ware from this site. This fabric can be identified as being different from the Redwares by the presence of a white slip under the green glaze. It is normally given a mid-13th- to mid-14th-century date. It seems likely that all the Low Countries fabrics on this site are residual.

Rhenish stoneware

These very highly fired fabrics began to be imported into Scotland in the 14th and 15th centuries (Hurst 1986). The fabric is dark grey in colour and covered in a grey salt glaze internally and externally. Twelve of the sherds from this excavation come from vessels in Siegburg ware and there are two sherds from Langerwehe vessels (Hurst et al 1986).

Reduced Greyware

This fabric can be seen as a late medieval version of the East Coast Redwares, and is thought to indicate a change in kiln technology and a move towards mass production (Hall 1996 b). The material on this site would seem to be of late-14th- or early-15th-century date.

Discussion

The group of medieval pottery from both the trial and main excavations at Green’s Playhouse seems to imply a high status for the occupants of nearby properties on the Nethergate (formerly Flukergate) frontage. This can be inferred from the presence of high-quality imported pottery from the Low Countries, France, Germany and Andalusia.

For example, the single sherd from a decorated Saintonge polychrome jug and the two sherds of Valencian lustreware are amongst the few examples of these wares so far excavated in Scot-
Table 1. Medieval pottery by phase (sherd count).

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<th>GS</th>
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<th>PS</th>
<th>RG</th>
<th>Yrks</th>
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Total = 1,120

WG = White Gritty Ware  
GS = Gritty stoneware  
ECR = East Coast Redware  
PS = Proto-stoneware  
RG = Reduced Greyware  
Yrks = Yorkshire ware  
LCG = Low Countries Greyware  
AA = Aardenburg  
Va = Valencian lustreware  
Rh = Rhenish stoneware  
Unid = Unidentified  
Ro = Rouen ware

land. The other imported sherds are fragments from high-quality Yorkshire ware vessels and a single sherd of Rhenish stoneware. The local wares are dominated by sherds of White Gritty Ware probably produced in Fife. The lack of ceramic cooking pots from this site could also imply a high status for the site's occupants who may have been using metal cooking vessels. The dates suggested by the imported wares seem to imply that full-scale occupation of the properties on this part of the Nethergate began in the mid-to-late 14th century. It seems likely that the small group of earlier residual material may have come from rubbish disposal associated with the earlier burgh which lay to the east of this site. The assemblage from this excavation serves to highlight once again the quality of Dundee's archaeological deposits and the fact that more of them survive than may have previously been thought.

Illustration catalogue (Illus 6 and 7)

White Gritty Ware
1. Rod handle from unglazed jug with light brown surfaces and grey brown core.  
   Context 5 Phase 4.
2. Fragment of unglazed jug strap handle with light brown surfaces and blue grey core.  
   Context 5 Phase 4.
3. Lightly thumbed base sherd from jug with traces of yellow green glaze on external surface.  
   Context 5 Phase 4.
4. Fragment of unglazed jug strap handle with light brown external surfaces, grey core and slight external smoke blackening.  
   Context 1 Phase 5.
5. Body sherd from green glazed jug with applied pellets  
   glazed brown.  
   Context 2 Phase 2.
6. Cooking pot base sherd with internal and external smoke blackening.  
   Context 77 Phase 1.
7. Body sherd from jug glazed green with notched cordon.  
   Context 75 Phase 1.
8. Strap handle from jug with stabbed holes.  
   Context 17 Phase 3.
9. Rim from cooking pot with external smoke blackening.  
   Context 2 Phase 2.
10. Base sherd from cooking pot with external smoke blackening.  
    Context 2 Phase 2.
11. Rim from cooking pot.  
    Context 2 Phase 2.
12. Skillet handle.  
    Context 2 Phase 2.
13. Frilled cooking pot rim.  
    Context 2 Phase 2.
14. Body sherd from jug glazed green with applied pellets  
    glazed brown and slashed line decoration.  
    Context 2 Phase 2.
15. Rod handle from unglazed jug.  
    Context 2 Phase 2.
16. Rod handle glazed green with stabbed holes.  
    Context 77 Phase 1.

East Coast Redware
17. Decorated body sherd glazed brown with impressed pellets.  
    Context 73 Phase 1.
18. Jug strap handle with parallel thumbed strip decoration.  
    Context 1 Phase 5.
Illus 6. Medieval pottery: 1–16 White Gritty Ware; 17–21 East Coast Redware; 22 Reduced greyware.

19. Rod handle from jug glazed green with incised vertical lines.
   Context 17 Phase 3.
20. Strap handle from jug glazed green.
   Context 17 Phase 3.
21. Thumbed jug base with specks of brown glaze.
   Context 2 Phase 2.

Reduced greyware
22. Base and side wall of chamber pot glazed green internally and externally.
   Context 3 Phase 6.

Gritty stoneware
23. Very highly fired jug rim with light brown external surface, grey core and grey brown interior.
   Context 75 Phase 1.


Yorkshire ware
25. Rod handle from jug glazed lustrous green with incised lines. Context 2 Phase 2.


27. Rim sherd from jug. Context 1 Phase 5.


Rouen ware

Rhenish stoneware

Low Countries Redware

Mature Valencian Lustreware
32. Rod handle from jug glazed white with floral decoration. Context 17 Phase 3.

Proto-stoneware

Aardenburg ware

Low Countries greyware
35. Rim and rod handle from pitcher. Context 2 Phase 2.

Unidentified
The artefacts
Adrian Cox

A small assemblage of artefacts was recovered from this excavation. A small number of medieval finds is represented, but the majority is of post-medieval date. The artefacts are described by material category, below. Measurements are expressed to the nearest 1mm, except where they are less than this, when they are expressed to the nearest 0.1mm.

Copper-alloy objects

Two pins (catalogue nos 1 and 2) and two pin-shaft fragments (nos 3 and 4) were recovered from the sieved residues of samples. All are from an extensive, early modern garden soil deposit.

Heads survive on two of the pins. On no 1, the head was formed by winding a coil of wire tightly around the top of the shaft, whereas in no 2 the head appears to have been formed in one piece with the shaft. On the latter example, traces of a white metal (probably tin) plating survive. Nos 1 and 4 are probably of medieval or early post-medieval date, residual in this context, whereas nos 2 and 3 are of 18th- or 19th-century date.

1. Pin. Length 12mm; width of head 2mm; diameter of shaft 1mm.
   Pin with a wire-wound head and a broken, circular cross-sectioned shaft. Corroded.
   Context 1; Find no 2; Phase 6.

2. Pin. Length 7mm; width of head 0.9mm; diameter of shaft 0.6mm.
   Pin in two conjoining fragments, with a spherical head possibly formed in one piece with the shaft.
   The shaft is broken. The pin has a white metal plating.
   Context 1; Find no 3; Phase 6.

3. Pin shaft. Length 24mm; diameter 0.9mm.
   Pin-shaft fragment, of circular cross-section.
   Context 1; Find no 4; Phase 6.

4. Pin shaft. Length 11mm; diameter 1mm.
   Pin-shaft fragment, of circular cross-section.
   Context 1; Find no 5; Phase 6.

Bone object

(Species identification is by C Smith)

The single bone artefact from the excavation (no 5) possibly represents a fragment of a handle, only a small part of which survives. The outer surface appears to have been trimmed to produce a number of facets and appears polished, possibly through repeated handling when in use.

5. Worked fragment. Length 33mm; width 8mm; thickness 6mm.
   Fragment of an object, probably derived from a small ungulate long-bone shaft. The outer surface has been trimmed and is slightly faceted; five facets surviving on this fragment. The surface is also polished. One end of the object has been cut across in a medio-lateral direction and bears file marks. The other end is broken. The marrow cavity may have been artificially enlarged by drilling.
   Context 1; Find no 1; Phase 6.

Stone roof slates

Stone roof slates were utilised on buildings of medieval and post-medieval date, and excavated examples exhibit a range of forms and sizes. The two slates retrieved from this excavation help to confirm that similar types were in use in Dundee as in other east coast burghs such as Dunfermline and St Andrews (Cox 1996, 97–8 and 1997, 88).

No 7, with a thickness of 24mm, is a fragment of a substantial slate; a larger type than that represented by no 6. The larger slate appears to have been split down the middle and re-used in a different structural context, having mortar adhering to one of its broken edges.

6. Roof slate. Length 111mm; width 146mm; thickness 17mm; diameter of hole 16mm.
   Roof-slate fragment in medium-grained, micaceous stone. The top edge and shoulders of the slate survive; below this it is broken. There is a circular hole c 34mm below the top edge.
   Context 17; Find no 6; Phase 3.

7. Roof slate. Length 143mm; width 187mm; thickness 24mm; diameter of hole 16mm.
   Roof-slate fragment in medium-grained, micaceous stone. The slate has been split adjacent to a circular hole, which lies c 46mm below the probable top edge. The entire length of one broken edge has mortar adhering to it.
   Context 45; Find no 7; Phase 6.

Glass

No 8 is one of three bottle-glass fragments recovered from an extensive deposit of early modern garden soil. It is from a quite substantial wine bottle with a broad kick-up to its base. One of two vessel-glass fragments from the Phase 6 pathway deposits, no 9 is also from a wine bottle, with a more oval base and a pronounced, high kick-up. This kick-up or indentation in the base of bottles, such as those represented by nos 8 and 9, was produced by pressure being applied to the pontil rod near to the end of the blowing process, before the blow iron was sheared off. The effect of introducing this feature was to create a more stable base so that bottles could stand freely without the need for encasing baskets. Both no 8 and no 9 are probably of 18th-century date. Further fragments from bottles of similar date were found in the fill of a
possible property boundary in Phase 4 and a redeposited garden soil in Phase 6.

A group of twelve small fragments of window glass, of post-medieval date, was recovered from the fill of a rectangular pit tentatively assigned to Phase 1, along with three small vessel-glass fragments, including a small neck fragment from a bottle (no 10).

8. Bottle base. Surviving height 42mm.
   Circular base fragment in green glass, exhibiting a broad kick-up with a pontil scar and small fragments of glass adhering to its underside. The fragment has a weathered and discoloured surface layer. An original base diameter of c 120mm is indicated by this fragment.
   Context 1; Find no 8; Phase 6.

   Oval base fragment in green glass, exhibiting a high kick-up and a pontil scar. The fragment has a weathered and discoloured surface layer with an iridescent patina. A maximum basal width of c 140mm is indicated by this fragment.
   Context 3; Find no 9; Phase 6.

    Cylindrical neck fragment with a flaring rim, in green to brown glass. The fragment has a weathered and discoloured surface layer. Only a small proportion of the rim survives. An external rim diameter of 25–35mm is indicated.
    Context 53; Find no 10; Phase 1.

Clay pipes

The small assemblage of clay-pipe fragments from the excavation consists of a single intact bowl (no 11), two plain bowl fragments, a single decorated stem fragment (no 12) and 21 plain stem fragments. Nos 11 and 12, and approximately half of the stem fragments, were recovered from an extensive, early modern garden soil deposit.

11. Bowl. Height 32mm; external diameter at rim 16mm.
    Bowl of slightly bulbous form with a forward-sloping, milled rim. The bowl is decorated by the moulded letters ‘T’ and ‘B’ either side of the flat heel, which bears a roughly rectangular stamp. The bowl is fumed internally and externally.
    Context 1; Find no 11; Phase 6.

12. Stem. Length 61mm; bore diameter 2.35mm (6/64”).
    Stem fragment, broken across a zone of decoration consisting of an encircling band of chevrons and a single line of milling.
    Context 1; Find no 12; Phase 6.

The animal bone

Catherine Smith

Methods and measurement

The mammal bones were identified by direct comparison with modern reference specimens, and were allocated to particular bone and species where possible. Where it was not possible to identify bones to species, the terms large ungulate, small ungulate and indeterminate mammal were used; thus all large vertebrae other than the atlas and axis were described as large ungulate, while small vertebrae were described as small ungulate. Ribs were similarly identified on the basis of size.

Large ungulate bones, on the basis of probability, were most likely to have come from cattle, but could have come from horse or red deer. Small ungulate bones probably came from sheep, but could also have come from goat, pig or roe deer. All other fragments for which neither species nor bone could be ascertained were described as indeterminate mammal. Boessneck’s (1971) criteria for differentiating between the long bones of sheep and goat, which are morphologically very similar, were applied to the assemblage, but it appeared that goats were probably absent; the term sheep / goat was, however, used to describe all capravid bones.

Measurements were made in accordance with the scheme of von den Driesch (1976) and are expressed in millimetres. Mandibular tooth eruption and wear patterns were assessed using Grant’s (1982) scheme for cattle, sheep / goats and pigs. In addition, Payne’s (1973) scheme was used for sheep / goats.

Species present

Animal bones were retrieved from both hand-excavated and sieved soil samples. The composition of the two assemblages was found to be quite different in character. The hand-excavated assemblage comprised bones from large meat-bearing mammals and larger birds, while the sieved assemblage was composed mainly of small fish bones, with occasional bones of small mammals. However, small fragments of large mammal bone were also retrieved by sieving but were secondary in frequency and importance to those from fish.

The hand-excavated samples

Dominant in the hand-excavated samples in all phases of the site were the bones of cattle and sheep / goat (see Table 2). Bones of pigs and horses were found only infrequently. Two partial dog burials, one in Phase 5 and one in Phase 6, were recovered; otherwise, excluding these burials, the numbers of dog bones recovered were not high. Only two cat bones were found. Two bones of brown rat, a relatively recent introduction to the British fauna, were recovered from a 19th- or early-20th-century context. Three bones considered to be from fox (or less likely, a grackle dog) came from medieval Phase 3.
Table 2. Numbers of animal bones in hand-excavated samples, arranged by species and phase.

<table>
<thead>
<tr>
<th>Phase</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>28</td>
<td>108</td>
<td>38</td>
<td>6</td>
<td>1</td>
<td>84</td>
<td>265</td>
</tr>
<tr>
<td>Sheep/goat</td>
<td>22</td>
<td>76</td>
<td>7</td>
<td>2</td>
<td>2</td>
<td>72</td>
<td>181</td>
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<td>Pig</td>
<td>3</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>1</td>
<td>6</td>
<td>25</td>
</tr>
<tr>
<td>Horse</td>
<td>2</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Dog</td>
<td>2</td>
<td>5</td>
<td>*25</td>
<td>*9</td>
<td></td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Cat</td>
<td>1</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Dog/fox</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
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<td>3</td>
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<tr>
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<td></td>
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<td></td>
<td>2</td>
</tr>
<tr>
<td>Large ungulate</td>
<td>15</td>
<td>50</td>
<td>18</td>
<td>7</td>
<td>2</td>
<td>42</td>
<td>134</td>
</tr>
<tr>
<td>Small ungulate</td>
<td>2</td>
<td>25</td>
<td>22</td>
<td>2</td>
<td>1</td>
<td>52</td>
<td>104</td>
</tr>
<tr>
<td>Indeterminate mammal</td>
<td>31</td>
<td>213</td>
<td>50</td>
<td>19</td>
<td></td>
<td>71</td>
<td>384</td>
</tr>
<tr>
<td>Domestic/Greylag Goose</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Domestic Fowl</td>
<td>1</td>
<td>6</td>
<td>3</td>
<td>1</td>
<td></td>
<td>19</td>
<td>30</td>
</tr>
<tr>
<td>Turkey</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Red Grouse</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Grey Partridge</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Wader sp</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Larus cf ridibundus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Indeterminate bird</td>
<td></td>
<td>1</td>
<td>4</td>
<td></td>
<td></td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Fish</td>
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<td>3</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>497</td>
<td>153</td>
<td>42</td>
<td>33</td>
<td>370</td>
<td>1,197</td>
</tr>
</tbody>
</table>

* Includes partial dog skeleton.

Bird species encountered at the site were domestic fowl (Gallus gallus), domestic/greylag goose (Anser anser), turkey (Meleagris gallopavo), red grouse (Lagopus lagopus), grey partridge (Perdix perdix) and wader species (family Scolopacidae), all of which would have contributed to the human diet. A bone from a gull, probably the black headed gull, Larus ridibundus, came from a bird which may not have been eaten. (The single bone of turkey occurred in a relatively modern context (013, Phase 6) and so is not unusual, the species having been introduced to Britain from North America in the 16th century (Davis 1987, 194)).

The dominance of cattle and sheep/goat at the site is in keeping with the pattern of animal exploitation found at other medieval urban sites in eastern Scotland. At such sites, for example within the burghs of Perth and St Andrews, the high frequency of cattle and sheep/goat bones has been related to the dependency of the medieval Scots economy on animal by-products such as hides, woolfells (skins with wool attached) and wool (Hodgson 1983). At the Green's Playhouse site there is an indication that sheep became more important with respect to cattle as time progressed (see Table 4 for comparison of relative frequencies by phase). This, too, is in accord with the trends noticed at other sites, such as in the most recent phases at Castle Park, Dunbar (Smith, forthcoming a) where sheep became much more numerous with respect to cattle during the later post-medieval periods.

The sieved samples

Small fragments of bone from cattle, sheep/goat, small ungulate and indeterminate large mammal were retrieved from the sieved samples (see Table 3). Small mammals such as common shrew (Sorex araneus) and murine rodent (mouse species) were also found. Small carpals and phalanges, probably from domestic fowl, also occurred, particularly in Context 008 (Sample 007). Three goose bones came from Context 002 (Sample 001) and one bone of gull (Larus sp) occurred in a recent context (001, Sample 004). As with the gull bone found in the hand-excavated sample, this species was probably not exploited for food, but rather represented a natural mortality.

The main component of the sieved faunal assemblage was, however, bone from small fish species. Mouth parts of small gadoid fishes, probably pollack and/or ling (Pollachius pollachius/Molva molva) were noted. Large cod (Gadus morhua) bones were absent, although it was thought that a few large fish vertebrae from the hand-excavated samples were from this species. Dermal denticles (known as 'bucklers') of fish of the ray family (Rajidae) were also present.
Table 3. Numbers of animal bones found in sieved samples (+ signifies presence of bone).

<table>
<thead>
<tr>
<th>Context</th>
<th>Phase 1</th>
<th>Phase 2</th>
<th>Phase 6</th>
<th>Natural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample</td>
<td>075 077 080</td>
<td>001 002 003</td>
<td>001 004</td>
<td>008</td>
</tr>
<tr>
<td>Cattle</td>
<td>2 2 2</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sheep / goat</td>
<td>1 2</td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small ungulate</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common shrew</td>
<td></td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Rodent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Small mammal / rodent</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indeterminate mammal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fowl / cf Fowl</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goose</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Larus sp</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indeterminate bird</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fish</td>
<td></td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 4. Numbers and percentages of bones from main food-forming mammals, arranged by phase grouping.

<table>
<thead>
<tr>
<th>Phases 1–3</th>
<th>Phases 4–5</th>
<th>Phase 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>Cattle</td>
<td>174 58.4</td>
<td>7 50.0</td>
</tr>
<tr>
<td>Sheep / goat</td>
<td>105 35.2</td>
<td>4 28.6</td>
</tr>
<tr>
<td>Pig</td>
<td>16 5.4</td>
<td>3 21.4</td>
</tr>
<tr>
<td>Horse</td>
<td>3 1.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>298 100.0</td>
<td>14 100.0</td>
</tr>
</tbody>
</table>

Ages of animals at death

Only a few mandibles of cattle, sheep / goat and pig were present. These, however, indicated the age at death of a few individual animals: a cattle mandible from Phase 1 (Context 073) and one from Phase 2 (Context 002) were from adult animals of at least three years of age in modern terms, on the basis of wear on the fifth cusp / third pillar of the lower third molar (Grigson 1982, quoted in Hillson 1986, 206). These jaws had mandible wear stages of 46 and 42–44 respectively (Grant 1982). Only two sheep / goat mandibles survived. These came from Phase 1 (Context 077) and Phase 6 (Context 001) and represented animals of from 3–4 years (Payne’s stage F; Grant’s wear stage 36) and 4–8 years old (Payne’s stage G-H) in modern terms.

Since there was such a paucity of mandibles, long bones were assessed for their state of epiphysial fusion (also an indicator of relative age, although not considered as reliable as mandibular tooth wear). Results of long-bone fusion assessment are shown in Table 5 for cattle and Table 6 for sheep / goat. These data show that although young animals were indeed present, much of the livestock had reached adulthood before culling.

It was difficult to compare the ages of pigs with those from sheep / goats and cattle as so few suitable bones survived. However, one mandible from Phase 1 (Context 073) came from an animal of between 13–20 months of age (Bull and Payne 1982). Long-bone evidence indicated that the majority of the pigs were juvenile or immature when they were killed. This makes sound economic sense, since there is no gain to be made in continuing to feed a pig after it has reached its optimum weight; unlike a cow or sheep, a pig produces no valuable by-products (milk and wool) which make keeping the animal worthwhile after its meat is ready for consumption.

Dog bones came mainly from adult animals. However, the same context which contained the partial dog skeleton in Phase 5 (Context 015) also produced two bones from a puppy or foetus. It was not possible to say whether these individuals, the puppy and the adult dog (which incidentally showed some symptoms of osteoarthritis), were associated. One other puppy bone came from Phase 6, Context 013, which also contained a partial adult dog skeleton.

Size of animals

Long-bone size ranges are summarised in Table 7. For the purposes of comparison with medieval material from other Scottish sites, the data was
placed in three date groupings: medieval Phases 1–3, post-medieval Phases 4–5 and modern Phase 6. All of the measurements of cattle, sheep / goat and pig long bones, from all of these date groupings, with the exception of one bone from each of the three species from the most recent Phase 6, were found to fall within the ranges published for the large medieval assemblage at Perth High Street (Hodgson 1983). Medieval livestock are known to have been of a much smaller, less robust stature than their modern counterparts and it is not surprising to find the medieval material from Dundee conforming to this pattern.

In one instance, it was possible to calculate withers height: based on the greatest length of a cattle metacarpal from Phase 4 (Context 05) the animal stood at 112.1cm high. At Perth High Street, cattle withers heights ranged from 95.6–113.4cm. The Dundee beast is therefore within this range, although near to its upper limit.

Artefactual use of animal bone

A dog bone found in Context 002 (Phase 2) showed evidence of having been used as a tool. The bone, the distal end of a humerus (bone of the elbow / stifle joint), had been snapped across the shaft. The broken end of the bone was surrounded by mortar, which had also been pushed into the exposed marrow cavity. The bone appears to have been used as a rough and ready tool for mixing or applying mortar. It is also interesting to note that the same bone bore evidence of knife cuts on its articular surfaces, probably inflicted during skinning of the animal for its fur. Cut dog bones are relatively common on medieval urban Scottish sites and point to a small-scale trade in dog skins (Hodgson et al, forthcoming).

Conclusions

Comparisons of the hand-excavated and sieved samples have shown distinct differences in the species recovered by the two methods. Large mammals were well represented in the hand-excavated material, but small fish bones, which are well-nigh impossible to detect and recover by hand, were only present in the sieved soil samples. It seems that fish were very important in the diet of the occupants of the site. Meat from domestic livestock such as cattle, sheep and pigs was also consumed; the ages at which the animals died showed that husbandry was sufficiently high in standard to enable animals to survive over several winters before culling them. The main economic rationale for keeping animals until an older age was to produce such by-products as hides, wool and woolfells. In medieval Scotland, animal-based resources were the mainstay of the export economy (Guy 1986).

Anatomical measurements of the bones of cattle and sheep showed no increase in the stature of the animals between the medieval and the post-medieval periods. It is becoming apparent from continuing work in Perth and Aberdeen (Smith 1996 and forthcoming b) that there was no noticeable increase in the size of domestic animals between the medieval and post-medieval periods.

---

Table 5. Numbers and percentages of cattle bones by age category and phase grouping.

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Phases 1–3</th>
<th>Phases 4–5</th>
<th>Phase 6</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
</tr>
<tr>
<td>J</td>
<td>1</td>
<td>4.2</td>
<td>1</td>
</tr>
<tr>
<td>J/I</td>
<td>7</td>
<td>15.6</td>
<td>1</td>
</tr>
<tr>
<td>J/A</td>
<td>19</td>
<td>42.2</td>
<td>1</td>
</tr>
<tr>
<td>A</td>
<td>19</td>
<td>42.2</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
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Table 6. Numbers and percentages of sheep / goat bones by age category and phase grouping.

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<th>Phases 1–3</th>
<th>Phases 4–5</th>
<th>Phase 6</th>
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<td>%</td>
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<tr>
<td>I/A</td>
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Key for Tables 5 and 6: J = Juvenile, J/I = Juvenile or Immature, I = Immature, I/A = Immature or Adult, A = Adult.
Table 7. Bone size range summary.

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10. Domestic Fowl, medieval phases 1–3

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11. Domestic Fowl, post-medieval phases 4–5

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12. Domestic Fowl, modern phase 6

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Note: anatomical measurements are in accordance with the scheme of von den Driesch (1976) and are expressed in millimetres.

in Scotland. It might have been expected that rather more of the material from Phase 6 of the present site would have been of the large size reached by modern animals. This was not found to be the case, and there are several possible explanations. One is that none of the material is dated to the 20th century; the observation that very few of the bones had been butchered using saws, a relatively recent innovation in Scottish butchery, tends to support this idea. A further possibility is that some of the later material is residual or disturbed and actually dates to an earlier period. Finally (and least likely) is that the material does indeed date to the 19th / 20th centuries, but has come from old-fashioned, unimproved breeds indistinguishable from medieval animals.

The charred plant remains

Tim Holden

The plant assemblages recovered here are neither particularly diverse nor abundant yet they do provide reasonably well-dated examples of oat (either black oat or common oat), hulled barley and bread / club wheat. They therefore add to an accruing picture regarding the cereals being cultivated on the relatively good agricultural land encountered in this part of eastern central Scotland during the medieval period.

A number of the samples were taken from A-horizon sediments, commonly referred to as garden soils and frequently encountered on urban archaeological sites in Scotland. During both the medieval and 18th / 19th centuries on the site it is clear that a significant proportion of the bulk of the sediments were made up of coal slag and ash likely to have derived from the domestic hearth. Very little wood charcoal or other charred plant material survives but at this stage in the analysis it is not known whether this could be a result of the differential preservation of such remains. It might be the case that conditions suitable for preservation of plant remains are less common when coal rather than other fuels is used. Nevertheless, from Sample 001, for example, over 39 identifiable carbonised items were recovered from 20 litres of sediment. It has been suggested above that the wheat may have derived from a single incident because it does not occur in other samples of the same layer in such concentrations. The remaining taxa could also be the result of just one or two events such as a fire at a drying kiln or storage facility. Direct archaeological evidence to support this might lie some distance from the present site. By contrast, the grains might have accumulated over a period, perhaps as long as two hundred years and therefore potentially represent very small but regular losses of grain. The most likely explanation for this is that they represent the surviving traces of grain lost into the domestic fire during cooking or small-scale cereal processing.

Certainly by the early modern period losses of
this type seem to be generally less than in earlier
periods and it is possible that the use of more
organised cooking arrangements, the widespread
use of metal cooking pots, more centralised storage
and milling facilities could account for this.

Conclusion

When compared to the abundance of features or
variety of artefacts recovered from some well-
known Scottish urban excavations, such as in
Aberdeen (Murray 1982; Cameron, forthcoming)
or Perth (Holdsworth 1987; Bowler et al 1996), the
information recovered from this excavation at
Green's Playhouse may seem slight. But the
criteria for determining the importance of an
excavation vary depending on the context in which
it is set.

In Dundee, there has been little opportunity to
examine anything of the burgh's past. The most
significant work has been carried out on Dundee
Law (Rideout 1990; Driscoll 1996), which is an
atypical site. The excavation work at Green's has
provided the greatest contribution towards estab-
lishing that the historic core of Dundee does have
an archaeological potential.

It is worth noting that this site was, even as late
as 1988, thought to have been archaeologically
sterile as a result of modern development. Much of
the site was found to have been disturbed, but
remains dating to the earliest occupation of this
part of the burgh were found across a significant
area. This factor must be taken into consideration
for future development projects in the historic core
of Dundee as further unexpected finds may result
from archaeological investigation. Unfortunately,
such finds will still represent only a small propor-
tion of what must have been an ample archae-
ological resource up until partial destruction
during 19th / 20th-century development.

Because of Dundee's economic importance in
Scotland during the medieval period any surviving
archaeological deposits found within the core of
the burgh are likely to provide the urban archaeol-
ogist with important information regarding the de-
velopment of an urban centre and, especially true
of Dundee, which goods were traded and what the
trading links were during the medieval period.

Pottery is particularly useful when addressing
the former point and the recovery of a substantial
pottery assemblage from clearly defined stratifi-
graphy highlights the second main contribution
this excavation has made. Fabrics such as
Saintonge ware, and Rouen ware (both from
France), and Valencian Lustreware (from Andal-
susia) are rare finds in Scotland and further
examples for the archaeological record are
welcome. In addition, fabrics from the Low Coun-
tries, Germany and northern England were identi-
fied. The diverse nature of the pottery confirms
Dundee's historical standing as an important
trading centre, in a local and national context, and
indicates the comparative wealth of some of its
inhabitants, probably trading merchants.

A third aspect to this excavation was the first
opportunity to analyse the medieval garden soil
and fills of identified rubbish pits in Dundee. This
sampling strategy has clearly proved that sieving
and soil analysis is vital in retrieving information
from a limited resource. Charred plant remains can
tell us a great deal about an essential part of
human life: ie what crops were grown or traded;
how they were sorted and utilised; and how they
have changed over time. Although the plant
assemblages recovered are not unique in Scotland
they do add to the overall picture. Evidence for
oats and barley is well documented from all parts
of Scotland from the late Iron Age through to the
19th century and is commonly recovered from
medieval sites (eg Boyd 1988; Holden 1996).

Present evidence indicates that wheat was
restricted to the drier parts of the country such as
the coastal strip in central eastern Scotland.

Defined medieval garden soils (A-horizon soils
dated by pottery, etc) are found in almost all Scott-
ish medieval burghs, from Castle Street, Inverness
(Wordsworth 1982), to Irish Street, Dumfries (Mac-
kenzie, forthcoming). Contained within these soils
is key evidence relating to the type of localised ac-
tivity taking place in the burgh. Further study of
these soils, when encountered, could reveal differ-
ences in the environmental record between burghs
and between regional economies. This could pro-
vide a useful tool in extending our knowledge of
how medieval burghs have developed and func-
tioned, as well as providing a more comprehensive
insight into factors affecting urban medieval life.

Previous study in this field has revealed some
interesting information, such as the identification
of broad / horse bean (Vicia faba) seeds recovered
from a medieval garden soil in Haddington, East
Lothian (Holden et al in O'Sullivan 1995). This
type of find is rare but, then, little work has been
carried out to reveal such evidence and it is only
by further study that an area of potential interest
can be exploited. In addition, finds such as minute
fish bones are easily overlooked during excavation.
Fish bone was identified in all of the soil samples
taken from deposits found at Green's, and, again,
with further study this information could prove
significant. It is by attempting to build an overall
picture in Scotland, utilising these fragile
resources, that the information retrieved from indi-
vidual sites will best serve the urban archaeologist.

The location of the site at Green's, in the back-
lands close to the western limit of the medieval
burgh, limited the potential range of archaeological
features that could be expected. It was thought
possible, however, that evidence of early structures
or clear evidence of property boundary establish-
ment might have existed. In this respect the features uncovered were disappointing. However, datable evidence recovered from the first three phases of activity identified in the archaeological sequence fits well with documentary evidence for the development of this part of Nethergate in the late 13th century.

The date range of the medieval phases is narrow, as pottery analysis identified activity to have taken place between the late 13th century (Phase 1 – early burgh activity) and the late 15th century at the latest (Phase 3 – a possible medieval property boundary). The remains of a single cultivation mark from Phase 2 (the establishment of cultivation practices) is all that sheds light on the activities taking place within this part of the backlands during this period. The tentative property boundary identified in Phase 3 suggests that by the 15th century the backlands were being managed by individual property owners. The high status of the pottery implies that these owners could well have been wealthy merchants.

The lack of structural remains in this part of the backlands indicates that there was no need for infilling due to development pressures during the medieval and post-medieval periods. This may have been because this site was already close to the western limit of the burgh; infilling would most likely have started at the very core of the town at Seagate and particularly around the High Street (formerly Marketgate). Once infilling did start, as shown by cartographic evidence (Crawford 1793; Collie 1851-52; Ordnance Survey 1871-72 and the structures identified in Phase 5 (late 18th / 19th-century development), development gathered pace and as a result undoubtedly removed most of the archaeological evidence from the southern portion of the site.

The final stage of development (Phase 6 – Green’s Playhouse) resulted in the truncation of possible archaeological deposits at the Nethergate frontage due to cellargage. Throughout the remainder of the site concrete piles were used and so only partial truncation occurred, resulting in the partial preservation of the archaeological remains discussed in this report.

This excavation has demonstrated that the historic core of Dundee does still have an important archaeological potential and it is hoped that the formation of the central conservation area will save this resource from future destruction without record. If development proposals in the future do result in archaeological investigation then it is by combining all the specialist tools available to the archaeologist in a multi-disciplinary approach that the material, and therefore the information recovered from this finite resource, can be maximised. This is relevant in all cases but especially so in examples such as Dundee where so much of the burgh’s past record has already been lost.

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Abstract

An excavation by the Scottish Urban Archaeological Trust Ltd in advance of the redevelopment of the former site of Green’s Playhouse located important evidence regarding the medieval occupation of this part of Dundee. A tightly dated group of medieval pottery was recovered, which included imports from France and the Rheinland. The survival of archaeological deposits on this site implies that more of Dundee’s archaeology may survive than had been previously expected.

Keywords: Dundee, Nethergate, Saintonge polychrome, Rhenish stoneware