5 DISCUSSION

5.1 11th -14th centuries: development and expansion of the medieval burgh

Prior to the 12th century the site was subject to localised flash flooding. Probably this ran eastwards along the valley occupied by the Cowgate, and we may speculate it was caused by clearance of the slopes in the early medieval or prehistoric periods. There was no evidence for a former stream. The earliest deposits on site capture the last of these periodic floods and have been radiocarbon dated to the 11th–13th centuries. Artefactual evidence dating to the 13th century from the overlying deposits suggests that they are probably of 12th-century date. The subsequent control of water may reflect the development of the town further west; Edinburgh had obtained burgh status by the 12th century and the site appears to be on the periphery of settlement at this time.

The final flash flood was followed by a rapid accumulation of sediment. This material is likely to derive from activity upslope during the 13th century. The deposition probably reflects disturbance occasioned by trampling and disruption of soil profiles without the laying down of hard surfaces or the efficient control of wastewater. This may be evidence for the expansion of the burgh eastwards towards the Netherbow from St Giles' Church, proposed by Duncan as a later part of the medieval development of the town (Duncan 1975, 466). At this time the site was still outwith the settlement and the local environment was a damp waste ground subject to periodic pooling of water.

By the early 14th century small-scale activity on the site is probably indicative of the development of plots in this part of the burgh as the medieval town expanded further eastwards and along the Cowgate. There may have been increased use of the Cowgate as a thoroughfare, perhaps with temporary use of the site for such activities as tethering animals or storage of materials.

5.2 Mid 14th century – town ditch

A ditch was cut in the mid-14th century east to west across the site. There are no historical records directly referring to the site at this time but the size of the ditch is too large for it to be a property division. The ditch is substantial, over 5m in width and 1.3m in depth, and lay 13m to the north of the present Cowgate frontage. The ditch is also far larger than the ditch excavated further upslope between Blackfriars Street and Niddry Street that Schofield suggested was the late 14th-century burgh boundary (1976, 172).

The size of the ditch excavated at St Patrick's suggests it is a more likely candidate for the burgh boundary. Finds from the deposit cut by the ditch and its fills suggest it was cut in the mid 14th century, pre-dating the King's Wall by 80–100 years. There was a bank on the northern side of the ditch, as evidenced by its fills. No evidence for a palisade was found, although presumably this would have been on top of the bank, although the lack of insect fauna associated with wood in the ditch would appear to confirm its absence (Reilly, Appendix 6). The ditch terminated just east of South Gray's Close and a smaller ditch was dug into it, also running east to west. This shallow ditch was interpreted as intended to aid drainage, and it may have served to continue to mark the line of the ditch while making it shallow enough to cross more easily.

Town ditches of similar size and scale have been excavated in other medieval burghs. In Perth, excavations of the town ditch have produced a probable 12th-century date, which, along with the location, suggested the early settlement was smaller than the fully developed burgh (Bowler & Perry 2004, 25). Similarly to the Cowgate example, it was also suggested that the line of the ditch was influenced by a 'rather wide area of wet and low-lying ground, progressively infilled and improved northwards' (ibid). The burgh boundary of the Canongate was identified on plots on the northern side of Holyrood Road (Gooder 2001). In Dunbar a large ditch predating the 14th century was also associated with a possible later town wall (Suddaby 2002, cited in Dennison et al 2006).

As well as the Wars of Independence, the 14th century also saw the arrival of the bubonic plague, and both events may have provided an impetus behind defining the town boundary by means of a deep ditch. Numerous waves of pestilence or plague swept through Scotland in the 14th and 15th centuries, and when the pest was in a town the ports were closed and guarded, and it was illegal to enter the town by the backyards (Murray 1924, 258–9; Marwick 1882, 29–30). Although there are no known records detailing the regulation of people's movement prior to the mid 15th century, later recorded precautions against the plague are likely to have originated in the 14th century.

Presumably the cutting of the ditch here reflects the expansion of the burgh eastwards in the late 14th century, possibly coinciding with the movement of the Netherbow Port eastwards to its later location at the top of the Canongate, where it stood until the late 18th century. The interruption of the town ditch just east of South Gray's Close

5.3 Early 15th century: life in the Cowgate

shows that this thoroughfare was in existence at this time and it is possible it marked an earlier edge of the town, an occurrence not uncommon in medieval burghs. This would support Duncan's assertion that the location of the Nether Bow was originally further west and it may be that it lay somewhere near the top of South Gray's Close on the High Street. This later development may be the reason why the plots are of double width on the eastern side of South Gray's Close. The plots to the west are all of the same (single) width and may be an earlier creation. Historic documents show the plot to have been double width dating back to at least the 16th century (Cross, 3.4 above), rather than two plots that were later amalgamated, as seen elsewhere in Edinburgh (Stronach et al 2008). Comparison with historic maps showing the north side of the High Street also shows a similar pattern (Gordon 1647). Recent analysis of burgage plot widths in Edinburgh also supports the idea that the burgh developed from a settlement located between the castle and St Giles' Cathedral, which extended eastwards as the burgh expanded (Tait **2006**, 308).

The line of the ditch probably reflected existing restrictions like a very wet or boggy area at the base of the slope (Cross, 3.4 above). Malcolm (1937, cited in Stevenson et al 1981) stated that development along the Cowgate was originally restricted on the north side due to the presence of a stream. While the base of the slope represents the former course of an immediately post-glacial stream (Makey 1988, 200), no evidence for a later or prehistoric stream was revealed by excavation. Malcolm (1937) goes on to say that the 'stream' was infilled in the 1490s, which corresponds well with the archaeological evidence for infilling of the re-cut ditch (see below). It is possible this refers to infilling a waterlogged ditch rather than a natural stream.

During excavations at 144-166 Cowgate, a ditch was tentatively identified on the south side of a wall (illus 2). This was seen only in section due to the nature of the excavations, however the nature of deposits suggested that the wall had been built on the north side of the partially infilled ditch (Dalland 2004). The size of the ditch was estimated to be 4m in width, similar in size to the ditch excavated at St Patrick's Church. Here the ditch appeared to be a precursor or early defence prior to the building of the King's Wall. It appears probable that this is the same burgh boundary excavated at St Patrick's Church. Again, this may not have been a continuous boundary, as the break in the ditch at South Gray's Close demonstrates, but it served to mark the edge of the town in the mid to late 14th century. The ditch lies 13m north of the present street front, just south of a timber-yard boundary on the first edition Ordnance Survey map (1849). This line can be traced further west in property boundaries on the same map, for example the south walls of closes in Beaton's palace and Dickson's Wynd (Cross, 3.4) above).

The finds within the ditch suggest it was infilled fairly rapidly around the early 15th century. This was initially through silting and sporadic rubbish disposal and later by pushing in the bank, possibly to provide access across the ditch to the Cowgate. Much of the evidence for medieval industry comes from the backlands of plots (Coleman 2004, 305). People lived and worked on the same plot of land with houses, byres, yards and workshops intermingling. Often unpleasant-smelling industries such as tanning were confined to the backlands. The pathways between plots developed into well-established vennels and closes.

The finds from the ditch give an indication of the local industries and activity in the surrounding area during the first half of the 15th century. Although there is no evidence for dwellings on the site, the ditch is on the edge of the hustle and bustle of Edinburgh's markets further along the Cowgate and up on the High Street. Descriptions of the markets show goods being bought and sold in various areas from the High Street to the Cowgate, although small stallholders may have set up elsewhere (Robertson & Wood 1928, 268–9). It is reasonable to speculate that the diverse finds from the ditch result from casual losses from passing traffic. Traders will have passed by the ditch on their way to market and the underweight lead weight may have been deliberately thrown into the ditch (Franklin, Appendix 1). The goatskin leather shoe found in the ditch is worn and may have been discarded on the way out of town once the owner had bought him- or herself a new pair of boots. The condition of the horn comb suggests it was accidentally dropped rather than discarded, the owner perhaps being unwilling to retrieve it from a very smelly ditch. Small pins and beads are also likely to have been accidental losses.

Dung from animals being taken along the Cowgate to market was washed into the ditch. Sheep were kept for wool or woolfells, one of the main exports from Edinburgh (Stevenson et al 1981, 4), and were taken through the Cowgate to a market at West Bow for sale (Robertson & Wood 1928, 268–9). Cattle were kept for hides, another main export, or may have been used by local shoemakers (*ibid*, 268–9). Pigs or cattle were reared in backlands away from dwellings further upslope, maybe for domestic consumption or for the cattle market at West Port (*ibid*, 268–9). There were fish markets from Netherbow to Blackfriars, selling unprocessed fish and cured herring, which were bought and processed at home, with the remains ending up in the ditch. The increase in cattle manure in the upper fills perhaps represents a busier Cowgate as the 14th century progressed.

The ditch was also used for the disposing of unpleasant industrial waste. Skinned horse carcasses were dumped in the ditch while the hides, manes and tails were used for the production of goods for sale in the markets. A horn-worker worked in the area and dumped waste cattle-horn cores into the

ditch. Horn workers were often found in proximity to butchering trades, and fleshers and skinners occupied the yard to the north of the site in the early 16th century (Cross, 3.4 above). At South Methven Street, Perth, there were ditch deposits containing cattle-horn cores suggesting horn working was concentrated in a specific area of town (Coleman 2004, 312). Recent mapping of occupations in Edinburgh in the 17th century also suggests that similar occupations tended to cluster together, with a number of animal-based occupations found on the Cowgate (Allen 2006, 276). It is likely that this pattern had precedents in the medieval period.

Pollen and insect remains suggest that butchery waste, animal dung and rotting vegetables and fruit were in the ditch. Similar assemblages indicative of very foul conditions were noted from midden and floor deposits in the heart of the medieval town of Novgorod at the site of a possible leather workshop (Reilly 2008a). There are also indications that the fill of the ditch included human waste. The fungal spores and whipworm eggs indicate that this material had been deposited locally (Scott Timpany pers comm) rather than being washed in from fields outside the town. There are numerous references to human waste being dumped on the streets in the town. Extracts from early 16thcentury records state that the inhabitants were responsible for the dung in the vennels and at the front of their houses and that it should be removed through the closest gate (Marwick 1871, 141, 148). In other records people are forbidden to empty their closets on the High Street and are to be given permits to put 'muck' on the town streets (Marwick **1882**, 187, 391–2). The presence of turf, either for fuel or for building, is attested to by the presence of beetles associated with heather or moorland (Reilly, Appendix 6).

This area was waste ground up until the 16th century (Cross, 3.4 above), with no houses in the near vicinity. The drainage of the area was poor, with plants growing in pools of standing water in the ditch, while thistles and sedges may have grown among the cereals in surrounding fields. A number of maltman's barns to the south of the Cowgate were in existence by the 17th century (Allen 2006, 270) and charred grain from the ditch may be evidence of the earlier existence of such trades, with associated drying kilns.

5.4 Late 15th century – recut of the ditch

The re-cut ditch was far less substantial than the original and appears to have been in use for only a short period of time. The finds from the re-cut ditch and the overlying midden deposits all date to the 15th century. This suggests that the re-cut was made relatively soon after the initial ditch was filled, possibly around the mid 15th century. The ditch was subsequently fairly quickly backfilled and sealed by midden deposits in the latter half

of the 15th century. This suggests a short-lived attempt at re-establishing the ditch before it was deliberately infilled. It is tempting to connect the filling-in of the re-cut ditch to the refurbishment of the King's Wall in 1472 (3.2 above). There was no evidence for the King's Wall on the site, although it is mentioned in relation to the tenement to the east in the mid 15th century, suggesting the wall lay one yard north of the Cowgate on the line of the former ditch (Cross, 3.4 above). The ditch at 144–166 Cowgate to the west appears to have been directly replaced by the King's Wall (Dalland forthcoming), with the wall being built up against the side of the partially infilled ditch.

5.5 15th-century midden dumps

A midden accumulated rapidly over a relatively short period of time after the ditch went out of use, and finds demonstrate the increased amount of material coming downslope. Once the ditch had filled up this area may have been used for a variety of purposes. Yards were common features in backlands and may have been used as stock pens, midden heaps and working spaces for crafts (Coleman 2004, 298).

Malcolm suggests that once the ditch was filled in, piles were driven through the ground to enable building in this area (1937). If this was the case, no trace of any early building or piles survived. The midden deposit may have contained the remains of rotted turf and timber buildings and the fills of cut features rendered invisible by biological mixing (Carter 2001). This process was demonstrated by the case of the coopered barrel. This was thought to be of early date due to its apparent stratigraphic position cut into the Phase 1 deposit below the midden. The dating of the barrel to the 17th century, however, makes it clear that it was cut from far higher up in the stratigraphic sequence, but that the cut and fills were made indistinguishable from the surrounding soil. The apparent hiatus between the infilling of the ditch and the later 17th-century culvert and barrel is therefore likely to be only an artefact of preservation. The relative depth preserved the barrel and its contents, while the stone structure of the culvert protected it. Many other features have presumably disappeared.

5.6 16th–17th-century development

The archaeological evidence supports the documentary references to a wasteland running along the north side of the Cowgate from St Giles' kirkyard in the early 16th century. Archbishop Beaton owned the southern end of the site and the northern end was a mason's yard (Cross, 3.4 above). The area was still open ground in the early 17th century and the culvert and well may have acted as a drainage system in the lands of Dr John Naysmith or his son-in-law John Livingston (Cross, 3.4 above). The

barrel was fashioned from Scandinavian oak (Crone, Appendix 1). From the late 15th century, Scotland was importing timber for its building requirements and throughout the 16th and 17th centuries the main source of that timber was Scandinavia (Crone & Watson 2002). As well as various types of building timber, Norway also exported barrel staves and hoops to Scotland (Lythe 1960 148; Lillehammer 1990). Scotland was not importing produce such as salted herring from these countries, which would have been packed in barrels, although ironwork was imported from Scandinavia in barrels (Cross 2008). A will from 1585 shows the sale of Scandinavian iron ingots for sale in one of the merchants' booths on the High Street (NAS, CC8/8/27, p200-1). However, it is most likely that the vessel was made in Scotland using either pre-prepared staves or boards. The barrel was probably in use for a number of years, perhaps storing goods from one of Edinburgh's markets or belonging to Andrew Ainslie, who was a merchant and owned the land immediately to the north from 1630 (Cross, 3.4 above). A barrel-lined well was also found on the site at Blackfriars Street (Will & Radley 2005).

The drain and well were no longer in use when Sir James Elphinstone built Elphinstone's Court on the northern half of the site in the late 17th century (illus 20; Cross, 3.4 above). Permission to bring water into the town from the country was granted to Edinburgh inhabitants in 1674, with cisterns constructed at Netherbow Port and the head of the Canongate (Maitland 1753, 317, cited in Stevenson et al 1981, 29). This would have removed the need for local wells on burgage plots.

Gordon's map of 1647 shows the Cowgate frontage to have been built up and a building is shown on the site on Edgar's map of 1742. This continues through to the Ordnance Survey first and later editions (1849, 1854, 1881, 1895). The street frontage was widened in the early 20th century, meaning the remains of these buildings lie beneath the present road (Cross 2008). Little evidence was found pertaining to frontage properties during the excavation, with the exception of one 19th-century wall.