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Early Historic settlement beneath the Grassmarket in Edinburgh

James McMeekin*
with contributions by Simon Stronach, Julie Franklin, Clare Thomas, Sarah Jane Haston, Emma Tetlow, Lynda Howard and Fiona Beglane

ABSTRACT

Archaeologically monitored excavations in the Grassmarket, Edinburgh uncovered diverse remains dating from prehistory to the First World War. The stratigraphic sequence included pits created in the middle of the Bronze Age, Early Historic features and deposits, a series of medieval surfaces, a section of the Flodden Wall and post-medieval building foundations. The Early Historic features provide rare evidence for Edinburgh's development prior to the 12th century and form the focus of this article.

Several features, created during the Anglian occupation of the Lothians, suggest the presence of a settlement between the late 6th and early 10th centuries AD*, overlooked and possibly servicing a high status site on Castle Rock. The evidence is compared to archaeological results from other settlements formerly within the Anglian kingdom of Bernicia (Northumbria).*

Deposits over a structure were radiocarbon dated to the 11th–12th century, when the region was under Scottish control. Associated environmental remains and leather offcuts indicated the holding, butchering and processing of livestock. This evidence pre-dates the documented use of the area as a medieval market and is interpreted as relating to a pre-burghal phase of use.

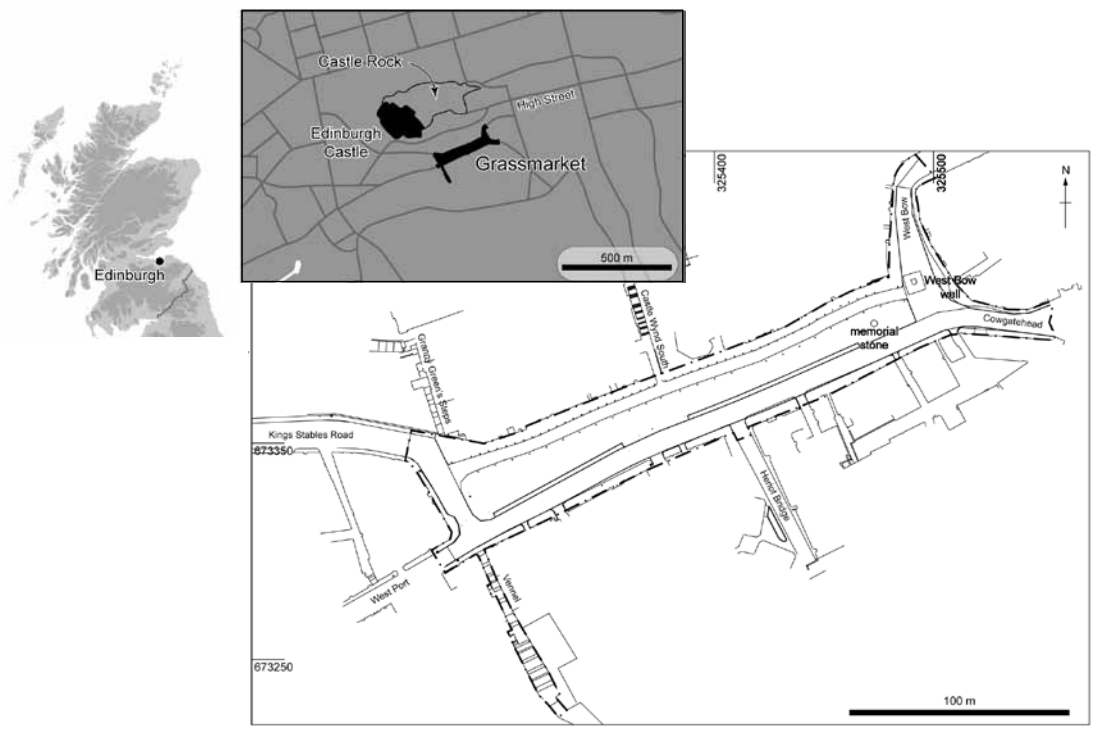
The significance of the results in terms of our understanding of Edinburgh's development, and to assessments of archaeological potential in Scottish medieval towns in general, is also discussed.

INTRODUCTION

Improvements to the Grassmarket in Edinburgh carried out as part of the Capital Streets Project provided a rare opportunity to archaeologically monitor excavations in this bustling part of the Old Town (illus 1 & 2). Headland Archaeology (UK) Ltd was commissioned by R J McLeod to monitor the digging of deep trenches for recycling bins, manholes and new trees, as well as shallower areas for drainage and resurfacing between September 2007 and November 2008. The curator for the work was the City of Edinburgh Council Archaeology Service which also secured appropriate funding from the City of Edinburgh Council for post-excavation analysis when the significance of the excavations became apparent.

A broad range of archaeological remains were encountered and testify to the use of this area long before its documented medieval

* Headland Archaeology Ltd, 13 Jane Street, Edinburgh EH6 5HE



ILLUS 1 Location plan showing the extent of the Grassmarket excavations

origin. The remains dated from the prehistoric to the early 20th century and included: prehistoric features dating to the middle of the Bronze Age; features and deposits dating to the Anglian occupation of Edinburgh (7th–10th century AD); early medieval deposits (11th–12th century); medieval surfaces (13th–15th century) and the foundations of the Flodden Wall; an elaborate system of stone culverts; foundations of the 19th-century Corn Exchange and a crater created by a bomb dropped from a First World War German navy zeppelin. For the sake of clarity, the medieval and post-medieval structures, surfaces and deposits are largely omitted from the illustrations.

This article is presented in two parts. The first half contains a description of the site and summaries of historical and archaeological background where appropriate. The key findings from all periods are summarised and followed by brief discussions. The second half of the article is a more speculative discussion that focuses on the Early Historic and early medieval discoveries because of their relevance to our understanding of the development of Edinburgh. The nature of the remains and how the results might be helpful to archaeologists seeking to discover further pre-burghal features is also considered. The article contains information relating to the analysis of finds (J Franklin & C Thomas), environmental samples (S J Haston), animal bone (F Beglane) and insect remains (E Tetlow & L Howard), adapted and synthesised from full archive reports (all contained within McMeekin 2009). A full archive, including specialist reports, has

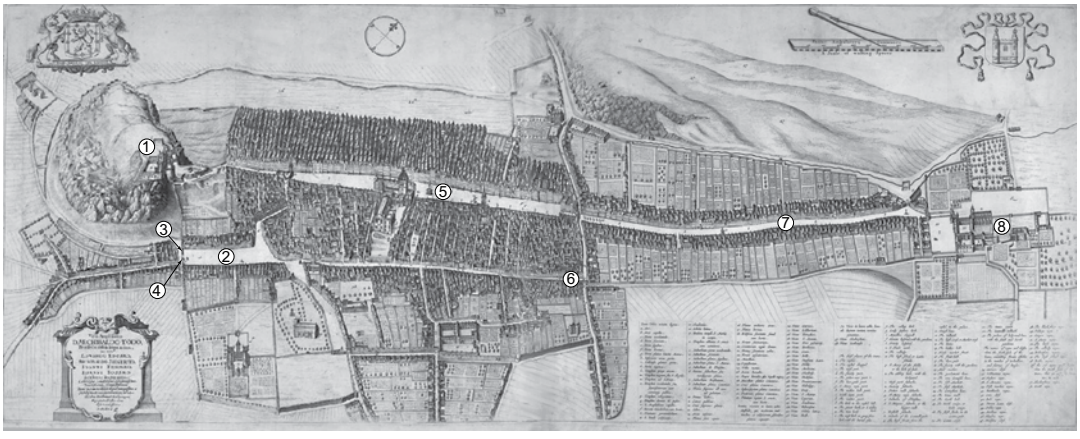
been deposited with the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS). Illustrations are by Caroline Norrman.

PART I: THE EXCAVATIONS

SIMPLIFIED STRATIGRAPHY AND SCOPE OF WORK

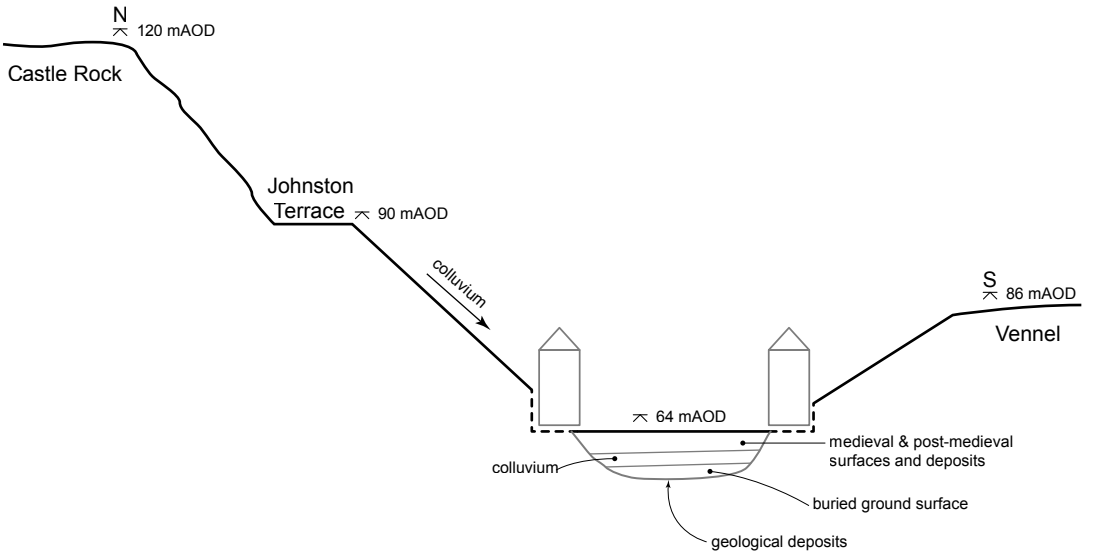
A complete stratigraphic sequence was consistently recorded throughout the excavations where the underlying geology was deeper; elsewhere this sequence was likely to have been truncated in the medieval period. Geological sediments derived from glacial till were occasionally sealed by grey silty clay subsoil and a preserved former ground surface. A layer of hillwash (colluvium) sealed these deposits. This layer represents a build up of material washed downslope from the area to the east of the Castle (illus 1 and 3). About halfway along the Grassmarket the colluvium was substantially thinner (or non-existent) than farther to the west and east. This may indicate a slight rise in the natural topography here, and may represent the tail end of a ridge running north/south from what is now Castle Wynd South to the Grassmarket (illus 1). Above the colluvium a sequence of cobbled surfaces and redeposited material (make-up) was encountered. The latest surface in the sequence was contemporary with an extensive network of drainage culverts.

The keyhole nature of the excavations meant that features were typically exposed in isolation and only a very small percentage of the excavated area reached beneath the colluvium, the depth necessary to expose the earliest phases of activity (illus 4a and 4b). The deepest excavations were limited to areas where new drainage, trees and recycling bins were to be introduced with the result that only narrow trenches and small, unconnected areas were exposed. Within this framework it was not possible to determine the full nature or scale of the prehistoric and early medieval remains. The early features were recorded in a



1. Edinburgh Castle
2. Grassmarket
3. Section of Flodden Wall exposed in excavations
4. West Port
5. High Street
6. Cowgate (eastern end)
7. Canongate
8. Holyrood

ILLUS 2 James Gordon of Rothiemay's map of Edinburgh, *c* 1647 with locations mentioned in the text



ILLUS 3 Schematic cross-section of the Grassmarket valley

very limited sample and there remains a very high archaeological potential throughout the Grassmarket.

BRONZE AGE ACTIVITY

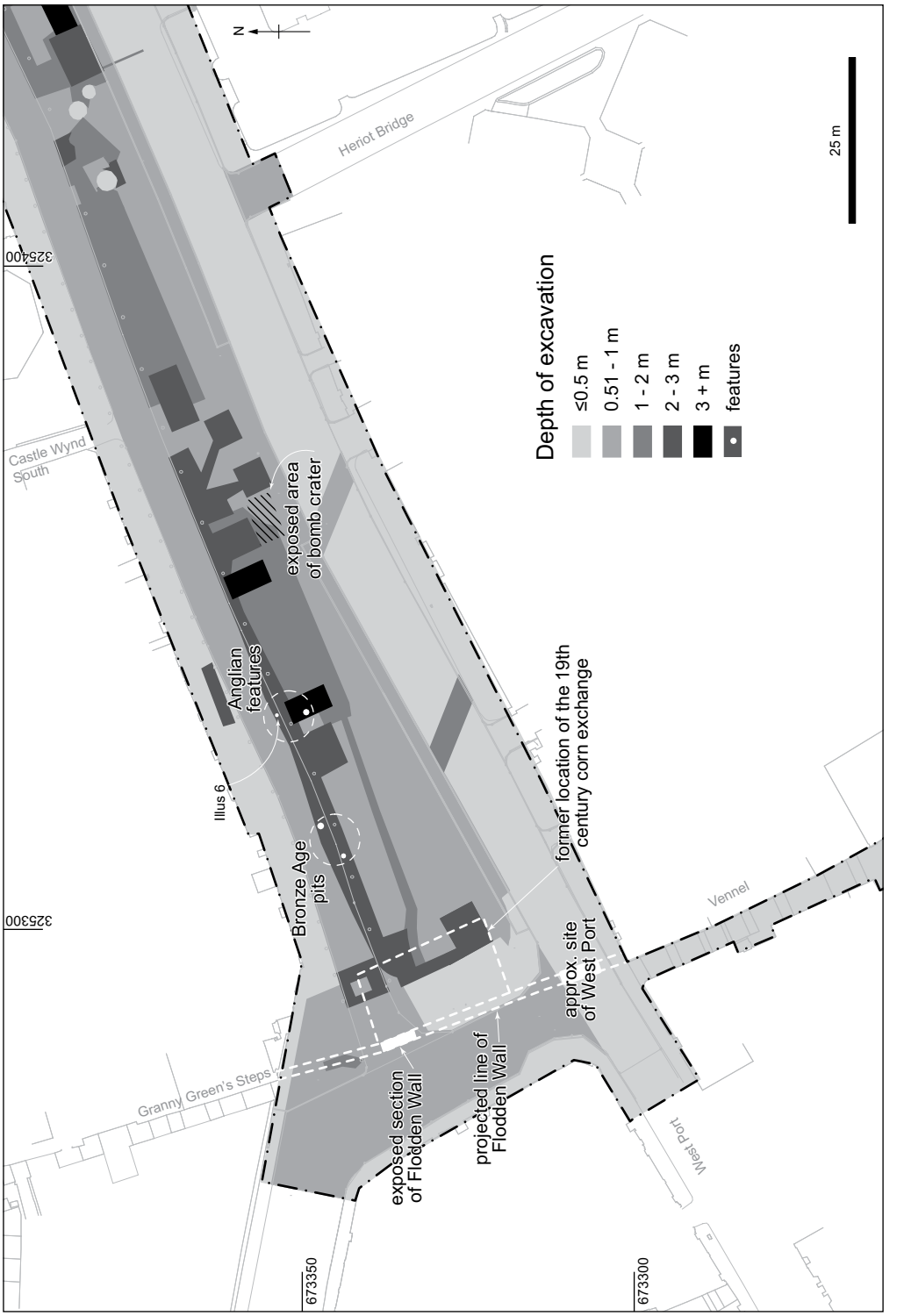
Results

Two small pits were exposed cut into an old ground surface and sealed by a layer of colluvium towards the western end of the Grassmarket (illus 4a). Environmental analysis of the fills provided common charcoal fragments and suggested the features were used as cooking pits or contained fire debris from nearby. Radiocarbon dating of associated charred plant remains returned dates of 2200 BC to 1950 BC (2 sigma, SUERC 19840; Table 1) for one and 1500 BC to 1380 BC (2 sigma, Beta-242133; Table 1) for the other.

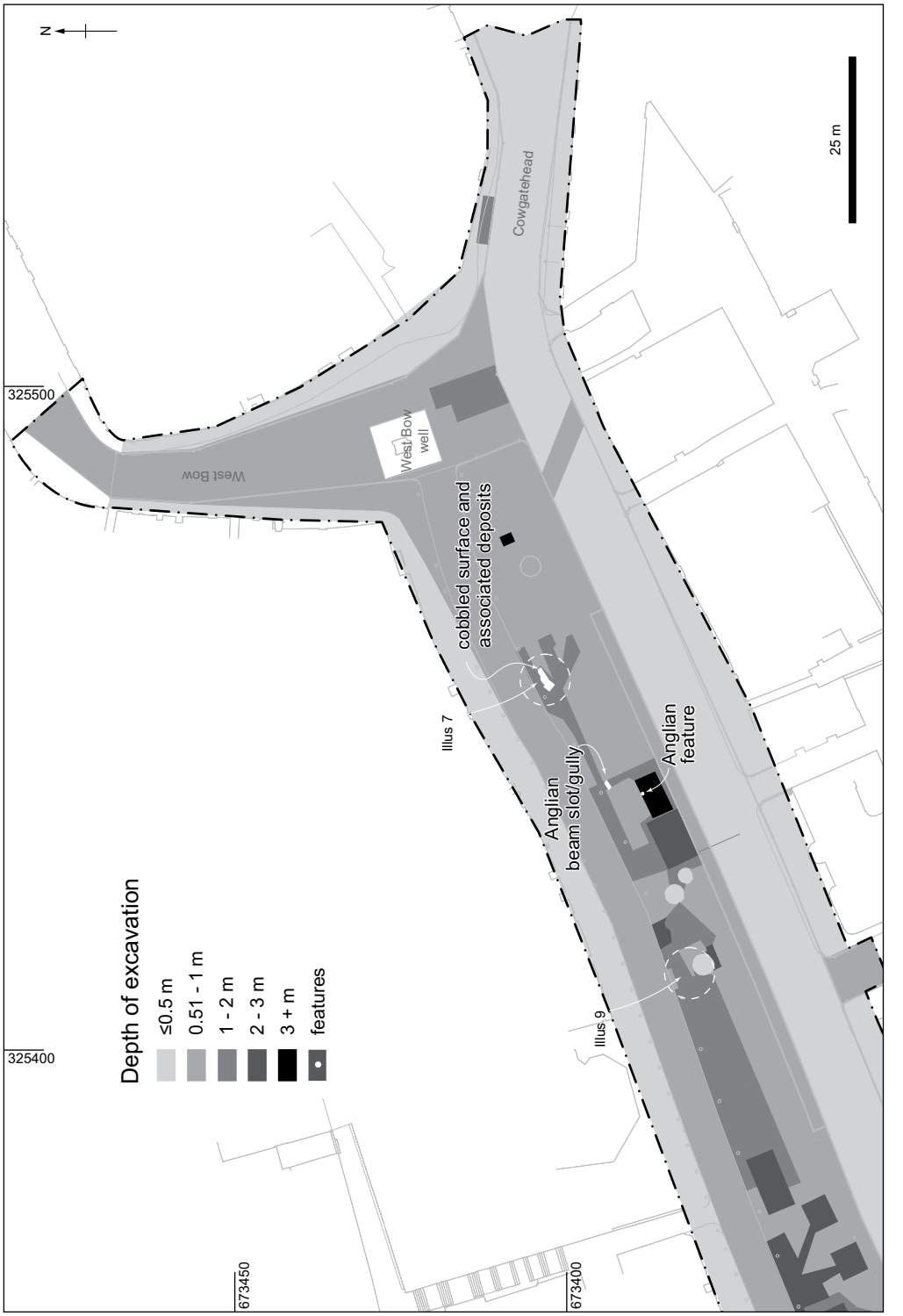
The deposit found in and around one pit was reminiscent of the material associated with burnt mounds – heat fractured sub-angular stones and much charcoal. Burnt mounds are thought to be accumulations of waste at locations where stones were placed in a fire and subsequently used to heat water for a variety of purposes.

Discussion

Bronze Age artefacts have been recorded within the modern city from the 19th century on – such as a Bronze Age flat axe from Canongate, shown in illus 2, to the east of the Grassmarket (Stevenson et al 1981: 37). Where excavations have encountered prehistoric features and deposits the remains are frequently truncated by later occupation. The earliest deposits at Edinburgh Castle (900 BC–200 BC) only survived in the deepest part of the trench and even here were damaged by activity in the late Iron Age (Driscoll & Yeoman 1997: 26). Waste flakes from a small lithic assemblage indicated sporadic activity from the Mesolithic to the Bronze Age on the Parliament site adjacent to Holyrood (illus 2), and a number of features that may have been



ILLUS 4a Excavated areas in the western end of the Grassmarket



Illus 4b Excavated areas in the eastern end of the Grassmarket

prehistoric were identified here, though not in such a concentration as to suggest that this was the location of an early settlement (Stronach 2008: 18–19). The foot of the Canongate ridge, with lower, wetter ground to either side, was identified as a suitable location for prehistoric settlement (ibid: 19).

Similarly, in the Grassmarket the low lying ground and limited sample of features do not suggest the presence of a settlement. The nature of the deposits was consistent with those found on a burnt mound site. Burnt mounds in Britain, Ireland and Scandinavia have frequently produced samples dating to the period 2500–500 BC (Ó Néill 2005). The valley floor now occupied by the Grassmarket may have been poorly drained in the Bronze Age, providing the boggy or wet area common to the locations of many burnt mound sites. Radiocarbon analysis suggested a minimum gap of 450 years between the creation of the two pits; indicating long-lived use of the site. A reconstruction shows how the area may have looked in the Bronze Age prior to complete deforestation of lower-lying ground (illus 5).

EARLY HISTORIC SETTLEMENT

Background

The poem 'The Gododdin of Aneurin' makes reference to a Brythonic warband gathered together at Din Eidyn. The excavations on Castle Rock indicated continuous occupation through the Early Historic period, and if the Din Eidyn of the Gododdin is accepted as Castle Rock then it may be seen as a high status site by the late 6th century AD (Driscoll & Yeoman 1997).

The Annals of Ulster record the *obsesio Etin*, or siege of Edinburgh, in the year AD 638. This has typically been interpreted as a sign of the fall of Edinburgh to the Anglian King Oswald and its assimilation into his kingdom of Bernicia, although Rollason (2003: 89) urges a cautionary approach to this limited evidence. The Pictish Chronicle states that the 'fortress of Eden' was held by the Angles until *c* AD 960 when it was abandoned to the Scots led by King Indulf (Stevenson et al 1981: 38). By the 10th century the archaeological evidence suggested the presence of some form of noble's residence on Castle Rock (Driscoll & Yeoman 1997: 229).

Results

Two groups of cut features were encountered: one towards the western end of the Grassmarket and another approximately 110m upslope to the east (illus 4a and 4b). These features were sealed by colluvium and found in association with a former ground surface, where it survived, above geological deposits (illus 6). All but one of the cut features were sub-circular, small and fairly shallow (less than 0.7m in diameter and 0.4m deep) and were generally classified as 'pits'.

Environmental analysis of samples from the western features produced an abundant amount of hulled barley as well as charred oat, burnt and unburnt bone fragments, charcoal and marine shell. A fish vertebra and three small fragments of fish bone were also recovered from the fill of one. Radiocarbon analysis of charred plant remains from the two western features returned calibrated dates of AD 600–770 (2 sigma, SUERC-19839; Table 1) and AD 660 to AD 810 (2 sigma, Beta 242132; Table 1).

To the east (illus 4b), environmental analysis of the fill of a sub-circular feature obtained a similar range of organic remains to the western group: common charcoal, shell and unburnt bone, though cereal grains were rare here and too poorly preserved to be identified to species level. Radiocarbon analysis of holly charcoal from this feature

ILLUS 5 Digitally manipulated photograph showing how the area may have looked in the Bronze Age

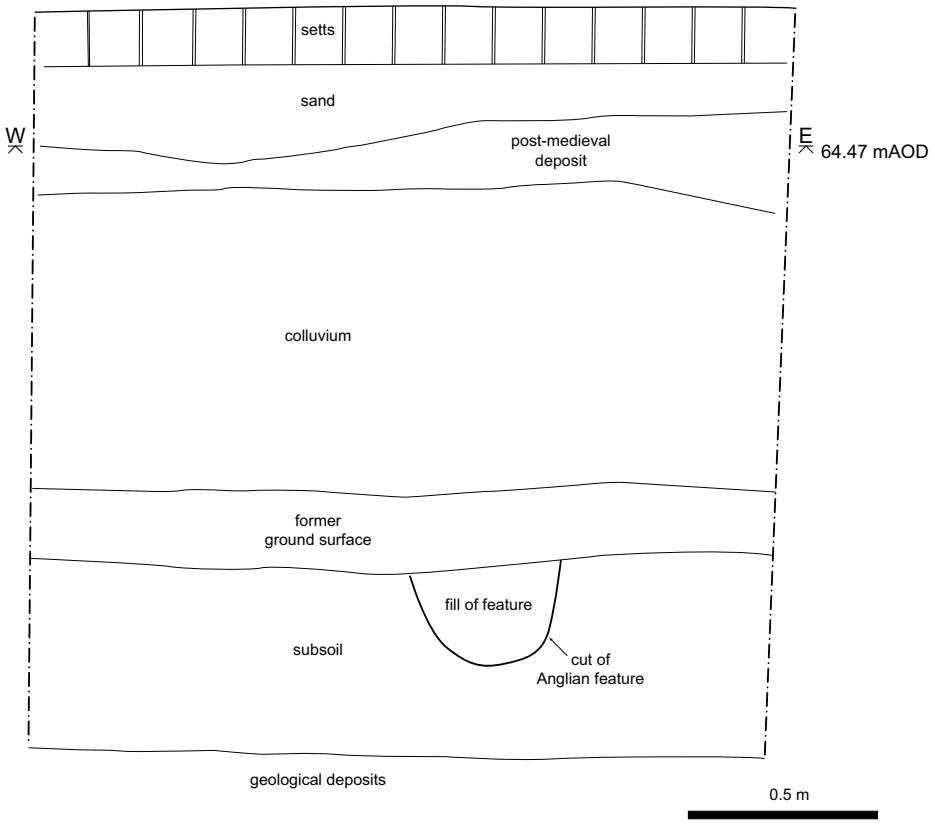
gave a slightly wider calibrated date range of AD 690–900 and AD 920–950 (2 sigma, Beta-242134; Table 1). Approximately 1m to the south of this feature was a linear deposit of rubble and redeposited soil (not illustrated). This deposit was aligned roughly east/west and was 4m long with no indication of any bonding or foundation cut. The proximity of this rubble to the feature may suggest that it was anthropogenic in origin.

A shallow, linear feature oriented roughly east/west was exposed a little to the northeast. Environmental analysis of the fill produced both burnt and unburnt bone fragments, common charcoal and, like the other eastern feature, rare cereal grain. A calibrated date of AD 590–670 (2 sigma, SUERC-19986; Table 1) was returned from the radiocarbon analysis of charred plant remains. The fill also contained a cattle carpal bone covered in metal splatter. This linear feature extended beyond the limits of deep excavation and was interpreted as a shallow gully or beam slot (illus 4b).

At the same stratigraphic level as the above feature was a cobbled surface sealed by two distinct deposits (illus 4b and 7); a thistle fruit from the lower was dated to AD 1010–1160 (2 sigma, SUERC-22072; Table 1). These deposits presumably accumulated after the cobbled surface had fallen into disuse. An absence of pottery was noted in both accumulations. At the western end of the cobbled surface a shallow, uneven cut was exposed containing substantial boulders. This was interpreted as the possible north-west/south-east foundation cut for a wall. The cut truncated the buried subsoil and in some

TABLE 1
Radiocarbon dates

Site	*Sample*	*Material*	*Context*	*Description*	*Depositional context*	*Radiocarbon age BP*	*Calibrated 1-sigma*	*Calibrated 2-sigma*	*$\delta^{13}C$ relative to VPDB*
Grassmarket, Edinburgh	SUERC-19839 (GU-17091)	Charred grain: Barley (*Hordeum Vulgare*)	007	Fill of pit	Primary	1365 ± 35	640–680 AD	600–710 AD 740–770 AD	–22.5 ‰
	BETA 242132	Charred grain: Barley (*Hordeum Vulgare*)	103	Fill of pit	Primary	1280 ± 40	670–770 AD	660–810 AD	–21.9 ‰
	SUERC-19840 (GU-17092)	Charcoal: Hazel (*Corylus avellana*)	145	Fill of pit	Primary	3675 ± 35	2140–2010 BC 2000–1980 BC	2200–2170 BC 2150–1950 BC	–24.2 ‰
	BETA 242133	Charcoal: Hazel (*Corylus avellana*)	157	Fill of pit	Primary	3160 ± 40	1460–1410 BC	1500–1380 BC	–23.3 ‰
	BETA 242134	Charcoal: Holly (*Ilex Aquifolium L*)	163	Fill of pit	Primary	1200 ± 40	770–890 AD	690–900 AD 920–950 AD	–24.3 ‰
	SUERC-19986 (GU-17201)	Charred grain: Barley (*Hordeum Vulgare*)	435	Fill of gully/ beam slot	Primary	1405 ± 30	615–660 AD	590–670 AD	–22.8 ‰
	SUERC-22072 (GU-17998)	Plant macrofossil: *Cirsium sp.* (thistle) fruits	545	Accumulation of dung/ organic material over cobbles [551]	Primary	965 ± 30	1020–1050 AD 1080–1150 AD	1010–1160 AD	–26.7 ‰



Illus 6 Profile showing an Anglian pit and extent of colluvium

places the underlying geological deposits but was seldom more than 0.1m to 0.15m deep. This possible foundation trench continued beyond the limit of excavation to the north and south. The area of cobbling exposed measured approximately 1m north/south by 2m east/west and continued beyond the limit of excavation to the south and east.

The combined depth of the two accumulations over the cobbling was nearly 1m and both contained a significant assemblage of insect remains. The most numerous constituent species are associated with dung and accumulations of foul, rotting organic material (Table 2). Scarabidae (dung beetles) accounted for 40% of the remains recovered from the lower accumulation (C545).

The high percentage of Scarabidae in both accumulations implies the former presence of large quantities of fresh dung, and several other beetle species found alongside are also strongly associated with the dung of cattle and horses. Smaller groups of species in the assemblage were associated with human habitation and the wider natural environment. Preserved plant remains included several species that like to grow in manure, as well as species indicative of damp and waste ground. The environmental samples also contained occasional charred grain, animal and fish bone.

A cattle mandible, a cattle tarsal or foot bone and a sheep/goat humerus were also recovered from this accumulated material. The mandible belonged to an individual aged 40–50 months at the time of its death; an age commensurate with an animal slaughtered to produce prime beef. Cut marks on the mandible were a further indication of the animal being slaughtered. Two goatskin leather offcuts were recovered from the lower accumulation, and may indicate the working of new leather nearby.

Discussion

The dates returned from radiocarbon analysis of charred material within the Early Historic cut features were broadly contemporary; the overlapping ranges varied from the late 6th century to the first half of the 10th century AD. The inclusion of waste in the form of charred cereal grains, charcoal, marine shell and bone within the features is taken as indicative of settlement; the metal splatter found on a cow carpal bone attests to some industrial or craft activity too. Possible structural evidence comes in the form of a feature interpreted as a gully or beam-slot, which may be taken as slight evidence for timber buildings, and a line of stones located nearby that may intimate the presence of a stone-footed building. Stone footings for timber-framed structures have been identified at Dunbar (Perry 2000: 67, 76) and Hartlepool (Daniels 1988: 179); those at Hartlepool dated to the 8th century AD. Though the evidence for structures is limited, it is difficult to explain the presence of these features and the material associated with them without envisaging the presence of some form of settlement.

Taken as a whole, the insect remains, animal bone and leather offcuts from the 11th–12th century deposits suggest that livestock was being corralled, butchered and processed nearby. The absence of any cut (illus 7), together with the apparently undisturbed medieval cobbled surface over the accumulations, implied that this material was not the result of later intrusion and represents an early medieval phase of use some considerable time before the area's adoption as a market toward the end of the 14th century (see below). The absence of pottery from the deposits offers some support for an 11th or early 12th century date for the activity, as it is unusual to find waste material without medieval pottery later than this.

TABLE 2
The insect remains and ecological preferences

Context	543	545	
Processed Weight	7kg	7kg	
Processed Volume	10l	10l	
	MNI (Min #	**MNI (Min #**	
	Individuals)	**Individuals)**	**Ecological Preference**
COLEOPTERA			Open ground, meadows and cultivated fields
Carabidae			Moist ground and bogs
Trechus sp		1	
Pseudoophonus rufipes (Deg)	1		
Pterostichus diligens (Sturm)	1		Dung and rotting organic material
			Plant debris and rotting organic material
Hydraenidae			Dung and rotting organic material
Helophorus sp		2	Plant debris and rotting organic material
			Plant debris and rotting organic material
Hydrophilidae			Plant debris and rotting organic material
Sphaeridium scarabaeoides/lunatum F/(L)	2		Plant debris and rotting organic material
Cercyon haemorrhoidalis (F)	1		Dung and rotting organic material
Cercyon marinus (Thoms)	1		Dung and rotting organic material
Cercyon lateralis (Marsham)	2	1	Wet mud at the margins of stagnant water
Cercyon unipunctatus (L)	3		
Cercyon tristis (Ill)	1		
Cercyon sternalis Sharp	2		Rotten wood
Cercyon analis (Payk)		1	
Cercyon spp	5	1	
Megasternum obscurum (Marsham)	1		Carrion
Cryptopleurum minutum (F)	1		
Chaetarthria seminulum (Hbst)	1		
			Dung and rotting organic material
Histeridae			Dung and rotting organic material
Abraeus perpusillus (Marsham)	1		Dung and rotting organic material
			Dung and rotting organic material
Silphidae			Plant debris and rotting organic material
Silpha sp	1		Dung and rotting organic material
Staphylinidae			
Omalium sp	2	1	
Xylodromus sp		1	Open ground, meadows and cultivated fields
Carpelimus bilineatus (Steph)	1		

Context	543	545	**Ecological Preference**
Carpelimus sp		2	
Oxytelus spp	2	1	On *Urtica* spp
Anotylus rugosus (F)	1		
Anotylus sculpturatus (Grav)	1	1	
Anotylus sp	2	2	
Platystethus arenarius (Geoff)	8	3	Drier rotting organic material
Platystethus spp	6	2	
Lathrobium brunnipes (F)		1	
Leptacinus sp		1	Drier rotting organic material
Gyrohypnus fracticornis (Müll)	2		Drier rotting organic material
Xantholinus sp	2	4	
Philonthus spp	2		
Tachinus corticinus Grav Type	1		
Staphylinidae			Dung
Tachinus sp	1		Dung
Tachyusa sp	2		Dung
Aleocharinae indet	3	4	Dung
			Dung
Cantharidae			Dung
Cantharis sp	1		Dung
			Dung
Nitidulidae			Dung
Brachypterus urticae (F)		1	Dung
Omosita sp		1	
Cryptophagidae			Disturbed environments
Atomaria sp	2		
Lathridiidae			
			Open ground, meadows and cultivated fields
Latridius minutus (grp) (L)	1		Open ground, meadows and cultivated fields
Corticaria sp	1		Open ground, meadows and cultivated fields
			Open ground, meadows and cultivated fields
Scarabaeidae			
Geotrupes sp	1		
Aphodius subterraneus (L)	1		
Aphodius fossor (L)	2		
Aphodius rufipes (L)	3	1	
Aphodius pusillus/coenosus (Hbst)/(Panz)	2		

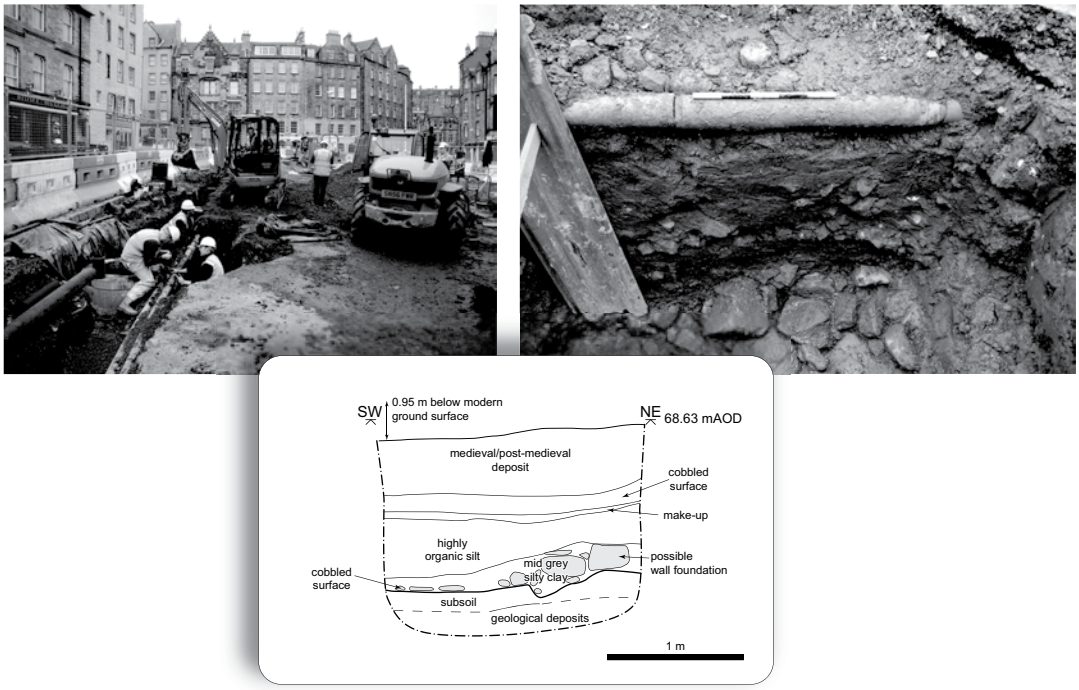
Context	543	545	**Ecological Preference**
Aphodius sphacelatus (Panz)	6	4	
Aphodius foetens (F)	3		
Aphodius rufus (Moll)	1		
Aphodius granarius (L)	1	1	
Aphodius sp	5	7	
Chrysomelidae			
Phyllotreta sp	1		
Chaetocnema concinna (Marsham)	1		
Curculionidae			
Barypeithes sp	1		
Barynotus sp		1	
Sitona sp	1		
Hypera sp	1		
DIPTERA			
Diptera indet (puparia)	3	7	
SUBORDER CYCLORRHAPHA			
Thoracochaeta zosterae (Haliday)	2		

The cobbled surface and possible wall base sealed by the early medieval deposits may have been part of a structure that was subsequently adapted for holding livestock. Whether the cobbling represents an internal or external surface is not known and it continued beyond the limit of excavation. When considering the amount of faunal and environmental evidence retrieved from these deposits it is important to bear in mind that the assemblages were recovered from an area of excavation approximately 2 square metres in size. Nevertheless, the evidence does seem to suggest that the activity it reflects was to some extent specialised and focused on livestock.

THE MEDIEVAL AND LATER MARKET

Background

The Grassmarket may have been formed as a thoroughfare at roughly the same time as the Cowgate (illus 2), in the 13th–14th century, making it one of the first planned expansions of the medieval town (Stevenson et al 1981: 12). Recent excavations at St Patrick's Church, Cowgate, and at 144–146 Cowgate suggested activity on both these sites by at least the early 14th century, although in both cases this did not entail buildings fronting the street (Jones 2011; Dalland forthcoming). More specifically a historical reference to a 'Newbygging under the castle' in 1363 has been taken as suggesting development of the Grassmarket around that time (Harris 1996: 306). The Grassmarket was assigned a regular market in 1477 by a royal charter of James III. Butter, cheese and wool were sold in the West Bow, and cattle were stabled outside the West Port (Adam 1899 I: 34–6). The area was first paved prior to 1543, as a notice for the repair of the 'calsay' (a paved area or roadway) from the Upper Bow to the West Port dates to this year (Adam 1899 II: 112).



ILLUS 7 Cobbled surface and associated deposits (profile and photographs)

The Grassmarket may have lain outside the burgh walls until the construction of the Flodden Wall in and after 1513 but it has been suggested recently that construction of at least parts of the wall may have taken place earlier as the West Port, a major entrance to the town shown in illus 2, was already documented in 1508–9 (Stevenson et al 1981: 39; Harris 1996: 273). The Flodden Wall extended south along what is now Granny Green's Steps, across the west end of the Grassmarket and up the Vennel, where portions still survive.

The presence of a Corn Exchange in the 19th century confirms the Grassmarket's continued importance as a centre for trade. The Exchange building at the west end (by the Flodden Wall) was replaced in 1849 by another structure located on the south side of the Grassmarket (Grant *c* 1890: 234).

Results

A substantial deposit of colluvium, found across much of the area, accumulated over the earlier ground surface and contained fragments of White Gritty pottery dating to the 12th–14th century. One of a number of horseshoes found during the excavations was recovered from this deposit and dates to the 13th–14th century (illus 8). The upper of a leather shoe (not illustrated) and a copper buckle (illus 8) were also recovered from the colluvium. This plain alloy ring represents a type of buckle made over a long period of time from the mid-14th century to the early 18th century. Its stratigraphic location (beneath medieval surfaces) would suggest it was manufactured towards the earlier end of this date range. The central bar is broken where it joins the frame, which may explain why the buckle was discarded. The left sole of a child's

ILLUS 8 Selection of finds mentioned in the text

shoe (equivalent to a modern child's size 3 or Continental 19; illus 8) was recovered from colluvium washed downslope from around West Bow and may be tentatively dated to the 14th century.

Sealing the colluvium, a series of cobbled surfaces was found throughout the Grassmarket, with associated occupational deposits overlying each (illus 9). These deposits accounted for two more horseshoes, dating to the 14th to 17th century (illus 8). Post-medieval finds included a fragment of a Seville olive jar (late 16th to 17th century). A number of sherds of stoneware wine jugs and bottles were found, ranging in date from the 15th century onwards. Glass bottle fragments dating from the early 18th century, an early date for such finds in Scotland, were also recovered.

A 4m-long section of the Flodden Wall was exposed during the excavations (illus 4a & 10). This section of wall was heavily truncated and lies to the north of the putative location of the West Port. Due to the disturbed nature of the remains and the absence of artefacts it was not possible to identify a date for the construction of this section of the wall.

Further structural remains were encountered and included the foundations of the 19th-century corn exchange (illus 4a). An extensive drainage system comprising stone built culverts was encountered throughout the Grassmarket and West Bow (not illustrated) and corresponded to culverts exposed in earlier archaeologically monitored works in the area (Savine 2006; Hill 2007).

Discussion

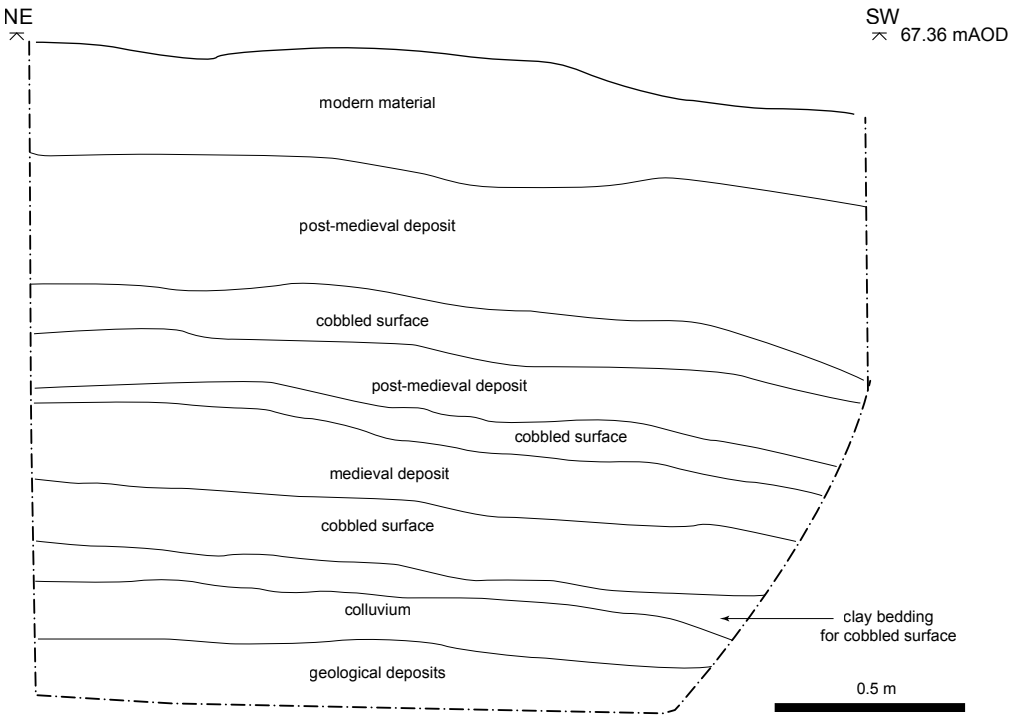
One horseshoe and fragments of White Gritty pottery recovered from the colluvium date to no later than the 14th century. The colluvium is presumed to have resulted from soil erosion upslope, from the area to the east of the Castle (illus 2). This erosion is likely have been occasioned by a change in use that caused disruption of a previously stable soil profile.

The earliest cobbled surface encountered above the colluvium most likely corresponds to the first surfacing of the area and it is tentatively suggested this took place towards the end of the 14th century, around the time of the 'Newbygging under the castle' (Harris 1996: 306).

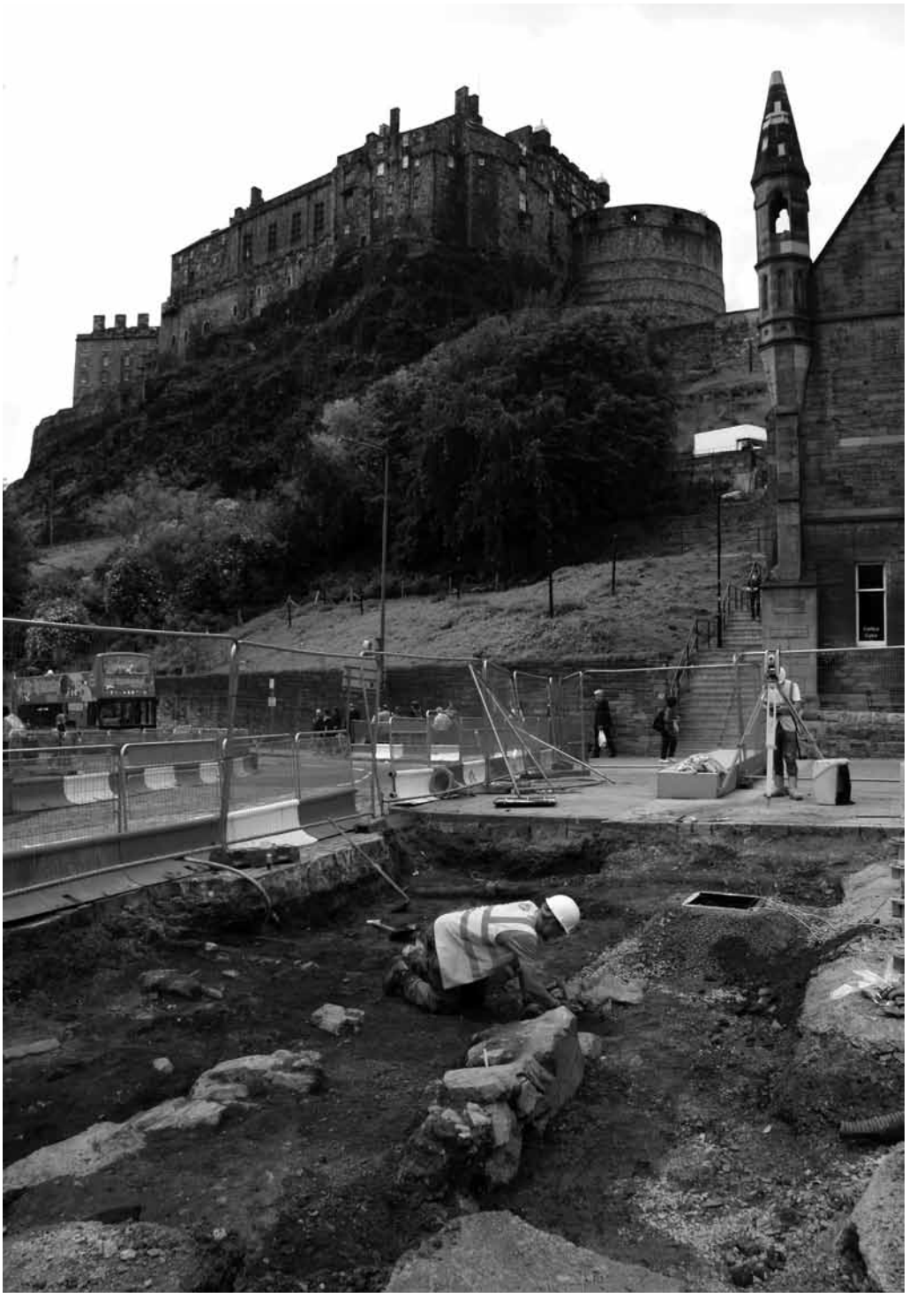
Horseshoes represent surprisingly rare finds on medieval sites as old shoes would have been recycled by farriers. The horseshoes recovered from the site therefore most likely represent chance losses; shoes thrown and lost in mud. A few other observations can be made about the finds retrieved from the medieval and post-medieval surfaces and leveling. Seville olive jars were large amphora-like vessels used to transport olive oil or honey from southern Spain, before the contents were decanted into smaller containers for sale to consumers. The distribution of olive jar sherds in Scotland is largely coastal, limited to ports and high status consumer sites. The discovery of the sherd at the Grassmarket adds something to our knowledge of the trade and redistribution networks between the port of Leith and the Edinburgh markets. The number of fragments from wine jugs and bottles would suggest that the Grassmarket was well served with inns and taverns.

THE 20TH CENTURY

An unusual feature uncovered in the excavations could be tied to the early 20th century. Part of a sizeable crater was exposed towards the centre of the Grassmarket (illus 4a) and can be linked to



ILLUS 9 Profile through a series of medieval and post-medieval surfaces and associated deposits



ILLUS 10 Remains of the Flodden Wall at the west end of the Grassmarket

a specific event: on the night of 2 April 1916 a bomb dropped from the German navy zeppelin L14 hit the market outside the White Hart Inn, injuring four people, one of whom later died. It is believed that the airship's targets were the docks at Rosyth and the fleet moored in the Forth. It was only when L14 and its sister zeppelin L22 encountered fire from the ships that they turned inland, dropping a number of high explosive and incendiary devices on the city (Mullay 1996).

PART II: DISCUSSION OF THE EARLY HISTORIC REMAINS

The excavations in the Grassmarket were of a keyhole nature and the evidence from them relating to Early Historic settlement is admittedly limited. However, the remains relating to this period are singled out for further discussion because such evidence from excavations in urban Scotland is itself extremely limited, as shown below. Also, further excavation on a sufficiently large scale to fully determine the nature of early settlement in the Grassmarket seems unlikely in the foreseeable future, and there is little prospect of a better opportunity to explore the site's significance.

THE ANGLIAN REMAINS IN CONTEXT

A recent assessment of sites in Northumberland north of Hadrian's Wall has produced evidence for diverse settlement types evincing the merging of native and Germanic influences in the period AD 400–700, resulting in an 'Early Anglo-Saxon society with an undoubted indigenous character' (Loveluck 2002: 136). An existing Roman Iron Age settlement hierarchy was taken over, and a new 'Germanic' style of architecture introduced. This is apparent in the presence of Grubenhäuser (sunken floored buildings) in the Milfield Basin, Northumberland and on the coast at Dunbar (ibid). Timber halls at Whithorn, Lockerbie, Titwood and Doon Hill, Dunbar indicate that a number of characteristic features belonging to a widespread building tradition found in 6th–8th century AD England were also present within what has become modern southern Scotland (see Hope-Taylor 1980; James et al 1984; Hill 1997; Johnson et al 2005; Kirby 2006).

A Grubenhäus identified at Ratho, approximately 10km west of Edinburgh (Smith 1995) is a further indication of Anglian influence well within the borders of modern Scotland by the late 6th to early 7th century AD. Cist burials and Anglian place-names in Lothian have also been taken as archaeological indicators of this cultural expansion (Loveluck 2002: 142; Smith 1995: 116).

The prominent position of Castle Rock in relation to the surrounding hinterland is similar to other Early Historic fortified sites such as Bamburgh and Dunbar, although unlike these it is somewhat removed from the coast. As is likely at Castle Rock, these existing sites continued to be occupied by the nascent Anglo-Saxon population (Loveluck 2002: 136). The settlement at Castle Rock may well have been taken over and employed in a similar fashion to these fortifications, with an emergent Anglian aristocracy using it as a centre for the collection of tribute or tax renders in kind (ibid: 138).

The limited nature of the Grassmarket excavations did not lend itself to characterising the type or extent of Anglian settlement. Excavations at Hartlepool (Daniels 1988) encountered timber buildings dating to the early Anglo-Saxon phase with a floor area of 16 to 27 square metres. These monastic buildings were similar in terms of materials and construction techniques used in contemporary secular structures but were not as large (ibid). The greatest areas of deep excavation in the

Grassmarket seldom extended to 15 square metres and even small contemporary structures would probably not have been completely exposed had they lain directly within the extent of excavation. Given the ephemeral nature of the structural remains found elsewhere, such as at Hartlepool (Daniels 1988), Thirlings (O'Brien & Miket 1991) and Whithorn (Hill 1997) it is unsurprising that in the absence of large area excavation the identification of specific structures proves impossible.

The Grassmarket had previously been identified as a possible location of Anglian settlement. Harris (1996: 542) suggested that the name of the medieval Stok Well at the west end of the Grassmarket may have derived from the Anglian word, *staca*, a stake or boundary marker or *stoc*, an outlying steading. It is possible therefore that this may refer to the Anglian settlement or the demarcation of its limits. Whilst it has not been possible to identify the total extent of the settlement in the Grassmarket, the two groups of Anglian features were located more than 100m apart. If the features were associated with roughly contemporary structures, this would suggest a settlement of some size. If the two groupings of Anglian features are not contemporary then this might reflect a smaller scale settlement slightly relocated over time. A settlement located within the valley to the south of Castle Rock, and the putative site of *Din Eidyn*, and present for at least some of the time between the 7th and early 10th centuries is therefore the least we can tell from these features.

If we can assume some sort of dynamic between the two settlements, with the high status site located on Castle Rock, then what can we say of the settlement located in the valley now occupied by the Grassmarket? As seen above, the features were associated with typical domestic waste but there was also some indication of metal working in the vicinity and remains of shellfish and fish brought from the coast. Perhaps these start to suggest a site with more diverse activity than might be expected from a simple homestead.

The lack of any artefacts associated with the Anglian remains, such as combs or pottery, may suggest that the site was an area of low status habitation in comparison to that on Castle Rock. However it should be noted that finds from this period were also scarce on the Rock itself and throughout most contemporary sites in Northumberland (Driscoll & Yeoman 1997; Loveluck 2002; Petts & Gerrard 2006).

The faunal assemblage from Castle Rock from the period AD 300–1000 indicated that cattle were generally brought to the site either on the hoof or as complete carcasses (McCormick 1997: 205). Settlement at this time appears to have been restricted to the summit (Driscoll & Yeoman 1997: 45) leaving viable locations on Castle Rock where livestock may have been held and butchered. The absence of specialised butchering waste in the faunal assemblage (McCormick 1997: 205), however, may indicate that this was not taking place within the immediate vicinity. This and other specialised activity, such as metalworking, may have been occurring at a nearby site, such as the Grassmarket, established to service the high status site above.

EARLY MEDIEVAL CONTINUITY AND THE DEVELOPMENT OF THE BURGH

At the same stratigraphic level as the Anglian remains was a cobbled surface that had been covered by substantial accumulations of material. Insect remains from these accumulations suggested they had largely consisted of dung, presumably from livestock held nearby. Some butchery waste and goatskin leather offcuts suggested the processing of livestock and associated crafts. Radiocarbon dating indicates these deposits

accumulated when the area lay under Scottish control, some time between the early 11th to mid-12th century.

There appears some degree of continuity with the Anglian settlement; not only in terms of location and stratigraphy but also in that this area was being used for some fairly utilitarian processes. These processes may have continued to be wholly dependent on a high status site on Castle Rock, alternatively they may have been associated with what could be described as a proto-market. A central location used for gathering, processing and trading produce from a rural hinterland, and not solely focused on supply for residents at Castle Rock.

The good preservation of early features in the Grassmarket is certainly due to the colluvium that formed over them, and on the basis of dateable artefacts this occurred from the 12th–14th century. The colluvium is presumed to reflect a change in land-use upslope, which disrupted a stable soil profile and resulted in erosion. It is not possible to say what the specific causal processes were but similar colluvium was identified at St Patrick's Church at the eastern end of Cowgate (illus 2) and is also likely to have accumulated from the 12th–14th centuries (Jones 2011). This suggests that the deposition of colluvium, caused by a change in land-use on the ridge occupied by High Street, was widespread.

Edinburgh is mentioned as a King's Burgh in a charter of David I in the 12th century and High Street is thought to have existed in some form by then (Stevenson et al 1981: 2). This date corresponds to the earliest artefacts from the colluvium and the development of the burgh on the High Street ridge provides an obvious causation for widespread soil erosion and the deposition of colluvium over the existing ground surface in the Grassmarket. If this interpretation is correct, it confirms that the early activity associated with that ground surface should be seen in a pre-burghal context.

THE IMPLICATIONS FOR ARCHAEOLOGICAL FIELDWORK IN SCOTTISH TOWNS

Over a quarter of a century ago, the geographer Brian Dicks (1983: 28) observed in a discussion of the origins of the medieval town 'it is excavation alone that can determine the character of Scotland's pre-burgh settlements'. The author was optimistic that this information would soon be forthcoming. However, as noted more recently by Coleman, 'what … proto-burghs looked like is still unclear despite 25 years of urban archaeology' (2004: 313).

A review of the archaeological literature suggests that remains relating to pre-burghal settlements have been recorded only rarely during excavations in urban Scotland, but there have been enough positive results to suggest that they exist. Radiocarbon dates from a reassessment of the earliest phases of the mid-1970s Perth High Street excavations suggest settlement activity in the late 10th to early 11th century (Hall et al 2005), a similar date to the wattle lining of a boundary ditch excavated at 80–6 High Street (Moloney & Coleman 1997: 707). Excavation at Ronaldson's Wharf, Leith is reported to have revealed evidence of occupation on the shore from the 11th century onwards (Reed & Lawson 1999). The presence of pre-burghal settlements has also been inferred from early burials. Perry (2000: 323) has suggested the presence of a subsidiary site outside the high status site at Castle Park, Dunbar based on the size of an early cemetery. Cemeteries at North Berwick and Aberdeen have been found to pre-date the medieval foundation of the burghs (Addyman 2000; Macfadyen 2004; Cameron 2005, 2006); the earliest burials found in the excavations at St Nicholas Kirk, Aberdeen

are thought to date to the early 11th to early 12th century, although full confirmation by radiocarbon dating is still ongoing (Alison Cameron pers comm). The excavations in the Grassmarket give us another rare example of remains relating to a pre-burgh settlement and consideration of their nature and location might prove of use in finding further such evidence.

The Grassmarket remains were associated with no dateable artefacts; confirmation of their early date was by radiocarbon assay alone. During excavation the reason these features were thought potentially early was because of their stratigraphic location beneath colluvium, which was presumed to have been produced by later development upslope. It is worthwhile pausing to reflect that if the topography was different, and no colluvium had accumulated to separate these unassuming features from later activity, our assumption would surely have been that they were also later features, which happened to contain no pottery. Perhaps in a larger area the features' significance would have been obvious but it is small trenches that are usually required in towns, and urban archaeologists will need to be very alert to the potential of features that look superficially unrewarding if the Grassmarket remains are typical. We will also need to rely heavily on radiocarbon dating if, as noted by numerous authors (eg Dicks 1983), we are not likely to see archaeological remains in the north comparable to the large early trading centres of York, Dublin or London and, in comparison, our pre-burghal settlements were associated with an impoverished material culture.

Lastly an important point can be made about where the remains were found. They were not overlain by burgage plots on High Street. To date there has been an absence of pre-burghal remains from excavations around High Street (examples of some of the largest areas opened have been Schofield 1975, Masser et al forthcoming and Scott 2006, but there have been numerous small interventions). This statement is not offered as proof that such remains do not exist, especially given variable archaeological survival and the paucity of fieldwork opportunities around Lawnmarket. However, recent evidence for the deposition of colluvium from Grassmarket to the eastern end of Cowgate can be taken as an indication of a widespread change in land-use on the High Street ridge from the 12th century on. If we accept this is likely to have been a result of the development of the burgh, with associated settlement and cultivation, this implies that such activities had not already been extensive.

The 12th-century plots may have been laid out adjacent to existing settlement rather than over it. Elsewhere in Scotland a similar process occurred around some early religious sites, such as Whithorn (Hill 1997: 65) and also in a more direct analogue to Edinburgh next to a stronghold and estate centre in Dunbar (Perry 2000, but see also Dennison et al 2006: 74). Looking farther afield a recent review of the origins of English and Welsh small towns noted that the choice of site was often influenced by the presence of an existing settlement and, strikingly, the example used to illustrate this point, Steyning in Sussex, shows the High Street plots laid out adjacent to 10th–11th-century settlement (Dyer 2003: 89 and fig 1).

Given the scant positive evidence we cannot yet be confident when assessing the potential for pre-burghal settlement in our historic towns. It is clear, however, that we should not just concentrate on areas occupied by medieval plots. This may be of particular importance when advising on mitigation associated with the planning process, where it might be assumed that developed locations outside an apparent medieval core have a

low or negligible archaeological potential. Also, it might prove worthwhile to look for irregularities around the edges of burghs. These irregularities may indicate the locations of earlier settlement that influenced the initial laying out of plots.

Although the results from the Grassmarket only came from a handful of features they may provide some further examples to help us identify more pre-burghal settlement in Scottish towns and, if so, they will have rewarded the effort required to ensure their recording.

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