4. THE FINDS

4.1 Pottery assemblage

George Haggarty and Derek Hall

The archaeological excavations from the Contextualising Hume Project retrieved 383 sherds of pottery, tile, and clay pipe. The authors have examined all the material by x10 hand lens and where possible it has been assigned to a recognised fabric name. A full catalogue of the decorated pottery sherds can be found in Appendix 1. It is indicated where sherds from the same vessels are present in different contexts. The catalogue of undecorated pottery and clay pipe fragments can be found in Appendix 2.

4.1.1 Undecorated pottery and clay pipe

Derek Hall

One hundred ninety-seven of the sherds in the assemblage are small body sherds from vessels in standard white earthenware, brown glazed earthenware, slip decorated redware, salt glaze stoneware, redware tiles, and daub, all of which are of 19th century date. There are only six sherds from C003 (Hume Glebe) and C017 (Hume Castle) which are potentially of a slightly earlier date. The three sherds from C003 are abraded glazed body sherds in Scottish post medieval oxidised ware of 17th/18th century date (Haggarty et al 2011). The three from C017 are very abraded redwares which are slipped white on one side. Similar fabrics have been recently identified from on-going excavations at Shootlinglee, Scottish Borders where they are dated to the 17th century (Hall & Brorsson forthcoming).

The 22 fragments of clay pipe in this assemblage are dominated by largely undecorated or stamped pipe stems; there are three pieces from bowls. A stem from C2002 (Small Find 145) is marked with the letters '…ERWICK' which are surrounded by dotted lines and have a pattern of four dots after the letter 'K' (Illus 14). This is liable to be of 19th century date and when complete was probably stamped 'Tennant & Son' 'Berwick' (PAS 2004, Find ID 70471).

Illus 14 Clay pipe stem from C2002, Trench 2 Hume Castle grounds, marked '..ERWICK' (Image by Heritage and Archaeological Research Practice)

4.1.2 Decorated pottery

George Haggarty

The assemblage contained 164 fragments or sherds of decorated pottery, with 160 of these coming from Trench 2 in the castle grounds. Two decorated sherds came from Trench 1 in the castle grounds, one decorated sherd came from Test Pit 3 in the castle grounds, and one decorated sherd came from the excavations in Hume Gardens. It is a fairly mundane assemblage of industrial produced ceramics, containing nothing whatsoever of any status; it is much more reminiscent of those groups recovered from poor Scottish rural sites. Apart from a couple of sherds which just might slip into the 1790s, the material all dates from the 19th century, and mostly from the second half of that century. The assemblage displays no evidence to suggest the use of middle-class tea or dinner services and the sherds which may be earlier in the century are mostly badly frost damaged, suggesting that they lay on the surface for a period. Much of the material, such as the sponge printed, was produced over a long period of time, so in most cases it has only been possible to suggest a 25-year date span.

4.2 Glass assemblage

K Robin Murdoch

The assemblage of glass from excavations during the Contextualising Hume Project consisted of 370 shards, which were identified as follows: 303 bottle shards of various types, 57 shards of window glass, seven table vessel shards, and three other shards,

namely a spectacle lens, a jewellery bead, and a small button or stud. A full catalogue of the glass shards can be found in Appendix 3.

Most of the shards were small and in excellent condition which, to an extent, made identification and putative dating a bit more complicated. Glass lying in a buried environment often corrodes and the nature and intensity of this can help to identify and approximately date the shard/artefact. Corrosion is related to three basic factors: firstly, the pH of the buried environment, as glass is usually unaffected by acidic or neutral conditions but will corrode readily in alkaline conditions such as that deriving from the use of lime mortar in nearby structures; secondly, the amount of moisture in the ground can have a significant effect; and lastly, the composition of the glass itself. Despite the fact that there were 370 shards, they were recovered from only ten contexts; one from the Glebe, two from Hume Gardens, and seven from the castle grounds. Indeed, of the 367 recovered from the castle grounds, all but 38 were recovered from C2002.

Portable XRF (pXRF) analysis was carried out on one sample of each of the types of window glass identified (categories A–L) plus the 'jewel' SF80, and table vessel shards SF60 and 79.

4.2.1 Bottle glass

The bottle glass shards were recovered from a variety of bottles dating from the 18th to 20th centuries. There are undoubtedly a considerable number of 18th century bottle shards in the assemblage but very few carry diagnostic features, most are small and not straightforward to recognise. In common with many other Scottish sites, there is a prevalence of shards from wine or ale bottles. In the 18th century they were very similar in size and shape (Turnbull 2001: 275) and for that reason the term wine bottle is used universally in the catalogue but the original purpose could have been either. Throughout the 18th century and into the early 19th century these wine bottles were typically a dull mid-green colour. Black or brown glass bottles are seldom found in Scotland before the first quarter of the 19th century, unlike in England. This was in part due to the differing tastes in wine between the two countries; Scotland consumed sacks and clarets whereas port was a common English import from the early 18th century. Port is a bottle maturing wine and black glass was preferred to stop strong light spoiling the contents. Wine bottles proved to be very useful universal containers and most base shards from Hume have considerable base-ring (BR) wear from re-use. Many would have been re-used over a considerable timescale and also contained liquids other than wine or ale, so manufacturing date could differ significantly from loss date. In more affluent households wine bottles tended to be used as decanters at table, rather than for storage, which no doubt also accounted for much of the base ring wear.

The glass wine bottle was introduced into England *c* 1630 from the continent and quickly became the accepted container particularly for alcoholic drinks, supplanting pottery alternatives. The shape evolution of the wine bottle from its inception through to the advent of semi-automatic moulds in 1821 and even later was quite drastic (Dumbrell 1992: 29–32). If enough of the bottle survives, or even a distinctive portion, then an approximate date of manufacture can be established. Glass bottles were initially very expensive and many owners/users had theirs identified by the means of an applied seal, usually on the shoulder of the item. These seals might have names of individuals, tavern logos, vintners, and even heraldic devices on them. However, the most important factor is that many carried dates which has allowed an accurate chronology to be developed (ibid: 26–9). The shards retrieved from Hume are typically small, however, there were a number that retain enough detail for approximate dating.

SF74 included a very small section of string ring (the protruding ring just below the lip, so-called because it was originally used to tie on the closure before the introduction of the internal cork in the later 17th century). Even after the introduction of corks, string rings were retained as a means of reinforcing the neck for the insertion of the cork. The string ring from SF74 was rounded in section and neatly made indicating a probable early 18th, perhaps even late 17th, century date. Contrarily, SF237 has a triangular section string ring, which is a later form, that is nipping in the neck which is typical of the late 18th century. SF125 indicates a diameter of *c* 100mm and has belling; a feature that appears on wine bottles between *c* 1740 and *c* 1840. During that period bottles were blown in dip

moulds to render them approximately cylindrical, presumably to try to standardise capacity, whereas previously they had been free-blown. The kick (the indent in the base), however, was created after the bottle was removed from the mould. At this point the glass was still soft and not constrained by the mould, resulting in the lower body tending to splay outwards and creating a characteristic bulge just above the base. Belling was an almost universal feature of wine bottles from *c* 1740 until Henry Ricketts of Bristol introduced his semi-automatic moulding machine in 1821. These moulds would not have been adopted immediately at all works and it is reasonable to allow around twenty years for their universal use to be adopted. The colour, diameter and shape of SF125 is indicative of a third quarter of the 18th century date. The almost complete inkbottle from SF81 is another regular on Scottish sites and whilst the example from Hume looks as if the neck has been broken off, only a small piece is missing. SF81 displays a shear-lip, a cheap and quick technique where the bottle is simply sheared off from the blowpipe and not finished off into a smooth or regular lip form, therefore leaving a jagged edge. An oversize cork could then be simply jammed on to the bottle for closure. A few of the other bottle shards in the Hume assemblage could also derive from shear-lips, especially the copper-blues. This is definitely the case with the shards from SF107. Shear-lips were very popular from the mid-19th century in a range of particularly small bottles, possibly up to *c* 1914. The very small shard from SF217 retains just enough to identify it as part of a probable Codd bottle (glass marble closure), one of a myriad of 19th century inventions to seal aerated water bottles; patented by Hiram Codd in the 1870s, it was popular at least up to *c* 1914. The very pale blue bottle shards similar to SF188 probably came from medicine bottles of the late 19th to 20th centuries.

4.2.2 Window glass

Fifty-seven shards of window glass were recovered and were nominally divided into 12 different types. These samples were allocated alpha references A–L and one sample of each type was selected for chemical analysis. Following analysis, type F was redefined as a probable 19th century flat-sided bottle shard. Of the remaining 11 types, C and D are very similar and could have come from the same batch. Similarly, H, I, and perhaps even J, are possibly from the same or similar batch. This reduces the likely number of different types to eight.

Type A was the only recognisable 18th to possibly early 19th century variety present. Comprising 19 shards exclusively from C2002, it is a standard kelp-fluxed glass dated by Dungworth and Girbal to *c* 1700–1835 (Dungworth & Girbal 2011: 2). Types B to E are of a type not included in Dungworth's analysis, but whose composition has been seen elsewhere (Dungworth pers comm). This author has also seen the composition quite frequently with examples including from Whitefriars in Perth and Botanic Cottage in Leith, which yielded examples from probably later and earlier contexts respectively. Perhaps more significantly, it was present in surviving windows in Traquair House, by Innerleithen, in a wing dated to 1690 and where the fenestration appears to be original. It is a high lime low alkali (HLLA) glass with at least some kelp in it. Dungworth assembled his chart from analysis of window glass of known reliable dates but had no dated examples of this composition to include in his analysis. HLLA window glass composition originated in Germany during the 14th century and had spread to France in the 15th century. It was then introduced into England around 1570 by Huguenot glassmakers escaping religious persecution. Dungworth dates the changeover from HLLA to pure kelp fluxing to *c* 1700 and, considering that many early glassmakers in Scotland had come from England, it is probable that a similar composition change took place there around the same time. It is, therefore, not unreasonable to assign a date of the second half of the 17th century to the Hume types B to E. Even allowing for a slight slip in date for the changing technique to spread to all manufacturers, this glass type is extremely unlikely to date to later than *c* 1710.

The other main group of window glass types is synthetic soda fluxed, introduced into Britain in the 1830s. Synthetic soda was sodium carbonate derived from sodium chloride in a process developed by Nicolas Leblanc in France *c* 1790 but not adopted in Britain until much later because of the Napoleonic wars. Leblanc's process was superseded by another developed by Ernest Solvay in the 1860s. The earlier

window glass types up to *c* 1835 were plant ash fluxed and the synthetic soda varieties required slight compositional tweaks as the production process developed during the 19th and 20th centuries. This initially included a small amount of arsenic to help purge bubbles from the melt. Types G to K have this arsenic component present and can therefore be dated to *c* 1835–1870 (Dungworth & Girbal 2011: 2). Type L does not contain arsenic but does contain magnesium; this is an indication that it is an automatically drawn glass probably of *c* 1930–1960 date (ibid).

When looking at the distribution of the different types of window glass from the grounds at Hume Castle, the early HLLA varieties were the only types that occurred in Trench 1. Trench 2 yielded examples of all types except types C and E (Table 1).

4.2.3 Vessel glass

Seven shards of vessel glass were recovered, of which, two substantial pieces were in white opaque glass similar to cosmetic jars whilst a third displayed slight translucency. All three appear to have been tableware, but the two opaque shards (SF60 and 224) quite probably came from the same, stemmed 'bowl'. The analysis of this glass indicated 27% lead and 6% arsenic, which would have created the opacity. The slightly translucent shard SF79 is probably 19th century country-market glass, sometimes known as milk-and-water glass, made for fairs, gifts, and souvenirs (Newman 1977: 79). The partial opacification in this case was from calcined bone (calcium phosphate), and the glass itself was a cheap imitation of opaline glass, a French type popular between *c* 1810 and 1890.

The three clear shards from SF104 and 105 have no distinguishing features other than that they are thin and probably come from a drinking vessel(s). The thinness of the glass might indicate a date prior to *c* 1845 (the date at which tax on glass was repealed). The final vessel shard is a section of foot from a stemmed vessel (SF171), possibly a drinking glass but with a diameter *c* 90mm therefore perhaps more likely a stemmed bowl of sorts. The pontil scar (the rough area in the centre of the underside of the foot where the pontil rod was attached) has been neatly ground off and the profile of the foot is relatively flat. From *c* 1750 the pontil scar was ground off on better quality wares and had completely gone by *c* 1850 (Newman 1977: 246). Because of the ground-off pontil scar and the flat profile this shard is probably very late 18th to mid-19th century.

4.2.4 Miscellaneous

A black glass bead from SF80 is probably from a double stringed necklace; there are two holes through the bead which would have allowed it to be strung with the long axis vertical. It is quite crudely made with the rear effectively unfinished and the facetting indistinct. It appears that the facetting is the result of moulding rather than cutting given

Table 1 Distribution of window glass types. Identification of glass types: A: kelp fluxed *c* 1700–1835; B–E: high lime low alkali with kelp component. No positive dating as yet but probably 1650–1725; G–K: synthetic soda 1, *c* 1835–1870; L: synthetic soda 3, *c* 1930–1960

Context	Type										
	A	B	C	D	E	G	H	I	J	K	L
1002					2						
1003		1	1	3							
1004			3								
1006			1	1							
2002	19	10		1		5			2	1	2
2012							3	2			

* After analysis type F was identified as probable 19th century bottle glass from a flat-sided container.

the slightly rounded edges. It is most likely a piece from funerary jewellery which was popular in the later 19th century following the behaviour of Queen Victoria after the death of Prince Albert. The only approximate Scottish parallel this author has seen is a facetted glass jewel (also moulded not cut) from excavations at Botanic Cottage in Leith Walk, Edinburgh (built post 1763). This was the site of the Botanic Garden before it moved to Inverleith in 1820, however, the cottage was occupied long after that. Although the composition varies significantly with the Hume specimen in terms of proportion, the actual range of elements present are exactly the same.

A small oval spectacle lens from SF61 is also probably of 19th century date. Oval lenses appear to have been popular from just before 1800 through to about the 1920s but there is no framing evidence which would allow closer dating. The fact that both the inner and outer faces have been ground, however, might suggest later rather than earlier in the timescale. SF138 yielded a small button or possibly collar stud in opacified white glass of similar type to the vessel glass SF60 and 224, and is again probably Victorian, perhaps from a bodice-type garment or possibly for fixing a gentleman's detachable shirt collar.

4.3 Metal assemblage

Fraser Hunter, with contributions from Calum Robertson and Carl E Savage

From the excavations of the Contextualising Hume Project, ten items from secure contexts in the castle grounds were submitted for analysis, along with an unstratified cannonball found in the garden of West End Cottage. These items consisted of eight iron items, one piece of unclassified iron-working slag, and a coin (Illus 15). A catalogue of these items is provided below.

Most of the iron finds are intrinsically undatable but consistent with the early modern date suggested by the ceramics; the cleek from a gird and cleek toy is most likely 19th century. However, there are indications of earlier activity. A cast-iron cannonball was identified by Calum Robertson as a four-pound ball most likely of 17th century date, a period when conflict is attested at the castle, with the castle destroyed in 1651 (see Section 2.2). The only copper-alloy find is a French coin, identified by Carl E Savage as a billon 'double *tournois à la croisette*' of Francis I (1513–47). Such 16th century French coins appear in Scotland from time to time both as single finds and in hoards. The general assumption is that they entered Scotland with French troops who were present in the country during the troubled early years of Queen Mary.

Of the other finds, several are fittings likely to derive from the buildings or activity within them: looped fitting SF28 and nail SF47 from Trench 1, and the oval loops SF238 from Trench 2. Two tools were found, a sickle, SF45, from layers under the identified stone floor in Trench 1, and a fine but incomplete knife blade, SF271, found on a possible compacted surface or floor in Trench 2. Perhaps the most striking find was a fine hooked iron tool with a bone handle, SF46, found within slumped wall material on top of an external surface in Trench 1. The loss of the tip makes identification tricky; it could be a textile-working tool, but its small size suggests instead it was a nail cleaner, and the decorative treatment of the iron shaft is consistent with such a personal function.

4.3.1 Copper alloy

Carl E Savage

▸ SF242 C2002

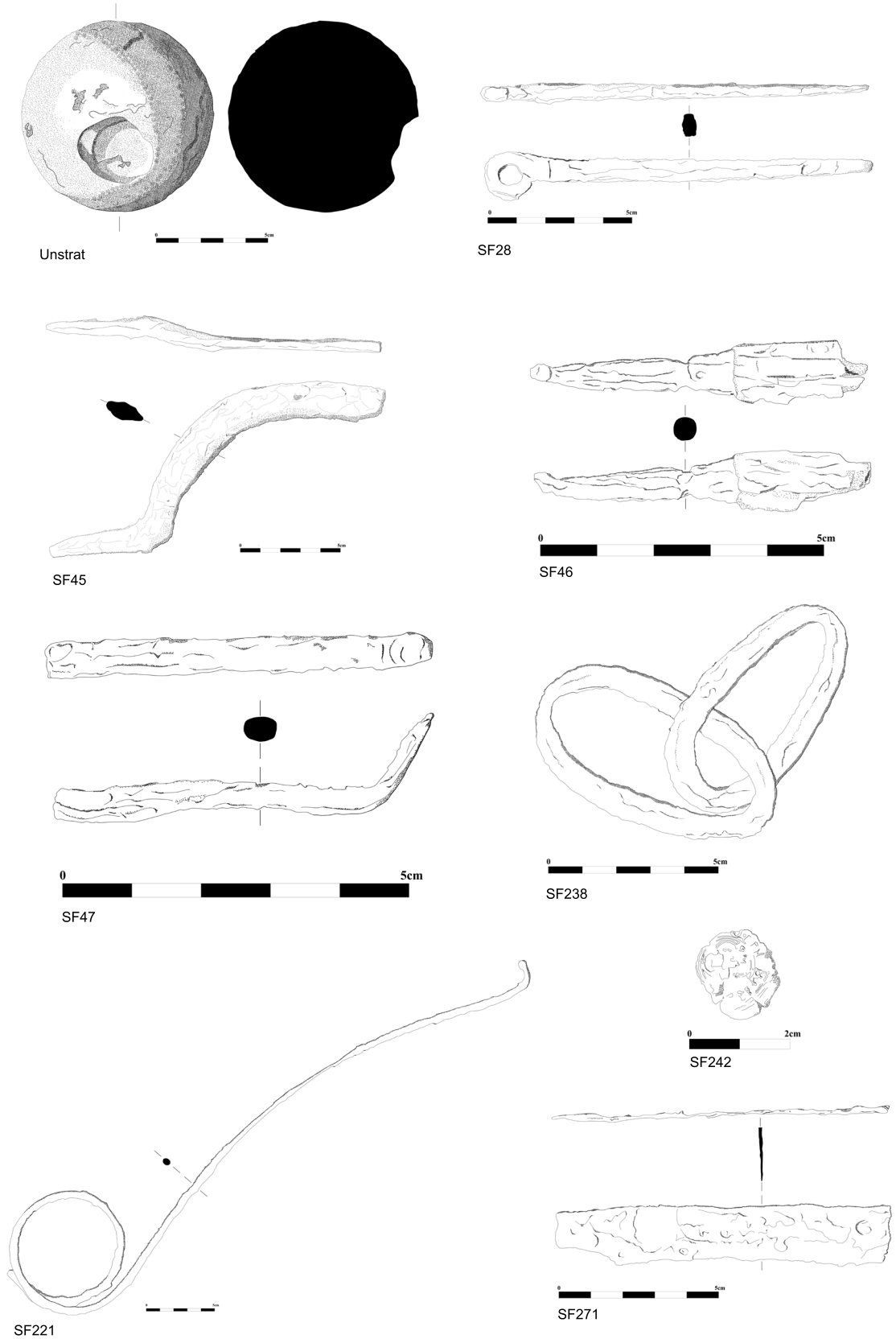
French hammered billon double *tournois à la croisette* of Francis I, uncertain type, dating to 1513–47.
Obverse: Three *fleur-de-lis*. Largely illegible. The surviving legend is +FRAN D[…]
Reverse: small, plain cross in the centre of a quatrefoil. The surviving legend is […]NI BEN[…]
Die axis: 180 degrees
Diameter: 18mm
Chipped, with parts of the outer edge missing.

4.3.2 Iron

Fraser Hunter, with contribution from Calum Robertson

▸ SF28 C1003

Looped fitting with rectangular-sectioned shank expanding from blunt, chisel-like tip to the head, where it is thinned and turned into a circular loop (internal D: 7mm, external D: 16.5mm). The tip form suggests it was designed to be driven into wood. L: 134.5mm, shank expanding from 2×4mm to 5.5×8mm



Illus 15 Metal finds from Hume Castle grounds and West End Cottage: unstratified cannonball; SF28 looped fitting; SF45 sickle; SF46 hooked tool with bone handle; SF47 nail; SF221 handle (cleek); SF238 chain loops; SF242 coin; SF271 knife blade (Image by Heritage and Archaeological Research Practice)

▸ SF45 C1013
Fragmentary balanced sickle with short tapered tang and parallel-sided blade, broken at the end. There is no indication of a strong return to the curve, and it is likely it was quite an upright form. L: 183mm; tang L: 46mm, section 12×7mm; blade W: 17–19mm, Th: 5mm

▸ SF46 C1017
Fine hooked tool with remains of bone handle. Circular-sectioned shank, thickened just below the extent of the handle and then formed into a baluster moulding before tapering to the broken hooked tip. The broken tip makes identification tricky, but its decoration indicates it was a personal item. It could be a fine textile-working tool, although the short working length (only 35mm) is more suggestive of a toilet instrument such as a nail cleaner. L: 59.5mm; handle L: 23mm, D: 10.5mm; tang D: 5mm; active tool length 35mm, D: max 6mm

▸ SF47 C1017
Bent nail, the shank slightly sinuous, tip bent through *c* 120°; head end slightly distorted and lost. Square section tapering to rectangular-sectioned chisel-like tip. L: 55.5mm, section maximum 5×4mm

▸ SF221 C2012
Handle (cleek) from a gird and cleek toy, where the handle was used to control an iron ring. Late 19th century. Sinuous rod, one end rolled into an open spiral of 1¼ turns, the other end upturned into a finely knobbed terminal. L: 450mm; loop external D: 87mm; rod D: 5–6mm

▸ SF238 C2014
Two oval loops from a chain, one fairly symmetrical, the other tapered at one end, which shows pronounced thinning, as does one end of the symmetrical one. First (symmetrical): 74×40mm, rod D: 8mm; Second (tapered): 68×37mm, rod D: 8.5mm

▸ SF271 C2012
Knife blade with fine parallel-sided blade, broken at both ends. Cutting edge corroded, but a slight concavity indicates it has been resharpened. Tapers slightly in thickness to one end, presumably the tip. Corrosion damage at the other creates the false impression of stepping into the tang, but this is not preserved. A line in the corrosion on both faces suggests it has a separately welded cutting edge, presumably of steel. L: 106, H: 19, Th: 2.5–4mm

▸ Unstratified (Hume Gardens) Cast iron cannonball
Has a shallow indent some 27mm in diameter on one face, probably from the casting. Slightly irregular surface. D: 73×77mm, M: 1680g

Calum Robertson writes: this is a (roughly) 3 inch / 4 lb ball, most commonly associated with a type of cannon called a Minion, but used in a variety of artillery pieces. It dates probably to the 17th century, but could range from the end of 16th century to the start of the 18th century. Commenting on distance is difficult when the actual artillery piece is not known, but it is probable that the type of gun for this cannonball would have been accurate up to around 300m. The cannonball is small so the artillery piece could have been easily moved and repositioned and it is quite possible it was being fired at a closer range (150m). Alternatively, it may be evidence of a misfire; there is a lot that can go wrong – especially in the heat of battle, with an inexperienced gun crew – and it may well be that the powder was damp or the charge too small.

4.3.3 Vitrified material
Fraser Hunter

▸ SF43 C2012
Unclassified iron-working slag, non-magnetic. Not diagnostic of either blacksmithing or smelting. M: 35.5g

4.4 Animal bone assemblage
Jennifer Thoms

A small assemblage of animal bones recovered from the excavations at Hume Glebe and Castle were submitted for analysis. There was a total of 17 bones in the assemblage, of which eight were identifiable to element and species (Table 2).

The bones were identified to element and species, where possible, and then examined under strong light and low magnification in order to assess their state of preservation and presence of any taphonomic indicators. Taphonomic indicators are signs or markings visible on the bones that can indicate if

Table 2 Animal bone typologies and species

Site	Find Number	Context Number	Element	Species	Side	Fragment	Preservation	Age	Taphonomy
Castle	70	2003	Femur	Sheep / goat	?	Mid shaft	Fair	N/A	None
Castle	91	2002	Astragalus	Sheep / goat	Left	Almost complete	Poor	N/A	Worn / eroded
Castle	196	2002	Canine tooth	Pig (male)	Right	Fragment	Fair	N/A	None
Castle	214	2002	Possible humerus	Cattle-sized	N/A	Near distal end	Fair	N/A	None
Castle	268	2012	Mandible with molar teeth	Sheep / goat	Right	Mandible with molars 1 to 3	Fair	6–8 years	None
Castle	281	2011	Fourth deciduous pre-molar	Sheep / goat	?	Fragment	Fair	N/A	None
Glebe	2	002	Canine tooth	Sheep / goat	?	Almost complete	Good	N/A	None
Glebe	10	010	Rib	Sheep / goat	N/A	Mid shaft	Fair	N/A	None

anything has happened to the bone since the death of the animal. Examples would include butchery marks, charring or burning, and recent breaks. The state of preservation was assessed by visual appraisal of the surface of the bone, and assessing how much, if any, had eroded away to expose the cellular inner structure of the bones.

Identification followed metrical and morphological criteria detailed in Schmid (1972) and Hillson (1986), with distinction between sheep and goat following Boessneck (1969) and Payne (1985). It is not possible to distinguish every element on the skeleton between sheep and goat, so there is usually a large proportion of any assemblage that can only be classed as sheep/goat. Ageing followed Silver (1969), Grant (1982), Halstead (1985), and Payne (1973).

The bones derived from cattle, sheep or goat, and pig. The pig bone was a canine tooth (tusk) from a male pig; two unidentifiable fragments within the assemblage may have been from the mandible that had contained that tooth. In general, the bones were in fair condition (76% of the assemblage), with only one tooth being recorded as in good condition, and three bones being in poor condition (where more than half of the outer surface has been eroded away). The well-preserved tooth came from the Glebe site, while the three bones in poor condition came from the Castle.

Only one bone, a sheep mandible, had any indication of the age-at-death, suggesting a well-aged animal of six to eight years old. Two bones showed signs of having been burnt or charred.

A small assemblage such as this can provide little evidence of food consumption or husbandry in the past, but it does give information about preservation conditions and site formation processes. The presence of a pig tooth is interesting, pigs being relatively rare in the archaeological record compared to sheep and cattle.