

CHAPTER 7

Modern Excavation and Regeneration, 1999–2018

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Of course whenever a motte was thrown up, the first castle upon it must have been a wooden one. A stone keep could not be placed on loose soil. The motte, therefore, must always represent the oldest castle (Armitage 1912, 82)

It was not until the turn of the 21st century that any systematic archaeological excavation was undertaken on the site of Sheffield Castle; all previous investigations had only been able to examine construction trenches and shafts. Two campaigns of archaeological evaluation were carried out by ARCUS in the PPG16 era: a single trench across the castle's east moat was excavated in 1999 (Davies 2000; Figure 7.1), while in 2001 two trenches were dug within its projected northern edge (Davies and Symonds 2002; see Chapter 1, Section: Sheffield Castle rediscovered: 1927–2001). Although there were brief summaries of this work in the annual report on archaeology in the region by South Yorkshire Archaeology Service (SYAS) (Saich and Matthews 2005; 2006) and the excavations were reported on in the *Castle Studies Group Bulletin* (Guy 2005), these remain unpublished. In 2018 Sheffield City Council commissioned Wessex Archaeology to undertake a comprehensive scheme of evaluation of the site, comprising 11 trenches and 21 geoarchaeological boreholes strategically positioned across Castle Hill and the line of the moat (Figures 7.2 and 7.3). This fieldwork was undertaken between 13th August and 20th October 2018, and was the first large-scale investigation of the archaeological remains on the site. Unlike the archaeological recording carried out in the early and mid-20th century, this project was not conducted principally out of personal commitment to heritage, nor was it undertaken on an *ad hoc* basis over lunch breaks (see Chapter 4, Section: Sheffield Castle in 1958: the threat of post-War redevelopment). It was, in contrast, a commissioned piece of modern excavation, whose methodology and quality were standardised, closely monitored and reviewed by SYAS, advisers to Sheffield City Council, and a wider Project Board, comprising representatives from Wessex Archaeology, Sheffield City Council, the University of Sheffield, Historic England and the Friends of Sheffield Castle.

In this chapter the results of the excavations undertaken by ARCUS and Wessex Archaeology will be synthesised and set in the context of the work on the site carried out in the early and mid-20th century. The chapter

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Figure 7.1: *The east moat of the castle as exposed in the excavations conducted by ARCUS in 1999. These photographs show the metal shoring used in modern excavations, which is a great contrast with the ways in which the walls of trenches were braced in the early and middle decades of the 20th century, when timber, sometimes just reused doors, was used, if anything. University of Sheffield.*

Figure 7.3 (page 217): *Aerial photograph of the site showing the locations of the trenches excavated in 2018. Wessex Archaeology.*

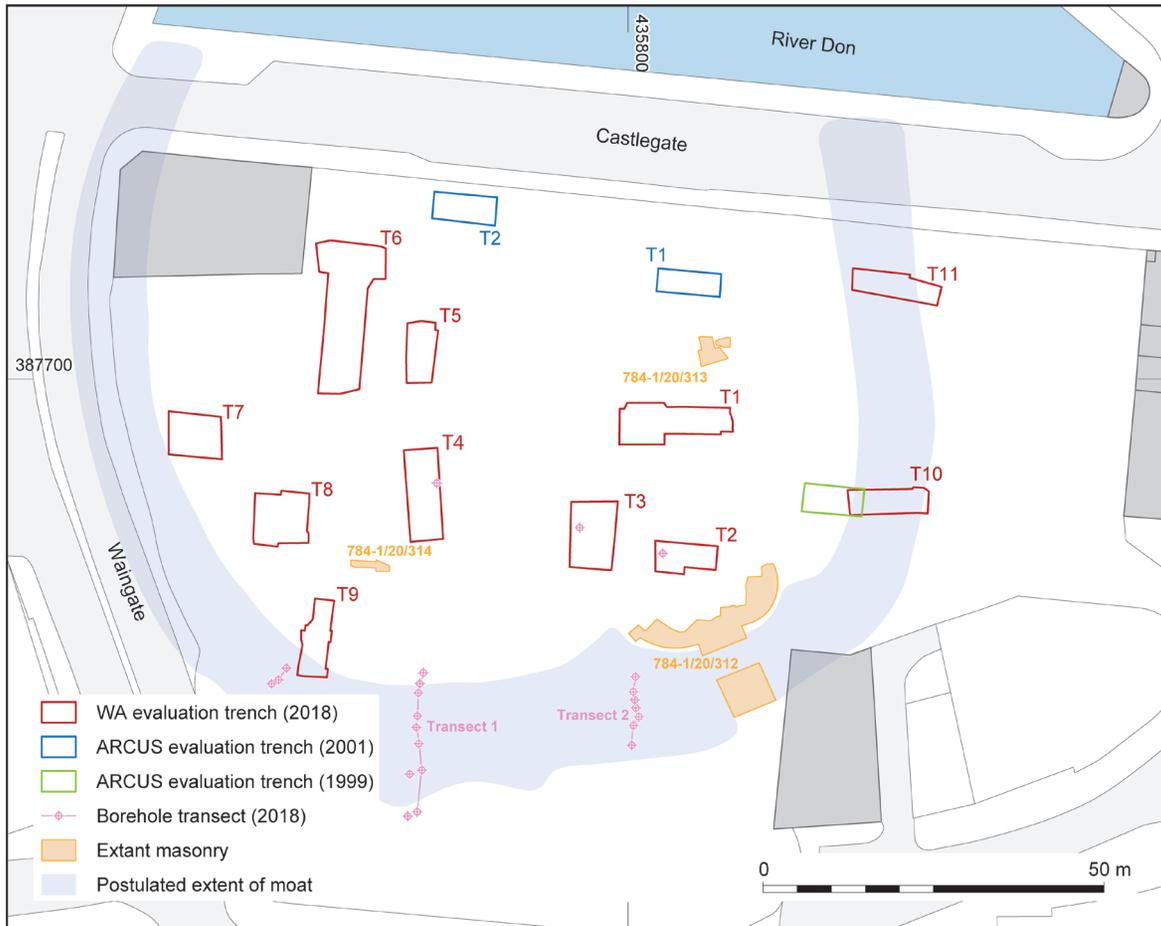


Figure 7.2: Excavations on Castle Hill. This plan shows the location of the trenches excavated by ARCUS in 1999 and 2001 and by Wessex Archaeology in 2018, as well as the probable line of the moat and the castle remains uncovered in the 1920s and 1950s. Wessex Archaeology.



will first outline the excavation methodologies, some of which were used for the first time in the history of archaeological investigation of the site; these have resulted in considerable improvements to our understanding, not least concerning chronology. We will then describe the results of the excavations, including the artefactual assemblages, and compare them with the findings of earlier archaeological investigations.

These modern excavations (1999, 2001 and 2018), along with the 2018 borehole survey, have reinforced our ideas about the scale and form of Sheffield Castle, and have shown that in places more is preserved than was previously expected. The 2018 evaluation confirmed many of the findings of earlier generations of archaeologists, albeit that, as we will see, we have been able to refine the dating of phases of activity. It also provided significant new information relating to the castle's origins, and was the first detailed study of the post-medieval remains of the site. The Wessex Archaeology excavations, in other words, were the first investigations of Castle Hill to explore the deep history of this locale (including, but not limited to, the castle), with significant implications for how to deploy its heritage in the interests of regeneration.

Old practices and new technology

Unlike the excavations undertaken in the early and mid-20th century – for which no formal brief was issued and the context and aims of which we have had to reconstruct from interrogation of their archives – those conducted by both ARCUS and Wessex Archaeology had a clear mandate and strategy. As plans for the future of Castle Market were being explored by the City Council in the late 1990s, ARCUS was commissioned to undertake a programme of archaeological and cultural heritage assessment. As noted in Chapter 1, a desk-based assessment was produced in 1998 by Paul Belford and three evaluations were conducted (Belford 1999; Davies 2000; Davies and Symonds 2002). Their principal aims were to assess the potential survival of archaeological remains, of both the castle and subsequent developments on the site. Belford's (1998, 1) desk-based assessment was intended to accompany a planning application, and to provide a strategy for future archaeological work. It was written in accordance with the Institute for Field Archaeologists' (1994, 1) definition of a desk-based assessment as a collation of existing written and graphic information in order to identify the likely character, extent, quality and worth of the known or potential archaeological resource in a local, regional or national context.

The desk-based assessment was largely informed by the South Yorkshire Sites and Monuments Record, maintained by SYAS, historical sources held by Sheffield Archives, and a limited range of secondary sources, including Armstrong's 1930 paper. Belford (1998, 10–24) argued for the potential for surviving archaeological remains beneath modern development on the site, particularly where they had not been disturbed by deep foundations, and recommended that future work 'should sample as wide a range of deposits as possible across the site' (Belford 1998, 35). He also drew attention to PPG16 paragraph 12, which required developers to prepare 'sympathetic designs' where important archaeological remains were known or suspected, by positioning foundations to avoid them, raising ground levels of any new structures on the site, and careful siting of landscaping. While highlighting the possibility of exposing some of the remains, which 'would be of considerable interest to the people of Sheffield ... an excellent and far-sighted long-term solution', he recognised that the other solution recommended by PPG16, in paragraph 25, would be more likely, which was to preserve the remains 'by record' (in other words, in the detailed plans, sections, photographs and notes made during excavation) (Belford 1998, 25, 36).

The ensuing ARCUS excavations were not the wide-ranging assessment that Belford's report advocated, as buildings were still in use and access was limited. In 1998 an evaluation was conducted to the east of Shude Hill in the Broad Street car park, in advance of a proposed large-scale development of the wider markets area, on behalf of Tarmac Development Management. SYAS had agreed that 'an *ad hoc* programme of archaeological evaluation [was] acceptable, with trial trenching being undertaken as and when open space becomes available' (Belford 1999, 1). Thus, despite the recommendations of Belford's desk-based assessment, financial reality and logistics determined that a piecemeal approach would be adopted to the recommended 'preservation by record'. Two trenches, each 10m by 22m, were excavated on either side of the Sheaf. Trench 1, on the west side of the river, was intended to explore 18th- and 19th-century activity on the site, while Trench 2, on the east side, was positioned to investigate 19th-century and earlier tenements. As well as the tanning pits referred to in Chapter 6, the excavations succeeded in demonstrating that the archaeology on the west side of the river,

closer to the location of the castle, was varied and included traces of medieval activity which had survived 19th-century industrial construction (Belford 1998, 36–7). The following year, ARCUS evaluated the area of the Castle Market lower loading bay on the east side of Castle Hill, targeting the moat with a single trench (9m × 4m) and four boreholes, which concluded that it was dry but acknowledged that the bottom had not been reached as deeper excavation was not possible. The excavations in both years sought to gather information about the ‘character, extent, state of preservation and date of any archaeological deposits’ (Davies 2000, 3; also Belford 1999, 9). Both excavations saw the value of collecting environmental samples, although insights from them were, in the end, limited. In 2001, ARCUS was commissioned to undertake additional evaluation while plans for Castle Market were further considered. A specific aim was to assess the survival of castle remains at the north of the site (Davies and Symonds 2002, 6). All three campaigns were conducted by small teams of professional archaeologists. Despite the limited scale of the excavations, they were instrumental in convincing the City Council to move the markets to a new site in the city centre (Minutes 2008; Chapter 1, Section: Sheffield Castle rediscovered: 1927–2001).

The 2018 investigations by Wessex Archaeology were commissioned by the City Council in the context of discussions about the regeneration of the area after the markets were moved in 2013, and required the excavation and recording of 11 evaluation trenches accompanied by a geoarchaeological borehole survey (Figures 7.2 and 7.3). The requirements of the evaluation were set out in a specification prepared by Ed Dennison Archaeological Services in 2014 (see Chapter 1, Section: The excavation archives and the city), updated by SYAS in 2017. This was then used by the Council in the tender process for the work to be undertaken, and, once commissioned, Wessex Archaeology addressed them in a Written Scheme of Investigation (Tuck and Rajic 2018, 13–15), based on guidance issued by the Chartered Institute for Archaeologists (2014) and agreed in advance of fieldwork with SYAS. Seven aims were identified, including:

to establish the presence/absence, nature, date, quality of survival and importance of any archaeological deposits ... to determine the profile of the [east] moat ... to gather information on the nature of the foundations of the former Castle Markets ... and, to inform the formation of a mitigation strategy and management strategy.

To achieve these aims, 20 objectives were established, supplemented by detailed rationales for each trench. In brief, the trenches were positioned to investigate the location and preservation of the remains of all phases of the castle and its fate at the end of the Civil War. More than this, however, there was an explicit focus on the recovery of information about periods largely ignored by the earlier investigations, for example the 18th and 19th centuries, when the site was occupied by a bowling green, slaughterhouses and the iron and steel industry. Further, the trenches were positioned to investigate areas where the level of preservation was uncertain, to fill in the ‘blanks on the map’ of our understanding of the archaeology and geoarchaeology of Castle Hill.

The 2018 archaeological team comprised four members of staff from Wessex Archaeology (Sam Birchall, Amy Derrick, Milica Rajic and Ashley Tuck), with two more (Liz Chambers and Richard Payne) conducting the borehole survey. However, reflecting the circumstances in which the excavations were devised, with a focus on public engagement and the wider regeneration debates within the city, there were also four students on placements from the University of Sheffield (James Chapman, Georgina Goodison, Paul Harrison and Isabelle Sheriff) and five volunteer members of the public each day. A further five volunteers were based each day at Wessex Archaeology’s Sheffield offices – located in a converted industrial building in Heeley on the western edges of the former deer park (see Chapter 8) – cleaning finds and undertaking other post-excavation tasks. In total, over 350 volunteers participated in the project.

The site has been shaped over the last 90 years by extensive construction, and now consists of several platforms on varying levels, which reflect the locations of the former markets and other buildings, with the highest platform in the centre of the site, and lower platforms surrounding it to the east, south and west. Castlegate, constructed in 1930, lies at the lowest level to the north of the site, parallel to the River Don (see Chapter 3). Although the River Sheaf is not visible, it still runs in a culvert beneath the modern streets from south to north along the eastern edge of the site. The 11 trenches distributed across Castle Hill were up to 7m wide and up to 20m long. Trenches 1–6 and Boreholes 1–3 were strategically positioned to investigate the largely unexplored upper platform (54.39–55.80m AOD), while Trenches 7–11 and Boreholes 4–21 were positioned to provide more information about the remaining archaeology of the lower platforms (48.90–52.37m AOD; Figures 7.2

and 7.3), especially the location and form of the castle moat. All trenches were excavated using a machine with a 1.8m wide toothless bucket to remove concrete and overlying rubble, followed by hand excavation of all archaeological layers. The trenches were hand-cleaned to identify and clarify complex deposits and structures, all of which were recorded in section and plan. Levels within each trench were then further reduced by hand and machine to investigate deeper layers.

Recording was carried out by standard methods including the use of context numbers and *pro forma* sheets, extensive digital and film photography, and both drone and video filming. The site was drawn digitally using Global Navigation Satellite System (GNSS). Contextual evidence was collected for all artefacts and environmental samples. In addition to Wessex Archaeology's digital record, volunteers, students and visitors were encouraged to take and share photographs of the site. Volunteer Paul Rowland (2019), a member of the local Harthill with Woodall Archaeology Group, captured a particularly comprehensive and valuable photographic archive, which was initially made available online on the Flickr image sharing site but subsequently published in a book. Here we see a very different type of public engagement with the archaeology of the site than during earlier generations of excavation, when the local community was largely kept at a distance, and 'lay assistance was not officially encouraged' (Butcher 1972a, 6). With a few exceptions, such as Joseph Himsworth's mother, who was presented with a souvenir of the finds by the Clerk of Works Reg Loughran (Himsworth 1927–42, 9), most interested members of the public had to wait for newspaper articles and queue to see museum displays in the months and years afterwards ('Old Sheffield', 1929). In 2018, in contrast, members of the public were on site and encouraged to disseminate information about what had been found.

The artefactual assemblage comprised medieval, post-medieval and modern material. Assessments of each category of artefact have been carried out by a relevant specialist. The use, where possible, of the same specialists who studied the material from the late 1920s and 1950s excavations (see Chapter 6) ensured consistency of approach and interpretation, and allowed knowledge gained from the study of the legacy archives to feed into the study of the new material. A bulk sampling strategy was also implemented to secure critical environmental and dating information, with a minimum of 40-litre samples taken from targeted secure archaeological contexts, and further samples taken from the most significant deposits. The boreholes were extracted using a window sampler – a cylindrical tube driven into the ground to extract soil samples – enabling laboratory testing for microfossil assessment and dating evidence on different deposits across the upper and lower platforms.

The first castle

Despite the lack of any evidence at that time, in her 1949 history of Sheffield Mary Watson (1949, 24) assured us that 'the castle itself would be of the Norman "motte and bailey" type, partly of stone, but mainly of wood' (see also Jones 2004, 27; Belford 1998, iv, 20–1). It is unclear how she arrived at this conclusion; it was probably simply an assumption that this was the sort of fortification that Normans built. Subsequent reviews of the archaeological record have consistently pointed to the absence of any archaeological evidence for a motte and bailey on this site (Richardson and Dennison 2014a, 8, 86; McCoy and Stenton 2009, 8). However, the 2018 excavations have turned this debate on its head.

In 2018 Wessex Archaeology recorded a substantial mound of redeposited alluvium at an elevation well above the floodplain levels in Trenches 2 and 3 in the south-east and south, respectively, of what would become the inner courtyard of the castle. The surviving top of this mound is at 51.68m AOD (Figure 7.4). This orange/brown silty alluvial clay differs from the underlying, natural, alluvium through the presence of tiny fragments of charcoal. Iron accumulations were also identified throughout the deposit, either deriving from later fluctuations in water level or included within the deposits when they were laid down to form the mound. In addition, the upper levels of the mound had sandstone inclusions, which dipped to the south-east, and in places the redeposited alluvium contained layers of blue clay (Figure 7.5). Prior to construction, ground preparation works had been undertaken, removing soil and the upper layers of natural alluvium, producing (in Trench 2) a 'step' with the ground surface sloping away at a 45° angle towards the gatehouse c.14m to the south (Tuck and Rajic 2019, 30–1). This is reminiscent of the situation at Oxford Castle, where the motte was constructed as a series of steps which were subsequently filled with a clay/gravel mix, the whole being then capped with a layer of grey-blue clay (Munby *et al.* 2019, 135).



Figure 7.4: *Section through Trench 2.* This shows the make-up of the probable motte. Wessex Archaeology.



Figure 7.5: *Soil profile in Trench 2 after deeper excavation.* This reveals the upper levels of the motte, which had sandstone inclusions, which dipped to the south-east, and in places the redeposited alluvium contained layers of blue clay. Wessex Archaeology.

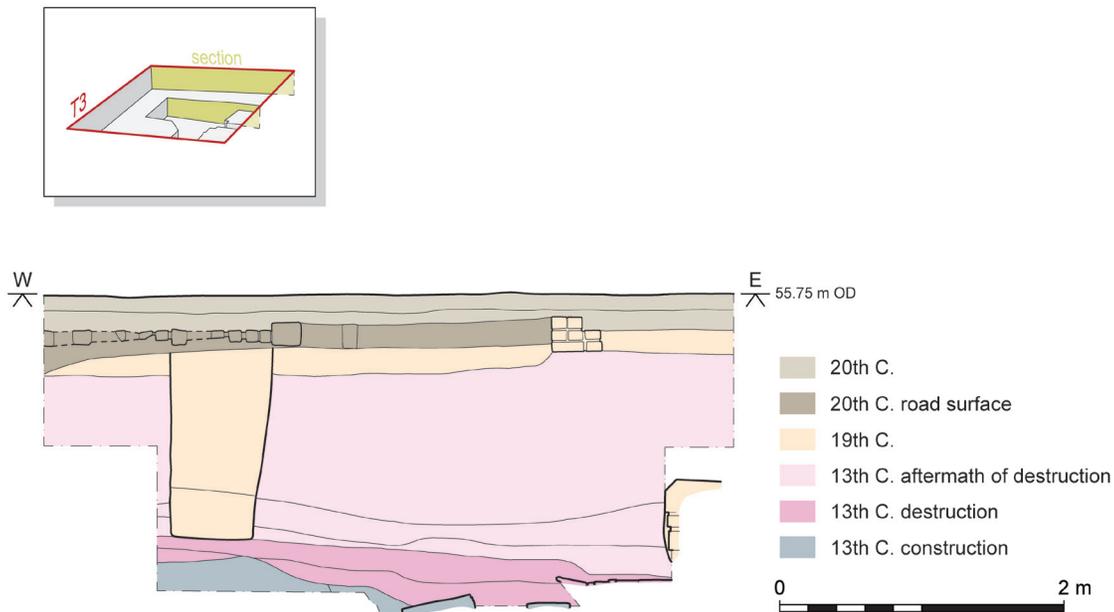


Figure 7.6: *Section of Trench 3.* This depicts a linear feature, 0.52m wide, comprising two courses of large unworked flat stones and associated deposits (labelled ‘13th C. construction’ in the key), which capped the demolition layers of the early castle. Wessex Archaeology.

Excavation to a depth of 52.1m AOD (3.65m below ground level) in Trench 3 recorded further layers of redeposited alluvium with varying levels of charcoal inclusions (1–5%) and redoximorphic states (some layers were yellow, others blue; one of the layers had brown soil mixed into the alluvial material). A 0.52m-wide linear feature of large unworked flat stones capped these layers. It ran from south-east to north-west, surviving to two courses, and appears to have been constructed in a single phase (Figure 7.6). After it was built, clay layers continued to accumulate (Tuck 2020). It is noteworthy, in this context, that elsewhere there is evidence that mottes were ‘clad with wooden boards or stone slabs to prevent soil wash and make [them] more difficult to climb’ (Pounds 1990, 17).

It is difficult to determine a date for the creation of this mound, due to the sterility of the deposits from which it was originally formed – there were no artefacts securely within that context (but see below). Therefore, we needed to rely on scientific dating methods, and so optically stimulated luminescence dating (OSL) and portable optically stimulated luminescence dating (pOSL) samples were taken from the mound deposits. Luminescence techniques enable dating of inorganic materials by measuring the length of time since they were last exposed to light. Our intention was to assess whether the quartz sand within the alluvium had been ‘reset’ (i.e. exposed to light) at the time of the construction of the motte, which would help to date it. However, the analysis of the luminescence samples from Trench 2 produced a range of dates from the first to the 15th centuries AD and so it was clear that the grains analysed had not been fully reset during construction (Tuck 2020). Despite the absence of supporting evidence from the OSL dating, the motte seems unlikely to be any later than the mid-12th century, as none are known to have been constructed in England after c.1170.²³ Thirteenth-century pottery (Reduced Sandy ware, North Nottinghamshire Quartz & Shell ware and Hallgate A-type ware; Cumberpatch 2020; Young 2020) found in association with the mound in the Trench 3, and perhaps the stone capping, suggest continued modifications to the structure.

Given the nature of our archaeological encounters with the motte (in separate trenches in the south-east corner of the site, and in a machine-cut section in one of those) it is difficult to estimate its size – but something of the order of c.25m across looks likely (see Figure 7.2 for the position of these trenches), and this would put it

²³ We are grateful to one of the anonymous manuscript reviewers for updating Pounds’s argument that none were built after the accession of Henry II in 1154 (1990, 21). As they rightly point out, ‘textual evidence for motte builds is rarely available, in fact, and future archaeological research might well push the building of mottes to an even later, rather than an earlier, date’.



Figure 7.7: *Some of the earliest features on the site. Two gullies or beam slots terminate adjacent to a posthole in Trench 6. Wessex Archaeology.*

at the smaller end of the range of medieval mottes (Pounds 1990, 15–17). The material for the construction of the motte could have come from anywhere in the surrounding area. Usually, the surrounding ditch provided at least some of the material (Pounds 1990, 18; Munby *et al.* 2019, 32; Higham and Barker 1992, 198), and the same might be true here. We have on several occasions remarked on the difference in depth between the south moat and the sections of moat on the east and west sides of the castle – might the south moat be all that survives of the ditch which surrounded the ‘first Sheffield castle’? If it is, we need, once again, to acknowledge the insights of Leslie Armstrong (1930, 16), the ‘pioneer’ archaeologist of Sheffield Castle (Butcher 1961, 6), who argued that ‘the ditch considerably antedates the castle’. In this context, it might be significant that Leslie Butcher recovered fragments of 12th-century pottery from the base of the moat (in shaft H2-4) close to the (future) gatehouse.

The 2018 excavations in the area to the north and north-west of the motte produced further evidence for structures and surfaces which were roughly contemporaneous (and therefore probably associated) with it. In Trench 6, in the north-west corner of the site, a complex sequence of deposits and cut features were identified at 50.39m AOD, only 0.7m above the present level of the modern Castlegate road to the north. The earliest features were two gullies or beam slots, each terminating adjacent to a posthole (Figure 7.7). These are stratigraphically the deepest features within the area of the upper platform. A radiocarbon date of cal AD 1030–1200 at the 95% confidence rate was acquired from waterlogged plant remains in the form of a hazelnut shell (*Corylus avellana*; Tuck 2020). Furthermore, dendrochronological analysis suggests that the oak timber from a layer associated with the postholes and beam slots ‘is unlikely to be much later than the mid-12th century’ (Tyers 2020). Above these gullies was a sequence of two layers and small pits dug into them, which were overlain by two levelling deposits or ‘made ground’. These contained no datable evidence, but were cut by a pit which yielded a single sherd of pottery of unknown type, but broadly dated to the medieval period, as well as a primary fill of dense, reddish-black slag. The slag is from a secure medieval context, and of similar character to

slag recorded in other trenches on the upper platform, and provides evidence of medieval industrial activity in, or close to, the castle (Andrews and Mackenzie 2020).

Sealing these deposits in Trench 6 was a stone rubble layer through which another pit had been dug, and which contained a long rough block of magnesian limestone (Tuck 2020). As we saw in Chapter 6, 15th-century Account Rolls record that stone was transported to the castle from quarries at Roche Abbey (South Yorks) for the construction of a Great Tower in 1445–46 (Thomas 1920–24, 71), although the large stone found in Trench 6 shows no evidence of use. Redeposited alluvium overlying this complex sequence of medieval features contained 11th–/12th-century Hand Made White Sandy ware and 12th- or 13th-century White Sandy ware pottery (Cumberpatch 2020). These sherds are some of the earliest dated artefacts from the site from a secure context.

Just to the north-east of Trench 6, in their 2001 Trench 2, ARCUS recorded a pair of square pits, which they interpreted as part of the ‘de Lovetot’ castle, although this was on the basis of a single sherd of shell-tempered pottery, which could only be broadly dated to between the late 12th and 15th centuries (Davies and Symonds 2002, 11–12, 31). Nonetheless, this interpretation can now be broadly supported by reconsidering the stratigraphic position and levels of these features. The pits were cut into redeposited alluvium, which at the time of the ARCUS excavation was assumed to be natural (Davies and Symonds 2002, 11, 29). The bases of the pits identified in 2001 were at 51.70m and 51.55m AOD, respectively, and are within the range of the features identified in Trench 6 in 2018 at 50.39–53.0m AOD. It is arguable, therefore, that they belong to one of the 11th- to 12th-century phases of activity recorded by Wessex Archaeology in 2018.

And here we might return to a series of features noted by Leslie Butcher. The first is a pit at the northern end of the east section across Castle Hill (Butcher 1972a, 8; 1972c, 9; n.d. (s), no. 299; Figures 5.20, 5.21), close to where Joseph Himsforth (1927–42, 17–18, fig. 47) had seen masonry in 1930. The pit contained a series of clay fills, as well as twigs, rushes and hazelnut shells. We have no dating evidence from this pit, but its position on the section should make it ‘early’ and it is in rough alignment with those in Wessex Archaeology’s Trench 6 and the ARCUS Trench 2, although this does not necessarily imply a structural connection. Butcher also noted that a similar pit was exposed during excavations close to the Bull & Mouth public house, which lies at the north-west corner of the site, close to Wessex Archaeology’s Trench 6, while at the same horizon ‘a narrow curving ditch’ was located in the service yard west of the market (Butcher 1972a, 8). Finally, on the south side of Castle Hill there are the two ‘Exchange Street ditches’, which, we have argued, Butcher believed to be among the earliest features on the site.

At the west end of Wessex Archaeology’s Trench 1 further evidence of the early castle comprised five layers of redeposited alluvial clay (starting from 51.5m AOD), containing 13th- or 14th-century Oxidised Sandy ware pottery (Cumberpatch 2020), sealed beneath a much-disrupted cobblestone surface (Tuck 2020). This surface had been disturbed, with the upper interface rising from 52.2m to 52.8m AOD. At roughly the same depth (53.09m AOD) and 35m to the east, in Trench 5, a better-preserved cobblestone surface was encountered (Figure 7.8). The base of the surface contained three sherds of 13th-century Hallgate A-type ware (Cumberpatch 2020), plus a few charred cereal grains and seeds of plants associated with both food storage and processing, as well as scrubby vegetation (Simmons and Jones 2020). A 13th-century copper-alloy toiletry item (an ear scoop and fingernail cleaner) was found between the stones (Figure 7.22), while charred plant remains (spelt wheat, *Triticum spelta*) from the matrix between them produced a radiocarbon date of cal AD 1170–1260 at the 95% confidence rate (Tuck and Rajic 2019, 85, 96, 194). Although patchy in places and with indication of repairs, all our evidence points to this being a 13th-century courtyard associated with the early castle. Further traces of this courtyard may have been encountered during ARCUS excavations nearby, but the remains in Trenches 1 and 5 are the most extensive yet exposed, and the only ones to be firmly dated.

Within one of the layers of redeposited alluvium recorded in both Trenches 1 and 5 there was a dark red deposit containing iron smelting slag and tap slag. As noted above, a small amount of similar slag was also recovered from medieval deposits in Trench 6. The slag seems to have been used to repair or replace an earlier cobblestone surface, and although we do have to accept the possibility that it might have come from elsewhere – note the cinder brought from the deer park to repair the path from the great hall to the gate, as recorded in mid-15th-century Account Rolls (Thomas 1920–24, 71; Chapter 6, Section: Fragments of ‘the most notable local building historically’) – it nevertheless suggests that ironworking had taken place in the vicinity of the castle. Radiocarbon dates acquired from organic remains in these levelling layers suggest that they date to the 12th or 13th centuries: one from Trench 1 was from charred remains of rye grain (*Secale* cereal; cal AD 1170–1260; Tuck 2020); a second from this trench, in a deeper layer, was from the charred remains of a



Figure 7.8: A medieval cobbled surface in Trench 5. Wessex Archaeology.

barley grain (*Hordeum vulgare/distichum*; cal AD 1040–1210; Tuck 2020). In Trench 6, a radiocarbon date of cal AD 1220–1270 was acquired from charred remains of hazelnut shell (*Corylus avellana*; Tuck 2020). The slag in these deposits is therefore clearly medieval, probably dating to the late 12th or 13th centuries, and significantly enhances our knowledge of the origins of Sheffield as ‘Steel City’. Environmental samples from deposits above the slag-bearing layer contained charred grains of oats, rye and free-threshing wheat. Crops and weeds are also evidenced, as well as plants associated with damp soils such as lesser spearwort (*Ranunculus flammula*), rushes (*Juncus* spp.) and sedges (*Carex* spp.) (Tuck and Rajic 2019, 190; Simmons and Jones 2020). These macrofossils reflect activities within the 13th-century castle, including the cooking of cereal-based food. They also point to the presence of damp courtyards with weeds. This provides another important archaeological counterbalance to the presentation of castles in our written sources as elite dwellings with luxurious fixtures and fittings (e.g. LPL, MSS 694–710, LPL, MSS 3192–3206; Leader 1874).

It is difficult to create a coherent picture of the first Sheffield Castle from these fragments of evidence. We suggest, however, that by the mid-12th century a small motte sat on the south-eastern corner of the site, and that the south ditch of the later castle may be a relic of the earlier one which once surrounded it. To the north-west, the gullies and postholes might be evidence of a fenced enclosure (with an entrance?), which was certainly in existence by the mid-12th century, and perhaps slightly earlier. The pits discovered by ARCUS in 2001 can be linked to these features, in terms of both form and level. Evidence for a slightly later courtyard surface (or surfaces) was found in the area between the motte and the putative enclosure. These discoveries represent a major advance in our understanding of the first Sheffield Castle and, therefore, of the origins and development of Sheffield – up until now we have had only the *assumption* that its charred remains were among the ‘ashes of 1266’ identified by

Armstrong, Himsworth and Butcher (see Chapters 3 and 5). What the material culture and the scientific dates from the 2018 excavations also make clear is that there is no evidence of an ‘Anglo-Saxon’ phase. When this is combined with a similar absence of evidence from the ARCUS investigations in 1999 and 2001, the lack of any finds from that period identified in our analysis of the archives from the late 1920s and 1950s excavations, and the re-dating of Armstrong’s ‘Saxon’ building to the 13th century, we can be reasonably confident (but not certain) that there was no Anglo-Saxon settlement – whether belonging to Waltheof or anyone else – on Castle Hill.

Destruction

In Trench 3 both the stone linear feature and mixed clay deposits of the motte were sealed by two demolition layers comprising dark brown, humic silt clay and containing a rich environmental assemblage including both charred and uncharred seeds and wood. Charred cereal grains recovered from the lowest layer included oats, hulled barley, rye and free-threshing wheat. The taxa in the uncharred seed assemblage includes plants commonly associated with disturbed fertile soils and cultivation, such as redshank (*Persicaria maculosa*), knotgrass (*Polygonum aviculare* agg.) and black bindweed (*Fallopia convolvulus*). Scrub-type vegetation was represented by bramble (*Rubus fruticosus*), alder (*Alnus glutinosa*) and elder (*Sambucus nigra*), as well as a particularly high concentration of hazelnut shell (*Corylus avellana*) (Tuck and Rajic 2019, 84–5; Simmons and Jones 2020).

The lower of the two demolition layers was blue in hue, with vivianite present throughout the deposit as a result of the chemical reaction of phosphates, iron, water, and a dearth of oxygen. The upper layer had a red hue, also with vivianite throughout. Within this latter deposit a series of parallel unburnt pieces of wood were also found, representing a collapsed fence or wall. At least one of the pieces was of small hazel roundwood; others were thin pieces, perhaps cut from oak timbers (Tuck and Rajic 2019, 34). Burnt material, including wood, seeds and hazelnut shells, was recovered from these layers, and is consistent with the evidence for burning reported by Armstrong (1930, 22–3). As we saw in Chapter 3, on 4th April 1929, Himsworth (1927–42, 15) described a number of ‘spars’ as ‘blackened and water-soaked’ or waterlogged. He noted that some were ‘spotted with bright blue mould’, which we can now identify as vivianite. He also noted that others were ‘crozzled by fire ... in horizontal position as though they might have been thrown down’. In sum, we have been able to confirm, and explicate, the archival accounts of the earlier excavations, which once again show themselves to be reliable – if occasionally overwrought – accounts of the archaeology on Castle Hill.

In general, the position and composition of these layers are consistent with Armstrong’s (1930, 22) observations concerning the presence of rich organic and burning deposits, which, as we saw in Chapters 2 and 3, he associated with his ‘wished-for’ Saxon structures. Twelve sherds of 13th-century pottery were recovered from the two demolition layers in Trench 3, comprising Reduced Sandy ware, North Nottinghamshire Quartz & Shell ware and Hallgate A-type ware pottery (Tuck and Rajic 2019, 34; Cumberpatch 2020; Young 2020). While some burning had clearly taken place, it was much later (13th century) than Armstrong and Himsworth hoped for. As noted in Chapter 3 (Section: The ashes of 1266?), we know from written records that in 1266 ‘Johane D’eyvill *cum equiis et armis*’ burnt ‘Saffield’ during the Barons’ War, and it would be tempting, as Armstrong did, to read the archaeology recorded in 2018 as a product of the events described in texts. As we have emphasised throughout this book, however, this text-driven approach is problematic, not least because it discourages us from seeking other explanations for what we see in our trenches – there had probably been many destructive fires in the castle. Further, this ‘burning of Saffield’ is one of the key moments in the narrative history of the town, and one wonders whether an awareness of that historical event encouraged Armstrong to read layers which were a mixture of burning and processes of organic decay (both resulting in ‘blackness’) as evidence of ‘destruction’? On the other hand, it would be churlish to dismiss the possibility that this is, in fact, a product of the actions of John D’Eyvill and that these layers represent the remains of ‘Saffield’. One of the timbers from Trench 3 has been dendrochronologically dated to at least the first half of the 12th century, so if the layers in which it was incorporated were created by D’Eyvill and his retinue then the structure of which it was a part was already a century old – and perhaps, therefore, from the first castle.

New beginnings

The 2018 Wessex Archaeology excavations found evidence for landscaping across the site, probably in readiness for a programme of construction; our analysis of the archives suggests that Himsworth and Butcher may have

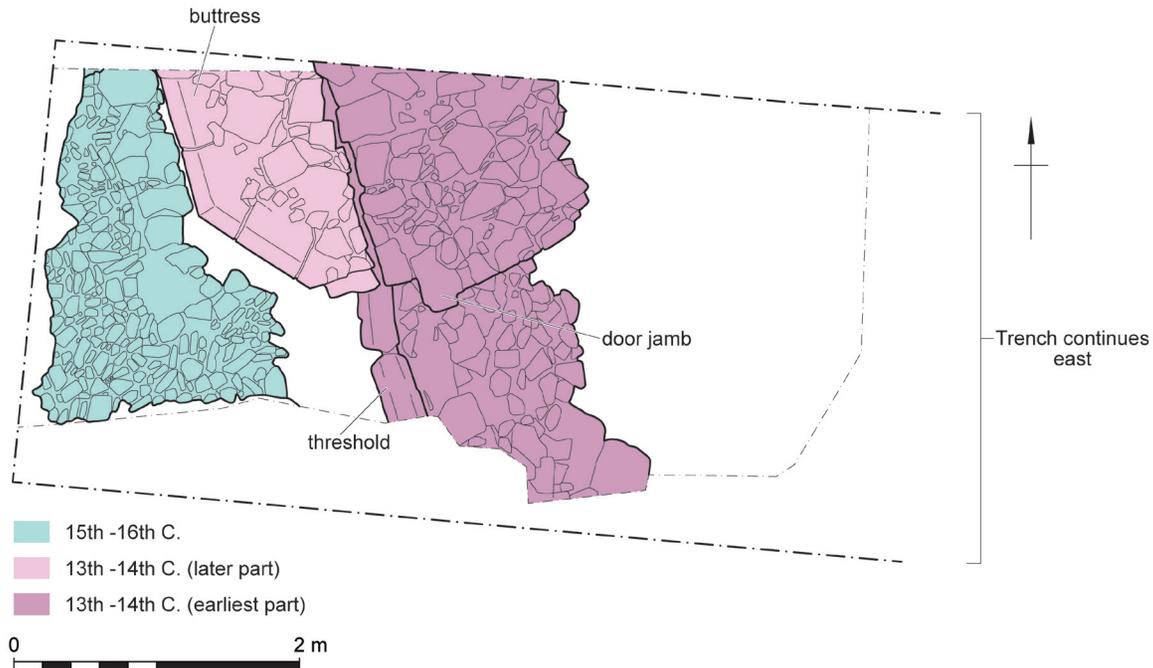


Figure 7.9: Plan of medieval structures excavated in the 2001 ARCUS Trench 1. Wessex Archaeology.

witnessed the same phenomenon. The two aforementioned organically-rich demolition layers in Trench 3 were sealed by redeposited alluvial clay mixed with a little of the demolition material. This sequence was truncated and a further layer of redeposited alluvium was laid down, presumably to level the site (Tuck and Rajic 2019, 34–5) – a perennial process on Castle Hill (and one to which we will return shortly). An additional layer of organic-rich demolition material, probably sourced from the earlier destruction contexts, was sealed by yet another layer of redeposited alluvium. These levelling deposits contained five sherds of 13th- or 14th-century pottery. The sequence points to intense reuse and redistribution of the existing deposits within the inner courtyard at this time.

In 2001, in Trench 1 at the north-east corner of Castle Hill, ARCUS recorded a 1.6m-wide stone wall on a roughly north-west/south-east alignment comprising a rubble core with dressed stone blocks bonded with lime mortar (Figure 7.9). This, they argued, formed a continuation of the western side of the substantial stone courtyard building first recorded by Armstrong (1930, 10) and since preserved in a chamber below the Castle Markets (Davies and Symonds 2002, 9–11). If so, and there is no reason to doubt it, then it belongs to the phase of the significant restructuring of the castle of which the gatehouse is now, and probably was then, the iconic structure. As we argued in Chapter 3 (Section: Courtyard buildings), the gatehouse and the courtyard building belong to the same phase of construction, as revealed by the presence of identical masons' marks on the plinths of both structures (Armstrong 1930, 20, plate IV). At the southern end of this wall there was a doorway with a simple chamfered surround, on which patches of plaster had survived. Two large chamfered stones formed a threshold at 53.85m AOD. Inside the doorway (i.e. to the east) was a robbed-out staircase, of which only the rubble steps and some of the stone flags survived, and which once led to an undercroft or cellar (Davies and Symonds 2002, 9–10). Here one immediately thinks of the 'vaulted apartment' recorded just to the south-east by Armstrong (1930, 20, figs. 12 and 13). Himsworth (1927–42, 10, fig. 34) importantly recorded the following on 30th November 1928: 'the vaulting suggested a large span and must have crossed the space cut into by the market brick foundation.' The 2001 ARCUS excavation lay just on the other side of this. A few stones may tentatively be interpreted as evidence of a courtyard associated with this wall (Davies and Symonds 2002, 10).

A butters faced with chamfered ashlar blocks was later added to the outside of the wall to the north of this doorway, and slightly overlapping the stones of its threshold. Fragmentary remains of a stone flagged/cobbled surface were associated with this butters, demonstrating that a courtyard surface had certainly been constructed in this phase. Twenty-five metres to the north-west, the ARCUS Trench 2 revealed two further



Figure 7.10: *Walls and staircase excavated by Wessex Archaeology in Trench 6. They comprise a wall nearly 1m wide oriented north–south and formed of sandstone blocks and lime mortar. It retained earlier redeposited alluvium to the east. This wall turned 90° to the east before turning again 45° to the north-east, at which point it was only 0.4m wide. Wessex Archaeology.*

structures between 51.6m and 53.41m AOD. The first comprised a small drystone wall oriented north to south, and thought to have been part of a small lean-to structure built against the north wall of the castle. Redeposited alluvial clay underlying and banked up against this wall contained pottery dating to the 13th or 14th century. Later disturbance made interpretation difficult, but it seems to have been a large structure of sandstone blocks which incorporated a set of rough steps, and had a raised internal level (Davies and Symonds 2002, 12–13).

Importantly, further excavations along the northern perimeter of the site by Wessex Archaeology in Trench 6 located walls and a staircase at 52.02 to 53.93m AOD. A north–south-oriented wall nearly 1m wide comprised sandstone blocks and lime mortar, and served to retain earlier redeposited alluvium to the east. This wall turned 90° to the east before turning again 45° to the north-east, at which point it was only 0.4m wide (Figure 7.10). It may represent an outer wall of a building, dug into an earthen mound on the north side of the castle. A staircase adjacent to the west face of the north–south-oriented section comprised flagstone treads, and had a rendered keeping hole (a small ‘cupboard’) with iron stains. A flagstone surface formed the floor from the bottom of the staircase through a doorway evidenced by a carved indentation further to the east (Tuck and Rajic 2019, 50, plate 10).²⁴

We suggest that, despite being revealed during two separate excavations, the structures identified in 2001 and 2018 were contemporary. This suggestion is based on their appearance and the similarity of the levels at which

²⁴ A single sherd of 18th-century Mottled ware was pulled out from beneath one of the flagstones forming part of the structure in Trench 6. In addition, a fragment of brick, perhaps of 18th-century type and with industrial-era slag bonded to it, was recovered from the disturbed rubble core of the wall (Tuck and Rajic 2019, 50). These artefacts may indicate that these structures, although originating in the 13th or 14th century, were reused and maintained in the 18th.

they were identified. Furthermore, in 2001, contexts surrounding these structures produced pottery of 13th- to 14th-century date. Together they provide good evidence for the partial survival of a large building, or, more likely, series of buildings, along the north side of the site overlooking the Don. It is also possible that they are the remains of some of the structures seen by Joseph Himsworth in October and November 1930. Himsworth (1927–42, 18) explicitly noted that one of these was ‘about the same level as the “dungeon”’, his interpretation of Armstrong’s ‘vaulted apartment’. He went on to tell us that he thought the remains he had seen were those of ‘four towers with a sloping glacis in between’, pronouncing that they ‘settle the extent of the castle area to my mind’ (Himsworth 1927–42, 19). In this he was probably right. He clearly thought that these structures were part of, or attached to, the north wall of the castle. We have no secure dating evidence for these structures, but note that those in ARCUS Trench 1 probably belonged to the same phase as both the gatehouse and courtyard buildings, one of the structures in ARCUS Trench 2 was associated with 13th- or 14th-century pottery, and the building remains in Wessex Archaeology’s Trench 6 were at the same level. It is just possible, therefore, to argue that they belong to the same phase (or phases) of the castle.

Preparing the ground

As we saw at the beginning of the previous section, in 2018 Wessex Archaeology found evidence across the site for a series of levelling deposits, containing 13th- to 14th-century pottery. These deposits, it is suggested, were preparatory to a new building programme. Our study of the archival material from the early to mid-20th century excavations might just provide further valuable insights into the character and scale of those preparations. As we saw in Chapter 5, Leslie Butcher was particularly interested in the ‘physique’ or topography of Castle Hill, and he recorded his ideas and findings both in diagrammatic form and in his unpublished texts (e.g. Figure 7.11). Particularly important here is his understanding, and dating, of the various phases of ‘levelling-up’ on Castle Hill during the Middle Ages (Butcher 1972a, 20). Armstrong (1930, 12, 14) too recognised the significance of this process, and had suggested that the construction of the de Lovetot (so early 12th-) and de Furnival (late 13th-century) castles led to the progressive raising of the courtyard above the natural, and referred to ‘subsequent accumulations of eighteenth- and nineteenth-century date’, but provided little detail, and so for the purposes of understanding these critical phases of the site’s development Butcher’s record is crucial.

Butcher (1972b, 6) argued that the earliest occupation – ‘at an early, but undetermined, date’ – was on the river gravels, into which, as we have seen, pits and ditches had been dug and later filled in with ‘thicker accumulations of the part organic deposit which covers at least the northern part of the site’. Later phases of occupation, which Butcher (1972b, 6) believed dated up to the mid-13th century, saw the accumulation of ‘successive layers of inert & organic matter’. While his notes do not record the depth of this build-up, section drawings along the east side of the castle suggest that it was between 3ft and 6ft (0.91m and 1.83m) (e.g. Butcher n.d. (g); n.d. (r); Figure 5.20).

A critical observation concerned the transformation of the site through the subsequent addition of made ground, on top of a destruction layer comprising ‘3”–4” layer of bright pink debris’ – a sequence paralleling that found by Wessex Archaeology in Trench 3. Butcher (1972a, 20; 1972b, 12) saw the deposition of this ‘made-ground’ as an effort to ‘level and extend the northern part of the site’, and as ‘deliberate vertical planning along the northern perimeter as part of a scheme to raise the level here by back filling’. He also linked his findings with observations Himsworth made in October 1930 when he drew the section exposed above the River Don. Butcher deduced that there had been ‘lateral as well as vertical filling’ of the site, particularly in the north-east corner, where Himsworth (1927–42, fig. 47) recorded ‘A patch of loose stone herring-bone’ (see Figures 3.7; 5.20; 7.12). Himsworth’s profile drawing showed the natural ground surface sloping steeply eastwards towards the Sheaf ‘with a mass of “herringbone fill” rising above it to a level of 173.5 A.O.D.’ (Butcher 1972b, 12). Butcher did not himself see any of this ‘herringbone’ fill when recording the east section along Castle Hill, but noted that it was ‘obscured by a mantle of grey dusty fill’, which he regarded as ‘the dry weather’ version of the ‘dark fill’ above the herringbone deposit recorded by Himsworth. However, he did note that more herringbone filling had been recorded in 1961 at the north-west corner of the site, but at a higher level (Butcher 1972b, 6, 12).

This herringbone filling occurred in what Himsworth (1927–42, fig. 47) had described on his section drawing as medium yellow clay. Butcher (1972b, 12) recorded a similar layer, characterised as a ‘homogenous depth

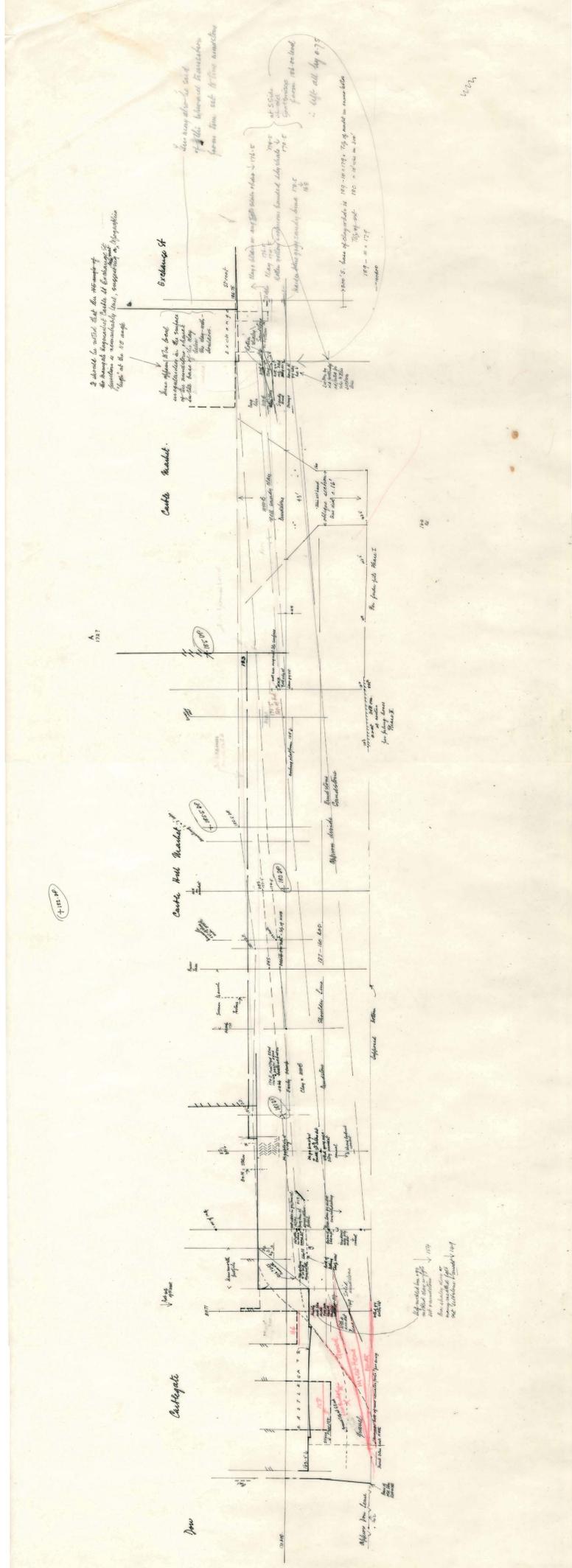


Figure 7.11: Sketch showing a section along the west side of Castle Hill from Castlegate to the north to Exchange Street to the south. Drawn by Leslie Butcher. Courtesy of Museums Sheffield.



Figure 7.12: *The 'herringbone fill' that Butcher recorded at the north-west corner of the site. Courtesy of Museums Sheffield.*

of sandy clay lacking water-worn boulders', and deduced that it was a deliberate deposit introduced to extend and raise the hill on which the castle was located at the north-west and north-east corner of the site. 'Newly deposited', it would not, he thought, support substantial structures, and before such were constructed, pits and trenches would have to be dug down 'to the earlier, compacted, level' and then 'filled with stronger material, systematically placed to give a locally stronger foundation. The rubble-fill masses, "herringbone" or otherwise may well be the result of such processes' (Butcher 1972b, 13).

In essence, Butcher envisaged a process in which, preparatory to building/rebuilding, the site was 'extended' by laying down layers of redeposited natural, especially at its northern end where it overlooks the Don. Since this would not, he suggests, have been strong/stable enough to support the major stone buildings he envisaged, special foundations were prepared – a variant of 'rubble trench' foundations which provided both support and good drainage and was commonly used in the construction of secular buildings in, for example, the City of London up to the middle of the 13th century (Schofield 1991, 5). Butcher (1972a, 20) explicitly linked this process to construction of 'the Furnival stone castle' in the late 13th century. We have no dating evidence from these herringbone fills, other than that they are deposited in trenches cut into redeposited natural dated, in

Wessex Archaeology's Trench 3, to the 13th or 14th centuries.²⁵ Accepting as always the caveat that explanations other than those provided in the texts are possible, and that this feat of preparatory landscape engineering need not be linked to Thomas de Furnival's licence (1270) to 'build a stone castle [at his manor of Sheffield] and fortify and crenellate it' (Lyte 1913, 447), the evidence suggests that it just might.

The 'great ditch'

Both ARCUS (in 1999) and Wessex Archaeology (in 2018) investigated parts of the east moat by trial trenching, while Wessex Archaeology also sought to confirm the line of the west moat, and conducted three borehole transects, two across the south moat and a smaller third across the south-west corner of the moat.

The west and south moat

Records of the early and mid-20th-century excavations of the south moat indicate that it contains well-preserved, waterlogged deposits. The line of the west moat has always been less clear, although there is good evidence that it contained similar fills (see Chapters 3 and 5). Wessex Archaeology Trenches 7, 8 and 9 were specifically located to end the uncertainty about its line and nature. Although Trenches 7 and 8 were heavily truncated and/or contained modern features, the south-west corner of Trench 9 clipped the edge of the moat. Here the moat was rock-cut, with a steep inner profile at an 80° angle; the boreholes across this south-west corner showed that it was 5.6m deep with its base set at about 46m AOD. A thick mixed clay backfill was encountered above the bedrock (Tuck 2020). This fill was sealed by a sandstone rubble and a brown mixture of sand and clay containing late 13th- to early 15th-century pottery (Coal Measures Whiteware type, Reduced Sandy ware and Sheffield-type ware; Cumberpatch 2020), uncharred plant seeds (Simmons and Jones 2020), and a rich assemblage of land snails (Tuck and Rajic 2019, 192). Bricks and other debris had been pushed into the top fill of the moat from 20th-century construction works, probably those associated with building the Brightside and Carbrook Co-op store in 1927. The orientation of this part of the moat confirms the accuracy of plans drawn by Butcher (n.d. (j); n.d. (m); n.d. (u)), which show it heading towards (and probably partially under) Waingate.

The two borehole transects across the southern moat were designed to confirm the profile and to take detailed palaeoenvironmental and dating samples. The boreholes confirmed the records of Butcher (n.d. (j); see Chapter 5, Section: The moat) that it was 10.5m wide with both profiles steeply cut into the bedrock (Figures 7.13 and 7.14). The transect closest to the gatehouse (Transect 2) revealed a flat base, again as Butcher had recorded. The base of the moat towards Waingate is at 49m AOD, and is slightly lower on the eastern side near the gatehouse, with the base at 45.5m AOD. Here, the moat was up to 6m deep, with multiple fills relating to natural sediment accumulation and demolition rubble, all composed of different clays, rubble and made ground (for Butcher's records of the foundation shafts through the moat, see Chapter 5).

Boreholes from the three transects were subjected to detailed palaeoenvironmental assessments of pollen, ostracods and diatoms, with samples for dating taken from several levels (Brown 2020; Cameron 2020; Whittaker 2020). Only Transect 1 contained well-preserved pollen grains of elm, hazel and alder, which were found in the basal fills, and cereal pollen, meadowsweet and the rose family in the upper fills (Simmons and Jones 2020) – here we might remember that in 1699 Richard Richmond committed to 'plant or sett or cause to be planted or sett three oakes ashes or elmes upon every acres length of fences and walls' on the land he leased within the park (Scurfield 1986, 153–4). The presence of ostracods (a crustacean, often known as seed shrimp) and diatoms (algae) suggests that this section of the moat was only filled intermittently with still, shallow water, with seasonal dry periods (Cameron 2020; Whittaker 2020). Furthermore, the presence of diatoms tells us that the water was heavily polluted with heavy metal contamination (Cameron 2020). These are major findings and show that earlier suggestions that the moat was fed either from the Sheaf (Butcher 1972a, 9), or from 'a stream of water still known to be running under property in High Street' (Himsworth 1927–42, 1, 7) are incorrect. Certainly, there must have been dams at the junction with the Don – as we have seen, they are referred to in Civil War accounts (Anon. 1644, 2–3), and if they had not existed there would be no water at all in the south moat. However, the moat itself would have been filled from the heavens and through run-off

²⁵ Although an argument could be made that these herringbone fills represent 'post-depositional' modification of natural deposits (Historic England 2015, 23–4), we would note that Butcher, a former mining surveyor and highly experienced in dealing with geology and geomorphology, was confident that they were contained within redeposited layers.

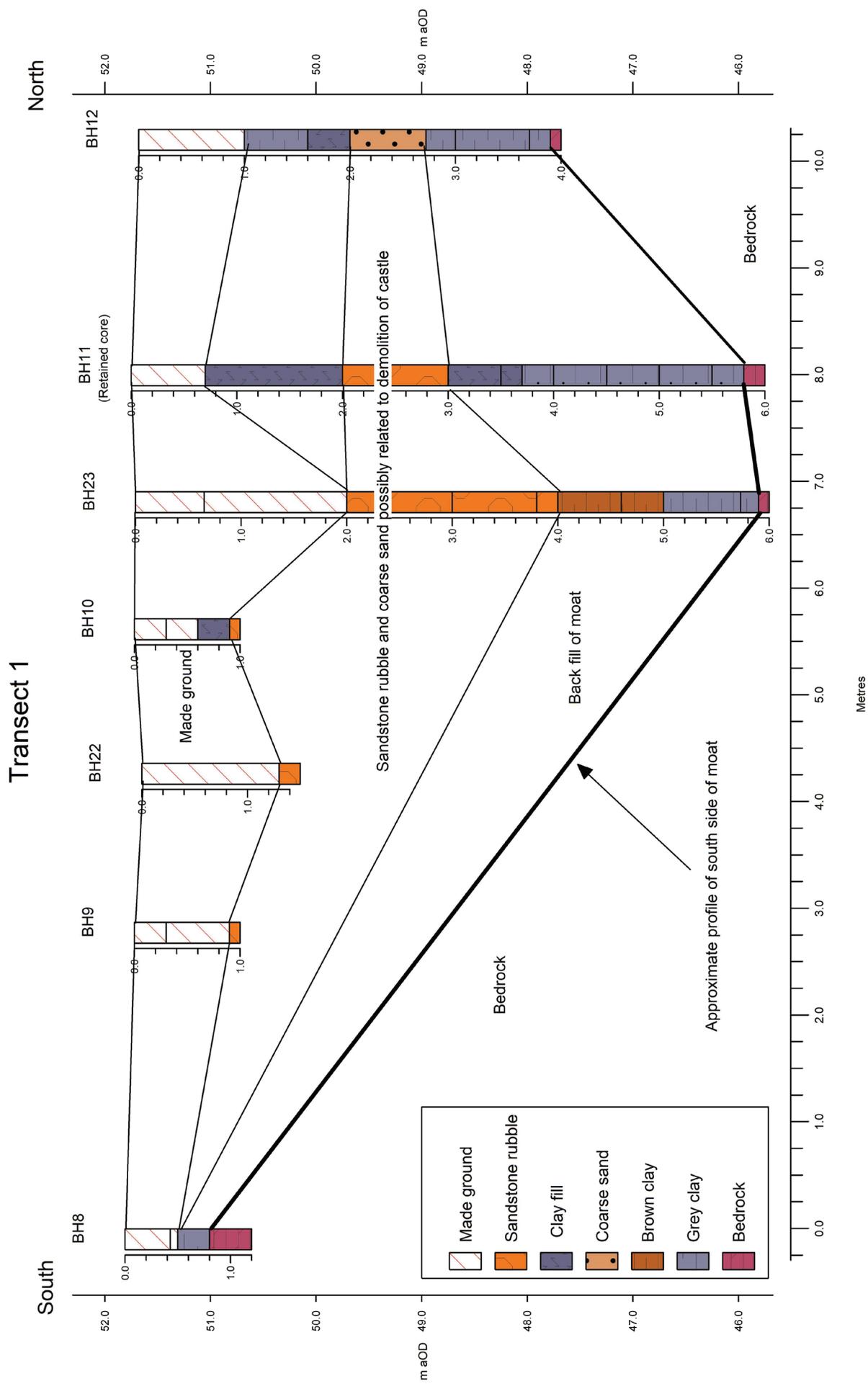


Figure 7.13: Borehole Transect 1 through the south moat. Wessex Archaeology.

Transect 2

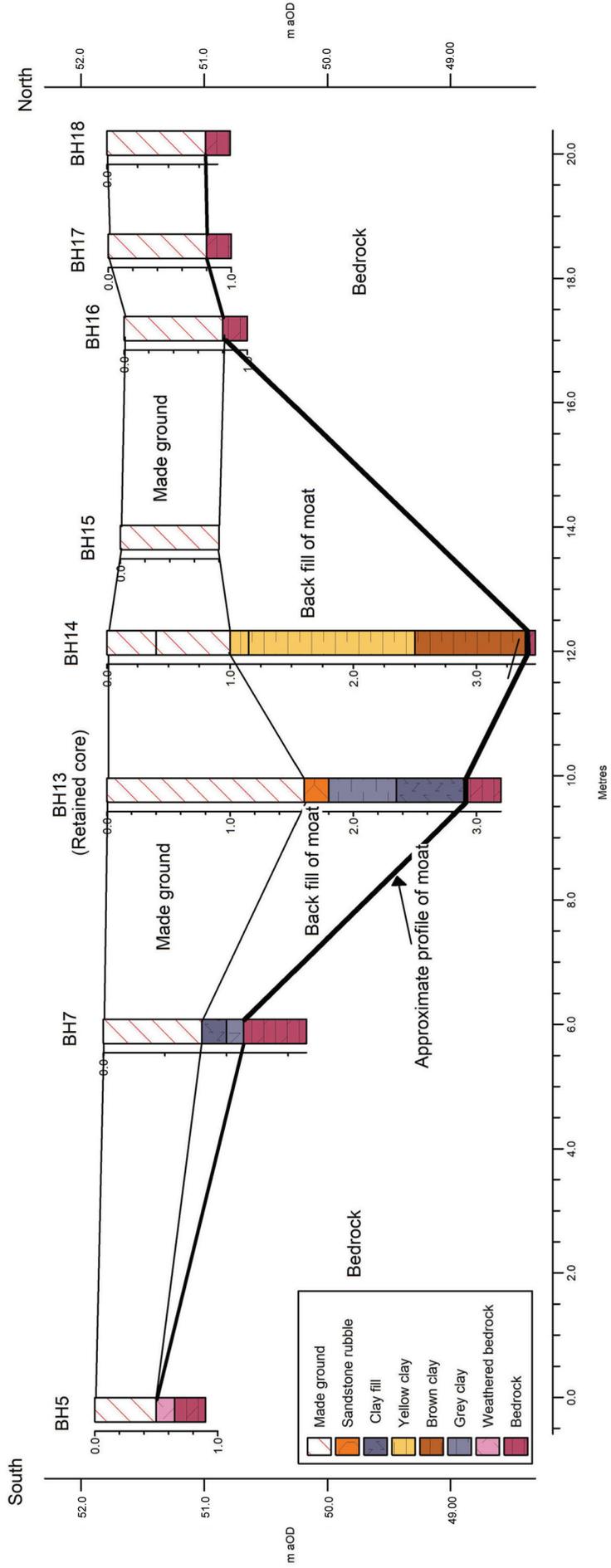


Figure 7.14: Borehole Transect 2 near the gatehouse, Wessex Archaeology.

from the surrounding landscape and from the town – no doubt explaining the heavy metal contamination. It is likely that the town drains also emptied into the moat, adding to the miasma – and, as David Templeman (2016, 71) suggested, to the discomfort to Mary, Queen of Scots.

Recent work at Oxford Castle reveals a similar situation. There the insect fauna from the basal fills of the moat point to ‘slow flowing or still water’, while the diatoms may ‘indicate a closed-moat system’ (Munby *et al.* 2019, 143). There it was further argued that the recovery of early medieval material from the moat suggests that rubbish was being dumped in it shortly after its construction, and there is no evidence that it was ever scoured out (Munby *et al.* 2019, 33). The result was that over the course of the Middle Ages it (and possibly that in Sheffield too) slowly filled up and became increasingly dry (Munby *et al.* 2019, 143).

One curious outcome of the analysis of the fine-grained organic sediment from the boreholes through the south moat of Sheffield Castle is that the radiocarbon dates extended from Late Glacial through to the Bronze Age: 2920–2880 cal BC; 19520–18990 cal BC; 8540–8280 cal BC; 830–770 cal BC; 6480–6270 cal BC, all at the 95% confidence rate (Tuck 2020). This dating evidence reveals the inclusion of older sediments, which were probably washed or eroded into the moat. This sediment is likely to have derived from multiple sources and to have accumulated over the life of the moat, including its initial cutting, and during later phases of erosion or mixing, particularly if/when it was recut.

The east moat

In 1999 ARCUS recorded the western face of the east moat, cut into bedrock, close to its south-east corner as it turned towards the gatehouse (Davies 2000). In 2018 this trench was extended in Trench 10 to uncover the full profile of the east moat. This excavation showed that the east side of the east moat was not as steep-sided as either its west side or both sides of the south moat. The east moat was 9.5m wide and around 2.5m deep, buried beneath up to 4.5m of later material (for some of which, see below). The east moat was narrower, and shallower than the south moat, but its base was deeper. The 2018 trench into the moat was 6m deep, and required shoring of the plate and waling type. The base of the trench was at 44.53m AOD, but, even then, the bottom of the moat was not reached and its lower fills went unexplored. However, extrapolating from the two evaluation trenches the base of the moat is likely to be at around 44.0m AOD (6.5m below ground level; Tuck and Rajic 2019, 58). As in other sections of the moat, the higher fills were almost certainly deposited during the Civil War.

Excavation of Trench 10 also revealed that the east face of the east moat is a gently sloping clay bank (Figure 7.15). This moat bank comprises at least three layers of clean redeposited alluvium, similar in composition to that from which the motte was constructed (above). Although these layers are distinguished by colour, ranging from blue-yellow to orange-yellow, to grey-yellow, it seems likely that they were deposited at the same time (Tuck and Rajic 2019, 57–9). One sherd of Humberware and another of Sheffield ware were found within the make-up of the bank, suggesting a 13th- to 15th-century date (Cumberpatch 2020). Two sherds of pottery (one of 11th- to 13th-century Splash Glazed Gritty ware and another of 13th- to 14th-century Local Coarse Sandy ware) recovered by ARCUS in 1999 from the earliest observed fills of the moat push the date of the east moat into the earlier part of this range (Davies 2000, 31, 41). In 2018 it had been hoped that Trench 11 (30m to the north) would confirm the alignment of the moat, but it was not, however, possible to excavate deeply enough in this location, and so the presence or absence of the moat there remains unconfirmed (Tuck and Rajic 2019, 63–5). However, the line of the east moat, as recorded in the 1999 excavation and Trench 10 in 2018, is traced by a minor lane depicted on 19th-century maps running north-east from Castle Fold’s Lane (Belford 1999, 22; *contra* Armstrong 1930, 11; see also below for discussion of the upper levels of Trench 10), and this perhaps provides an insight into the line it took as it progressed northwards towards its confluence with the Don (Tuck and Rajic 2019, 60).

One of the intriguing questions about the east moat relates to the nearby River Sheaf. In short, why dig a moat on this side of the castle when a river defence was already available? Armstrong noted the phenomenon in a sketch on which the high walls of the castle are set on top of a steep slope which ends in a shallow dip/ditch and bank; below this the moat is separated from the Sheaf by a stretch of open ground (Figure 7.16). This ‘doodle’ is not entirely accurate as it shows a bank inside (i.e. to the west) of the moat. More significantly, as we saw in Chapter 3, Armstrong believed that the east moat was shallower than the other sections, and that it was generally dry. Both of these facts, he believed, were a product of the presence of the Sheaf – ‘a strong defence would be provided on that side by the river and its high bank surmounted by the dry ditch, from which the glacis sloped steeply upwards to the castle walls’ (Armstrong 1930, 18). We now know that the base of the east

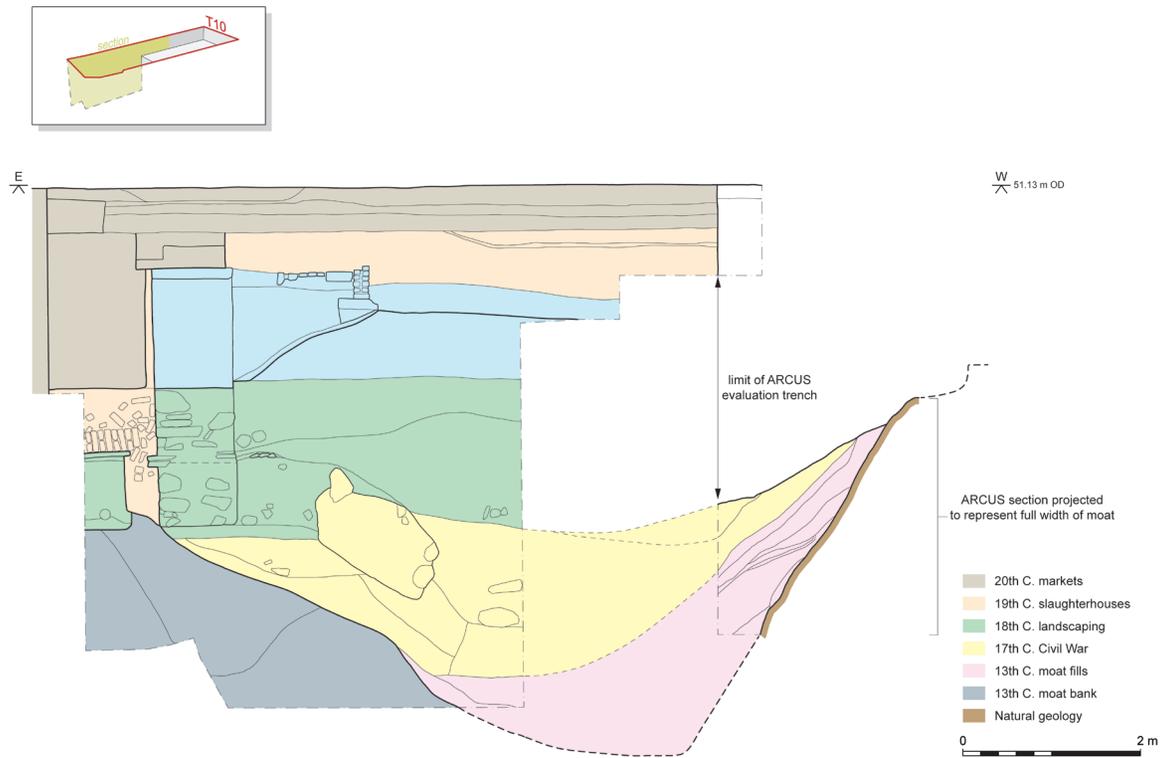


Figure 7.15: Section through Trench 10 showing the east moat. This figure relates what was recorded in 2018 with that part of the moat excavated by ARCUS in 1999. Wessex Archaeology.

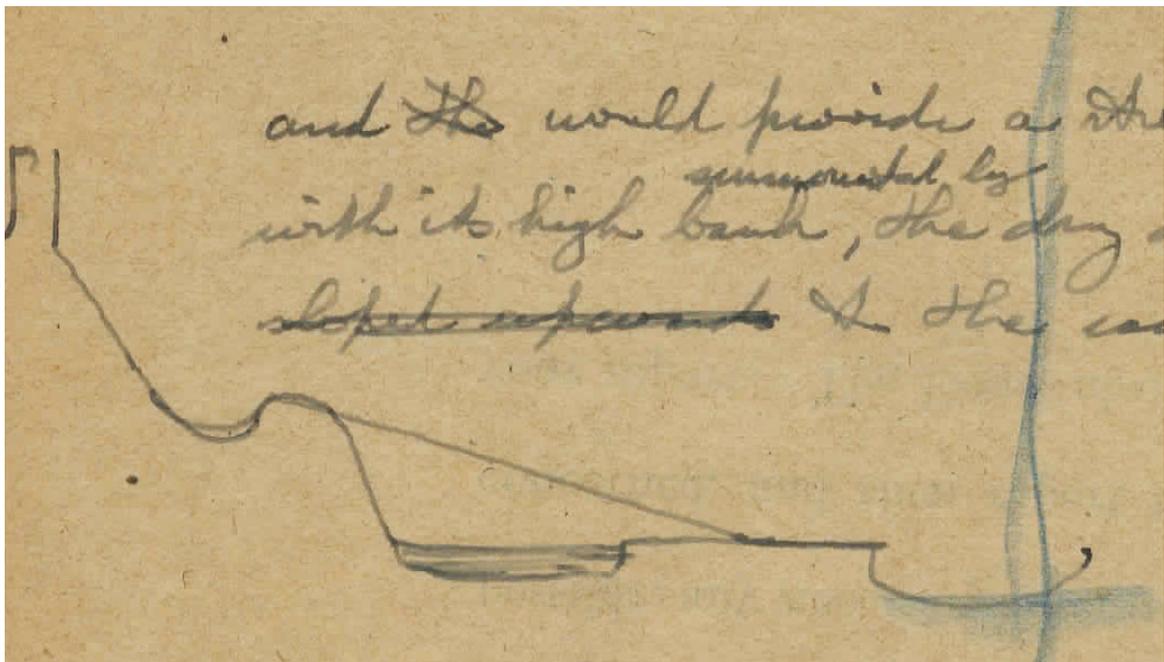


Figure 7.16: Sketch showing the east side of the site including the moat and the River Sheaf. In this 'doodle' Leslie Armstrong set out his thoughts on the castle's eastern 'defences'. Courtesy of Museums Sheffield.

moat was lower than that of the south moat and that it must have contained water – how else do we explain the ‘black sludge’ recorded by Himsworth (1927–42, 3) or the fact that on 5th August 1644 Parliamentary forces tried (and failed) to ‘break up the Sluce through the Dame, to let out the water of that corner against the Orchard, on the east side of the Castle’ (Anon. 1644, 4). So Armstrong’s practical argument does not hold. Instead, we suggest, the rationale for the impressive, repeated marking of the eastern side of the castle lies in the realm of perception, of the symbolic. As we will argue in Chapter 8, our understanding of Sheffield Castle is significantly enhanced by viewing it within its wider seigneurial landscape, by seeing it as one of two focal points around which that landscape was articulated, and by remembering that the other lay on the hills of Sheffield park to the east. In other words, Sheffield Castle was designed to be seen from the east – its best, most ‘impressive’ face looked in that direction. Thus, even though the castle and its wider landscape setting are now obscured by urban sprawl, we have been able to tease out of its remains something of the cultural context in which it was constructed (Liddiard 2005 and 2007 for discussions of castles in their landscape context).

The late medieval castle

The evidence from the 2018 excavations for late medieval activity at Sheffield Castle is limited to one cobblestone surface in the south-east corner of Trench 1 (Tuck and Rajic 2019, 25–7). This possible courtyard, at about 54.5m AOD, was made of small cobbles and is dated to the 15th to early 16th centuries through pottery of Late Medieval Sandy ware type found between the cobbles (Cumberpatch 2020). In 2001 ARCUS recorded a similar feature 20m to the north in Trench 1, and this might well be a continuation of the same surface. That surface was at 53.2m AOD, and was also associated with 15th- to 16th-century pottery, in this case Midlands Purple ware (Davies and Symonds 2002, 10). At this point it is worth pausing to reflect on the fact that the 15th and 16th centuries were when Sheffield Castle was at the apex of its power, when its lords operated at the highest levels of society and politics. This is the time of George Talbot, the richest man in England, Bess of Hardwick, and the unfortunate Queen of Scots, while inventories from this period reveal a castle expensively furnished (LPL, MSS 694–710; LPL, MSS3192–3206; LPL, MSS 3192–3206; Leader 1874, 44–45; see Chapter 6). Its archaeology is, by contrast, impoverished.

The Civil War

At various points in this book we have seen how the archaeological record, especially in the upper layers of the moat, was a product of the documented clearance of castle buildings (see especially Chapter 5). Although the 2018 excavations demonstrate that parts of some medieval buildings survived into the 18th century or later (see discussion of Trench 6, above), there is also evidence for this mid-17th century slighting. For example, overlying the late medieval cobblestone surface recorded in Trench 1, there was a 0.15m-thick layer of orange-red sand with stone and brick rubble inclusions (Tuck and Rajic 2019, 26). Pottery within this demolition and levelling layer was of various types and dates, but none post-dated the 17th century. The evidence was more extensive in ARCUS Trench 1, where a 1.9m deep sequence of 17th-century demolition deposits filled the stairs leading to the undercroft of the vaulted building discussed above. These layers were composed of sandy silt with sandstone blocks, and contained fragments of medieval and early post-medieval pottery, ceramic floor tiles, animal bones, window glass and lead cames (Davies and Symonds 2002, 10–11).

In addition, a series of mixed 17th-century layers filled the top of the moat in Trench 10 (Figure 7.15). These deposits are composed of redeposited alluvium, probably representing the upcast from slighting works and therefore redeposited for a second time (Tuck and Rajic 2019, 59). Datable artefacts in these upper moat fills were sparse, and included just two sherds of 17th-century pottery along with residual 14th- and 15th-/16th-century pottery (Blackware and Blackware-type ware, Coal Measures Purple ware and Coal Measures-type ware; Cumberpatch 2020). Two large pieces of the lime mortar-bonded rubble core of walls were also found in the 17th-century moat fills (Tuck and Rajic 2019, 59).

The 18th century

A further ‘re-landscaping’ occurred when Castle Hill shifted from an aristocratic space to a public arena, albeit one still owned by the earls. As we saw in Chapter 3, cartographic evidence reveals that by the early 18th century



Figure 7.17: The locations of Trenches 1 and 5 superimposed on the 1769 Fairbank plan of the site (see Figure 3.24). Wessex Archaeology.

there was a bowling green and associated buildings in the centre of what had been the castle courtyard (Gosling 1736; Fairbank 1769; see Chapter 9 for detailed discussion). Joseph Himsworth (1927–42, 11, fig. 35; 1937, 9) thought that a square sandstone pillar with an iron rod embedded in it, which he saw being excavated in early December 1928, might be a railing from around this green. Much more substantive evidence emerged in 2018. Levelling material, which, again, was redeposited alluvium, had been laid down to bury the remaining medieval structures (although in Trench 5 the courtyard of the castle was directly overlaid by 18th-century deposits). This levelling material contained residual medieval pottery along with 18th-century pottery, clay pipes, slag and clinker, and intrusive 19th-century material (Tuck and Rajic 2019, 27). In Trenches 1 and 5, two parallel stone walls, 40m apart and each running north–south, were built on top of this levelling deposit, and on either side of the expected position of the bowling green (Figure 7.17). The walls were made of rough sandstone blocks, perhaps quarried from the castle remains, bonded with lime mortar (Tuck and Rajic 2019,

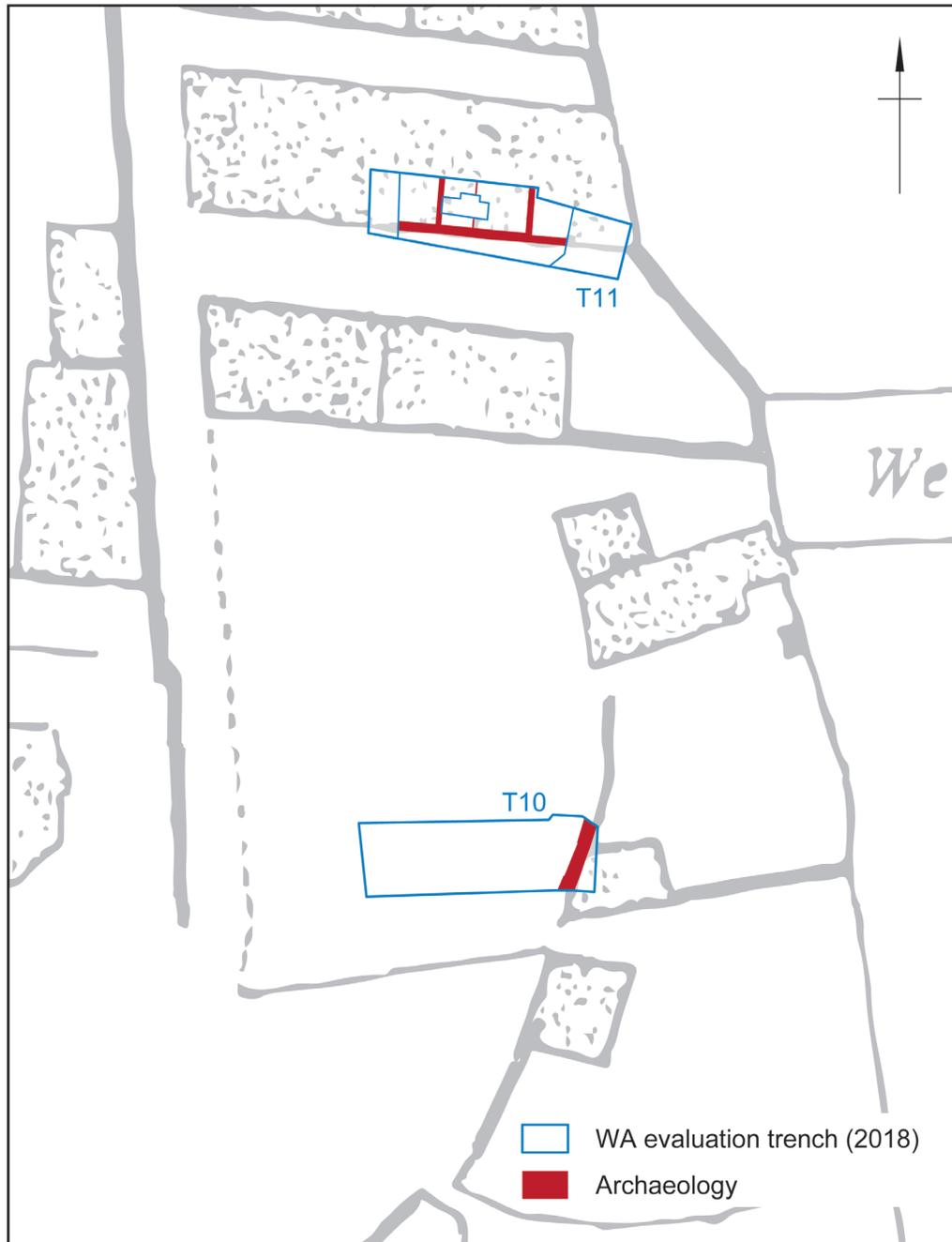


Figure 7.18: Location of Trenches 10 and 11 superimposed on a detail of the 1853 OS map. Wessex Archaeology.

27, 46). Comparison of the excavated remains with the Fairbank 1769 plan make it highly likely that the walls are those of the bowling green, perhaps even those visible on Thomas Oughtibridge's 1737 *North Perspective View of the Town of Sheffield* (see Figure 8.26).

The restructuring of market provision in Sheffield following the 1784 Act of Parliament (see Chapter 1) brought radical changes to the area. If the bowling green had not already gone out of use by then (see Chapter 9), its fate was sealed by the construction of a series of slaughterhouses along the south banks of the River Don (Figure 1.10). Three of these were excavated in 2018 in Trench 11, and it was revealed that their foundations were dug into levelling layers composed of alluvial clay which contained 18th-century pottery and clay tobacco pipes (Tuck and Rajic 2019, 64–5; Figure 7.18). The foundations were constructed of rough

sandstone blocks (perhaps reused from the castle) and lime mortar, and there was a sandstone threshold at the west end of the south side of each room, indicating the position of the former doorways. The floors were made of high-quality, probably imported sandstone flags, and the walls were built of handmade red brick and lime mortar. An interesting feature was the presence of sloping floors in each slaughterhouse, which drained toward the river, producing the ‘streams of ink’ into the Don reported in advance of a royal visit in 1875 (see Chapter 9). These slaughterhouses were used up until 1928, and had several modifications during the 130 years of their use; their demolition was recorded by Himsworth, as we saw in Chapter 3, Section: Civic pride and the search for Waltheof.

In Trench 10, the eastern bank of the moat was capped with the flagstone surface of the narrow lane mentioned above as indicating the course of the eastern moat. The area of the east moat itself was buried beneath 2.5m (47.23–49.53m AOD) of redeposited alluvium and rubble containing large blocks of worked sandstone probably derived from castle structures. Nineteenth-century OS maps (1853 and 1892) depict the area as occupied by a yard and excavation revealed this to have had a cobbled surface (Figure 7.19). The yard and the lane were divided by a substantial 0.9m-wide sandstone wall, oriented north–south and bonded with lime mortar in the lower courses (Tuck and Rajic 2019, 60). When the slaughterhouses expanded into this area in the mid-19th century, the wall was partially rebuilt and reused as the east wall of a slaughterhouse (Tuck and Rajic 2019, 60–1).

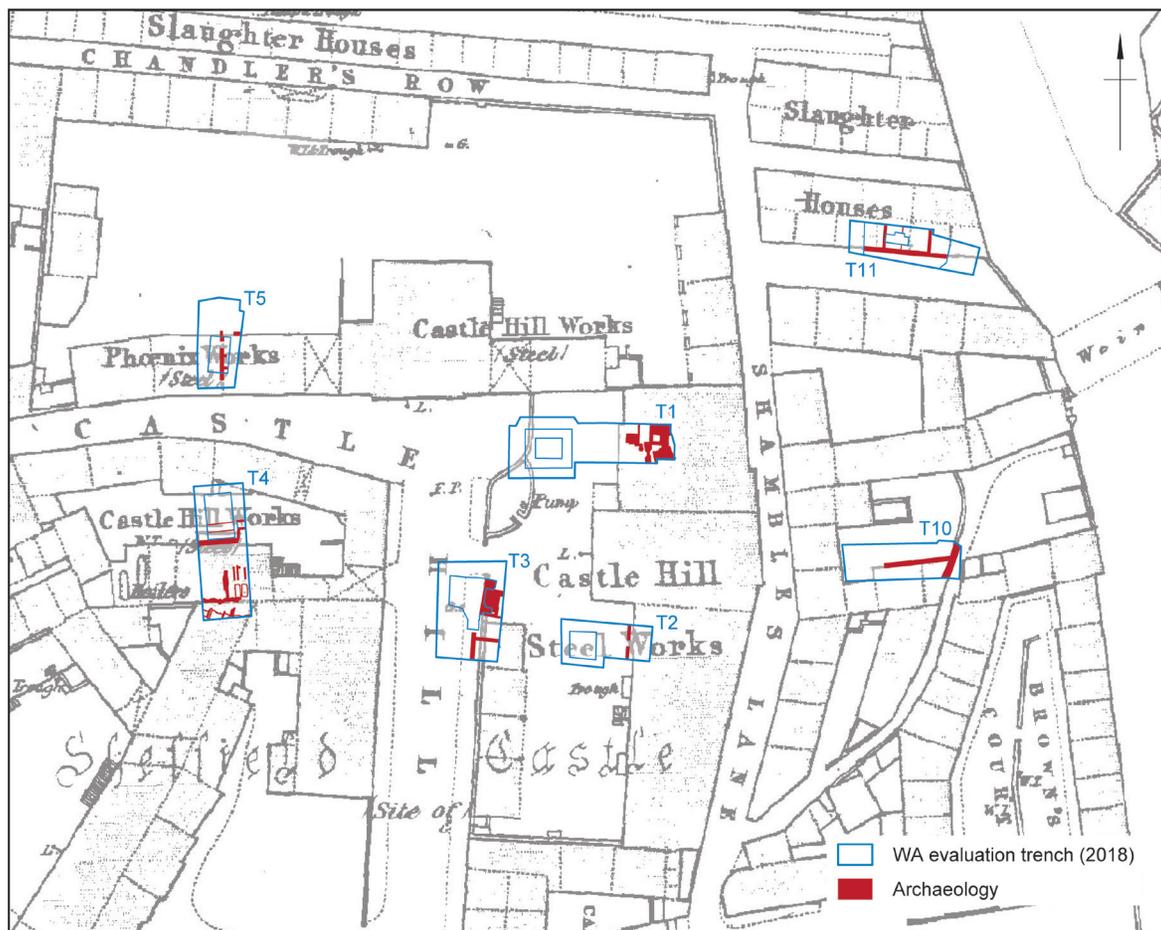


Figure 7.19: Trenches dug by Wessex Archaeology in 2018 superimposed on the 1853 OS map. Wessex Archaeology.

Steel City

The 1853 OS map (at a scale of five feet to one statute mile) shows a series of small steel works (Castle Hill Works, Castle Hill Steel Works and Phoenix Works) on Castle Hill (Figure 5.24), with hotels, public houses, and the slaughterhouses around its edges. In Trench 4, in the south-west of the upper platform, at 53.42m AOD, was an exhaust gas flue, perhaps associated with a boiler or some other industrial process (Tuck and Rajic 2019, 39–40; Figure 7.20). The sides of the flue were constructed of firebricks and the base comprised handmade red bricks covered in a refractory sand. A series of belt power transmission line shafts were located to the south-east of the flue and may have been contemporary, although any relationship between the two had been substantially truncated. The line shafts were evidenced by fragments of three parallel single-skin handmade brick and lime mortar walls.

Nineteenth-century OS maps indicate the layout of the steelworks, and further detail was provided by the excavations in Trench 4. A series of brick walls, some with sandstone foundations, were bonded with both lime mortar and ash mortar, indicating at least two phases of construction (Tuck and Rajic 2019, 42–3). Both the exterior walls of the steelworks and interior divisions were excavated. In the south-east of Trench 4, a large cut respected the walls of the works but truncated the earlier line shafts. The cut was made for the installation of a pair of large, reused sandstone blocks (0.9m by 0.4m by 0.3m). The blocks were probably used as a base to support something heavy (perhaps a machine), and fittings on the underside of the blocks indicated that they had previously been used for this purpose in another setting. We take these blocks to be reused parts of the castle because of their size and geological type (Coal Measures sandstone). The north part of Trench 4 was depicted as a yard on the 1853 Ordnance Survey map, and two phases of reused brick structures excavated in this area probably represent minor buildings within the yard. The southern end of the trench contained the remains of a second major range of 19th-century buildings visible on the 1853 map, this time on a north-east to south-west alignment. The excavations uncovered a handmade brick and lime mortar wall and a series of kerbs, flagstone, cobblestone and sett surfaces (Tuck and Rajic 2019, 43).

In other trenches (1, 2, 3 and 5) across the upper platform evidence for the steelworks was generally limited to boundary walls and culverted drains in former yard areas. The remains of a weighbridge, with a significant



Figure 7.20: Industrial archaeology, and the perennial levelling-up, in Trench 4. Wessex Archaeology.

impact on several medieval layers, were uncovered in Trench 3. This was recorded on the 1892 Ordnance Survey map by the letters 'W.M.' (weighing machine). The weighbridge comprised a brick-lined pit with sandstone corner stanchions and a maintenance access passage. Fragments of the cobbled Castle Hill Road, depicted on the 1853 OS map, were also preserved in Trench 3 (Tuck and Rajic 2019, 33, 36–7; Figure 7.19).

A large construction cut recorded in Trench 1 contained a series of structures associated with a cementation furnace. It was built primarily of sandstone, again perhaps sourced from the castle, with interior structures of handmade brick. A north chamber was just large enough to permit access for maintenance of the south chamber, which likely acted as a fire or ash pit for the furnace. Iron bars were built into the structure and helped to carry the load of a flagstone floor over the north access chamber. The backfill of the construction cuts and chambers comprised brown and reddish-purple sandy silt, representing redeposited ash and heat-affected materials from a furnace. Lumps of rubble were recovered comprising ganister – a refractory grade of sandstone obtained locally in Sheffield and elsewhere – with bonded crozzle, the lining of the furnace chest. Although the furnace chest itself had been removed, the excavated remains are identical to those found in cementation furnaces excavated elsewhere in Sheffield, such as at Hollis Croft (Tuck *et al.* 2019). Superimposing the plan of Trench 1 on the Goad Fire Insurance plan of 1896 suggests that this furnace was on the premises of R&J Smith. As we noted in Chapter 2, on 30th March 1915 the *Sheffield Daily Telegraph* reported the demolition of a furnace which stood in what was 'formerly the yard of Messrs. Smiths' Steel Works', and which was portrayed in Thomas Winder's (1907, 80) *T'Heft an' Blades o' Shevviold* (Figure 7.21). The same cone, we have

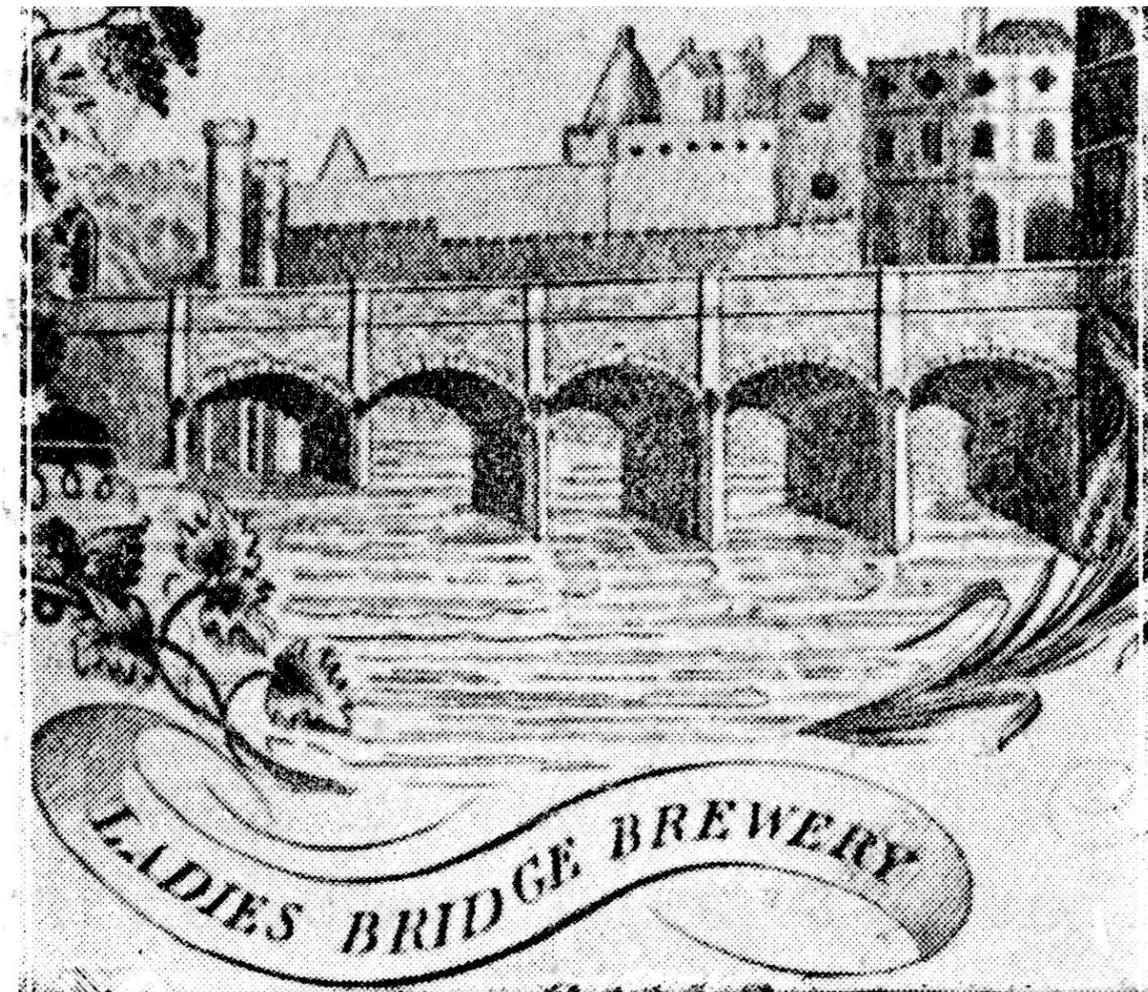


Figure 7.21: This advert for 'Ladies [*sic.*] Bridge Brewery' contains a depiction of Castle Hill and the Bridge. From *T'Heft an' Blades O'Shevviold*, by Thomas Winder (1907). Behind the slaughterhouses the cone of a furnace is visible. Public Domain.

argued, can be seen in early 19th-century paintings (see Chapter 2, Section: Doing archaeology in Sheffield 1927–30; also Chapter 9, Section: New uses for Castle Hill).

These, then, are the material traces of Steel City on Castle Hill – and it could be argued that they are among the most significant of the remains uncovered by the 2018 excavations. This is not because of their association with Sheffield's era of industrial greatness, or because they were largely ignored during the 1920s and the 1950s investigations – though both are true. Rather, we contend that their importance stems from the fact that they lie at the top end of a stratigraphic sequence that encapsulates the history of Sheffield. This history is not one obsessed with the search for Waltheof, or one blinded to the significance of earlier periods by the furnaces of industrial might. It is, rather, a long-term history in which the castle, the bowling green, and R&J Smith's cementation furnace all have a voice. And, as we will see in Chapter 9, that raises questions about just how such voices can be articulated in a process of regeneration.

Finds assemblage

In Chapter 6 we discussed the assemblages recovered from the site of the castle in the early and mid-20th century, including the provenance of the material and what it revealed about activities on the site. We also highlighted apparent evidence for selective retention, although what was recovered was also determined by the circumstances of investigation, and sometimes hampered by the actions of construction workers. Where the builders' foundation shafts were dug also determined what was recovered. The circumstances faced by ARCUS were different in terms of the retention policies adopted, but similar in as much as the locations of their trenches were dictated by access considerations. The Wessex Archaeology excavations were similarly conducted with potential future development in mind, but there was greater freedom to position the trenches for the furtherance of a research-based understanding of the site. During the 2018 excavations, all artefacts were removed from site to be examined with no on-site selection other than for obviously very modern material. In this section, we will discuss the finds recovered during these excavation campaigns and compare the findings with those discussed in Chapter 6. The specialist finds reports that underpin the following discussion are available through the Archaeology Data Service (<https://archaeologydataservice.ac.uk/>).

Pottery

The 1999 ARCUS trial trench (9m × 4m) recovered an assemblage of 142 sherds of pottery, dating to between the late 11th/12th century and the 18th century; no material certainly of 19th-century or later date was found. With the exception of a single sherd of Low Countries Redware, all of the pottery was of local or regional manufacture, and hence very similar to the material recovered in the 1920s and 1950s/1960s and discussed in Chapter 6 (Davies 2000, 28–50). The lowest fills (but still not the bottom) of the moat encountered during these excavations yielded only two sherds of medieval pottery, but the higher fills produced a mixture of medieval and post-medieval fabrics; hence the ceramic material from these moat deposits was very similar to that recovered earlier in the century. The two 2001 trenches (9.2m × 3.3m and 9m × 4m) produced 84 sherds of pottery, and as in 1999 the medieval pottery was largely residual in post-medieval contexts. One of the pits contained a single sherd of a large jar of North Lincolnshire shell-tempered fabric, dating to between the late 12th and mid-14th century (Davies and Symonds 2002, 30–5). More than 40% of the assemblage by sherd count dates to the 19th or 20th centuries, which is a considerably higher proportion than survives in the Armstrong and Butcher archives, where it is a little over 6% of the assemblage. The difference can be accounted for by the fact that the excavations in Trench 2 encountered modern dumping levels, while the earlier excavations were in parts of the site that had been considerably truncated prior to excavation.

The 2018 Wessex Archaeology excavations recovered an assemblage of 1488 sherds of pottery, and the range of wares is very similar to those recovered in the early and mid-20th century; the assemblage was principally reported on by Chris Cumberpatch (2020), while Jane Young (2020) analysed the shell-tempered wares. As with the 2001 ARCUS assemblage, there was a greater proportion of modern material, while medieval wares formed a higher proportion of the Butcher assemblage than of the 2018 assemblage: 28.5% as opposed to 10.1%. The finds do not challenge the impression that emerges from the earlier assemblages that there is no evidence for any activity on the site predating the late 11th or early 12th centuries. Four sherds of Handmade White Sandy ware – which were slab-built rather than wheel-thrown – date to this period, and are of a type not previously

found on the site. Three sherds were from Trench 6, while one was from Trench 4; the latter contained red and black iron-rich grit similar to that seen in Coal Measures wares. Such handmade wares have been found across the region at sites in Doncaster (South Yorks), Duffield (Derbs) and Wetherby and Ripon (North Yorks), but the nature of this industry is poorly understood, in comparison to the high-quality wheel-thrown pottery produced in West Yorkshire at around the same time, including wares produced in Pontefract (Roberts *et al.* 2013) and the wheel-thrown Yorkshire Gritty wares, made at unknown sites (Cumberpatch 2002a). More abundant than the handmade wares are wheel-thrown products of the Doncaster Hallgate potteries represented by a small quantity of Hallgate B ware (two vessels, jug and hollow ware) both from Trench 4, one from the made ground and one from the rubble of redeposited lime mortar, and Hallgate A wares (32 vessels; jugs and hollow ware) from the levelling layers in Trenches 1, 3 and 4, but also from under a cobbled yard in Trench 5.

As was the case with the pottery assemblage recovered in the early and mid-20th century, the later medieval pottery was dominated by Coal Measures wares, including Coal Measures Purple wares (two sherds), Coal Measures Whiteware (one sherd) and Coal Measures Fineware (one sherd). These were recovered from across the site, including made ground in Trench 1, and the fills of the south and east moat in Trenches 9 and 10, respectively. Just one sherd of Brackenfield ware, a strap handle from a jug, came from made ground in Trench 1. Similar to the assemblages from earlier excavations discussed in Chapter 6, there were just five sherds of Humberware, representing five vessels, from made ground in Trenches 1 and 4, and from the bank to the east of the east moat. A total of 52 sherds of Sheffield-type ware, representing 39 vessels, was recovered. As with the assemblages discussed in Chapter 6, there were many sherds of late medieval pottery that could only be assigned generic names, including various sandy wares, such as White Sandy ware (two sherds), Splash Glazed Sandy ware (one sherd), Buff Sandy ware (four sherds), Reduced Sandy ware (10 sherds), Oxidised Sandy ware (six sherds), and Chalk-tempered Sandy ware (one sherd). Three sherds of North Nottinghamshire Quartz and Shell ware from Trenches 1 and 3 date to between the 12th and mid-13th centuries and three other sherds of shell-tempered pottery are from a single vessel found in Trench 4 and probably date to between the mid-12th and mid-14th centuries (Young 2020). A single sherd of Gritty ware from Trench 4 was from a dripping tray or pan, intended to catch the fat dripping from an animal carcass while it was being cooked on a spit. While not common on most medieval sites, a number have been identified at Conisbrough Castle (South Yorks; Cumberpatch 2013; 2014a; 2015b; 2016).

As with the assemblage analysed in Chapter 6, the post-medieval pottery of the mid-15th to early 18th century was dominated by Cistercian ware (eight sherds) – two of which bear white pipeclay motifs – Blackware (13 sherds) and Coarse Blackware (three sherds) – while other fabrics were present in smaller amounts, such as Yellow wares (four sherds), Surrey Whiteware (one sherd), Midlands Purple ware (two sherds), Brown Glazed Coarseware (171 sherds), Early Brown Glazed Coarseware (four sherds), Brown Glazed Fineware (two sherds), Redware (one sherd) and Slipware Type 1 (10 sherds). There was little imported pottery. The few examples of imports include a sherd of Westerwald stoneware found in an early 20th-century demolition deposit in Trench 6, 25 sherds of Martincamp-type ware found in made ground in Trench 1, and four sherds of Tin Glazed Earthenwares. Westerwald stonewares, distinguished by the use of dark blue cobalt decoration on a pale grey stoneware body, are relatively common on post-medieval and early modern sites (Gaimster 1997), but this is the first example from the castle site, although it is too small to identify to a specific vessel type. As we saw in Chapter 6, Martincamp-type flasks and Tin Glazed Earthenwares are of a type that may have been imported but equally well could have been manufactured in Britain. Post-medieval wares, notably those from the 17th century, were considerably commoner in the assemblages from the earlier excavations (over 65% of the total) than in the 2018 assemblages (3.8%). This suggests that the areas of the site investigated by Butcher, in particular, were among those pertaining to the final phase of the castle's existence and to deposits relating to the Civil War and its aftermath.

The 2018 assemblage contained far more early modern and recent wares than the assemblage discussed in Chapter 6: 5.8% and 0.45%, respectively, of the latter, and 48% and 37%, respectively, of the 2018 material. The 18th century saw a major change in the pottery industry with the appearance of White Salt Glazed Stoneware (c.1720–c.1780; seven sherds; see Edwards and Hampson 2005) and, slightly later, the first refined earthenwares: Creamware (c.1740–1820; 164 sherds) and Pearlware (c.1780–c.1840; 34 sherds), all closely connected with the industrialisation of the pottery industry. Often linked specifically with Staffordshire, they were in fact manufactured very widely, including in Yorkshire (Griffin 2012), although it is difficult to attribute them to

specific potteries unless the sherds bear makers' marks or, more rarely, unique decorative designs. The character of these wares distinguished them from both earlier types and contemporary vernacular tablewares, with their fine, thin profiles and hard, bright, white finish. The wider social significance of the wares, which reflect the importance of the cult of 'civility' (Thomas 2018) in the 18th century, has been discussed by numerous authors (e.g. Kowaleski-Wallace 1997; Richards 1999). They were much cheaper and more readily available than imported porcelain, and as such were highly desirable objects, eminently suitable as part of the move towards formal dining which was an important element in the rise of the 'Georgian Order', a central part of 18th-century society and sensibility. As we will see (Chapter 9), bowling greens in 18th-century England were frequently linked with dining clubs (Hornby 2015, 86), perhaps explaining this element of the ceramic assemblage. Bone China is a common element in the assemblage (152 sherds), and found throughout the site, with plain, hand-painted, moulded and transfer-printed examples all common. First developed in the late 18th century, Bone China rapidly became the commonest type of porcelain body used by British manufacturers (Barker and Ford 1999), which was well suited to moulding (although not to wheel throwing) and was used for a wide variety of tablewares distinguished by their thin walls, bright white colour and delicate appearance. The examples from the 2018 assemblages include a wide range of tablewares, but also include kitchenwares such as pie dishes. Decoration includes overglaze painted designs (mainly floral motifs) and gold lines, and underglaze transfer prints (of both the Willow and Two Temples schemes).

A range of 18th- and 19th-century utilitarian wares were also recovered, including kitchen vessels made of Cane Coloured wares (62 sherds) and Slip Banded Cane Coloured wares (14 sherds), and teapots made of Colour Glazed wares (25 sherds), many of which bear the shiny brown 'Rockingham'-style glaze developed in the late 18th century by the Brameld family, who operated the pottery at Swinton (South Yorks; Cox and Cox 2001, 116–20). Unglazed Red Earthenwares (11 sherds) are mainly from flowerpots, perhaps reflecting the importance of allotments in Sheffield (Flavell 2005).

Clay pipes

The 2018 excavations produced a total of 662 clay tobacco pipe fragments, consisting of 73 bowls, 569 stems and 20 mouthpieces, and were analysed by Susie White and David Higgins (2020). Most of the stems are plain, but there are a number of 18th-century roll-stamped name marks that can be attributed to makers from Rotherham (South Yorks), such as William Wild, Thomas Wild, Benjamin Marsden and Richard Scolah (White 2015). A small number of the plain bowls from the excavations have makers' initials stamped on the bowl facing the smoker, including the initials TW, which is almost certainly Thomas Wild (fl. c.1777). The majority of the finds date from the 18th century and include some bowls of c.1710–50 with long surviving stems suggesting fresh and little disturbed deposits of this date. It might be significant, as we saw earlier, that the site became a more publicly accessible space at this time. The group also contains a number of different 18th-century roll-stamped stems and a very early glazed mouthpiece, supporting the suggestion from other excavations that the use of glazed tips originated in this area. Many of the 18th-century pipes are finely burnished, showing that good-quality pipes were in use on the site at this time.

Among the 17 decorated bowl fragments, some simply have a band of leaves along the seams, but others are more elaborately decorated, such as the Armorial bowl, which bears the name of the maker WILL WILD (William Wild). The earliest mould-decorated bowl from the site bears a series of enclosed scallops with a stag's head on the seam, facing the smoker. Pipes decorated with this particular motif appear throughout Yorkshire, and this is a design that is known to have been produced by Samuel Lumley of Doncaster c.1790 (White 2015).

Glass

The glass assemblage comprises 452 fragments, all of post-medieval/modern date, analysed by Lorraine Mephram (2020a). The earliest glass recovered comprises 51 fragments from free-blown or mould-blown green wine bottles. One neck fragment could belong to a bottle of 'onion' or 'mallet' form of late 17th- to mid-18th-century date, and one base is from a mid-18th- to early 19th-century cylindrical form, but otherwise these fragments can only be broadly dated as mid-17th to early 19th century. These fragments are in an abraded

condition, with surface oxidation, and were found in association with later pieces, suggesting that they are residual. There is also one free-blown pale green phial base of 18th- or early 19th-century date. Other bottles are 19th-/20th-century machine-made forms, and include containers of carbonated and alcoholic drinks, food-stuffs (e.g. condiments) or pharmaceutical preparations, reflecting the tastes and needs of those who worked in, for example, the Phoenix Works or the Royal Hotel.

Drinking vessels are limited to a clear wine glass stem and fragments of two others, one etched. A significant proportion of the assemblage (152 fragments) consists of opaque glass in a range of colours (white, pale green, pale turquoise, blue and pink); these were concentrated in Trench 5 (in a levelling deposit and a modern construction cut in the west of the site) and appear to belong to lampshades with fluted edges. Window glass (95 fragments) includes one piece of blue/green 'crown' glass and at least nine other fragments in pale greenish glass which could predate the 19th century, but the majority are clear sheet/plate glass, some thick and frosted or reinforced and of more recent date.

Metalwork

The metalwork assemblage, reported on by Mephram (2020b), includes only one certainly medieval item, a copper-alloy toiletry implement comprising a small ear scoop at one end, while the other end is bifurcated and possibly functioned as a nail cleaner (Figure 7.22). The range of specialised toilet implements increased in the later medieval period (Margeson 1993, 63–4, fig. 32). Other copper-alloy artefacts are post-medieval or modern in date, and include a small safety pin, five buttons, a lid fitting from a Kilner jar, a figure-of-eight chain link, two knob handle fittings, four short lengths of narrow piping, two with crimped ends, several other miscellaneous fittings, a plated disc, seven short lengths of wire, and various bar and strip fragments. Four coins were also recovered, one is a 1978 penny, and while the others are too corroded for identification they are almost certainly also 20th-century issues – from the site's most recent incarnation as Sheffield's Castle Markets.

Sixteen pieces of post-medieval and modern lead were found, mostly scrap fragments of sheet and plate, but there were also two window comes. Iron objects were subject to X-radiograph, but they remain difficult to identify. A nail and a strip/bar came from 13th-century demolition levels in the south of the site, with four more unidentifiable objects from a late medieval deposit found between the cobbles of the surface in Trench 1. Among the later material are some structural items, including nails, a section of narrow pipe, a window fastener and a possible hinge, as well as tools, including files, knife blades and at least one punch. Some of the blades may be unfinished objects, and these and the other tools could have been either used on the site or represent products in various stages of manufacture, for example from the steelworks. There is one large annular buckle, of a size appropriate for use on horse harness, two S-hooks and a large chain link. Much of the ironwork, however, consists of miscellaneous bar, rod and sheet fragments of uncertain function. Some of this may represent manufactured bar for sale, or material brought in for further processing. The other metal objects, all of 19th-/20th-century date, include a teaspoon (stamped with the mark of Arthur Price), a small fork, a container lid with an oily residue, and a squeezed tube of Gordon Moore's Cosmetic Toothpaste.

Leather

The leather assemblage comprises 23 objects, in 152 fragments, the majority of which are small scraps, reported on by Quita Mould (2020). All but one fragment of the leather came from the south-west part of the upper platform in Trench 4. No complete items were found, and the leather comprises principally highly fragmentary shoe parts. There is also the discarded junction from machine belting and a fragment of horse harness strap. This material is too fragmentary to date closely but cannot be earlier than the second half of the 19th century. The assemblage, thus, differs considerably from that discussed in Chapter 6. Substantial shoe parts were found in Trench 4, and what remains of them reveals that they were of brass riveted construction, heavily hobnailed and front-lacing, which suggests that they were working boots. The brass riveted junction of a machine belt and small fragments broken from belting were also found in Trench 4, perhaps deriving from the industrial machinery housed in buildings comprising the 19th-century steelworks.



Figure 7.22: Medieval copper-alloy ear scoop found between the cobblestones in Trench 5. Wessex Archaeology.

Wood

Thirty-five pieces of wood were recovered from the site, in Trenches 3, 4 and 6, and reported on by Lucy Allott and Erica Macey-Bracken (2020), with dendrochronological dating undertaken by Ian Tyers. The largest piece is part of a large rectangular oak beam from a medieval demolition deposit in Trench 3, which is broken at both ends and appears to have been burnt, giving it a twisted appearance; as noted above, it was dated dendrochronologically to the late 11th to early 12th century (Tyers 2020). A fragment from another large timber was also recovered from the same context; again, this is broken at both ends and very little of the original surface remained, although this piece does not appear to have been burnt. A section of a large oak beam that had been cut down and subsequently reused was recovered from a medieval levelling deposit in Trench 6 – it too has been dendrochronologically dated to the late 11th to early 12th century (Tyers 2020). There is evidence of a face lap with a large peg on one side, and a deep groove has been cut into the side of the beam, although subsequent

reduction of the width left this groove on the edge of the timber. In later reuse the piece had also been chamfered into a chisel point with a flat facet at one end, while the other end was more crudely cut back. Nine other fragments of wood were recovered from this context; these pieces are broken fragments from larger timbers. One has possibly been sawn at one end but no other tool marks are visible.

Another major piece of timber is the broken end of a large squared-off oak timber post from a medieval pit in Trench 6. This piece has lost most of its original surface, and no tool marks are visible. The flat base of the post has a sub-rectangular depression in the base that may have come from being pressed up against a large stone, and, indeed, it was set on a stone post-pad. In Trench 3, three further pieces of wood were recorded from a redeposited natural levelling deposit. These pieces comprise a broken fragment from a large oak timber, with possible cut marks and a notch on one side; a short section from an alder roundwood stake, which seems to have been chopped off diagonally at one end; and a broken hazel branch. The remainder of the assemblage consists of three small lath or plank fragments, all from Trench 4, two broken fragments from a sawn timber recovered from the medieval fill of a pit in Trench 6, and two small fragments from a post-medieval levelling deposit in Trench 4.

Animal bone and shell

The evaluation of the faunal remains by Morgan Windle and Umberto Albarella (2020) yielded a very small assemblage consisting of 1,074 fragments, although, once joins are considered, this falls to 235 bones. Little animal bone was recovered from medieval contexts, but this did include species such as fallow deer and woodcock, which are likely to have come from the deer park (see Chapter 8). Canid (i.e. dog/fox) species and horse are also present in the medieval bank layers to the east of the east moat. Analysis of the post-medieval/modern assemblage was limited by the low proportion of identifiable bones, but it includes deer (*Cervidae*) post-cranial bones, which must be residual, while the three main domesticates (cattle, sheep and pig) are represented by post-cranial bones and teeth in all phases. Evidence for sawing and cutting on a variety of post-cranial bones, a worked antler, working debris and incomplete or broken implements associated with the 19th-century layers indicates bone working (for knife handles?) was taking place on site. The 20th-century levelling deposits in the north-west of the site yielded *Galliformes* (probably chicken) and levelling deposits in the west of the site yielded *Gadidae* (cod) species in addition to cattle, sheep and pig.

Sixteen shells were recovered from 18th- to 20th-century deposits, comprising oyster (six), whelk (seven), cockle (two) and mussel (one) (Mephams 2020c). Among the oyster, where valve side could be determined, all are left valves, which reveals that they are consumption waste. There is also a small fragment of mother-of-pearl, which could represent button-making waste.

Building material

The assemblage of ceramic building material, reported on by Mephams and Alvaro Mora-Ottomano (2020), is small (40 fragments), and is entirely of post-medieval/modern date. The roof tiles include both flat peg tile (11 fragments from a bedding layer in Trench 1) and pantile (one fragment from a construction cut for a 20th-century drain in Trench 5). All 15 pieces of floor and wall tiles in Trenches 1 and 4 are of 19th-/20th-century date. Three bricks are heat-affected, with two fused together, and probably derive from furnaces. A red, handmade half-brick (110mm × 60mm) from a wall in Trench 6 was examined in detail. It is of general 18th-/19th-century appearance, and its fabric is coarse and mixed with slag inclusions. Prior to reuse of the brick as part of the rubble core of the wall, it had been exposed to intense heat and had been heavily blistered on one of the bed faces, perhaps from use in a steel furnace or similar. In 1776, Parliament fixed brick sizes at 8½ × 4 × 2½ inches (216mm × 102mm × 63mm) and in 1784 introduced a tax on each brick used, in response to which some bricks were made larger, up to 10 × 5 × 3 inches (254mm × 127mm × 76mm) (Brunskill 1997, 38; Cunnington 2002, 147; Iredale and Barrett 2002, 22). The size of the half-brick from Trench 6 is broadly consistent with the fixed brick size of 1776. Other building material was recovered in the form of small quantities of mortar (53 small fragments) and plaster (one fragment), which is painted red and is from a medieval levelling deposit at the base of the stratigraphic sequence in Trench 6.

Stone

Among the 50 fragments of stone recovered, and analysed by Peter Ryder (2020), most are unworked, but 21 pieces were building material, portable objects or had industrial uses. The only medieval find was part of a voussoir from a large arch at least 3m wide, which measured 460mm × 350mm × 260mm. It was of buff medium-grained sandstone, quite badly weathered, and at least some of this weathering may have taken place when the stone was in a secondary context. Despite erosion, patches of light diagonal tooling are still discernible. The voussoir is moulded with a square step and two hollow chamfers, and stylistically appears to be of 14th- or 15th-century date and it came from the east moat in Trench 10 (Figure 7.23). Also from this trench was a rectangular block (440mm × 350mm × 240mm), with a broad chamfer on one angle. This may well be medieval, although there is nothing really diagnostic; it could have formed part of the plinth of a substantial building, although where undamaged the faces are relatively unweathered.

A fragment of window tracery in fine-grained buff sandstone (143mm × 125mm × 68mm) found in Trench 7 is the head of a bifurcating mullion between two lights or sub-lights. It is chamfered on one side and hollow-chamfered on the other; cusping to the lights on both faces. In form it appears medieval, perhaps late 14th to early 16th century, but it is completely unweathered. Although it could have been part of an internal feature such as a screen, it seems unlikely that this is a genuinely medieval piece as it was found with relatively modern material in a 20th-century context. On balance, it is more likely to be a piece of 19th-century Gothic Revival work (Figure 9.10). We discuss the medieval revivalism evident on the site in Chapter 9.

Other stone items recovered include six fragments of grindstone, most from Trench 4 A segment (12mm long and 97mm × 80mm in section) of well-finished moulded stone ring was recovered from Trench 6. It has a level top, an outer face with a sophisticated moulding of Classical nature, and an inner face with fine grooving,



Figure 7.23: Voussoir of 14th- or 15th-century date found in Trench 10. Wessex Archaeology.

possibly produced by friction. It is not clear what this stone is, but it has the feel of being post-medieval rather than medieval. Other fragments include eight pieces of stone roof tile and four pieces of slate, probably Welsh slate, which only came into common use with the development of the railway network in the mid-19th century.

Conclusion

The excavations on Castle Hill in 1999, 2001 and 2018 were conducted in a very different set of circumstances than those faced by Leslie Armstrong, Joseph Himsworth and Leslie Butcher. In the modern era the excavations were framed by planning legislation and represented an intentional sampling strategy, with trenches located to examine both known features and the state of preservation of archaeological deposits across the site. In the early and mid-20th centuries, in contrast, the archaeological recording was a by-product of the circumstances of construction. In all eras public interest in the findings was considerable, but only in 2018 was the involvement of the local community designed into the excavation process. The regeneration dynamic and heritage enthusiasm in the city has required community engagement and it was in this context that facilitating public participation in the uncovering of the archaeology of Castle Hill emerged. While the modern excavations have thrown new light on our knowledge of the castle, the 2018 work, in particular, has also provided insights into the less archaeologically well known developments from the 18th century onwards. In this chapter the working classes of Sheffield have been to the fore, albeit much later generations than we read about in Chapter 6. Through the remains of their boots, teapots and tools it has been the industrial workers of the 19th century who have emerged centre stage, as they inherited the site of the castle for manufacturing. Through the presence of the slaughterhouses, Castle Hill witnessed far more bloodshed between the late 18th century and 1930 than it ever did in the medieval period. As we will see in the following chapters, this new phase in the history of the site, while economically beneficial to the individuals concerned and to the city itself, was also inimical to the image that the city's elite wanted to portray, and we will show that the medieval allure of Castle Hill has continued to resonate even after the castle was demolished in the 17th century.

Bibliography

The full bibliography is available at the end of this volume, or at: <https://doi.org/10.22599/SheffieldCastle.k>.