

CHAPTER 5

‘Long before Castles Were Thought of’: Sheffield Castle and Deep History

Castles, with their moats & the hills they stand on are 3 dimensional. Plans & sections are not everyone’s cup of tea & so I have introduced a number of 3 dimensional drawings giving a sort of bird’s eye view effect (Butcher 1961, 1)

In the text of a lecture delivered to the Hunter Archaeological Society in January 1961, Leslie Butcher (1961, 18) expressed his view that it would be a time-consuming task to write up what he had recorded on the site of Sheffield Castle:

Interpretation of such a complex of moat sludge, clay with rubble, burnt stone, pottery bone & leather, recurrent layers of different qualities of rubble, flagstone, the occasional tree root, stakes, ashes, slag and the rest, is going to take a long, long time.

We doubt he expected it would take 60 years! Indeed, over the following decade Butcher made much progress on writing up his findings and comparing them with those of Leslie Armstrong and Joseph Himsworth a generation earlier, but died before this work could be published. This chapter sees this work of reporting and interpretation finally completed, integrating the written, drawn and photographic record with evidence from our new analyses of the surviving artefacts, which played no discernible part in Butcher’s interpretations. A typescript of a planned publication survives in his archive, but it lacks detailed references to specific excavated features, and so we set out to reconstruct the basis of Butcher’s arguments, integrating discussion from his handwritten manuscripts which provide greater detail.

The chapter also compares Butcher’s findings with those of Armstrong and Himsworth and examines what this more complete picture of the remains enables us to say about the form of Sheffield Castle. In writing up what he had recorded, Butcher (1972c, 4) clearly developed much sympathy with Armstrong and Himsworth as fellow practitioners ‘each labouring under his own difficulties’ who had ‘sought the truth where it is most likely to elude anyone: on an archaeologically unknown city centre site under active commercial excavation’. What emerges from Butcher’s archive is not simply informative about the medieval

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castle and its afterlife, but it allows us to trace his struggles to make sense of what he had seen, and is also of critical value for future construction on the site presenting essential information about its topography and stratigraphy. Finally, we complete the work that Butcher had started on the relationship of the castle to the townscape. In Chapter 7 we will situate his conclusions in the context of the results of the most recent excavations on the site.

The remains uncovered

During the construction work on Castle Hill that began in 1958, more accurate information about the course, depth and profile of the moat was recorded, principally to the south of the inner courtyard of the castle, but new insights were also gained into the moat on the east and west sides. The chamber in which some of the remains of the gatehouse had been encased since the late 1920s was rebuilt, permitting more of the gatehouse structures to be recorded, and short sections of the south curtain wall were also identified. The removal of the east wall of the 1930 market hall re-exposed the cobbled surfaces and courtyard building recorded by Armstrong, which had been preserved within the other chamber, and a complete profile of this side of the castle was drawn. Butcher integrated information he gathered at the north end of the site with the records made by Himsworth in 1930, but which had not been included in Armstrong's paper published that year. The demolition of buildings along Exchange Street was monitored and Butcher was able to record further ditches beyond the moat, two of which may be related to the earliest phases of activity on the site, while another may have been an outwork, or barbican, around the gatehouse.

Butcher also expended much effort on examining the topography of the site, showing how it had been transformed during the medieval period, following the demolition of much of the castle in the mid-17th century, and through the construction and subsequent demolition of industrial buildings and the late 18th-century slaughterhouses (although, as we will see in Chapter 7, he was not able to record all such significant changes). The topography of the site had been transformed further during 20th-century building work, and Butcher (1972a, 15) estimated that the 1958 formation level for construction was 'cut some 2 feet [0.60m] lower' than that for the Brightside and Carbrook Co-op building recorded by Armstrong, which had been at c.174ft (53.04m) AOD; this accounts for some of the discrepancies between the estimations that the two offered for the depth of the moat. In his lecture notes, Butcher (1961, 13) estimated that the original ground level had been c.183ft (55.78m) AOD, and noted that c.15ft (c.4m) had been removed from the site of the Co-op building without record during the construction work in 1927.

The moat

Butcher recorded 35 excavations (foundation shafts, trial trenches, manholes) that were dug completely or partially through the moat (Butcher 1961, 18): no mean achievement for a man doing this in his lunch breaks. The foundation shafts were mainly between 6ft (1.83m) and 8ft (2.44m) square and up to c.20ft (c.6m) deep (Ove Arup & Partners and Butcher 1957; Butcher 1972b, 18). Their locations are depicted on the foundation plan produced by Ove Arup & Partners, a copy of which Butcher annotated, and were also marked by him on a copy of a plan drawn up by City Architect Lewis Womersley (Womersley and Butcher 1957b; Figure 5.1; see also Figure 4.11). It was specifically those foundation shafts dug through the moat in which Butcher was interested, and these were marked in red on the Ove Arup plan. There is little evidence in the archive that he recorded the foundation shafts excavated elsewhere on the site in any detail; certainly, there are no drawings of them although some feature in photographs (Richardson and Dennison 2014a, 57). The drawn and photographic record captures the archaeological recording that took place at the centre of a busy construction site, and highlights the challenges of building the new market hall over a medieval moat. Butcher (1972b, 15; 1972d, 14; Figure 5.2) seems to have had more opportunity to record sections than had Armstrong, who had been hampered by an 'older and more cautious practice' of excavating foundation shafts, leading to them being close-boarded, 'which would obscure the complex stratification of the moat fill'; indeed, this is clear from the photographs taken on site by Himsworth and Senior (for example, Armstrong 1930, fig. 7). Butcher was also sometimes impeded by this practice (e.g. 1972b, 21; 1958–62d; Figure 5.3) but the drawn and photographic record suggests that he generally had a clear view of the sections, albeit that on occasion this was from the top of the foundation shafts or precariously positioned on long builders' ladders (Figure 5.4).



Figure 5.1: *Ove Arup & Partners foundation plan*. This copy has been annotated by Leslie Butcher, including a small sketch of a possible layout for the castle in the bottom left-hand corner. Courtesy of Museums Sheffield.

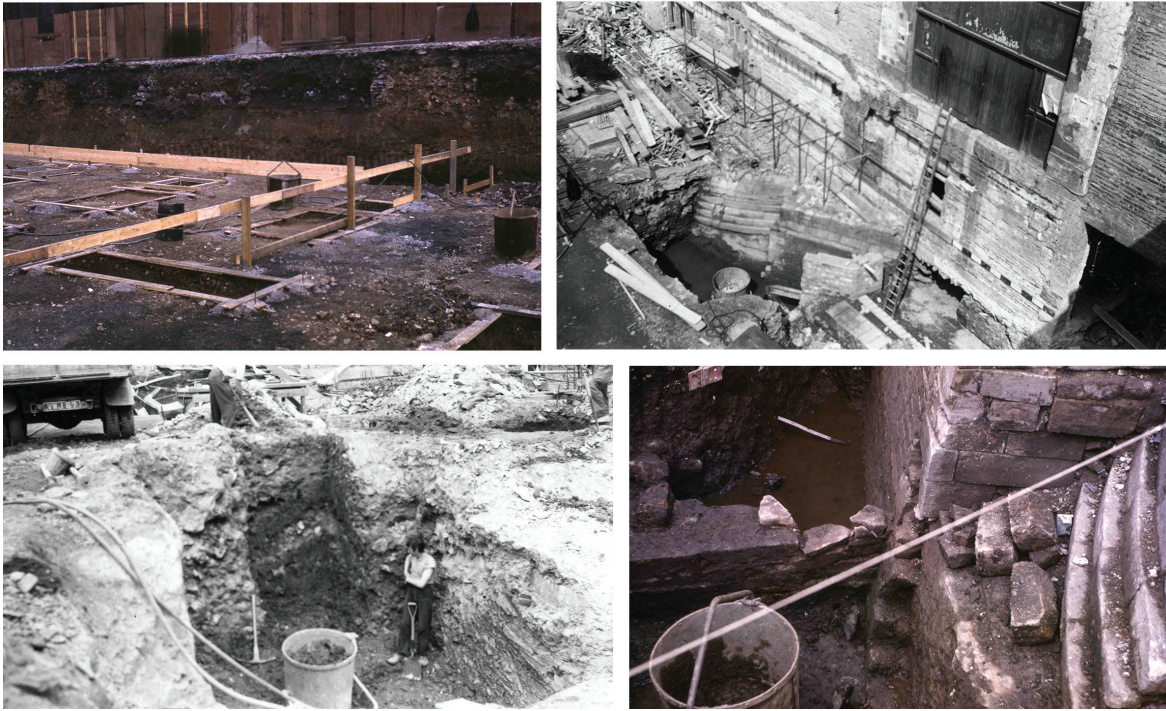


Figure 5.2: *Photographs taken during construction work on the site of Sheffield Castle between 1958 and 1962. They are reminders that Leslie Butcher, John Bartlett and staff from the City Museum were recording the castle amid a very 'active' construction site. Courtesy of Museums Sheffield.*



Figure 5.3: *Looking down foundation shaft E19 from the north-east. This photograph shows the use of shuttering by the construction workers. Courtesy of Museums Sheffield.*



Figure 5.4: *Foundation shaft H23 photographed from the south-west with a view of the moat cut. A workman is visible at the bottom giving an indication of working conditions on site that were faced by archaeologists as well as construction workers. Courtesy of Museums Sheffield.*

Butcher's drawings provide a wealth of information on the deposit sequences within the moat (for details see the appendix at the end of this chapter). The 1958 construction work saw the bottom of the moat reached in many of the foundation shafts, and Butcher demonstrated that this had generally not been the case 30 years earlier (Butcher 1961, 17; 1972a, 23), despite the impression conveyed by Armstrong (1930, plate VII). His recording of those foundation shafts enabled him to produce a contour map of the base of the moat (Butcher n.d. (u); Figure 5.5), a plan of its course and width (Butcher n.d. (j); Figure 5.6), and a profile drawing to show its depth and composition (Butcher n.d. (m); Figure 5.7). He recorded the base of the south moat at 157ft (47.85m) AOD at its west end (e.g. E17), and 152ft (46.33m) AOD at its east end near the gatehouse (e.g. in shafts G5, G7; Butcher 1972a, 14; 1972b, 19). The published note in *Medieval Archaeology* reported that the south moat would have been between 30 and 40ft (c.9–12m) deep in the medieval period (Hurst 1959, 308). However, in his later analyses Butcher argued that the key issue was the height AOD of the bottom of the moat rather than its depth, since neither the modern roads nor the medieval ground surface were level; giving depth beneath those levels 'would in a number of cases obscure the important fact that the bottom of the moat lies at three distinct altitudes above sea level (& hence above river level) in its three different reaches' (Butcher 1972b, 19). Butcher showed that Armstrong (1930, 18) was wrong in his view that the south moat was 'considerably deeper' than the east moat; as we will see, the opposite was true. Butcher initially estimated the moat to be 35 feet (10.67m) wide just to the west of the gatehouse structures, although truncation of the archaeological deposits meant that he did not encounter the original top of the moat, and in later drawings he differentiated between the width he recorded (c.9m) and the conjectured width at original ground surface (c.15m) (Hurst 1959, 308; Butcher 1972a, 13–14; 1972b, 18; Figure 5.6).

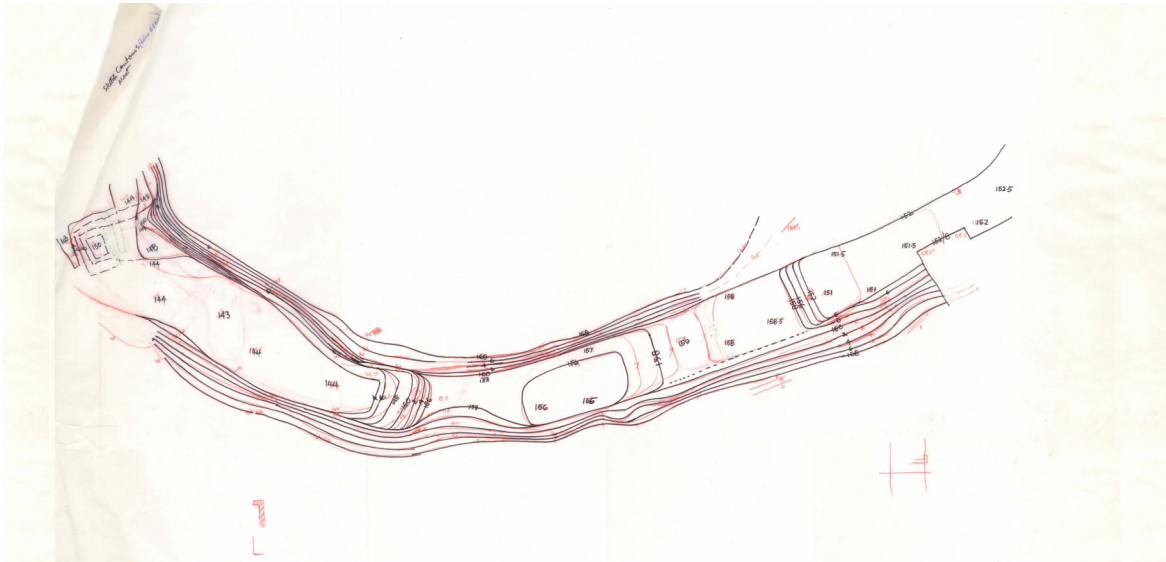


Figure 5.5: *Contour map of the base of the moat.* Drawn by Leslie Butcher, this reveals that the south moat (centre) was not as deep as the moat on the west and east sides of the castle. Courtesy of Museums Sheffield.

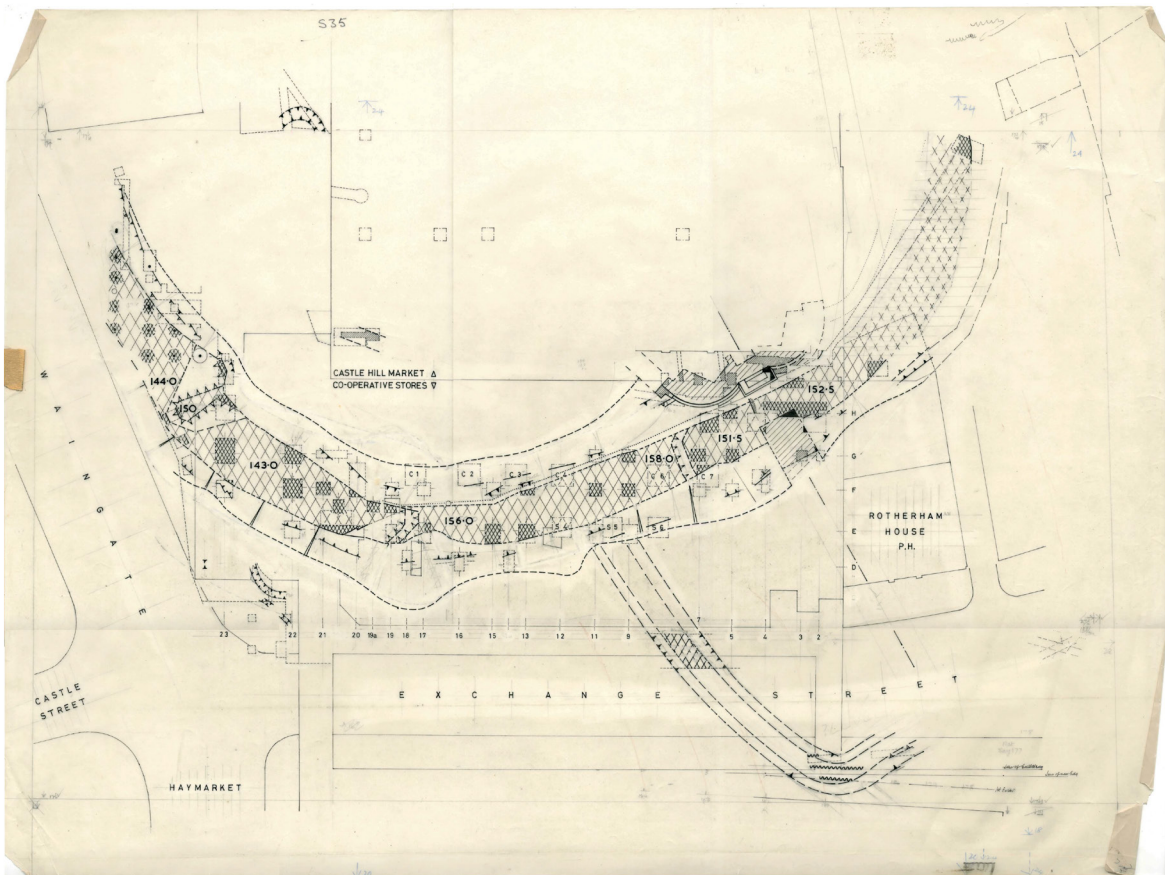


Figure 5.6: *Leslie Butcher's plan of the locations of foundation shafts and boreholes.* The foundation shafts (hatched squares/rectangles) were dug through the south and west moats and the boreholes (circles with dots) were dug through the west moat. The locations of ditches on Exchange Street are also depicted, as well as the gatehouse and associated structures, and a ditch in the inner courtyard (top left), which Butcher thought to be one of the earliest features on the site. Courtesy of Museums Sheffield.

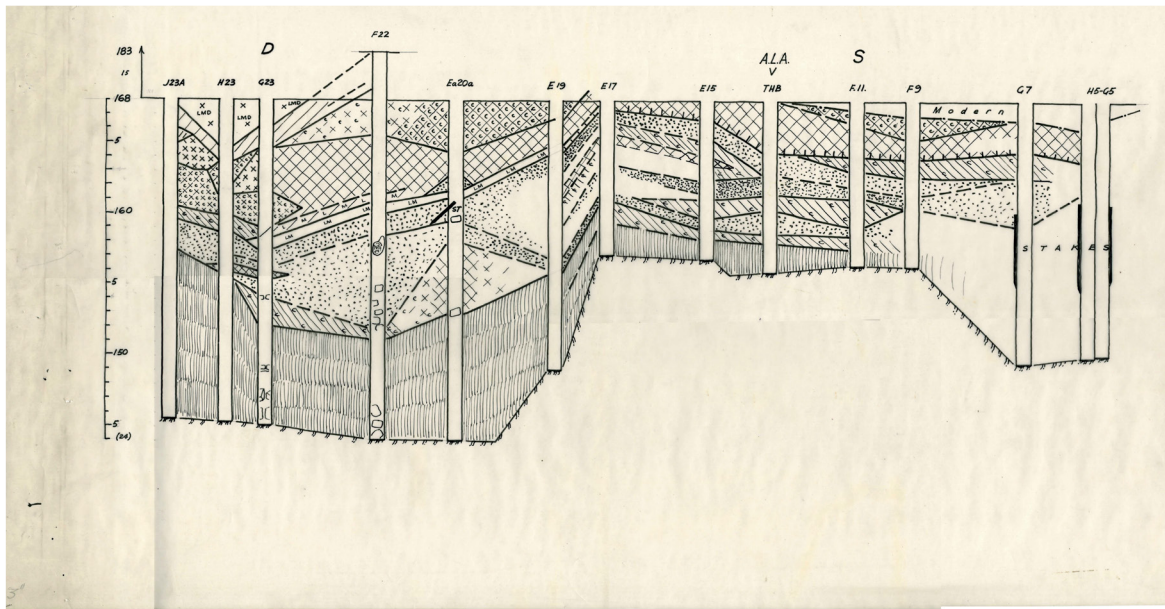


Figure 5.7: Profile drawing of the moat. Drawn by Leslie Butcher based on his recording of the foundation shafts. Courtesy of Museums Sheffield.

The foundation shafts dug along the line of Exchange Street broadly confirmed the alignment of the south moat that Armstrong had suggested, but the recording challenged the earlier deductions about the moat on the west and east sides of the castle. The foundation shafts near the junction of Exchange Street and Waingate (in particular, E19, F20, F21, F22, F23, G22, G23, H23 and J23; see Ove Arup & Partners and Butcher 1957) revealed a stepped transition from the south moat to the deeper west moat, and also suggested that from here the moat made 'a slow quadrantal turn [90°] and continues northward, nearly parallel to Waingate ... where less than half of its width lies under the present street' (Butcher 1972a, 7; n.d. (u)). Butcher (1972a, 8; 1972c, 10) suggested that the moat joined the Don to the east of Lady's Bridge (Butcher 1972a, 8–9). He believed that there may have been a dam nearby, because he recorded the base of the moat to the south of Foster's store virtually at river level (144ft (43.9m) AOD), which was a level sustained all along the west moat; to maintain an adequate level of water in the south moat, he deduced that a 20ft (6.10m) high dam would have been needed (Butcher 1961, 46; 1972a, 9; 1972c, 10). Indeed, an anonymous Civil War siege description reveals that there was a dam with a sluice to the moat on both the west and east sides of the castle: 'The water deep in the West and East sides of the Castle, slackered [controlled by sluices] on all sides' (Anon. 1644, 2; see also Chapter 3). Butcher pointed out that '[m]asonry encountered in 1930 at river level in a pit? [the measurement is missing, but see below] feet east of the present east parapet [of Lady's Bridge] shows a contrast in construction which may relate to the debouchement' into the Don (Butcher 1972a, 8–9). This must be the stonework Himsforth (1927–42, 16–17) recorded in his diary for 1st July 1930 (see Chapter 3, Section: The inner courtyard moat). A plan of the wall drawn by the City Architect in 1930 survives in Butcher's archive (Anon. 1930a), which shows it to be almost on the line of Castlegate, located c.9m east of the southern end of Lady's Bridge, and c.1.4m south of the then extant parapet wall above the Don (Figure 5.8).

The construction work provided only limited opportunity to record the east moat (Butcher 1972a, 10; 1972d), but insights from manhole 3 and boreholes 3, 7, 8 and 70 enabled Butcher (n.d. (r); 1961, 19–20, 27) to suggest that east of the gatehouse the moat ran north-eastwards in the direction of the Sheaf rather than curving round the tower northwards towards the Don as shown on Armstrong's plan 1. He argued that this explained why Armstrong had not encountered organic deposits typical of moat fills in the foundation shafts he had examined (Butcher 1972b, 21).¹⁹ Butcher (1972b, 20–1) disagreed with Armstrong that the east

¹⁹ Although, as we saw in Chapter 3, in his unpublished site diary Armstrong (1927–28, 3) did in fact record the appearance of the moat in a number of foundation shafts running northwards from the Rotherham House Hotel, and in one of them notes the 'top of black' – a probable reference to organic layers.

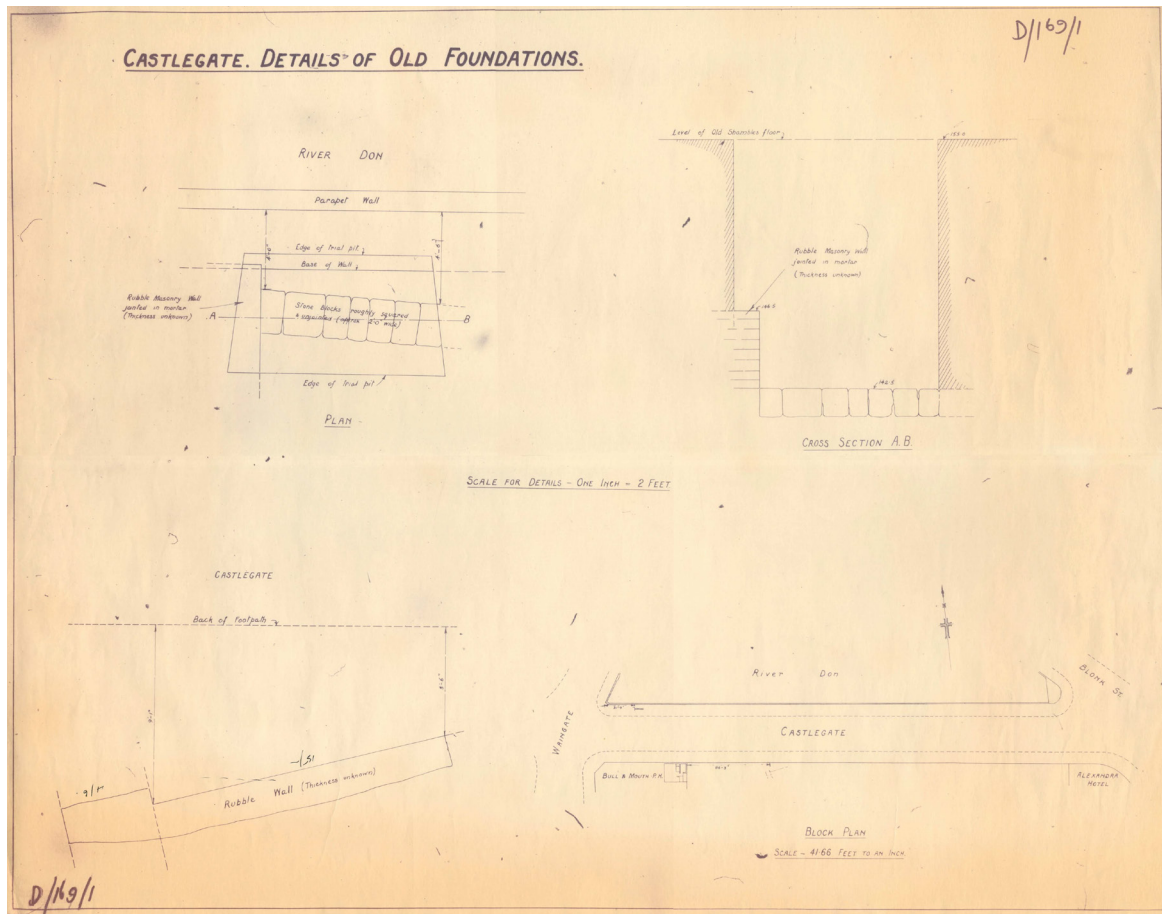
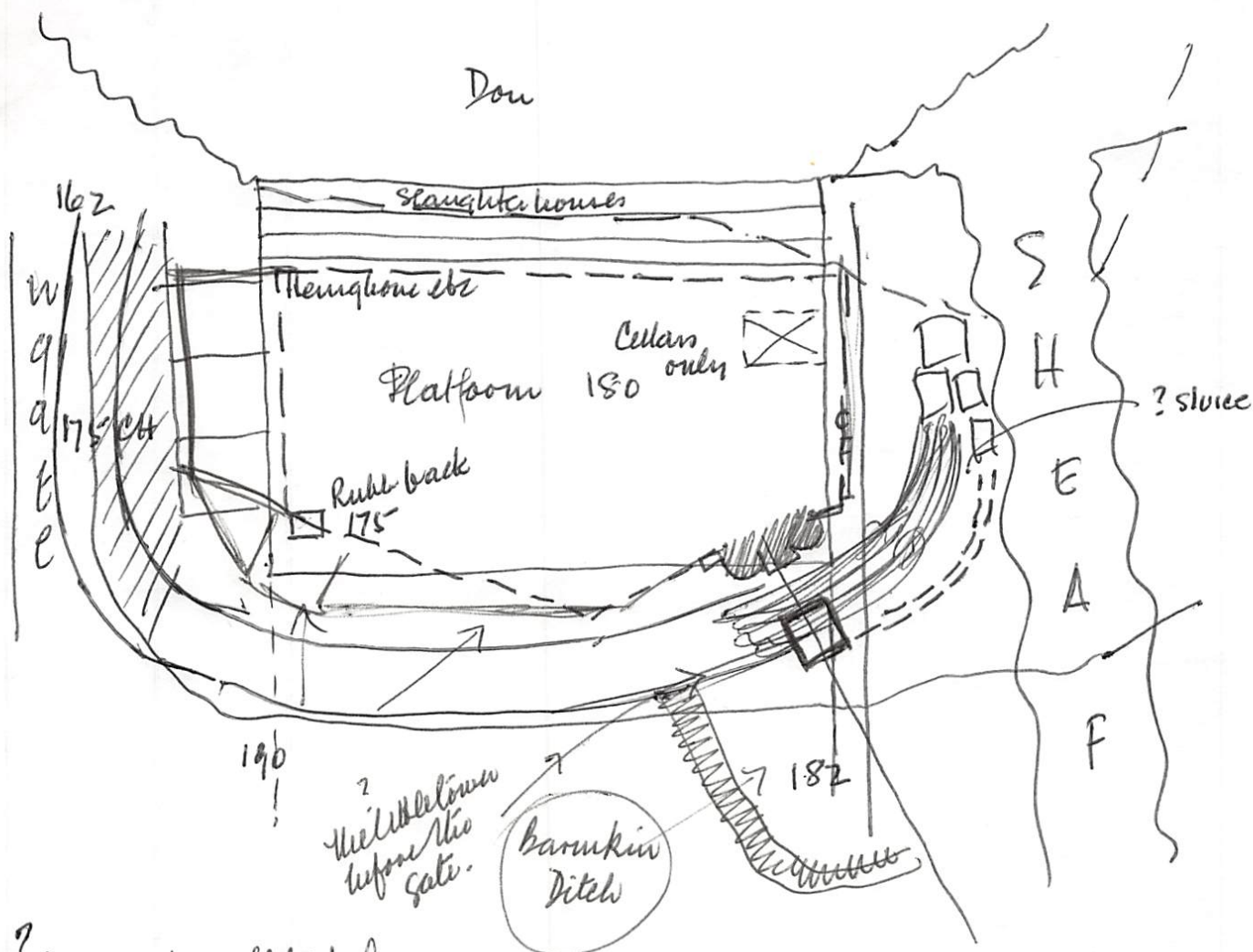


Figure 5.8: Drawing of old foundations on Castlegate. This plan from 1930 is contained in the Butcher archive, and records stone features uncovered during the building of the road. Courtesy of Museums Sheffield.

moat had followed the line of Castle Folds Lane, proposing instead that the east curtain wall ran along this line, with the moat lying further to the east. A sketch which summarises his thinking about the 'shape' of the castle, and its place in the landscape, clearly shows the east wall running along 'CFL' (Castle Folds Lane) (Butcher 1972e, 3; Figure 5.9). Describing the lowest deposits in manhole 3 as stagnant, Butcher argued that these were the lower fills of the moat, not an earlier channel of the Sheaf, which ran still further to the east (Butcher 1961, 45; see also 1958–62d). These deposits also contradicted Armstrong's (1930, 18) deduction that the east moat had been dry, for which he had provided what Butcher (1972b, 19) described as 'no positive supporting evidence' (see also Butcher 1972d, 19). In manhole 3 Butcher (1972a, 13; 1972b, 19) recorded the depth of this section of the east moat as being the same as that of the west moat (144ft (43.9m) AOD – a measurement that was later confirmed in the work undertaken by both ARCUS (Davies 2000, 7–9) and Wessex Archaeology (see Chapter 7) – and concluded that there must have been a stepped transition down to it from the south moat, as was the case where the south moat turned to form the west moat. While the excavations did not throw any new light on the matter, the dam on the east side was probably situated where the moat met the Don, which 'echoed' the proposed arrangement on the west side (Anon. 1644; Butcher 1972c, 10). However, Butcher (1972b, 23) remained uncertain, listing among his 'Unresolved problems' the issue of how the water level was maintained in the moat (and this is an issue we will return to in Chapter 7). On the sketch which appears to summarise his thinking about the location and shape of the castle (Butcher 1972e, 3), a dotted line running south from the Don and overlapping with the course of the Sheaf suggests that he (at least) toyed with the idea that the confluence of the two, and hence of the moat with the Don, lay significantly further south than currently. And he marks a 'sluice' not far north of the point where the moat



? origin of castleford lane.

NOT natural outgrowth of castle defences (intersects)

V STRAIGHT

High ret wall only west

Only structures off W side = cellars to Cot property

Hunsworth steps = precip slope

City Museum view of Shrewsbury Hospital

{ Rubble in clay waterside house

{ Add NE angle of waterside house, plan & photo in rel to above
note also wall in MH3 TPT cren yard

CW Wall reference to sluice

Figure 5.9: Sketch by Leslie Butcher showing his thoughts about the 'shape' of the castle, and its place in the landscape. The ditched enclosure in front of the gatehouse is here described as the Barmkin Ditch. He also notes illustrations that he anticipated might be included in his planned publication. Courtesy of Museums Sheffield.

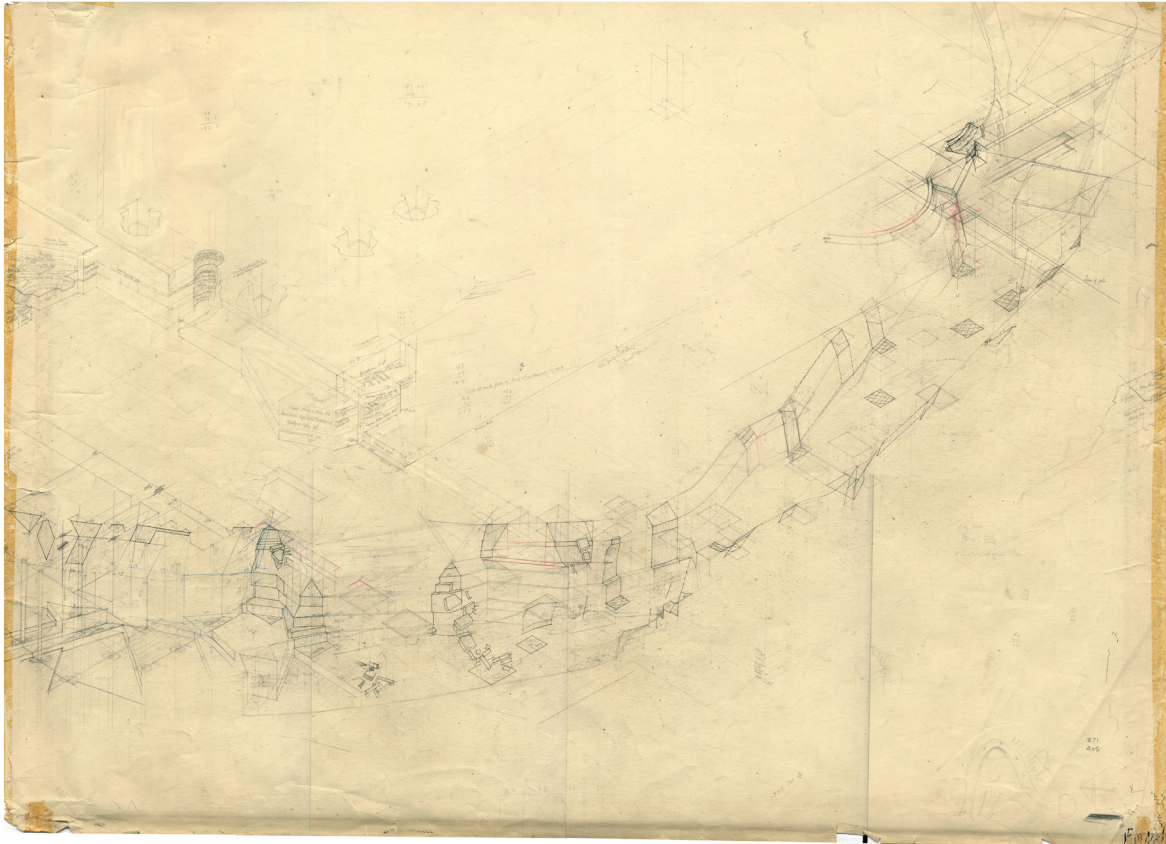


Figure 5.10: *Draft isometric drawing of the gatehouse and south and west moats.* Drawn by Leslie Butcher. Courtesy of Museums Sheffield.

turns past the gatehouse, although the actual distance is hard to measure as the sketch is not to scale. Butcher also suggested that the dams/sluices may have acted as causeways, providing a means of access to the castle; while we have no firm evidence for entrance gates into the castle at those points, it is notable that Castle Hill Lane crosses from Waingate to the site of the castle at roughly the point where Butcher thought the west dam was located (Butcher 1961, 46).

In recording the foundation shafts, Butcher (1972a, 13) identified three recognisable profiles of the moat based upon a broadly 'Y'-shaped cut (Figure 5.10). The outer edge of the south moat had the greatest variety in profile in the upper slope descending to a rock shelf of varying widths. The upper part of the visible moat cut typically splayed outwards, although as we have seen its original top had been lost through truncation (Butcher n.d. (j)). Below this, the moat became more or less vertical to its base. Butcher suggested that the 'Y'-shaped profile owed much to the underlying geology, and given his background it is not surprising that he spent some time discussing this in his various unpublished manuscripts. Typical is the following description of the south moat, wherein the solid geology was determined as the key factor in the form of the moat cut:

A marked upward transition from compact, sandy mudstone, to a more friable shaley variety takes place along a plane rising from a foot or two below, 168' A.O.D. [51.21m] at the gate structures to a foot or two above 168' A.O.D. at the S.W. angle of the moat. This divide is the most practicable place above which to cut back the friable to obviate collapse and minimise weathering, and below which to cut 'vertical' self-supporting walls down to moat bottom (Butcher 1972a, 15–16).

Butcher contrasted his observations with the rounded profile drawn by Armstrong, and these were confirmed by more recent investigation by ARCUS (Davies 2000, 8). In the light of our discussion of Armstrong's

the trees in nearby Sheffield park). He also identified oak and grass leaves, moss of the genus *Brachythecium* (*recte Brachythecium*), and said that there were a dozen seeds which he had not yet identified. On the basis of the identifiable material, he concluded that 'the local vegetation was pretty much the same as it is now' (Bottomley 1959a). Unfortunately, the absence of any further contextual information means that we are not able to say *when* the vegetation was the same as now. On 9th February 1959, Bottomley (1959b) wrote to Butcher with further information on 'the seeds which I extracted from the mud of the Castle Moat', reporting that he had now identified some of the seeds as 'small Composites' or sedge, which grow in damp and shady environments (Champness 2008, 13).

The 17th-century written sources reveal that the castle was dismantled and sold off rather than simply being demolished and pushed into the moat (see Chapter 9, Section: Reduced to fragments – embedding the castle in the community), and so the quantities of stone recorded on the section drawings of the foundation shafts represent what was left behind. However, we must remember that earlier 20th-century construction on this part of the site had seen c.15ft (4.57m) of deposits removed and the ground level reduced (Butcher 1961, 18), and so the comparative lack of demolition debris in some sections of the moat may partly be accounted for by the fact that Butcher was only able to record its lower levels (Richardson and Dennison 2014a, 56; see also Armstrong 1930, 14). From the information recorded on the section drawings, particularly the angle of slope of the deposits, we can sometimes identify the direction from which the moat was infilled (see, in particular, shafts E17, E19, F11, F21 (Figure 5.11), F23, G7, G22, H23, H5 and J23), and since the dating evidence for the upper fills is largely of the 17th century it is often possible to distinguish the post-Civil War fills from those of the medieval period (a good example is provided by foundation shaft F22; see Appendix). Butcher (1961, 19) also argued that all of the constructional rubble fill he saw derived from the site and probably from the moat cut.

In the south moat Butcher (1961, 22–4) recorded seven wooden stakes in foundation shafts G5, G7 and H5, some with oak boards fastened between them, while twigs and branches had been placed between the stakes and the inner face of the moat cut (Figure 5.12). Several of these stakes were reused timbers with mortice holes (see, for example, the west face of G7), and the section drawings and isometric drawings reveal that they had been driven into the lowest silting deposits within the moat, and that subsequent silt deposits had built up around them. Discussion of these was omitted from Butcher's 1972 typescript, but occurs in his handwritten texts, where he suggested that the sharpened appearance of the stakes was caused by the decayed ends snapping off (Butcher 1961, 23); in this respect he contradicted the view of Armstrong (1930, 19) and Hims-worth (1927–42, 15) who believed that similar stakes had been deliberately sharpened. The stakes seem to have been acting as a revetment to consolidate the inner moat cut rather than being the defensive feature Armstrong and Hims-worth had imagined. Near the gatehouse, foundation shaft H5 revealed that the inner, steeply inclined face of the moat was clad in masonry as far as a rock-cut shelf which stepped up behind the gatehouse structures (Butcher n.d. (k); n.d. (l); 1958–62c; 1958–62g; 1972a, 13; Figure 5.13). Although the outer face of the moat was not observed near the drawbridge pier, Butcher (1972a, 13) thought that it may also have been stepped in this way to accommodate the drawbridge; it was certainly stepped further west.

Our archival research revealed that the vast majority of the artefacts surviving from the excavations recorded by Butcher derive from moat deposits. The foundation shafts excavated in the south and west moat mainly produced mixed late medieval and post-medieval pottery assemblages, although the latter had a lower proportion of medieval pottery. In contrast, the greatest concentration of medieval pottery was recovered from foundation shafts and trenches dug through the moat close to the gatehouse. Thus, foundation shafts F9 and F11, located adjacent to each other in the middle of the moat to the west of the gatehouse, contained small and exclusively medieval assemblages. Analysis of the pottery recovered in H2-4, when differentiated through contextual information (depths, and P numbers), suggests that it may have cut into surviving medieval strata beneath the 17th-century deposits. This is supported by the fact that the base of the section drawing for H2-4 bears the annotation 'early Saxon-Norman [pottery] from x + y buckets from ditch bottom' (Butcher 1958–62d; Figure 5.14).

Gatehouse

The gatehouse was recorded by Butcher in foundation shafts H2-4, H3 and H5, and manholes 1, 2 and 5. A sketch by Butcher distinguished what he had seen (in red) from what Armstrong had recorded (in green) (Butcher 1958a; Figure 5.15). Butcher recorded more of the west tower, part of the east tower, the full width of

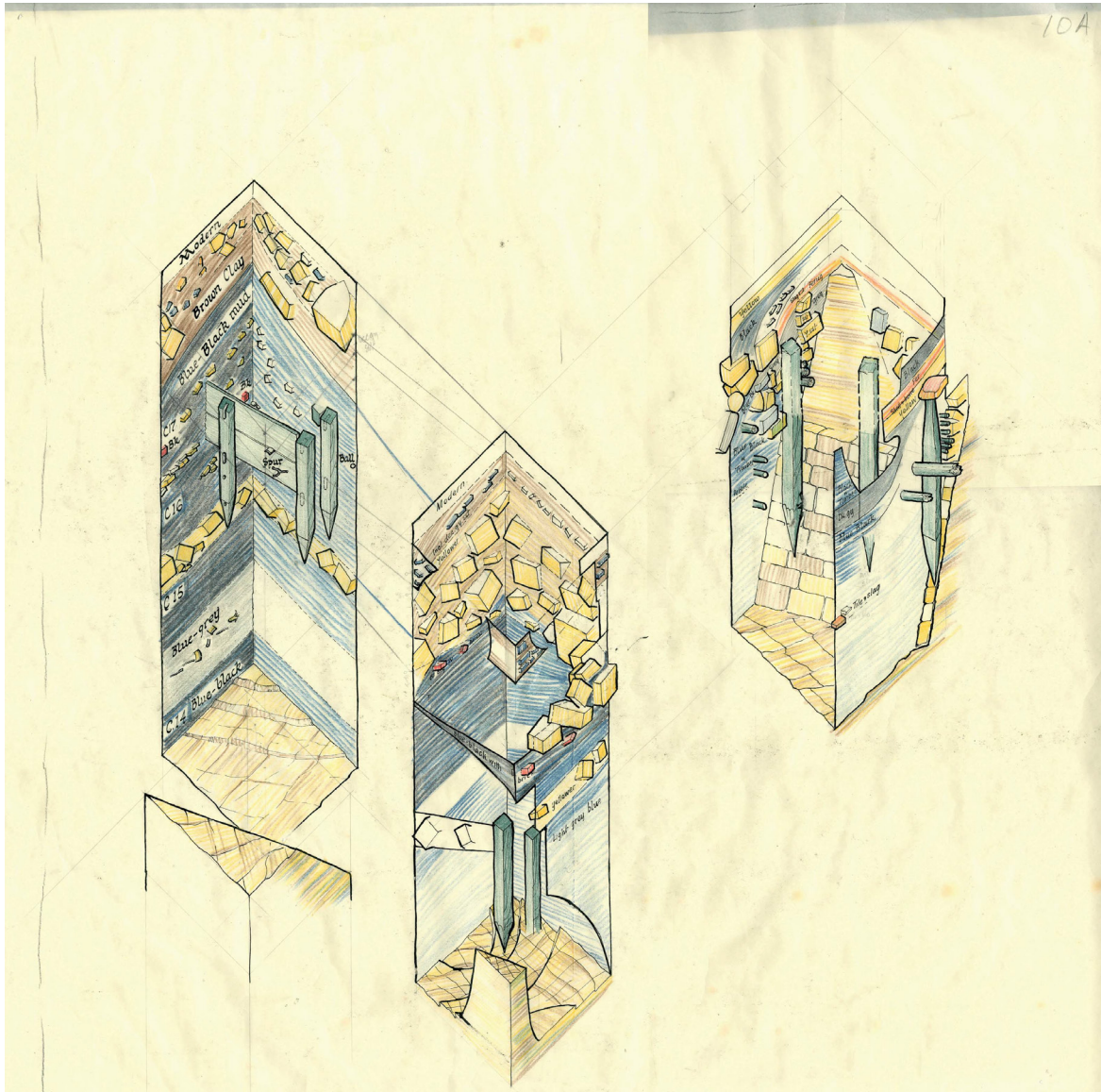


Figure 5.12: *Isometric drawings of foundation shafts.* This depicts G5 (centre), G7 (left), and H5 (right), and highlights the presence, and survival, of wooden features within the moat. Drawn by Leslie Butcher. Courtesy of Museums Sheffield.

the drawbridge pier, further details of the gatehouse forestructure added between the towers and the full depth of the moat, and produced multiple profile and reconstruction drawings.

The excavation of manhole 5 exposed a short section of wall set at right angles and bonded to the footings of the west tower. Butcher (1961, 33) argued that, if this was the junction of the curtain wall and the gatehouse tower, the foundations of the former must have stepped up, for they did not extend even as much as 3ft (0.91m) across the trench. A cross-section of the west tower showed its stepped foundations, offset one course at a time as they rose from the moat cut until they reached the lowest chamfer of the plinth (Butcher n.d. (q); 1961, 33; Figure 5.16). It was also revealed that the footings were deeper on the west side of the tower than on the east side. Records made during work that Butcher (1972a, 17) described as 'in the floor of the "tunnel" under the Castle Hill Market' indicated that the softer upper layers of the natural geology, which were problematic when cutting the moat, also affected the construction of the gatehouse (Butcher n.d. (r); for the

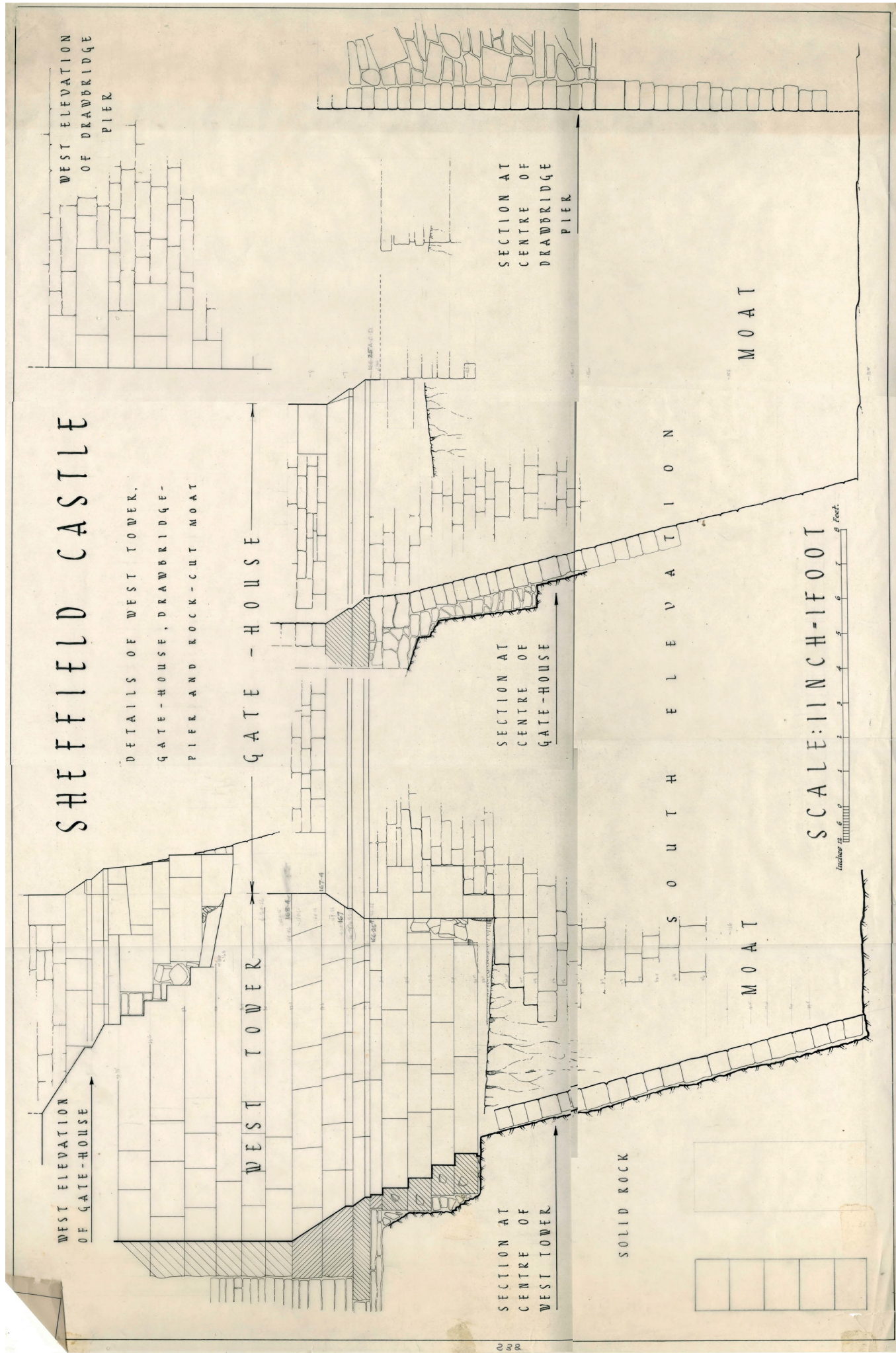


Figure 5.13: Elevation drawings of the west tower of the gatehouse. This drawing by Leslie Butcher shows the masonry clad inner moat face in front of it.
 Courtesy of Museums Sheffield.

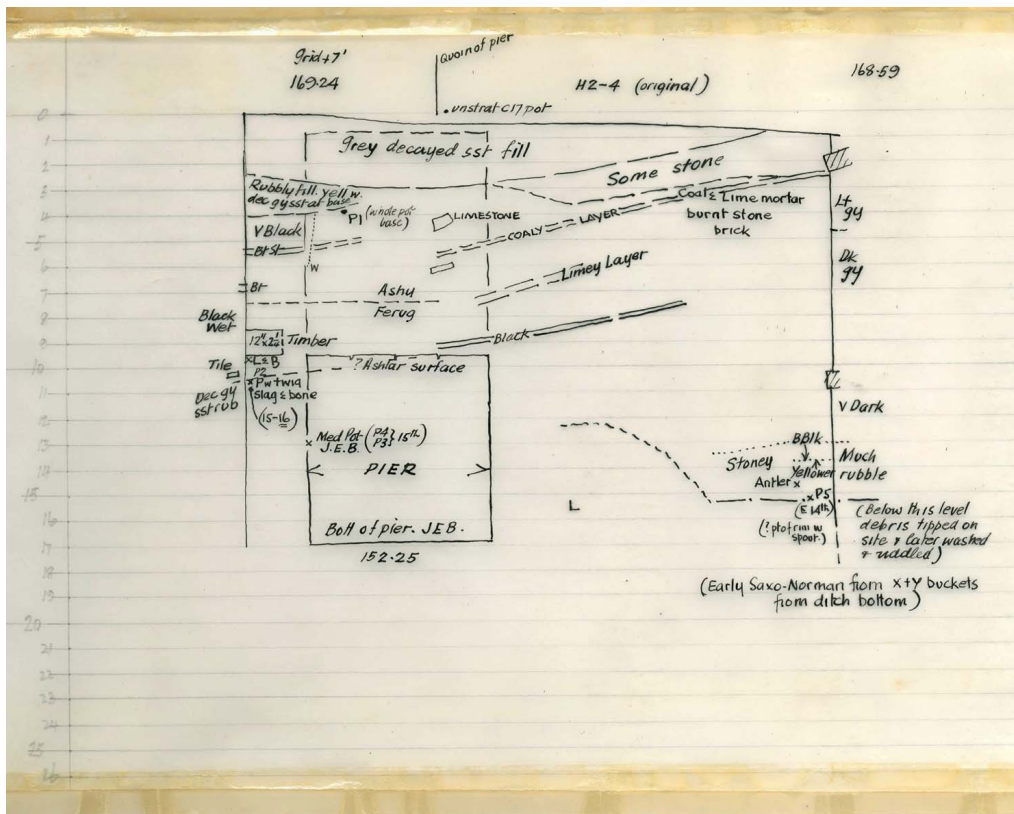


Figure 5.14: Section drawing of foundation shaft H2-4. This drawing, on lined paper with a scale in feet, details some of the finds recovered, including early Saxo-Norman material, which must be pottery. It also refers to findings made by 'JEB', John Bartlett. Courtesy of Museums Sheffield.

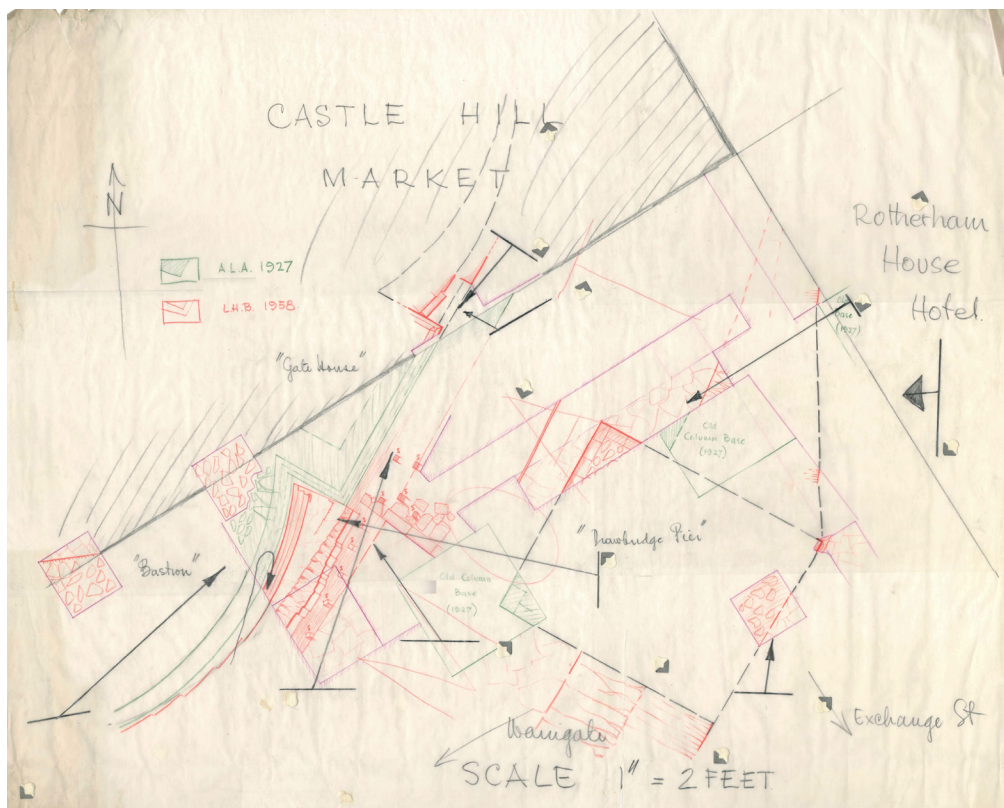


Figure 5.15: Sketch of the gatehouse area by Leslie Butcher. This shows the differences between what Leslie Butcher and Leslie Armstrong had recorded of the castle's monumental entrance (in red and green, respectively). Courtesy of Museums Sheffield.

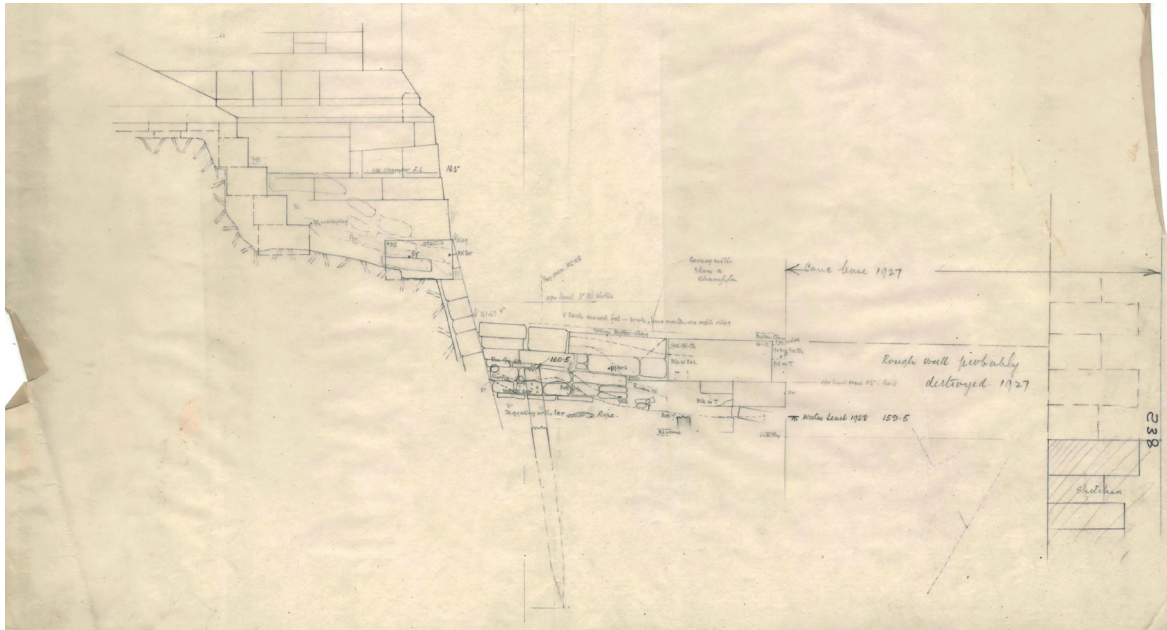


Figure 5.16: Leslie Butcher's profile drawing of the gatehouse, 'late' wall, and drawbridge pier. Courtesy of Museums Sheffield.

tunnel, see f.n. 20, below). The loose, upper strata of natural appeared to have been cut away and replaced by layers of irregular sandstone flags, held together with wedges of sandstone and covered with a thin binding of blue clay, and they 'extended "inwards" from the irregular inner ends of the ashlar facing blocks of the towers and gatehouse' (Butcher 1972a, 17–18). This was presumably to provide a firm footing for the tower foundations (Figure 5.13).

The east tower was recorded immediately below the south-east corner of the Castle Hill Market building, and is shown in plan (Butcher n.d. (n); n.d. (o); n.d. (p)) and on an isometric drawing (Butcher n.d. (d); 1972a, 17). It appeared to have been more extensively robbed of stone than the west tower, especially the ashlar and chamfered plinth, where steps in the rubble core of the wall indicated the former position of some of the plinth stones (Butcher 1961, 32), but a slightly curved 10ft (3.05m) section of the tower plinth, which had a rubble core set in clay, could nonetheless be discerned 'under dem.[olition] rubble' (Butcher 1961, 32). As we saw in Chapter 3, Armstrong (1930, 11) mentions discovery of another part of the gatehouse structure on the site of the Co-op, a section of plinth described and photographed by Himsworth (1927–42, 11–12; Figure 2.14). Butcher (1961, 32) suggested that this section of plinth was part of the east tower.

More of the gatehouse forestructure was recorded, and Butcher (1972a, 17) pointed out that Armstrong had, in fact, uncovered its east edge but had appeared not to notice. It was just visible in his figure 7 but obscured by trench timbers (see Figure 3.11), as Butcher explains:

From the bottom right corner a timber slopes up into the picture making an angle of 30° with the right edge. The corner of the plinth course is at the upper end of the timber: immediately below it, two ashlar quoins have been slightly displaced in fixing the timber, whilst above the top of the plinth another large quoin can be seen through the angle formed by two more timbers: these ashlar blocks amongst rougher masonry should have prompted closer scrutiny.

Butcher (1972a, 15) reported that the plinth course was around 12ft (c.3.7m) above the bottom of the moat at 152ft (46.33m) AOD. His (1961, 29) records show that the gatehouse was built partly on the solid rock and partly on the masonry lining of the moat. The ashlar plinth was similar to that of the west tower, and abutted, but was not bonded to it.

Butcher (1972a, 18) contradicted the views of Armstrong (1930, 10–11, 17) about the character of the pier, arguing that 'the whole concept of a free standing "drawbridge pier" located in mid-moat must be abandoned'.

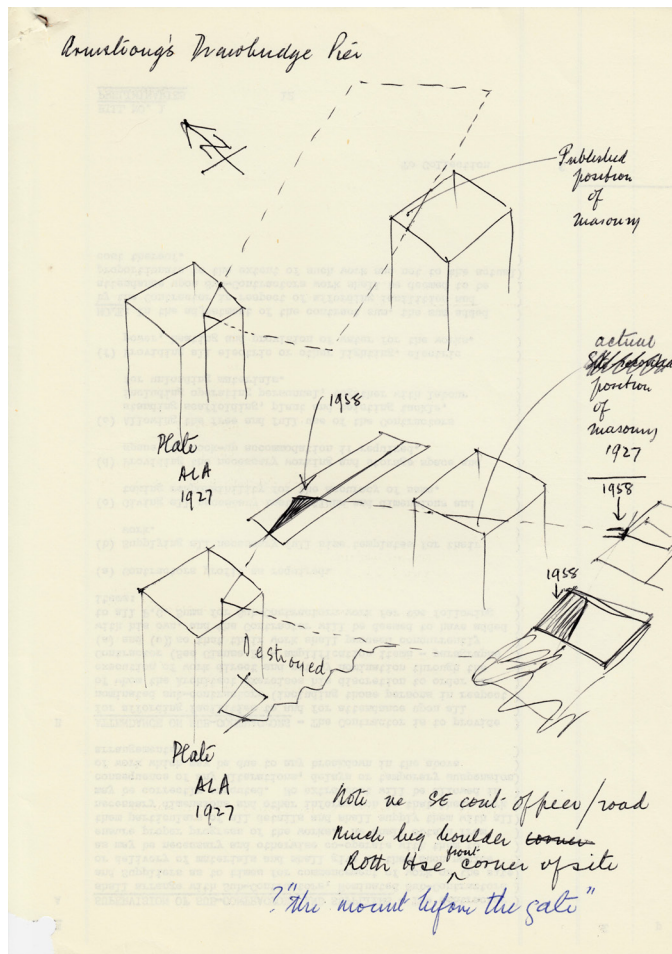


Figure 5.17: Leslie Butcher's sketch of the drawbridge pier. This shows how he worked out the error made by Armstrong in locating what had been recorded of the pier in the moat in front of the gatehouse. Courtesy of Museums Sheffield.

Butcher (1972b, 22; see also 1972a, 18; 1973c, 6) was able to show that Armstrong had been misinformed about the location of what had been exposed of this structure in the late 1920s. A corner of the pier is shown in Armstrong's photograph 10 (see Figure 3.14), measuring 3ft (0.91m) on the north side and 2ft 8in (0.81m) on the west side (see also Armstrong 1927–28, 4). On Armstrong's plan 1 this is depicted as its north-west corner. Armstrong also thought he had identified another section of the pier on the west side of shaft B (about 5m to the east). This is depicted as being on the south side of the pier on his plan 1, suggesting that the pier was narrow and wide, set parallel to the forestructure, and in the middle of the moat. However, Butcher recorded the north-east corner of the pier rather closer to its north-west corner, and he deduced that Armstrong must have depicted this second section of masonry in the wrong position. Accordingly, in a draft reconstruction sketch Butcher (1972b, 22) shows it at right angles to the position in which Armstrong had depicted it, placing it on the west side of shaft B. Butcher (1958–62f; 1961, 27–8) consequently argued that the pier was a narrower structure than Armstrong had proposed, and that it ran from the outer face to the middle of the moat. He recorded that the pier was faced with 'coursed rubble [he meant "ashlar"]' behind which were water-worn boulders grouted in lime mortar, and that it had ashlar quoins (Figures 5.16, 5.17, 5.18).

Butcher (1972a, 18) also recorded 'a comparatively late rough wall' across the moat between the west corner of gatehouse forestructure and the pier, and constructed from stones (including ashlar blocks) robbed from the pier (shown in Butcher n.d. (q); n.d. (s); Figures 5.16, 5.19). This late addition was positioned above the moat fill and the stakes in front of the gatehouse, providing 'a useful link in the chronology of the moat's structures and accumulations' (Butcher 1961, 30–1). This suggests that the stakes were not a Civil War era feature, as they are evidently not among the latest additions to the moat. The wall may have been as late in date as the 17th century and represent a significant remodelling of the entrance to the castle, perhaps following its slighting

SHEFFIELD CASTLE



- A 20th Century
- B 19th
- C 18th
- D Late 17th
- E Post-Civil War demolition
- F Earlier accumulation
- G Early demolition
- H Earliest accumulation

Diagrammatic sketch
showing discoveries
made in excavations
1927 & 1958.

Moor side
(Rock-cut)
L. H. P. 1958

Masonry
Revetting

Moor Bottom
(shallow level)

Stakes & other timbers

GATEHOUSE

LATER ADDITION

WEST TOWER

EAST TOWER

DRAWBRIDGE
PIER



Figure 5.19: *Workmen with their backs to the forestructure between the gatehouse towers. To their right is the 'comparatively late rough wall' across the moat, abutting the gatehouse forestructure. Courtesy of Museums Sheffield.*

from late 1648. The side of the pier closest to the late wall, and from which it had seemingly been built, had been 'robbed down to the 7'6" level [while] the other end ... survived 10 feet higher' (Butcher 1961, 30), making it clear that it could no longer have served as a support for the drawbridge. This implies either that this entrance was no longer in use (although as we will see in Chapter 9 17th-century maps suggest that it was), or that another means of crossing the moat, now shallower, had been devised.

It has long been assumed that the monumental gatehouse was initially constructed following the Barons' War of 1266 and was perhaps associated with the granting of a licence to crenellate in 1270 (see Chapter 3). However, gatehouses with twin entrance towers, inspired, John Goodall (2012, 4) argues, by the gateway architecture of late Roman forts, existed from the late 12th century (Nevell 2012, 263). Thus, at Pevensey (Sussex) a gate passage between two D-shaped towers was constructed sometime between 1190 and 1220 (Nevell 2012, 263). Beeston Castle (Cheshire), with its twin-towered gatehouse, was constructed in the 1220s. Here too the towers were D-shaped and, as Richard Nevell (2012, 265) points out, were linked at second-storey level (i.e. above the entrance passage) to create a chamber which would have been occupied by a person of high status, possibly the constable (also Swallow 2014, 293). The twin-towered gatehouse at Rhuddlan (Denb) was built in 1277 and was one of a series of late 13th-century Welsh castles (along with Caernarfon, Harlech and Beaumaris) in which defensive and ceremonial strength was focussed on the monumental entrance (Coldstream 2003, 24). The emergence and spread of the round tower has traditionally been seen as a response to technical changes in warfare (they were thought to have been more resistant to artillery), but more recently such developments have been assigned to a range of factors including emulation of past (and emerging)

Figure 5.18 (page 152): *Reconstruction drawing of the gatehouse and related structures. This was produced by Leslie Butcher in 1958 for the new display in the City Museum. It is visible in Figure 4.9. Courtesy of Museums Sheffield.*

architectural forms, the operation of ‘immaterial networks of social power between mobile elites’ (Swallow 2014, 308), and symbolic representations of lordly or royal power (Liddiard 2005, 47–9, 54–8; Goodall 2012, 10; Nevell 2012, 263–5).

The very partial view of the remains of the gatehouse of Sheffield Castle resulting from the circumstances in which Butcher was working mean that we cannot be entirely sure of its form. However, it is probable that here too the entrance passage ran between D-shaped towers, with a chamber above (see Figures 1.20 and Epilogue v). Our limited view makes it difficult to date the original towered structure (as we saw in Chapter 3, the forestructure was added later, probably in the 14th century), and, while the evidence cited above makes an early to mid-13th date possible, it is perhaps more likely that it dates to the later part of that century. This has implications for the dating of other structures on the site. It is notable that in his 1961 lecture to the Hunter Society Butcher (1961, 34) drew parallels between Sheffield and Rhuddlan – ‘it would be foolish’, he argued, ‘to attempt further reconstruction above plinth level but this picture of Rhuddlan gatehouse may suggest original appearance of Sheffield gatehouse’.

Curtain wall

As we saw in Chapter 3, Armstrong (1930, 11) failed to find any trace of the curtain wall to the west of the gatehouse tower. Therefore, he assumed that it lay to the north of the rear wall of the Brightside and Carbrook Co-op, where ‘unfortunately no foundation pits were required to be sunk’. In contrast, in a sewer trench near the south-west corner of Castle Hill Market, Butcher (1958–62d; 1972a, 7; 1972c, 7–8) found what he believed was the ‘last remnant of the southern curtain wall’.²⁰ This consisted of sandstone rubble set in blue clay, similar, Butcher argued, to the ‘rubble-backing’ behind the ashlar of the gate structures (Butcher 1972a, 7; 1972c, 7). He recorded it in plan, section (Butcher 1958–62d; Butcher n.d. (j); Ove Arup & Partners and Butcher 1957), and photographs (Butcher n.d. (s), 13). Significantly, he went on to point out that it aligned with a short length of ‘rough masonry’ which Armstrong had uncovered in September 1927, and marked as point ‘A’ on his plan 1 – but which he did not believe was ‘contemporary with, or formed any part of, the main building [i.e. the castle]’ (Armstrong 1930, 14). If we include the short stretch of wall bonded to, and running at right angles from, the west tower, we can suggest that three short, very denuded, stretches of the south curtain wall survived. In a letter written to Armstrong in November 1930, City Architect F. E. P. Edwards (1930) commented on the stretch of wall that Armstrong had recorded at point ‘A’: ‘I was rather struck with that portion of the excavation when I saw it, & greatly regretted it had to be destroyed’, and he believed it was part of a projecting ‘bastion’ to protect the castle at its south-west corner. Edwards clearly had greater belief that it was part of the castle than did Armstrong, who thought it had only been constructed of material derived from the castle. Significantly, in his summary sketch of the shape of the castle (1972e, 3; Figure 5.9), Butcher appears to mark, on the southwest corner of the ‘platform’, both the sewer trench and the remains of the wall (‘Rubb. back’), with hints of a square building running off it to the south-west.

In his 1961 lecture, Butcher (1961, 17–19) used foundation shaft G22 as an example of one of those dug through the moat, which provided further evidence for the curtain wall. The shaft was close to the inner face of the moat at the south-west corner of the central courtyard, where the moat turned north-west to head towards the Don. Within the layers depicted on the section drawings are numerous pieces of ashlar, described as both ‘tooled’ and chamfered, and tracery, and his lecture script also refers to a ‘complete section of wall facing which has fallen into the moat’. To the south-east of shaft G22 is shaft F21, which also contained pieces of ashlar, one of which is annotated ‘cf gatehouse’, suggesting he saw similarities with the form of the gatehouse, although there is no indication he believed this to be the site of another entrance to the castle. It seems that Butcher thought, rather, that he had identified another tower at this part of the site because on the Ove Arup foundation plan he sketched a drawing of the castle showing a tower at this corner (Ove Arup & Partners and Butcher 1957; Figure 5.1).

²⁰ The prospect of discovering other sections of this wall were, he argued, limited by the fact that ‘in the late 1930s a “tunnel” was driven along the entire length, destroying, without any known record, whatever may have lain in its path’ (Butcher 1972a, 7).

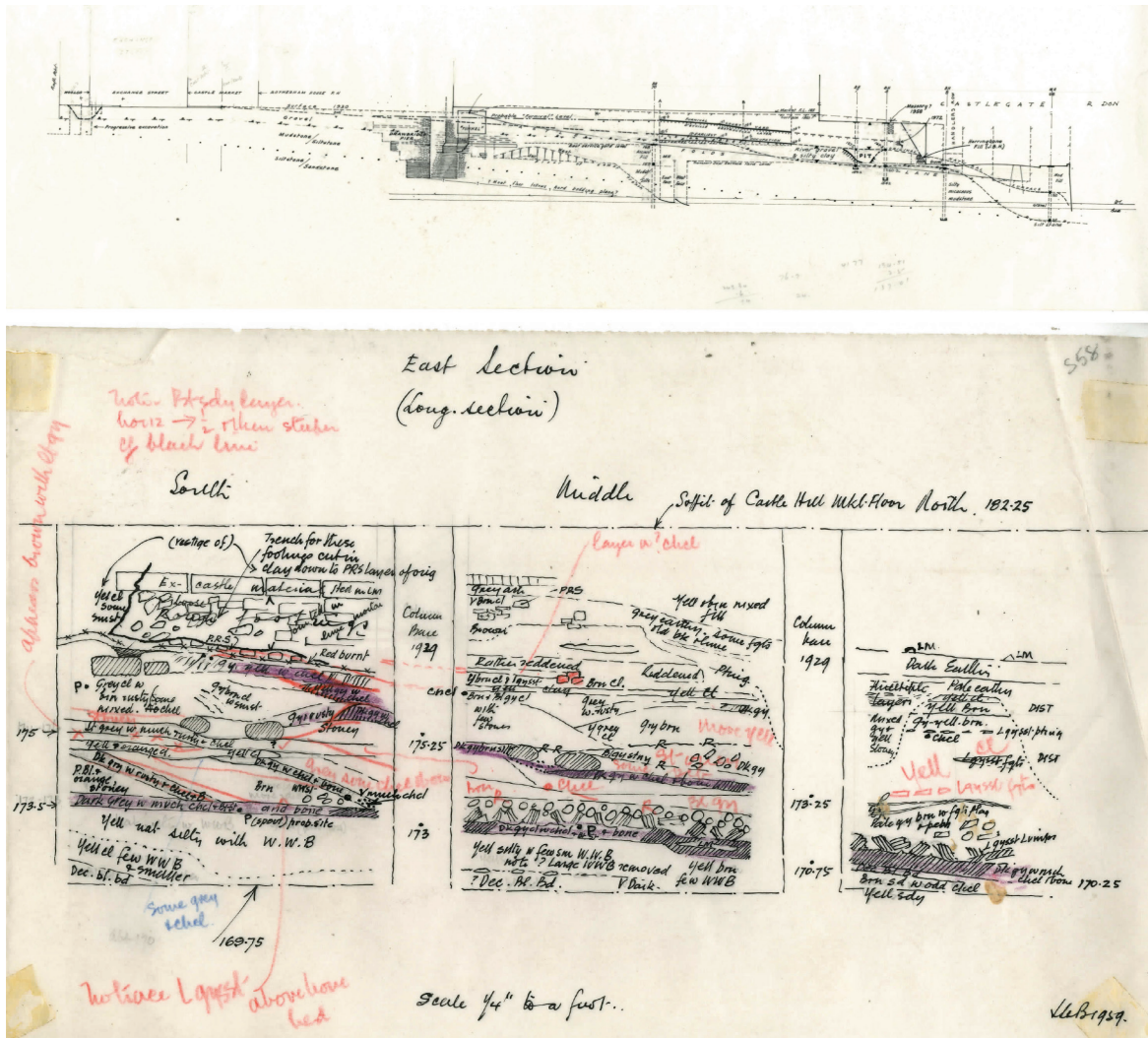


Figure 5.20: Two section drawings of the east side of Castle Hill. These drawings by Leslie Butcher provide a detailed record of the foundation shafts dug on this side of the site, as well as boreholes about which we otherwise have no information. The hand drawn section (bottom) records the surfaces revealed between the column bases for the 1929 market building. The inked-up drawing (top) provides an interpretation of what was recorded along the full section between the Exchange Street ditches and the Don, including the gatehouse and drawbridge pier, the pit containing wattlework, a 'patch of loose stone herring-bone' recorded by Joseph Himsworth (see Figure 3.7), and the wall recorded by Pauline Beswick in 1972 when the paved slope above the Don collapsed (see Figure 1.16). Courtesy of Museums Sheffield.

East side of the castle and courtyard buildings

Some of the most important insights to emerge from the Butcher archive concern the east side of the castle. These allow us to draw comparisons with the recording undertaken in 1927–29, and throw new light on the castle courtyard and what Butcher thought were the earliest phases of occupation. In particular, there are several detailed section drawings, based on Butcher's recording of manhole 3, various boreholes about which we otherwise have no information (their locations are marked on Butcher n.d. (r)), foundation shafts near the gatehouse, the documentation of Armstrong and Himsworth, and the record of a section of wall above the Don made by Pauline Beswick in 1972 (Butcher n.d. (g); n.d. (r); 1958–62e; 1959; Figure 5.20). One section draw-

ing spans the southern end of the Castle Hill Market, the chamber constructed around Armstrong's courtyard building, and the edge of the cut-back slope overlooking Castlegate (Butcher n.d. (g); n.d. (r); 1959). This section is partially obscured by four column bases for the 1929 market building, but Butcher was able to make detailed records of the 'bays' between them (Figure 5.29). At the south end, the top of the section (marked as 'soffit of old Castle mkt floor') is at 182.25ft (55.55m) AOD (from A to C), while at the north-east corner of the 1929 building (C–D) the top of the section is formed by the Castle Market car park, and although not labelled with a height AOD it appears to be c.3ft (c.0.91m) lower, and in one of his typescripts Butcher (1972b, 12) refers to the car park level being at 179ft (54.56m) AOD. The lowest height AOD is recorded at the base of the slope above the Don, by that time covered in 'crazy paving', at 161.25ft (49.15m) AOD. This section drawing contextualises the courtyard deposits, including the supposed Anglo-Saxon phase recorded by Armstrong, and their relationship to the underlying topography of the area, revealing a clear south–north slope towards the Don. What Butcher interpreted as the earliest occupation level is shown at 172.5ft (52.58m) at point A, 167.3ft (50.99m) at borehole 3 and dropping to 160ft (48.77m) AOD above the Don (Butcher n.d. (r)).

The upper deposits of the bays between each of the column bases had clearly been disturbed during construction of Castle Hill Market in the late 1920s, and include clay, stone, and fragments of old brick and lime mortar. At the top of the southern bay is a deposit described as 'Ex-castle material jointed in LM [lime mortar]', with 'rough footings' jointed in lime mortar. These remains of a structure that made use of some of the demolished castle fabric provide an insight into developments after the Civil War, for which there are hints in contemporary documents. The estate accounts for 1649 note the use of lime to repair parts of the castle alongside carpentry, masonry and glass working, suggesting that building work was continuing on parts of the site even while much of it was being destroyed (Wilson MSS, 295/223, Book 15, fols 33–4; Askew 2017, 201–2; also Chapter 9). Immediately below this was a red burnt layer incorporating a purple reddish stain which extended north into the second bay, and, while it is not apparent in the third bay, which had been heavily disturbed, a corresponding burnt layer is noted in the fourth bay. Butcher (n.d. (g)) labelled this 'De Lovetot burnt layer A.L.A. 1929', which he described in his typescript as 'a 3"–4" layer of bright pink debris' (Butcher 1972a, 20). On the schematic interpretative drawing of the section (Butcher n.d. (r)), this is labelled as 'D'Eyville destruction layer' (Butcher 1972a, 8). This is linked by Butcher to the recorded burning of Sheffield in 1266 during the Barons' War, to which Armstrong (1930, 10) had assigned the destruction of the de Lovetot castle. These annotations, seemingly intended to link his drawings to those of Armstrong, were a rare foray for Butcher into matters concerning the historical actors who occupied the site in the medieval period.

Towards the base of the section in the south bay at c.173.5ft (c.52.88m) AOD is a layer described as dark grey with much charcoal and burnt stone in which bone and the 'probable' location of a pottery spout are noted; this layer extends through the second and third bays, sloping down to c.170.25ft (51.89m) AOD, and seems to be what was interpreted by Butcher (1972a, 7–8; n.d. (r)) as 'the early occupation level on the original natural surface'. Looking at his schematic drawing (Butcher n.d. (r)) this layer begins at c.172.5ft AOD at 'A' and slopes downwards towards the Don where it is labelled as 'Original natural surface'. Butcher (n.d. (g); 1972a, 8) equates it with the layer Armstrong believed to be Saxon (and labels it as such – "Saxon wattle floor ALA 1929", with the quotation marks already signalling his doubt about the dating), but while he clearly did not accept Armstrong's date he stopped short of assigning his own. It is notable, however, that on the section drawings this layer seems to be a little deeper than the surfaces Butcher labelled as Armstrong's 'Saxon wattle floor'.

At the top of the northern end of the section, just before the 'crazy paved slope' down to the Don, Butcher recorded a '?? masonry wall in L.M. [lime mortar]'; this may be a section of the wall recorded by Himsworth in 1930 (1927–42, 17–18, fig. 47) and again by Pauline Beswick in 1972 since they seem to be at the same height (Butcher 1972b, 12; also Butcher n.d. (f) and n.d. (r)). Towards the bottom of the section is a 3in deep grey sandy surface, which is described as 'rusty' with lime mortar powder, charcoal and burnt stone, and below this was a pit cut into the underlying yellow-brown clay. The fills in the pit are described as sticky grey clay with twigs and rushes, hazelnut shells, yellow-grey clay, silty clay, blue-black with timber and pale blue clay. The pit was lined with a deposit described as a 'thin "proto" hard pan', a term that refers to a hard subsoil layer impervious to water, which helps to explain the evidence for waterlogging. Butcher (1972a, 8; 1972c, 9) described this pit as containing 'natural and wrought timber including "wattle-work" similar to that found in 1930 near the "Courtyard Buildings"' (see also Butcher n.d. (s), no. 299; Figure 5.21). He also noted that excavations immediately east of the Bull & Mouth public house, at the northern end of Waingate, revealed a similar pit, while



Figure 5.21: *Photograph of an early pit.* Described by Leslie Butcher as containing ‘wattle-work’ similar to that found in 1930 near the courtyard buildings, this pit can also be seen in the long section in Figures 5.20 and 5.29. Courtesy of Museums Sheffield.

at the same horizon ‘a narrow curving ditch’ was located in the service yard to the west of the market, which appears to be the ditch marked on his plan of the site (Butcher n.d. (j)). In the absence of any surviving artefacts from these early features, or any other dating evidence, it is difficult to establish a date for them, or the sort of occupation they represent (but see Chapter 7).

Exchange Street ditches

As we saw in Chapter 2 (Section: Sheffield Castle: where the two rivers meet), a ditch identified along Exchange Street in 1916 was thought to be one of the earliest archaeological traces of the castle (Wigfull 1916, 239), although as we noted in Chapter 3 (Section: The inner courtyard moat) Armstrong (1930, 13) disagreed and thought it unrelated to ‘the main ditch’, in other words the moat. Butcher (1972a, 8) identified two sections of ditch at the corner of Exchange Street and Waingate, and one of these may be related to what was reported earlier in the century. These ditches are shown on an isometric drawing (Butcher n.d. (v)) and on several of Butcher’s plans of the site (e.g. Butcher n.d. (j); Figure 5.22). Butcher adduced no dating evidence for these ditches, which contained organic material, but it seems significant that they are mentioned in his typescript following a discussion of the earliest occupational levels on the site. This suggests that he thought they had similarities to other early features, albeit that he was evidently unsure of their dating: ‘It is not clear if two further ditches intersected near the Exchange Street/Waingate corner, the tops of which were not located, represent much deeper ditches of the same occupation’ (Butcher 1972a, 8). Ditch I was the closest to the surface and most heavily truncated, with the top of the exposed fill recorded at 176.5ft (53.8m) AOD and described simply as an ‘organic deposit’ (Butcher n.d. (v)). This ditch was intersected at two points and appeared to be curving away from the moat. The less truncated Ditch II was 2m lower down (the top measured at 174.5ft (53.19m) AOD) and is shown cut into the underlying orange sandy mudstone and curving towards the moat, with the lowest fill described as organic from which was recovered leather, pottery and timber, although none of this could be found within the archive.

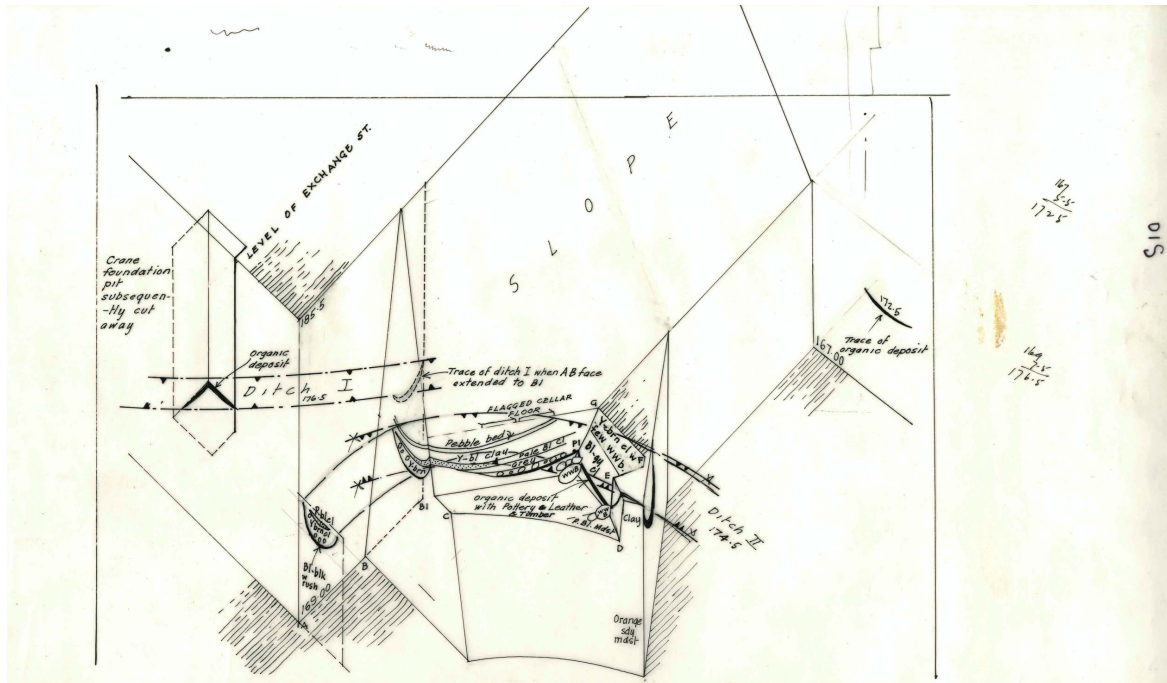


Figure 5.22: *The ditches recorded at the junction of Exchange Street and Waingate. Isometric drawing by Leslie Butcher. Courtesy of Museums Sheffield.*

This was overlain by a series of deposits that seem to represent weathering or gradual silting in the ditch, and these are described as water-worn boulders, grey, pale blue clay and yellow-blue clay. The ditch is sealed by a layer of pebbles which were immediately below a 'modern' cellar floor. A further patch of organic material is noted on the isometric drawing at a similar level to Ditch II, but it is unclear whether it constitutes another ditch parallel to Exchange Street. In an electricity trench in Exchange Street, the east side of the cut was exposed, and it was thought to be turning to the east, but the feature was heavily disturbed (Butcher 1961, 35).

Further east along Exchange Street, closer to the gatehouse, Butcher recorded another ditch, which ran south-eastwards from the Co-op building towards the north-east corner of the 19th-century Norfolk Market Hall, and which contained organic material (Butcher 1961, 35–6; see Figures 4.16). If it had been connected to the earlier discovery made in this area by Armstrong (1930, 13), Butcher (1972a, 9) speculated that the two sections of ditch, which related well ‘to the axis of the gate structures’, may have been part of ‘a long term “outwork”’ rather than being a temporary feature connected with the Civil War siege, as some commentators had claimed (e.g. Armstrong 1930, 13). Clive Hart (1989b, 4) was later unequivocal in seeing them as part of a ‘D-shaped barbican’ similar to that at Pembroke Castle (Wales). On his summary sketch of the castle site, Butcher (1972e, 3; Figure 5.9) refers to this feature as the ‘Barmkin Ditch’; barmkin is a Scots term referring to an outer fortification or barbican. His alternative suggestion was that they were a feeder for the moat from ‘the Ponds’ on the Sheaf, something that it was impossible to explore further due to the built-up nature of the area (Butcher 1972a, 9) but to which we will return in Chapter 7 with the benefit of new archaeological evidence.

Topography of Castle Hill

Although he followed Armstrong in assigning significant moments in the archaeology of the castle site to key historical figures (de Lovetot, de Furnival, D'Eyville etc.), by and large Butcher preferred his history 'deep'. As we saw in Chapter 4, geology and landscape are the forces really driving the historical process as far as he was concerned. Several pages of his unpublished 1972 typescript were devoted to discussion of the 'physique' or topography of Castle Hill, in which he provided a detailed account both of its 'deep history' – its geology and geomorphology – and of the changes that it had undergone during and since the medieval period. Sheffield



Figure 5.23: *Contour map of Castle Hill.* Overlain by Leslie Butcher on the Ordnance Survey 1:1250 map. Courtesy of Museums Sheffield.

Castle was built on a promontory, defined by low cliffs, at the confluence of the rivers Don and Sheaf. Butcher's many section drawings provide clear insights into the underlying geology, which is Lower Coal Measures (Upper Carboniferous or Silesian deposits), with the bulk of the site resting on an outcrop of the Silkstone Rock sandstone, through which the rivers had eroded channels (Davies 2000, 2). Butcher (1972a, 20) described the undulations of the underlying sandstone, of the mudstone that overlay it, and of the clay, silt and rounded boulders deposited, 'in similarly remote geological antiquity', to a depth of 10ft (3.05m) by the two rivers. He deduced that its 'obvious natural defences', with low cliffs running alongside the Don and Sheaf, and shallow 'valleys' on the line of Waingate and Dixon Lane, explain why it was chosen as the site at which to build the castle (Butcher 1972a, 19; also Hart 1989b, 1).

As we will see in Chapter 7, Butcher's geological training, observation skills and detailed recording enabled him to make some very significant observations about changes in the level of the ground surface of Castle Hill in the Middle Ages. He (1972a, 21) drew a plan to show the contours of the castle 'at the time of the building of the Furnival Castle c.1270', for which he used records made during the construction work between 1927 and 1930, including Himsworth's diary, bore holes and trenches dug between 1958 and 1972, Ordnance Survey maps and construction drawings (Ove Arup & Partners and Butcher 1957; Butcher n.d. (i); Figure 5.23). Some of the details of his deductions only occur in handwritten drafts, one of which describes the profile of the site:

Excavations at various points along the eastern & western sides of Castle Hill market show a gentle northward slope of the original surface towards the river as far as the south side of Castlegate, where it stood at about 168 [51.21m] AOD. Waingate occupies a shallow hollow running down towards the river which in the area around eastern Bridge Street & the [Exchange] Brewery had a terrace six or eight feet above river level. Near the south end of Lady's Bridge this terrace gives way to solid rock but it reappears, to the east of the bridge & widens as it approaches the mouth of the Sheaf. Here the river terrace appears to have been present on the west side of the Sheaf & may have been as much as [measurement missing] yards wide (Butcher 1972b, 7–8).

Butcher also drew profiles through the market site, revealing that on the western and eastern sides of the castle the ground sloped steeply down by up to 4–5m from the level of the inner courtyard to the edges of the moat cut (Butcher n.d. (f); n.d. (g); Figures 5.20), creating what was referred to by Armstrong as the *glacis* (1930, *passim*). Butcher's fullest description of the topography of the site, reflecting his training in geology and geomorphology, is found only in one of his handwritten accounts:

The oldest representation [of Castle Hill] appears on Gosling's Town map of 1736 where it appears as a square platform with slopes to the cardinal points, northwards to the R. Don, eastwards to the R. Sheaf with those westwards and southwards towards the town. Presumably these latter reflect the mass of post Civil War demolition debris declining into the moat with the following century's build-up on its levelled top.

The northward slope, which we may call the Don Cliff must have presented the usual raw appearance of any active meander scar to the foot of which the Don's maximum erosive power gravitated as the river swung from a SE to a NE course resulting in a constant nibbling and occasional biting at the toe of the slope. At its western end the gentler uneroded slope would attract N-S travellers to ford and later bridge the Don.

On the east the River Sheaf probably offered less of a threat to slope stability but long before any human occupation of the site similar action on its part had produced a series of intercutting meander scars along its western side the smoothed outline of which we can call the Sheaf Cliff ... At Dixon Lane some easing of the cliff must have attracted westward travellers to ford, and later bridge, the Sheaf here. Thereafter the cliff must have resumed its height to join the Don Cliff at the confluence (Butcher 1972b, 27).

Here, the historical actors are the river ('nibbling and biting') and the landscape, the latter encouraging and facilitating human action. Nonetheless, this analysis of the topographical setting of the castle, and its relationship to other aspects of the medieval town offers important insights into the motivations for its foundation and its ensuing impact on Sheffield. The site near the confluence of the Sheaf and the Don afforded a good but far from ideal position for the castle, if topographical considerations had been the only factor (see Pounds 1990, 69–70). The 1771 Fairbank *Correct Plan of the Town of Sheffield* shows the raised area on which the inner courtyard was positioned, exploiting a naturally available defensible setting (Figure 1.8). The site was protected by the rivers on two sides, but, nonetheless, as we have also seen, there was evidently a feat of engineering required, not only to dig the moat but also to construct dams where it met the Don to enable it to hold water. The cartographic evidence shows that on the east side of the inner courtyard the ground fell sharply down to the River Sheaf; the later Castle Folds Lane that ran north-east from Exchange Street had a steep slope, although the gradient around the lane had been modified by later infilling (Armstrong 1930, 19). Nonetheless, there was a need over time to build up the site on which the castle was located, especially towards the Don, to create a broader platform on which to extend the castle. As we will see in Chapter 7, the 2018 excavations, along with our analysis of Butcher's archive, have provided further evidence for just such a remodelling of the site.

The morphology of the town plan

The position of the castle within the medieval townscape has largely been obscured by modern development (Davies and Symonds 2002, 17), but can be teased out by analysis of cartographic evidence. Indeed, Butcher drew attention to a block of irregular medieval layout that could still be discerned on the 1853 OS map between the Castle Hill Steel Works and the weir on the Sheaf, framed around a narrow curving alley (Figure 5.24). In his typescript, Butcher described a photograph that he said dated to 1917 and which apparently showed an 'irregularly shaped house' on this lane, which was brick-built and seemingly of 18th-century date but had what appears to be a masonry wall at its north-east corner. The photograph that he was describing has not been traced in the Museums Sheffield archive, but Richardson and Dennison (2014a, 28; 2014b, plate 12) suggest that Butcher may have been referring to the building painted white visible on another early 20th-century photograph showing buildings adjacent to the Sheaf (Anon. 1900–19; Figure 5.25). Butcher reported that

Figure 5.24 (page 161): 1853 OS (1:1056; 5ft to a mile) map of Castle Hill. Source: University of Sheffield map collection.



Castle Mills
(Iron & Steel)

STREET

LADY'S BRIDGE

BLONK BRIDGE

Ward Boundary

Slaughter Houses

Slaughter Houses

CHANDLER'S ROW

Slaughter
Houses

Castle Hill Works

Phoenix Works
Steel

C A S T L E

Castle Hill

Steel Works

Castle Hill Works

Boilers

Rose and Crown
P.H.

Royal Hotel
Tap P.H.

Royal Hotel

H I L L

Site of

CASTLE FOLDS

C A S T L E F O L D S

Canal

Police Office

Town Hall

Spirit Vaults

Old N^o 12

Spirit Vaults

Norfolk House



Figure 5.25: *Early 20th-century photographs of the east side of Castle Hill.* A photograph (top) from 1918 labelled 'West wall of passage, but East of Castle site ... composed of stone, part dressed, part rubble, set in lime mortar'. It is noted that the wall was used 'as a foundation for a building, now used as a slaughter house'. Another photograph in the archive, which is a close-up of the right-hand end of this wall, is labelled 'Part of Sheffield Castle wall, discovered while pulling down old house, built in 1666, on the site of Sheffield Castle moat', and it is said to be located opposite the weir on the Sheaf. Courtesy of Museums Sheffield. An early 20th-century photograph (bottom) showing the Alexandra Theatre and, on the opposite bank of the Sheaf, a white building which may be what Butcher described in his 1972 typescript as an "irregularly shaped house" ... which is brick-built and seemingly of 18th-century date but has what appears to be a masonry wall at its north-east corner'. With thanks to www.picturesheffield.com (s12223).

among photographs in the City Museum he saw one with a caption describing 'ancient walling, flag in clay, said to be part of Sheffield Castle', which had been revealed during demolition of the 'irregularly shaped house', and two other photographs showing the alley curving steeply away from Castle Folds Lane to the demolished house. Again, these photographs do not seem to survive, but others from 1918 in the Museums Sheffield archive record a building that fits Butcher's (1972a, 11) description of a brick-built structure with lower levels in stone, adjacent to a steep, narrow, curving lane; the lower part of the building contained what appears to be a window, quoined jambs and a doorway with a massive stone lintel (Lees 1918; Richardson and Dennison 2014b, plates 13–15; Figures 1.9, 5.25). While it is possible, indeed likely (especially in view of the results of the most recent excavations discussed in Chapter 7), that much of this was reused rather than *in situ* castle material, Butcher's (1972a, 11) conclusion that the 'survival of this patch of irregularity ... suggest[s] a "medieval" rather than a "neo-classical" origin' seems reasonable. He also used these photographs to suggest that the ground level outside the house was c.150ft (45.72m) AOD, which is the level at the top of the river gravels near the confluence of the Sheaf and Don, showing that there had not been much modification of the area near the house since the medieval period. There was a block of buildings located at the level of the weir, just below 150ft (45.72m) AOD, which Butcher (1972a, 12) noted 'again partake of the more archaic "evolved" development being limited to the drier predictable conditions of the 150ft Terrace' – these may appear on his summary sketch of the site (1973e, 3; Figure 5.9) as four squares at the end curving lane. This contrasted with the slaughterhouses, which were part of a development that saw buildings 'pushed adventurously onto the more geologically recent, waterlogged gravels lying at the current level of the Don some six feet below the 150ft. terrace'. This, he argued, would account for the steep incline down to the river from the east end of Chandlers Row.

Butcher (1972a, 10–11) also identified a relic of the medieval townscape in the irregular street layout to the west of Waingate, which follows its curve and, hence, the west moat. This, he observed, contrasted with the post-medieval regular 'precisely planned' layout, or 'tidy post Civil-War parcelling out', on Castle Hill, including the Duke of Norfolk's 'regular rows of slaughterhouses, screened by a mock-Gothic facade'. This regular parcelling out largely stopped at what was then known as Shambles Lane (known later as Castle Folds Lane; Butcher 1972a, 10), other than at its north end where the slaughterhouses projected further east towards the confluence of the Sheaf and Don. Cartographic analysis also suggests that the Exchange Street ditches had a lasting impact on the street layout to the south of the inner courtyard, reinforcing his argument that it was part of the medieval entranceway into the castle. Gosling's 1736 map of Sheffield shows an 'L-shaped alley running west off Shude Hill and turning north towards 'Castle fould' Lane, although it does not connect through to it as it appears to have encountered a wall at that point (Figure 1.6).

While most discussions of Sheffield Castle have focussed on the inner courtyard, in 1637 Harrison recorded 'an outward Court or Fould builded round with diverse houses of office as an armory a Granary, Barnes Stables & divers Lodgeings' on the south side of the castle (Ronksley 1908, 47; Scurfield 1986, 169). An earlier reference to the outer courtyard may occur in the 15th-century Account Rolls describing buildings as being 'outside the castle', including the Exchequer Chamber, where dues and fines were received and wages and service payments were made, a stone and timber grange, a cowhouse and stables (Thomas 1920–24, 68–72). Adjacent to the stables was said to be a tower, and this may be the same one as that referred to as the 'ould tower wher the stables ar' in a letter from Major Carter on 30th May 1649 concerning the demolition of the castle (Hunter 1819, 14). There has been little archaeological investigation of this area of the city centre, and so we do not know anything of the form the outer courtyard took or even whether it was enclosed with a wall (Davies and Symonds 2002, 14–15). Some of the buildings within the outer bailey may, however, have remained standing until the later 18th century. For example, Fairbank notebooks from 1784 record a barn at the 'castle stable' at the corner of Exchange Street, Waingate and the marketplace; it is, thus, intriguing that on the 1797 Fairbank map what had been called 'Castle fould' on the 1771 map was now named Barn Street (Figures 1.7 and 1.8; see also Hall 1926, xix). And it is just possible that castle remains were encountered during the construction of Castle Square in 1965, focussed on the affectionately remembered 'Hole in the Road' underpass and shopping complex, at what would have been the southern edge of the outer bailey on High Street. A photograph taken at the time seems to show stone structures, but it is impossible to date them at this remove.

We are fortunate to have several 18th-century maps of Sheffield which reveal a clearly defined block of streets and property boundaries to the south of Castle Hill, which may reflect the location of the outer courtyard. This is in the form of a narrow strip of land delineated on Ralph Gosling's 1736 map by Beast Market (later renamed Haymarket) and Jehu on the west, Castle Fould on the north, Shude Hill on the east and Baker's Hill to the south (Hart 1989b, 1; Hey 2005, 17; Figure 1.6). This block of land is also clearly marked on the 1771 Fairbank

map of Sheffield (Figure 1.8), which depicts a steep slope on the east side down towards the Sheaf, echoing that to the east side of Castle Hill. We have no archaeological evidence for any surrounding wall or ditch, which we would normally expect (Thompson 1991), but the morphology of the streets and plot boundaries suggest the locations of access points into the outer courtyard, with the principal west–east route represented by Dixon Lane. Since routeways often preserve the location of gates, there may have been gates at either end of the lane, providing access to the marketplace to the west and the bridge across the Sheaf to the deer park to the east (see Chapter 8). It is unclear whether this outer courtyard had direct access to the inner courtyard, perhaps through the putative barbican. The aforementioned reference to a tower next to the stables may suggest that this was part of the defences around the outer bailey at its north-west corner.

Conclusion

Leslie Butcher had very different interests in the past than did Leslie Armstrong and Joseph Himsworth and his approach to recording and interpreting the archaeological evidence on Castle Hill reflects this. Butcher seems to have had little concern with the people who occupied the castle; rather, it was the place of the castle in the longer-term history of the site that fascinated him. The geological make-up of the site, and the natural forces that shaped it, are accordingly to the fore in his recording and draft manuscripts, while his discussion of the occupants of the castle is largely limited to their modification of the topography underlying the castle. Above all, he was interested in the geology of the site, and he criticised Armstrong for not having had much understanding of this (Butcher 1972c, 3). While he did not live to bring his work to publication, from the almost complete typescript (Butcher 1972a) we get a clear sense of his priorities and interpretative framework. This text lacks the flourishes of Armstrong's 1930 paper, or the historical imaginings of Himsworth's various lectures, and is a much more sober account of the profile of the site. Butcher left us an account that focusses on the form of the castle and the site on which it was built, and on setting the castle in its immediate landscape context. And, as we will see in Chapter 7, while Butcher was not himself particularly interested in the short term, in what Fernand Braudel (1975, 21) referred to as 'the event', his keen eye and meticulous records have allowed us to link some of his geomorphological observations with a key moment in the history of the site, a moment which demanded the labour of many, and without which Sheffield Castle in its 'mature' form could not have existed.

Bibliography

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

Appendix: foundation shafts

This appendix provides detailed summaries of what Butcher and Bartlett recorded of the foundation shafts dug through the moat, largely derived from the section drawings in the archive, supported by the supplementary information provided on the isometric drawings. As we saw in the last chapter, Butcher seems not to have been greatly interested in the artefacts recovered when writing up his findings in draft manuscripts, but the nature of the recording system he and Bartlett devised means that we have been able to integrate some of them into our discussion of what was revealed during the construction work. In most cases we can assign finds to particular foundation shafts, if not always to depth or section, although many of the artefacts described on the section drawings cannot be confidently identified among the collections in the Museums Sheffield archive. A full account of the range of artefacts recovered, including information on dating and provenance, appears in Chapter 6, but in this appendix the finds assemblages from each foundation shaft are examined for crucial dating evidence. The supporting data from the finds reports can all be accessed in the digital archive (Cumberpatch 2017; Mould 2017a; Mephram 2017; Young 2018).

Extensions to the chamber around the gatehouse

Foundation shaft **H2-4** was associated with reconstruction of the chamber around part of the gatehouse structures, and was dug to a greater depth than during the work recorded by Armstrong. There are surviving drawings of two of the sections (Butcher 1958–62d; Figure 5.26); on one of Butcher's sheets of multiple section

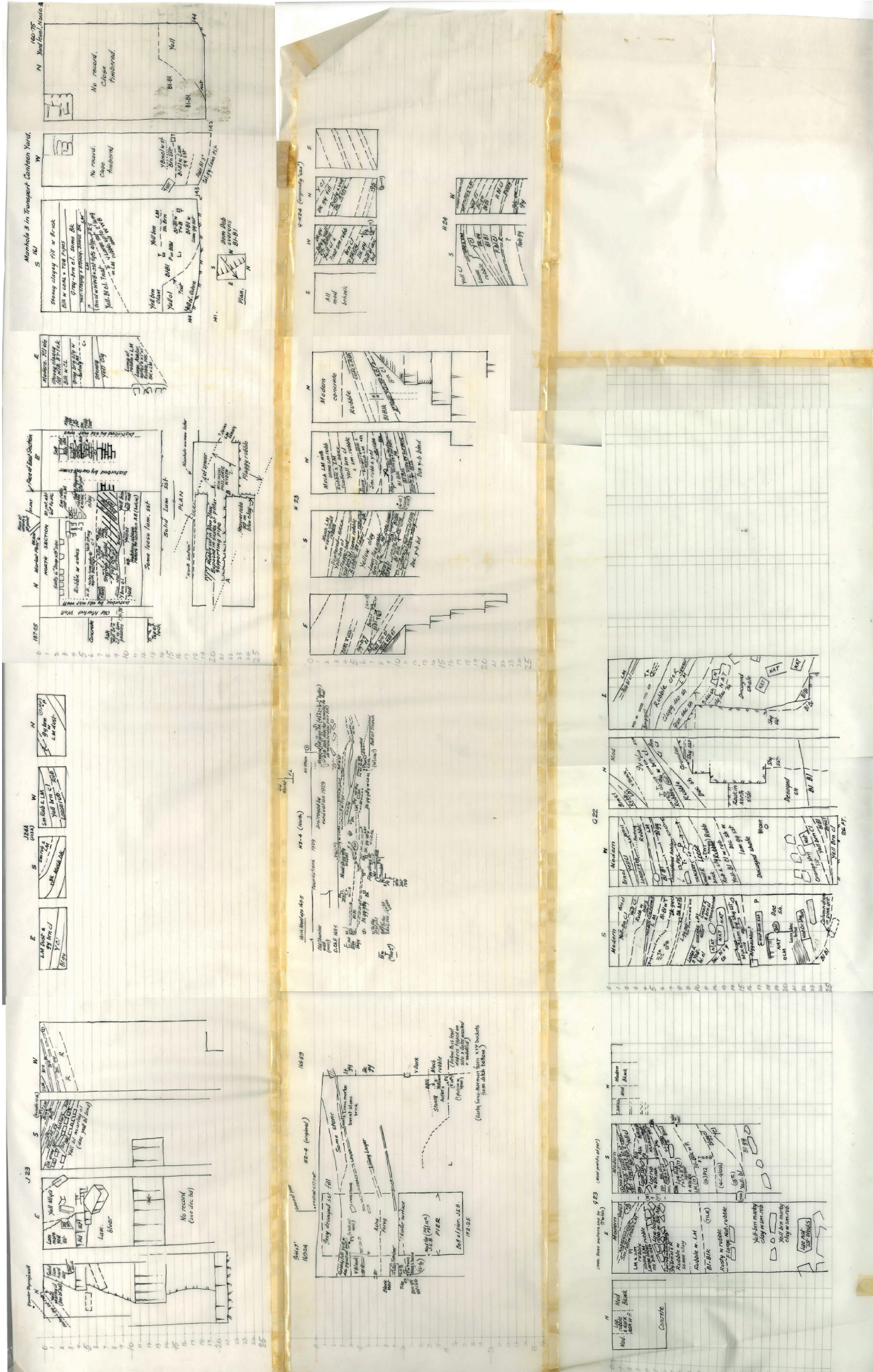


Figure 5.26: Section drawings of foundation shafts G22, G23, G-H24, H2-4, H23, H24, J23 and J24a and Manhole 3 in Transport Canteen Yard. Drawn by Leslie Butcher. Courtesy of Museums Sheffield.



9. G3 East & North
Drawbridge pier
(SE end abutting
on solid rock.
Rubble fill L.
Solid R

X



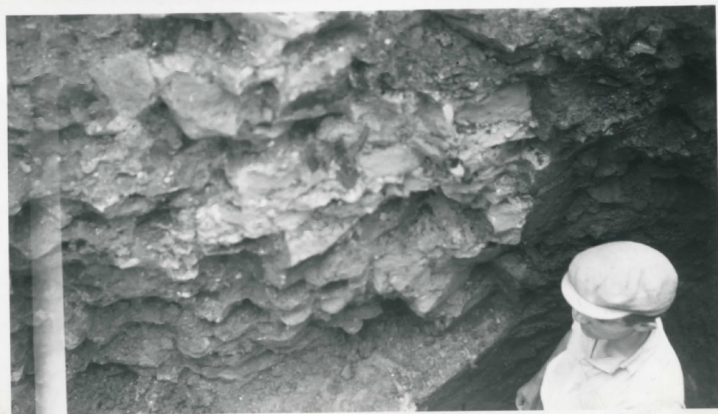
H.2-4. from N.E
NE angle of drawbridge
pier, destroyed to ashlar
coarse rubble filling
above



H.2-4. from E.
Drawbridge pier:
ashlar face, E.

X

10. H2-4 from N
Rubble fill (includ-
ing water worn
boulders) behind
ashlar face
(remnant beyond
head of figure.)



drawings is one of the north face, and another described as 'original' but apparently of the south section given that it shows the stone drawbridge pier (see Womersley and Butcher 1957b). Two heights AOD are recorded at the top of the left (169.24ft; 51.58m) and right (168.59ft; 51.39m) sides of the 'original' section drawing, which records a sequence of moat deposits. Beneath a layer of grey decayed sandstone is a rubble fill, yellow with decayed grey sandstone 'at base' on the left (east) side, and a layer of 'some stone' on the right (west) side. Below this is an episode of silting in the moat from a depth of 5ft to 6ft 6in (c.1.5–2m), within which is findspot P1, annotated as a whole pot base. The underlying fills are light grey (containing coal and lime mortar, burnt stone and brick), then dark grey (with a 'limey layer' and an 'Ashy/Ferug' (presumably ferruginous) layer running through it), then very dark. Butcher's depiction of the drawbridge pier takes two forms – intermittent dashed lines down to about 9ft 6in (c.2.9m), and then, below a level marked '?Ashlar surface' bolder, more solid lines. The distinction, and the reference to 'ashlar surface', is explained by Butcher's (1961, 30) reference to the fact that the pier had been robbed of its ashlar quoins, down to a level 7ft 6in (c.2.3m) from the bottom, exposing the rubble core. The ashlar facing was then used to construct a late wall in the moat (see above, Section: Gatehouse; Butcher n.d. (s), 7; Figures 5.14, 5.27). Importantly, in the section drawing all of the fills above the level marked '?Ashlar surface' seem to have accumulated against the rubble core, and so after the robbing of the ashlar facing. While these fills are shown to have built up around the 'denuded' pier, the sequence to the east of the latter is differentiated by the fact that the layers are described as 'very black' and 'black wet', the latter containing a timber measuring 12in × 2¼in (30cm × 6cm). Beneath this is another black deposit with a P2 findspot (labelled '15–16', presumably meaning '15th–16th-century pottery') and leather, twigs, slag and bone annotated on the section drawing, and then a layer of decayed sandstone rubble.

Below this, and the '?Ashlar surface' level, the deposits are recorded as largely uniform ('v dark'), apart from on the west side of the pier, and towards the base of the moat, where there were stonier deposits ('much rubble') differentiated as 'blue black' on top and 'yellower' underneath. Roughly 3ft 6in (c.1.1m) below the 'ashlar surface' are findspots P3 and P4, which are noted as producing 15th-century pottery. Findspot P5 lies at the base of the 'yellower much rubble' deposit (at a depth of 16ft (4.88m)) and was annotated as '(E 14th) (? part of rim with spout)'. The contents of the bottom 2ft 9in (0.84m) of the moat are described as having been 'tipped on site & later washed & riddled', and early Saxo-Norman (pottery?) is recorded as being recovered from the x and y buckets 'from ditch bottom'.

The top of the H2-4 north section drawing is recorded as 'Foundations 1929' at a height of 168.59ft (51.39m) AOD, with the upper part of the west side of the section formed by the inner wall of the old gatehouse chamber, the floor level of which is given as 165.5ft (50.4m) AOD. The east side of the section has a deposit of mixed sandstone and some brick batter (4½in × 2⅞–2¼in; 11cm × 6cm), with decayed mortar 'similar to that in the drawbridge pier fill', and which may represent material disturbed in 1929. Indeed, the area between this and the inner wall of the old chamber to the west is recorded as having been destroyed during the 1929 excavation. Below the 1929 chamber floor are c.4ft (c.1.2m) of moat deposits ('black-grey, dark grey') that seem to be associated with post-Civil War infilling, and which contain bands of clay, coal and stone. At the top is findspot P16, which is recorded as 17th century. The presence of blue-black material throughout the section suggests the presence of water within the moat where material accumulated. At a depth of between 6–7ft (c.1.8–2.1m) blue-black silting deposits are underlain by a dark grey gritty layer, with a lens of thin flag and light pale blue clay. Just above the gritty layer is a P number, labelled as '1st ½ C16?', and below it is further silting described as blue-black, yellow and coal, with a timber at a depth of about 7ft (c.2.1m) along with findspot P2. 'Pier 2' is recorded at the bottom of the west side of the section – this is the name originally given to the late wall built from the robbed ashlar of the drawbridge pier recorded in the south section (Figure 5.14 and Butcher n.d. (s), 1, 11).

The pottery assemblage from H2-4 comprises 213 sherds representing a maximum of 164 vessels. The majority of sherds are unstratified, but a few are labelled with information on the depth or the location in the moat deposits (e.g. 'Bottom') from which they were recovered, and there are several sub-groups, identified as 'J2–4 East End', 'North Extension', or through letters (X, Y, L, E) and number-letter combinations (4X, 4Y). A sherd of the rim of a bowl or pancheon in a medieval Buff Sandy fabric is labelled E6', presumably indicating that it

Figure 5.27 (page 166): *Leslie Butcher's record shots of excavation of the drawbridge pier exposed in foundation shafts G3 and H2-4. The bottom photograph shows the rubble core exposed after the ashlar facing had been removed to build the late wall in the moat. Courtesy of Museums Sheffield.*

was recovered from the east section at a depth of 6ft (1.83m). The assemblage from the 11ft level consists principally of Coal Measures wares dating to between the late 13th and 16th centuries. In contrast, the assemblage from the 12ft level is more diverse, although it also includes a substantial group of Coal Measures wares. This group includes the only jug spout from **H2-4** but it is not necessarily the sherd described on the section drawing as part of a rim with a spout, since this was at a depth of c.4ft (1.22m) deeper. The 12ft level also includes sherds of Reduced Sandy ware fabrics of 14th- to 15th-century date, including a pancheon rim, glazed lid and base of a baluster jug labelled P4 and described as 'Beside Pier' – which corresponds with information provided on the 'original' section drawing, where 'J.E.B' [Bartlett] dated P3 and P4 to the 15th century. Sheffield ware, dating to between the late 13th and 15th centuries, is also present at this 12ft level and the latest datable sherds are the rim and body of a jar in a 15th- or 16th-century Coal Measures Purple ware and a small piece of a post-medieval Sandy ware, possibly a late Humberware type. The 13ft level produced just three sherds including the rim and handle of a jug in Sheffield-type ware, also designated as coming from findspot P5, which on the 'original' section drawing is annotated at a depth of a little over 15ft (4.57m), and in the archive have the additional mark '9E'. On the section drawing these sherds are described as being of 14th-century date, but our recent analysis suggests a wider date range of between the late 13th and mid-15th century, based on new work on this fabric. A single sherd, part of a lid in a Reduced Sandy ware, labelled '16', is of particular note as ceramic lids are unusual finds; wooden lids were more commonly used with lid-seated rim vessels. Such vessels are perhaps more likely to be associated with the storage of food or drink than its consumption and as such might be expected to be found in assemblages derived from kitchens or pantries rather than from places associated with the consumption of food or drink. A group of small sherds of North Lincolnshire Shell-tempered ware dating to the late 12th to 14th century are from the 'Bottom' context, and these are presumably the fabrics misidentified on the 'original' section drawing as 'Early Saxo-Norman', which had been recovered from the 'x + y buckets'. The mode of recovery ('below this level debris tipped on site & later washed & riddled') may help to explain the otherwise anomalous post-medieval sherd (a very small chip of 17th-century Redware labelled as 'y') from this context.

Sixteen sherds of pottery bear P numbers alone and two sherds (labelled P4 and P5) also have a depth figure recorded, while three sherds of post-medieval pottery have P numbers (P1 and P2) followed by '2.5.58', presumably the date of recovery. In one case two P numbers (P1 and P4) relate to a single piece of pottery, the base of a 17th-century Redware jar which consists of 12 joining sherds; on the 'original' section drawing at P1 a 'whole pot base' is noted. Four sherds of Coal Measures Purple ware are labelled P3, which appears on the 'original' section drawing adjacent to the pier. Seven sherds spanning the 14th to 16th centuries are labelled P4, which is marked near P3 on the 'original' section drawing.

Two sherds from **H2-4** are also marked J2-4 and seven as J2-4 East End (presumably an error, using the next grid line north), and there is a diverse group of post-medieval wares, including two imports: a sherd of Frechen-Köln stoneware and another of Low Countries Redware. The group marked North Ext comprises 47 sherds representing a maximum of 44 vessels, among which medieval and early modern pottery is notably absent (a single sherd of 19th-century pottery is intrusive). Fifty-three sherds representing a maximum of 47 vessels are either unmarked or bear only letters (X, Y) or combinations of letters and numbers (4X, 4Y), suggesting that they may have been from the bottom of the moat along with other sherds labelled in this manner (see above). Although the group includes a small number of early modern and recent sherds, the majority are of medieval and post-medieval date and consistent with the period of occupation of the castle.

Few other finds can be confidently associated with foundation shaft **H2-4**. A single 16th- or 17th-century leather heel-lift is labelled H2-4X, which suggests that it was recovered from one of the buckets that contained fill from the bottom of the foundation shaft. Also probably from the bottom of the moat are wood fragments and a piece of slag labelled H2-4Y, stone items, some of which may have been roof tiles, and iron – mainly nails but also a bar labelled as being from 'near bottom' – as well as animal bone and oyster shell from H2-4Y and H2-4X. Finds from the northern extension of **H2-4** include a clay pipe bowl, window glass and animal bone. Window glass derives from several other locations in the trench including P2, which is marked on the left-hand edge of the 'original' section drawing, although glass is not among the finds listed there. There is also a ceramic floor tile labelled P2, which corresponds to the annotation of tile next to P2 on the 'original' section drawing. Animal bone, including red deer antler, comes from both the 6ft level and from P2 – although antler is also recorded on the section at c.15ft (c.4.5m), close to P5.

The archive contains drawings of the west and east sections of **H5**, which was extended to incorporate **H3** and was also an extension of the original chamber around the gatehouse structures (Butcher 1958–62g; Figure 5.28). The east section drawing does not provide a height AOD at the top, but at a depth of 6ft 6in

(1.98m) 'Level of H5 Concrete 160.33' (48.86m AOD) is noted, indicating that the top of the section is at 166.83ft (50.85m) AOD. The top of the west section is over 2ft (0.61m) higher at 169.08ft (51.5m) AOD. The top 4ft (1.22m) of the east section drawing is annotated as comprising an 'old stanchion base', to the north of which is the base of the west gatehouse tower, beneath which is the near-vertical edge of the stone-lined moat cut (photographs in Butcher n.d. (s), 18, 20). Since everything above would have been destroyed in 1929 in the construction of the chamber to preserve/display some of the remains (see Chapter 9), detailed recording of deposits commences at 'Level of H5 Concrete. 160.33', where a 'feruginous' layer containing pottery and glass overlaps the footings of the tower, beneath which is a timber stake (1.52m long) adjacent to the moat cut. A number of c.1ft (c.0.30m) deep mixed deposits from c.7–11ft (c.2.1–3.4m) in depth appear to represent silting episodes within the moat, described as black with timber, a layer noted as containing brick and tile, and another as black with tile, twigs and small branches. The lowest deposits on this section drawing, from c.11–16ft (c.3.4–4.9m), are described, in turn, as blue-grey silt, black, and 'yellow'. Finds annotated on the section drawing include tile, antler, bone, twigs, timber and slag, while the stone cladding of the north, inner, face of the moat cut is depicted (as it is on the west section drawing), with twigs and branches between it and the wooden stake mentioned above.

The drawing of the west section contains more detailed information about the sequence of moat deposits. Down to 2ft (0.61m), deposits had been disturbed by the stanchion, and below this are a series of stony dump deposits that include brick, tile and sandstone. These deposits slope from north to south, and were clearly associated with the clearance of the site and the infilling of the moat (the annotations 'dem deb' and '?lower limit of dem. deb.' [demolition debris] make it clear Butcher thought so too) – finds include a pin, honeycomb slag, tile, and mussel and oyster shell. Beneath the demolition layers is a layer (c.10–11ft; c.3.1–3.4m) noted as containing 'no stone' and beneath that are deposits (of another c.7ft; c.2.1m) associated with silting within the moat, with the only descriptor being 'small pebble layer' at a depth of around 13ft (3.96m). This section drawing records that artefacts collected from this lowest layer included tile, slag, bone and horn. A 13th-century 'wide-mouth cookpot' and a whittle-tang knife with 'inlaid' copper cutlers mark' were retrieved from the 'y' bucket (see Chapter 6 for more details), and it is noted that Bartlett thought some of the finds recovered from the 'x' bucket (at 12ft 6in; 3.81m) were of later 14th-century date, but without specifying what these were; the findspot is recorded as 'P.J', but this does not occur on any of the finds bags or labels associated with this foundation shaft.

There is limited contextual information for the small collection of finds that survive from **H5** and **H3**, concerning either depth or P number, while some of the abbreviated identifications cannot be reconciled with information recorded on the section drawings. The pottery assemblage from **H3** consists of 34 sherds representing a maximum of 29 vessels. The medieval pottery is principally 14th- to 16th-century Coal Measures wares, among which there is at least one jug or cistern and one pancheon, along with a series of local 13th- to 14th-century Sandy wares. Post-medieval pottery includes Cistercian ware, Blackware, a range of utilitarian wares, and a single sherd of German stoneware, possibly Frechen-Köln type. The pottery assemblage from **H5** is smaller, comprising just 11 sherds, among which medieval pottery is notably absent. The context information reveals three sub-groups in **H5**: two sherds of Blackware and one of Cistercian ware are distinguished as coming from 'Upper west 163 aod'; a larger group, consisting primarily of 16th-/17th-century coarsewares, are identified as 'MH (manhole) 1 West', which was located north of **H5** over the west bastion tower (Womersley and Butcher 1957b; Butcher n.d. (s), 23), while a single sherd of 17th-century Yellow Glazed Coarseware is labelled P1, but cannot be located as the findspot does not appear on either of the section drawings.

Other finds from **H3** and **H5** include wood, animal bone (including evidence for bone working), ceramic floor tile, a whelk shell (from 17ft) and window glass, one piece of which is labelled as 'kon layer', which presumably corresponds to the label 'Level of H5 Concrete 160.33' on the east section drawing. A series of finds labelled **5H** are probably also from this foundation shaft and include glass, wood, animal bone, stone, and medieval ceramic floor tile, some of which is also labelled X and Y, indicating that it was retrieved from the buckets that removed the fill from the base of the moat fill as is noted on the west section drawing. A context labelled '5H Moat Exchange Street' produced a great deal of both medieval and post-medieval leather, and seems most likely to have been from context **H5** (discussed in Chapter 4, Section: Decoding the archive).

Foundation shafts dug through the moat near to the gatehouse

Two well-recorded foundation shafts with substantial surviving collections of artefacts provide useful information about the moat fills in the immediate vicinity of the gatehouse. Foundation shaft **G5** was located in the south moat c.2m east of **G7**, and c.2m south of the **H2-4-H3-H5** complex described above. Indeed, in the archival drawings Butcher placed versions of the sections for **G5 East** and **G5 West** between those for **H5 East** and **H5 West**, as if to suggest that together they constituted a composite profile through the moat – he even drew a dotted lined (labelled ‘? Lower limit of Dem. Deb.’) between layers in **G5W** and **H5W** (Butcher 1958–62g). The top of **G5** is recorded at 169.12ft (51.55m) AOD with a base between 152.1ft (46.36m) and 151.1ft (46.06m) AOD. The section drawings record the incline of the base of the moat, dug into the underlying sandstone, sloping from north–south and east–west. A step down towards the base of the moat is recorded on the east and south section drawings; the top of the step is recorded at 154.75ft (47.17m) AOD with the moat base on the east section drawing at 151ft (46.02) AOD and 150ft (45.72m) AOD on the south section drawing (Butcher 1958–62g; Figure 5.28). On both the west and north section drawings the topmost fills of the moat are labelled as modern, and the same may have been the case for the other section drawings, which have dashed lines drawn at roughly the same heights as these modern layers are depicted. Beneath this on all four section drawings down to a depth of c.7ft (c.2.1m) are layers containing much brick and stone, with the remainder of the fills to the base of the moat roughly to a depth of 18ft (5.45m) described as black, with blue-grey silt recorded at the bottom of the east section. Two timber stakes c.5ft (c.1.5m) long are recorded against the south edge of the east section, one of which is described as ‘NOT decayed’ and “plywood” (it is not entirely clear what Butcher meant by this term as plywood is not a medieval artefact), and there are two other stakes, on the adjoining east edge of the south section, and the south edge of the west section, respectively. The tops of each of these are at a depth of 7.5–8ft (c.2.3–2.4m). Various artefacts are noted on the north, west and east section drawings in the base fill of the moat, including tile, leather, glass and brick, with P numbers marked on the north (P2, P3), west (P3) and east (P2, P3, P5) section drawings.

Foundation shaft **G5** produced an assemblage of 33 sherds of late medieval and early post-medieval pottery representing a maximum of 25 vessels. Two joining sherds of 16th- or 17th-century Purple Glazed Whiteware are labelled P1. Although this number is not recorded on any of the section drawings, we can identify their provenance since they are also recorded as coming from 13ft 9in, where several other sherds of this fabric were found. A sherd in a 15th-/16th-century Fine Coal Measures Purple ware fabric was found at P2, which is marked on both the north and east section drawings just below 11ft (3.35m) in depth, with the date ‘C15-16’ annotated on the east section drawing. Cross-context joins link six sherds of Coal Measures Purple-type ware from both the 8ft (2.44m) level and the unstratified group. Vessel types include cups/tygs in Cistercian and Blackware (one sherd at 8ft), a jug in Sheffield-type ware (at 11ft (3.35m)) and jugs/cisterns in Coal Measures Purple ware (at 13ft 8in (4.16m) and 10ft (3.05m)). The pottery assemblage from this foundation shaft is one of the most chronologically discrete among the moat deposits recorded by Butcher, all dating to the latter period of the occupation of the castle and largely derived from the black and silty lower moat fill. Even though various other finds are noted on the section drawings, there is only a single fragment of unidentified bone in the archive that can be assigned to this shaft.

G7 is located to the south of the west tower of the gatehouse; the top of the section drawings is at 169.4ft (51.63m) AOD, and the shaft is 18ft 7in (5.67m) deep (Butcher 1958–62g; Figures 5.12, 5.28). On all four section drawings the uppermost deposit is described as modern. On the west section drawing, which has the most detailed deposit descriptions, immediately below this is a layer of brown clay containing ‘much stone’ (6in–3ft 2½in; 0.15–0.99m), with an underlying brown clay layer (2ft–4ft 6in; 0.61–1.37m). Both deposits slope steeply north–south, suggesting that they reflect the direction from which the demolished castle was pushed into the moat. The other deposits shown on the section drawing relate to silting and dumping within the moat. The uppermost of these is described as black (3ft–11ft 6in; 0.9–3.5m) and there is a timber stake, with a vertical board inserted into its top, located at a depth of between 6ft and 11ft (1.8m and 3.35m). Photographs of the excavations, and the isometric drawing reproduced as Figure 5.12, suggest that this was one of three stakes found in this shaft (Butcher n.d. (s), 8). The section drawing and annotations reveal that the deposit contained rock and brick, and there is an arrow pointing downwards beneath the word ‘stonier’ suggesting the composition of the lower part of the fill. Artefacts from this deposit noted on the section drawing are a ‘ball’ (possibly

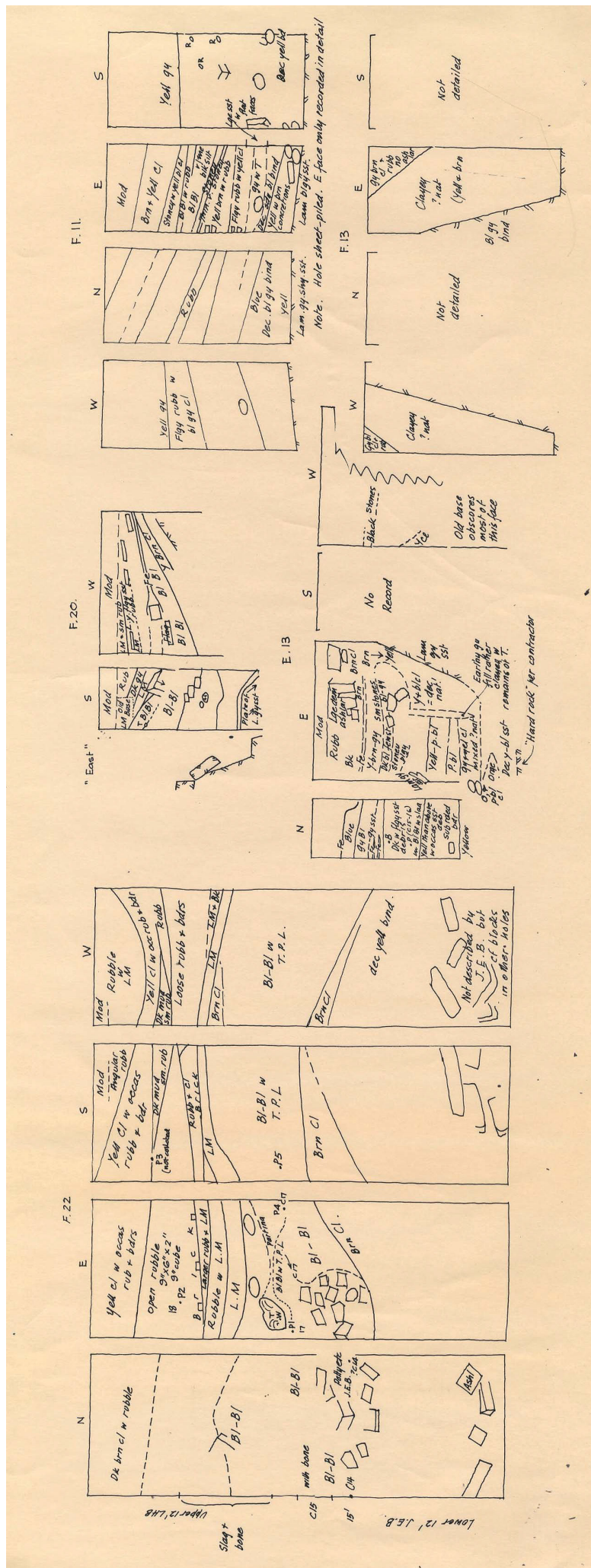
a cannonball or musketball) and 15th-century pottery. A line of stones at 11ft 6in–12ft 2in (3.50–3.70m) in a deposit described as yellow, continued as a layer of ashlar and large stones in the east and south section drawings, respectively. The blue-black deposit beneath this (12ft 2in–15ft; 3.70–4.57m) is annotated as containing pottery and leather, and dated to the late 14th century, and the same range of finds was recovered from an underlying blue-grey deposit at a depth of 15–17ft (4.57–5.18m). The deepest deposit, at 17ft–18ft 7in (5.18–5.35m) is described as blue-black. On the north, east and south section drawings the deposits accord with the levels shown on the west section drawing, although they contain fewer deposit descriptors. Finds are recorded on the section drawings in the lowest fills on the north (large and small pots of late 14th-century date, and leather), east (pottery and leather) and south (handle and sherds) sides. However, none of these is linked with a P number; a lone 'P' without a corresponding number is noted on the west section drawing.

Foundation shaft **G7** produced an assemblage of 52 pottery sherds, representing a maximum of 41 vessels. The assemblage comprises three distinct groups of sherds: unstratified; those identified to depth; and those assigned a P number. The three groups are mutually exclusive, with just one exception, a sherd of late 15th- or 16th-century German stoneware assigned both a depth (16ft) and a P number (P3), although P3 does not appear on any of the section drawings. The assemblage is notable for including one of the few examples of cross-shaft joins (with **G9** c.6m to the west), with three sherds of probable 15th-/16th-century Cistercian ware labelled 'G7 & G9' and 'RP3' joining to form part of a small cup or tyg. A small group of largely medieval wares (including single sherds of later Rhenish stoneware and Cistercian ware) were recovered from defined levels (10ft; 13ft 7in; 14ft; 15ft; 16ft; 18ft), while the sherds with P numbers are mostly post-medieval wares, largely of the 17th or very early 18th century. There are two examples of cross-joins between the P numbered groups (P1 and P2; P3 and P8), but unfortunately, there is no information recorded on the finds bags, or the section drawings, to reveal precisely where in **G7** these sherds were recovered. The foundation shaft produced a range of other material, although little of this can be assigned to a depth. This includes metal slag, 17th-century clay pipe and wooden laths (all labelled P1), window glass of probable post-medieval date (P3), medieval floor tile (from 12ft; 18ft; P3; P5; P7), animal bone and antler (from 10–11ft/P5; 6ft 6in; P1; 16ft 6in), a post-medieval copper-alloy lace, iron wire, an iron collar (P1) and an oyster shell. While the section drawings indicate that leather was recovered from this shaft, none of the leather in the Museums Sheffield archive can be assigned to it.

The centre of the south moat

Six foundation shafts (**G9**, **F9**, **F11**, **E13**, **E15** and **E17**) located in the south moat to the south-west and west of the gatehouse provide insights into its cut and its fill, although recording was restricted in all cases and most of the sections produced limited finds. Foundation shaft **G9** encountered part of the inner edge of the south moat cut, and the upper fills of the two sections recorded – on the south and west sides – contained many pieces of large rubble from the demolition of the castle, but produced few other finds, comprising just 12 sherds of pottery, a piece of glass and an animal bone (Figure 5.28). No height AOD is given for the top of the sections but it is notable that the bottom, comprised of 'solid shaley sandstone', was reached only 10 feet down, reflecting its position on the edge of the moat cut. Foundation shafts **F9** and **F11** were dug through the centre of the south moat and largely comprise clayey deposits and blue-black layers indicative of silting in the moat (Figures 5.29, 5.30). The only finds from **F9** are four sherds of medieval pottery. Here too no height AOD is given but bedrock was reached at a depth of 10ft 6in (3.2m). Foundation shaft **F11** was sheet piled and only the east section was recorded in detail, with the tip lines of its layers of clay and rubble sloping from north to south, showing the direction from which it had been filled. The south section drawing notes the recovery of a large stone with 'flat faces', presumably architectural, in the bottom quarter of the fill. There are few finds that can be associated with this foundation shaft, just four medieval pottery sherds and two fragments of a medieval ceramic floor tile.

Foundation shaft **E13** encountered the lower cut of the southern edge of the south moat (Figure 5.30). This is recorded on the east section drawing, which shows that, beneath a 'modern' layer, the uppermost deposit comprises demolition and levelling material including ashlar, brick and brown clay, beneath which a yellow-brown clay deposit abuts brown and yellow deposits representing weathering against the moat cut. Deposits towards the bottom of the section drawing are separated by the decayed remains of a timber post, to the north of which are deposits of clay and sandstone, with decayed natural on the south side of it. The only finds surviving from



this shaft are 23 sherds of pottery. The earliest sherds are of late 15th- or 16th-century Coal Measures Purple-type ware (one of which was a pot disc), while the remainder of the assemblage largely comprises late 15th- to 17th-century fabrics, including Yellow ware, Unglazed Redware, Coarse Blackware and Midlands Purple ware. Foundation shaft **E15** also exposed moat deposits, and the drawings of the north, east and west sections reveal a series of thin clay and stoney layers (Butcher 1958–62e). Finds annotated on the section drawings include plant remains, a mid-17th-century clay pipe and imported German glass of Elizabethan date. Foundation shaft **E17** was located in the southern moat c.5m to the west of **E15**, with its north-western corner overlapping a footing from the buildings constructed in the late 1920s (Ove Arup and Butcher 1957). Only the east section of this shaft was drawn (Butcher 1958–62e), and its deposits comprise a sequence of layers containing clay, brick and stone which slope from north to south at the top and may represent backfilling after demolition of the castle. The bottom of the shaft comprises silty and clay layers sloping from south to north, with a decayed blue bind (shale) overlying the bedrock of the cut of the moat. No finds recovered from this foundation shaft are identifiable in the Museums Sheffield archive.

The junction of the south and west moat

Foundation shaft **E19** was located at the point where the south moat begins to turn to the north to form the western section of the moat (Figures 5.29; Butcher n.d. (s), 27). The shaft was up to 20ft (6.10m) deep (compare, for example, **G9** and **F9** in the south moat), and detailed recording was undertaken of the north and east sections, which show the moat base cut into the underlying bedrock. The top of the shaft is described on the east section drawing as modern, and is between 1 and 2ft (0.30m and 0.6m) thick towards the south. Immediately below this deposit is a sequence of clay and silt deposits that slope from south to north, which shows that the moat was filled in from the south. The drawing of the north section of the trench records a series of yellow and brown clay layers, and mixed deposits that appear to be demolition layers from the castle, including tips of crushed sandstone, grey silt, lime mortar, grey-yellow marly clay and burnt flagstones. At the bases of both the north and east section drawings are dark layers, which are probably silting deposits within the moat, and on the east section drawing decayed bind represents weathering of the moat cut. The two section drawings also record the base of the moat, which on the north section drawing slopes east to west from 148ft (45.11m) to 147.5ft (44.96m) AOD, but on the east side slopes from 153.75ft (46.85m) to 152ft (46.33m) AOD, before a step down to 149.5ft (45.57m) and then sloping to the north at 149ft (45.42m) AOD (the step down can be seen in Butcher n.d. (s), 27).

Foundation shaft **E19** contained a diverse pottery assemblage consisting of 35 sherds representing a maximum of 32 vessels. The assemblage is distinguished by the presence of some of the earliest sherds from the site as a whole. Most of the material comes from the 5–10ft and 6ft 3in levels, while two joining sherds of Coal Measures Purple ware link levels 6ft 3in and 9ft 9in. The unstratified pottery also bears the mark '5\3–10\2', although the significance of this is unclear. Four medieval sherds and two post-medieval sherds bear P numbers: P7, P8, P10, P11 and P13. The earliest sherds are two joining fragments in the Stamford ware A fabric, dating to between the mid-10th and late 11th century; they are labelled P11, which reveals that they were recovered from the north section of the foundation shaft, just below a depth of 10ft (3.05m). The section drawing at this point is annotated '14th', suggesting that they were thought to be later in date at the time of excavation. A small sherd of an unidentified Reduced Sandy ware, probably of 12th- to 14th-century date, is labelled P13, which reveals that it was recovered from the east section of the shaft at roughly the same depth as the Stamford ware (again annotated '14th'). Other medieval sherds include unstratified Sheffield-type ware labelled P10, which is annotated on the east section drawing, as is a sherd of 14th- or 15th-century Coal Measures White ware. Two sherds of 14th- or 15th-century Coal Measures Fineware type are among the unstratified material, while the remainder of the pottery is of late 16th- to 17th-century date with one sherd of probable 18th-century Slipware from the 6ft 3in level. The post-medieval wares are of types common across the site including Yellow ware, Redware, Midlands Purple ware, Blackware and Early Brown Glazed Coarseware. Other finds from this foundation shaft include a piece of window glass (from P13), a piece of unworked sandstone and a pebble (annotated '5/3–10/3'), five pieces of slag ('between 5/3 & 10/6'), iron, possibly a nail (P10), and animal bone ('5–10', '5/3–10/3' and '5/3–10/6 unstrat').

Foundation shaft **F21** seems to have been close to the centre of the moat, and excavated to a depth of 26ft (7.92m). Drawings survive for all four sections (Butcher 1958–62e; Figure 5.29). The upper sequences in this foundation shaft suggest the deliberate tipping and dumping of material to backfill the moat, while the lower deposits appear to represent phases of silting and weathering. On the north and west section drawings, parts of the upper fill are obscured by a foundation base extending to a depth of 10ft (3.05m). The first 1ft (0.30m) of deposit on all the sections is described as modern. Beneath this, on the east half of the north section drawing, is a layer of rubble and clay and then five deposits sloping east to west and comprising rubble and lime mortar, a dark grey deposit with coal inclusions, a blue-black layer, rubble in clay, and decayed blue and yellow bind. On the south section drawing the deposit immediately below modern is described as yellow-blue clay, beneath which is loose rubble containing brick and a lens of material annotated as ‘tighter’. Beneath this is a thin deposit of lime mortar and light grey sandstone which overlies a dark grey deposit with laminated grey sandstone, and lumps of lime mortar. The underlying deposit has limestone inclusions and contains pottery and leather, and this is underlain by three more layers comprising sandstone, rubble and clay. The bottom 13ft (3.96m) of the trench is described as decayed bind and it contains a large piece of ashlar. The deposits recorded on the east section are very similar to those on the south section, aside from the layer below modern, which is described as ‘parting’, an example of Butcher drawing from geological terms to refer to a contrast in deposits. The bottom of the section also produced ashlar of yellow sandstone and it is notable that on this drawing Butcher has annotated it with ‘cf gatehouse’. He seems to have believed that there was another tower at this corner of the castle, and, indeed, on the Ove Arup & Partners foundation plan he sketched a drawing of the castle showing a tower at this corner (Ove Arup & Partners and Butcher 1957; Figure 5.1). On the west section drawing, similar clay and rubble layers are recorded, but there is a little more information provided about the finds recovered, which included burnt tile and stone, and slag at findspot P1. This foundation shaft was also represented by Butcher in one of his isometric drawings (Figure 5.11), and was one of those that was critical in assisting the interpretation of the various abbreviations he used.

Foundation shaft **F21** produced an assemblage of 48 sherds of pottery representing a maximum of 38 vessels, the bulk of which comes from level ‘C 8’. The assemblage largely dates to between the late 15th and 17th centuries. There is little evidence of any stratigraphic succession within this group, which includes the familiar mix of Coal Measures Purple ware, Cistercian ware and Yellow ware alongside Blackware, Coarse Blackware and Early Brown Glazed Coarseware. Vessel types include a cistern, panceons, a bowl and a cup or tyg, the latter in Cistercian ware. All three sherds of pottery marked P1 or P2 (which is not annotated on any of the section drawings) are of late medieval date, as are two sherds from the 18ft level (Coal Measures Purple ware types). The unstratified pottery includes a sherd of Cistercian ware, three sherds of Blackware, the rim of a Midlands Purple ware jar and the handle of a jug or cistern in Early Brown Glazed Coarseware. Other finds from **F21** include plaster and slag (P1), and animal bone (one fragment from P1) including a red deer metapodial, bone-working waste and sawn bone.

Foundation shaft **G22** was located adjacent to the inner moat cut, and c.10m north-west of foundation shaft **F21**. In addition to the section drawings of this shaft (Butcher 1958–62d; Figure 5.26), it is one of a series of shafts (with **F23**, **G22** and **H22**) used to construct a profile drawing of this part of the moat and the underlying geology (Butcher n.d. (t)) and described in Butcher’s (1961, 17–19) lecture script, where it is used as a detailed example of what he recorded of the moat. The upper deposit on the south section drawing is annotated as modern, beneath which is a deposit comprising brown clay, yellow clay, rubble with boulders, and lime mortar, which slopes from east to west in common with most of the fills recorded on this section drawing. Beneath this are a series of deposits described as blue-black, and dark grey clay containing brick and tile. A ‘P’ without a number is marked on the west side of the section drawing. Below this is a deposit of light grey sandstone, and then a dump deposit described as loose red and yellow-blue clay, small rubble and brown clay iron stained. Findspot P1 is recorded at the top of this deposit and the drawing notes the recovery of a set of shears. A further sequence of weathering deposits of decayed blue shale and laminated grey sandstone was recorded immediately below this dump, and the underlying deposit is suggestive of silting within the moat, with occasional dumping of material, described as blue-grey, fragments of ashlar, decayed shale, decayed laminated bind, and shaley sandstone. Another P without a number is annotated within this deposit. At the base of the moat is a silting deposit described as blue-black with a ‘column drum in pink grit’ marked on the section drawing. The west section drawing records very similar deposits sloping from north to south, including more examples of architectural stones, including chamfered ashlar and tracery. Other finds recorded include tile, pot and two

whittle-tang knives. Again, the information recorded at the base of the moat suggests weathering and silting. On the north section drawing, below the modern deposits is grey clay, which includes tile at the interface with the underlying rubble and clay deposits. Again, deposits at the base of the moat suggests weathering of the underlying natural sandstone into the moat fills. The cut of the moat recorded on the east side of the north section has a chamfered edge recorded between 8ft and 9ft (c.2.4 and 2.7m), which then dropped vertically to 11.5ft (3.51m), then stepped back to the west and dropped vertically again to c.17.7ft (c.5.4m). Very similar deposits are recorded on the east section drawing, sloping from north to south, and with the edge of the moat cut also recorded on the northern edge. Overall, the records of the foundation shaft show dumping of material into the moat which had already silted up to a level of between 10ft and 12ft from its base.

The pottery assemblage from foundation shaft **G22** comprises 186 sherds representing a maximum of 170 vessels. Only three sherds lack any context information, and this renders the assemblage the best recorded of those from the foundation shafts. The assemblage from the 8ft level is, with the exception of a single sherd of Cistercian ware and two sherds of Coal Measures Purple-type ware, of late 16th-/17th-century date, with a large quantity of Blackware, Early Brown Glazed Coarseware and Midlands Purple ware. Only two vessels are identifiable to type: a cup or tyg in Cistercian ware and a bowl or dish in Coarse Blackware. The group from the 10ft level is considerably larger and includes a much higher proportion of medieval and early post-medieval pottery alongside 17th-century wares. The earliest sherds identified are of Hallgate A type, currently dated to the 13th century, while a sherd of White-slipped Sandy ware probably dates to the period between the later 12th and early 14th century. Coal Measures Whiteware was represented by three sherds including the base of a jar, jug or cistern. However, these earlier sherds appear to be residual in this deposit as the bulk of the assemblage is of later medieval and post-medieval date with particularly large groups of Coal Measures Purple ware, Midlands Purple ware, Cistercian ware and Early Brown Glazed Coarseware and smaller quantities of Coarse Blackware. With the exception of the Cistercian ware, from small cups or tygs, the majority of vessels are of utilitarian types with jugs, jars and cisterns the commonest identifiable forms. The group also includes a sherd from a Martincamp-type flask and the rim of a mug or jug in Frechen-Köln stoneware. The latest sherd is a small piece of 18th-century Slipware, which might be considered to be intrusive. The 12ft level (including one sherd labelled '12' 11') produced just three sherds of pottery, all of 17th- or, at the latest, early 18th-century, type. Similarly small groups of sherds come from the 12–15ft and 12–16ft levels, the former including a sherd of medieval Sheffield-type ware alongside smaller sherds of Slipware and Coarse Blackware. The pottery from the 17ft level, and so from the silting layers at the base of the moat, was, with the exception of a sherd of Unglazed Redware, exclusively of medieval date, with two sherds of Brackenfield ware, various kinds of Coal Measures ware (including two jug or cistern handles) and a sherd of Sheffield ware. Three body sherds are labelled P1: two of Coarse Blackware and one of Early Brown Glazed Coarseware. A single small sherd from a 17th- or early 18th-century Yellow Glazed Coarseware pancheon, is labelled P2.

Foundation shaft **G22** produced a range of other finds, including part of a wooden lath from the 24ft level, suggesting waterlogging in this silted up deposit, coal, smelting slag and animal bone from the 17ft level, bone-working waste including evidence for handle manufacture, and oyster shells from the 10ft level. Confirming an annotation on the west section drawing, a medieval whittle-tang knife survives in the archive which has a bone handle made from a single medium mammal long bone, and while the blade is now in very poor condition it appears to have a straight back and convex blade (see Chapter 6, Section: Domestic and personal items; Figure 6.8). A fragment of a polished bone handle was recovered from the 8ft level, which is a little shallower than where the knives are annotated on the west section drawing.

Foundation shaft **G23** was located c.7m to the west of **G22**. Construction work limited recording of the north and west sections of the shaft (Butcher 1958–62d; Figure 5.26). The east and south section drawings have more detailed records, and a note at the top of the latter states it was 'most prolific of pot'. **G23** is one of the few shafts in which Butcher detected, or at least recorded, a clear chronological sequence, with annotations (mostly on the south section drawing) running from '(15th)' and '1500' at 15–14ft, '16C' glass at 11–10ft '(17)' at 10–9ft, and '(17) → (18)' at 6–4ft. The upper deposits on both recorded sections are very similar, with a modern layer above a series of layers containing yellow clay, rubble, ash and lime mortar. Below this on the east section drawing, a deposit of lime mortar and small rubble is recorded along with findspot P1. On the south section drawing, the corresponding deposit is recorded as yellow clay, black ash, loose rubble, and large rubble with black ash, along with findspot P2. From this point on the section drawings the deposit descriptions vary, but probably represent similar deposits. On the east section drawing there is a succession of dump deposits described as some lime

mortar, large loose rubble with black ash, large rubble black greasy and grey-brown rubble and clay, and rubble with lime mortar. On the south section drawing, the corresponding deposits are described as rubble and yellow clay, brick, and very loose rubble at base, and containing findspot P6. The underlying deposit is described as brown clay, large rubble, water-worn boulders, lime mortar, and brick, and it contains findspot P5. It seems likely that these extensive dump deposits are associated with the post-Civil War demolition, clearance and levelling of the site.

Below these deposits, silting within the moat is recorded. On the east section drawing, this is described as blue-black and rusty with rubble, and as containing tile. On the south section drawing, the corresponding deposit is blue-black and contains findspots P7, P8, P9, P10, and P12 as well as a leather sole (with heel), which suggests waterlogging. In the east section, a rubble and clay deposit is beneath this silting, but is not recorded on the south section drawing. The bottom deposit on the east section drawing suggests weathering and silting within the moat, and is described as mixed, yellow-brown marly clay with small rubble and large natural sandstone blocks. On the south section drawing are deposits suggesting silting and described as blue-grey and yellow clay which produced glass noted as being of 16th-century date. The bottom two deposits in this section are described as yellow clay and blue-grey.

As suggested by the annotation on the south section drawing, the pottery assemblage from **G23** is one of the largest recovered from the site, comprising 616 sherds representing a maximum of 542 vessels. Context information is generally good with depth information on all but 38 sherds. Pottery sherds from the upper sections of the shaft include information about the depth from which they were recovered, although several of the depth ranges overlap, perhaps revealing that they were collected from different sections, although this is not specified. The depths concerned are 0–3ft, 0.6ft, 1ft, 3–6ft and the slightly confusing ‘4’ 6”, which may mean either 4–6ft or 4ft 6in. The 0–3ft layer produced just two sherds, both different types of Midlands Purple ware of probable 16th- to 17th-century date. The 0.6ft level contained a small mixed group consisting of Cistercian ware, Blackware and Early Brown Glazed Coarseware. A mug or tyg and a handled bowl are among the Blackware vessels and a cup or tyg among the Cistercian wares. The 1ft level produced just one sherd, which is of probable 18th-century date (Mottled Coarseware), and early modern pottery is also present in the much larger and very mixed assemblage from the 3–6ft level which includes Slipware, Mottled ware and Creamware. Later still are the sherds of Colour Glazed ware (including the base of a teapot), transfer-printed Whiteware (with the popular Asiatic Pheasants design) and plain Whiteware. Earlier pottery includes Blackware, Midlands Purple ware and Early Brown Glazed Coarseware. The group also includes a sherd of Low Countries Redware dating to between the late 14th and 16th centuries.

The ‘4’ 6” level produced just two sherds; a very small sherd of 15th- or 16th-century Cistercian ware and a larger sherd of later Yellow Glazed Coarseware. A cross-context join, in the form of two sherds of transfer-printed Whiteware, links the 3–6ft and 10–12½ft levels, and a second join links the 12ft and 10–12½ft levels through two sherds of Purple-glazed Sandy ware of 16th- to 17th-century date. The group from the 10–12½ft level itself contains a substantial group of late medieval to late post-medieval wares with small quantities of earlier and later wares. Tablewares are represented by small numbers of 15th- and 16th-century Cistercian ware and 17th-century Blackware sherds (cups/tygs and a probable jug) but these are a minority element when compared with the much more substantial numbers of sherds of utilitarian type. Medieval wares include Sheffield ware and various types of Coal Measures ware but post-medieval wares are commoner and more diverse with Midlands Purple types, Coarse Blackwares, Redware and late Sandy wares. Early Brown Glazed Coarsewares constitute a significant part of the group. The range of vessel types includes cisterns, jugs, cups/tygs, bowls, a pipkin and a handled bowl.

The assemblage from the 10ft level is, with the exception of a single sherd in an unidentified but probably local Sandy ware, of 17th-century date with one or two sherds of probable 18th-century date (Slipware, and Mottled Coarseware). The assemblage from the 11ft layer is dominated by Early Brown Glazed Coarseware with vessel types including cisterns, jugs, pancheons and jars, but also includes a wide range of other types including a small quantity of later medieval sandy wares, Coal Measures Purple ware and Cistercian ware. Post-medieval types include Blackware, Coarse Blackware, Redware (glazed and unglazed). The latest types are of 18th-century date including Slipware and Mottled ware. The assemblage from the 11–13ft layer is smaller and less diverse than that from the 11ft layer but appears to span a similar date range, with Coal Measures Purple ware, Coarse Blackware and Early Brown Glazed Coarseware the principal types. Vessel forms include cisterns and at least one jug. The 11–15ft layer produced just one sherd, the handle of a jug or cistern in Coal

Measures Purple ware. The assemblage from the 12ft level closely resembles those from the 10–12½ft and 11ft levels, with small quantities of Cistercian ware and Coal Measures Purple ware alongside a much larger group of post-medieval wares including various Midlands Purple and purple-glazed wares and Early Brown Glazed Coarsewares. The range of vessel types is also similar to that seen elsewhere in the shaft, with cisterns, jugs, jars and bowls common among the utilitarian types and cups and tygs among the Cistercian and Blackwares. The only sherd from the depth 12½ft is the rim and handle of a jug or cistern in Early Brown Glazed Coarseware, and the 13ft level also contains just one sherd of Blackware, the rim of a mug or tyg.

The assemblage from the 13–14ft level is smaller than those from the 10–12½ft and 11ft levels but otherwise resembles them in all major respects. A small, presumably residual, medieval element is accompanied by a larger quantity of Midlands Purple ware, Coarse Blackware and Early Brown Glazed Coarseware. Vessel types include a cistern, a pancheon, an open jar and a jug or cistern. A cup or tyg in Cistercian ware is also present. The 14–15ft and 14–15ft layers produced a range of similar post-medieval wares but with a higher proportion of late medieval wares, including Sheffield ware, Coal Measures Purple ware and Buff Sandy ware. A smaller quantity of early modern wares are also present. The assemblage from the 14ft level is primarily of later medieval to early post-medieval date but includes sherds of Coarse Blackware and Early Brown Glazed Coarseware. How far the varying proportions of medieval as opposed to post-medieval and/or early modern wares in these contexts is significant is open to question. It seems probable that the earlier material is residual in later deposits but whether it represents material dumped in the moat during the later medieval period and disturbed during the demolition of the castle or whether it was derived from deposits elsewhere in the castle or its environs and moved before being dumped along with the post-medieval material is unclear. Layers 14–16ft, 14ft, 18ft and 19ft contain individual sherds or pairs of types familiar from the larger groups: Yellow ware, Coal Measures Purple ware, Coarse Blackware and early Brown Glazed Coarseware. Despite the fact that the south and east section drawings record numerous P numbers, only two sherds are designated with a P number: P1 (annotated towards the top of the east section drawing) is a sherd of Early Brown Glazed Coarseware, while P5 (at a depth of just over 6ft on the south section drawing) is a piece of Midlands Purple ware. Forty-four sherds representing a maximum of 38 vessels are not identified to a specific level or spit or by P numbers, although many bear obscure or illegible marks, with four dated 18th November. Vessel types include cisterns, jars, dishes and a handled vessel. Finally, the pottery assemblage from **G23** presents one of the rare examples of cross-pit joins, as seven sherds forming the base of a Midlands Purple ware jug or cistern are labelled as coming from **G23** and **G25**, the latter a context not otherwise represented in the archive, nor does it appear on the construction plan annotated by Butcher (Ove Arup & Partners and Butcher 1957).

Other finds that can be assigned to **G23** include three 17th-century shoes and another of post-medieval date; it is notable that the heel and sole of a leather shoe is annotated on the south section drawing (see Chapter 6, Section: Working with leather – cobblers, saddlers and harness-makers). Also recovered were three fragments of animal bone (from 12ft 11in, 11ft 1in and 10–12½ft, respectively), a fragment of a medieval ceramic floor tile (10ft), the bowl of a mid-17th-century clay pipe (11ft), two fragments of window glass (10ft), the base of a 17th- or 18th-century glass phial (11ft 1in), an oyster shell (3–6ft), a roof slate (12ft) and a whetstone (labelled 12H, the meaning of which is unclear).

Foundation shaft **F22** was located c.5m to the south of **G22** in the west moat, and was c.24ft (7.32m) deep. Beneath the top layer of dark brown clay with rubble on the north section drawing is a layer that is not described; there is a note 'upper 12' LHB', indicating that Butcher recorded it but we have no further details (Figure 5.30). Slag and bone are reported as having been found in both this layer and the one below, which is described as blue-black to the base of the moat. The lowest 12ft (3.66m) of deposits are noted as having been recorded by Bartlett ('J.E.B'), and bone, pottery and ashlar are depicted, with annotations indicating that some of the finds dated to the 14th century. There are similar sequences (but more fully annotated) on the east section drawing, with clay and rubble layers containing brick and the P2 findspot, layers containing lime mortar and the middle fill of the moat again a blue-black deposit, the upper part of which is labelled 'C17' and contains the P1 and P4 findspots. The base of the moat fill is labelled as brown clay, suggesting weathering from the moat edges. The south section drawing has corresponding upper layers of clay and rubble, and the annotation 'P3 (not collected)'. As on the other section drawings, the next deposits are associated with demolition comprising rubble and clay with brick, and lime mortar. The blue-black silting within the moat is recorded at 6–11½ft (1.23–3.51m) and findspot P5 is annotated in this deposit. The lowest deposits (c.11–23½ft; c.3.35–7.16m) of brown clay with rubble are indicative of weathering and dump deposits. On the west section drawing, there

is, again, a clay and rubble layer, and lime mortar, beneath which is a blue-black layer containing tile, pottery and leather. The lowest moat fill comprises a decayed yellow bind, suggesting weathering, and it includes what appear to be architectural stones; the section drawing notes 'Not described by J.E.B but cf blocks in other holes'.

Foundation shaft **F22** produced a pottery assemblage consisting of 61 sherds representing a maximum of 52 vessels, and a further four sherds representing a maximum of three vessels are labelled **?F22**. Excluding the **?F22** group, the pottery from **F22** can be divided into three groups: those with depth information recorded (much coming between the 10ft and 15ft levels); sherds assigned a P number; and pottery labelled BWT, the significance of which is unknown. There is some indication of a stratigraphic succession within the pottery assemblage, with that from the 15ft level being of exclusively medieval date and comprising sherds of Brackenfield 01 ware, Sheffield ware and Coal Measures wares. In contrast, the pottery from all other contexts, which appear to be in higher deposits (P1, P4, 12–14ft, 10ft, 10ft 8in, 10ft 4in, 10ft 9in), largely dates to the late 17th or early 18th century and includes Midlands Purple wares, Early Brown Glazed Coarseware and Redware with smaller quantities of Yellow ware and Blackware-type sherds. The range of vessel types is broadly similar to that from elsewhere on the site, with utilitarian vessels (jugs, jars, pancheons etc.) much commoner than tablewares. Three sherds (one Cistercian ware and two of Coarse Blackware) all bear the ambiguous mark '12/- to 14/-' and the code **?F22**, and while it is unclear how these relate to the rest of the assemblage they would not be out of place in the 12ft to 14ft level.

Among the other material recovered from foundation shaft **F22** are 17th-century leather turnshoe fragments, including a rand, a fragment with lasting margin, and another with butted edge/flesh seam; while there is no information concerning the place from which these were recovered, it may have been from the c.11ft level as leather is here recorded in the east, south and west sections. The remainder of the finds from this foundation pit are twigs, perhaps wattle, and animal bone, some indicative of bone working, and much of this material is from the 12ft to 14ft level – generally just above the 'brown clay' lower fills. From the 10ft 9in level is bone-working debris and a red deer metapodial.

Foundation shaft **H23** was located in the west moat about 10m to the north-west of **F22**. The most detailed records are for the south and west sections, although the north and east sections provide important records of the lower rock-cut edges of the moat, showing a steeply chamfered upper slope before regular steps with vertical faces (Butcher 1958–62d; Butcher n.d. (s), 29; Figure 5.26). On the north section drawing, the upper 3ft (0.91m) consists of concrete, while on both the south and west section drawings there is a deposit of lime mortar and small rubble at the top, while there is no description of the top layers of the east section. In all sections, the succeeding deposits consist of sloping dumps – the west and east section drawings demonstrate that the pit was infilled from the north – comprising rubble and lime mortar, yellow-brown clay, coal and ash, with findspot P1 annotated on the west section drawing. On both the south and west section drawings, below these dumps are deposits (7½–10½ft; 2.29–3.2m) described as mixed coal, peaty, yellow, blue and dark grey clay, and blue-black. Tile was recovered from these deposits in the south section, and the drawing is annotated with a date of 15th to 16th century at the bottom of this deposit, while brick is recorded on the west section drawing. Deposits associated with silting within the moat are recorded below these dump deposits, comprising a mixed, lensed blue-black deposit, which on the west section drawing includes tile, yellow-grey sandstone fragments and peaty material, and this is where findspot P4 is recorded. On the north section drawing, below this deposit is a 4in layer of yellow clay, sandstone with a reddish-purple stain. On the west and south section drawings beneath the silting is a deposit of rusty yellow and grey sandstone fragments, and a 3in layer of blue clay. The bottom deposits in this foundation pit comprise decayed yellow-blue bind in both the south and west sections, brown clay in the north section, and blue-yellow clay in the east section.

Foundation shaft **H23** produced a pottery assemblage consisting of 40 sherds representing a maximum of 39 vessels. Depth data is provided for a substantial part of the assemblage. The earliest sherd is a piece of Hallgate A ware, labelled P1 (so from quite high up in the shaft), while two sherds of 15th- or 16th-century Coal Measures Purple ware and the base of a Midlands Purple ware jar or cistern bear the letters BL, suggesting they came from a black layer. An unstratified sherd of 17th-century Type 1 Slipware is numbered '46'; it is unclear what this means, unless it is an error for '4–6', which would identify it to the rubble layers at the top of the shaft. The material with depth information is diverse and includes early modern pottery in the form of a small sherd of hand-painted Pearlware, a sherd of late Blackware and of Stoneware, alongside the ubiquitous post-medieval wares (e.g. Midlands Purple type ware, Blackware, Early Brown Glazed Coarseware). The identifiable vessel types include bowls, jars and jugs/cisterns with the handle of a small cup/tyg in Cistercian ware. One

sherd, the base of a 17th- or 18th-century Unglazed Redware vessel, bears the code **H23/H24**. A cross-shaft join is represented by two sherds of a tripod vessel in 16th- to 17th-century Yellow ware from **H23** (17ft) and **H25** (6–7ft), located c.3m to the west. A range of other finds survive from **H23** including bone-working waste in the form of a scale handle fragment from 4ft 6in and sawn bone from '9–10' black', which must be the silting layer recorded on both the south and west section drawings (see also Chapter 6, Section: Domestic and personal items). Part of a desiccated squared wooden post survives from a context labelled as 'C10/-', the bowls of mid-17th-, 18th- and 19th-century clay pipes are labelled C6 and two conjoined fragments of plaster are from P2 which is recorded on the west section drawing at the top of the black silting layer but has been crossed out.

Three other foundation shafts (**F20**, **F23**, **J23**) dug at the southern end of the west moat provide only limited insights, but are worth briefly summarising (Figures 5.26, 5.29, 5.30). Foundation shaft **F20** (east of **F21**) was dug to a depth of c.9ft (2.74m); no heights AOD are recorded on the section drawings (Butcher 1958–62b). It encountered part of the moat cut in the east section, showing that it was stepped, although no details about the moat fill at this location are recorded (Ove Arup & Partners and Butcher 1957; Butcher 1958–62b). The south section drawing shows that beneath a top modern layer is an 'old base' from an earlier building abutted by deposits of rubble and lime mortar probably associated with its construction. Beneath this are deposits associated with the moat, comprising a blue-black deposit which contains fragments of tile. The underlying deposit has no descriptor with the bedrock described as a plate of light grey sandstone. On the west section drawing, the top layer is labelled as modern and beneath this is a similar series of rubble and lime mortar deposits as shown on the south section drawing. Beneath this is a blue-black moat deposit annotated as containing flag (presumably flagstone), and Fe (iron; probably iron-staining). The lowest deposit recorded comprises yellow-brown clay. No finds from this foundation shaft survive in the archive. To the west of the better recorded **F20** and **F21** was **F23**, which seems to have been located near the outer edge of the moat (Butcher n.d. (t)); the north and east section drawings record a series of deposits sloping steeply from west to east, and south to north, respectively (Butcher 1958–62e). The upper three fills consist of yellow clay, black ash and rubble and probably relate to demolition and clearance of the site, while the lower comprise yellow-brown clay and blue clay, which may represent weather and silting of material from when the moat was open. In the east section, the deposits were largely the same, with minor changes in inclusions within the deposits. The southern edge of the east section drawing shows that the top of the moat was stepped. Foundation shaft **F23** yielded just five sherds of 17th- or early 18th-century pottery, and pieces of sawn bone indicative of bone working. **J23** was located 6m to the north of **F23**, and while all four sections were drawn they contain limited deposit descriptors. At the top of the north section drawing it is noted that findspot P1 came from 'under Styring's wall' (Butcher 1958–62d) – this almost certainly refers to Lenton & Rusby opticians, where, as we noted in Chapter 4, Charles P. Styring worked (see Figure 3.2 for the location). On the east side of the north section drawing is the edge of the moat cut through the natural, solid laminated, hard sandstone (see also Butcher n.d. (s), 30 for photographs). The other deposits recorded on this section drawing seem to derive from weathering or silting, and comprise fragments of platey light grey sandstone and yellow marley clay, with decayed blue bind, and similar deposits are recorded on the east section drawing. Slightly more detail is provided for the south section, with the upper 3ft (0.91m) consisting of alternating bands of brown, dark and yellow dark grey, which is similar to corresponding, but less well annotated, deposits on the west section drawing. Beneath this on the south section drawing is a dump of material probably associated with the demolition and clearance of the castle site, as it is described as dark grey, with sandstone including ashlar. Beneath this demolition material is a deposit suggestive of silting within the moat, comprising yellow-blue marley clay and decayed yellow-blue bind. **J23** produced just two sherds of pottery, one of which, a sherd of Early Brown Glazed Coarseware, is identified as P1, revealing that it was recovered from the demolition layer at the top of the south section (where it is marked as 'handle 15–16'). The other sherd, the handle of a late medieval Coal Measures Purple ware jug or cistern, is recorded as coming from the 'South Extension'. No other finds from this foundation shaft can be identified in the archive.

Waingate

Construction of a retaining wall on Waingate, at the northernmost part of the Castle Market buildings, saw several foundation shafts recorded which provide further detail on the west moat (Butcher n.d. (w); 1958–62g; Figures 5.28, 5.31). The work is recorded in one of the largest surviving section drawings, providing a south–north profile, the upper parts of which record deposits disturbed by a cellar, concrete pier and two manholes,

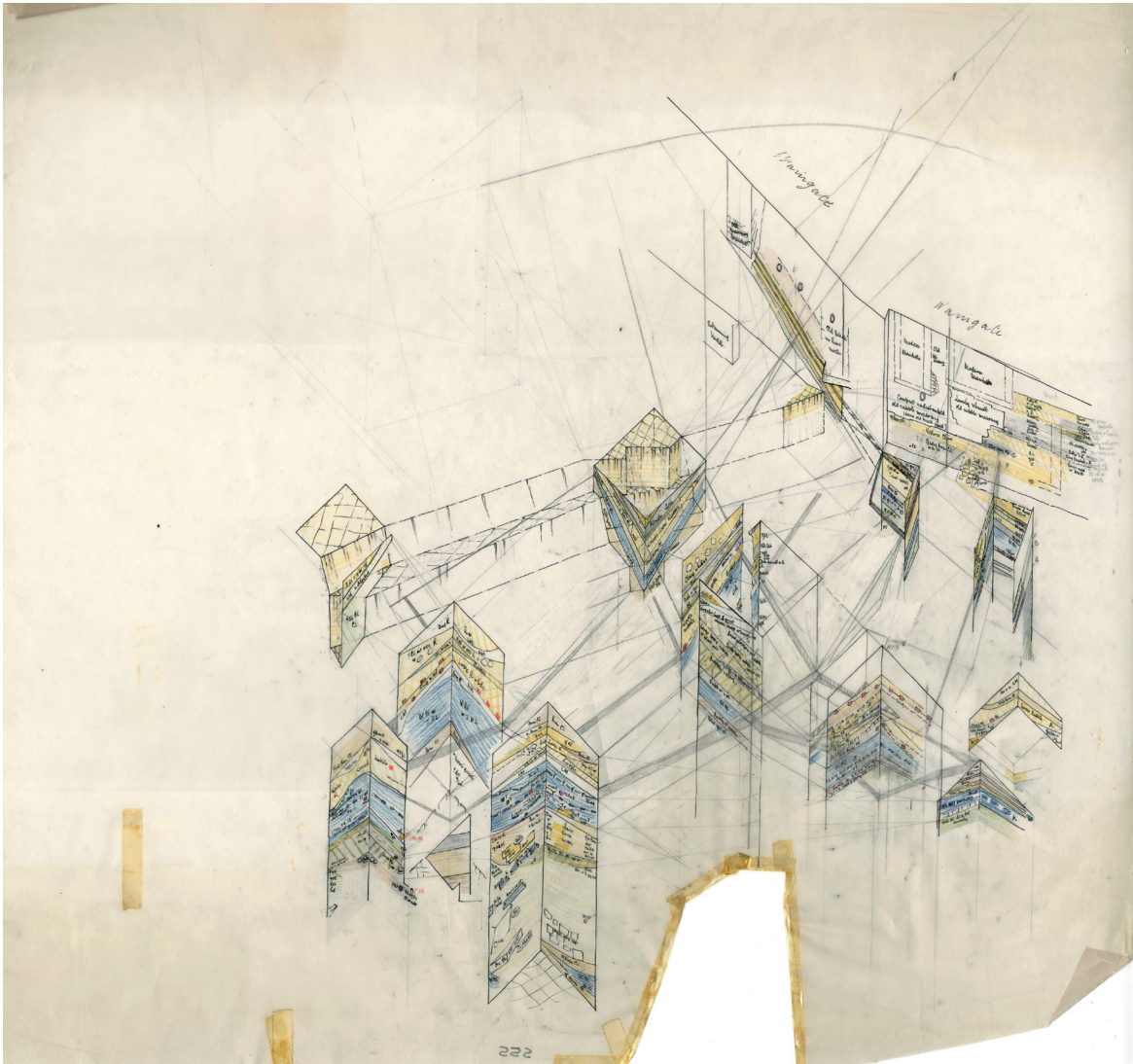


Figure 5.31: *Isometric drawing of the foundation shafts dug at the corner of Exchange Street and Waingate. Drawn by Leslie Butcher. Courtesy of Museums Sheffield.*

while the lower part records three foundation shafts (**G24**, **G-H24**, **H24**) (see also Butcher n.d. (s), 28, 33 for photographs). The only heights AOD given are for Waingate (182ft (55.47m) and 180.6ft (55.05m)), a recording line annotated 'Working Level JEB. section' at 168.5ft (51.36m), another, not annotated, at 167.5ft (51.05m), and the base of shaft **H24** at 153ft (46.63m) AOD. The upper deposits on the south side of the section drawing consist of sections of modern brick work, sandstone slabs, masonry and pipes that cut through make up levels which overlay a sequence of deposits associated with the west moat. There are two manholes at the top centre of the section, and the upper deposits on the north side of the manholes (and running under Waingate) comprise dumps of clay, rubble, ash and coal, among which were recovered pantile and pottery; findspot P1 is notated in these layers. Above the foundation shafts **G24**, **G-H24** and **H24** at this location is a layer of yellow clay and (in **G-H24** and **H24**) what are described as 'vestiges of rubble layer', and beneath this a brown-grey layer containing stone and rubble. On the south side of the manholes the deposits slope from south to north; some of them continued down through the foundation shafts to the north. These deposits comprise alternating 'dirt band' and yellow clay, overlying the moat cut, described as natural clay with decayed shaley sandstone, which represents weathering of the underlying geology, described as solid shaley sandstone. These deposits continue

to the north in foundation shaft **G-H24**, at the top of which is findspot P2 (labelled as '17'), with layers of brown clay and blue-brown clay overlying deposits of shaley sandstone, suggestive of silting within the moat.

Foundation shaft **G-H24** also has a sequence of deposits sloping steeply south–north. The upper layers again suggest silting and weathering of deposits within the moat, consisting of bands of material described as dark grey, rusty, dark ashy, yellow clay with 'natural' rubble, brown clay, very dark grey, dark grey and yellow-blue clay. Artefacts were collected from the bottom two deposits, including leather, and findspots P3 and P5 are noted, and dated 17th century and 16th to 17th century, respectively. Just four sherds of pottery in the archive are labelled as deriving from **G-H24**, representing a maximum of three vessels. None of it predated the 17th century. Only one sherd bears any indication of context, an elaborately decorated sherd of 18th-century Slipware noted as being 'Unstratified'. However, there is some pottery in the archive listed as coming from **G24** which clearly come from **G-H24**, because **G24** is not deep enough to have been the source of it; the section drawing, indeed, records that **G-H24** was 'originally "G24"' and the latter label seems to have been retained during bagging of pottery. This includes 17 sherds of pottery representing a maximum of 16 vessels. Only one sherd, the rim of a 17th-century Redware vessel, is identified by a depth measurement (15–19ft). The rest comprise Blackware, Redware, Early Brown Glazed Coarseware and a single sherd of Mottled ware, subsumed under finds numbers P1, P3 and P4, with only P3 marked on the section drawing. The whole assemblage is of 17th- to early 18th-century date with medieval and early post-medieval pottery notable by its absence, in contrast to the majority of the assemblages from the site. The only other surviving find from this deposit is a piece of possibly architectural terracotta, with a chamfered edge labelled P4.

H24 is the deepest foundation shaft excavated in this section, being 25ft (7.62m) deep at the base at 153ft (46.63m) AOD. The uppermost deposits within the shaft again slope steeply from south to north, and are suggestive of dumping or backfilling comprising layers of rubble, dark grey and yellow clay. Beneath these are four deposits similar to those in **G-H24**, indicating silting, weathering and perhaps dumping within the moat, and described as dark grey, black, pale blue and rusty rubble. Several finds are annotated on these deposits, including 'holl' (hollow?) bronze, and 17th-century clay pipe stem and pottery. The number 7 appears in the black layer. The lower deposits in the foundation shaft are also suggestive of silting and weathering of material into the moat, and annotated here are the numbers 8, 9 (which is said to be lost) and 10, labelled as 'collected J.E.B may contain some of N° 9'. Below this is a deposit described as loose black and a deposit of granular decayed shale, in which the number 11 is noted with the comment 'final info on location not given', adjacent to which is the date 1450–1550. The final deposit in the sequence is described as blue-black, and there is an annotation that records 'a skip alleged to contain some Bl-Bl from this layer was tipped on "Old Dam" playing fields west of City Museum Xmas 1958'.

H24 produced 59 sherds of pottery representing a maximum of 51 vessels. A considerable part of the assemblage was recorded as coming from the 15–19ft level (the same level as recorded in the case of **G24**), with a smaller quantity from the 7–8ft level. Two sherds, both examples of Early Brown Glazed Coarseware, are identified with findspots P1 and P3, respectively, although neither of these numbers are recorded on the section drawing. One sherd, a piece of Blackware, is labelled as coming from the '3rd Pit'. The remainder of the assemblage is unmarked. Cistercian ware is present in both main groups, as is Early Brown Glazed Coarseware, but the disparity in quantity makes useful comparison difficult and the overall picture is of a 17th- to early 18th-century assemblage with a small quantity of earlier, residual, wares. Midlands Purple ware and Unglazed Redware are both prominent in the 15–19ft level, while the 7–8ft level includes the rim of a bowl of Yellow ware. The range of vessel forms is unremarkable, with utilitarian wares (jugs/cisterns, bowls etc) commoner than the tablewares (cups or tygs) represented by the Cistercian wares.

The east moat

The principal insight into the east moat comes from **manhole 3** in the Transport Canteen Yard (Butcher 1958–62d; Figure 5.26), located beneath 'A' on the section drawing of the east side of the castle. The top of **manhole 3** was 161ft (49.07m) AOD on the south section, and it was excavated to a depth of 142ft (43.28m) AOD. A series of boreholes at the northern end of the projected line of the east moat indicated that the base was at 144ft (43.89m) AOD (Butcher n.d. (r)), a level that corresponded with the base of the west arm of the moat **F**. A small plan alongside the section drawings of **manhole 3** shows the moat cut running diagonally from north-west to south-east across the manhole, with a note that 'Dem [demolition] Deb [debris] overruns bl-bl [blue-

black]'. Limited records were made of the west and north sections, as they were obscured by close timbered shuttering. The top of the north section is at 160.75ft (49m) and its lowest levels comprise a blue-black layer above the yellow natural, while the base of the west section comprises a deposit of yellow-brown clay with stone, a brown silt overlying a deposit described as blue-black with laminated grey sandstone. An annotation above the cut of the moat records 'pale blue 3"' at a depth of about 142ft (43.28m). On the south section drawing the top of the manhole is recorded as 161ft (49.07m), and the top layer is a stoney clayey fill with brick. Underlying this are three deposits labelled as black with coal and tobacco pipes, grey-brown clay with brick and a yellow clayey and stony layer with brick, and then demolition dumps comprising lime mortar, brown clay with water-worn boulders and sandstone fragments, purple reddish stain and lime mortar. A possible silting deposit underlies this, described as yellow-blue clay, and then the lower part of the pit comprises very large sandstone rubble 'up to 2' long' and water-worn boulders. The annotation 'P in lime mortar' refers to pottery. Above the cut of the moat and at the base of the rubble is yellow-brown clay, and lime mortar, and immediately overlying the cut is a blue-black silting deposit, which includes pottery, tile and bone. Within this deposit are lenses of dark brown and laminated grey sandstone. The top of the east section drawing records almost identical layers to the south section, and the lowest part of the fill comprises rubble, brick and lime mortar with pieces of ashlar 'up to 1' 6 x 1' x 1'".

Manhole 3 produced a small pottery assemblage consisting of 25 sherds. Pottery assigned to the 8ft level comprised a group of post-medieval and early modern wares, including the base of a Cistercian ware cup or tyg and two sherds from 18th-century Slipware vessels. The 12ft level produced a larger assemblage of later post-medieval and early modern date, among which Blackwares were prominent, along with Early Brown Glazed Coarseware and Redware. Later types included Brown Salt Glazed Stoneware, Late Blackware and Mottled Coarseware. Identifiable vessel types were limited to a cup or tyg and a bowl or open jar rim in Blackware and a dish or bowl in Redware. A number of sherds bore the letter P but lacked any number; no P numbers are marked on the section drawings. All of the sherds with marked depth information also bore the letters CY (Courtyard?). Butcher recorded the presence of leather within the deposits, and Box BS784 in the museum stores, accompanied by a loose label, handwritten in purple crayon on scrap paper, which reads 'M.H.3 (Tpt Canteen Yard) L1. In Black-w-timber C17/- assoc. bone (chopped) oyster shell, twigs + P.I.', contains predominantly 14th- and 15th-century leather shoe parts, with only one piece datable to the 17th century. Other finds include oyster shell, animal bones, some of which are indicative of bone working, and nine pieces of 17th-century clay pipe.