

EXCAVATION OF A MEDIEVAL BUILDING AND A CIVIL WAR REFORTIFICATION AT BOLSOVER CASTLE, DERBYSHIRE

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SUMMARY

In 1997 two evaluation trenches were excavated in the grounds of Bolsover Castle ahead of construction of a new Visitor Centre. The present castle, a 17th century mansion in the keeping of English Heritage, lies within the grounds of a former Medieval castle of which little trace now survives above ground. One trench penetrated the bank of the former Medieval castle's outer bailey and the underlying soil was found to contain pottery dating from the late Saxon to the early Medieval period, indicating that the bank was constructed after the late 11th century. The remaining trenches provided some signs of Medieval occupation of the area. However, a year later when the full area to be occupied by the new building was excavated, large post-pits belonging to part of an aisled timber building were found. This was interpreted as a structure running north-south, with either one or two aisles, this point remaining uncertain as a later quarry pit had removed evidence of any former east aisle. A series of smaller post-pits at the south end of the building could be an outshot, perhaps replaced by a fence on a slightly different alignment. Finds from the post-pits and a nearby cess-pit collectively suggest a probable domestic use of the building and a construction date in the first half of the 13th century. An alternative function as an administrative building might explain its more public position close to the possible site entrance. The building's use terminated towards the end of the same century. These dates can be correlated with what is known from the limited documentary record of the castle.

Service trenches, excavated later by machine during construction work, included one on the south side of the outer bailey bank. This penetrated a drystone wall set outside of the Medieval rubble bank and positioned next to a near-vertical re-cut of the bedrock, which helped define a deep ditch. The top of the wall had been lost or slighted, and the

ditch infilled. At a depth of over 3m this infill contained numerous clay-pipe fragments dated to around 1650–60, and possible kiln saggars. The wall and re-cut ditch were interpreted as part of the refortification of the castle, whose occupation by Royalist forces in c. 1643 is documented.

INTRODUCTION

Between 1998–2000 English Heritage carried out a comprehensive scheme of improvements at Bolsover Castle, one of its most impressive monuments in the Midlands. The Castle, renowned for its somewhat idiosyncratic 17th century architecture, today sits incongruously alongside a conventional former coal-mining town and the nearby busy M1 motorway. It is situated on a promontory jutting west of the Magnesian Limestone scarp at the north end of the older part of Bolsover, from where it overlooks the Vale of Scarsdale (Fig. 1, inset B). Originally a fortified Medieval castle, the site was rebuilt as a mansion in the 17th century by Sir Charles Cavendish and his son William (later first Duke of Newcastle); so effective was the transformation that it remained a castle in name only.

The improvements at Bolsover have been in the forefront of English Heritage policy to give a heritage-led boost to local economic regeneration through measures to attract more visitors and encourage tourism. The scheme has involved the full repair of the Castle's structure, refurbishment of its interiors, the provision of new services and the restoration of the enclosed garden and its fountain. In addition, improved visitor facilities have been provided and a new interpretative scheme devised to enhance its educational and cultural role. The cost of £3.6 million has been met largely through outside funding bodies.

The new facilities include the Visitor Centre, situated near the current site entrance and close to earthworks that partly define the outer bailey of the long-demolished Medieval precursor to the present mansion (Faulkner 1972, 4). Bolsover Castle is both Grade I Listed and a Scheduled Ancient Monument and the site chosen for the new building, being archaeologically sensitive, had to be investigated prior to construction. Up until late 1997 the area was occupied by a mid 20th century bungalow, built to house the site custodian and head gardener, and some outbuildings, garages and a ticket kiosk which had been cut into the back of the outer bailey bank. No other buildings are recorded on the site prior to these. After these were demolished in 1997, two evaluation trenches were excavated by Trent & Peak Archaeological Unit to assess the presence, depth and nature of any archaeological evidence in the area known in the 17th century as *Castle Yard*. In 1998, the larger area of the footprint of the intended building was excavated immediately before construction work started. Further trenching for services, including a new drain running south beneath the bank, were monitored by watching brief only. The excavations uncovered for the first time evidence of Medieval buildings within the castle's grounds and for probable Civil War refortification of the site.

THE EXCAVATIONS (Figs 1, 2)

The two 1997 trenches were set parallel to each other and at roughly a right angle to the southern boundary wall on the outer bailey bank. Trench 01 was 25 × 3m in size and

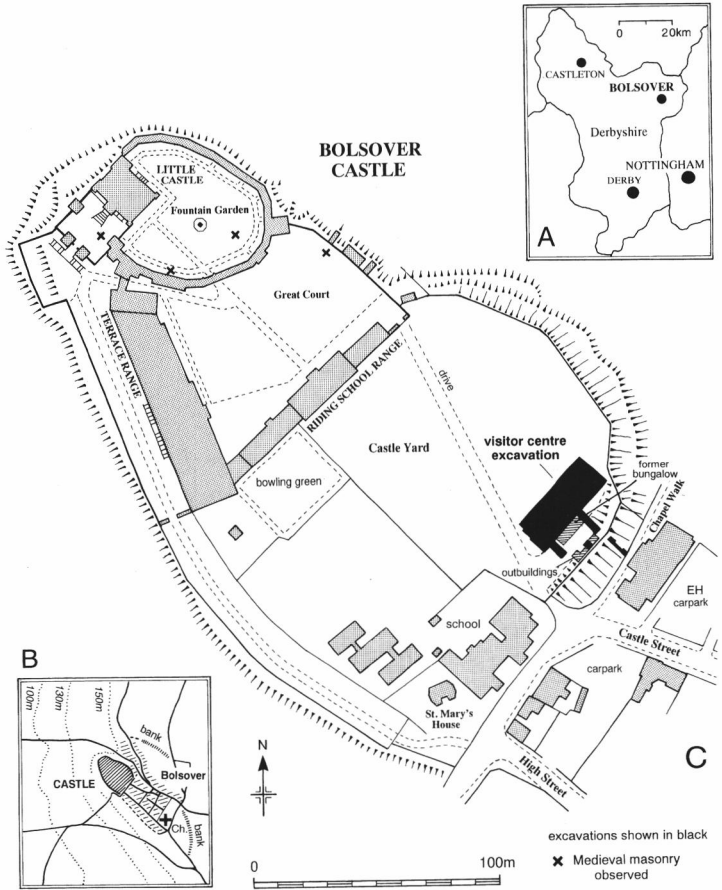


Fig. 1: A: Inset showing the position of Bolsover on an outline map of Derbyshire; B: Inset showing the castle in relation to the town of Bolsover and the local topography. Scale 1:50,000; C: Plan of Bolsover Castle showing the position of the main 1997/98 excavations and observations of Medieval masonry within the grounds. Scale 1:3000.

located to sample part of the outer bailey bank, and the quality of preservation on the site of the bungalow and its garden area to the north. Trench 02 was 17.5 × 3m in size and located to sample an area of potentially poorer preservation due to a fall in ground level and the proximity of the site entrance. Topsoil, hardcore and stone within the bank were removed by machine; the latter proved to be unstable and difficult for hand-digging. Once subsoil was encountered excavation by hand was undertaken. Although much of Trench 01 was trowelled down to underlying bedrock, the north end of the trench had complicated soil changes that could not be fully investigated or understood at the time. Although the edges of two post-pits were found, the proximity of another complex feature, later identified as a quarry-pit, made their interpretation uncertain. Contrary to

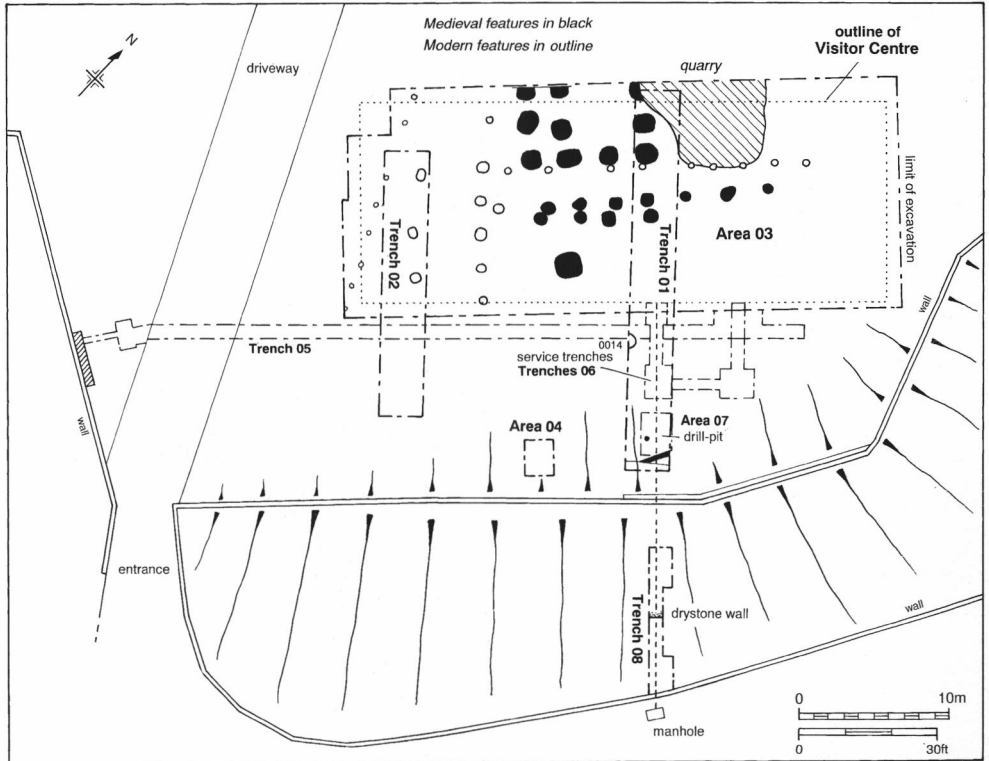


Fig. 2: Plan showing the 1997/98 excavations (numbered 01–04) and service trenches (05–08) and the dotted outline of the Visitor Centre. Scale 1:500.

expectation, Trench 02 was found to have less disturbance to a greater depth of underlying soil than Trench 01, with bedrock being reached in only a few places.

In the follow-up excavation in May–July 1998, an area 15 by 39 metres in size was set out, allowing for a one metre perimeter around the intended building (Area 03). This excavation was initially carried out by machine to remove topsoil and part of the subsoil, together with concrete footings left over from an aborted attempt to construct a former works compound. Variations in the depth of soils and the level of bedrock resulted in a variable exposure of material on the site at the intended formation level depth of *c.* 0.7m. This initially posed problems for interpreting archaeological features as many features only became discernible at bedrock level once their fills contrasted with the surrounding limestone. As more features were distinguished, patterns became apparent and revealed a picture of Medieval activity on the site that had not been anticipated from the earlier trial trenches. In addition, a further small area (04), where a garage had removed most of the bank rubble, some underlying soil remained intact and this was investigated too. After the main excavation was completed, several service trenches (05–07) were machine-dug by contractors and these were the subject of a watching brief only.

A full written, drawn and photographic record was compiled during the excavation and is now in archive, together with the finds. The latter includes several hundred pot sherds, a number of iron nails, copper alloy objects, clay-pipes and miscellaneous clay

vessels. A single Medieval pit provided the greatest concentration of finds, including a quantity of animal bone. These, together with soil samples from the fill, were examined at the Ancient Monuments Laboratory whose collective report is included below.

FEATURES, FINDS AND PHASING

Although the principal structure and the artefacts proved to be of early-mid Medieval date, several other periods of activity were identified: prehistoric, Romano-British, Saxo-Norman, 17th century and 20th century.

Prehistoric and Romano-British

A number of residual finds were recovered from the buried soil. These included a number of worked flint and chert objects (see report below) and two sherds of Romano-British grey ware (identified by R. Leary). These residual finds are of little surprise as other examples are known from elsewhere in the town and locality (Derbyshire Sites and Monuments Record). The numbers recovered are too few to signify occupation of the Castle site.

Late Saxon and Early Norman

Outer bailey bank (Figs 2, 3; Plate 1)

At its south-east end Trench 01 was cut into the north side of the outer bailey bank to investigate its composition and date. This revealed, below the topsoil, a make-up of unconsolidated limestone rubble less than a metre thick (0008), which overlaid a soil of mid-brown sandy clay loam up to 0.5m thick (0010). This, in turn, overlaid a thin layer of disturbed or weathered limestone immediately above the solid bedrock. The stone bank was found to trail back about 7m from the brow of the earthwork and the boundary wall positioned there now (Fig. 3). Subsequent exposure on the south side of this wall in Trench 07 showed the bank had a total width of about 12m and survives, with topsoil, to less than 1.5m in height (Fig. 6). Such a low height-width ratio must result from a reduction of the bank's height prior to the present wall being built upon its crest. References in documents from 1771–75 to workmen 'getting stone in the Castleyard Bank' suggests that part of the bank was actively quarried, in part to provide stone for building 'a fence wall in the Castle Yard'. The latter may have been the wall that still skirts eastwards from the site entrance to the gateway into the Great Court (Nottinghamshire Archives, Portland Collection Bundle 15).

The piled stone (0008) in Trench 01 was found to overlie a short length of a stone-packed trench (0012) running at an angle to the line of the bank above it. This trench, up to 0.4m wide, may have been the base of an infilled wall-foundation, although its relationship to the bank was a little unclear. In the south section the stone filling was clearly sealed by some soil from 0010, but in the east section it contained stones, many lying in a near horizontal position that could be explained by infilling from the bank above. Although lacking any artefacts to help date it, the feature would appear to pre-date the bank. Nearby was a solitary shallow posthole or small pit (0021), also sealed by the bank.

Although no artefacts came from the loose stone within the bank some residual pottery was recovered from the soil (0010) beneath it. This included sherds of Saxo-Norman

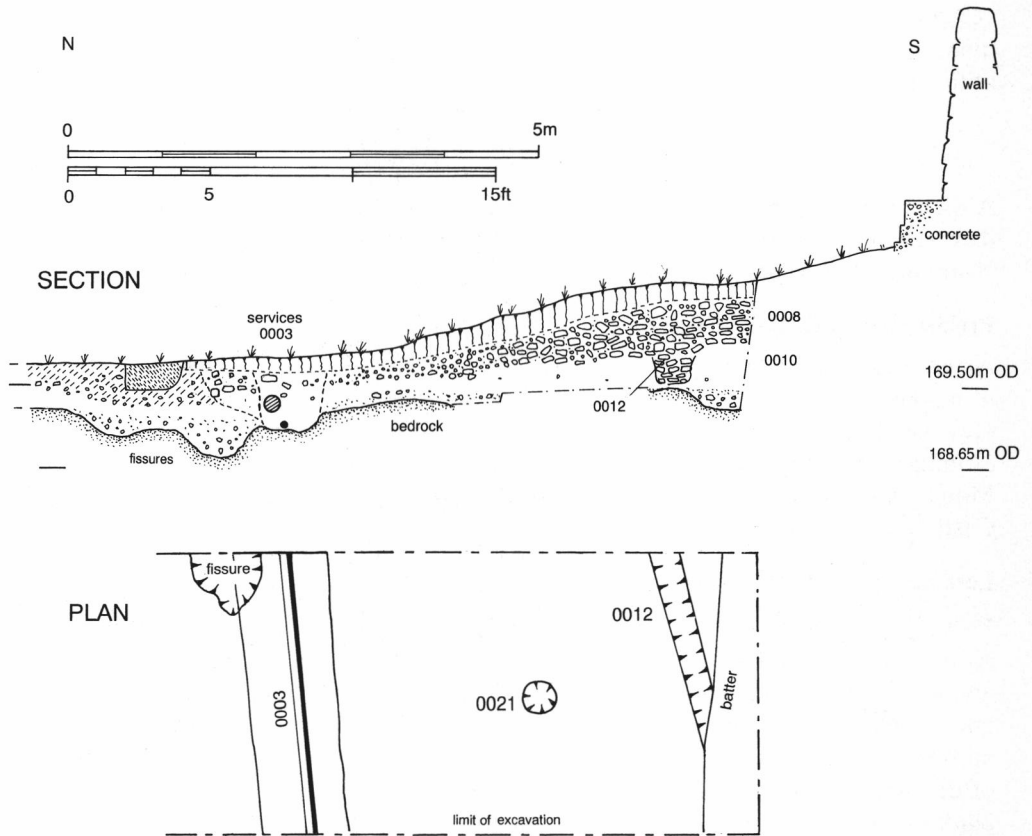


Fig. 3: Section and plan of part of the surviving Medieval bank and underlying features exposed in Trench 01. Scale 1:80. See Fig. 6 for the full profile.

date that included Early Shelly ware, Stamford ware and Torksey-type ware, probably dating from the 10th-11th century (Table 1). They were, however, found with some Fine Shelly ware that could be as late as 12th century in date. Nevertheless, the absence of the various glazed wares of 12th century or later which were found elsewhere on the site may suggest that the bank was constructed before they could have become incorporated into the soil.

Medieval

Medieval Building (Figs 2, 4, 5; Plate 2)

A number of large pits were located, cutting into the bedrock in the north-central area of Area 03. These proved to be roughly circular post-pits about 1.2–1.4m (4–4½ feet) in width, mainly set out in north-south alignments. They included seven complete pits (0040–0043, 0082, 0083, 0084) and three (0065, 0080, 0081; and possibly a fourth, 0075) truncated in section or damaged by a later quarry pit (0061–64). To the south, and in apparent association, there were four sets of smaller and shallower paired post-pits, running east-west, with the northern ones (0047–0050) on the same alignment as three



Plate 1: Excavation of Trench 01 in 1997 showing, in the background, the exposed rubble core of the Outer Bailey bank.

single posts to the east (0051–0053). The other post-pits (0056–0058, 0076) were on a slightly different alignment. All these features generally contained a fill of sandy clay with limestone fragments of varying sizes.

Two possible interpretations of what all these post-pits represented were considered. Firstly, an aisled building running east-west, its eastern half removed by a later feature (0061–64), but with a south aisle formed by seven aligned smaller post-pits (0047–0053), still intact. Alternatively, an aisled building running north-south, with a west aisle (with internal post-pits 0043, 0085, 0081), and possibly a lost east aisle, all formed by the larger post-pits, and with perhaps an outshot at its south end formed by four of the smaller post-pits (0056–0058, 0076). The line of the remaining seven post-pits, on an alignment deviating by about 3 degrees to that of the others, might represent a separate feature, such as a fence. Whether this preceded or succeeded the outshot to the main building was unclear. On balance, the second interpretation fitted the details more readily and is followed here.

The large post-pits were recognised from a depth of 0.4–0.5m below topsoil to a general depth of *c.* 1.2m, with their bases cut some 0.6–0.7m into bedrock; these figures are largely based on post-pit 0081, whose section in the northern edge of the excavated area was the most complete. The post-pits had flattish bases. Two post-pits (0080, 0084) were overcut during excavation where the bedrock had fractured and was mistaken for backfilled stone. The limestone on site was found to vary in consistency, particularly hard in places and elsewhere broken by clay-filled fissures; one ran through the base of 0085 and 0043/43a. Six pits had their bases at a similar level (168.15m OD).

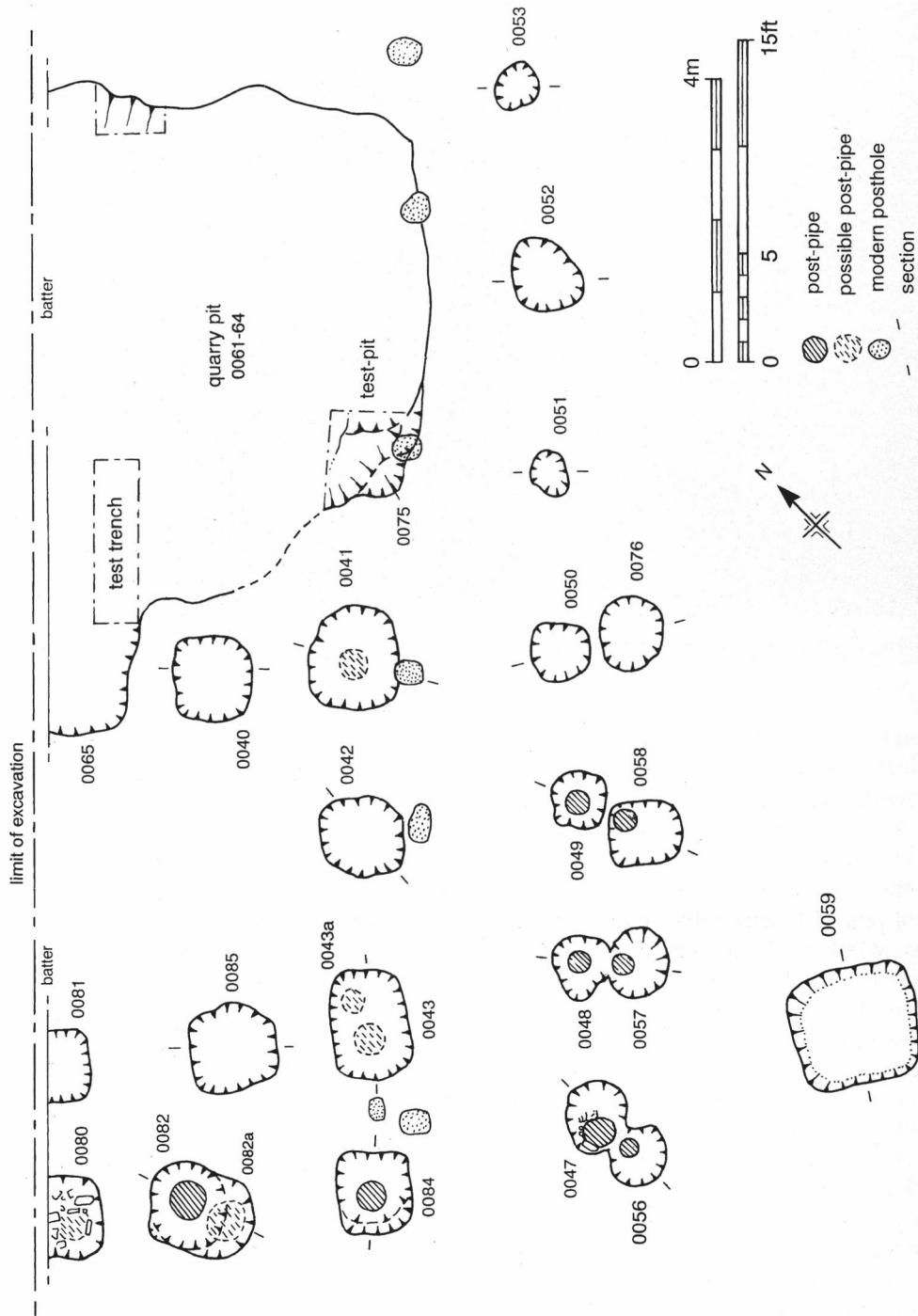


Fig. 4: Plan showing the Medieval features and the later quarry exposed and excavated in Area 03. Scale 1: 100.

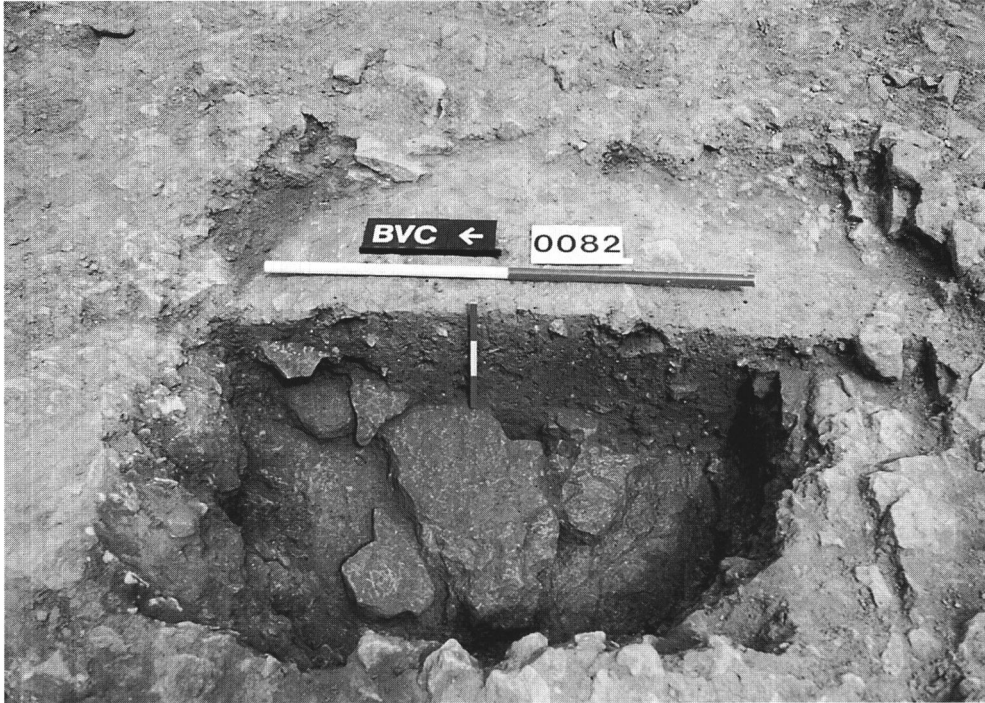


Plate 2: Section across 0082, one of the post-pits forming the plan of the Medieval aisled building.

The post-pits contained a mixture of mid-brown sandy clay and a packing of stones of variable size (Fig. 5). In several pits with less stone the positions of former posts could be determined, in most cases showing as a slightly lighter colour. In pit 0082 the centrally placed post may have rested on a slab of bedrock acting as a padstone; the post may have been supported or replaced by the shallower post on its south side (0082a). The larger post-pits with discernible central post-pipes had impressions that tapered slightly to a base width of about 300mm, suggesting that rounded timbers up to about 12 inches in size may have been used, and which could have been removed by some degree of sideways movement. Several pits (such as 0042) were more solidly packed with stone, which collapsed on withdrawal of the post, obscuring any trace of its position. Pit 0043/43a was more elongated than any other pit, with a length of 0.8m. This had a slightly off-centre post, only just determinable in section (0043), and a smaller neighbour (0043a) which had been sunk deeper and created a hollow in the north-east corner of the pit. The latter may have been the post to a door.

Post-pit 0065 had been cut by the western edge of 0061–64, a later quarry-pit, leaving only part of its outline in plan and part of its base undisturbed. The quarry may also have removed another line of post-pits defining the eastern side of the building. A projection at the south-west corner of the quarry may have been what remained of a post-pit (0075) that originally defined the south-east corner of the building. The angle of cut and base level were consistent with the other post-pits, although the adjacent quarry-edge was equally sharply cut and the contents were indistinguishable. This leaves open

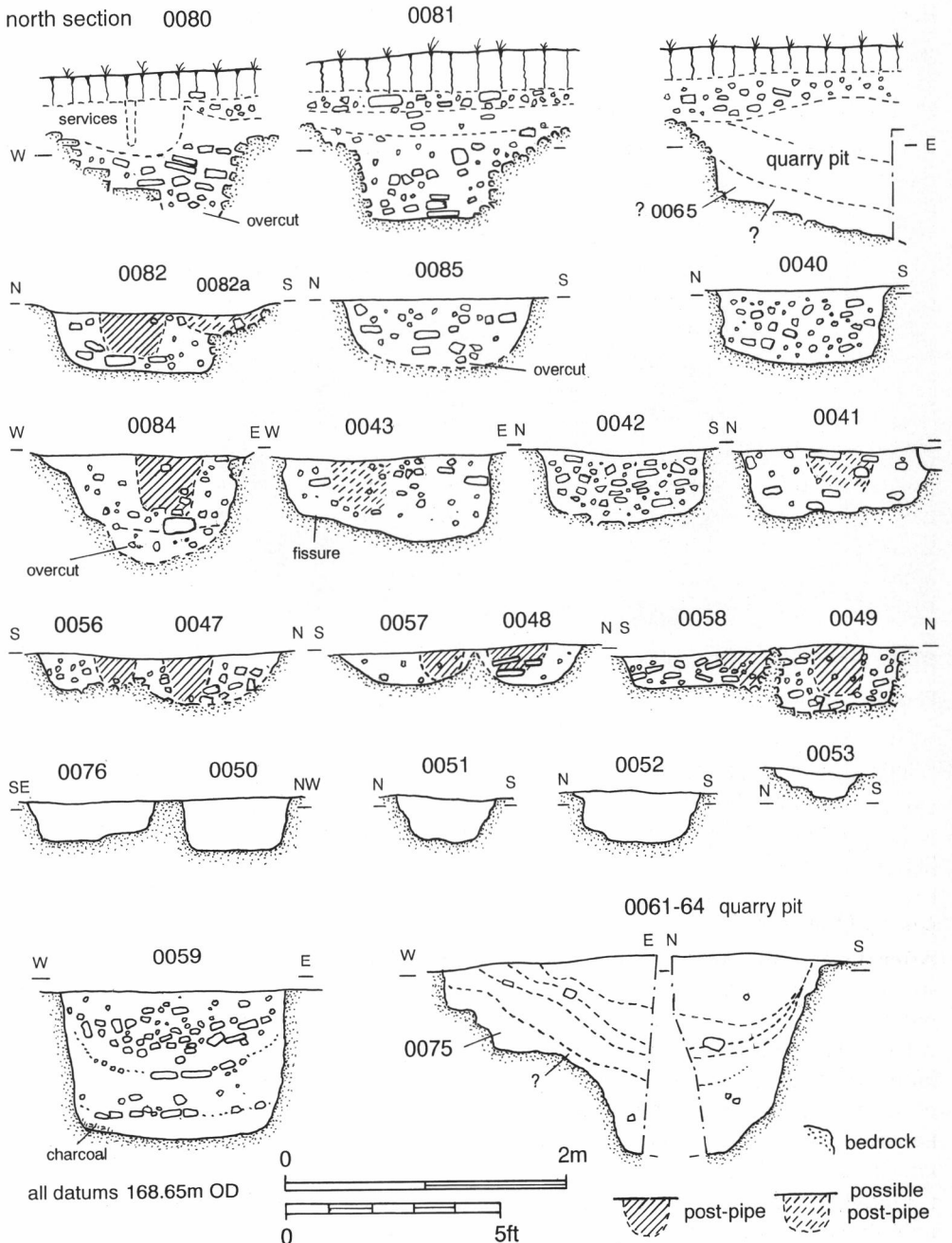


Fig. 5: Sections and profiles of the Medieval features and the later quarry exposed and excavated in Area 03. Scale 1: 50.

the question of whether the building was single, double aisled or indeed of even greater width. No other post-pits were found east of the quarry.

An outshot and ?later fenceline (Figs 4, 5)

The southern lines of post-pits were generally smaller and shallower than those mentioned above, most going to a depth of 168.35m OD. Post-pits 0047–0053 were in close alignment, whilst neighbouring post-pits 0056–0058, 0076 were both shallower and more closely aligned to the large post-pits to the north. Two of the paired pits coalesced slightly in plan but it was unclear from their contents whether they were contemporary or of different phase. Post-pipes recorded in post-pits 0047–0049 indicated the use of rounded timber uprights no greater than 280mm (c. 9–10 inches) in size. Those in post-pits 0056–0058 were slightly smaller and had been set near the north limit of their pits, perhaps indicating a close relationship to their neighbours, as either supports or replacements. However, the matching of the four more southerly post-pits to those believed to form the south end of the Medieval building suggests an outshot or similar extension, adding another 3.7m (12½ ft) to its length. The other seven post-pits could have formed a fence that preceded or replaced the outshot. The pot-sherds recovered from all these post-pits were too few to help resolve the sequence of these features.

Pit 0059 (Figs 4, 5)

Just to the south of the post-pits a single sub-rectangular pit had been cut into the limestone (0059). This was about 1.5m across, had near-vertical sides and a flattish base at a depth of about 167.50m OD. It generally contained fine, medium-brown silty clay with some stone. Tip lines from infilling showed in section, along with slightly darker, more silty soil and charcoal near the base (Fig. 5). Soil samples and animal bones from the fill were examined by the Ancient Monuments Laboratory (reported in detail below). The contents were consistent with its use as a cess-pit or midden. Several metal and pottery finds date its final infilling to about the mid-late 13th century (see below).

Quarry (Figs 2, 4, 5)

After the Medieval building had gone out of use a large and deep quarry was excavated (0061–64). Of fairly regular shape, its southern edge extends no further than that of the building. This, and the matching of the quarry's east edge with the end of the supposed fence mentioned above, may suggest a near-contemporaneity for all three features. However, because the quarry edge cut through post-pit 0065 its timber post must have been removed by that stage. The quarry was only partly sampled and its full depth remains unknown. Sections of an area excavated in the south-west corner indicate the steepness of its descent (Fig. 5). The infill of sandy loam with stone and building rubble included Medieval pottery dating from the 12th–15th centuries but mostly later in date than that associated with the building's construction and use, together with 17th century material.

Limited investigation of the below-ground archaeology of the contemporary Riding School Range (Fig. 1) in 1999 revealed foundations of variable depth and evidence that significant infilling was needed to bring floor levels to the required levels. Whilst this instance may be explained by the possible presence of a former middle bailey ditch, the

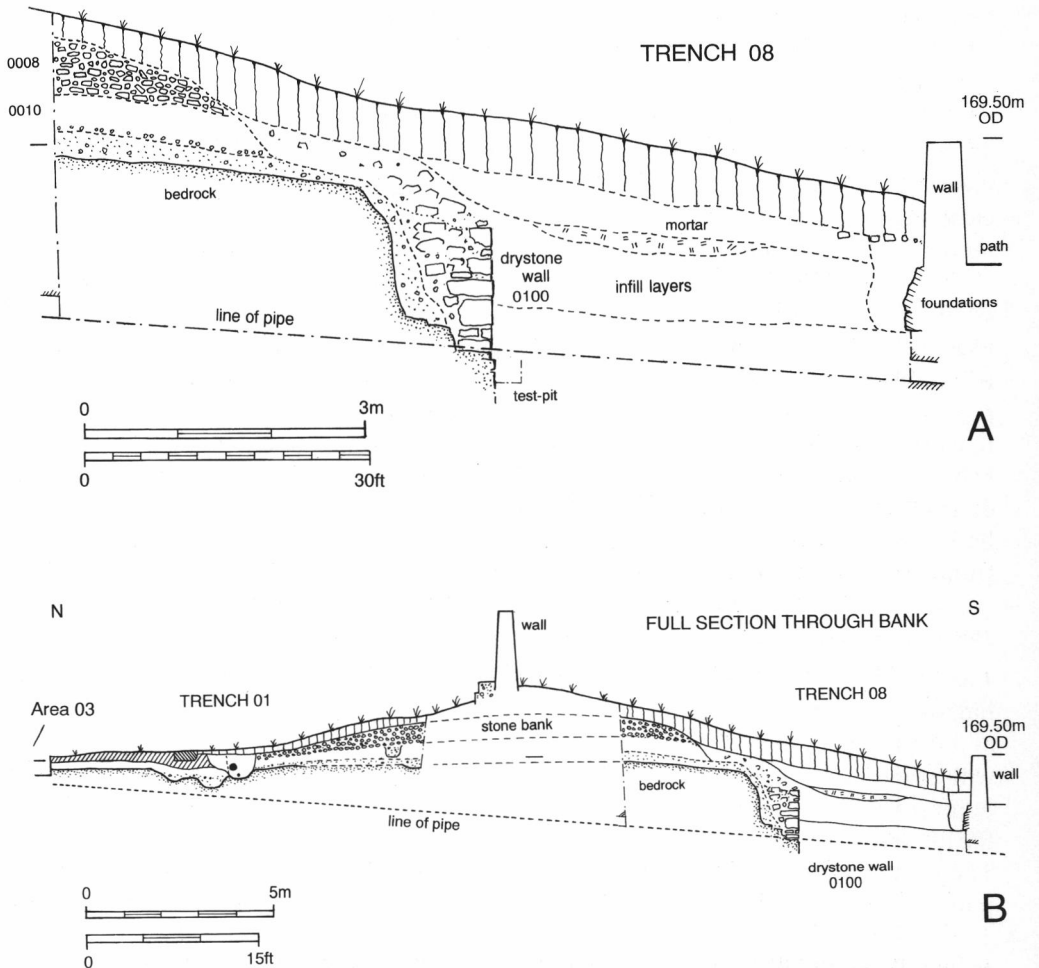


Fig. 6: A: Section of Trench 08 on the south side of the Outer Bailey bank, showing the Medieval rubble bank, the suggested Civil War wall and subsequent ditch infilling. Scale 1:80.
 B: Simplified cross-section across the full width of the Outer Bailey bank. Scale 1:200.

evidence of 0061–64 suggests that the castle grounds were exploited for stone either during the Middle Ages or just prior to the construction work of the early 17th century.

17th century (Fig. 6)

Although today's upstanding castle is of 17th century date, the paucity of finds of that period from the excavation is perhaps explained by the earliest known bird's-eye view of the castle, Kip and Knyff's depiction of c. 1698, which shows the area of Castle Yard as open grassland without standing structures or evident human activity (Kip and Knyff 1707). Of the surprisingly small amount of 17th century pottery recovered, some came from the top filling of the quarry-pit mentioned above. This pit contained pottery and

building rubble (stone, plaster, brick) of 17th century date resulting from the likely infilling of remaining depressions and the levelling of the grounds around the Cavendish buildings.

With the main excavation completed and the Visitor Centre under construction, it was decided to run a new drainage pipe directly to a manhole on Chapel Walk rather than re-use an existing route through the site entrance. In an attempt to minimise disturbance, a channel was drilled beneath the outer bailey bank from a drill-pit on the north side (Trench 07) to a long, narrow trench (Trench 08) on the south side (Fig. 2). In the process of cutting the latter, the machine disturbed some large worked stones which had revetted the inner face of a once deep defensive ditch on the town side of the bank. The top of this wall was located at a depth of over a metre below the sloping ground of the bank and infilled ditch. The wall (0100), as seen in section, continued down for 1.3m, where it sat on a small platform of bedrock on the edge of a vertical face that went to unknown depth (Fig. 6). All the ground to the south had been deliberately infilled to over 2.5m depth; this corroborated a previous probing of the ditch near the site entrance to position a new signboard which had failed to locate bedrock at over 3m depth.

The drystone wall was situated 3 metres to the fore of what remained of the stone bank (Fig. 6). The intervening space may once have provided a bedrock platform for a Medieval defensive wall but, if so, disturbance from the construction of the later wall had removed all trace. The bedrock below was cut back to allow for the new wall and a rubble infill behind it. Unstratified finds in the spoil from the ditch-fill included clay-pipe fragments, pieces of vessels or saggars used in pot or pipe manufacture (Fig. 9), and a range of 17th–20th century pottery. Nothing of Medieval date was recovered. A small test-pit at the foot of the wall produced a quantity of clay-pipe stems and bowls, dated by form to around 1650–60 (see Other Finds below), so the ditch was probably filled at about that time.

This drystone wall together with the deep ditch may represent the refortification of the castle in 1643 when the castle had a Royalist garrison. The top of the wall was subsequently lost or slighted and the ditch infilled, probably following Parliamentary orders to decommission the site. The wall, as seen in section, leans forward slightly, possibly as a result of the pulling away of the top of the wall during this procedure.

Modern features (Fig. 2)

Twentieth century disturbance included the rubble base and concrete footings of the former bungalow, several trenches for disused services, concrete footings of a work's compound and numerous small post-holes. The latter included three lines of small post-holes with dark fills that included modern pottery, the remains of former fence-lines recorded on Ordnance Survey maps as contemporary with the former bungalow, probably built in the early 1950s. In the former garden area north of the bungalow the topsoil was found to contain a layer of brick-dust, presumably a garden top-dressing that had filtered down. A pit partly uncovered in Trench 01 contained dark sandy loam to a depth of 1 metre and 19th century artefacts (0014, Fig. 2). It may have been dug to contain a tree as part of late 19th century landscape improvements in the grounds.

DISCUSSION

Origins of the Castle

Similarities have been drawn between the original castle at Bolsover and the Castle of the Peak (also known as Peveril Castle) at Castleton (Hart 1981, 139–142). Both are sited within manors in north Derbyshire granted to William Peveril shortly after the Norman Conquest. The construction of Bolsover's Castle is not recorded, although the manor's first documentary reference in Domesday Book mentions a rise in the value from 40 shillings to 60 shillings between 1066 and 1086 that may be the result of new building work. Both Bolsover Castle and Peveril Castle are sited on promontory positions and in close proximity to suspected 'planned' towns, each with a market and a linear grid street pattern with enclosing ramparts, established within the Medieval period and still evident today (*ibid.*); in the case of Bolsover the ramparts remain undated (inset B, Fig. 1). With relatively few castle sites in Derbyshire, the two northerly Peveril castles were evidently important and could have been established at the lower end of the Pennines as part of the Conqueror's plan to forestall further rebellion after the northern revolts of 1068/69 (Hart 1988).

Very little is known about the Medieval castle of Bolsover. Little physical trace remains and the name features infrequently in the documentary record. The site appears to have had an oval-shaped inner bailey, its form, if not its substance, now preserved by the 17th century garden wall, and a larger outer bailey defined by breaks of slope that still emphasise the promontory position it occupies (Fig. 1). Only the south-east aspect appears to have required a fully constructed bank and ditch.

A surviving length of the inner bailey's wall was revealed in 1946 and again in 1993 during repairs and service trenching in the forecourt to the Little Castle. The supposed oval area of the bailey, its axes 55m by 70m in length, may have started as a timber-fenced 'ringwork' shortly after the Conquest (Hart 1988). It was probably rebuilt in stone only a short while later (Faulkner 1985, 34). Some evidence of an outer ditch was found during service trenching in 1977 (Pratt and Akister unpublished). Only minimal traces of former buildings within this principal bailey have been found below the present garden; these were seen during minor excavations by the author in the Fountain Garden in 1999–2000. None have previously been found in the outer bailey.

The inner and outer baileys may be contemporary. The evaluation was partly designed to provide some dating evidence from the soil sealed below the stone rubble of the latter's defensive bank (Trench 01, Fig. 2). The range of pottery fabrics found here, together with a similar assemblage recovered from Area 04, provide a *terminus post-quem* for the earthwork of the late 11th or early 12th century (Table 1). Moreover, the general absence of both the later Glazed and Splashed wares found elsewhere on the excavated area might suggest a likely date of construction before the 13th century.

The recovery of residual sherds of pottery such as Stamford, Torksey and Early Shelly wares, types that are usually found in a late Saxon context, suggests occupation of the immediate area before Peveril's tenure. This was also demonstrated by the discovery of wall trench 0012 and posthole 0021 below the bank of Trench 01 (Fig. 3). The Bolsover area has been long occupied, as examples of prehistoric worked flints (p. 130) and Romano-British pottery from the castle (Table 1), and of occupation elsewhere in the town testify. As is commonly the case, however, evidence for the period just prior to the

Conquest is more elusive. The name 'Bolsover' may be derived from combining a personal name Bol(1) or Bul(1) with 'over', the Old English for 'edge' or 'slope'. The name indicates a likely pre-Norman origin (Cameron 1959, 214). The placement of the castle may be related to a pre-existing use of the site, as the Normans inherited a developed manorial system and often re-used established administrative centres (e.g. Marten-Holden 2000, 48).

The aisled building (Fig. 4)

In Area 03 enough large and similar post-pits were uncovered with sufficient residual pottery in their back-filled contents to show that a substantial building had been erected in the southern part of the outer bailey, probably in the first half of the 13th century. However, this dating is based on largely unprovenanced pottery fabrics, identified to generalised date ranges. The imprecise dating of Medieval ceramics, generally, illustrates the limitations of archaeological evidence for dating buildings (Gardiner 2000, 160). Nonetheless, as is shown below, similar buildings elsewhere have been dated to the same era, and this, together with the historical record of the castle, provides some support for the date offered here.

The size and design of the Bolsover structure, together with the variety of rubbish and artefacts from nearby pit 0059, suggest it was an aisled hall, possibly for domestic use. Although a barn is known to have been built in the 1220s (see below), such structures tended to be of a larger scale, so this option is discounted here. The absence from the record of an aisled hall is explainable; the principal source for historians, the Pipe Rolls, were never intended to be a comprehensive record of royal expenditure on castles (Brown 1955, 354). The relatively sparse collection of finds from pit 0059 included typical domestic items such as a probable fastening tag, a pin, a needle, a spindle-whorl, and decorative binding (Fig. 8). Animal bones from kitchen waste included roe deer, an indicator of a high status diet (p. 143).

Most of the earliest aisled halls in England, including some still standing, date from the mid 12th to the mid 13th century. Some of the best understood halls were found on archaeological sites at Goltho in Lincolnshire (Beresford 1987), at Baguley Hall in Cheshire (Dixon *et al.* 1989) and at Sandal Castle in Yorkshire (Mayes and Butler 1983). These examples were of royal or manorial origin, date to the 12th century and provide some parallels to the Bolsover building.

In its form, the aisled building's long axis was running NW-SE for an unknown length, with a 2.3m (7½ft) wide aisle on the west side, and a possible slightly wider east aisle; the presence of the latter remains uncertain. If a single aisle structure, it would have been 7.6m (25ft) wide, and if double, about 10.5m (35ft) wide, the measurements being based on posts having been placed centrally within each post-pit. The length of exposed structure, at 4.7m (15ft) would represent, at minimum, only one third of the building's entirety, leaving most of its plan, hopefully, still preserved to the north of the visitor centre. The narrower width of 7.6m is feasible for such a building. Kenyon (1990, 109) lists 15 timber halls dating from the early 12th to the end of the 13th century and within a wide overall variation their dimensions averaged 7m by 13.2m; these figures also match the general 1:2 width to length proportion associated with halls.

The excavator remains unconvinced that 0075 was the remains of a post-pit cut by the quarry pit. Its position, soil content and inner profile could be explained as part of the

quarry edge; furthermore, its distance from 0041 would mean a building with aisles of unequal width, probably requiring differing lean-to roofs to either side and a resulting lack of symmetry to the form. On balance, a single aisled building is favoured here. If correct and with only four post-pits forming the southern end of the building, the other four similarly aligned post-pits to the south (0056–0058, 0076) make sense as defining an outshot or additional bay of corresponding width to the main structure. A list of Medieval aisled halls across England and Wales (Sandall 1986) revealed that about a quarter had only one aisle, with those in Yorkshire forming nearly half of the total, although they tended to be later in date. Perhaps one of the closest parallels to Bolsover was excavated at Hutton Colswain in Yorkshire, where a probable single aisled timber structure, about 8m wide and 20m long, had preceded a hall with stone footings (Thompson 1957).

The Bolsover building and the examples quoted above had earth-fast posts, an early Medieval design that tended to be replaced by the use of padstones or load-bearing dwarf walls and sill beams during the 13th century, but which persisted for smaller buildings in the south Pennine area as late as the 16th century (Dixon *et al.* 1989, 416). Fyfield Hall in Essex had posts in both its late 12th century build and a rebuild at about 1400 (Walker 1999, 27).

The excavated post-pits of most examples mentioned above had not been cut to great depth. The Bolsover building had pits probably cut to an estimated depth of only about 3 feet (*c.* 1m), and in pits 0082 and 0084 the posts had not reached base depth, and had probably rested on small stones acting as pads. These depths alone could not have guaranteed stability for well-spaced principal posts, and at both Goltho and Sandal Castle it was suggested that this was achieved by the buildings' complex structural form (Beresford 1987, 113); at the latter a rigid-frame construction was proposed, achieved by the employment of jointing, pegging and bracing (Mayes and Butler 1983, 73). The use of mortise-and-tenon joints as early as *c.* 1180 has been identified on the London waterfront, and the earliest extant timber-framed buildings identified by dendrochronology cluster around a date comparable with the Bolsover building; their confident carpentry helps explain their survival to the present (Walker 1999, 33). The carpentry for the 12th century hall at Goltho may have been sophisticated enough to support both a clerestory and a heavy roof (Beresford 1987, 111). There is no reason to think that the Bolsover building was any less well constructed.

The setting of post-pit 0085 is apparently out of alignment with 0082 and 0040, and might suggest the absence of a tie-beam at this position. Where arcade posts have been found generally misaligned to wall posts on early Medieval structures elsewhere, such as at Goltho or Cheddar, it has been suggested that tie beams may have rested on wall plates rather than on the principal posts (*ibid.* 117). At Bolsover, whilst pits of similar size and depth had been excavated for both the wall and aisle posts, the evidence to compare the respective posts placed in these pits was lacking.

Not enough of the Bolsover building's plan was exposed to draw conclusions about these points or to determine the presence of a hearth or internal divisions. Many early halls are thought to have had bays, internal partitions or outshots (Sandall 1986, 21), an example of the latter perhaps being present at Bolsover. However, the Bolsover building is likely to pre-date the general appearance at around 1250 of the fully integrated hall-type comprising chamber, hall, cross-passage and services, all together in one building

(Gardiner 2000, 179). The hall may instead have been one of several related buildings, with a separate chamber or kitchen nearby; they may have been set out in line (*ibid.* 169).

The Bolsover building appears to align with the NW-SE axis through the centre of the overall castle plan. However, whether it was close to the original entrance is unclear. At Launceston Castle a timber-framed hall with stone walls, thought to have served an administrative role in the 13th century, was excavated close to the castle's main entrance, a position that would have been convenient for receiving tenants (Saunders 1977). Whilst the Bolsover building is situated close to the present site entrance (in a central position opposite Castle Street), when this was first used is unknown as the official entrance and driveway (*Castle Walk*) up to the 17th mansion lay to the south-west. The Medieval entrance may have been close to St. Mary's House and approached from High Street (Fig. 1), a street with the parish church at one end, and a possible market at the other. The latter is shown as an open space on William Senior's survey map of about 1630 (Derbyshire Record Office D2934 2/P1-2), although the present more centrally positioned market was also established by then. The present site entrance has been thoroughly traversed by service trenches without providing any sign of a gatehouse, thus questioning its origin, although some surviving stone cobbling from a road was found nearby under the present drive by the author during a watching brief in 1999.

Few castles have been explored sufficiently to determine how their greater ground-plans were organised. The major castles usually had a main hall for administration and for implementing justice in the principal bailey, and other lesser halls for lodging officials or for the households of the owner's family or for retainers (Kenyon 1990, 97). From about the 13th century the typical castle might have had several halls, each the focus of a different household or social group (Gilchrist 1999, 234). On balance, the variety of the finds from the adjacent cess-pit 0059 would suggest a domestic use rather than an administrative one for the Bolsover building.

Historical context for the aisled hall

The Peveril manors and castles are known to have been confiscated by the Crown in 1155 and the Pipe Rolls' record of spending at Bolsover castle indicate its continued importance throughout the following century. In 1203, for instance, £12 8s 4d was spent on a 'turre de Bolesoures' (Hey unpublished, reference not given), a mention that strongly suggests the prior existence of a stone curtain wall around the inner bailey, perhaps dating to earlier in the century. There is no evidence that the outer bailey was similarly refortified.

The first half of the 13th century appears to have been Bolsover Castle's most active military period (Faulkner 1985, 35). During the Baron's War of 1215-17 the castle was held for King John and was besieged and taken by William de Ferrars, Earl of Derby; it subsequently had to have repairs in the 1220s that included new towers filling breaches in the wall of the inner bailey (*Pipe Rolls 12, Henry III*). A new barn and kitchen are recorded as being built between 1225-28 (*Pipe Rolls 10, Henry III*). The continuing importance of the castle, within the context of Henry III's heavy expenditure in maintaining his royal castles, is further shown by expenditure of £148 7s 4d between 1249-53 for repairs to the great tower, the queen's chamber, wall foundations and to build two towers in the two baileys (*Pipe Rolls 34, 37, Henry III*). This period between

about 1220 and 1250, clearly one of the castle's most active building phases, corresponds with the date proposed for the aisled hall discovered in the 1997/98 excavations.

Although further minor repairs were made up until about 1280, Edward I granted out the castle not long afterwards. The site went into decline, despite an obligation on the lessees to maintain the royal buildings (Brown and Colvin in Colvin 1963, 573); this instruction probably related to the more important quarters within the inner bailey. The paucity of finds from the 1997/98 excavations and the date of pottery found in pit 0059 point to a short active life for the building, probably terminating well before the end of the 13th century. The outline of the adjacent quarry, its south end aligned with that of the main building, could suggest that the latter may have been intact or its footprint still evident when quarrying began. Although the quarry, a deep and sharply cut feature, was only partly sampled by excavation, the limited pottery recovered was distinct from that associated with the building. This suggests that the building was already redundant and this part of the castle largely disused. Rubbish from elsewhere in the castle or town, dating to the later Medieval period, ultimately found its way into the pit's upper infill. The removal of timbers from the building and the exploitation of the limestone from the grounds may be examples of the 'waste and strip' that occurred during the 14th century (*Calendar of Patent Rolls 1374-7*, 415; *1396-9*, 405). In 1398 the castle is recorded as having no yearly value (*Close Roll 21, Richard II*), and had lost any military value (Brown and Colvin in Colvin 1963, 573).

A state of continuing neglect can be gleaned from John Leland's description of Bolsover as having 'a great building of an olde castelle' after his visit in the early 16th century (Itinerary II). By the time Sir George Talbot acquired the site in 1553 the castle was probably in ruinous condition. In 1608 the castle was leased to Charles Cavendish (later Sir), and by 1613 the heart of the remaining Medieval castle was being removed to make way for a new great house (the Little Castle), with other attendant buildings to follow. There is little reason to think that the 17th century castle made use of *Castle Yard*, other than for perhaps enclosing horses.

The Civil War

Many military garrisons encamped in former Medieval strongholds during the English Civil War of the 1640s and refortified them to withstand siege and artillery fire (Harrington 1992, 7). Evidence for refortification has been found on a number of sites, in the form of new walls, deeper ditches and gun platforms, although the wide variation from being thorough to makeshift in their construction reflects the lack of professional engineers and a general amateurish conduct of the war (Saunders 1989, 75). Both sides had isolated outposts covering lines of communication, one such being Bolsover Castle which held a sizeable contingent of William Cavendish, Earl of Newcastle's, Royalist 'Whitecoat Regiment', under the command of Colonel Edward Muschamp. His opponent locally, Earl Manchester, considered the Castle and its garrison to pose a danger to Parliamentary troops in the vicinity (Downman 1895, 40).

The discovery of the drystone wall on the south side of the Medieval bank supports the notion that Bolsover Castle was refortified in the 1640s. An alternative explanation that the wall is a surviving cellar wall from urban encroachment can be discounted as maps from the 17th century onwards show no sign of buildings in this location and the lordship of the town and castle would have prevented it occurring. If of Civil War date,

the wall's construction contrasts with some contemporary defensive walls elsewhere, such as the Roushill Wall at Shrewsbury, which was 1.65m thick and fully mortared (Brown and Watson 1989, 87). The original Medieval earthwork facing Bolsover town had probably been furnished with a palisaded timber walkway which was not replaced later by stonework. The bank had probably slumped naturally and been reduced by robbing over the intervening centuries and a new wall had to be erected and the ditch heavily re-cut to restore its effectiveness as a line of defence. The wall, its face set 1m forward of a near-vertical cut into the limestone, may be similar in style to a wall found at Wallingford Castle, Berkshire which was described as 1m wide and backed by a 2m high earth scarp, and dated to 1642 (Cherry 1973, 100).

A contemporary description referred to Bolsover as 'a strong house . . . well manned with soldiers, and strengthened with great guns . . . and it had strong works' (Vicar, J. *The Burning Bush Not Consumed*, quoted in Grose 1785–87). From this supposed position of strength the garrison surrendered without incident in August 1644 after Major General Crawford erected batteries at the foot of the castle; the garrison was later found to have little provision for withstanding a prolonged siege (*Rushworth Historical Collections*, quoted in Goulding 1928, 19).

Finds in the later ditch infilling towards the foot of the wall included a quantity of clay-pipe fragments, of a type dating to c. 1650–60 (p. 141). No Medieval finds were recovered, only objects 17th century and later, roughly stratified as the ditch outside the castle has been filled up since then. The top of the drystone wall is likely to have been slighted, in line with orders that 'the outworks abroad, and garden walls, with the turrets and walls of the frontier court that are of strength be demolished . . .' (*Calendar of State Papers, Domestic*, 2/7/1649, quoted in Downman 1895, 40). However, the drystone wall, being of unstable construction, may not have been particularly high and may have partly fronted a walkway that overlooked the more formidable part of the defences, a deep ditch.

Senior's map from the 1630s shows that buildings stood outside the south-eastern defences, including some fronting Castle Street. The footings of buildings in the English Heritage carpark, seen in a watching brief by the author in 1999, contained a hard mortar of a type identified as similar to that used in castle buildings of 17th century date. The properties immediately outside the castle defences may have been cleared away to widen the defensive ditch and to ensure a clear line of sight for firing from the wall-top, with a post-Civil War rebuild occurring not long after.

Conclusion

The 1997/98 excavation results were unexpected and belie the long-held impression that the 17th century works and its attendant landscaping had removed all trace of the earlier castle. The rare opportunity to investigate a sizeable area of protected ground due to a new building has provided both an archaeological dividend and a reminder of the hidden potential of all enclosed areas within castles, including sites of perceived lesser importance. The aisled timber structure whose details are outlined here is interpreted as having been built in the first half of the 13th century, probably with a single aisle and with an outshot added to its south end. Whilst it was probably of domestic use, its

position close to the town and perhaps the original entrance leaves open the possibility of an administrative function. It had a short period of use before the castle grounds were exploited for building stone.

The watching brief disturbance of the bailey bank has provided a rare insight into a turbulent part of the castle's history in the 17th century when the site's strategic position resumed some importance (even though the circumstances of this find were far from ideal and could easily have been misinterpreted). It must be concluded that Bolsover Castle is not only a prestigious 17th century monument but also a valuable archaeological resource with remaining hidden potential.

The Lithics by Daryl Garton

The flint items comprised twelve struck flakes, two cores and a natural pot-lid, together with three chert struck flakes. These were all recovered as either residual items in Medieval features (7) or the basal soil overlying the limestone (9). All but four pieces of the flint are corticated (surface alteration from being in a base-rich environment, not necessarily related to their age (Schmalz 1960, 47): their translucent to mottled grey colour being typical of flint derived from the tills and river gravels at least 20km to the east (Henson 1985, 7).

Eight of these pieces may be attributed to the Mesolithic by their small blade forms and the regular blade removals on small cores. In addition, the use of chert as a raw material is best known from other Mesolithic assemblages in the Peak District to the west of Bolsover (e.g. Radley 1968, 31–5; Bradwell, Roger Jacobi *pers. comm.*; and Kenslow, author unpublished), where it probably originated in the Carboniferous Limestones. The two small, pale-grey, chert blades, and the black-chert flake struck from an opposed-platform core (which has had the striking end truncated by retouch to form a scraper), are typical of Mesolithic industries. The lithics from the excavations at Bolsover Sherwood Lodge (Garton in Jones 1995, 96) also included chert, and the Derbyshire Sites & Monuments Record records Mesolithic material from the garden of the Wesley Manse just outside the town earthworks (SMR 11240). Peak District cherts are starting to look like a regular presence on the Magnesian Limestone (Clark & Rankine 1939, 105; Manby 1963, 18; Knight *et al.* 1998, 73, 79), and this suggests that this area was part of the Mesolithic resource cycle originally identified by Jacobi (1978, 304) from movement of Lincolnshire/Yorkshire Wolds flint onto the Pennines.

Two of the flint flakes have evidence for multi-platform flaking (and/or could possibly be from bifacially-worked implements), together with the flake with a partly prepared butt (which are most common in industries with multi-platform flaking), is a second theme noted in the other local collections (e.g. Garton in Jones 1995, 96). This approach to knapping is usually interpreted as an attempt to maximise the use of the small raw materials available in post-Mesolithic industries (e.g. Healy 1993, 100).

A single piece of cannel coal, almost certainly bought from the adjacent Coal Measures, was also found in the basal soil overlying the limestone. Such materials are worked into artefacts in prehistory (e.g. Beswick 1975, 207–11), though this example is not obviously worked, and can be used as a poor fuel source at any time.

Pottery Report by Victoria Nailor

Introduction

During the excavations in 1997 and 1998 about 900 pot-sherds were recovered, ranging in date from the Romano-British period to the 19th century. Over 80% of the sherds were of Medieval date with the main types represented being a Sandy Splashed fabric, a Pink Sandy Glazed fabric, and a small group of Light-bodied Sandy Glazed fabrics (Table 1). The sources of these pots could not be identified with any certainty, but it is likely that many originate from the local area. Shell-tempered wares were also well represented: Early Shell-tempered, Lincolnshire Fine Shell-tempered and Coarse Shell-tempered ware; the second was the most numerous of all wares. A small amount of pottery was identified from the known production centres of Nottingham, Stamford and Torksey. Very few later Medieval wares were present, and the quantity of Post-medieval pottery was also relatively small. Table 1 shows the numbers of sherds against context in order of period; the first column shows the numbers of each ware found in the general subsoil. The table excludes finds from the topsoil, modern features and disturbed levels.

Dating (Table 1; nos 1–17 refer to illustrated sherds in Fig. 7)

The pottery found in the subsoil and not within any recognisable features ranged from Saxo-Norman fabrics (5, 6) right through to 19th century or later Stoneware and Whitewares.

The soil sealed beneath the Outer Bailey bank (0010, 0094–95) contained only a base sherd of Roman grey ware (identified by R. Leary) and Saxo-Norman sherds. The latter included Early Shell-tempered, Stamford and Torksey wares which can date from as early as the late 9th or 10th century (1, 4; McCarthy and Brooks 1988, 151–56). However, the presence also of Lincolnshire Fine Shell-tempered ware (2, 3) probably indicates an 11th rather than 10th century date for the group (*ibid.* 151), although this ware did continue in use during the 12th century (*pers. comm.* J. Young). The material from this context does not include either Splashed or Glazed wares and its range is distinct to that found elsewhere on the site. Only a few Saxo-Norman sherds were found elsewhere in residual contexts (7, 8).

The pottery from the post-pits of the aisled building may pre-date its origin, coming from infill derived largely from existing stratigraphy. Some sherds found were probably from shouldered jugs or pitchers that possibly date to the late 12th, or early to mid 13th century. Only two sherds came from possible post-pipe infill and these were no different from wares found in the packing. Few sherds came from the post-pits of the possible annex at the south end of the Medieval building (0056–0058, 0076) and these were generally comparable to those wares from the aisled building itself. This was also the case with the mainly residual pottery from the possible fence-line (0047–0053).

Pit 0059 contained the largest amount of Medieval pottery (about 350 sherds), including some residual sherds (12) and a part profile of a Sandy Splashed ware jug (10). Sandy Splashed and Pink Sandy Glazed fabrics predominate. Two jug rims, an inturned Sandy Splashed (9) and a Pink Sandy Glazed simple thickened rim (11), may date to the late 12th or early 13th century, although the latter may be slightly earlier. The few Light-bodied Sandy Glazed sherds are probably from shouldered jugs or pitchers, supporting a date range of the late 12th or early to mid 13th century (13). However, a Nottingham

Light-bodied Green Glazed ware jug strap handle is unlikely to be earlier than the mid 13th century, and dates from the second half of the 13th century when found on Nottingham sites. Also, a Nottingham Coarse Sandy ware cooking pot rim found here has been dated from excavation material in Nottingham to c. 1230–80, and together these would support a longer period of use for this pit, probably beyond AD 1250. However, these two single examples are later than the main finds from the pit and although found at some depth, may be intrusive and have been moved by worm action whose active presence is attested by calcite granules left in the soil (see environmental report).

The quarry pit that cuts the aisled building and post-dates it contained residual Nottingham Light-bodied Green Glazed ware and Coarse Shell-tempered ware (15, 16), material that dates at the earliest from the mid 13th century, but could extend into the 14th century. The latest Medieval pottery from the pit is Light-bodied Gritty ware, a type that may date from the late 14th or 15th centuries. The wares in this feature are distinct from the Medieval pottery found elsewhere on the site. The latest pottery is a body sherd of Midland Purple, and a probable cistern rim in a Red-bodied Brown Glaze fabric, possibly dating to the 17th rather than late 16th century (17).

Of the forms found on the site, the shouldered jugs or pitchers with sagging bases and either inturned or thickened rims compare to regional types which date to the late 12th or early 13th century. Formerly rare, jugs became standard items from the late 12th century onwards (McCarthy and Brooks 1988, 126). They occur in Sandy Splashed, Pink Sandy Glazed and Light-bodied Sandy Glazed fabrics. The Shell-tempered wares span a wider tradition, dating from the 10th to the probable 14th century. The dominance of Lincolnshire Fine Shell-tempered ware indicates that the main date for Shelly wares on the site occurs in the 12th century. A small amount of pottery from the quarry-pit dates from the mid 13th to the 14th century or later. Some of the comparatively meagre amount of Post-Medieval pottery dates from the 16th/17th century but most is 19th century in date.

Illustrated Pottery (Fig. 7)

Stratified early pottery:

Stamford ware:

- 1 Late Saxon cooking pot rim, Fabric A/G. Context 0094 (soil beneath rampart, Area 04).

Lincolnshire Fine Shell-tempered ware (may be 12th century):

- 2 Bowl rim, orange. Context 0094 (soil beneath rampart, Area 04).
- 3 Jar rim, dark grey. Context 0094 (soil beneath rampart, Area 04).

Torksey ware:

- 4 Jar rim, grey core, and red-brown margins/surfaces. Context 0010 (soil beneath rampart, Trench 01).

Unstratified / residual early pottery:

Torksey ware:

- 5 Bowl/jar thumbled rim. Grey core, brown outer margins, grey surface. Context 0003 (subsoil Area 03).

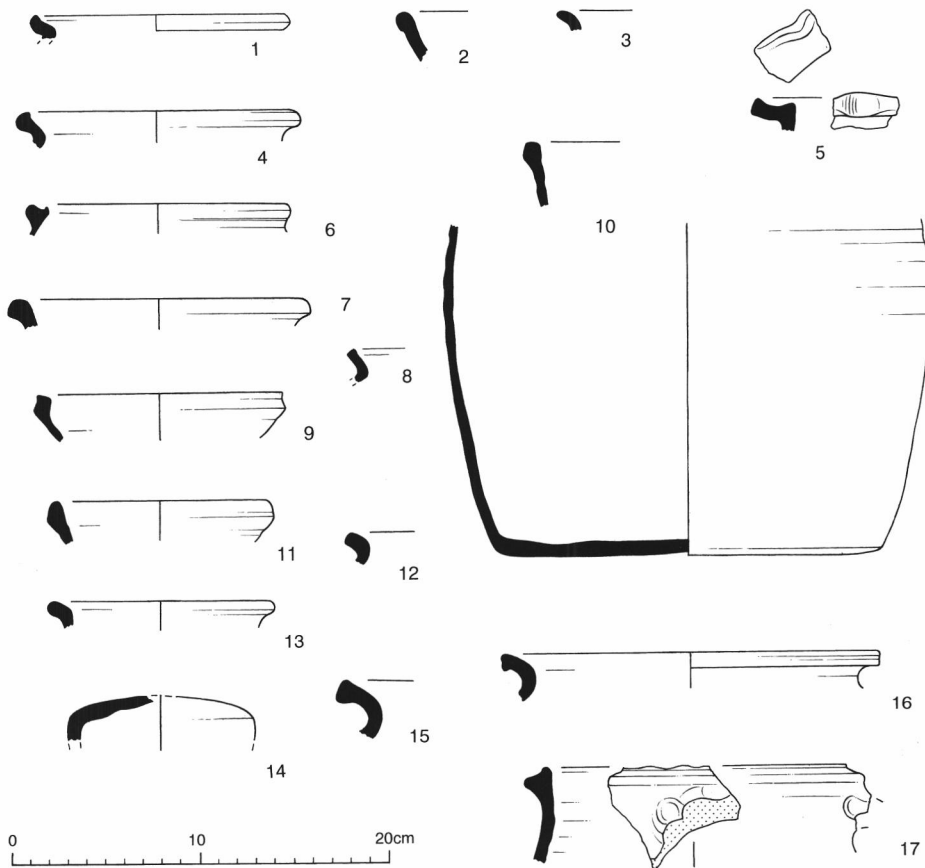


Fig. 7: Selected Medieval and Post-Medieval pottery from the 1997/98 excavations. Scale 1:4.

Stamford ware:

- 6 Jar, probable collared vessel, late 11th/early 12th century. Context 0013 (subsoil, Trench 02).

Early Shell-tempered ware (Saxo-Norman):

- 7 Jar rim, grey core, and red-brown margins/surfaces. Context 0065, (disturbed post-pit of the aisled building, Area 03).

Lincolnshire Fine Shell-tempered ware:

- 8 Jar rim, grey core, and brown margins/surface. Probably 12th century in date. Context 0080 (post-pit of aisled building, Area 03).

Sandy Splashed fabric:

- 9 Jug rim, pale grey core, brown-pink margins and surface. Context 0059 (pit, Area 03).

- 10 Probable shoulder jug/pitcher with a sagging trimmed base. Brown-pink surface and margins with a partial pale grey core. Thin, glossy orange glaze on main pot body. Context 0059 (pit, Area 03).

Pink Sandy Glazed fabric:

- 11 Thickened jug rim, pink. Context 0059 (pit, Area 03).

Lincolnshire Fine Shell-tempered ware:

- 12 Jar rim, grey core, and pale brown margins / surface. Context 0059 (pit, Area 03).

Light-bodied Sandy Glazed fabrics:

- 13 Jug rim. Context 0030 (subsoil, Trench 02).
14 Possible lid. Context 0030 (subsoil, Trench 02).

Coarse Shell-tempered ware (Medieval):

- 15 Jar rim, grey core, brown margins and surface. Context 0061 (quarry-pit, Area 03).
16 Jar rim, grey core and brown surfaces. Context 0062 (quarry-pit, Area 03).

Red-bodied Brown Glazed (Post-medieval):

- 17 Probable cistern rim red core/surfaces, thin treacly brown-black glaze. Context 0062A (quarry-pit, Area 03).

Wares

The Medieval wares are grouped into three categories: Medieval — origin known, Shell-tempered wares and Medieval — origin unknown.

MEDIEVAL — ORIGIN KNOWN

Nottingham Sandy Splashed:

These fabrics have abundant sandy sparse iron and occasional sandstone or feldspar and are either fully oxidised orange/orange-red or have an orange outer margin and dark grey inner margin and surface. The glaze is usually brown-green. The vessels from the site are probably shouldered jugs. This ware is found on Nottingham sites, with a known kiln at Goosegate (Brewhouse Yard Museum Archive, Nottingham).

Nottingham Light-bodied Green Glazed:

Fabrics are hard or very hard with moderate to common amounts of medium quartz, sparse iron, and dull white inclusions. The colour is usually white/off-white, with cream, pink or orange surfaces, and a pale grey or grey internal margin and surface. The glaze is copper rich, often thin and glossy. The vessels from the site are probably jugs. This ware is found on Nottingham sites (Brewhouse Yard Museum Archive, Nottingham).

Nottingham Coarse Sandy:

Represented at Bolsover by a single vessel. Fabrics are hard with sparse to common medium quartz, sparse iron and dull white inclusions. Colour range is from pale orange, orange to red. This ware is found on Nottingham sites (Brewhouse Yard Museum Archive, Nottingham).

Torksey type:

A common quartz-tempered fabric with grey-black surface/core and brown outer margins. Vessels from the site are either jars or bowls. There is a thumbled bowl/jar rim (4). This fabric is similar to pottery from the Torksey kilns, examples of which are held at Nottingham University Museum.

Stamford ware:

The few identifiable forms included an everted jar rim, and a possible collared vessel (1, 7). They are comparable to known Stamford material.

SHELL-TEMPERED WARES

Early Shell-tempered:

This ware has large shell fragments in a fine clay matrix with occasional quartz inclusions, in a colour range from red-brown to grey-black. Jars are the main form (5, 6). There are two sherds from the site with square roller stamping of the shoulder. This fabric is comparable to that from the Silver Street kiln, Lincoln (Miles *et al.* 1989).

Lincolnshire Fine Shell-tempered:

Thin-walled, with abundant fine shell and sparse quartz and iron in a colour range from red-brown to black-grey with a grey core. Identifiable forms are mostly jars with simple everted rims (3, 8, 12) and a simple thickened bowl rim (2). This ware is thought to originate in Lincolnshire (McCarthy and Brooks 1988, 151, 252).

Coarse Shell-tempered:

Common larger and smaller sized shell, and sparse quartz. The surfaces are usually brown with a grey-dark grey core. Identifiable forms are jars with everted and squared rims (16, 17). A similar ware was produced at Potterhanworth, near Lincoln (Healey 1974), although there may have been other production sites.

MEDIEVAL — ORIGIN UNKNOWN

Sandy Splashed:

A thin-walled, poorly sand tempered fabric, with a grey core and pink-brown outer margins and surfaces. A thin orange glaze occurs from shoulder to lower body. Probable forms are shouldered jugs with inturned rims and strap handles attached close to the rim. Bases are sagging and trimmed (10).

Pink Sandy Glazed:

A sand-tempered fabric with sparse iron, firing pink in colour. The glaze is a fairly glossy yellow with some areas having a slight orange peel surface, which may indicate splash glazing. Probable forms are jugs or pitchers, with a simple thickened rim (11). Both this fabric and the Sandy Splashed ware may be local and could originate from the Nottinghamshire or Derbyshire area.

Light-bodied Sandy Glazed:

There are a number of fabrics within this group, suggesting more than one probable origin. All fabrics are sandy and pale firing. Glazes vary, being either yellow or pale yellowy-green. A small number of decorated sherds have either bands of incised horizontal lines, combed wavy lines, or bands of triangular roller stamping. Forms are probable jugs/pitchers with sagging bases and one probable footed vessel. One fabric has calcareous inclusions.

Dr. Alan Vince examined the Light-bodied Sandy Glazed fabrics. One hand-made, coarse, quartz gritted fabric was comparable with either Brackenfield, Derbyshire or Newark, Nottinghamshire, but the rest could not be identified. It was suggested some might have originated from the coal measure clays of South Yorkshire.

Subsequent examination by Chris Cumberpatch in early 2002 during his research into East Midlands Medieval pottery for English Heritage also confirmed the unknown origins of the above wares (RS).

Other wares:

A small number of sherds were categorized as:

Orange Fine Sandy Glazed

Orange Sandy Glazed

Light-bodied Gritty
Medieval Sandy
Reduced Sandy

Ware	Subsoil	Below	Aisled	?Annex	?Fence	Pit	Quarry	Post-pit	TOTAL
	01: 0013	rampart	building	0056–	0047–	0059	0061–	0065–68	
	02: 0030	01: 0010	0040–0043	0058,	0053		64		
	03: 0005	04: 0094–	0080–0082	0076					
		95	0088–0085						
Romano-British		1				1			2
Stamford	4	4	1		1	2	1		13
Torksey type	1	3				4			8
Early Reduced Sandy	1	10	2						13
Early Shell-tempered	1	5		1		2	1		10
Fine Shell-tempered	108	23	30	1	21	37		13	233
Sandy Splashed				1	5	157			163
Nott. Sandy Splashed	3		1			6			10
Nott. Coarse Sandy						1			1
Medieval Sandy	2								2
Reduced Sandy	2								2
Nott. Light-bodied Green Glazed			1			1	4		6
Pink Sandy Glazed	6		20	1	12	87	7	20	153
Light-bodied Sandy Glazed	19		7	1	6	16	2	2	53
Orange Fine Sandy Glazed							1		1
Orange Sandy Glazed	1								1
Light-bodied Gritty	1						1		2
Coarse Shell-tempered							28		28
Unidentified	4		1	3	1	37	2	1	49
15–18C	9						4		9
Later Post-medieval	32								32

Table 1: Pottery type by context.

Conclusion

The pottery from Bolsover reflects some regional trends. The pre-rampart material is an assemblage similar to that from other late Saxon sites, with examples of Lincoln Early Shell-tempered, Stamford, and Torksey wares. Although the origin of most of the Medieval fabrics remains unidentified, technology and forms are similar to those occurring elsewhere in the region. The small amount of pottery dating from the later 13th century onwards identifies Nottingham and Lincolnshire Coarse Shell-tempered wares as pottery sources for the castle. Vessel types indicate Shell-tempered wares were used for cooking and storage, whilst Sandy Splashed, Pink Sandy Glazed and Light-bodied Glazed fabrics were for jugs or pitchers. Most of the pottery probably relates to only a relatively short period of the site's overall history.

Other Finds by Richard Sheppard and Peter Hammond (clay pipes)*Copper Alloy* (Fig. 8)

Only a few copper alloy objects were recovered from the site and these are described below. (The number sequence continues on from the pottery.)

- 18 Small triangular-shaped hooked tag in thin sheet alloy, with inscribed circle decoration around two higher rivet holes and a smaller lower hole. Originally about 45mm high and wide, but now damaged at sides. A class of domestic object found in 9th–11th century contexts and believed to have been used for fastening garments, garters and accessories (Margeson 1993, 16, 17). Not all those found have been securely dated to the Anglo-Saxon period alone (Rahtz 1979, 279). Found in the 13th century pit 0059 (Area 03) where the presence of residual late Saxon pot sherds suggests a similar provenance.
- 19 Short pin, length 26mm. Head formed by wrapping a length of the wire round the head of shaft and then smoothing and rounding it over. Context 0059 (pit, Area 03).
- 20 Needle, length 32mm. Context 0059 (pit, Area 03).
- 21 Strip of copper alloy, 7mm wide, broken at ends, curving at its sides and with a rivet hole. Purpose unknown. Context 0059 (pit, Area 03).
- 22 Short fragment of curving copper ribbon wire, 49mm long, about 3mm across, with a rivet hole at one end; approximately D-shaped in cross-section. Context 0059 (pit, Area 03).
- 23a–23c Three other strips of similar ribbon wire, two believed to have been joined and to have formed a sub-rectangular shape, at maximum 188mm long but of unknown width (23a, 23b). Similarly D-shaped in cross-section, the flatter face is on the outer side and at four locations, roughly equidistant, small holes have been inserted for rivets. The third strip (23c), 114mm long, may be part of the same object but lacks a conclusive join and appears to have had paired holes at one end.
- During conservation the mineralised remains of grass was found to cover most of the objects (and has been retained on strip c, which was stabilised only and not fully conserved). This material may have been deliberately wound around the strips or had been present amongst the organic fill of pit 0059 when the strips were thrown away and had adhered to them. Objects 22 and 23a–23c are a well-known type of decorative strip widely found on castle and manor sites of 12th–13th century date (Jope 1959, 267–68). Suggested uses are as ornament on leather-bound books or wooden caskets covered with leather. Other examples have been found at Castle Acre, Norfolk (Coad and Streeten 1982, 235–37, Fig. 42) and Bramber Castle, Suffolk (Barton and Holden 1977, 60, Fig. 18). Context 0059 (pit, Area 03).
- 24 Medieval strap-end made of copper alloyed with tin, zinc, and lead, a combination best described as leaded ‘gun-metal’ (analysis by Dr M. Ponting). Size 34.5 × 7mm. Has engraved line decoration both sides and faint zig-zags on the front plate. Probably of a three-piece composite type consisting of two sheet metal plates and a forked internal sheet spacer, held together by two rivets, the larger upper one having also secured a strap. The use of a cast spacer allowed

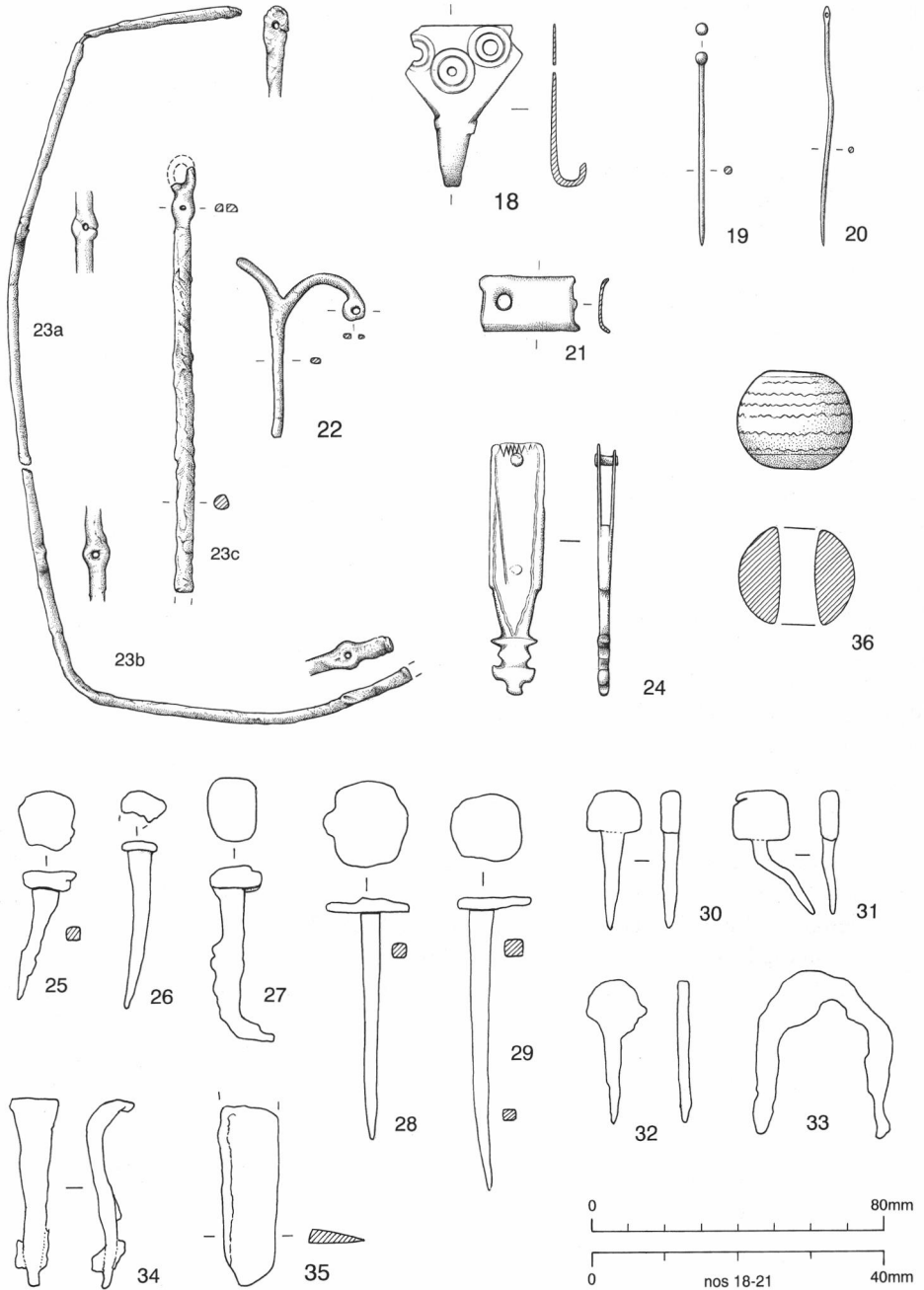


Fig. 8: Selected Medieval and Post-Medieval metalwork and a spindle-whorl from the 1997/98 excavations: copper alloy (18-24); iron (25-35, in outline only); stone (36). Scale nos. 18-21 and 24, 1:1, others 1:2.

this type to have elaborate knobs (terminals), such as the floriated design used here. Both this shape and the type of construction employed here are generally considered to date to the 14th century (Egan and Pritchard 1991, 145). The Bolsover example is one of a wide variety of strap-ends made from copper alloy which were probably worn with everyday dress to protect belts and straps from fraying and as adornments (Margeson and Goodhall in Margeson 1993, 34). Interestingly, examination under high magnification (x100) of some mineralised remains from within the split identified fibres with small surviving areas of weave, suggesting that the strap-end was attached to textile (most likely wool) and not to leather, as is generally the case (analysis by I. Narkiss). Found in disturbed layer 0092 (Area 04), possibly the base of a pit penetrating into the back of the rampart and just surviving below a garage floor.

Iron (Fig. 8)

The majority of metal finds were of iron and most were found corroded, bent or broken. The total included 54 carpentry nails, 23 fiddle-key nails and 7 miscellaneous objects. The majority were recovered from Medieval contexts, a third of the total coming from pit 0059. A sample of the best preserved nails from 0059 are shown here. The high proportion of fiddle-key horseshoe nails may suggest that the southern part of the castle was partly used for stabling horses, although none had been used and no horseshoes were recovered. Such nails with semi-circular raised heads are commonly found in 11th–13th century contexts on castle sites, and some may date to the 14th century (Barton & Holden 1977, 64, 65). Other metal finds included a few fragments of molten lead (post-pits 0053, 0057) and some slag (post-pits 0043/44, 0081).

- 25–29 Several carpentry nails, lengths varying from 35–80mm ($1\frac{1}{2}$ – $3\frac{3}{4}$ ins), with their shafts mostly of square section and with flat or slightly domed sub-rectangular shaped heads. All those illustrated are from pit 0059 (Area 03).
- 30–32 Several fiddle-key nails, their heads varying slightly in shape but of similar length (32mm; $1\frac{1}{2}$ ins). All from pit 0059 (Area 03).
- 33 U-shaped staple. Context 0059 (pit, Area 03).
- 34 Unknown object (possibly part of lock mechanism). Context 0049 (post-pit, Area 03).
- 35 Lower end of a knife blade with no taper in its length and triangular in section. Context 0080 (post-pit, Area 03).

Miscellaneous (Fig. 8)

- 36 Spindle-whorl made from soft stone with wavy and straight inscribed lines on exterior, 32mm across and 26mm high. Context 0059 (pit, Area 03).

Clay tobacco pipes. Identified by Peter Hammond (Fig. 9)

A number of clay-pipe bowls and stem fragments were found largely unstratified on the main excavation site and in Trench 08. A high proportion from the latter were found in a small test-pit at the base of drystone wall 0100 (Fig. 6, A), concentrated as though part of a deposit of waste and indicative of a larger spread still extant in the ditch fill. The fragments were made from good quality clay and none had been marked or had been

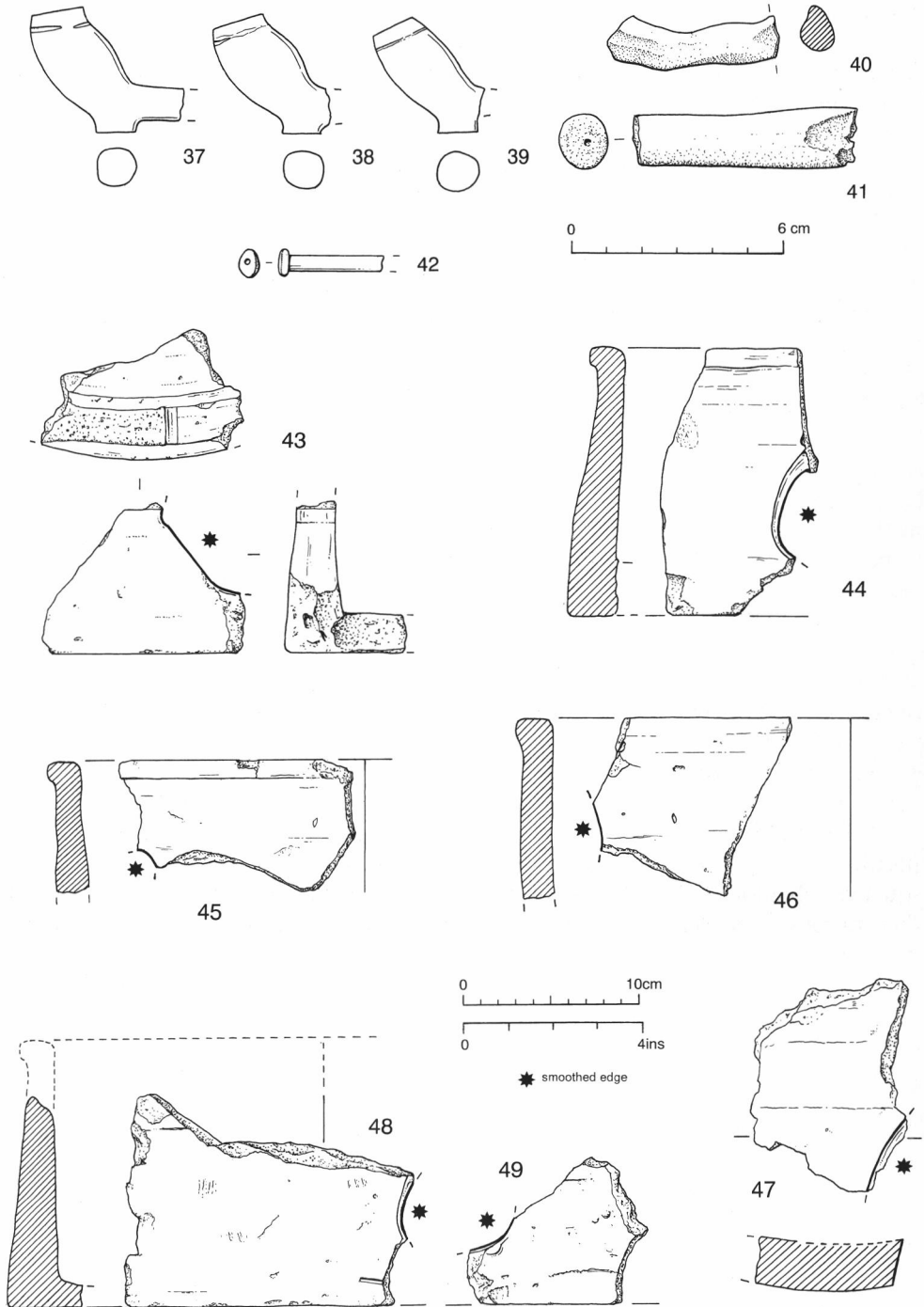


Fig. 9: Selected ceramic items from the 1997/98 excavations: clay-pipe fragments and associated waste (37–42, scale 1:2) and pieces of industrial vessels (43–49, scale 1:4) from Trench 08.

smoked. The bowl forms were all very similar in shape and style and had flat rounded heels and roughly inscribed lines around the rims; none had makers' marks. The test-pit material included an irregular strip of worked clay (40), a thick rounded cylinder (41) and several pipe fragments that were more yellow in colour or actually burnt. The material is probably manufacturer's waste, the forms dating it to 1650–60. Clay-pipe fragments earlier than that date are very rare on the castle site.

Bolsover is known to have had an early clay-pipe industry. Richard Blome commented in his volume *Britannia* in 1673 that the town 'is of some note for its excellent and well glazed Tobacco-pipes'. Late 17th century court records include fines on manufacturers for land encroachment and probate inventories of that period mention kiln furniture and equipment (Hart 1988). Wasters have been found not far from the castle (Hart, *ibid.*). If manufacture started in Bolsover in mid 17th century this might correspond with a similar situation in York. There, all bowls dated to before 1630 are believed to have come from London or elsewhere but from about 1650–90 the distinctive 'Yorkshire bulbous' type was probably being made locally (Lawrence 1979, 67).

- 37–39 Three examples of pipe bowls from the test-pit in Trench 08.
- 40 Strip of manufacturer's waste clay from the test-pit in Trench 08.
- 41 Cylinder of fired clay from the test-pit in Trench 08.
- 42 Thin glazed stem with large mouth-piece, 19th century in date. Context 0014 (pit, Trench 01).

Industrial vessels (Fig. 9)

Seven fragments from five large clay vessels were recovered from within Trench 08. These were roughly made from clay that was streaky white in section and that varied in surface colour from light brown to dark red; one had distinctive red splashes on its outer surface (45). The surfaces were roughly smoothed and lacked any adhering material to suggest what they had been used for. All fragments had evidence for smoothed openings; their positions are highlighted on the illustrations with stars. The pieces appear to come from squat vessels about 150mm (6 ins) tall and up to 375mm (15 ins) in base diameter. Whilst their purpose is unclear, they would appear to be associated with clay-pipe or pottery manufacture, not as pieces of fixed furniture but more akin to cylindrical saggars. If from clay-pipe manufacture, then the recovery of pieces 43 and 44 from the rubble infill behind the supposed Civil War drystone wall 0100 in Trench 08 might push back the industry in Bolsover to the early 1640s. They are less likely to be derived from pottery manufacture as Bolsover's pottery kilns specialised in brown stonewares, first patented in 1672 and first recorded being made in Bolsover in 1749 (Hart *ibid.*). The pottery kilns are also thought to have been situated at some further distance from the castle than the clay-pipe factories.

- 43 Small piece of a dark red clay vessel with a long smoothed opening running diagonally to the base. From rubble infill behind drystone wall 0100.
- 44 Part of a reddish-orange vessel with a rounded opening and a finger mark on its outer surface. From rubble infill behind drystone wall 0100.
- 45 Part of the rim of a light brown vessel splashed with red clay. Unstratified.
- 46–47 Parts of a light brown vessel, both with smoothed-edged sections. Unstratified.

48–49 Parts of a light orange-brown vessel, both with smoothed-edged sections. Unstratified.

Environmental archaeology of pit 0059 by M. G. Canti, S. J. M. Davis and D. de Moulins

Pit 0059 had a dark fill and was rich in animal bones, pottery sherds and a few metallic artefacts. It was interpreted as a cess-pit, dated by the ceramics to the later 13th century. It was fully excavated, yielding two boxes of hand recovered bones, along with soil and charcoal samples. The staff of the Ancient Monuments Laboratory were asked to analyse the contents.

Analysis took place on the whole bone collection. The pit fill had been sampled at three levels, top, middle and base. For the analysis, two of three fill samples were examined — one from the top of the pit (Sample 1) and one from near the bottom (Sample 3). These samples each consisted of roughly 10 litres of the pit fill.

Particle Size Analysis and Examination

The < 16 mm fractions of the two fills were subjected to particle size analysis by sieves and Sedigraph to check for gross differences between them. The resulting curves were identical within the accuracy limits of the technique. The mineral component from the sieves was then examined by low-power microscopy. It consisted mainly of small limestone fragments, but also large numbers of the calcite granules produced by earthworms. These were counted by sub-sampling and produced 319 granules per 100g in Sample 3, and 498 per 100g in Sample 1. The reasons for variations of granule content on different soils are not known (Canti 1998), but at the very least the high numbers imply a great deal of earthworm activity, large amounts of organic matter being processed, and thus a tendency towards thorough mixing of the contexts.

Bones

The two boxes of animal bone contained an assortment of large and medium-sized mammals, a few bird and several amphibian bones. None of the bones were derived from sieving or from the above samples. In total there were 99 bones, their classification being as follows:

Sheep/goat	27 (4 definitely sheep, none definitely goat)
Cattle	22
Pig	19
Equine	11 (probably horse)
Roe deer	2
Hare	1
Cat	1
Galliform (poultry)	11
Goose	1
Amphibian	4

Several of the cattle bones had been chopped and some bones were gnawed and/or semi-digested, suggesting the bones had been scavenged by dogs. In general these bones are probably mainly kitchen waste. Cervids (deer) tend to be more commonly present in high

status sites such as castles (Albarella and Davis 1996), so the two roe deer bones may indicate high status origin.

Plant Remains

The two fill samples were floated to retrieve the light plant remains, then washed through a 250 u.m sieve to pick out the remainder. All the recovered material was wood charcoal, much of it too small to identify species. Further analysis was not thought worthwhile.

Discussion

The contents of pit 0059 had undergone considerable mixing, and have probably lost much stratigraphic integrity since deposition. The suggestion from the bone analysis is that the fragments were mostly kitchen waste, but this is not incompatible with the idea of cess-pit or midden-type material. The charcoal content may have been largely ash-derived with the calcium carbonate (white) portion of the ash now dissolved away. The particle size analysis implied the former presence of large amounts of organic matter which is compatible with the pit's use as a cess-pit. Overall, there has been too much reworking to say anything more definite about the contents and any stratigraphy.

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