

A MEDIEVAL HUNTING LODGE AT BRADGATE PARK, LEICESTERSHIRE

Richard Thomas, Jennifer Browning, James Harvey and Peter Liddle

with contributions from:

Danielle de Carle, Lynden Cooper, Sian Holmes, Graham Morgan, Suzi Richer, Deborah Sawday, Rachel Small, Samantha Stein and Jeremy Taylor

This paper presents the results from the first two seasons of the Bradgate Park Fieldschool (2015–16), which focused on a moated site located inside the boundary of the medieval deer park. Survey and excavation confirmed the presence of a timber-framed building offset to the west within the centre of a levelled platform. The material culture supports a date of construction in the mid-thirteenth century, but the building was abandoned by the end of the fourteenth century or early in the fifteenth century, and apparently collapsed *in situ*. The building had a three-bay hall of base cruck construction, with a service bay and a chamber. A general paucity of artefacts recovered during the excavation suggests that the site was occupied temporarily or for only a short period of time. Taken together, the evidence suggests that the structure was a periodically occupied hunting lodge, although it may have served a secondary function as a park-keeper's residence.

INTRODUCTION

Bradgate Park is located *c.*10km north-west of Leicester and covers an area of approximately 850 acres (Fig. 1). The park is first mentioned in written sources (specifically as a deer park) in 1241, but it is best known as the location of Bradgate House, reputedly completed *c.*1520 and the childhood home of Lady Jane Grey (1537–54). Evidence for human activity within the park is long-standing, however, excavations of a late Upper Palaeolithic open (i.e. non-cave) site situated atop Little Matlock Gorge, overlooking the River Lin, revealed a substantial *in situ* stone tool assemblage typologically attributed to the Creswellian culture, dating to about 14,500 years ago (Cooper 2012). A LiDAR and subsequent walkover survey of Bradgate Park identified over 250 earthworks, potentially representing archaeological sites not previously documented (Beamish *et al.* 2014).

In 2015 the School of Archaeology and Ancient History, University of Leicester, established a five-year research project in partnership with University of Leicester Archaeological Services and the Bradgate Park Trust, to investigate multiple areas within the park, and better understand the occupation, use and development of this upland landscape. This report presents the results from the first two seasons of fieldwork (2015–16), which primarily focused on the investigation of a moated site located 200m west of Bradgate House (HER Ref MLE108813). Such sites have only rarely been subjected to archaeological investigation (Mileson 2007, 78). Drawing upon the Parkland Plan (Cookson and Tickner 2014, 65) and the historic

environment research agenda for the East Midlands (Knight *et al.* 2012), the aims of this investigation were to establish:

- the construction and abandonment dates (agenda topics 7.3.2 and 7.3.5; Knight *et al.* 2012, 94);
- the existence and function of structures and associated features within the enclosed area (agenda topic 7.3.4);
- the environment of the park during the use and occupation of the moated site (agenda topic 7.3.3).

HISTORICAL BACKGROUND

Bradgate Park was enclosed from Charnwood Forest. This was not technically a ‘forest’ in legal terms, but formed the ‘waste’ of the surrounding manors. Nonetheless, it had some of the properties of a forest such as: swanimote courts; providing an extensive area of grazing for the flocks and herds of the surrounding villages; and being prized for hunting by its aristocratic owners. The park was bounded on the eastern side by the manors of Barrow and Loughborough, belonging to the earls of Chester, and on the western side by the manors of Groby and Whitwick – owned originally by Hugh de Grandmesnil but succeeded by the earls of Leicester; the royal manor of Shepshed lay on the northern side. It was the two earls and their successors who controlled hunting in the forest. The Charnwood manors of the earls of Leicester passed to Saer de Quincey, earl of Winchester, in 1204, while the death of the sixth earl of Chester in 1232 saw his manor of Barrow pass first to Hugh d’Albini, earl of Arundel, and to Roger de Somery, baron of Dudley, in 1242. It was the earl of Chester who first enclosed part of Charnwood Forest as a hunting park, with the creation of Barrow Park at Quorn before 1135. In the thirteenth century this ‘privatisation’ of hunting around the Forest periphery accelerated with parks created at Bardon, Beaumanor, Belton, Burley, Gracedieu, Groby, Loughborough, Ratby, Shepshed and Bradgate. The latter formed part of the manor of Groby and is first documented in 1241, when Hugh D’Albini transferred his right to take deer in the park of Bradgate to Roger de Quincey, earl of Winchester (Squires and Humphrey 1986, 86). A subsequent agreement between Roger de Quincey and Roger de Somery in 1247 specifies that Bradgate ‘was inclosed in the Octaves of St. Hilary, in the 31st year of the aforesaid king Henry’ (Nichols 1804, 661): thus, placing the creation of Bradgate Park between 20 and 26 January 1241. In this agreement, the park, replete with deer leaps, hedges, gates and stocked deer, was re-granted to Roger de Quincey by Roger de Somery, baron of Dudley, who had succeeded Hugh D’Albini as lord of Barrow (Nichols 1804, 661; Squires and Humphrey 1986, 86). The death of Roger de Quincey in 1264 saw his estate divided between his daughters. Groby manor passed to Margaret, wife of William Ferrers, in whose family it remained until at least 1445, when it passed into the Grey family through marriage (Nichols 1804, 661).

The medieval park at Bradgate enclosed an area considerably smaller than the current boundary: estimates have placed it at just above 300 acres (Squires 2004,

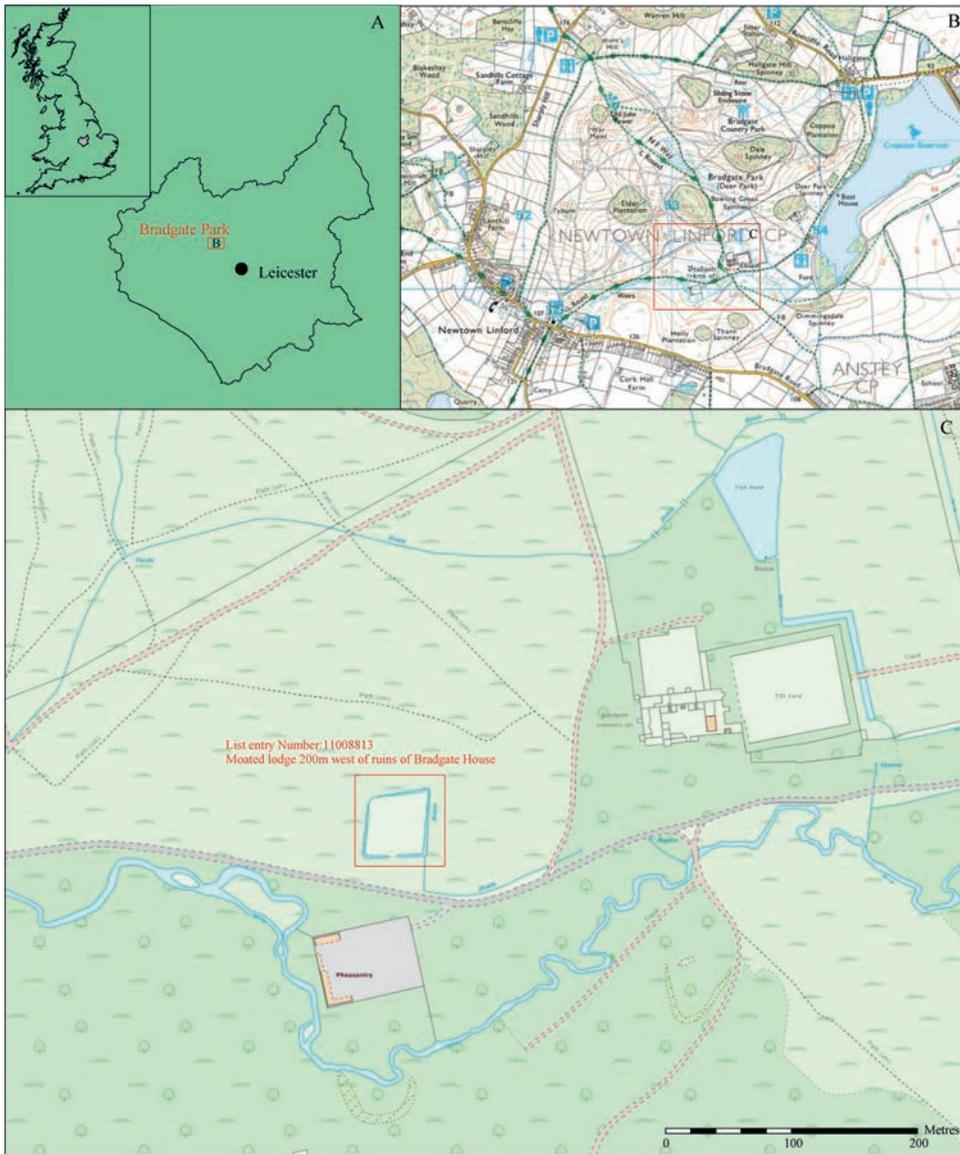


Fig. 1. Map showing the location of Bradgate Park and the position of the moated platform.

147). The park was extended at the turn of the sixteenth century when Bradgate House was constructed. The medieval park was enclosed by a bank, with an internal ditch, and made use of the rising topography to the north and south of the River Lin. The line of the park boundary has been clarified recently through LiDAR survey (Beamish *et al.* 2014) and upstanding earthworks remain visible in some parts of the park.

By 1371 the park was enclosed by ‘walls, ditches, hays [i.e. hedges] and palings’ (Farnham 1930, 211) and rangers were employed to protect the deer (Squires and Humphreys 1986, 86). The earliest reference to a keeper, however, comes in the 1247 agreement in reference to the pursuit of injured deer: ‘if they be footmen, they shall enter by some deer-leap or hedge; and if they be horsemen, they shall enter by the gate if it shall be open, and otherwise shall not enter before they wind their horn for the Keeper’ (Bloxham 1829, 27–8). In 1512 an annual salary was made to Robert Vincent, who is referred to as the ‘parker of the park of the lord of Bradgate’ (Farnham 1930, 219), and whose duties would have included maintaining the pale, providing food and shelter, culling and facilitating formal hunts, capturing and transporting live deer, and protecting the resources within the park (Fletcher 2011, 145–61). The *Inquisition Post Mortem* of William de Ferrers (d.1287), indicates that the park at Bradgate provided important resources to the estate, aside from venison, with ‘herbage, pannage and underwood worth 40s yearly’ (Farnham 1930, 207).

The presence of a moated site within the confines of the medieval park at Bradgate has long been recognised as an earthwork enclosing an area *c.*50m × 40m, with a moat *c.*5m wide and *c.*1m deep. The site has been repeatedly interpreted as a candidate for the location of a park keeper’s lodge (Hartley 1989, 10; Stevenson and Squires 1999, 12; Hartley and Squires 2014, 4), but the function and date have remained speculative.

INITIAL GEOPHYSICAL SURVEY RESULTS

Prior to excavation, a soil resistance survey, using a Geoscan RM85 resistivity meter with a multiplexed twin probe array, giving a sampling interval of 0.5m and a traverse interval of 1m between readings, was undertaken to encompass the entirety of the moated platform (Fig. 2).

The resistance survey revealed an east–west rectangular building with stone footings within the centre of the platform, offset towards the western boundary Fig. 2 (1). Rectangular projections to the north and west of the building were suggestive of external chimneystacks. A high-resistance linear feature was apparent in the south-east and southern borders of the platform, corresponding to the location of an internal bank Fig. 2 (2), while a low resistance circular feature was located just outside the south-west corner of the building Fig. 2 (3). The high-resistance anomaly straddling the moat to the west Fig. 2 (4) corresponds to upcast of gravels from the construction of a small pond (apparent as a low-resistance feature) Fig. 2 (5), a familiar addition to moated sites (Wilson 1985, 51). The remainder of the interior of the platform appeared bereft of archaeological features, with no evidence for ancillary structures.

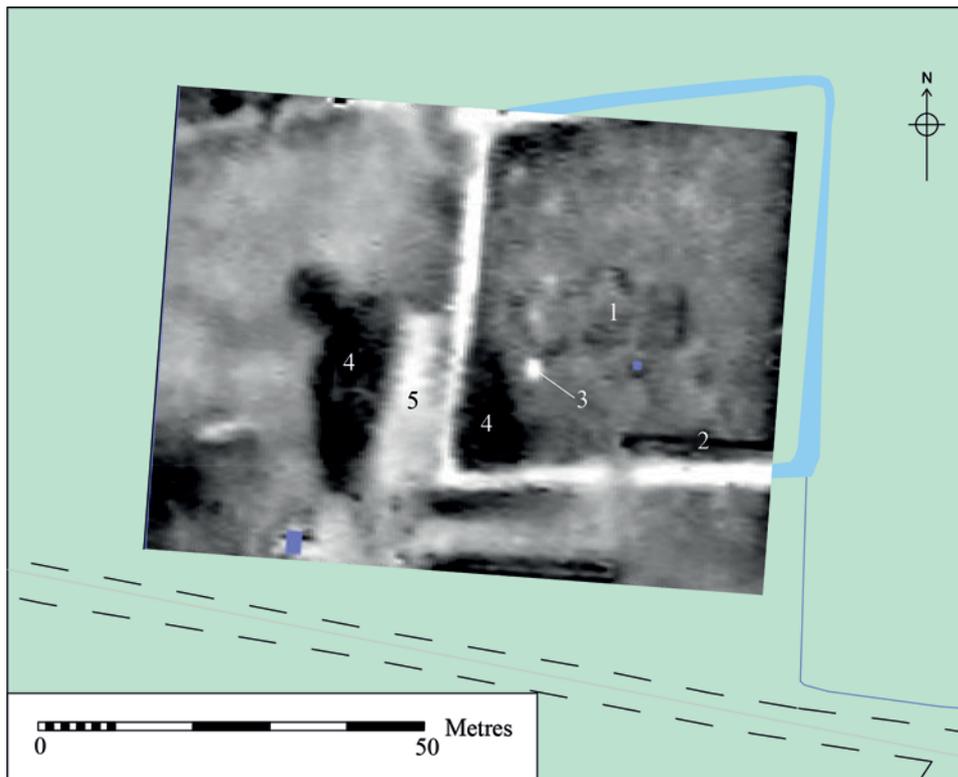


Fig. 2. Soil resistance survey of the moated platform (plotted range from 16 ohms (white) to 46 ohms (black)).

EXCAVATION RESULTS

Introduction

In 2015, four trenches were excavated by hand on the moated platform to evaluate the building (Trenches 2 and 4), entranceway (Trench 3) and the moat itself (Trench 1) (Fig. 3). In 2016 the complete footprint of the building was exposed (Trench 7), as well as a large area within the interior of the platform (Trench 8). The topsoil and overlying layers within these trenches were carefully removed using a mechanical excavator, where appropriate. Trench 9 was hand excavated and formed an extension to Trench 3 (Fig. 3).

To maximise recovery of artefacts and macro-biological remains, all excavated soil from contexts (except for topsoil/mixed deposits) was dry-sieved through a 10mm mesh. 42 bulk soil samples were also taken to recover finds and environmental evidence from well-stratified and securely dated deposits that were visibly rich in artefacts or charcoal, using a judgemental sampling strategy: 40–60 litres were taken per sample in line with published guidance (Historic England 2011, 12).

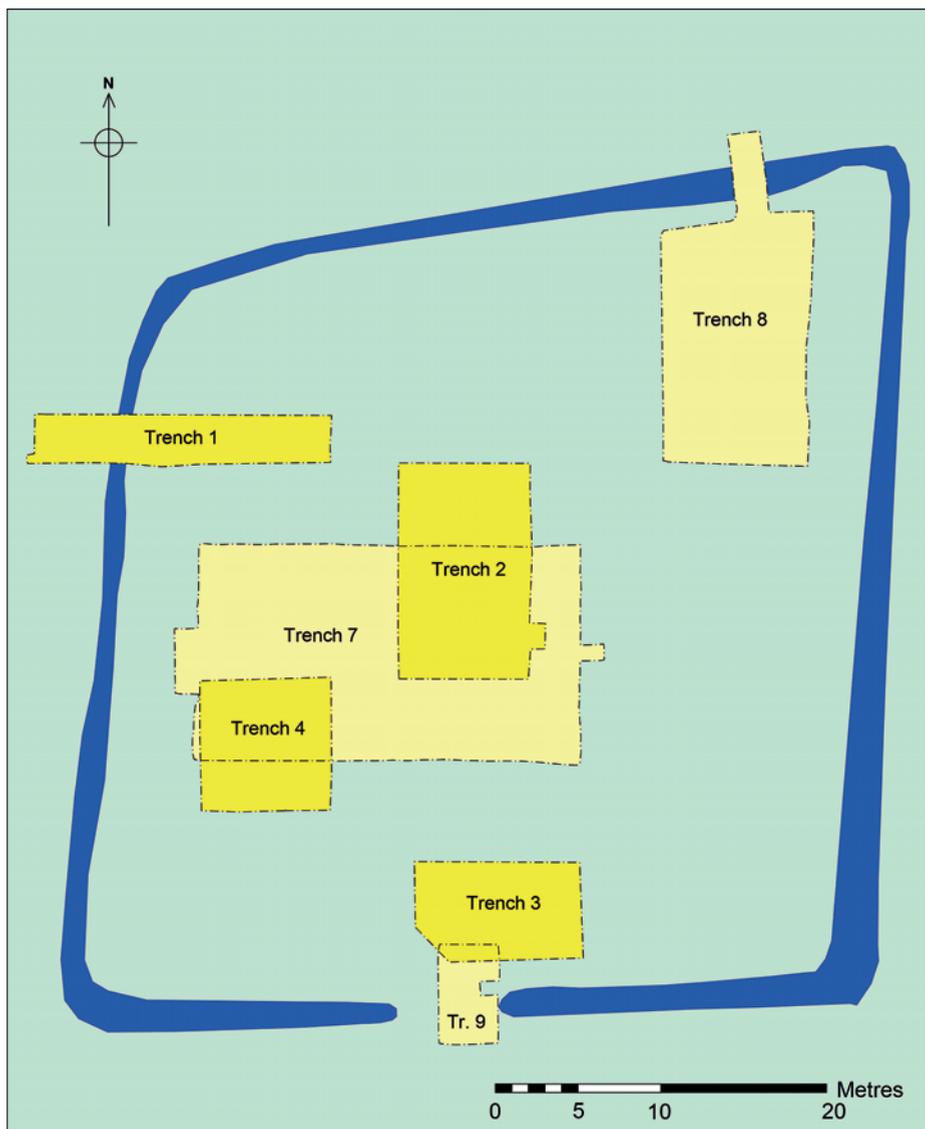


Fig. 3. Location of Trenches 1–4 (2015 season, dark yellow) and 7–9 (2016 season, light yellow).

The moat

Trench 1 was positioned on the north-west corner of the platform (Fig. 3), extending from the top of the platform through the moat. The existing earthwork measured 5m wide and 1m deep, but excavation of the ditch revealed a further metre of waterlogged sediment down to the base (Fig. 4). Primary silting (1225/1226) was present to a depth of 0.2m and consisted of dark grey silty clay, containing

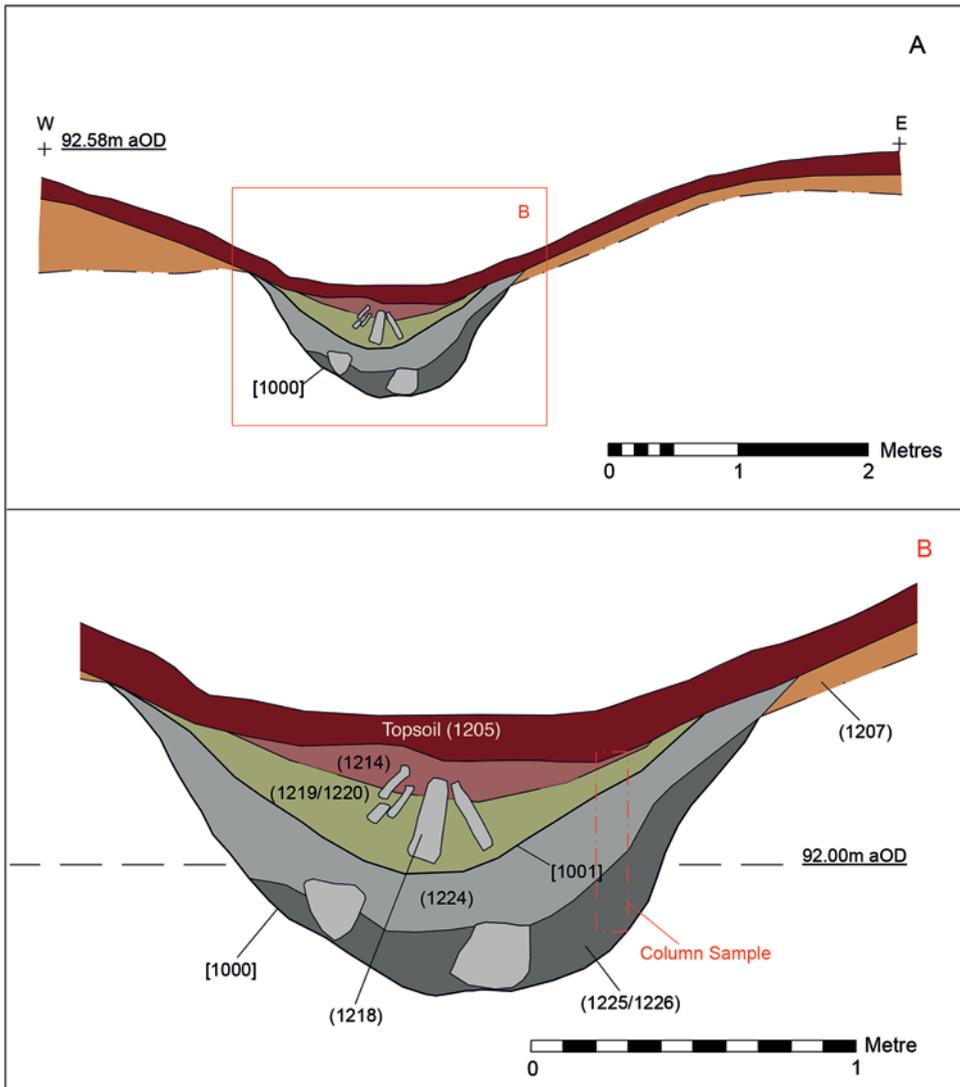


Fig. 4. Excavated section through moat (Trench 1).

large stones and pebbles that likely tumbled into the open ditch. A secondary fill (1224), dark grey silty clay and 0.18m thick, contained small well-sorted stones, natural flint and two fragments of (residual) Roman combed shelly ware pottery (first/second century). The moat was re-cut later through the subsoil/bank material and a narrow drain formed of irregular slate fragments was inserted to improve water flow around the moat. This cut was filled with mid-yellowish grey silty clay (1219/1220), 0.22m thick, overlain by a second layer of silting (1214), consisting of mid-brownish grey clayey silt (0.14m thick). A layer (1222) along the western edge of the bank overlying (1215) may represent up-cast from the re-cut. A humic layer

(1205), 0.15m thick, with modern finds (glass, food wrappers) represented the final silting of the ditch.

A monolith sample was taken through the moat sediments to assess the preservation of pollen for environmental reconstruction (Fig. 4). While pollen grains were poorly preserved, there was sufficient evidence to indicate that the moat contained a permanent body of shallow water with rotting organic matter, including detritus from grazing herbivores.

The platform

Sondages were excavated at the top of the bank in Trench 1 to examine the potential platform make-up, revealing humic subsoils [(1202), (1203) (1207)] beneath the topsoil. A sherd of Roman pottery and a small lead weight was recovered from this part of the trench.

Layer (1211) was located below the subsoil and ran from the east end of the trench. It consisted of dark-orange brown silty clay with frequent gravel inclusions and represented re-deposited up-cast from the excavation of the moat, which was spread out on the platform. Finds included several fragments of roof slate, oyster shell and a Late Upper Palaeolithic piercer similar to examples found elsewhere in the Park (Cooper 2012).

North-eastern area of the platform (Trench 8)

Trench 8 examined the north-east interior of the platform (Fig. 3). A fragment of (residual) Roman tile was recovered from the subsoil immediately underlying the topsoil (8201). The subsoil overlay a sandy silt deposit (8202), containing occasional rounded stones and diorite fragments, which was continuous across the whole trench and likely represented the top of the make-up layer forming the platform. This was markedly higher than the surrounding topography located immediately north and east beyond the moat. No archaeological features or finds were observed at this level, although root disturbance was recorded.

A sondage excavated within the north-east corner of Trench 8 showed the stratigraphic sequence on the platform (Fig. 5). The platform make-up/levelling was a thin deposit (0.1–0.35m thick), which overlaid a buried soil (0.18–0.23m thick). A similar soil was identified in other trenches across the moated site. It consisted of variations upon light–mid greyish-brown sandy or clayey silt *c.*0.25m thick, containing frequent charcoal flecks; also seen in the pollen and micromorphological samples. The soil produced a single sherd of pottery dating from the twelfth or early to mid-thirteenth centuries. The deposit capped a series of natural sandy clays and clayey silts with abundant gravel and iron panning. In Trench 8 the soil sealed a sequence of deposits [(8204), (8205), (8206)] forming part of the natural gravel terrace sequence, pre-dating the construction of the platform. Micromorphology of these deposits elsewhere on the site (Trench 7) identified a clear boundary between the buried soil and the later platform make-up, with no indication of trampling or stabilisation prior to the deposition of materials for the floor.

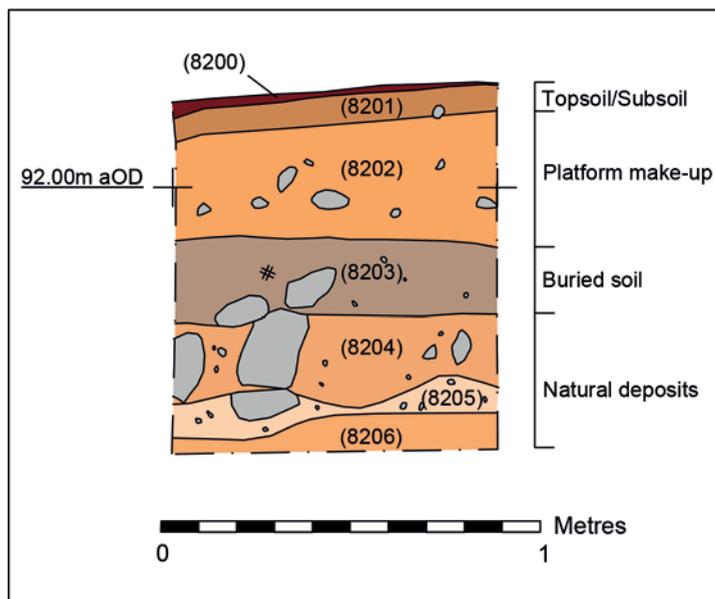


Fig. 5. Section of sondage excavated through the platform and underlying deposits.

Moat entrance (Trench 3 and 9)

Trench 3 was positioned in the south of the platform (Fig. 3) to investigate a possible revetment wall along the line of the moat, suggested by a resistance survey (Fig. 2 (2)). A redeposited layer, containing several roof slates and occasional medium stones with larger stones towards the base of the deposit (3201), was identified below the topsoil and overlaid the surrounding subsoil (3202=3203). No evidence of a revetment was identified, although there were hints of rubble consolidation.

Trench 9, an extension to Trench 3, explored whether the current causeway entrance to the platform was contemporary with the moat or the result of later backfilling (Fig. 3). Removal of the topsoil revealed the southern extent of (3201=9206) at the northern end of the trench. It produced a single sherd of pottery dating to the mid-thirteenth century. To the south, a series of sandy silt and clayey silt subsoils [(9202, 9204)] were exposed beneath the topsoil. A section excavated through these deposits against the western side of the trench revealed a stone-lined drain [9000], partially constructed out of re-used roof slates. It was orientated east-west, presumably to facilitate the drainage of water through the causeway, and is likely to be contemporary with an overlying stone layer (9203) that would have provided consolidation (Fig. 6). This feature probably links with the drain recorded within the moat in Trench 1, indicating that these deposits post-date the occupation of the building.

A series of boreholes excavated to establish the presence/absence of moat deposits beneath the causeway located natural silts, sands and gravels and sands beneath the topsoil and subsoil, suggesting that the causeway was an original feature of the moated site.

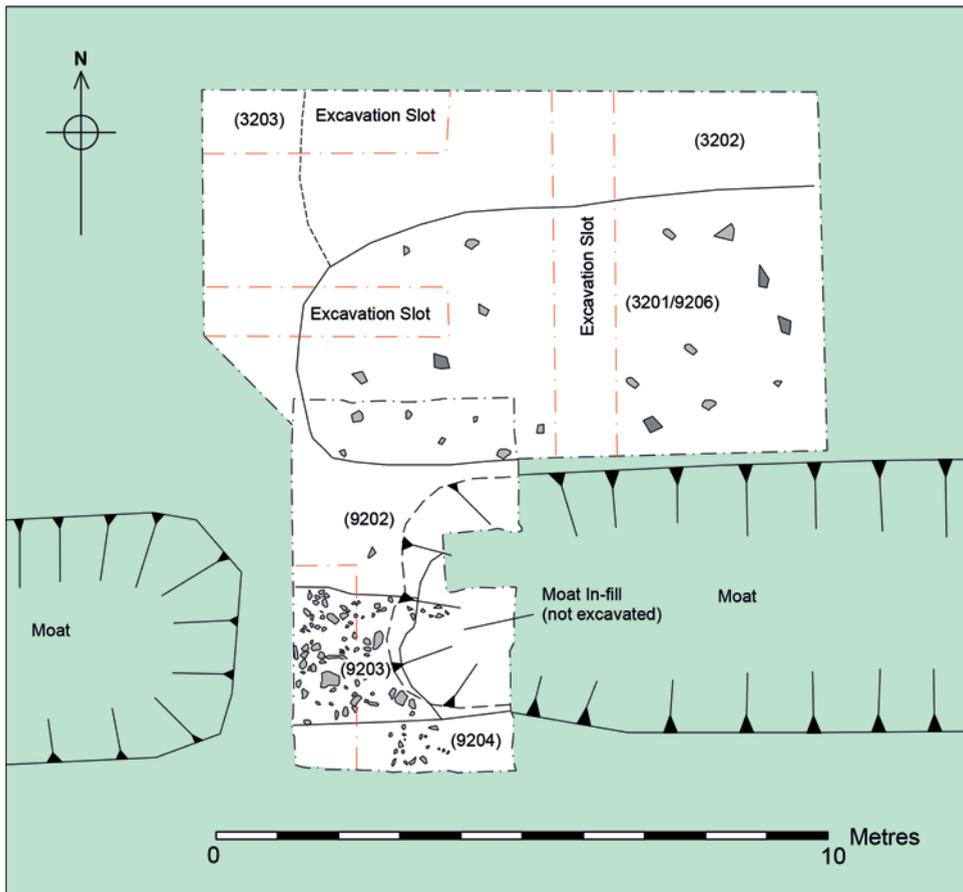


Fig. 6. Plan of Trenches 3 and 9.

The timber-framed building (Trenches 2, 4, and 7)

The building identified by geophysical survey (Fig. 2) was investigated over two seasons (Trenches 2 and 4 in 2015; Trench 7 in 2016; Fig. 3). A homogeneous subsoil covered the area beneath the topsoil. The subsoil overlay rubble layers and must have formed over a long period following the abandonment of the building. The pottery from this deposit broadly dates between the thirteenth and fourteenth centuries. Two coins were recovered from subsoils in Trench 2 SF200 (U/S) (Purvey 1984, No.1382 1b) and SF201 (2201) (Purvey 1984 No. 1382 1c). Both were 'sterling' pennies of Edward I to III but bear closest resemblance to Edward I, minted in London in 1279.

The underlying rubble spreads (0.1–0.2m thick) were located within and outside the building. These were concentrated around the northern and western fireplaces, as observed during the resistance survey (Fig. 2) and over the south-west and north-west parts of the building (Fig. 7). Pottery from these deposits dated from the fourteenth to fifteenth centuries. Inconsistencies in rubble composition, such

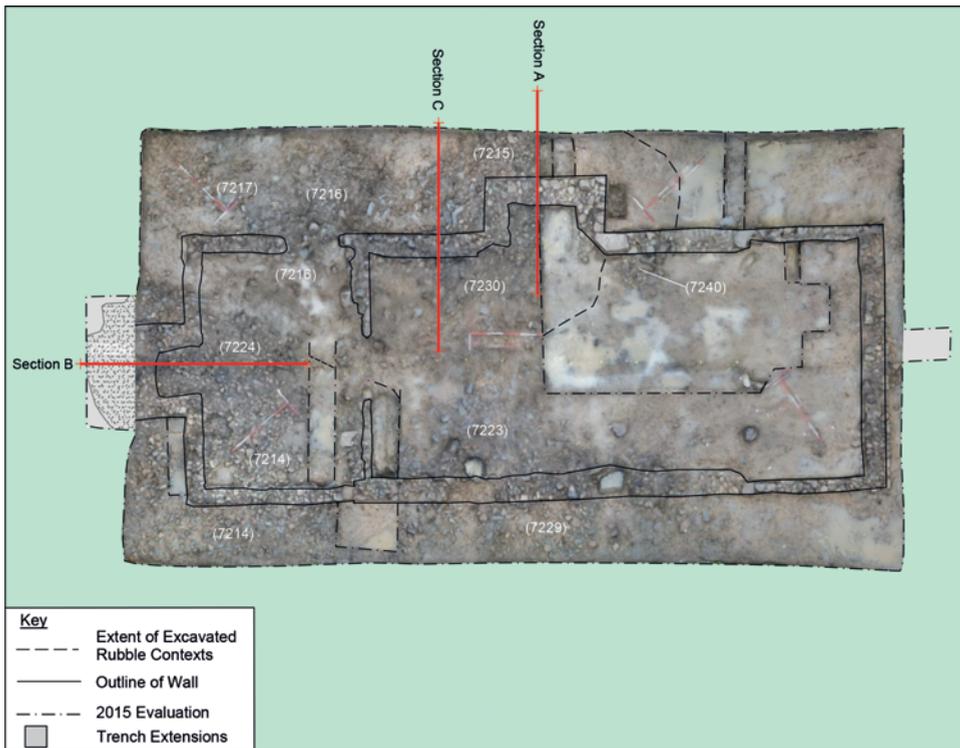


Fig. 7. Plan of rubble spreads; the position of illustrated sections (Fig. 10) is also noted.

as a predominance of slates in some deposits and an absence in others, suggested that there were several episodes of deposition, possibly related to different collapse events. The upper layers contained a greater quantity of roof slates and a high proportion was present in the rubble around the south wall. The absence of slates in the eastern half of the building suggests that the roof in this area was oriented in a different direction, likely a lean-to. This was supported by the presence of slates in a small eastward extension to Trench 7, indicating the roof slid off beyond the eastern edge of the trench (Fig. 7). The greater abundance of stone rubble in the western and south-western parts of the building suggest that the upstanding structures were higher in these areas of the building.

The colour of the slates is consistent with an origin from the quarries at Groby, c.5km to the south-west (Ramsey 2007), while the presence of diamond-shaped roof tiles indicates that some pre-dressed Roman slates from the quarry may have been exploited (Fig. 8; David Ramsey pers. comm.). These layers also produced green-glazed ceramic ridge tiles from the Chilvers Coton kilns, Nuneaton, some of which were decorated with looped and spiked crests (Fig. 9). A linear deposit of up-turned, fragmented ridge tiles, along the southern border of Trench 7, indicates that they slid off the roof as it collapsed.



Fig. 8. Comparison of a medieval (top) and a possible re-used Roman roof tile (bottom).



Fig. 9. An almost complete ridge tile and fragments of open and closed looped crests and part of a cockscomb crest, all in medieval sandy ware 1, dating from the later thirteenth or fourteenth centuries.

Lower deposits, such as (7231) on the interior of the northern fireplace, mostly comprised larger diorite rubble. Similarly (7229), below (7214) exterior of the south wall, contained few slates but consisted mainly of diorite fragments in a silty matrix, indicating that it derived from the collapse of the walls rather than the roof. This suggests that the roof was supported on timbers and the stone infill collapsed first. The quantity of diorite rubble implies dwarf rather than full-height walls, while the concentrations over the northern and western fireplaces reflects the greater height of the masonry of the external chimneystacks. Dumps of rubble in the interior of the central part of the building (7223/7230) were less dense than those on the exterior, but contained a mix of stone, slate, iron nails and unidentified ferrous objects (Fig. 10, Section C).

The removal of the rubble revealed a low stone wall defining a building *c.*21m × 8m, orientated east-west and offset westwards from the centre of the platform. Three opposing pairs of large flat-topped diorite blocks were positioned along the line of the north and south walls. They were spaced at regular intervals, creating five bays measuring between 3.85–4.15m wide. The central pair of padstones were significantly larger than the others, with dimensions of 1.0 × 0.5m (Fig. 11),

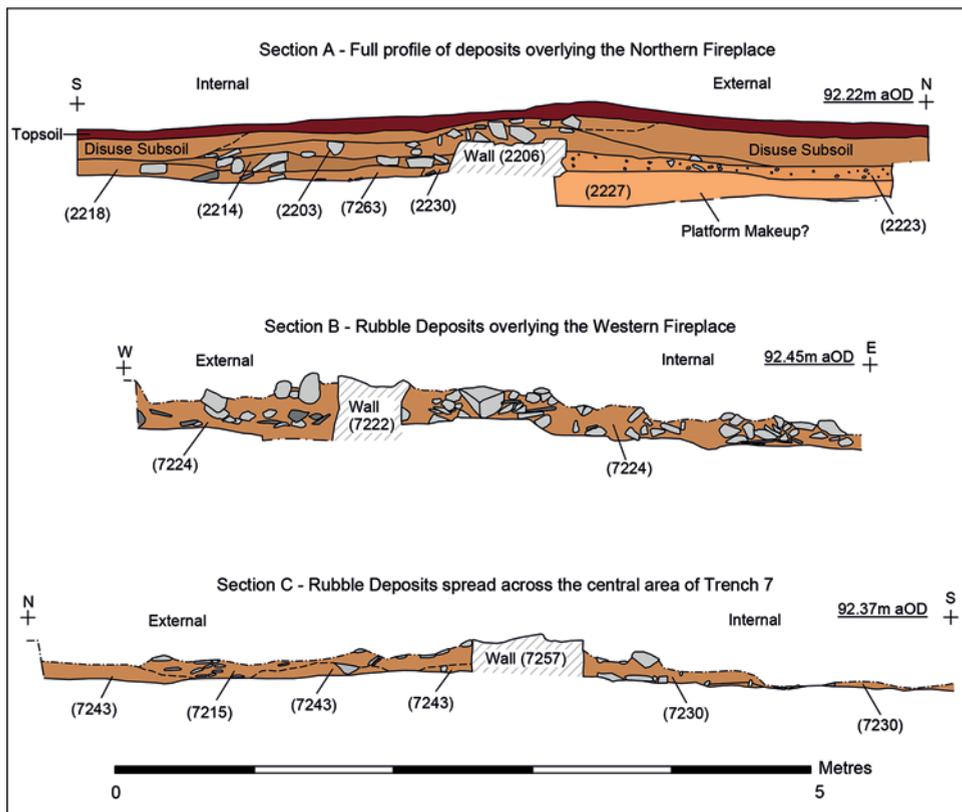


Fig. 10. Selected sections illustrating deposits overlying the building. Section locations are indicated in Fig. 7.

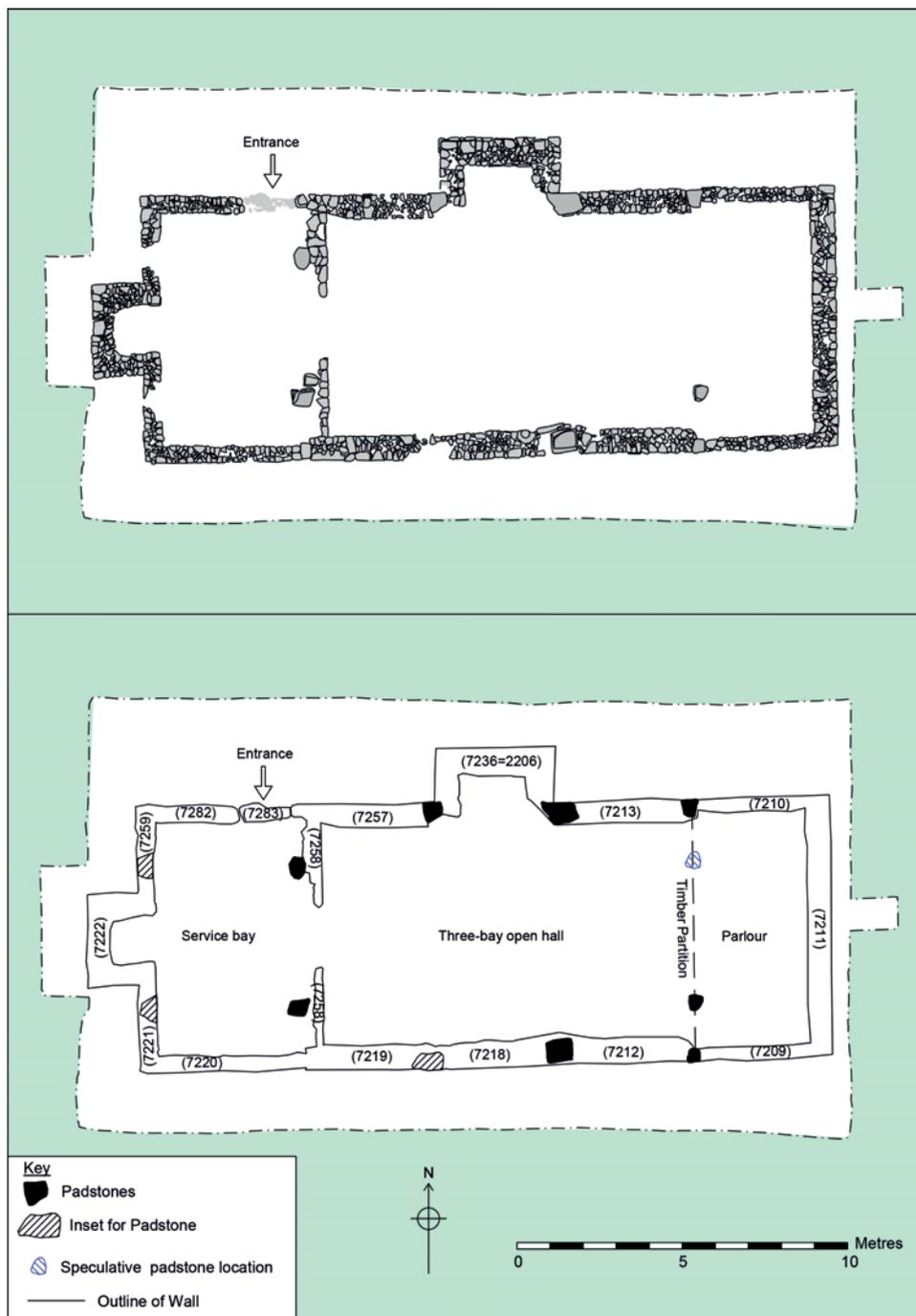


Fig. 11. Plan of the structural remains of the timber-framed building (top: structural remains; bottom: schematic plan).

particularly when compared to the pair to the east that measured only 0.4–0.5m. There was a padstone on the northern wall, west of the dominant pair, but its opposite number on the southern wall had been knocked out of place into the interior of the building.

No further padstones were identified on the north and south walls; however, a pair were present along the line of a north–south partition wall (7258). Each was inset from the north and south walls by *c.* 1.6–1.7m, with a 3.7m gap between them, and probably supported the posts of a truss, separating the hall and service bay. Although no padstones remained on the western wall, two rubble-filled gaps inset from the north and south walls, on either side of the western fireplace, suggested that the stones had been removed. These gaps line up with the *in situ* padstones on the partition wall (7258), creating a bay 4.5m wide. Another partition was hinted at in the eastern side of the building in line with the easternmost pair of padstones within the walls, although only one of the inset padstones was present (Fig. 11).

The remnants of the wall defined the perimeter of the building, but do not appear to be a continuous build (Fig. 11). The walls were constructed directly on top of the platform with no evidence of a foundation trench; they were presumably constructed after the erection of the timber frame and butted up against the posts, infilling the lower part of the building. Some parts of the wall were constructed in one event: the eastern wall (7211) was keyed into the southern and northern walls (Fig. 15, Section D), (7209) and (7210); the walls of the western bay (7221), (7259) and (7257) were also keyed in at the corners. By contrast, the end bay walls butt up to the central walls of the building (7219). The relationship between the western fireplace (7222) and the west wall (Fig. 13, Section E), (7221) and (7259), was unclear, but the northern fireplace wall (7236) was not keyed in to the north wall, suggesting that it belonged to a later phase. The partition wall (7258) butts up against the north and south wall.

The wall was constructed predominantly from irregular, locally sourced diorite blocks, with occasional quartz, river cobbles and slate. The coursing was random, but the wall had a fair face and showed some evidence for a rubble core. The number of courses varied between two and four, although this was sometimes difficult to ascertain because of the irregularity of the coursing. The largest stones were positioned on the outside edge, with slightly smaller stones on the inner edge and even smaller stones, river cobbles and slates forming the rubble core and infill. There were no convincing traces of a bonding material, suggesting that the walls were drystone or bonded with a material that has since degraded (e.g. clay). Bracken roots had penetrated the stones, potentially replacing whatever bonding material had been there.

The wall was not uniformly thick: the north (7210) and south (7209) walls of the eastern bay measured 0.4m, with facing stones and a very narrow rubble core; however, the eastern end wall (7211) was 0.7m wide, with a wider, looser rubble core. The western end bay also had thinner north and south walls, and a thicker west wall. The fireplaces were the most substantial part of the structure; the northern fireplace (7236) was 0.8m wide and stood up to 0.8m tall, while the western fireplace (7222) was 0.7m wide and 0.4m tall. The northern wall (7257) changed in width from 0.75m immediately west of the northern fireplace, curving

to 0.56m close to the junction with the partition wall (7258). The ‘partition’ on the east side of the western bay appeared to have a different construction: the eastern side was faced but there were no *in situ* facing stones on the west, producing an unfinished edge.

A 1.6m wide gap in the wall on the north side of the building, immediately west of the partition wall, is the most likely candidate for the entrance (Fig. 11). Several flattish stones were laid within it, possibly forming a threshold (7283), although these were not laid neatly and do not tessellate (Fig. 12). The wall on either side of the gap is not well-finished, suggesting that, if this was the entrance, it must originally have contained a wooden doorframe.

Deposits associated with the use of the building were scarce: occupation manifested as layers of gravel (*c.*0.08–0.10m thick), butting up to the interior and exterior faces of the walls (Fig. 13, Section F (7248); Fig. 14). These were better preserved adjacent to the walls, which had presumably offered some protection following the



Fig. 12. Section through the entranceway, looking west.

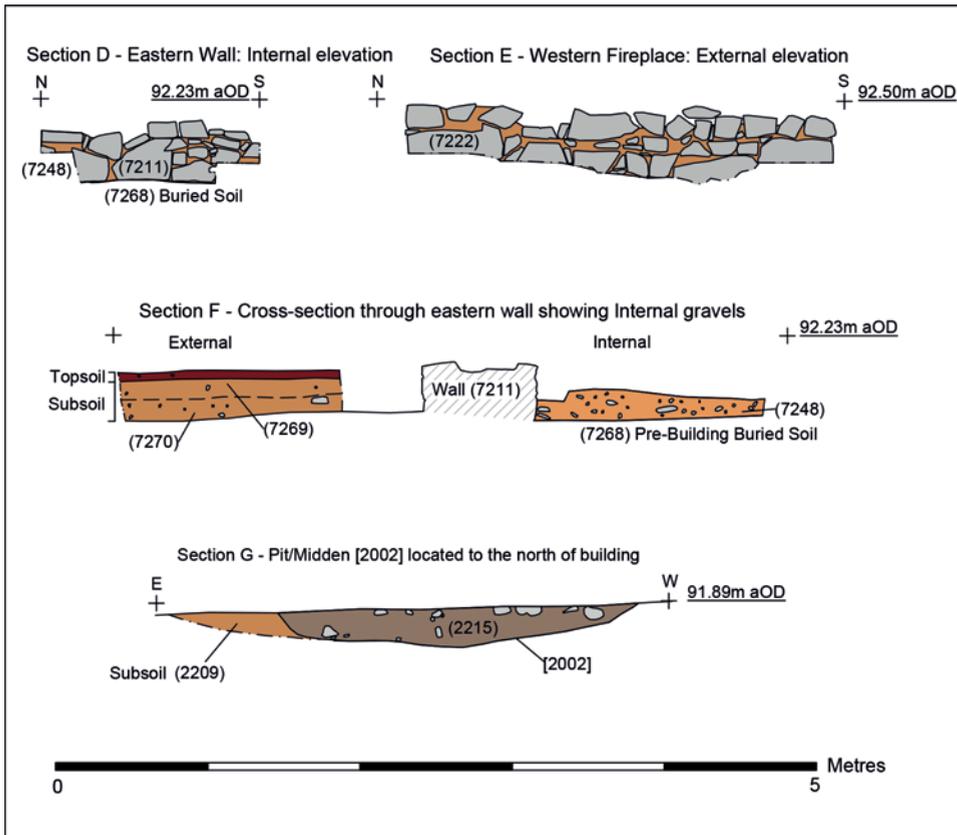


Fig. 13. Selected sections of deposits associated with the building. Section locations are indicated in Fig. 14.

abandonment of the building. The interior gravel surface was insufficiently level to have functioned as a floor; rather, it may have been a consolidation layer that underlay a solid floor surface, such as planking. This interpretation is supported by micromorphological analysis and the paucity of material culture in the buildings interior, indicating that artefacts had been prevented from becoming incorporated into the sediments. The pottery recovered from these deposits dated broadly from the mid-thirteenth to fourteenth century. A similar deposit was present on the exterior of the building, surviving best next to the northern fireplace (2223=7225; Fig. 10, Section A; Fig. 14).

The northern fireplace was a substantial structure, with interior dimensions of 2.1 × 1.2m and overlain by layers of rubble. The upper layer (2203=7215=7230) consisted predominantly of diorite fragments from the collapsed stack, and roof slates with a small proportion of rolled cobbles and an iron nail. A lower rubble layer (7231=2214), present on the inside of the fireplace, contained fewer slates in relation to diorite fragments, which were generally larger than the components of the layer above.

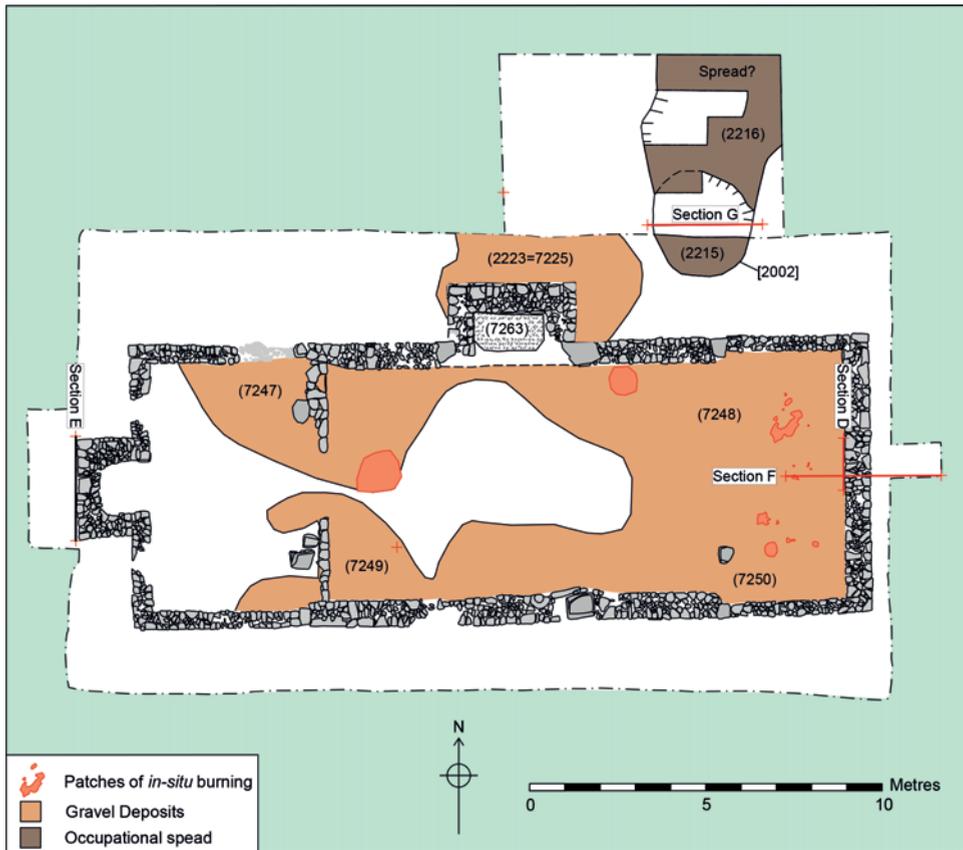


Fig. 14. Plan of gravel spreads and burnt areas within the building; the position of illustrated sections (Fig. 13) is also noted.

The internal face of the wall showed signs of heat damage and a sequence of silts containing charcoal was identified within the fireplace, but the relationships between them was ambiguous. A silty deposit (7232/7261=2219) was identified close to the inner face of the fireplace, containing occasional fragments of slate, charcoal, iron nails, small stones, plant remains (peas and cereal grains) and mid-thirteenth–fourteenth-century pottery. The presence of slate and iron roof nails in a related context (2218) implies that it formed after abandonment. A thin (0.03m) layer of diorite chippings (7263) was encountered below this level, which may represent the remnants of a hearth or floor surface (Fig. 15). This deposit was not identified on the eastern side of the hearth excavated in 2015; instead, a sequence of thin layers of uncertain relationship were identified [(2230), (2233) and (2234)], all of which overlay the top of the platform material or buried soil (Fig. 10, Section A). This complexity probably reflects the fact that the hearth was regularly cleaned out, as indicated by micromorphological examination. The available evidence strongly suggests that this fireplace served the hall.



Fig. 15. Possible surface recorded within the northern fireplace, looking north.

Excavation confirmed that the projection on the western wall of the building, observed in the resistance survey (Fig. 2), was another fireplace. This was smaller than the fireplace in the north wall, with an internal size of $1.5 \times 1.5\text{m}$. The interior faces of the stones were reddened and heat-cracked, and were progressively curved in profile (Fig. 16). These characteristics suggest that the feature was a service/kitchen fireplace, perhaps with a boiler (Brears 2008, 121), indicating that the western bay formed the service area. The fact that the heat damage did not extend to the floor level suggests the fire was raised on a metal hearth. The fireplace wall (7222) was covered by slate and diorite rubble (7224), below which was a deposit (7266=7245) containing a small quantity of rubble and iron nails that appeared to represent disuse silting following abandonment. Two thin layers [(7229) and (7280)] underlay this deposit; the latter could conceivably be the remnant of a floor surface, but might also be a slightly mixed interface onto the top of the buried soil (7281). Micromorphological analysis of the sediments within the service/kitchen fireplace provided evidence of wood burning. Weathered, rounded, sand-sized pottery fragments suggest that this site was used long-term, allowing artefacts to become part of the overall sediment. High humus content in the fine fraction also indicates that other activities involving organics (cooking, plant processing) occurred here, possibly on a regular basis.

Areas of scorching were identified within the gravel spreads in several locations across the interior of the building and their dispersed locations suggest they resulted



Fig. 16. The western fireplace with possible floor layer exposed, looking west.

from single event fires lit within the abandoned building (Fig. 14) – rather than being associated with a pre-fireplace building phase. These deposits produced low numbers of wood charcoal fragments.

A pottery- and charcoal-rich deposit, sealed below the subsoil, was located to the north-east of the building [(2210), (2211), (2215), (2216)]. It was large and broadly curvilinear in plan, with a poorly defined cut measuring over 6.3m long (N–S), *c.*3.9m wide (E–W) and *c.*0.10m deep (Fig. 13, Section G; Fig. 14). The ceramics recovered from this feature dated from the later fourteenth or possibly fifteenth century and suggest it functioned as a shallow rubbish pit.

An earlier pit (Trench 4 and 7)

A sub-oval pit with a flat base [7001/4001] was found below the intersection of the south wall (7219) and partition wall (7258). The southern edge was concealed beneath the wall (Fig. 17). The feature measured 1.4m on its east–west axis, with a minimum width and depth of 0.76m and 0.25m respectively. The upper fill (7265/4221) was a sandy silt containing diorite fragments, pebbles and occasional charcoal flecks. The lower fill (7267) contained abundant charcoal that appeared to be predominantly a dump of hearth material almost exclusively made up of Oak (*Quercus* sp.), which was heavily bioturbated. Radiocarbon dating of a rare hazel (*Corylus avellana*) charcoal fragment returned a date of 793–971 cal AD at 95.4% probability (SUERC-79469), indicating that the pit pre-dates both the building and the platform. The fact that the pit was seen directly below levels relating to the building suggests either that it had been exposed by reduction of the ground level during the levelling process or that the area was not heavily cultivated between the backfilling of the pit and the erection of the building.

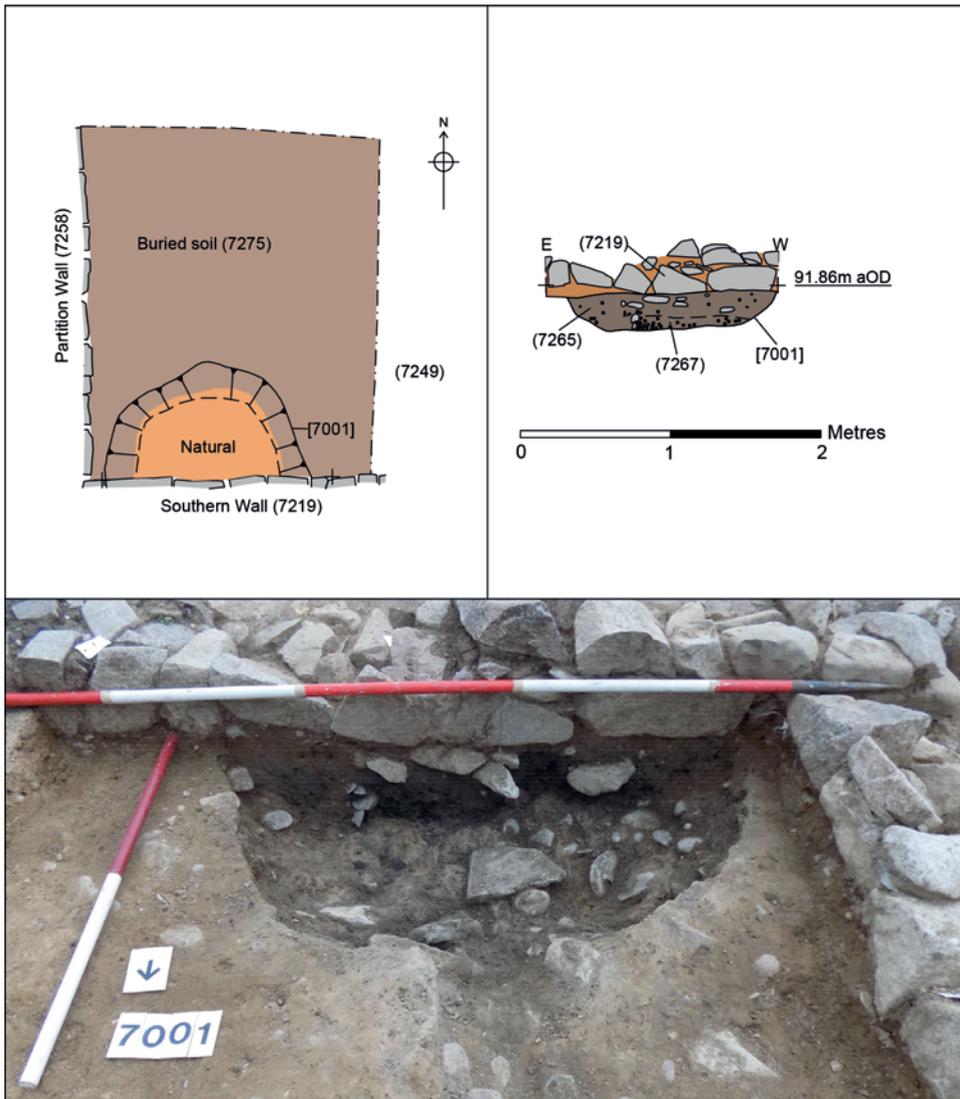


Fig. 17. Pit [7001/4001] located below wall (7219).

A later pit (Trench 2)

A sub-circular feature to the south-west of the building was evident in the resistance survey (Fig. 2). It measured 2.3 × 2.8m and was 0.35m deep (Fig. 18) and had irregular sloping sides and a flat base. It cut through disuse deposits relating to the building, and therefore post-dated this activity. The fill consisted of mid-brownish grey sandy clay, with frequent large stones, some heat-affected with mortar adhering. Analysis showed these were partially burnt limestone fragments. A small sample of slaked lime (water that has been added to quicklime) was also present, suggesting



Fig. 18. Pit [4000], looking south-east.

that the pit was filled with debris from the production of lime for mortar. However, the lack of *in situ* burning precludes the pit itself being the site of production. Other finds from the feature included roof slate, mortar and (residual) Roman greyware pottery.

DISCUSSION AND CONCLUSIONS

The earliest human activity on the moated site is evidenced by the presence of Late Upper Palaeolithic flints, which indicates that activity of this period was not confined to Little Matlock Gorge (Cooper 2012) but extended across the flood plain. Later prehistoric, Roman and Saxon activity is indicated by the presence of material culture and radiocarbon dating. While ephemeral, it merits emphasis that this is the first Roman and Saxon evidence recovered from Bradgate Park.

The moat

The next phase of activity is marked by the construction of a moat, a level platform using upcast from the ditches and a timber-framed building in the mid-thirteenth century. This chronology is consistent with the first documented mention of Bradgate Park in 1241. While a small number of parks are recorded in the Domesday Book,

and there may have been widespread continuity with Anglo Saxon enclosures (Liddiard 2003), most parks were enclosed after the Conquest, in the thirteenth to early-fourteenth centuries (Miles 2009, 7). This is certainly true for Leicestershire: the majority of the 56 parks so far identified were enclosed between 1200 and 1350 (Squires 2004, 149). Moats/enclosures were a relatively common feature of parks in Leicestershire, with confirmed or potential examples identified at: Bardon Park; Breedon; Cold Overton; Donington; Groby; Kirkby Mallory; Loughborough; New Parks; Oaks Farm; Kirby Muxloe; Quorn; Staunton Harold; and Thurlaston, (Hartley 1984, 1987, 1989, 2018).

The size and sub-square shape of the enclosed area at Bradgate is comparable with those recorded in the New Forest (Smith 1999, 25) and elsewhere in Leicestershire (e.g. Liddle 1977–78). The enclosure ditches were probably not defensive features, but may have offered protection from flooding from the nearby River Lin, and inhibited access to deer and other animals that lived within the park. The moat had a permanent causeway on the southern side, suggesting that the entrance may have been blocked by a gateway. Excavation indicated the presence of an ephemeral internal bank, most clearly visible on the eastern and south-eastern sides of the platform. This may have been surmounted by an archaeologically invisible timber fence or palisade; however, it could equally be upcast from the construction of the moat or later ditch maintenance.

The levelling of the interior elevated the enclosed area above the natural ground surface, creating a level building surface and increasing the visibility of the site within the park. The interior of the platform may have been used for gardens or storage areas for winter feed for the deer; however, this remains speculative in the absence of supporting archaeological evidence.

The building

The building (Fig. 19) was timber-framed with padstones dividing the structure into five bays and low stone walls that provided a base for timber or earth-built walls and protected the timbers from the damp ground (Gardiner 2014, 20). The roof comprised locally sourced slate tiles surmounted by decorated green-glazed ridge tiles, fired in the Chilvers Coton kilns, Nuneaton. Based on the excavated remains, the building appears to have consisted of a central hall of three bays, defined by four trusses. The position of the padstones suggests that the trusses at either end of the hall were of aisled form with the two centre trusses being of base cruck construction. There was an aisled service bay to the west of the hall and an inner room or parlour in a lean-to bay east of the hall.

The westernmost part of the building was occupied by a service bay marked out by a partition, containing a service/kitchen fireplace with an external stone chimneystack. The greater concentration of stone rubble in the western and south-western area of the site provides evidence that the service end chimneystack was set against the outer face of a gabled wall. The partition between the service bay and the hall may have been infilled between the aisled posts and outer walls and open in the middle, in the form of a spere truss. Access to the building was through the northern side of this bay; there was no evidence for a cross passage with opposing entrances.

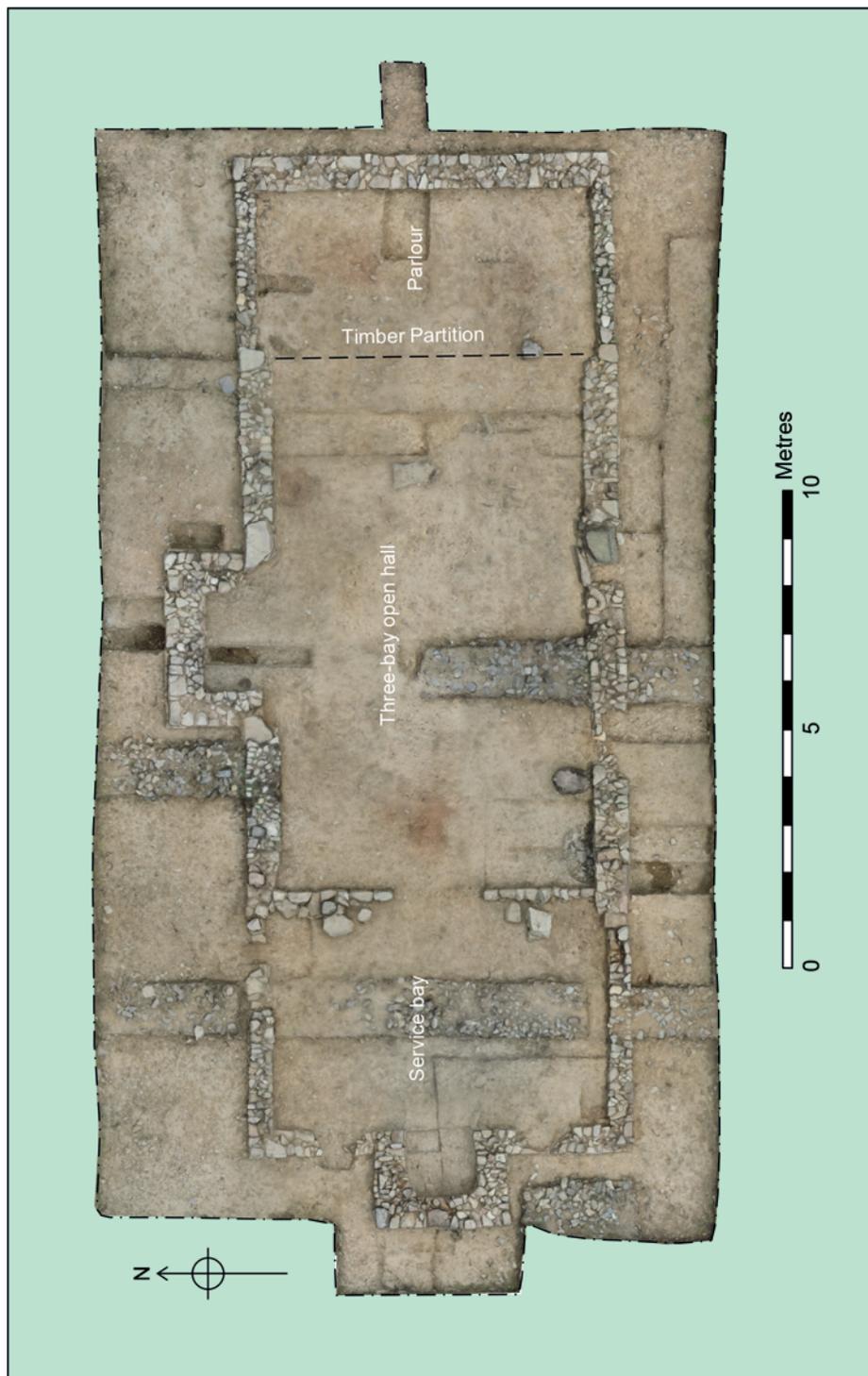


Fig. 19. Orthophotograph of Trench 7, generated from a 3D photogrammetry model.
The full model can be accessed at <https://skfb.ly/R7TF>.

A central three-bay hall, c.8m long, was defined by larger padstones and thicker walls signifying the importance of this space. A later fireplace with an external stone chimneystack was inserted into the northern wall: the lower concentration of stone rubble adjacent to this structure is consistent with a chimneystack set against the outside of the lower side wall. Unfortunately, there was no clear evidence for an earlier central hearth. The inclusion of a fireplace with an external chimneystack is a further marker of the status of the building; while chimneystacks were appearing in high-status buildings with increased regularity in the thirteenth century, the technology does not seem to have become common until the fifteenth century (Dresbeck 1971). Indeed, a ground-floor wall fireplace in a hall is exceptional prior to 1450.

A second partition was identified in the east side of the building and was presumably closed, except for a doorway giving access to a private chamber beyond. The floor of the building is difficult to characterise, although the micromorphological evidence and the paucity of finds suggest an impermeable surface such as a plank floor, underlain by a gravel surface; an exterior gravel surface was also visible to north of the building. The platform was remarkable for the absence of features/deposits, although there was a hint at a possible midden deposit in Trench 8.

The presence of padstones and an internal span of 6.5m would put it at the top end for a normal cruck span, or a post and frame structure of fourteenth century date (Alcock and Miles 2014, 32); however, such a span would be well within the limits of a base cruck. The presence of a spere provides additional supporting evidence (Nick Hill pers. comm.). Thus, a timber post (blade) would have risen from each padstone at ground level and formed the main upright of the wall, until it was truncated by a transverse beam that supported the roof timbers.

Buildings with base crucks and aisled trusses at either end of the hall are paralleled elsewhere in central England, such as Til House, Clifton, Nottinghamshire, which has a hall c.6.0m in length (Grenville 1997, 130–1); however, they are rare in Leicestershire, which has the lowest proportion of base crucks relative to true crucks (4.6%) in the Midlands (Alcock and Miles 2014, 12). Base crucks negated the need for aisle posts within the hall and generally occur in houses belonging to the lesser gentry and wealthy peasants and were in use between the thirteenth and fifteenth centuries (Tonkin 1970; Alcock and Barley 1972, 134–139; Mercer 1975, 99–101; Grenville 1997, 60, 130–1). The fact that the structure at Bradgate Park was a three-bay hall with two base cruck trusses, with a ground-floor wall fireplace, bespeaks its high status. Only the grandest halls, such as Leicester Guildhall or Nevill Holt Hall (Hill 2015), had more than one base cruck truss over the centre of the hall.

Comparison with broadly contemporary park lodges is hampered by the small number of excavated examples yielding structural remains or surveys of extant structures (e.g., Rahtz 1969; Rackham 1989; Papworth *et al.* 1994; Roberts and Miles 1995; Malloy and Hall in press). The closest regional parallel is Donington Park, Leicestershire, where the fragmentary remains of a late medieval building with a dry-stone wall was partially excavated to the north-east corner of a ditched enclosure, set within a deer park and similar in shape to the example from Bradgate Park, albeit enclosing a smaller area (Liddle 1977–78).

Notwithstanding the deleterious effect of soil conditions on the survival of biological remains, there was a genuine paucity of material culture, especially when compared with the smaller excavations at Donington Park (Liddle 1977–78), suggesting that the site was occupied for a relatively short period of time or perhaps only sporadically. The absence of any obviously late medieval vessel forms indicates that occupation ceased some time at the end of the fourteenth century or the beginning of the fifteenth century. There is no evidence that the building was robbed; indeed, the location and composition of the demolition deposits strongly suggests that the building collapsed in stages, perhaps following structural failure of the supporting timbers. This indicates that the park was still private and/or policed at this time. The site then silted over and was covered by vegetation before passing out of memory: the site seems to have been forgotten by the time that Bradgate House was reputedly completed *c.*1520, since there was no attempt to recycle the abundant building materials.

While a refined chronology for the abandonment is absent, reduced investment in maintenance may have occurred in the decades following the Black Death, when depopulation and the shortage of labour resulted in declining aristocratic incomes. The de Ferrers family appear to have been badly affected by the Black Death. As Acheson (2004) notes in reference to the de Ferrers estate, 21 out of 27 villeins died in the manor of Hethe, Oxfordshire, leaving the lands untilled. By 1351, value of the Bradford hundred, Shropshire, had more than halved. These financial difficulties prompted William Ferrers (3rd Baron Ferrers of Groby) to reorganise his estate – exchanging land in Shropshire for Buckinghamshire in 1358 and selling most of his Irish estate in 1364 (Acheson 2004).

A recent review of 8,480 moated sites in England revealed that park lodges are uncommon, with only 54 probable examples (Coveney 2015, 236). There is also some regional variation and potential association with park size: most park lodges in Essex are moated, while moated lodges were rare in Hertfordshire (Ryan 2000; Rowe 2009); in Hertfordshire, 11/13 of lodges occurred in parks over 200 acres (Rowe 2009, 34–5).

Some of the moated sites clearly functioned as hunting lodges for royalty, or the secular or ecclesiastical elite (e.g. King John's Palace, Writtle, Essex), while other sites appear to be associated with park keepers (e.g. Donington Park, Staunton Lodge, Staunton Harold, Leicestershire) (Coveney 2015, 236–7; Liddle 1977–78). Although unmoated, the possibility that such sites served a dual function has been suggested for Edward III's lodge at Odiham, Hampshire (Roberts and Miles 1995).

The variable association of moated lodges with parks lead Coveney (2015, 243) to question whether moated sites in parks signified status; following Mileson (2007), she suggested that individual priorities might have been equally influential. However, the architectural grandeur, innovative features and central position of the moated site at Bradgate Park, and the fact that its demise seems to have coincided with the financial struggles of the de Ferrers family, suggests that the conspicuous display of affluence was a factor. While the site may have served a secondary function as a park-keeper's lodge, the overwhelming evidence suggests that the building was constructed as a hunting lodge and may have been an important place for the barons of Groby for the organisation of the hunt and the negotiation of aristocratic relationships.

ACKNOWLEDGEMENTS

An expanded stratigraphic report with detailed specialist reports, including method statements, is available to download on OASIS: universi1-333099. Sincere thanks to the Bradgate Park Trust, their director – Peter Tyldesley – the rangers and other staff and volunteers, for granting permission to excavate in the Park and supporting our project in enumerable ways. We also acknowledge the support of Historic England and Natural England for granting permission to excavate a scheduled monument located in an SSSI. The excavations would not have been possible without the help and support of the staff and students of the School of Archaeology and Ancient History, University of Leicester. There is also a long list of friends, colleagues and Bradgate Park devotees whom we would like to thank for inspiration, support and guidance: Heidi Addison, Nora Battermann, Matt Beamish, Richard Buckley, Nick Cooper, Neil Finn, Nathan Gubbins, Mark Gillings, Esther Hamilton, Mike Hodder, Liz Johnson, Chris King, Victoria Lucas, Jenni McNulty, Stephen Miles, Debbie Miles-Williams, Jackie Pyle, David Ramsey, Tony Squires, William Thomas and Darren White. Photographs of finds were taken by Sian Holmes. Invaluable comments on our manuscript were made by Neil Finn, Nick Hill, Sian Holmes, Chris King, Stephen Miles and TLAHS reviewers and editors. Mike Hawkes produced Figs A1.1 and A7.1. RT would like to acknowledge the support of the University of Leicester for granting a period of research leave during which this study was written-up.

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