BURROUGH HILL, LEICESTERSHIRE: EXCAVATIONS AT THE HILLFORT IN 1960, 1967 AND 1970–71

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This article presents the results of the important but hitherto unpublished excavations between 1960 and 1971 at the Iron Age hillfort on Burrough Hill, Leicestershire. These examined the inturned entrance, several pits in the interior and an area behind the north-western rampart. The inturned entrance had two structural phases, the latter incorporating a recessed chamber with drystone walls. Radiocarbon dates show that the inturn was constructed in the fourth or third centuries cal BC, whilst occupation in the chamber ended by the early second century cal BC. Many of the pits were contemporary with the entrance, but there was clearly further significant activity in the hillfort in the Conquest period and extensive later Roman use of the site.

INTRODUCTION

Burrough Hill is one of the most striking prehistoric monuments in central Britain and the finest surviving example of a large univallate hillfort in Leicestershire. The hillfort is located on a flat ironstone promontory approximately 7km south of Melton Mowbray (SK7605 1195) lying at a height of *c.*200m AOD, and is defined by an almost continuous trapezoidal rampart of stone and turf, standing up to 3m high internally, which encloses an area of *c.*5ha (Fig. 1). An inturned entrance near the south-east corner of the hillfort is the one certainly original break in the circuit, giving access from the landward side of the promontory.

Hillforts are widely seen as emblematic of the Iron Age but their distribution is uneven, with Burrough Hill being one of few examples in the East Midlands, in contrast with other areas such as Wessex or the Welsh Marches, where such monuments are widespread (Willis 2006, 118). Many of the hillforts that do exist in the region were clearly important foci – Breedon-on-the-Hill in Leicestershire, and Hunsbury and Rainsborough in Northamptonshire being perhaps the best known – but few have seen substantive or recent investigation and our current understanding of them is poor.

Burrough Hill has attracted the attention of antiquarians and archaeologists from at least the sixteenth century, when John Leland visited the site. In the twentieth century successive small-scale excavations in 1935, 1960, 1967 and 1970–71 attest to occupation from the Neolithic to the fourth century AD (Fig. 2). However, apart from short notes in *Transactions of the Leicestershire Archaeological and*

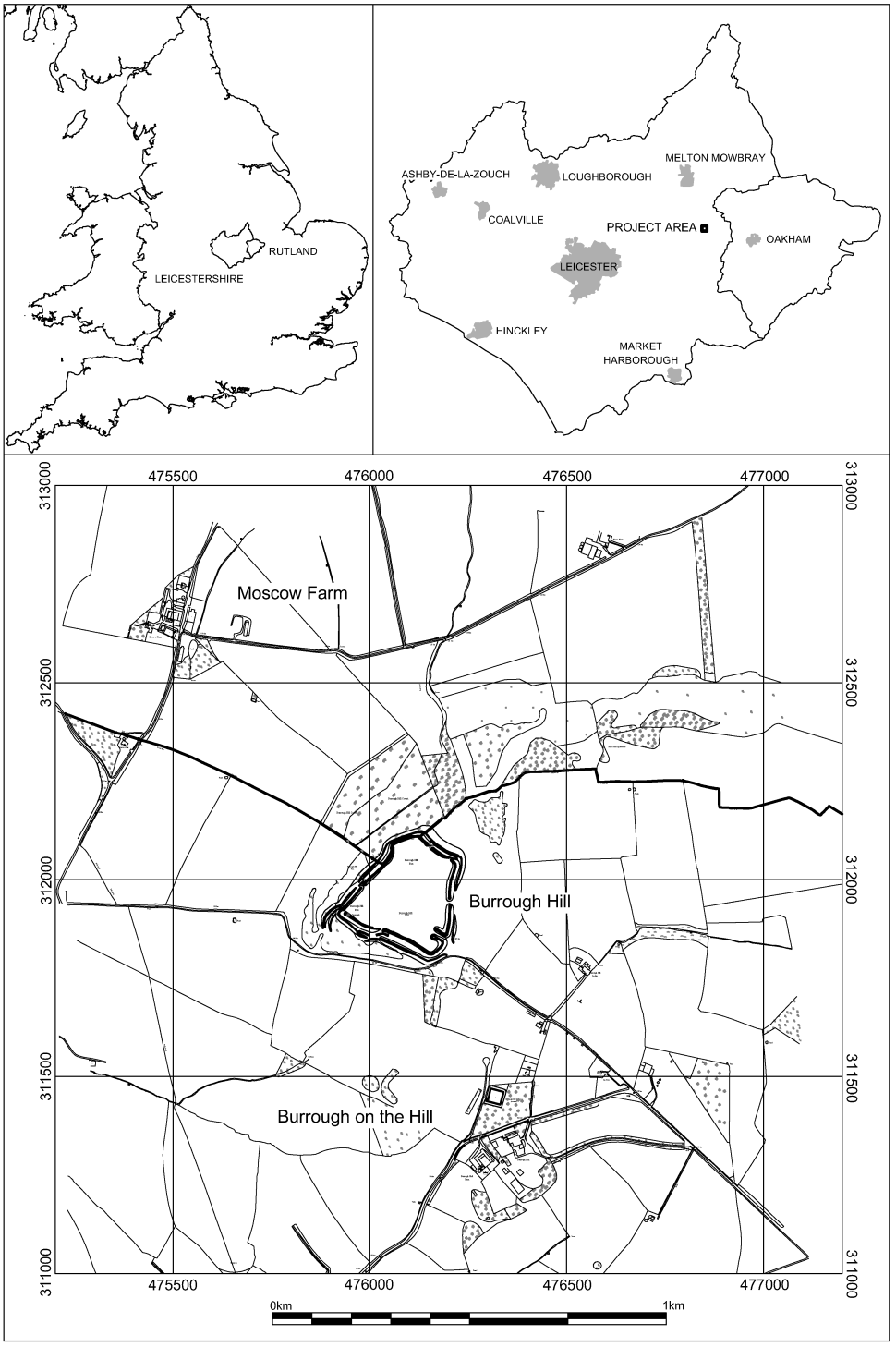

Fig. 1. The location of Burrough Hill in its local and regional context.

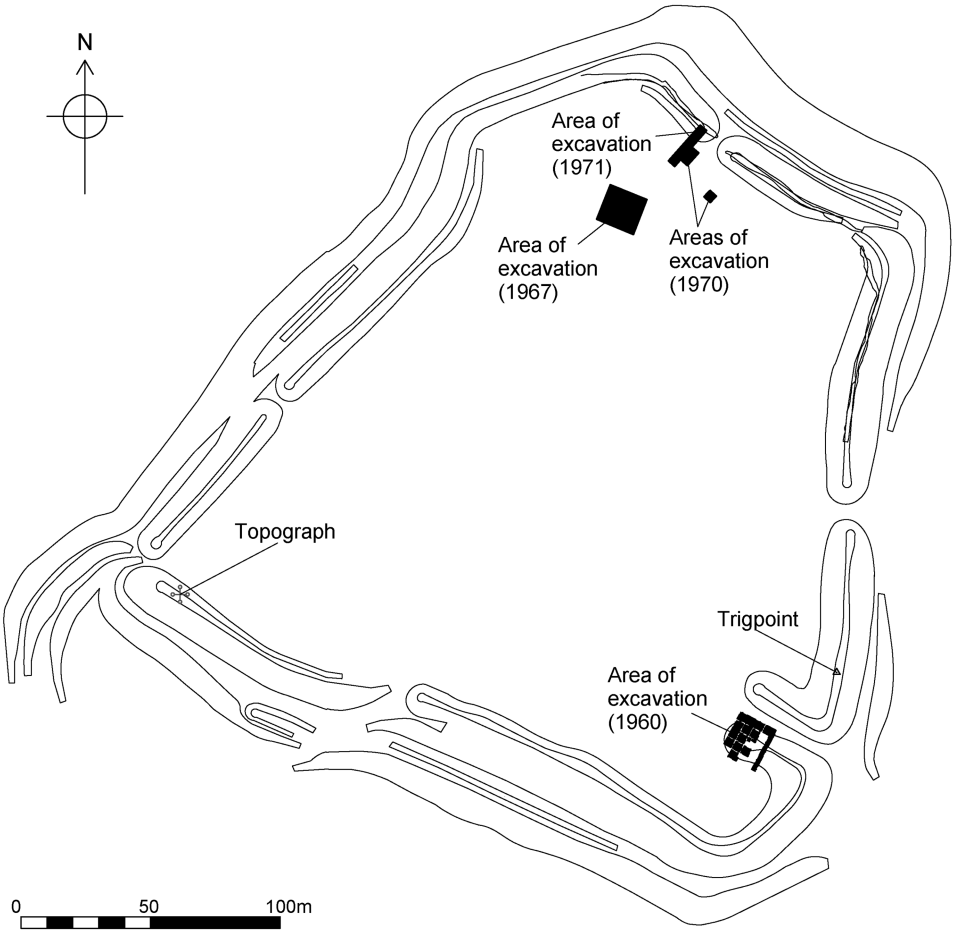

Fig. 2. The location of excavations in 1960, 1967 and 1970–71.

Historical Society (S. Thomas 1960; Brown and Simpson 1968; Thawley 1973), these important excavations have remained unpublished.

Since the 1970s, archaeological research – much of it developer-funded – has shown that Burrough Hill sat within a region of enclosed farms, large aggregated settlements and important ritual foci in the Iron Age (Willis 2006; Score 2011; Thomas 2011). These discoveries provide a new perspective on Iron Age societies in a part of Britain that was once written off as sparsely inhabited and culturally peripheral. As well as providing a secure foundation for further research, this work has exposed the inadequacy of our current understanding of the centrality, or otherwise, of Burrough Hill in its region. What was its social and economic status and relationship with other communities? Do these change over time? Did the occupation at Burrough Hill overlap with other site types or were they mutually exclusive? Why was there a hillfort here at all when such sites are rare in the East Midlands?

To answer these questions, the University of Leicester initiated a new long-term research project and field school at Burrough Hill in 2009. As well as seeking to clarify the nature of activity at the hillfort and its role on a regional level during the first millennium BC, the project will contribute to wider research on the varying histories of hillforts across Britain, the changing perceptions and (re-)use of such monuments in later periods, and the development of distinctive forms of Iron Age economy and society in central Britain.

Thanks to a research grant from the British Academy the project has been able to analyse the archives from the excavations undertaken at Burrough Hill in 1960, 1967 and 1970–71. This work, which focused on the hillfort entrance and ramparts, together with limited exploration of the interior, is published here for the first time. This report has been informed by the results of targeted re-excavation in 2010–11 of the entrance passage, first examined in 1960, and of an area adjacent to the north-western rampart, which was excavated in 1970–71. The 2010–11 excavations will be published in detail, along with the results of seasons planned for 2012–14, but are mentioned here wherever they have a significant bearing on the earlier work. The wider significance of the evidence from the earlier investigations will be further explored in the final report on the current project.

The excavation archives

The archive for the old excavations is somewhat variable, but nonetheless contains nationally significant information.[1] The material consists of site notebooks, photographs, drawings and finds (mainly pottery and animal bone). The record of the 1960 work in the hillfort entrance is the most detailed, comprising three notebooks containing sketches and notes made during the excavations, some 20 photographs of the site, section drawings and plans, and boxes of finds. The 1967 archive consists of site notes and sketches, a plan and section drawings, boxes of bone and pottery, and interim notes on the finds. Various notes, interim find reports, a section drawing and finds survive from the 1970–71 excavations. Specific caveats arising from the archives are noted in the discussion of the different excavations below.

THE HILLFORT ENTRANCE (1960)

A programme of excavation and survey was undertaken at Easter 1960 by University of Leicester students under the direction of Stanley Thomas and James Dyer. The work included a topographical survey of the earthworks, which provided both a hachure plan of the ramparts and a contour survey of the hilltop, as well as two profiles across it (Fig. 3). The hachure plan confirms the broadly trapezoidal shape of the enclosure and shows how it closely follows the contours on three sides. The ramparts are largely intact, although on the north-west side above Burrough Hill Covert it is possible that a length of the defences has been lost to erosion. Most of

[1] Very few records from the excavation carried out in 1935 can now be located. This comprised an area of *c.*36 square yards (*c.*33 square metres) outside the eastern side of the hillfort and revealed a stone wall abutting the rampart. The finds appear to have included animal bone and 12 sherds of Iron Age and Roman pottery.

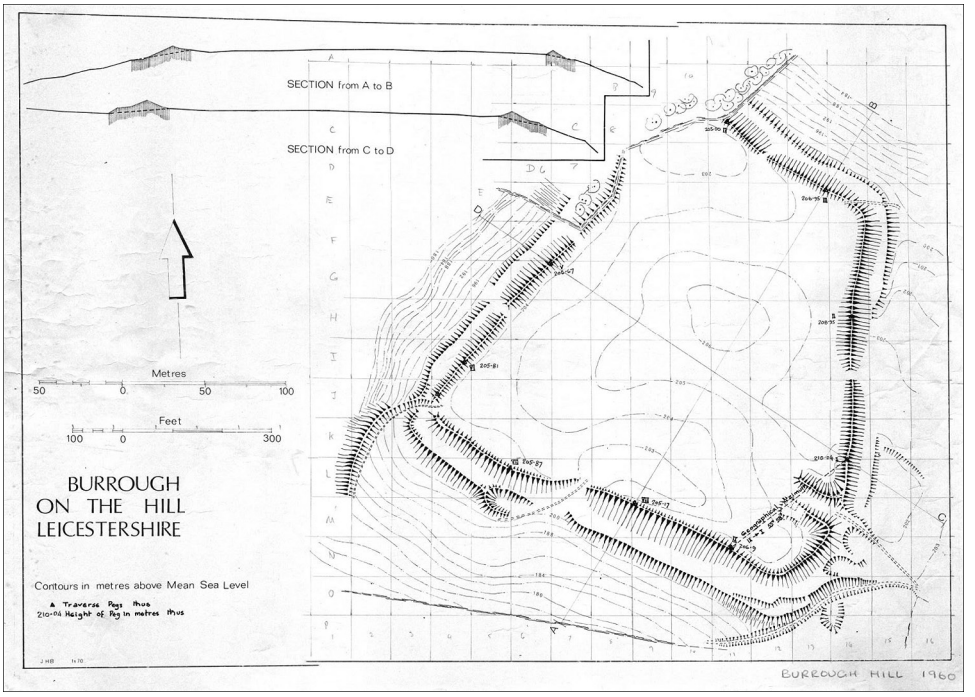

Fig. 3. The 1960 topographical survey of Burrough Hill showing a hachure plan of the earthworks, contour survey of the hill and profiles across the hillfort.

the other minor gaps are clearly a product of more recent erosion, destruction or quarrying. The main entrance into the hillfort on its south-eastern side is clearly shown, its monumental inturned banks creating a passageway around 40m long.

The excavation focused on the southern side of the entrance passageway and inner end of the inturned rampart, covering an area of *c.*1,714 square feet (159 square metres). As was standard practice at the period, the excavation was organised in a grid-pattern of 10ft-square box trenches separated by 2ft-wide baulks, although some of the intervening baulks were later taken down and the squares amalgamated (Fig. 4). The box trenches were given a simple alphanumeric coding, and all recording of features and finds used this nomenclature. A further trench – referred to as the 'long cutting' – some 5ft wide × 34ft long (170 square feet; 15.8 square metres) was placed across the rampart immediately to the east of the main excavation.

On its completion the 1960 excavation had revealed that a cobbled road ran through the entrance into the hillfort, along a passageway created by the drystone-faced walls of massive inturned ramparts. Large post-holes at the westernmost (inner) end of the passage indicated the position of a massive gate. A recessed chamber built into the passageway rampart contained a series of intact hearths and floor layers. The chamber was enclosed on three sides by strong masonry walls, but was open to the road and was interpreted as a guard-house. Such chambers are commonest at hillforts in the Welsh Marches, but also occur in the Cotswolds and along the Jurassic spine of eastern England.

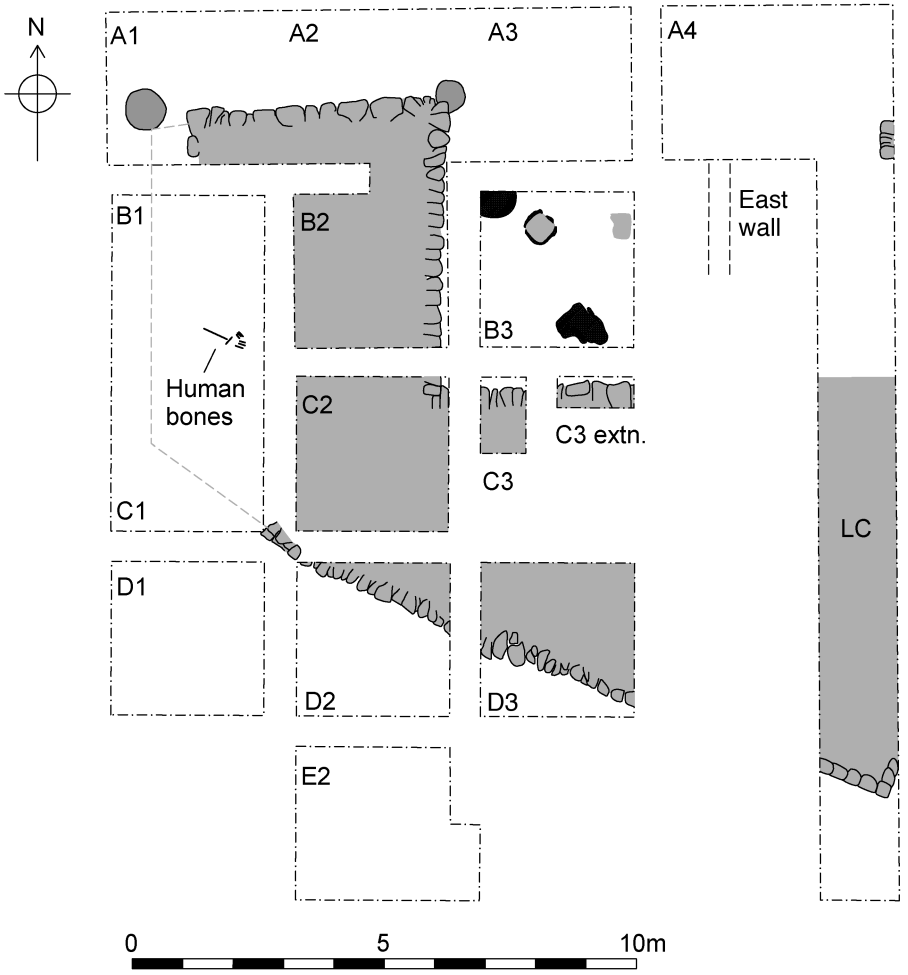

Fig. 4. Plan of the 1960 entrance excavation showing the box trenches and the principal discoveries made. The outer drystone wall faces are shown in detail and the rubble core of the rampart in grey. The two entrance post-holes are shown in Boxes A1 and A3. The entrance chamber, complete with hearths, is shown in Box B3 and the eastern side of the chamber (as understood in 1960) can be seen protruding into the very eastern edge of Box A4.

The entrance rampart (Boxes A1, A2, B1, B2, C1, C2, D2, D3)

The majority of the box trenches were located over the western end of the entrance earthwork. Boxes A1 and A2 revealed a *c*.3.7m long east–west drystone wall footing that formed the rampart face along the entrance passage (Fig. 5). The wall face was well preserved and survived to 2–3 courses (0.3–0.45m) high. Directly behind the wall a substantial body of large boulders formed part of the rampart core. Towards the western side of Box A1 the wall was difficult to distinguish and appeared to have been truncated, although it was felt that the wall may have terminated at its junction with a large post-hole (Fig. 6).

Fig. 5. A view of the road surface looking east and drystone wall of the entrance passage following removal of the baulks between Boxes A1, A2 and A3. The two entrance post-holes can be clearly seen in the foreground and just to the right of the figure sweeping (marked by the upright ranging pole).

A further *c.*6.8m long stretch of well-made drystone wall marking the inner face of the rampart was uncovered in Boxes D2 and D3 (Fig. 7). This wall lay on a north-west to south-east alignment and comprised 4–5 courses of drystone walling similar to that in Boxes A1 and A2. A further section of the wall was uncovered to the east, at the southern end of the Long Cutting where a break in the stonework at the eastern edge of the excavation was thought to indicate that the rampart face turned sharply north-east (see Fig. 4). Behind the wall face, as seen in the entrance passage, a substantial rubble core was revealed. Additional information from Box D3 revealed that these boulders were set into and bonded with sandy clay, but excavation in 1960 did not proceed through the clay layer and in most boxes ceased once the rampart core was encountered.

Fig. 6. The westernmost entrance post-hole, illustrating its relationship with the entrance road surface and the drystone walling.

Boxes B1 and C1 at the western end of the inturn earthwork were generally stone free, providing no evidence of the drystone walls or rubble core that faced the rampart elsewhere. The excavators concluded that this part of the earthwork had been damaged, either deliberately or accidentally, which they referred to as 'rampart mutilation'. What these boxes did reveal was further evidence for the clay components of the rampart construction. In the northern edge of Box B1 a wedge of leached clay was revealed at a depth of approximately 0.3m, running into the eastern box edge. This overlay a deposit of rust-coloured sandy clay. An interesting discovery in this box was the right leg and feet of a human skeleton, uncovered close to the southern baulk between the boxes (Fig. 8). The location of these bones is depicted fairly accurately in a sketch plan, but there are no details regarding their depth or relationship to the clay deposits. The photograph appears to show the

Fig. 7. A view of the excavations from the south-east, facing the hillfort interior and showing drystone walling at the back of the entrance rampart in Boxes D2 and D3.

bones lying above the subsoil, suggesting they lay beneath or within the grey clay, but they could also represent an intrusive later burial. No further parts of the skeleton were revealed when the baulk between Boxes B1 and C1 was removed. Either the lower legs and feet of this individual were buried alone, but still articulated, or they were the only surviving remains of a complete burial within the western end of the rampart that had been disturbed along with the surrounding deposits. Whilst there were no clear indications as to when this happened, the proximity of this part of the rampart to the edge of the open field that lay within the hillfort in the medieval period could suggest a burial truncated by ploughing.

The leached clay deposit continued into Box C1, thinning out towards the south. Beneath this clay was a deposit of 'soft red earth', which may be the same as the sandy clay in Box B1. Though not entirely clear from the records, a stony deposit

Fig. 8. The human remains in Box B1.

in the north-east quadrant of Box C1 appears to have lain beneath the clay. This concentration of stones was about 1m across and protruded from the eastern box edge. It was thought that this might represent a wall footing, although for what reason is unclear. Re-excavation of Boxes B1 and C1 in 2010 identified only a thin, well-compacted stony layer beneath the clay that may be the surviving remains of a pre-rampart surface or hard standing.

A spread of large boulders that formed the core of the rampart was recorded throughout Box C2 and across most of Box B2. In Box B2, however, the boulder core terminated on an east–west alignment approximately 1.25m short of the northern baulk. The absence of boulders in the northern third of the box perhaps implies a gap between the rampart core and the back of the passage wall here, but the archive contains no further details about what lay in the northern part of the trench or possible reasons for this anomaly.

Fig. 9. The easternmost entrance post-hole following removal of the baulk between Boxes A2 and A3, showing its relationship to the entrance passage wall at its junction with the entrance chamber. The drystone wall lying behind the ranging pole forms the western side of the entrance chamber.

The road (Boxes A1, A2, A3, A4)

Part of an entrance road into the hillfort was revealed within Boxes A1 and A2 (see Fig. 5). The intervening baulk was subsequently removed to obtain a fuller view of this feature. The road lay beneath tumble from the rampart, at a depth of 0.5m. A section drawing of the eastern baulk of Box A2 shows at least two phases of cobbling, indicating renewal of the surface at some point. The main road cobbling was separated from the passage wall by a gap in which lay roughly laid large flat stones in a mixed soil and grey clay matrix that may have formed a simple soakaway or drain.

Two large post-holes associated with the road probably represent the remains of a gateway towards the western end of the entrance passage. One was located

at the western end of the surviving passageway wall in Box A1 and was thought to mark the end of the passageway rampart (see Fig. 6). As noted above, however, the western end of the rampart exposed in Boxes A1–C1 appears to have been badly truncated and re-excavation in 2010 suggests that the rampart originally continued west beyond this post (Thomas and Taylor 2011, 10). The second post-hole, revealed when the baulk between Boxes A2 and A3 was removed, lay *c.*7m to the east at the corner of the passageway wall and the entrance chamber. A photograph clearly shows that the post-hole was partially overlain by the entrance passage wall, indicating that the hole was dug before the wall was built (Fig. 9). The post-pipe, however, was respected by the wall, suggesting that the post and rampart wall functioned together. Unfortunately the archive provides little detail about the post-holes, although photographs show that both were fairly comprehensively excavated. A profile of the easternmost post-hole is included in the section drawing from Box A2, illustrating its substantial nature and the presence of large packing stones (Fig. 10).

The entrance chamber (Boxes A3, A4, B3, B2, C3, C3 extn)

The trenches in the north-eastern quarter of the excavation revealed evidence for a walled chamber or room within the entrance rampart and adjacent to the road. The chamber was defined on three sides by drystone walls that were integral to the passageway walls indicating their contemporaneity. No wall or evidence for any kind of timber screen was found on the northern side, suggesting that the chamber was open to the road.

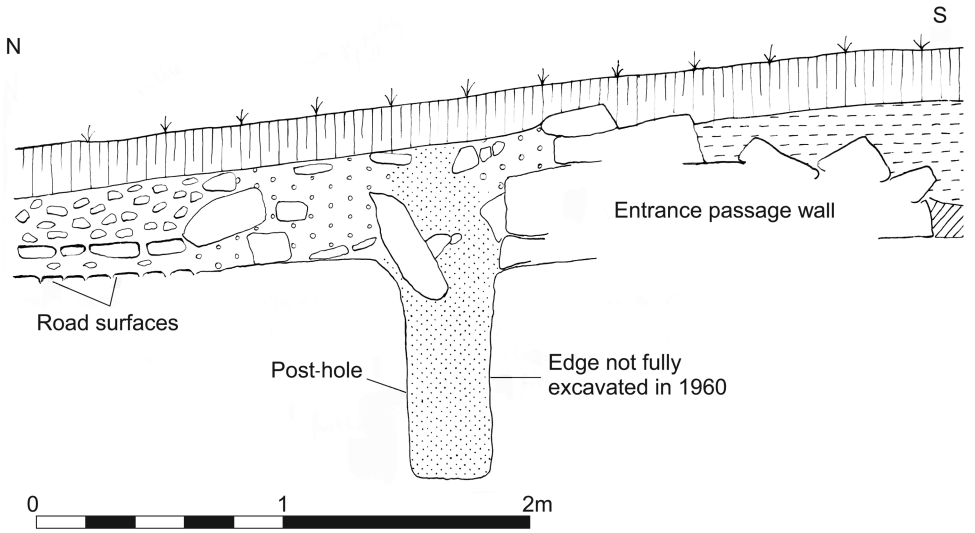

Fig. 10. The eastern section of Box A2 showing the relationship between the entrance road, the post-hole and the entrance passage wall. A large *in situ* packing stone can be seen at the top of the post-hole.

The western wall of the chamber was uncovered close to the eastern edge of Box B2 and beneath the baulk between Boxes A2 and A3 (Fig. 11). The south-western corner of the chamber was exposed in the north-eastern edge of Box C2, and two smaller trenches (C3, C3 Extension) revealed part of the south wall of the chamber (see Fig. 4). Little evidence was recovered for the eastern side of the chamber, but a concentration of stone recorded at the junction of Box A4 and the Long Cutting was thought to represent its north-eastern corner (Fig. 4). On the basis of these findings the impression was of a rectangular chamber *c.*5m deep and 8.5m wide.

Re-excavation of this area in 2011 has, however, modified this interpretation. The concentration of stone seen in the 1960 southern section (a in Fig. 12) can now be seen to represent the butt end of an earlier phase of inturned rampart before the chamber had been constructed (Thomas and Taylor 2012). This rampart was then

Fig. 11. Detailed view of the western wall of the entrance chamber as revealed on the eastern edge of Box B2.

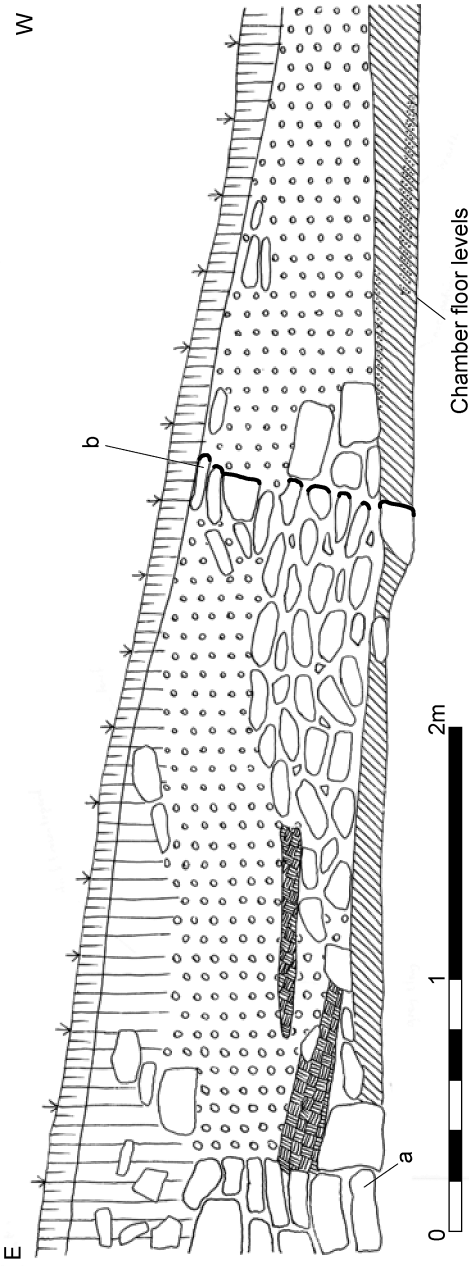

Fig. 12. Section of the southern face of Boxes A3 and A4 showing the first phase of the inturned entrance rampart (a), the second phase of entrance rampart extension and the eastern wall of the entrance chamber (b), and the chamber floor layers.

extended to the west in order to build the chamber, the eastern wall of which can be seen in the 1960 section (b in Fig. 12). It has also become clear that this earlier phase of inturned entrance was itself a modification of the original entrance, the first phase of inturn having been butted on to the perimeter rampart.

We can only speculate why the drystone wall of the eastern side of the chamber was missed in 1960, but the most likely reason is that it ran close to the baulk between Boxes A3 and A4 and was not spotted then or when the baulk was removed. Limited excavation of the southern and eastern sides of Box A4 in 2011 failed to recover any datable material for the earlier phase of rampart inturn, but did uncover a large pit [4080] that pre-dated it (Thomas and Taylor 2012). Most of the pit lay beneath the rampart and the road, but a small part of its western arc was exposed within the footprint of the 1960 trenches. Excavation of the upper fills (4079) of this pit yielded both pottery and animal bone that was submitted for radiocarbon dating (Table 1).

Excavation of Boxes B3 and A3 in 1960 revealed much about the nature and preservation of deposits within the chamber. In Box B3 a fragment of antler 'cheek piece' was recovered from above a layer of stones backfilling the chamber (SF37), but the first deposits for which records survive are from *c*.0.70m deep, where a hearth represented by a dense spread of ash associated with charcoal was recorded in the north-west edge of the box (Fig. 13). This hearth was not given a feature

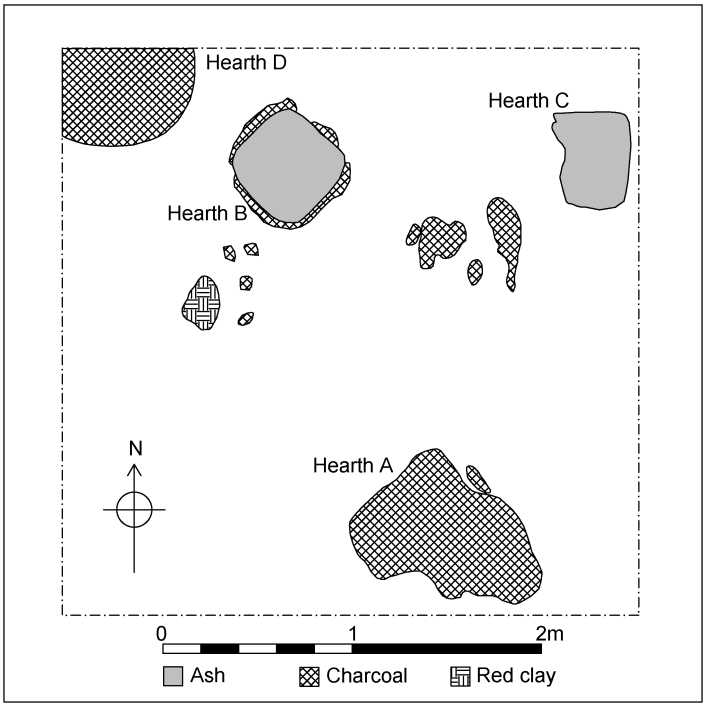

Fig. 13. Detailed plan of Box B3 illustrating the distribution of *in situ* hearths revealed within the entrance chamber in 1960.

code in 1960, but is henceforth described as Hearth D. It was embedded within the uppermost of a series of well-preserved floor and hearth deposits subsequently unearthed within the chamber. Part of this floor deposit was also excavated in 2011 in the eastern part of the chamber and a range of *in situ* broken pottery and animal bone recovered. Sherds of a single smashed pot from this floor surface (4040) were submitted for radiocarbon dating (Table 1).

Just below Hearth D, at a depth of *c.*0.75m, three further hearths or deposits of hearth material (recorded as Hearths A, B and C, Fig. 13) were located in 1960. Hearth A lay in the south-east corner of Box B3, and consisted of a large area of charcoal and fire-reddened clay alongside scattered twig charcoal. To the north, Hearth B was a sub-triangular patch of ash and burnt stone overlying a charcoal layer. A section through this deposit showed it to be composed of an ash layer *c.*25–50mm thick overlying a *c.*25–50mm thick layer of burnt purplish sand. Hearth C was located in the north-east corner of Box B3 and was revealed only in the section. All four hearths lay above a layer of yellow clay and a fifth was apparently revealed at a lower level, but not recorded. A bone gouge was recovered from the deposits close to the southern edge of the trench (SF38). This sequence of deposits highlights the complexity of the remains within the entrance chamber, but as none of the recorded finds could be attributed to a particular feature they could not be accurately dated. The recent re-excavation identified surviving parts of both Hearths C and D, and these were sampled for archaeobotanical remains. Carbonised cereal remains were recovered from both hearths and two samples from each were submitted for radiocarbon dating (see Table 1).

To the north, deposits relating to the use of the chamber extended into Box A3, where the chamber opened onto the road. Across the entrance to the chamber, there was no evidence for the remains of any stone wall or timber screen, although a loose concentration of large rubble boulders was revealed on the eastern side of Box A3. Between these and the western wall of the chamber was a dense scatter of charcoal associated with animal bones and pottery sherds, suggestive of a rubbish deposit or rakings from a hearth. Unlike the hearths in Box B3, no *in situ* burning was apparent, but a complete lower left jawbone of a horse recovered from the south-east corner may be associated with this deposit.

The northern and eastern extent of the chamber floor levels were uncovered in Box A4, but not fully recorded. These floors are shown in section drawings of the trench walls (Figs 12 and 14), depicted as a single layer *c.*0.25m thick with the position of hearths indicated within it. In the western section the floor layers clearly overlay a large shallow pit filled with grey clay and containing large stones (Fig. 14). The archive contains no further information about this pit. An iron brooch of La Tène I form (SF44) was recovered from either the uppermost fills of the pit or the immediately overlying deposit. The stratigraphic relationship of the pit to the road is not shown in this section, although if projected the known line of the latter would have taken it over the pit.

Re-excavation in 2011 showed that the pit [4026] was only partially excavated in 1960. It lay partly beyond the northern limit of the 2011 trench, but enough was revealed to indicate that it was a substantial sub-rectangular feature measuring *c.*3.3m in length × >2m wide × 1.35m deep, and lay beneath the entrance road

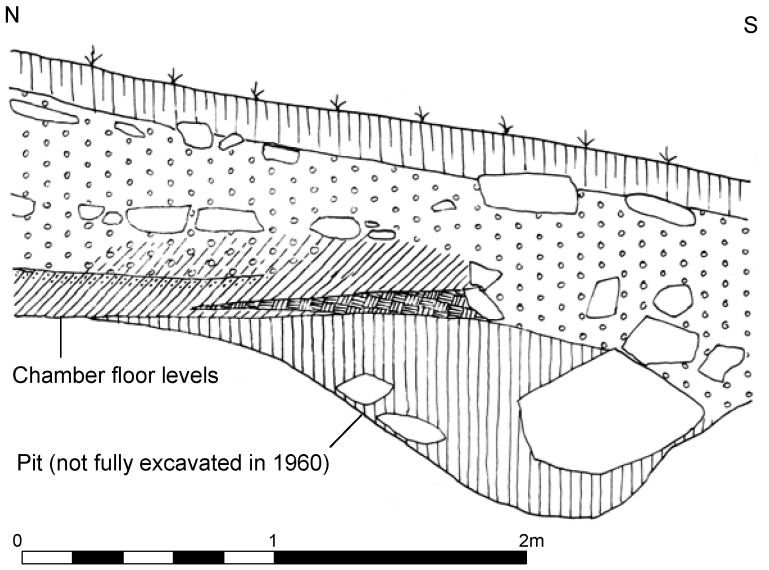

Fig. 14. Section of the western face of Box A4 showing the entrance chamber floor levels overlying the remains of an earlier pit.

and the chamber floors. A thin layer of mid-dark orangey brown friable silty clay (4083) on the pit base may have derived from primary silting of the open feature. This contained frequent sherds of Iron Age pottery and some disarticulated human bone. A crouched inhumation within a stone cist lay directly above this deposit. The remains of the cist comprised two or three courses of large ironstone blocks forming an oval boundary around the body within the eastern half of the pit. A layer of smaller flat ironstone fragments (4062) formed the base of the cist upon which the body had been laid. Several slightly larger stones at the southern end of the cist appeared to have been deliberately arranged in an arc around the head and shoulders of the body, one beneath the head probably acting as a 'pillow stone' (Thomas and Taylor 2012).

The inhumation (4049) was of an adult male, laid on his back in a tightly crouched position (Fig. 15). The left arm lay across the abdomen and the legs had been drawn up over the arm so that the knees were at chest level; the body could originally have been bound or contained within a shroud. The right arm, however, lay outstretched, with the palm of the hand uppermost and apparently extending beyond the 'limits' of the cist. A large iron rivet or spike was found above the individual's right hand. A sample from the right femur was submitted for radiocarbon dating (Table 1). A concentration of large ironstone blocks (4041) lay above the inhumation. Some of these appeared to have tumbled in, probably as the upper levels of the cist lining collapsed, but others may have formed a capping over the burial. At least two very large, flat blocks of ironstone from the top of the feature certainly did cap the cist and marked the point at which the 1960 excavation stopped.

Fig. 15. The burial revealed during the 2011 re-excavation of the pit shown in Fig. 14. The body can be seen in a crouched position within the remains of a surrounding stone cist. The skull has been removed to avoid damage during further excavation of the burial. The entrance road surfaces can be seen covering the backfilled pit near the top of the ranging pole.

Behind the entrance rampart (Boxes D1, E2)

Two of the 1960 box trenches were located to the south of the entrance rampart within the hillfort interior (Fig. 4). No structural remains were found, but a deposit of adjoining sherds of East Midlands Scored Ware was recovered from the east wall of the trench. A 0.45m extension to the eastern side of the trench located no further finds or features.

Radiocarbon dating of the entrance area (*Derek Hamilton*)

As part of the British Academy grant eight samples from the 2010–11 excavations were submitted for radiocarbon dating. As noted above, the recent work has established that the inturned entrance had two main structural phases. The inturned entrance was itself secondary to the original perimeter rampart, which is so far undated.

Stratigraphically, the dated sequence begins with two samples from pit [4080], beneath the earlier phase of inturned rampart (SUERC-38811: 4079A; SUERC-38812: 4079B). The two results are statistically consistent (T'=0.1; ν=1; T'(5%)=3.8) and the samples could be the same actual age. Pit [4080] provides a *terminus post quem* for the first rampart extension phase. A second pit [4026] contained a human skeleton (4049) that produced sample SUERC-38810. This pit is known to pre-date the floor layers in the chamber, although its direct removed stratigraphic relationship to the second rampart extension was when this area was dug in 1960. Pit [4026] provides a *terminus post quem* for the occupation of the chamber.

The other five samples all came from contexts related to the occupation of the chamber. Two results (SUERC-38818 and -38819) are from single cereal grains from Hearth C (4056). The two results are statistically consistent (T'=0.2; ν=1; T'(5%)=3.8) and the samples could be the same actual age. Two further results (SUERC-38813 and -38814) are from single cereal grains recovered from Hearth D (1072) in a stratigraphically unrelated part of the chamber floor sequence. These results are statistically significantly different (T'=170.8; ν=1; T'(5%)=3.8), indicating a mixed deposit. While it is possible that SUERC-38813 is from an intrusive cereal grain that has made its way down through the collapsed rampart material, it also has a slightly enriched $\delta^{13}C$ value (i.e. more positive than expected), which could indicate an irregularity with the sample (e.g. contamination by exogenous carbon). This result has been excluded from the modelling.

SUERC-38820 was taken on the carbonised food residue on a sherd of pottery from the last entrance chamber floor (4040). The result is a few hundred radiocarbon years earlier than might be expected given the ages of the other material. The sherd is one of several from the same broken vessel, giving a high degree of confidence that it was originally deposited in the chamber. The residue on this sherd was particularly thin, however, and it is likely that in the process of removing the residue, some of the pottery matrix was removed and this may contain old carbon. There was only 5 per cent carbon remaining in the pretreated sample, which further suggests that a body matrix may have been incorporated in the sample. The result has also been excluded from the modelling.

Results

There is good agreement between the radiocarbon dates and the modelled stratigraphic relationships (A_{model}=101). The Bayesian model estimates that the dated sequence in the entrance area began in *440–215 cal BC* (*95% probability*; Fig. 16; *start: entrance chamber sequence*). The earlier rampart extension occurred in *370–220 cal BC* (*95% probability*; *build: earlier rampart extension*). The sequence of occupation deposits, hearths and floors in the chamber ended in *355–170 cal BC* (*95% probability*; *end: entrance chamber sequence*). The overall dated sequence spans up to *225 years* (*95% probability*).

Discussion

The small number of radiocarbon dates submitted so far, along with the exclusion of two measurements, and the fact that the dated activity is from around a small wiggle (plateau) in the calibration curve, has generated a model that is not yet overly precise. This has resulted in a likely overestimation of the endpoints and span of the radiocarbon-dated activity (Steier and Rom 2000). The dating programme has

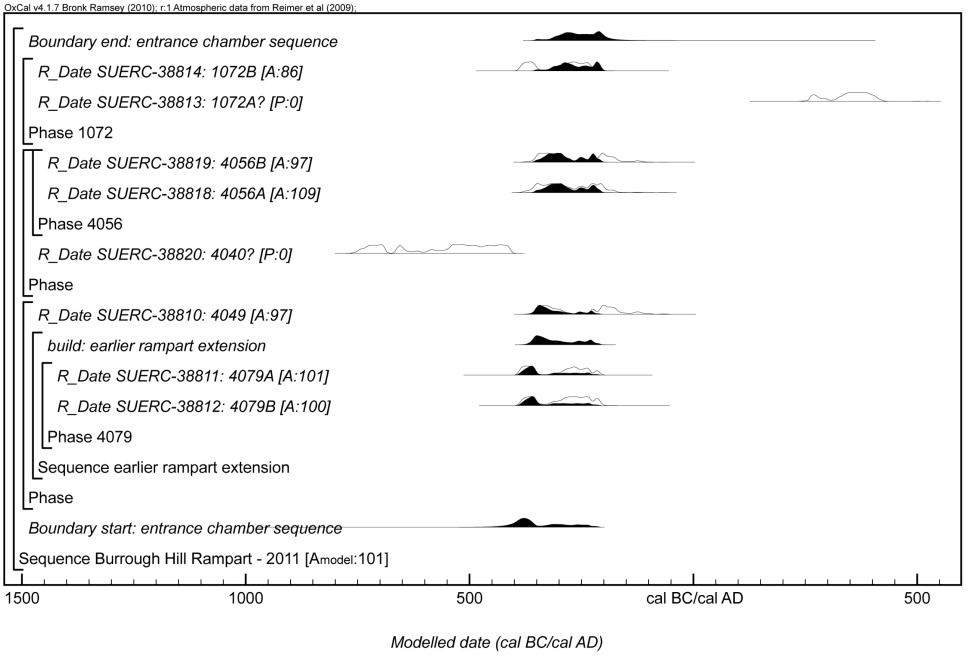

Fig. 16. Chronological model for the dated material from the entrance chamber at Burrough Hill. Each distribution represents the relative probability that an event occurred at a particular time. For each of the radiocarbon measurements two distributions have been plotted: one in outline, which is the result of simple radiocarbon calibration; and a solid one, which is based on the chronological model. The other distributions correspond to aspects of the model. For example, '*start: entrance chamber sequence*' is the estimated date that deposition activity began in the entrance chamber, based on the radiocarbon-dating results. The large square 'brackets' along with the OxCal keywords define the overall model exactly.

Lab ID	Context description/ sample ref	Material	$\delta^{13}C$ (‰)	$\delta^{15}N$ (‰)	C:N	Radiocarbon age (BP)	Calibrated date (95% confidence)
SUERC-38810	burial (4049) in pit [4026]	human bone: right femur	–20.5	10.3	3.3	2,165 ±30	360–110 cal BC
SUERC-38811	fill of pit [4080] underlying earlier rampart extension (4079A)	animal bone: sheep, pelvis	–21.1	4.7	3.2	2,255 ±30	400–200 cal BC
SUERC-38812	fill of pit [4080] underlying earlier rampart extension (4079B)	carbonised food residue	–26.7			2,240 ±30	400–200 cal BC
SUERC-38813	Hearth D (1072A)	cereal grain (single): unidentified	–20.2			1,690 ±30	cal AD 250–430
SUERC-38814	Hearth D (1072B)	cereal grain (single): unidentified	–23.3			2,245 ±30	400–200 cal BC
SUERC-38818	Hearth C (4056A)	cereal grain (single): barley	–22.8			2,195 ±30	380–170 cal BC
SUERC-38819	Hearth C (4056B)	cereal grain (single): barley	–23.8			2,175 ±30	370–120 cal BC
SUERC-38820	floor layer in entrance chamber (4040)	carbonised residue on pot sherd	–25.4			2,440 ±30	760–400 cal BC

Table 1. Radiocarbon dates from the 2010–11 excavations of the hillfort entrance.

nevertheless strengthened the archaeological dating of the sequence of the entrance rampart and chamber activity to post-400 BC.

All the acceptable radiocarbon measurements are statistically consistent (T'=8.4; ν=5; T'(5%)=11.1). The dated activity from within the entrance chamber could therefore be short-lived and belong entirely to either the 400 cal BC or the 200 cal BC side of the plateau, or anywhere in between. The sequence could therefore be considerably shorter than the current model might suggest. Further dating of other elements of the sequence in the coming seasons should allow the chronology to be much better refined.

THE MAIN RAMPART (1960)

In 1960, a small trench was dug into the outer face of the main rampart, revealing a section of well-preserved drystone walling (Fig. 17). The location of this sondage was not recorded and no record survives apart from the photograph, but it lay on the eastern side of the perimeter beneath a large tree still standing part-way between an OS trig point and a large gap in the defences (Fig. 2). The exposed section shows a well-laid drystone wall fronting the exterior face of the rampart. In broad form it appears similar to the wall faces of the entrance passage, but is sloping rather than vertical. Less clear is whether the large volume of material cleared from in front of the wall represents tumble and collapse or a separate, later phase of dump rampart.

Fig. 17. View of the 1960 evaluation trench on the main hillfort rampart, showing the dry stone wall-facing and rubble core.

PITS IN THE HILLFORT INTERIOR (1960)

A proton-magnetometer survey, carried out in 1960 by Martin Aitken over about half the interior, revealed magnetic anomalies suggestive of concentrations of buried features located mainly in the western and northern parts of the hillfort (Fig. 18). A selection of anomalies was targeted for excavation, revealing a series of large pits. The surviving archive for this work is variable; some pits have detailed records but others have none at all, and, whilst there are photographs, many show excavation in progress rather than the fully excavated feature. The known characteristics of the pits are summarised in Table 2. Contextual information about individual pits is only mentioned below where sufficiently detailed to give some sense of the sequence of their creation.

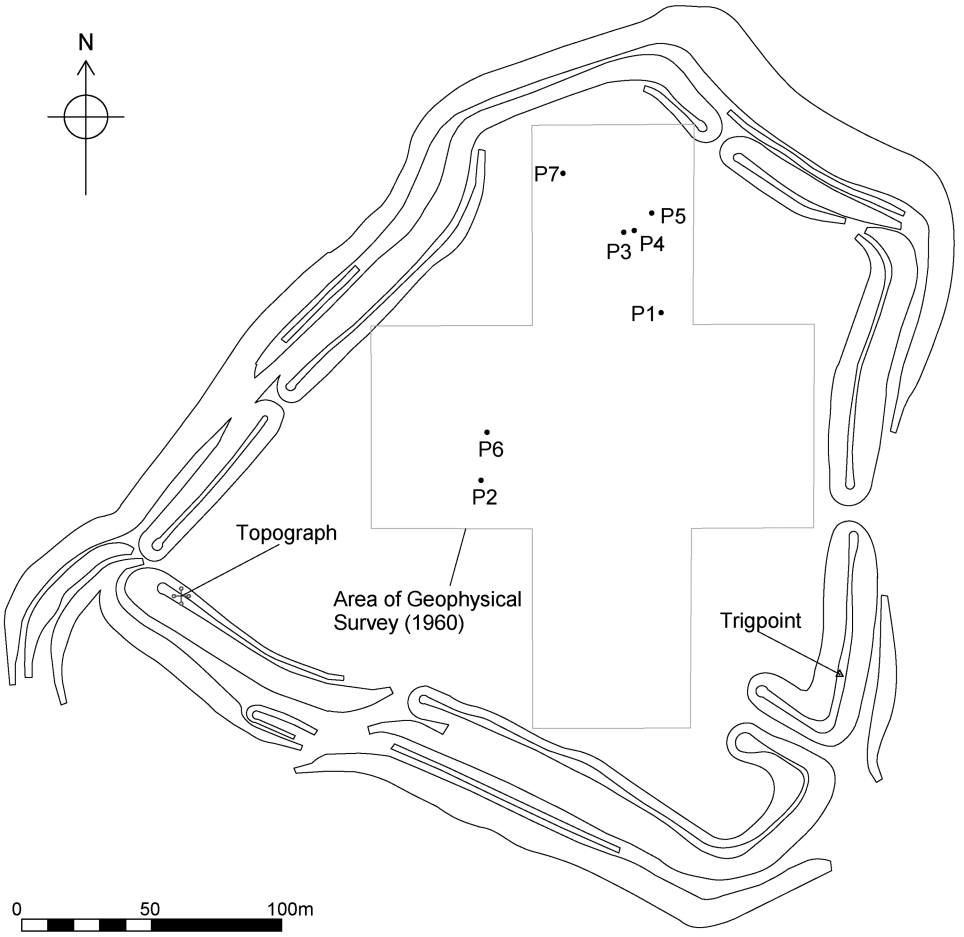

Fig. 18. The location of Aitken's magnetometer survey and the pits excavated in 1960.

Pit no.	Length m.	Width m.	Depth m.	No. of fills	Comments	Figure
1	No surviving records					
2	1.06	Not recorded	0.6	1	Steep sided with rounded base and limestone boulders in fill	19
3	1.06	0.6+	0.7	4	Ovoid, steep sides and flat base	19
4	No surviving records					
5	1.1+	0.73	0.45	4	Sloping sides, flat base	20
6	2.1+	Not recorded	0.76	4	Sloping sides, rounded base	20
7	0.8+	0.8+	1.4	4	Steep sides, flat base	21

Table 2. Summary characteristics of the 1960 pits.

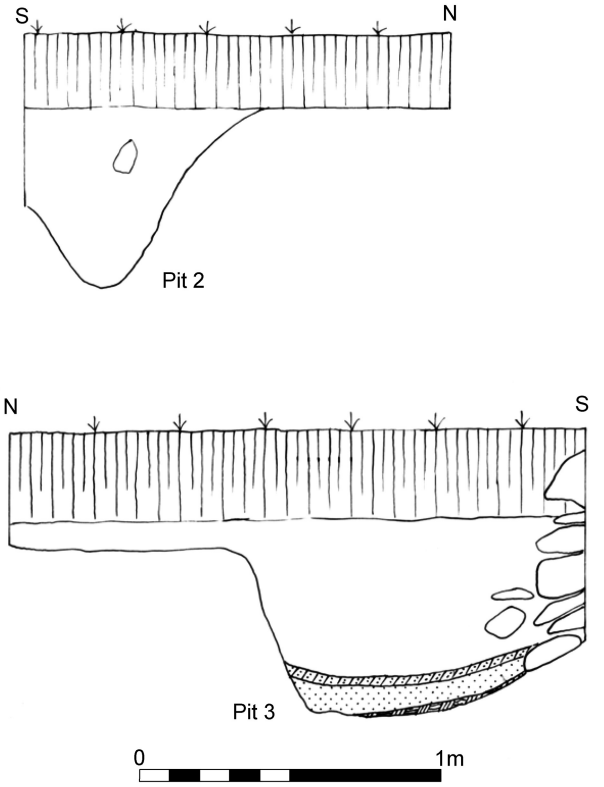

Fig. 19. Section drawings of Pit 2 and 3 in 1960.

In Pit P3 (Fig. 19) a thin lens of grey clay lay centrally on the base, probably natural silting as the pit lay open. This was covered with a *c*.0.09m thick layer of orange soil and then a thin layer of burnt ash. The rest of the pit appears to have been backfilled as a single event, but the composition of this final fill is not recorded. Pit P5 apparently had a similar infill sequence (Fig. 20). A thin lens of clay shown in section possibly represents the remnants of a lining on the northern side. Over this was pea gravel, in turn covered by a thicker orange soil containing ironstone blocks. The final infill was *c*.0.36m thick, but again unrecorded.

The section (Fig. 20) shows two large stones on the base of Pit P6, probably associated with a primary stony fill. Above this on the southern side was a layer of orange soil, overlain by a stone-rich deposit. A layer of grey soil completed the infilling. Finally, Pit P7 was one of the most complex pits discovered and was capped with a layer containing frequent large stones up to 0.3m thick. Beneath this was a deposit of burnt and heat-reddened stones, which overlay a charcoal-rich layer with charcoal 'occurring in clumps'. Below this was a primary fill of loose, fine red soil that contained a placed deposit of two complete rotary quernstones and a complete pottery vessel (Figs 21–23).

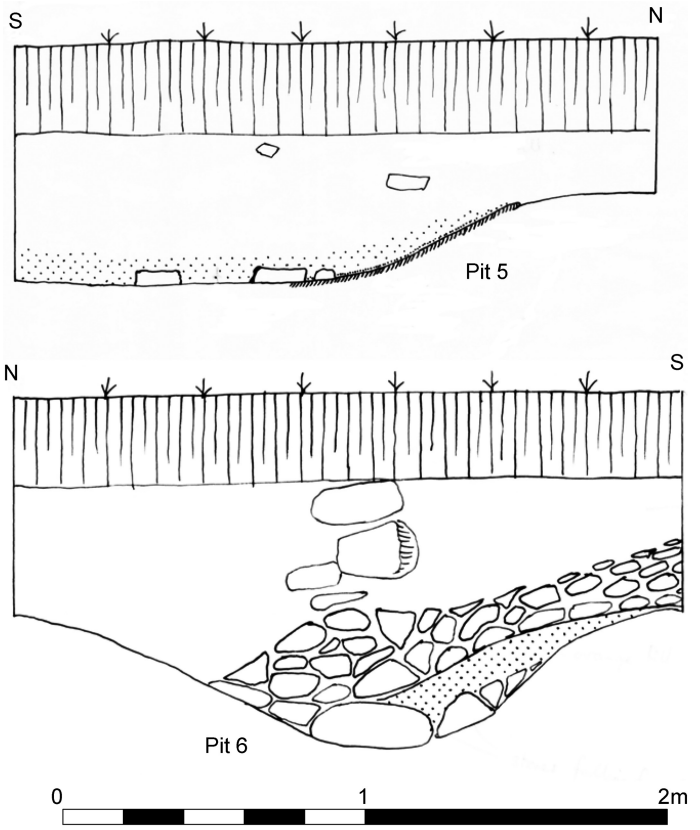

Fig. 20. Section drawings of Pits 5 and 6 in 1960.

FURTHER PITS IN THE INTERIOR (1967)

In 1967, under the direction of Derek Simpson and Tony Brown, a 50 × 50ft trench was opened in the northern part of the interior (Fig. 2 above), where the 1960 magnetometer survey had suggested more pits. The aim was to excavate a range of pits to gather further information on the dating and cultural affinities of the inhabitants. In all, 13 pits and various other features were exposed, most of them in the eastern half of the area (Fig. 24). Once again, the archive is variable and records survive for only half of the excavated pits (Table 3).

Pit I contained a single fill of soft yellowish grey clay, but Pit II, by contrast, contained a series of fills, the earliest of which was a thin layer of bright yellow clay covered with a thin black organic layer (Fig. 25, 12). This was overlain by a thicker deposit of dark red sandy clay (11), up to 0.45m thick. Above this was a *c.*0.15m thick layer of friable clay (10), then a final fill of 'disturbed subsoil' (6), with large stones. Burnt stones (reddened ironstone), a little charcoal and a large mass of stone were noted in the centre of the pit, but it is not clear from which fill this material came.

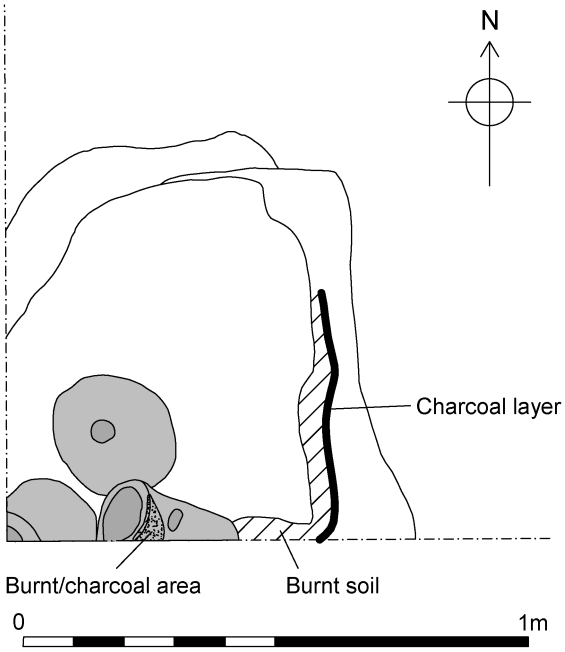

Fig. 21. Plan of Pit 7 partially excavated, showing the distribution of quernstones and location of burnt and charcoal-rich layers.

Fig. 22. Pit 7 during excavation, showing the location of the complete pottery jar alongside top and bottom stones of a rotary quern.

Fig. 23. Pit 7 following removal of the pottery jar to reveal the upper stone from the second quern.

Pit III had a main fill of greenish-grey clay (7), which contained burnt ironstone fragments, charcoal and some abraded Iron Age pottery. Perhaps the pit cut was originally sharper than appears in section and it had been left open for some time to weather, as both sides show an initial infilling of crumbling natural stone. Alternatively, the pit may have been overcut during the excavation.

Excavation revealed Pit IV to be two intercutting features, one dating to the latest Iron Age (henceforth Pit IVa) and the other possibly Roman (Pit IVb) (Fig. 25). The notes refer to large amounts of charcoal, but it is not clear if the source was either or both of the pits. Pit IVa was filled with dark earthy material (2), containing a substantial assemblage of Late Iron Age pottery, including a carinated bowl. The excavation was extended southwards further to examine the second pit, a more substantial oval feature apparently of Roman date. Much of Pit IVb was filled with dark earthy material (5) with clay lenses (4), containing few stones. A final fill, possibly in a recut, consisted of an earth and rubble mix (6).

Pit V was very shallow, possibly severely truncated, and consisted of a roughly circular area of darker earth containing burnt stones and bone. Pit VIII contained a single fill of red clay.

Pit IX appeared to have had a fairly square profile, but its upper edges showed signs of weathering, again suggesting it may have stood open for some time (Fig. 26). The main fill consisted of two deposits, a layer of green clay (13), 0.15m thick at the base, covered by a more substantial deposit of soft dark soil (2) that

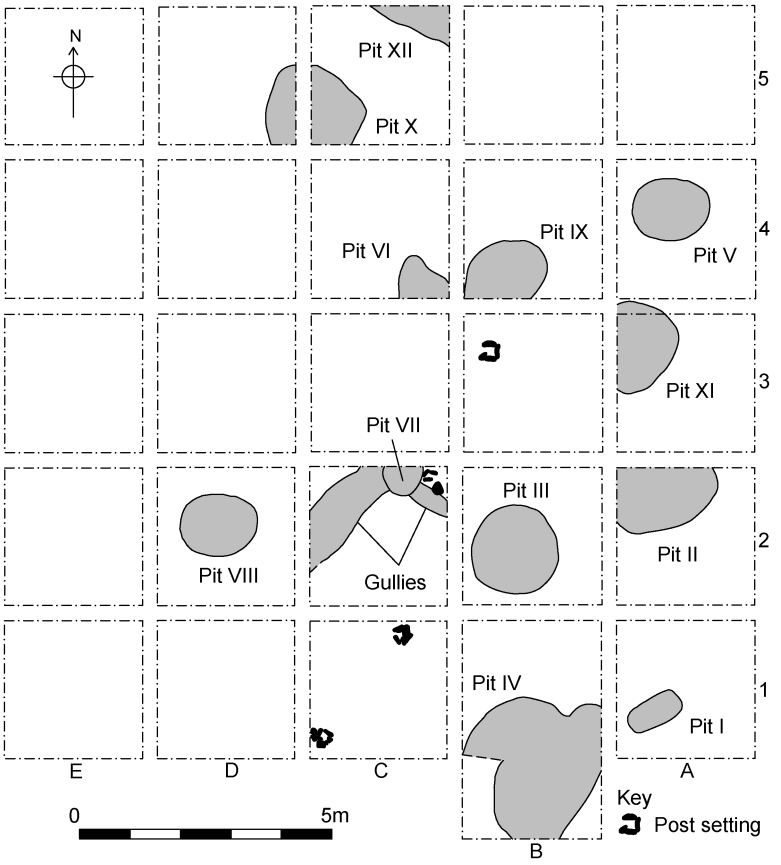

Fig. 24. Plan of the 1967 excavation showing the box-grid trenches and all features revealed during the work.

Pit no.	Length m.	Width m.	Depth m.	No. of fills	Comments	Figure
I	1.06	0.45	?	1	Sub-rectangular	
II	2.2	2.1	0.9	5	Circular, sloping upper sides, steep lower sides and flat base	25
III	1.8	1.8	0.6	2	Circular, steep sides, flat base	25
IVa	1.2	1.2	0.6	1	Circular, U-shaped profile	25
IVb	3	1.2	1.1	3	Ovoid, steep sides, flat bottom	25
V	No surviving records			1	Circular, sloping sides	
VI	No surviving records					
VII	No surviving records				Ovoid	
VIII	1.5	1.2	?	1	Ovoid	
IX	1.5	1.5	0.6	3	Circular, steep sides, flat base	26
X	2.1	2.1	1.3	?	Circular	
XI	1.8	1.8	1.5	4	Circular	26
XII	Partial excavation					

Table 3. Summary characteristics of the 1967 pits.

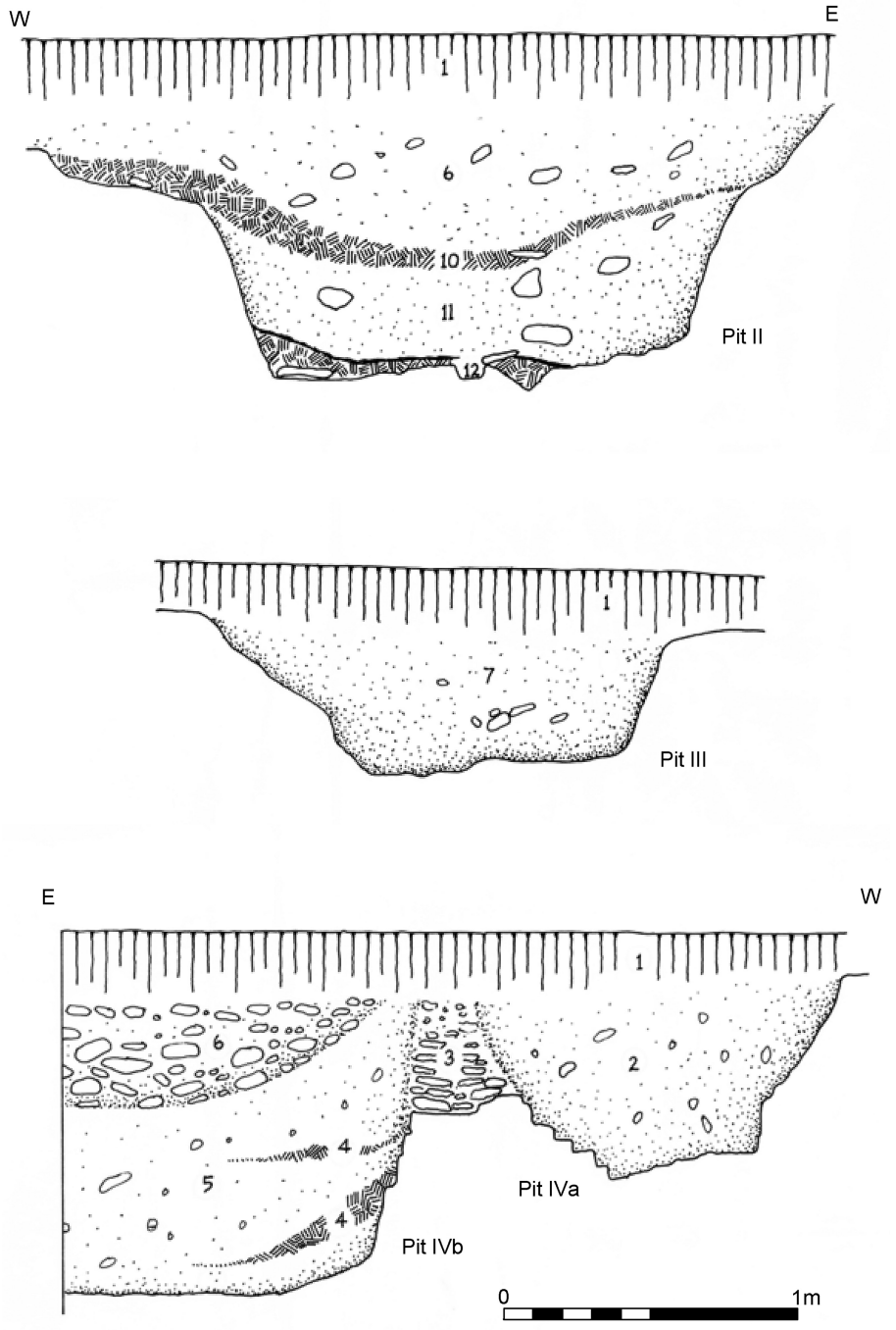

Fig. 25. Section drawings of Pits II, III, IVa and IVb, showing the distribution of layers within them.

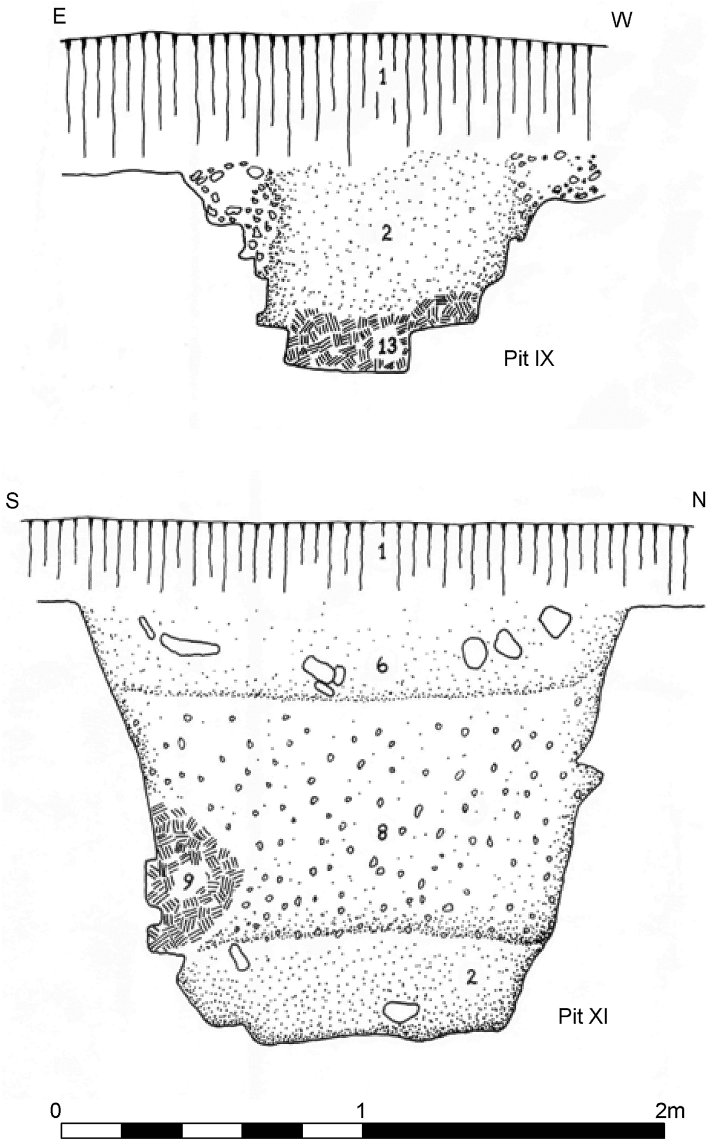

Fig. 26. Section drawings of Pits IX and XI, showing the nature of their fills.

contained a large assemblage of pottery, including rims from eight vessels of both East Midland Scored Ware and Late Iron Age transitional forms, animal bones and charcoal.

Pit XI contained at least four distinct fills (Fig. 26). The earliest was a thin layer (*c.*0.12m deep, otherwise unrecorded) that may either represent initial silting or an overcut during the excavation. Above was *c.*0.3m of soft brown humic soil (2), in turn overlain by *c.*0.75m of loose gravelly soil (8). On the southern side of the pit,

layer (8) contained an isolated deposit of soft red clay (9). The final infilling was *c.*0.30m of soil (6) containing large stones.

Other features

A number of other features revealed in 1967 were not as fully recorded as the pits. Four regularly spaced post-settings formed a linear arrangement *c.*4m long, running north-east to south-west in the southern half of the excavated area (Fig. 24). Each setting was *c.*0.20m wide and defined by roughly circular arrangements of stones, presumably for packing around a post. There is no indication whether any of them were excavated.

Two linear features are shown in Box C2, one referred to as a 'natural gully' in the site notes. The plan indicates that both were excavated, but no details are recorded. It could be that both were deemed natural in origin, but otherwise, along with the post-settings, their presence hints at potential complexity of the archaeology in this part of the interior.

THE NORTH-WESTERN RAMPART (1970–71)

Two excavations were undertaken in 1970 and 1971 by the University of Leicester Students' Union Archaeology Society, focusing on an area backing onto the north-western rampart (Fig. 2).

1970 excavation by M. G. Hope

In 1970 a grid of six 10ft square boxes was dug to examine one of the anomalies from Aitken's geophysical survey and any other previously unrecorded features in the vicinity (Fig. 27). In the south-west corner of the southernmost Box V was a pit (Pit B) cutting through the natural ironstone. This was only partly excavated but was apparently circular, with vertical sides and a flat base. Part of a pair of Roman tweezers was recovered from Pit B, along with pottery of third or fourth century date from fill (3).

An extensive area of cobbling was also revealed running broadly east–west, immediately to the south of the tail of the hillfort rampart. On its northern side this cobbled area was divided from the tail of the rampart by a shallow stone 'kerb'. The significance of these features was not noted in the surviving records, but in 2010 excavation immediately to the west confirmed the continuation of this compact metalled layer for a further 17m, although there was no evidence for any kerb. This surface, of Iron Age date, appears to run broadly parallel to the rampart for a distance of at least 24m, and may mark an intramural trackway or hard standing.

1971 excavation by J. Thawley

A 35ft long × 5ft wide trench was excavated in 1971 into the rear of the rampart, incorporating one of the 1970 trenches in order to link the two. The excavation

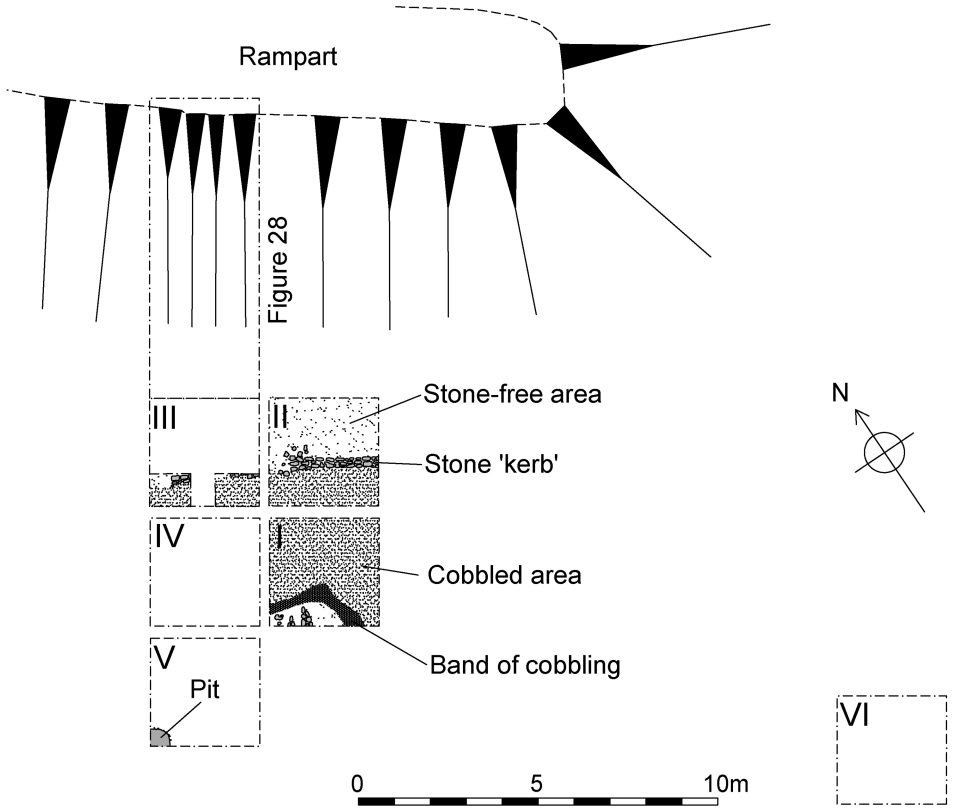

Fig. 27. Plan of the 1970–71 excavations showing the two areas in relation to the adjacent section of the northern hillfort rampart. The 1971 area extended Box III northwards into the rear of the rampart earthwork.

revealed a series of layers at the rear of the rampart that extended into the hillfort interior (Fig. 28). These mostly appeared to relate to the gradual collapse of the rampart over time.

At the deepest point of the trench was natural yellowish brown ironstone bedrock (6), over which was a layer of compact reddish brown soil (5), interpreted as a buried land surface. A layer of ironstone boulders with no soil matrix (4) formed what remained of the rampart, and this was capped with a thick deposit of mid-brown clayey soil (3) containing ironstone fragments. The rampart was thus revealed to have no internal face at this point in the circuit, and was constructed simply by piling up ironstone boulders to form a simple dump rampart, covered by a clay capping to help hold it in place. The tail of the capping was partly overlain by a dark brown topsoil-like soil (1b), probably representing another buried land surface. Both were covered with loose boulder rubble (2), probably rampart tumble, and finally a thick layer of topsoil (1). Iron Age pottery was recovered in and below the tumble.

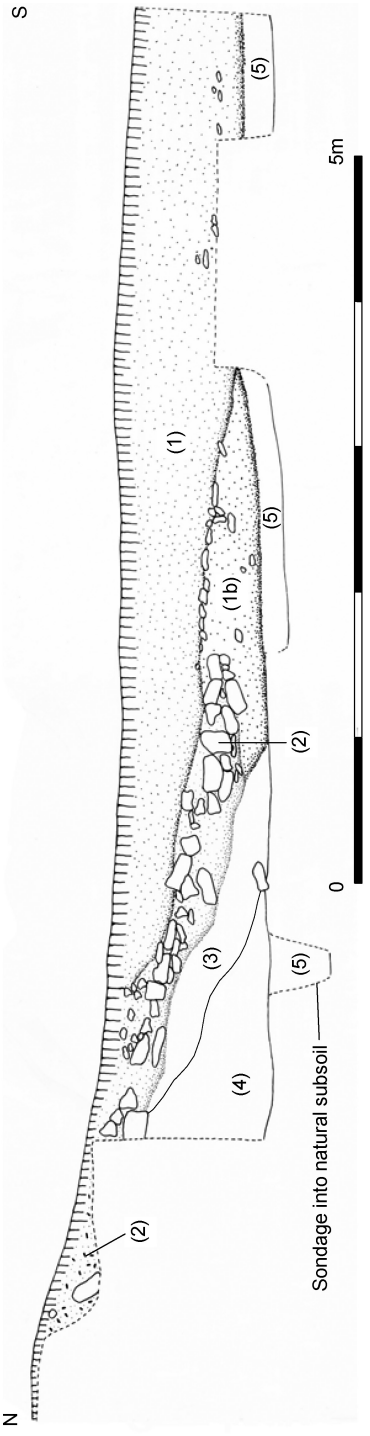

Fig. 28. Section drawing of the eastern side of the 1971 trench showing the rampart and tumble layers.

THE FINDS FROM THE 1960, 1967 AND 1970–71 EXCAVATIONS

Iron Age pottery (*Sarah Percival*)

Excluding four complete or semi-complete vessels, 736 sherds of Iron Age tradition pottery, weighing 14.72kg, were recovered in 1960, 1967 and 1971 (Table 4). No Iron Age pottery appears to have been recovered from the 1970 box trenches.

Fabrics

The assemblage is overwhelmingly shell-tempered, with fabrics containing fossil shell as the main inclusion representing 83 per cent of the total assemblage by weight (Table 5).

Five fabrics were identified in the shell-tempered group. Fabrics S1, S2 and S5 represent a continuum from coarse to fine inclusions. Fabric S2 contains finer shell pieces, which have been crushed before being added to the clay. This fine fabric is the most commonly used within the assemblage, representing over 58 per cent by weight. Coarse fabric S5 also contains sparse, sub-angular quartz and rare fragments, possibly of granitic rock. This fabric represents only 2.1 per cent of the total assemblage, with most of the sherds deriving from a single Scored Ware vessel in 1960 Box E4.

Shell-tempered fabrics similar to S1 and S2 are found in mid to late Iron Age assemblages in eastern Leicestershire and Rutland (Cooper 2000, 67; Evans and Mills 2011, fig. 4), as well as at Weekley and Wakerley in northern Northamptonshire, and Werrington near Peterborough (Jackson and Ambrose 1978, 174; Jackson and Dix 1987, 77; Rollo 1988, 107). Fabric S5, which also contains possible granitic rock pieces, is more similar to fabrics found in south-western Leicestershire, but the shell/rock mix is rare all over the county, occurring in only small quantities at both Grove Farm and Enclosure II at Enderby (Elsdon 1992a; Marsden and Morris 2004) and at Humberstone (Marsden 2011, fabric R4, table 1). The remaining fabrics

Year	Quantity	Weight (g)	No. of vessels by rim count	Average sherd weight
1960	369	10,574	23	29g
1967	339	3,819	16	11g
1971	28	322	2	12g
Total	736	14,715	41	20g

Table 4. Quantity and weight of sherds plus number of vessels by rim count and average sherd weight (excluding complete vessels).

Fabric group	Quantity	Weight (g)	% total weight	Count of no. of vessels
Shell	564	12,182	83%	32
Quartz sand	145	2,054	14%	8
Grog	27	479	3%	1
Total	736	14,715	100%	41

Table 5. Quantity, weight and vessel count by fabric group.

S3 and S4 are fine, containing shell temper, which has been carefully prepared by crushing and perhaps sieving. These fabrics represent late Iron Age to transitional early Roman forms such as globular bead rim jars and carinated bowls. Fabrics equivalent to S3 are found in the latest Iron Age to early Roman pottery from Empingham (Cooper 2000, CG1A, 73). Fabric S4 also contains sparse grog and is equivalent to Marsden's G1 (2011, table 1) at Humberstone, also later Iron Age.

Sandy fabrics make up 14 per cent of the assemblage. Four were identified, including Q1, which contains moderate to common small angular white quartz inclusions and is equivalent to Marsden Q4 (2011, table1), suggesting a mid to late Iron Age date. More numerous are sherds with added sparse to rare shell and large sub-rounded quartz inclusions (QSQ). Fabric Q2 is a finely made late fabric perhaps equivalent to the proto-greywares identified by Hill in Cambridgeshire (Hill and Horne 2003, 168).

Grog temper is rare, making up just under 4 per cent of the total handmade assemblage. Fabric QSG is made of fine silty clay with sparse shell, grog and rare mica. Equivalent fabrics have been found at Humberstone (Marsden 2011, G1, table 1) and within the latest Iron Age/transitional pottery from Narborough (Evans and Mills 2011, fabric E12). A single grog-tempered sherd in fabric G1 has pale orange surfaces with distinctive combed decoration and may be from a grog-tempered storage jar (Thompson 1982, C6-1).

Form

The assemblage includes rims from 41 vessels in a range of forms, as well as the four near-complete vessels. Most commonly found are slack-shouldered jars (eight), with everted or upright rims. The upright rim form is equivalent to form 4 from Enderby (Elsdon 1992a, fig. 24) and form 5 from Weekley (Jackson and Dix 1987), and to a complete vessel found at Empingham (Cooper 2000, fig. 32, 8). The small complete vessel (Fig. 31 below), found with the querns in Pit P7 at Burrough Hill, falls into this class. A second semi-complete vessel found in 1971 has incised scored arcs across the body, and a third from 1960 Box B3 (no context) has deeply incised scoring to the body and slashes to the exterior of the rim. An undecorated jar, also semi-complete, has a diameter at the rim of 250mm and at the base of 160mm, with vessel walls 15mm thick (context and year of discovery not known, but perhaps 1967). An upright rim jar from 1967 Pit IV has a hole that was drilled post-firing, most likely a repair. The everted rim form of this jar is also ubiquitous, being found in mid to late Iron Age contexts at Enderby (Elsdon 1992a, fig. 29, 78) and Humberstone (Marsden 2000, fig. 49, 9 & 11; 2011, fig. 29, 77).

Also common in the assemblage are closed or barrel-shaped ovoid jars, which have no necks and simple flat or rounded rim endings. Four of the six examples found have simple undefined rims, one a short upright neck defined by a thumbed grove below the rim and one a channelled rim. This utilitarian jar form is also found within the later Iron Age to early Roman assemblage (CP2) at Weekley (Jackson and Dix 1987, fig. 37, 98 & 103) and at Wakerley (Jackson and Ambrose 1978, fig. 40, 120), at all sites being made from shell-tempered fabrics.

Five vessels have distinct everted necks above slack or rounded shoulders. Rim endings are simple-rounded or beaded, and surfaces smoothed or wiped (Marsden

2011, fig. 72, 6). These forms are all found at Enderby (Elsdon 1992a, fig. 26, 4 & 19, fig. 27, 34).

One lid-seated rim is similar to an example found at Humberstone (Marsden 2011, 65). A bucket-shaped vessel found within tumble at the base of the entrance passage wall (1960 Box A2) finds parallel in the assemblages from both Humberstone and Weekley (Jackson and Dix 1987, fig. 38, 120; Marsden 2000, fig. 48, 5) and is also later Iron Age.

Large sherds from three distinctive globular, bead rim jars with horizontal scored bands below the neck were found in 1967 Pits II and IX. The jars, which are made of fine shell-tempered and shell, quartz and mica fabrics, have been found at Empingham dated to the mid-first century AD (Cooper 2000, fig. 34, 6) and in the contemporary assemblage from Werrington (Mackreth 1988, fig. 29, 113). Three narrow-mouth versions of these globular jars came from 1960 Pit 4 and 1967 Pit IV. A foot-ring base from 1960 Pit 4 may be from the same vessel. These vessels compare well with first century AD vessels from Weekley (Jackson and Dix 1987, fig. 39, 147), suggesting that they represent a very late Iron Age or transitional form.

Two handmade carinated bowls are also very late Iron Age transitional forms. The first vessel, from 1960 Box A4, is made of fine sandy fabric with finely burnished exterior. It has a neat beaded rim with a rim diameter of 110mm and is similar to mid-first to early mid-second century AD examples from Empingham (Cooper 2000, fig. 34, 4). The second bowl, from 1967 Pit IV, is made of fine, shell-tempered fabric CG1 and is also found at Weekley in mid-first century deposits (Jackson and Dix 1987, fig. 39, 144).

Scoring is found on 24 per cent of the assemblage (by weight), with lighter vertical wiping present on a further 10 per cent. The range of scored techniques varies from coarse rough-wiping to sharply incised arcs. Around 50 per cent of the sherds are burnished or smoothed.

Discussion

The Burrough Hill pottery compares well with the large late Iron Age assemblages from Weekley and Wakerley (Jackson and Ambrose 1978; Jackson and Dix 1987). Both these Northamptonshire sites, especially Weekley, produced shell-tempered wares, including distinctive undecorated closed ovoid or barrel-shaped jars alongside scored shouldered jars. Dating of East Midlands Scored Ware is controversial, with some authors suggesting a fourth or even fifth century BC origin (Elsdon 1992b; Knight 2002, 134). Whether or not this is so, Scored Ware had a long currency: in some areas, particularly the lower Nene and Welland valleys, its use continued 'well into the 1st century AD' (Knight 2002, 134), as at Werrington (Mackreth 1988, 116–18), and in Leicestershire vessels with scored surfaces continued to be used into the latest Iron Age at Humberstone (Marsden 2011, 66).

The presence at Burrough Hill of closed pit groups, containing both transitional carinated and globular bead rim jars and scored vessels, goes some way to confirming the longevity of Scored Ware in the region. Knight suggests that in many areas scoring was replaced by combed forms (Knight 2002), but only one combed jar was found in the present assemblage, and it remains unclear if these combed forms entirely replaced those with scored surface treatment or merely supplemented them.

Slack-shouldered and ovoid closed jars occur in some quantity at Enderby and Humberstone, although the fabric of those assemblages differs significantly from Burrough Hill in being primarily granitic rock-tempered (Elsdon 1992a; Marsden 2000; 2011). The difference in fabric selection at broadly contemporary sites reflects the mid to late Iron Age division between assemblages from western Leicestershire – which are largely tempered with granitic rock – and those from the east of the county and north Northamptonshire – which are shell-tempered (Cooper 2000, 67; Evans and Mills 2011, fig. 4). A similar schism is found in the third to first centuries BC in Cambridgeshire, with shell-tempered Scored Wares being made and used by people in west Cambridgeshire, and sandy-tempered plain wares by those in the south and east. The fabric selections do not always follow the dominant geology and may perhaps reflect cultural choice, maybe linked with family or other kinship preference (Hill and Horne 2003; Percival 2008, fig. 2.11). It is likely that a similar mix of influences is reflected within the later Iron Age pottery from Leicestershire. Chemical analysis of shell-tempered wares found at Manor Farm, Humberstone and Hallam Fields, Birstall showed similarities with shell-tempered wares from East Yorkshire and Lincolnshire, but not Cambridgeshire, and suggested that the source of the shell was Jurassic clays such as those in the Trent valley or the Yorkshire Wolds (Vince in Thomas 2011, 80), or boulder clays derived from their erosion which could also apply to Burrough Hill.

Roman pottery (*Nicholas J. Cooper*)

A total of 3,014 sherds of Roman pottery, weighing 20.8kg, were recovered during the four seasons. The majority derived from topsoil and rampart erosion layers, but there are a number of usefully stratified groups, particularly relating to the conquest period. Four times as many Roman sherds were recovered than Iron Age, but their average sherd weight (6.9g) is only a third of the Iron Age sherds (20g, excluding the complete pots), and many are very abraded.

1960 EXCAVATIONS

A small group of 105 Roman sherds, weighing 1kg, was recovered (Table 6).

Only nine Roman oxidised and grey ware sherds came from the entrance area, their abraded nature suggesting that they reflect later land use during the second and third century AD, as there is nothing to indicate that they were stratified. The lack of Nene Valley colour-coated ware would indicate a lack of fourth-century material from this part of the hillfort.

The remainder of the 1960 Roman assemblage came from the pits in different parts of the interior, primarily Pit 4, in the northern corner, but also Pits 1, 2 and 5, with none from Pits 3, 6 and 7.

1967 EXCAVATIONS

A total of 990 Roman sherds (7.7kg) were recovered from the northern interior (Table 6), near 1960 Pits 3–5. The 1967 pits yielded over 300 sherds of Iron Age pottery, including vessels that date to the conquest period. A minority of Roman sherds are attributed to the pits, but it is likely that most came from the upper fills and the pits themselves are of Iron Age – or at least first century AD – date. The

	1960 Excavations				1967 Excavations			
Fabric	Sherd no.	Wt	% sherd	Av. sh. wt	Sherd no.	Wt	% sherd	Av. sh. wt
Samian	1	1	1	1	0	0	0	0
Nene VCC	9	64	9	7	132	770	13	6
Oxford CC	1	2	1	2	1	6	<1	6
Mort	1	90	1	90	3	33	<1	11
Grey	57	355	54	6	526	4,173	53	8
BB1	1	5	1	5	1	2	<1	2
White	7	40	7	6	21	180	2	9
Oxidised	23	394	21	17	27	87	3	3
Sandy	5	50	5	10	15	120	2	8
Shelly	0	0	0	0	82	575	8	7
Mixed grog	0	0	0	0	177	1,595	18	9
Grog	0	0	0	0	5	161	<1	32
Total	105	1,001	100	10	990	7,702	100	8

Table 6. Quantified summary of Roman pottery from 1960 and 1967.

exceptions are Pit XI, which appears to be mid second or third century AD in date, and Pit IVb of mid–late first century AD.

The bulk of 1967 Roman pottery was unstratified, and comprises an abraded and primarily third- to fourth-century assemblage including grey wares, Lower Nene Valley colour-coated wares and a single sherd of Oxford red colour-coated ware, which confirms that the assemblage stretches into the later decades of the fourth century. Wares from the Nene Valley are most diagnostic. Whilst a few sherds belong to beakers of later second and third century date, including a bag-shaped beaker with *en barbotine* decoration (Howe *et al.* 1980, no. 29), the vast majority of vessels belong to the fourth-century repertoire of jars, flanged bowls and plain-rimmed dishes (Howe *et al.* 1980, nos 75–7, 79 and 87). The assemblage as a whole is rather different to the underlying pit features and it might be that ploughing has dispersed late Roman midden or occupation material.

1970–71 EXCAVATIONS

The 1970–71 Roman pottery (Table 7) is predominantly third to fourth century in date and very similar to the 1967 unstratified material also from the northern end of the hillfort.

The 1970 assemblage does contain a little material of earlier date, including samian ware of later first and second century date. Some 67 per cent of the assemblage comprises grey wares spanning the second to fourth centuries, most being of third and fourth century date. The Lower Nene Valley colour-coated range does include beakers of later second and third century date, as well as the more abundant fourth-century repertoire. The occurrence of regional imports such as BB1 and Derbyshire ware is significant and a small proportion of the shelly wares are diagnostically later products of the Harrold (Bedfordshire) industry of fourth century date.

The majority of the 1971 material comes from layer 1 (see Fig. 28) and is again mostly late. Some of the grey ware is from the Lower Nene Valley (GW4) and will be of later second and third century date. The rest of the grey ware is less diagnostic

	1970				1971			
Fabric	Sherd no.	Wt	% sherd	Av. sh. wt	Sherd no.	Wt	% sherd	Av. sh. wt
Samian	21	42	1	2	1	1	<1	1
Nene VCC	246	1,307	14	5	21	155	10	8
Mort	28	403	2	14	2	40	1	20
Grey	1,143	6,754	67	6	141	1,205	65	9
BB1	8	49	<1	6	0	0	0	0
White	19	129	1	7	0	0	0	0
Oxidised	54	196	3	4	0	0	0	0
Sandy	9	72	<1	8	1	5	<1	5
Shelly	154	1,175	9	8	46	255	21	6
Swanpool	0	0	0	0	1	15	<1	15
Grog	3	50	<1	17	3	25	1.5	8
Derbys. ware	1	12	<1	12	0	0	0	0
Mixed grit	8	93	<1	12	1	10	<1	10
Harrold shell	7	134	<1	19	0	0	0	0
Mica dusted	1	7	<1	7	0	0	0	0
Total	1,702	10,423	100	6	217	1,711	100	8

Table 7. Quantified summary of Roman pottery from 1970 to 1971.

but, given the date of the accompanying colour-coats, most is fourth century. The Lower Nene Valley colour-coats are mainly from the fourth-century repertoire, and in addition there is a bowl rim with white-painted decoration paralleled at Lincoln from a late Roman deposit and probably made at Swanpool in the later fourth century (Darling 1977, 7, fig. 1.21). The remainder of the pottery from layer 1 is shell-tempered; from the few rims present this is the typical late Roman shell-tempered ware from Harrold, which indicates a date in the fourth century if not its later decades. A small group of material described as from the 'top of tumble' (Fig. 28, layer 2), included fourth-century material, whilst the three sherds from 'among tumble' are probably of third century date.

Pottery deposition and the dating of the pits (*Nicholas J. Cooper*)

The entrance 1960

Nine box trenches produced Iron Age pottery, most yielding small groups of less than 200g (Fig. 29). Three squares (A3, A4 and B3) in or near the chamber did, however, produce more significant assemblages of over 400g. Rims from six vessels included the transitional carinated bead-rim jar and two everted rim slack-shouldered jars. Heavily burnt sherds were recovered from Boxes A3 and B3. A smaller assemblage of heavily abraded scored wares was collected from Box E2. The entrance material is predominantly of Middle Iron Age character.

The pit groups

The lack of contextual information makes detailed assessment of the process and date of infilling the pits difficult, but the pottery recovered gives some opportunity to consider their broad chronology.

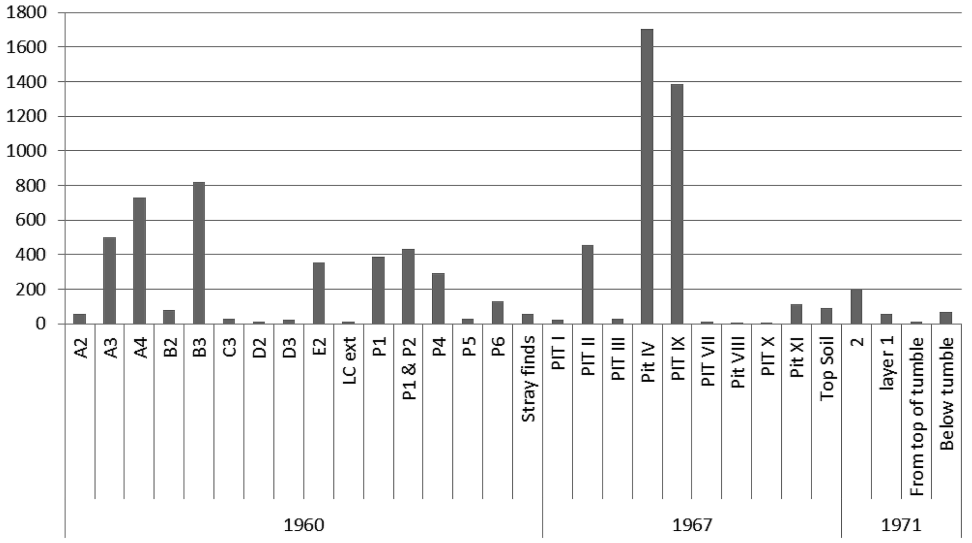

Fig. 29. The quantity of Iron Age pottery by weight (grams), by trench or feature by excavation year

1960

Pit 1 produced a large assemblage of Iron Age sherds. The only certainly Roman material comprised fragments of a bowl in Lower Nene Valley colour-coated ware dating to the fourth century, an oxidised or abraded white-slipped ware flagon handle dating to the second or third century, and nine sherds of grey ware mainly from the Lower Nene Valley, also dating to the third century. The only stratified vessel definitely from Pit 2 is the near-complete profile of a wheel-thrown, carinated bowl in fine oxidised fabric (OW6), which must date to the middle or perhaps later decades of the first century AD at the latest.

The large Iron Age assemblage from Pit P4 included the partial profile of a transitional late Iron Age globular narrow-neck jar, and a number of burnt or re-fired sherds. The Roman material spans the later first to fourth century in date, but, from its abraded condition, does not appear to represent a primary deposit. Three Iron Age sherds were recorded from Pit 5 and 13 from Pit 6, neither pit producing any Roman material. Pit 7 contained a complete Scored Ware vessel and two beehive querns, but no other pottery. No pottery is recorded from Pit 3.

Pits 1 and 4–7 are therefore probably of Iron Age date. Pit 2 is likely to have been in use then or in the immediate post-conquest period. Other than the carinated bowl from Pit 2, the Roman material is very fragmented and of wide date range; it is most likely to be from the upper fills of these pits, although this is not absolutely certain from the excavation record.

1967

Pit I produced only three sherds of Scored Ware in shell-tempered fabric S1, including a plain upright rim, and a single small Roman grey ware (GW) sherd perhaps dating to the later first or second century. Nine abraded Roman sherds (64g) came from Pit

II, five of undiagnostic grey ware and four from Lower Nene Valley wares of fourth century date, including bowl, dish and Castor Box forms (Howe *et al.* 1980, nos 80, 87 and 89). The largest and best preserved sherds in Pit II were, however, Late Iron Age or even mid-first century AD in date, including rim and body sherds from a globular bead rim jar with horizontal scored band. The pit would appear to be Iron Age in date, with the Roman material presumably, but not demonstrably, intrusive in the upper fill. Pit III yielded 13 Roman grey ware sherds, some of them joining from a jar with lattice decoration, and one of Lower Nene Valley colour-coated ware from a funnel-necked beaker probably of later third or fourth century date. Five Iron Age sherds included a barrel-shaped jar with an upright rim. Again, this may be an Iron Age pit with Roman material in its upper fills.

The excavation record for Pit IV indicated that there were, in fact, two intercutting pits (Pits IVa and IVb), but there is now no way of separating their finds. If the original ascription is correct, Pit IVa would appear to date to the very Late Iron Age or conquest period and contained a large assemblage. Of note are the substantial remains of two vessels in a transitional LIA–Roman style: one is a carinated bowl in a fine sandy oxidised fabric with fine shell inclusions (Fabric S3) and burnished external surface (Jackson and Dix 1987, fig. 39.144), and the other is a globular, narrow-necked jar in a mixed-gritted (MG2 but mainly quartz sand) fabric. Parts of other vessels, a bead rim jar in a transitional grog-tempered fabric (GT) with band of incised 'C' motifs on the shoulder, and a sandy ware (SW) jar, were also present. Handmade Late Iron Age vessels included three jars with plain upright rims, one in an unusual sandy fabric with chaff tempering and impressions, and another with an everted bead rim, similar to those from the latest phase at Enderby (Elsdon 1992a, fig. 29.82). If there was a distinct Roman assemblage from Pit IVb, then it is of mid–late first century AD date.

Pits V and VI contained no pottery, whilst Pits VII, VIII and X contained only small quantities of Iron Age pottery.

Pit IX contained a large group of late Iron Age and transitional early Roman pottery, comprising a number of fragmentary vessels of similar character to those from Pit IV. Indeed, joining sherds from the carinated bowl in Pit IV also occur in Pit IX (unless wrongly attributed post-excavation). Of note are the remains of a wheel-thrown carinated vessel with a corrugated neck in a fine mixed-gritted fabric (MG) with black surfaces. Handmade Late Iron Age material includes two shell-tempered jars with beaded rims and horizontal scoring.

Pit XI by contrast appears to be Roman, or at least the main filling of it, as a large portion of a bowl with a bead rim in Lower Nene Valley grey ware, dating to the mid-second to third century (Howe *et al.* 1980, no. 17), was recovered from the bottom. Eleven small sherds of Scored Ware were recovered, and could conceivably have come from an initial silting if the pit was originally Iron Age, or be residual in the main or later fill alongside the other small Roman sherds of grey ware.

It is therefore likely that most of the pits are of mid to late Iron Age date, with Pits IVa and IX in particular containing distinctive transitional Late Iron Age or mid-first century AD assemblages. The one clear exception is Pit XI. Most of the small quantity of later Roman material from the other pits is likely to be intrusive.

1970–71

The excavations in 1970–71 were dominated by third–fourth-century Roman pottery from deposits associated with the erosion of the rampart. The exception was a small assemblage of Iron Age material from 'below the tumble', including a Scored Ware jar in shell-tempered fabric (S1). A further eight sherds, probably from the same vessel, came from the tumble (layer 2), but mixed with some Roman material. The limited evidence therefore appears to show a chronological gap between the Iron Age pottery under the tumble and the largely late Roman material found among and over it.

Small finds (*Nicholas J. Cooper, Sophie Adams and John Thomas*)

Most of the 57 objects recovered during the four seasons were from topsoil or have no contextual information. The majority (37) were iron nails or fragments. The small group of finds that could be assigned to context are reported on below. Museum accession codes are given first, followed by the site reference numbers.

Objects of metal

A363.1965/6.0, BH 1960 Box A3, SF44 (Fig. 30a): A low-arched iron bow brooch with the remnants of a reverted foot. X-rays show the brooch has been repaired since excavation to piece together the bow and pin. In its present condition, the brooch is 69.5mm long with a bow 5.16mm wide. The bow now appears to form a shallow arch with a sharp bend at the shoulder and hip. However, the X-ray shows that the restoration may be inaccurate and the original bow shape could have been a little longer and flatter, but with similarly angled shoulder and hip. The pin, which appears to be essentially complete, is now bent up slightly towards the bow, but the brooch once stood *c.*17.3mm high. The U-shaped catchplate survives on the right hand side (viewed from above with the foot at the bottom), which is typical for La Tène types in Britain. Beyond the catchplate the foot curves back into a short hook that appears to be the result of damage in antiquity or during burial. The upper side of the hip is flattened at an angle of almost 90 degrees. This suggests that the reverted foot once continued up to the hip and rested on the brooch at this point. Such an angled, reverted foot is typical of Hull and Hawkes' Type 1Ca (1987). However, it is possible that the foot rose up from the catchplate and met the hip level with the bow. If this was so and the bow was originally flat, this would conform to their Type 1Cb profile (see below).

Hull and Hawkes classified the Burrough Hill brooch as their Type 1By (1987, 92, no. 8444, pl. 27), based on an unlikely comparison to a higher arched brooch from Ancaster Quarry (*ibid.*, 91–2, no. 9219). As indicated above, however, the characteristics of the Burrough Hill brooch suggest it is more probably of Type 1Ca or 1Cb. Type 1Ca brooches have slanted reverted feet, a low-arched or flat bow and, often, internally supported spring. The angle of the shoulder and hip is usually wider than on this example, but not exclusively so. The iron brooch from Swallowcliffe Down, Wiltshire (*ibid.*, 120–1, no. 3100, pl. 34) provides the best comparison. On the other hand, Type 1Cb brooches have a flat bow and foot that curves up and returns to the hip at the same height as the bow. Complete examples

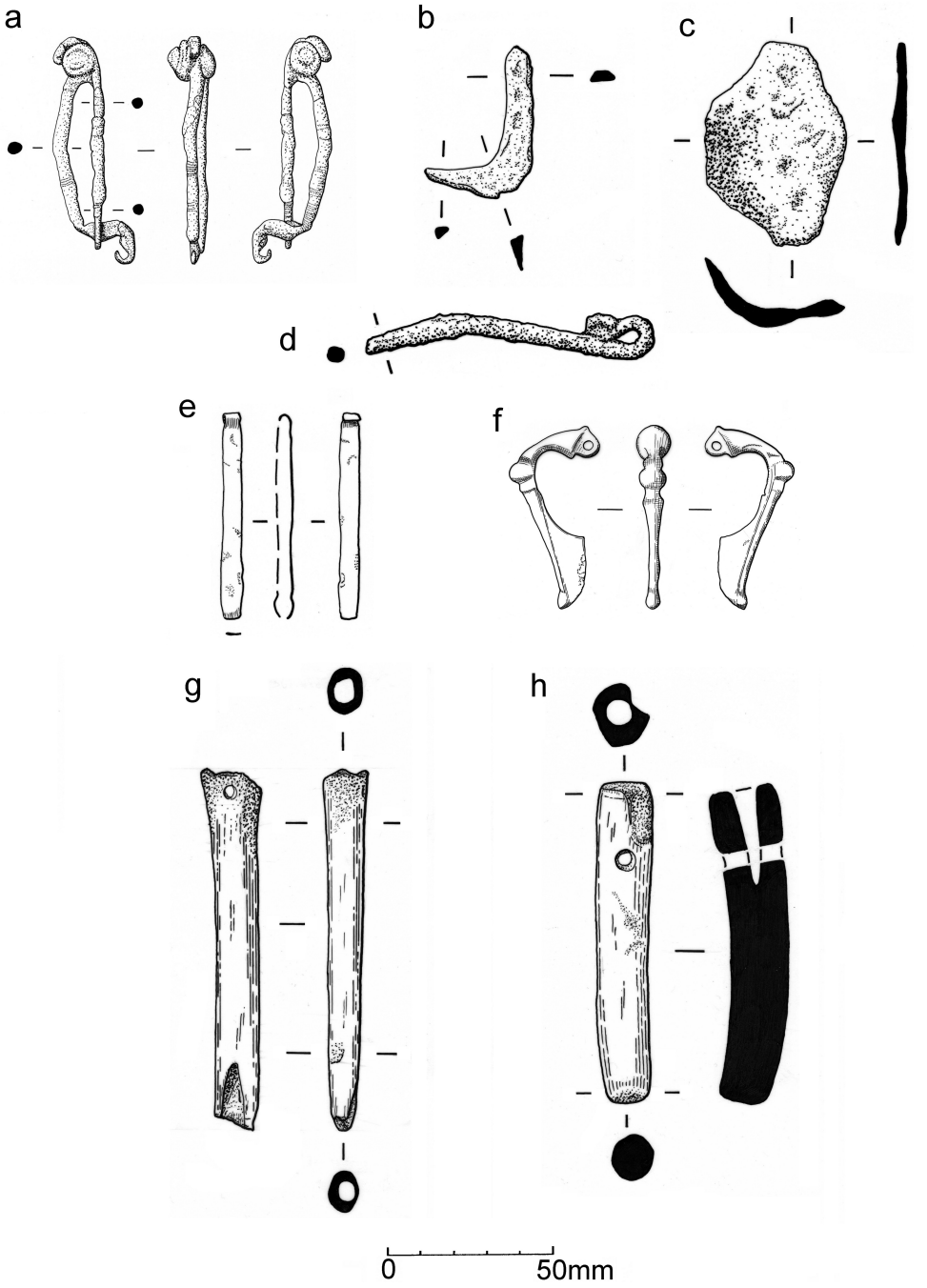

Fig. 30. The illustrated small finds from the excavations.

are rare, but comparisons may be drawn with iron brooches from Cold Kitchen Hill, Wiltshire (*ibid*., 125, nos 2891, 2892, pl. 36) and Ham Hill, Somerset (no. 4264), and a copper alloy brooch from Maiden Castle, Dorset (no. 2084). The Ham Hill brooch has a mock spring with three coils pivoting on a central iron cylinder.

The available evidence suggests a late fourth or third century BC date for Type 1C brooches. Recent Bayesian modelling of radiocarbon dated burials from Wetwang Slack, East Yorkshire, yielded posterior density estimates of *270–200 cal BC* for a burial containing a Type ICa brooch and *260–200 cal BC* for one with a Type 1Cb brooch (Jay *et al*. 2012, table 2).

A144.1988.26, BH 1960 Box A1, SF2 ID40 (Fig. 30b): Flattened rod of iron of rectangular section forged into a curve, with tapering pointed terminal. L 45mm, W up to 10mm, Th 3mm. The pointed terminal and object size indicate that this was one end of a binding clamp, a staple-shaped object used in timber construction, 16 of which were found at Danebury; forged, as in this case, from rectangular rods, one example being particularly similar (Cunliffe and Poole 1991, 353, fig. 7.24.2.338).

A144.1988.26, BH 1960 Box A4 (occupation layer) ID7 (Fig. 30c): Curving fragment of iron sheet, all edges broken. L 60mm, curving W 52mm, Th 2mm. The curvature and tapered appearance might suggest it was one side of a forged open socket for an iron tool, which would have been hafted on to a wooden handle, perhaps a bill hook, as found at Danebury (Cunliffe and Poole 1991, 333, fig. 7.9.2.210).

A363.1965, BH 1960 Box C3, SF43 (Fig. 30d): Object now lost (identified from photo/X-ray only). Looped fitting. Length of curving iron rod of rounded section. One end sheared off, the other bent over in the form of a shepherd's crook to make a closed suspension loop. L 85mm, W of rod 6mm. Part of a suspension fitting from a composite object. Similar items from Danebury have been described as bucket handle fittings (Sellwood 1984, 370, fig. 7.23.2.167/8), although other interpretations are possible.

A155.1988.42, BH 1970 I(2), Pit B, ID9 (Fig. 30e): One blade from a pair of Roman tweezers made from a single sheet of copper alloy, beaten and folded around a rod to make a suspension loop at the top. The blade is straight sided, with a slight widening towards the tip, the terminal of which is inturned to form the pincer. There is no decoration. L 61mm, W 6mm. A complete example of this plain design, with suspension ring *in situ*, comes from a third-century context at Colchester (Crummy 1983, 59, fig. 63.1882).

A156.1988.17, BH 1971, Layer 1, ID3 (Fig. 30f): Copper alloy trumpet brooch. Complete except for spring, pin and head loop. Bow of plano-convex 'D' section. The trumpet head is a circular disc expanded from the bow, whilst the central motif comprises a swollen transverse moulding with smaller ones above and below, with traces of oblique incised slashes on the lower one. The lower bow tapers to

a plain foot with shallow transverse groove. The head loop appears to have been integral with the trumpet head as its base remains, rather than incorporated into the spring. The missing spring was held by a single perforated lug behind the head. L 55mm.

Typologically, the brooch sits most comfortably in Bayley and Butcher's Group C (2004, 161; T154B). It resembles others found across southern Britain, contrasting with the more ornately moulded examples of Group A, found mainly at northern military sites, and the enamel-decorated members of Group D, found in the West Midlands and Wales (*ibid*., 161–4). The Burrough Hill example is not easy to date precisely. Trumpet brooches of similar character are known from pre-Flavian contexts – for example at Stanwick, North Yorkshire (Haselgrove forthcoming) – but the series continues into the second century AD.

OBJECTS OF BONE OR ANTLER *(species identification by Jennifer Browning)*

A363.1965.4.0, BH 1960 Box A3, SF38 (Fig. 30g): Gouge manufactured from a sheep tibia by slicing obliquely along the length of the shaft to remove the proximal end and create a flattened point. The point is missing and the freshness of the break indicates this happened during excavation or subsequently. The distal end has a transverse perforation through it, which is broken on the posterior edge. The shaft is highly polished through wear along the entire length, but noticeably more on the convex posterior surface. Broken L 110mm, shaft W 13mm.

These are common objects in larger Iron Age assemblages, with 66 coming from Danebury and 70 from Maiden Castle (Sellwood 1984, 382, fig. 7.33; Cunliffe and Poole 1991, 359, fig. 7.32). It is likely they performed multiple functions, but a high level of polish on the surfaces, and particularly the tips, is common to most, suggesting contact with skin in handling and with thread or hide for the tips. Acting as a pin beater to compact the weft threads during weaving is a possibility but does not require the perforation, whilst use as a shuttle would explain the perforation, but would have caused wear and polish around the sides of the distal end which protrude.

A363.1965.5.0, BH 1960 Box B3, SF37 (Fig. 30h): Utilised antler tine. A gently curving tine with smoothed but subsequently weathered surfaces. Both ends are sawn flat transversely. At the wider end the core has been hollowed out to form a longitudinal channel running for about a quarter of the length of the object, and this is connected to a transverse perforation about a fifth of the way from the wide end. L 92mm, Diam 19mm.

Five examples came from Danebury, four found in a pit together with bronze terret rings (Cunliffe and Poole 1991, 366, fig. 7.36). The Danebury examples differ in being decorated with ring and dot motifs at the terminals, but have similarly smoothed surfaces. Such objects have been identified as cheek pieces from horse bridles, but whilst their association with terret rings might support this idea, the method of attachment of straps is not clear (Cunliffe and Poole 1991, 366). The similarity of this find to those from Danebury leaves no doubt that these objects had a specific function to which removal of the sharp end was integral. However, the hollowing of the wide end, which is only paralleled on one example from Danebury,

would be more appropriate for the hafting of a whittle tang of a knife blade, which is a common use for antler tines in Roman contexts, for example, at Colchester (e.g. Crummy 1983, 107, fig. 110.2916), although the transverse perforation would be inconsistent with this identification. Hunsbury produced 14 such 'cheek pieces'; these appear to be undecorated and also have the longitudinal perforation at the wide end (Fell 1936, 71–3). An antler example of mid-first century date from Colchester was thought to have been used in conjunction with a leather bit for the horse's mouth (Crummy 1983, 106, fig. 109.2538). The dating from Danebury suggests that such items were in use during Ceramic Phase 7 *c.*300–100/50 BC (Cunliffe and Poole 1991, 366), and the Hunsbury finds are likely to be of similar date.

Quernstones

Two complete beehive querns, sharing common characteristics with Hunsbury types (Curwen 1937, 142; Ingle 1994), were retrieved from Pit P7 in the northern part of the hillfort interior (Fig. 31).

BH 1960, Quern 42 is made from a coarse-grained red triassic sandstone, which may have been sourced locally from areas to the west of Burrough Hill. The conical upper stone measures *c.*205mm high and has an ovoid base measuring *c.*345mm × 305mm. At the top the hopper is centrally placed and measures *c.*180mm × 190mm, with a flat, *c.*25–35mm wide rim. The funnel-shaped hopper and feed pipe penetrate the full depth of the upper stone, narrowing from *c.*140mm to 30mm at the bottom. The generally ovoid shape is a result of one flattened side, which may represent the original shape of the stone or may have resulted from repair at some point. This area of the quern has a generally more 'damaged' appearance. A horizontal handle hole, with a flattened-oval profile measuring *c.*110mm × 60mm, is positioned on the flatter side of the stone *c.*80mm from the top. It penetrates the upper stone, piercing the feed pipe. The grinding surface is worn smooth and contains concentric circular striations as a result of use. A figure-of-eight hole lies centrally in the base of the upper stone. One side of this represents the base of the feed pipe and contains the remains of an iron sleeve/collar that would have fitted over the spindle from the lower stone to assist rotation. The second circular hole penetrates the upper stone by *c.*40mm and may have been created through wear as the stone was used. Alternatively, it may represent a renewal of the spindle housing at some stage.

The lower stone is generally more circular, measuring *c.*320mm diameter at the top and *c.*230mm at the base. The working surface is smoothed through use and has a pronounced slope to one side, resulting in a variable thickness between *c.*80 and 110mm. Situated centrally within the lower stone is an iron spindle. A well-worked hollowed area in the underside of the lower stone may have been worked to support the spindle or assist in its insertion. It may also have overlain a peg driven into the ground to hold the quern in position.

BH 1960, Quern 60 was well made of coarse millstone grit, probably imported from the Pennines/Peak District. The quern does not appear to have been used and may have been buried in near mint condition. The overall shape has been carefully

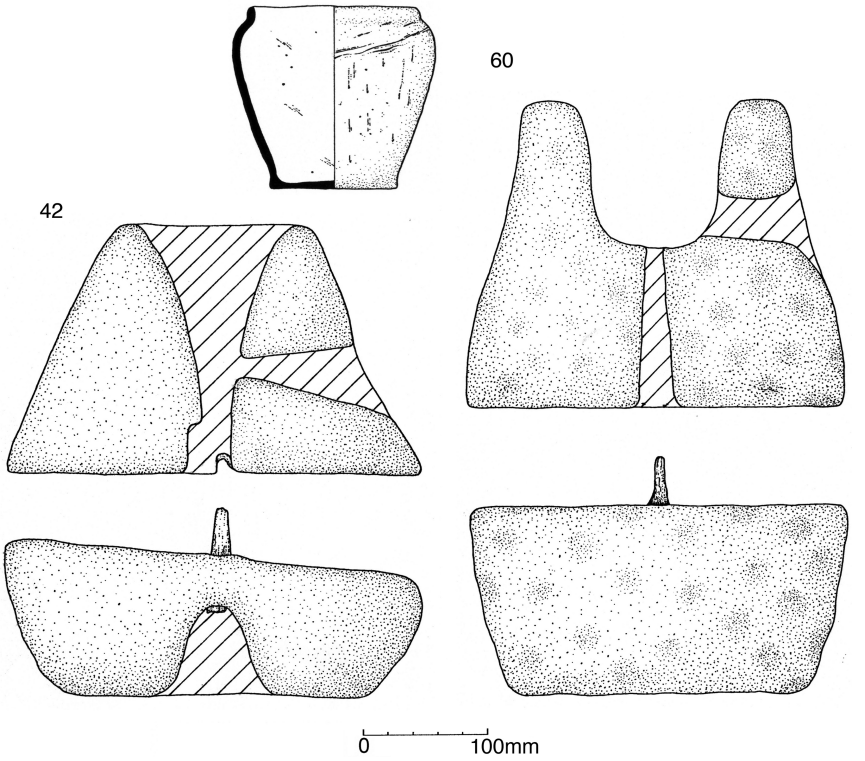

Fig. 31. The quernstones and pottery jar found as a group in Pit 7.

prepared and dressed by pecking. The upper stone (60a) is conical, measuring *c.*240mm high, with a slightly oval upper diameter of *c.*210–20mm and a lower diameter of *c.*240–60mm. A cup-shaped hopper, *c.*100mm deep, sits in the top of the upper stone, and is defined by a smooth flat outer rim measuring between 30 and 40mm wide. The hopper leads to a straight-sided feed-pipe measuring *c.*40mm diameter × 140mm deep. The grinding surface is flat but not smoothed through use, as seen in quern 42. A handle hole is situated *c.*70mm below the upper rim and has a flattened oval shape measuring *c.*80 × 40mm. It is inserted horizontally into the stone (*c.*80mm deep), penetrating the hopper.

The lower stone (60b) is also slightly ovoid, measuring *c.*320–30mm diameter at the top and *c.*240–60mm at the base, and is *c.*160mm high. An iron spindle is located in the centre of the grinding surface, projecting *c.*40mm from the stone. The working surface has smoothed outer edges (*c.*30–40mm in from the edge), but is generally unworn, retaining the coarse texture of the parent stone and perhaps indicating that this item saw little use before it was buried.

Beehive querns are a relatively common find on archaeological sites, dating from the Middle–Late Iron Age and probably into the early Roman period. Evidence for them is usually in the form of individual upper or lower stones, but complete and relatively unused sets are rarely discovered. The context of these querns, buried

together with a complete pottery jar, suggests they formed a deliberately placed deposit.

Animal bone (*Rebecca Gordon*)

1,945 animal bones were recovered from the excavations. Little of the material could be tied to a specific context, so it was treated as essentially three separate groups that follow a broadly chronological sequence (Table 8). The 1960 entrance contexts were of Iron Age date, the 1960 and 1967 pits of largely Iron Age date with some mixing with Roman material, and the 1970–71 excavations overwhelmingly of Roman date.

Species representation

Domestic taxa dominated in all contexts (Table 8). Wild birds and mammals were virtually absent, although for smaller species this may be due to lack of sieving. In the entrance area, there is only a small difference in the relative proportion of sheep/goat and cattle, whilst cattle were the most commonly recovered species in the pits. Although sheep tend to dominate on Iron Age sites in southern England (e.g. Grant 1984; Hambleton 1999), cattle generally occur more abundantly on sites in Leicestershire (Browning 2011a; 2011b, 128), and this seems to be confirmed by the limited Iron Age sample from Burrough Hill. The 1970–71 assemblage suggests a broadly similar pattern in the Roman period within the northern part of the hillfort. Pigs were the least abundant of the three main domesticates in all groups. The low proportion of pigs is typical of Iron Age and Romano-British sites (Hambleton 1999; Maltby 2010). Red deer were represented by a large antler from Pit 4, with multiple chop marks demonstrating its use as a commodity for craft-working.

Species	**1960 entrance**	**1960 and 1967 pits**	**1970–71 excavations**
Cattle (*Bos taurus*)	65	80	79
Sheep/goat (*Ovis/Capra*)	63	60	74
Sheep (*Ovis aries*)	7	2	2
Pig (*Sus scrofa*)	24	30	14
Horse (*Equus* spp.)	16	17	3
Dog (*Canis familiaris*)	3	0	3
Red deer (*Cervus elaphus*)	0	1	0
Roe deer (*Capreolus capreolus*)	0	1	0
Rabbit (*Oryctolagus cuniculus*)	1	0	0
Hare (*Lepus europaeus*)	0	0	1
Human (*Homo sapiens*)	50	0	2
Water vole (*Arvicola terrestris*)	0	0	1
Mole (*Talpa europaea*)	0	0	1
Chicken (*Gallus gallus*)	0	0	2
Unidentified bird	0	0	1
Small-sized mammal	2	0	3
Medium-sized mammal	144	152	114
Large-sized mammal	139	140	64
Unidentifiable	111	174	299
Total	625	657	663

Table 8. Species representation.

Body part representation

Given the small sample, it is difficult to draw firm conclusions about the distribution and division of the carcass. For cattle and sheep/goat all body parts were noted, so the whole animal was probably slaughtered and butchered near to or on site. Evidence for breeding on or close to the hillfort was provided by the presence of two peri-natal sheep and one neo-natal pig from Pits 1 and V. Only a few articulating remains were recorded, including a cattle foot (tarsals, metatarsal and phalanges) from Box B2 in the entrance rampart. These bones are often found together in waste from primary butchery or hide preparation: the bones of the feet are left attached to the hide, acting as handles to help stretch the skin during preparation (Serjeantson 1989). Cut marks were also found on the proximal end of the metatarsal, which could be evidence of primary butchery. Box A3 and Pit 4 from 1960 both contained fragments of complete horse mandible with some skull fragments. A horse atlas from Pit 4 probably belonged to the same individual. It has been suggested that deposits with complete crania and mandibles represent animal remains deliberately buried as part of ritual practice (Grant 1984; Wilson 1992), and the horse parts from Pit 4 are likely to be another example.

DISCUSSION

Despite the evident limitations of the surviving archives, they provide a window on aspects of the archaeology of Burrough Hill that offers a very useful starting point for understanding the hillfort. The single best source of evidence is the 1960 excavation at the entrance. Here the box trenches revealed that massive stone ramparts faced with drystone walls front and back flanked a long-paved road through the inturned corridor entrance to the hillfort. At its innermost end large timber gates barred the road, in front of which, on the southern side at least, was a rectilinear chamber or recess built as an integral part of the rampart. The excavators thought this chamber measured some 8.5 × 5m, making it the largest known in Britain, but re-excavation in 2011 shows it to have been a still large but more typical 5 × 5m.

In plan form and the use of drystone materials, the entrance corridor and chamber finds closer parallels in hillforts of the Welsh Marches, such as Titterstone Clee (O'Neil 1934) and the Wrekin (Stanford 1984), than with examples at other hillforts on the Jurassic spine like Rainsborough (Avery *et al.* 1967) and Leckhampton (Champion 1971; 1976). Whilst the use of materials may partly be a reflection of the underlying geology of each site, the particular form is not, and in this respect Burrough appears to draw this aspect of its monumental architecture from hillforts to the west of the region.

At the time of the 1960 excavations, the date of the inturned entrance and chamber were not known in any detail, but re-assessment of the pottery and metalwork and the new radiocarbon dates now give us a much clearer idea. Re-excavation of the earlier trenches has established that the section of rampart and chamber exposed in 1960 were themselves an addition to an earlier phase of inturned rampart at the entrance. Bayesian modelling suggests that the first extension of the rampart to make the inturned entrance occurred between 370 and

220 cal BC. The entrance rampart was extended a second time and the integral recess built. The occupation of this chamber with its floors and hearths ended between 355 and 170 cal BC. These estimates accord well with the date of the iron La Tène I brooch recovered beneath or at the bottom of the chamber floor sequence, and the essentially Middle Iron Age character of the pottery recovered from this area.

In this respect the construction and occupation of the chamber at Burrough Hill fits with the meagre dating evidence for such features at other hillforts: three radiocarbon dates available from Rainsborough and Croft Ambrey all fall within the fifth–third centuries cal BC. At Burrough, the chamber floors were later sealed with a thick crude layer of large stones before finally being backfilled with rubble. This was not recorded in detail in 1960, but the 2011 re-excavation has provided grounds for suggesting that this final backfilling took place in the Roman period. All told, the evidence suggests overwhelmingly that the later entrance phases at Burrough Hill date to the Middle Iron Age (*c*.450–150 BC) and that by the Late Iron Age the entrance was no longer a significant focus of activity.

Interestingly, the large deposit of human remains found on the ground surface of the closely similar inturned entrance to Kemerton Camp on Bredon Hill, Worcestershire, has recently been radiocarbon dated to *c*.170–50 cal BC (Hurst and Western 2012). When excavated in the 1930s, this was interpreted as a massacre deposit marking the end of the hillfort occupation (Hencken 1938), but with hindsight, this is perhaps some kind of terminal deposit. Either way, it would seem that on Bredon Hill, too, an inturned hillfort entrance likely to be of similar date did not retain its original significance beyond the middle Iron Age.

Less can be said about the main rampart enclosing Burrough Hill, or indeed the date of the primary entrance. The 1960 sondage suggests that the outer face of the rampart consisted of an almost vertical drystone wall in at least one phase of its development, while the work in 1971 and its re-evaluation in 2010 indicate that the rampart core consisted of a dump of rubble capped by clay, leaving a simple dump slope on the interior. In this respect the rampart at Burrough again differs from Northamptonshire hillforts like Rainsborough and Hunsbury, where earlier box ramparts are replaced by glacis-style dump ramparts. One parallel, however, is Breedon-on-the-Hill, where – both in Kenyon's cut A (Kenyon 1950, pl. XIII) and an unpublished section through the eastern rampart from April 1961 (J. Dyer pers. comm.) – we see a drystone-faced dump rampart made of rubble and capped with turf or clay.

As yet, there is no evidence to indicate when the rampart and original entrance at Burrough Hill were constructed. The only available dating comes from the pit beneath the first phase of entrance inturn. This has a posterior density estimate of 440–215 cal BC, allowing a span of up to 225 years for the radiocarbon-dated sequence in the entrance area. The pit could, however, significantly post-date the primary rampart.

Evidence for occupation of the hillfort interior is limited largely to the pits excavated in 1960 and 1967. Aitken's survey and the excavations established that pits were abundant across the interior, and this has since been confirmed by a new magnetometer survey (Thomas and Taylor 2011, 5–8). The lack of contextual

information or archaeobotanical sampling impedes a detailed consideration of their purpose, but some key features can be identified. The pits were dug in all shapes and sizes (cf. Tables 2 and 3), and ultimately filled in a variety of ways. Some were seemingly rapidly backfilled with single earthy deposits, whilst others show longer sequences with clay linings or lenses, and charcoal spreads interspersed with silt and rubble layers. There is no clear pattern to their use (or at least their ultimate filling), though some at least received 'special deposits', like the complete querns and pot in Pit 7, or the horse's head and pottery deposit in Pit 4.

The chronological range of activity associated with the pits is perhaps the most surprising feature of the 1960s excavations. Whilst most of the pits probably date to the Mid to Late Iron Age (fourth–first century BC), the evidence from certain pits (Pits 2, 4, II, IVa and IX) indicates significant activity during the first century AD. This may even have continued into the second–third century AD if the finds from Pit XI and Pit B are as securely stratified as the archive implies. This raises intriguing questions about the significance of the hillfort on either side of the Roman conquest, as well as the extent of continuity between this episode and the main Middle Iron Age phases. A further dimension of complexity is introduced by the discovery of extensive Iron Age settlement remains on the promontory outside the hillfort, including roundhouses, first revealed by the recent magnetometer survey and sampled by excavation in 2010–11 (Thomas and Taylor 2011; 2012). There is also Roman activity here.

Evidence for later Roman use of the hillfort interior is still sparse, but the quantities of pottery from 1967 and 1970–71, and its virtual absence from the entrance area, suggest that activity was focused on the northern part of the site. The bulk of the Roman pottery appears to be of third and fourth century date and some is late fourth century. It is, however, much more abraded than the Iron Age pottery from the pits, suggesting that this later Roman material may be largely of 'agricultural' origin, and there may conceivably have been a midden over the abandoned pits.

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