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Ring Chesters, Northumberland: an Iron Age hillfort and its environs

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RING CHESTERS, NORTHUMBERLAND: AN IRON AGE HILLFORT AND ITS ENVIRONS

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1. INTRODUCTION AND BACKGROUND TO THE SURVEY

Between early October and mid November 2001, English Heritage carried out an archaeological investigation of Ring Chesters, an Iron Age hillfort in Northumberland, together with an extensive area of the historic landscape surrounding it. The analytical field survey was one of a number undertaken by English Heritage as part of the Northumberland National Park Authority's project entitled 'Discovering our hillfort heritage', funded jointly by the European Union through the European Agricultural Guidance and Guarantee Fund, the Heritage Lottery Fund through the Tweed Forum initiative, English Heritage and the Northumberland National Park Authority. The investigation was intended to further the understanding of the hillfort, both as an individual monument and as an example of the class as a whole, and to inform the conservation and management of the site (Frodsham 2000).

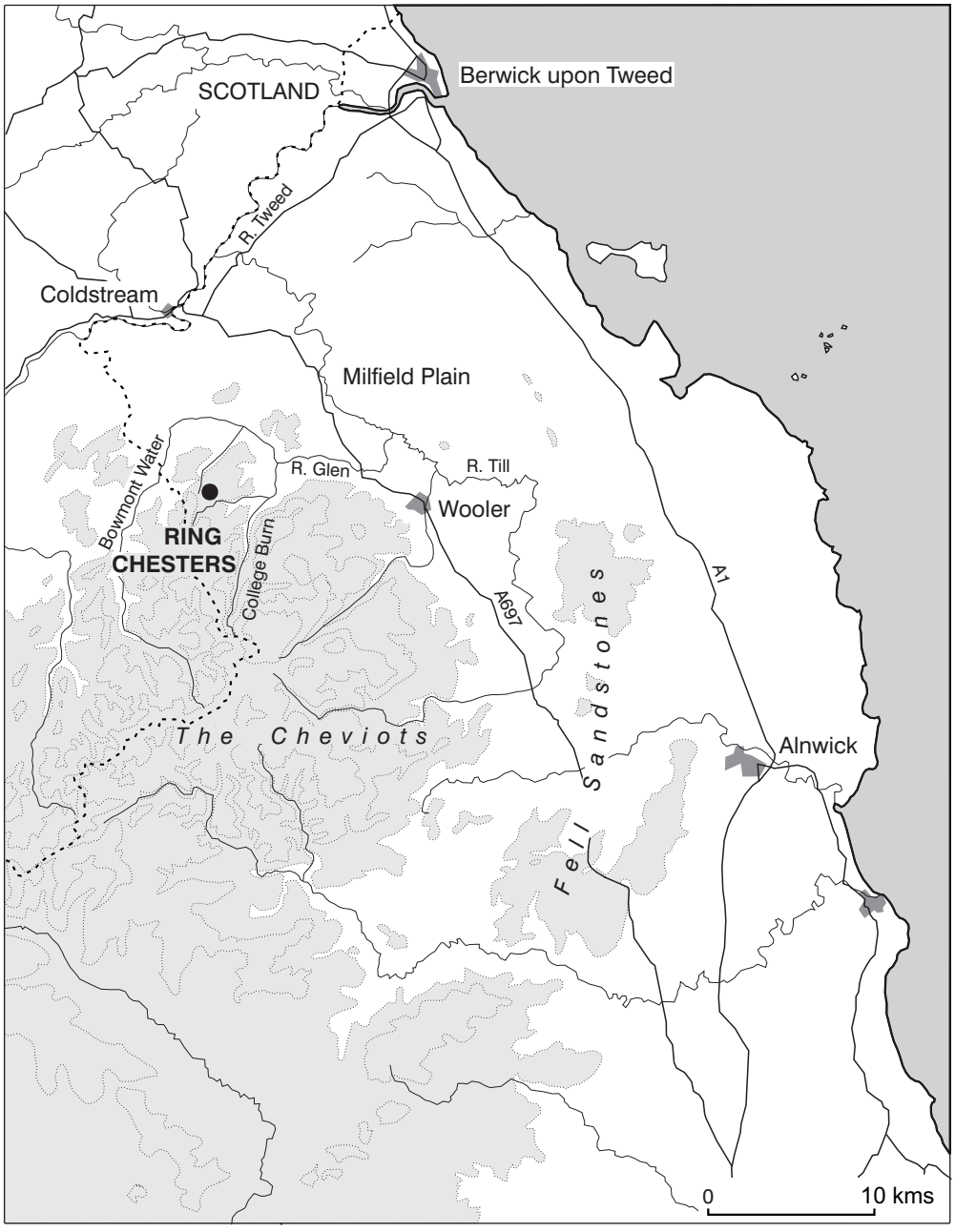


Figure 1. Location map

Ring Chesters, which was reportedly known in the 19th century as Elsdon Burn Camp, occupies a remote hilltop on the north-eastern edge of the Cheviots, some 3kms west-north-west of the hamlet of Hethpool, in the parish of Kilham and the district of Berwick upon Tweed, centred at National Grid Reference NT 8670 2891. The Iron Age hillfort is remarkably well preserved and comprises two concentric earthen ramparts and, within these, a smaller stone-built circuit. There is evidence that short stretches of all the circuits were rebuilt in the Romano-British period and all but three of the ten possible circular buildings recorded in the interior of the hillfort are probably of this date. Three 'scooped enclosures' on the slope to the north-west of the hillfort are also probably of Romano-British, or perhaps late Iron Age origin. In the environs of these major monuments, the survey recorded agricultural remains ranging from prehistoric cultivation terraces to 19th-century 'improvement' ploughing, but dominated by so-called 'low rig' thought to be of 17th-century date.

The hillfort and Romano-British enclosed settlements are protected as Scheduled Ancient Monuments (RSM 24575 and 24579 respectively). They are recorded in both the Sites and Monuments Record (SMR) for Northumberland and in the National Monuments Record (NMR) as NT 82 NE 24 and 23 respectively. The English Heritage field investigation, which covered an area of 24.5 hectares (60 acres), was carried out at Level 3 standard (as defined in RCHME 1999, 3-4). The fieldwork produced plans of the principal monuments at a scale of 1:500 and of the surrounding landscape at a scale of 1:2,500.

2. GEOLOGY, TOPOGRAPHY AND LAND USE

Ring Chesters occupies a hilltop that lies on the watershed between the valleys of the College Burn and the Bowmont Water, both of which flow northwards from the Cheviot hills into the Milfield Plain. The hill is the central one of three conjoining peaks that overlook the confluence of a minor stream called Crowden Sike with the larger Elsdon Burn, which in turn discharges into the College Burn to the east. The First Edition 6-inch scale map implies that the two more northerly peaks were both known as Haddan Hill, but the name Haddon Hill later came to be applied only to the shoulder of the northern peak (Ordnance Survey 1866a; 1899). The central hilltop, where Ring Chesters stands, reaches an altitude of 342m above sea level and commands a panoramic view, though the prospect westwards towards the Eildon Hills in southern Scotland is particularly impressive. The south-western and north-eastern sides of the hill slope gently to saddles before rising again to the conjoining peaks, the one to the south-west slightly lower at 333m and the one to the north-east slightly higher at 352m. The south-eastern side slopes fairly steeply to the confluence of Crowden Sike and Elsdon Burn, while the north-western side slopes somewhat more gently to a minor tributary of the Bowmont Water, whose former name - Butterstone Sike - has now fallen out of use. Assuming that they were in contemporary use, the hillfort would have been intervisible with hillforts on Little Hetha, Great Hetha and Sinkside Hill, the furthest of which lies only 3kms away. It would also have been intervisible with the largest hillfort in the Cheviots, that on Yeavering Bell, 6kms to the east.

Like the surrounding upland massif, the underlying rock is andesitic granite, a hard volcanic stone which varies in colour from pale grey to deep pink (Tomkeieff 1965). The rock fractures easily and has been used from prehistory onwards as a building material throughout the local area; it was the principal material used to construct the inner rampart of the hillfort. The soil is relatively thin on the summit of the hill and there are several natural outcrops within and immediately around the hillfort.

With the exception of the land beyond the saddle to the north-east, the environs of the hillfort are under rough pasture, which is grazed by sheep and cattle. The shoulder of the hill beyond the saddle, known as Haddon Hill, lies under a large expanse of coniferous plantation under the management of the Forestry Commission, comprising Japanese Larch and Norwegian spruce. The deep ‘backhoe’ ploughing undertaken prior to the planting of the trees did considerable damage to the archaeological remains there, including extensive tracts of prehistoric and medieval cultivation remains. There are no buildings in the immediate vicinity of Ring Chesters, but the isolated farmsteads of Elsdonburn and Elsdonburn Shank (formerly Butterstone Shank) lie at the feet of the hill, respectively 900m to the south-east and 600m to the north-west of the summit. The land is privately owned, but a permissive footpath crosses the saddle to the north, and plans for more open public access were under discussion at the time of the survey. There is no vehicular access onto the hill except by 4-wheel drive with the permission of the landowner.

3. HISTORY OF RESEARCH

The Iron Age hillfort

The name 'Ring Chesters' itself may indicate that the earthworks of the hillfort have been recognised as being of ancient origin for many centuries. Throughout England, the word 'ring' was often used to denote ancient enclosures of approximately circular plan. The word 'chester' derives from the Anglo-Saxon *caestir,* meaning 'camp', a term which was widely applied in the post-Roman period to the sites of Roman forts or marching camps (Latin *castrum*) which then survived as earthworks. In the case of Ring Chesters, and a few other Iron Age hillforts, it seems likely that the ramparts were mistakenly thought to be of Roman military origin, a belief which persisted about many prehistoric enclosures until the later 19th century. However, it is unclear why this hillfort, of the many in the northern Cheviots that are similar in form and equally well preserved, should be singled out for naming in this way.

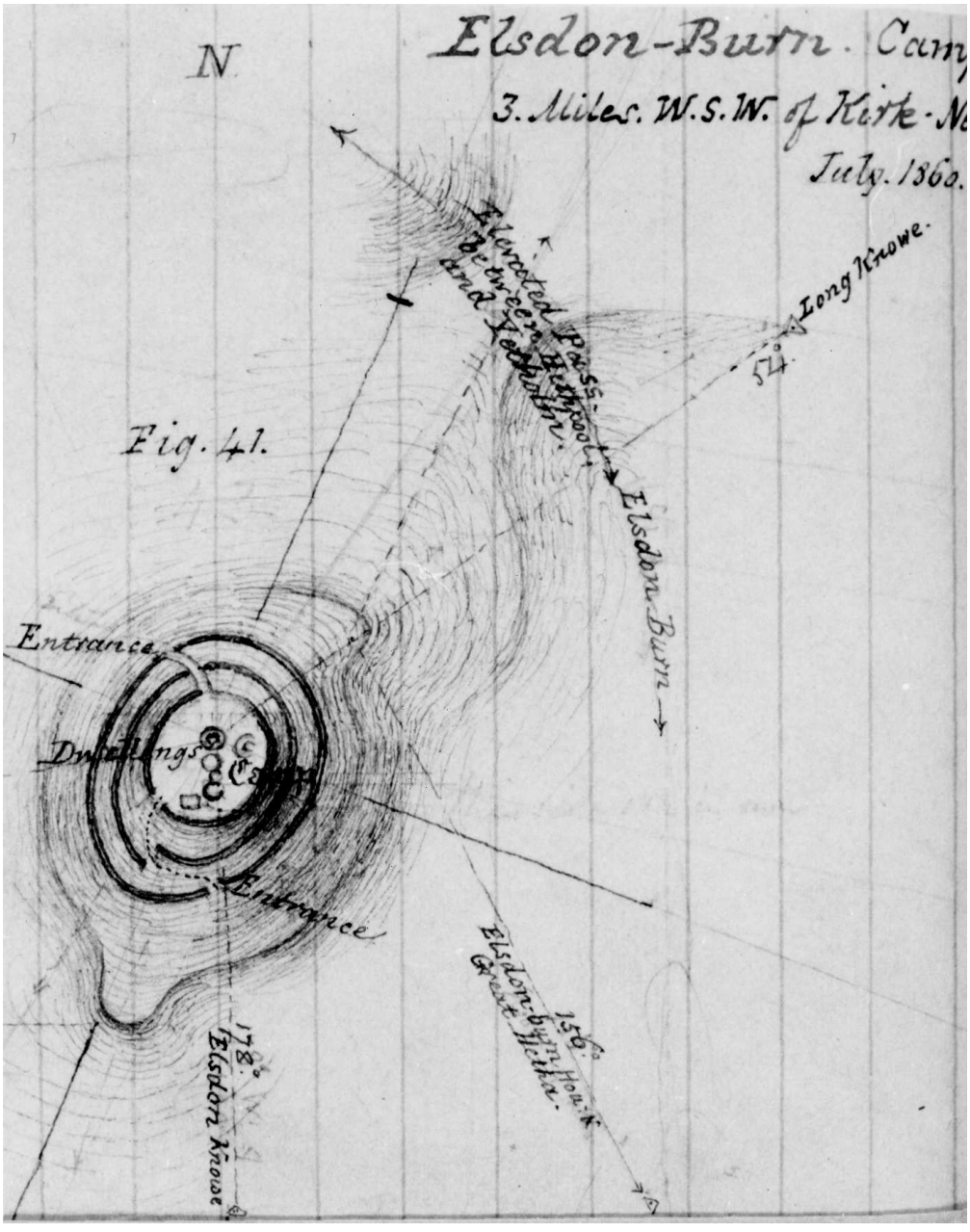


Figure 2. HH MacLauchlan's plan of the hillfort, surveyed 1860 (reproduced by permission of His Grace the Duke of Northumberland)

The earliest known documentary reference to the hillfort is a schematic portrayal of the defences on Greenwood's (1828) *Map of the County of Northumberland,* which has similar depictions of most of the prehistoric 'camps' in the county. Greenwood's was the most accurate large-scale map available prior to the publication of the Ordnance Survey's First Edition 6-inch and 25-inch scale mapping and would have informed the archaeological research carried out in the mid-19th century by Henry MacLauchlan. MacLauchlan, himself a former Ordnance Survey Field Officer, was commissioned by the fourth Duke of Northumberland to undertake numerous field surveys in the region of various different types of monument. He began his '…extensive researches among the old Celtic camps in the fastness of the Cheviot Hills' in the spring of 1860 and completed his investigation of the College Valley and its environs by September of the same year (Charlton and Day 1984, 25-6). MacLauchlan stated that the local shepherds referred to the hillfort as Elsdon Burn Camp, a name which he suggested might derive from 'Ella's dun', Ella being a common Saxon name that he assumed in this case might belong to a local chief, and *dun* being 'Celtic' (that is, Gaelic) for a fort (MacLauchlan 1867, 36-7; 1919-22, 466-7). In the 19th century, it was common for antiquarians to confidently identify precise historical elements in place-names, but most such attempts now seem over-optimistic or misguided. MacLauchlan surveyed the site in July 1860 (Figure 2) and succinctly described the form of the ramparts and their relationship to the topography, identifying a 'principal entrance' on the south and a 'less conspicuous' one on the north-west. He also commented that 'There are several foundations of circular dwellings within the camp'; the accompanying plan depicts the outlines of one rectangular structure and five circular buildings. Comparison of MacLauchlan's depiction with the English Heritage plan provides an insight into his technique, for while his plan of the ramparts is precisely accurate, the buildings in the interior are slightly astray, although correct in relation to each other, suggesting that they were sketched by eye once the perimeter had been surveyed. The position of the rectangular example corresponds to the site of the structure referred to below as Building 10, which was perceived as being circular by all later investigators. Several of the circular buildings can be confirmed as genuine (numbered Buildings 6, 7 and 8 below), but one was later recognised as the remains of two structures of different dates (Buildings 1 and 4) by George Jobey (Jobey 1965, fig 4). Jobey also correctly interpreted a small circular building identified by MacLaughlan as simply a space between Buildings 7 and 8.

The Ordnance Survey themselves also mapped the area in 1860 at a scale of 6 inches to the mile (1:10,560), the fort lying just outside the limit of the more detailed 25-inch mapping (Figure 3 and Ordnance Survey 1866a). Their use of the name 'Ring Chesters' suggests this to have been more widely used at the time than 'Elsdon Burn Camp', since the application of a place-name on the Ordnance Survey map always entailed careful validation. It would also suggest that MacLauchlan's fieldwork took place slightly earlier, for he would otherwise doubtless have followed the lead of the Ordnance Survey in naming the fort 'Ring Chesters'. In fact, there must be some uncertainty as to whether the name Elsdon Burn Camp was ever widely used, as MacLauchlan stated. The Ordnance Survey plan of the hillfort showed the three circuits of the defences, but no settlement remains in the interior, though this was sometimes done at other sites. It is possible that the depiction of such fine detail was impossible due to the necessity of recording information concerning a triangulation station, marked by a triangle, which stood near the centre of the fort. The Second Edition map, revised in 1896, added nothing to the earlier depiction of the earthworks, but indicates that the triangulation station was still in existence (Ordnance Survey 1899).

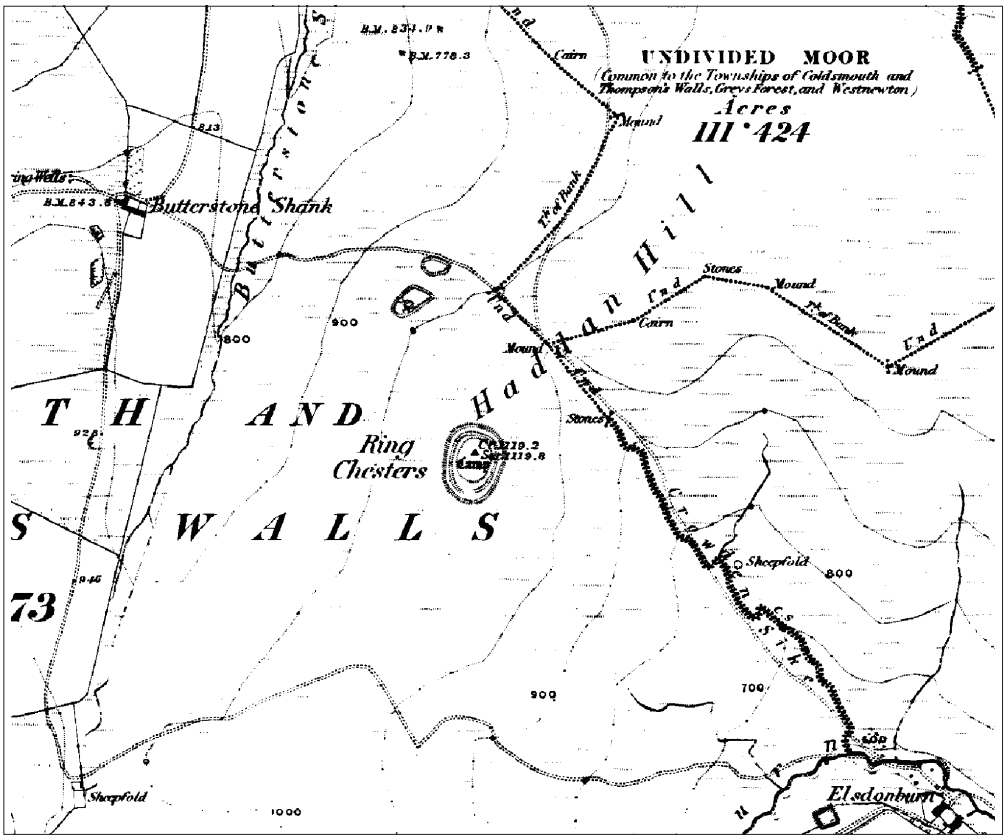


Figure 3. Ordnance Survey plan of the hillfort, surveyed 1860 (reproduced from the 1866 Ordnance Survey map at 1:10,560 scale)

AHA Hogg, who carried out numerous field surveys in Northumberland, simply listed Ring Chesters and categorised its form as a 'multivallate ring', thus implicitly accepting that all three circuits were of contemporary origin (Hogg 1947, 154).

In October 1955, Alan Phillips of the Ordnance Survey Archaeology Division carried out a field observation on Ring Chesters to inform map revision work and made the first detailed textual description of the hillfort (NMR). He pointed out a difference in the materials used to built the circuits, observing that the inner rampart was '…constructed principally of loose stones', while the middle and outer circuits were banks of earth and stone, with traces of a ditch between the two. He supported the suggestion first made by MacLauchlan that the principal entrance was on the south with a minor entrance on the north-west. However, he was more cautious in his interpretation of the settlement remains in the interior, positively identifying only a single 'hut circle' (numbered Building 4 below), although he mentioned the existence of '…slight traces of possible hut circles elsewhere', some of which he suggested might be merely naturally outcropping stones. He concluded with some confidence that the site could be dated to the Iron Age based on its form and hilltop location.

The survey of the hillfort made in about 1960 and published in 1965 by George Jobey was the most detailed and perceptive investigation of the remains up to that date (Jobey 1965, 28 and fig 4; see Figure 4). His depiction of the monument remained the best available until the English Heritage field investigation in 2001. In addition to planning the spread of tumbled rubble from the rampart, Jobey defined the extent of the surviving facing stones, thus giving a much clearer idea of the original form of the defences (though it is unclear precisely how he interpreted the function of the facing stones). Like earlier researchers, he seems to have interpreted the entrance on the south as the main one. Whilst he mentioned in passing the possibility that its staggered plan indicated the presence of more than one constructional phase, he concluded that there was no firm evidence that this was the case (Jobey 1965, 43). His

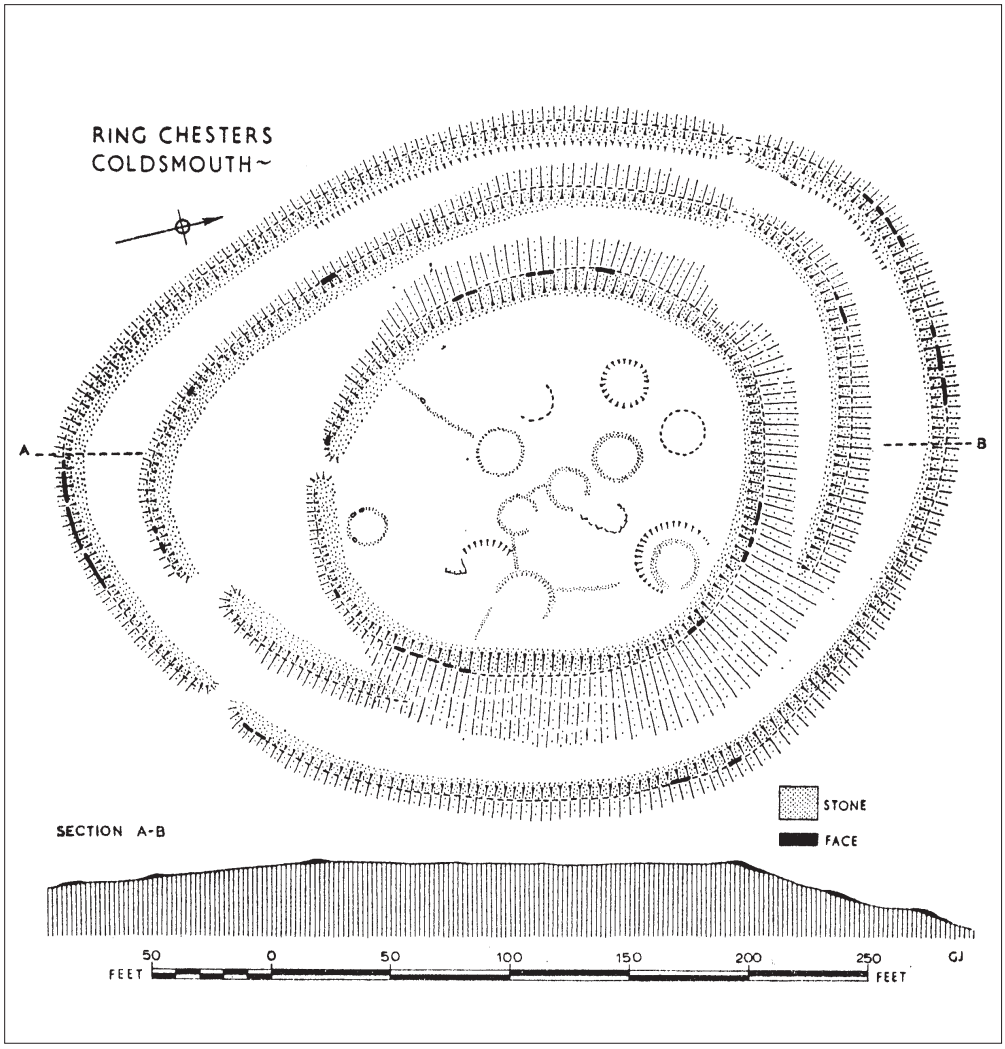


Figure 4. George Jobey's plan of the hillfort, published 1965

plan implies that he regarded the gap on the north-west as a later modification, for it shows a continuous pecked line representing the external face of the rampart continuing across the gap. The English Heritage investigation suggests that Jobey was incorrect on both counts.

Jobey also identified traces of as many as twelve circular structures within the hillfort, but the English Heritage investigation suggests that at least one, and possibly as many as three, of these are not buildings. Jobey's plan shows lengths of narrow bank connecting some of the buildings; the latest fieldwork suggests that these banks are more widespread than he perceived and account for the some of the earthworks that he identified as circular buildings. In the accompanying text, Jobey commented that the structures defined by stony banks were evidently later than the 'ring-grooves' that represented the foundation slots for timber structures. His plan supports this conclusion, for it depicts a simple platform of a type often associated with ring-grooves overlain by one of the stone-founded buildings (numbered 1 and 4 respectively below), along with the fragmentary remains of other platforms. The English Heritage investigation confirms Jobey's main conclusion, but the supporting evidence is more slight than he believed. While the platform is indeed associated with a genuine ring-groove, neither of the other two such structures that he explicitly identified can be confirmed as genuine with confidence. Based on the evidence from Ring Chesters, as well as similar sequences encountered at other hillforts, Jobey reached the important conclusion that the timber ring groove houses were Iron Age

and potentially contemporary with the construction of the hillfort, while the stone-built structures represented a secondary phase of occupation and were very probably of Romano-British date. Jobey's analysis provided a firm foundation for the protection of the site as a Scheduled Ancient Monument, which took place on 19 January 1968 (DOE 1968).

No excavations have ever been recorded, but the investigation in 2001 recorded traces of several possible excavation trenches, apparently placed so as to examine the ramparts and one of the circular structures in the interior. In the mid 1960s, a few enthusiasts were encouraged by Jobey's findings to undertake their own small-scale excavations and it is conceivable that the possible trenches date to this period.

In order to inform a revision of the Schedule made on 26 August 1994, Caroline Hardie carried out a rapid field inspection of the site and produced a fairly detailed textual report (English Heritage 1994a). Hardie's description of the hillfort differed little from those produced by earlier investigators, but she went somewhat further in her interpretation. She described the line of facing stones as 'revetments' along the base of the ramparts, rather than as the remnant of the outer face of a wall, thus implying that the original form of the defences would have differed little from how it appears today. She once again supported the idea of a minor entrance on the north-west; although this idea had apparently been dismissed by Jobey, more detailed fieldwork confirms Hardie's view. Although she accepted that there were two phases of occupation in the interior, she described all the buildings as 'prehistoric', thus appearing to contradict Jobey's conclusion that the later phase was Romano-British. She noted for the first time the existence of settings of stones laid flush with the surface, located slightly off-centre within two of the buildings, and interpreted these as possible prehistoric hearths. The investigation undertaken in 2001 suggests that while the stone settings are undoubtedly deliberately constructed features, they may not be fireplaces and are quite likely to be of relatively recent origin. She also raised the possibility that the space between the inner and middle ramparts might have served as a corral for livestock, a theory which had been proposed by Jobey and others in relation to various other hillforts and is still widely accepted (for example, see Gates 2000b, 13).

Hardie's investigation was the first to consider the wider context of the monument and she noted the presence of a series of well-preserved cultivation terraces on the western slope of the hill. Aerial photographs may have been the principal source of evidence for this observation, for there are better preserved terraces on the northern and eastern slopes of the hill, but by 1994 these had not been photographed under such good conditions. She suggested that the terraces might be contemporary with the occupation of the hillfort, a theory which her observations at the scooped enclosures seemed to support (see below).

Apart from field survey, aerial photography is the only form of archaeological recording to have taken place at Ring Chesters. Black and white vertical aerial photographs produced by several non-specialist sorties are held in English Heritage's National Monuments Record. The earliest, flown on 28 July 1948 (RAF 1948), are not especially clear, although many archaeological remains are certainly visible to the practiced eye. Those taken on 9 October 1951 are much clearer (RAF 1951). They represent an important record of the extensive tracts of prehistoric cultivation terraces and medieval ridge and furrow ploughing on the slopes to the east of Elsdon Burn which survived well as earthworks until the imposition of coniferous plantations in the late 1950s or early 1960s.

More informative and attractive are the specialist oblique aerial photographs at large scale taken in 1983 by DW Harding (Harding 1983) and at various dates by Tim Gates (Gates 1985; 1986; 1997; 2000a). All these images of Ring Chesters were taken in nearly ideal low sunlight conditions, while the series taken by Tim Gates on 18 March 1985 also captured the site under a light cover of snow. However, only those taken in 2000 show the whole of the eastern side of the hill. The other photographs (for example, Figure 5) clearly reveal the prehistoric cultivation terraces on the western slopes referred to by Caroline Hardie, as well as a dense patchwork of later agricultural remains. The investigation undertaken on the ground suggests that these later remains relate to so-called 'low rig' cultivation of post-medieval date, which may have evolved from earlier, perhaps medieval, ridge and furrow. The most comprehensive treatment of the aerial photographic evidence for the College Valley as a whole was produced by Tim Gates as part of the 'Discovering our hillfort heritage' project (Gates 2000b). This 'broad brush' study provides an extremely important counter-balance against which detailed surveys of individual monuments can be seen in context.

The investigation carried out by English Heritage in 2001 was the most detailed examination of both the hillfort and the scooped enclosures since Jobey's surveys in the early 1960s, and was also the first fieldwork to attempt a detailed study the landscape context of the hillfort. The documentary research undertaken in support of the field survey was limited to a review of the secondary sources and readily available primary sources, particularly maps and plans.

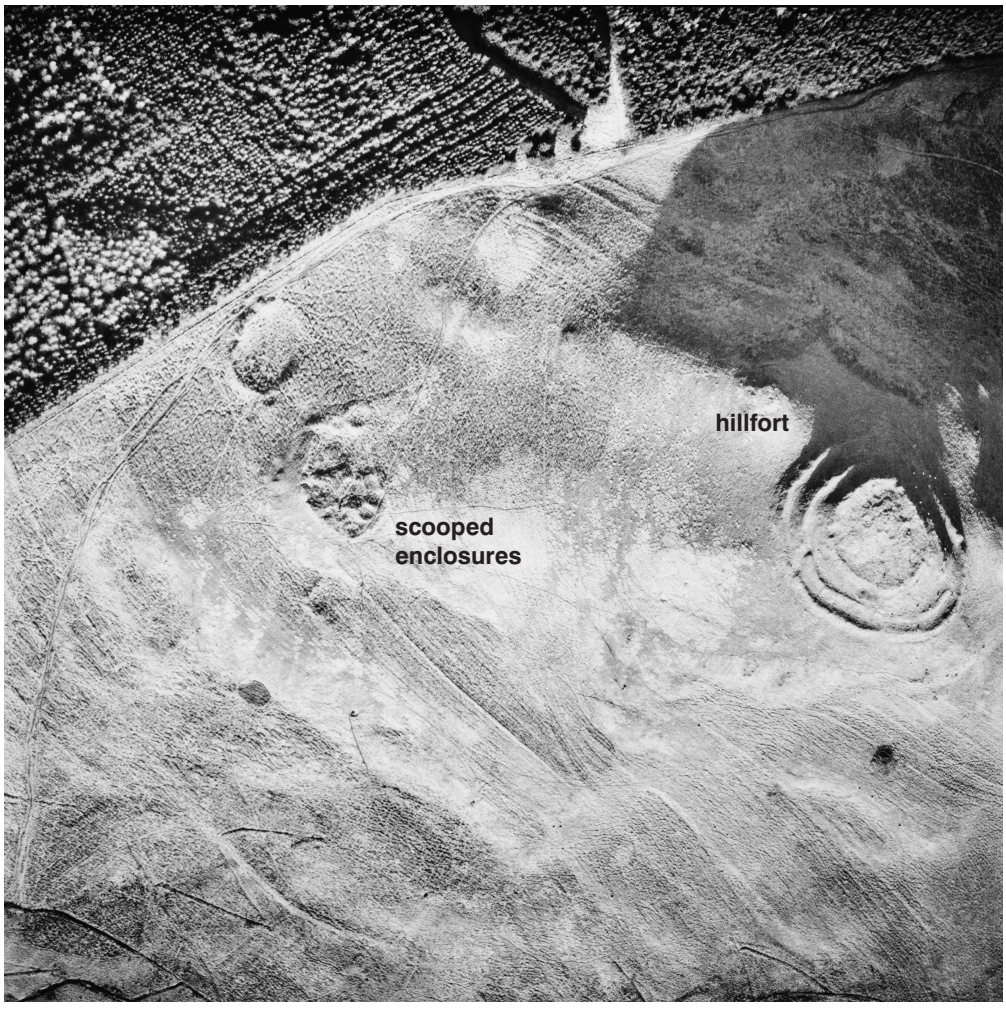


Figure 5. Aerial photograph of Ring Chesters by Tim Gates, taken 1986 (reproduced by permission of Tim Gates, copyright reserved)

The Romano-British scooped enclosures

The two most prominent of the three Romano-British scooped enclosures on the northern slope of the hill were shown on the First Edition 6-inch map surveyed in 1860 (Ordnance Survey 1866a and Figure 3). The depiction of the perimeters was accurate, but due to the scale of the survey, only three circular building platforms were shown within the southern enclosure. The enclosures, along with several others in the area, were omitted altogether from the Second Edition map revised in 1896 (Ordnance Survey 1899). In his gazetteer of sites, which was heavily dependent on the Ordnance Survey's early work, AHA Hogg also recorded the position of the two largest enclosures (Hogg 1947, 154). It may have been this reference, along with the availability of aerial photographs taken by the RAF in 1948 (see above), which prompted an examination of the enclosures in 1949 by the Ordnance Survey's local archaeological correspondent, Sir Walter de la Aitchison (NMR). Aitchison described the settlements as 'Votadinian homesteads', the Votadini being the tribe that occupied the region in the late Iron Age, according to classical sources.

In November 1955, the month after he visited the hillfort, Alan Phillips of the Ordnance Survey visited the so-called 'homesteads' reported by Aitchison (NMR). Both enclosures were obscured by bracken, but in the more southerly of the two (labelled B below) Phillips recorded six hut circles in the southern part of the interior and two of slightly different form in the northern part. He suggested that there might have been two entrances into the enclosure, one on the north and another on the north-west, both of which are more likely to be later breaches. He was unable securely to identify any evidence for settlement in the more northerly of the two enclosures (labelled A below), or even to pinpoint the entrance, although he tentatively suggested it might lie at the north-eastern end, a conclusion which the English Heritage investigation supports. Although Phillips made no explicit proposal as to the date of the remains, it is significant that he uses the term 'scooped' to describe the way in which the enclosures are cut into the natural slope. So-called 'scooped enclosures' were at that time just beginning to be recognised as a distinct type of settlement characteristic of the late Iron Age or more probably the Romano-British period.

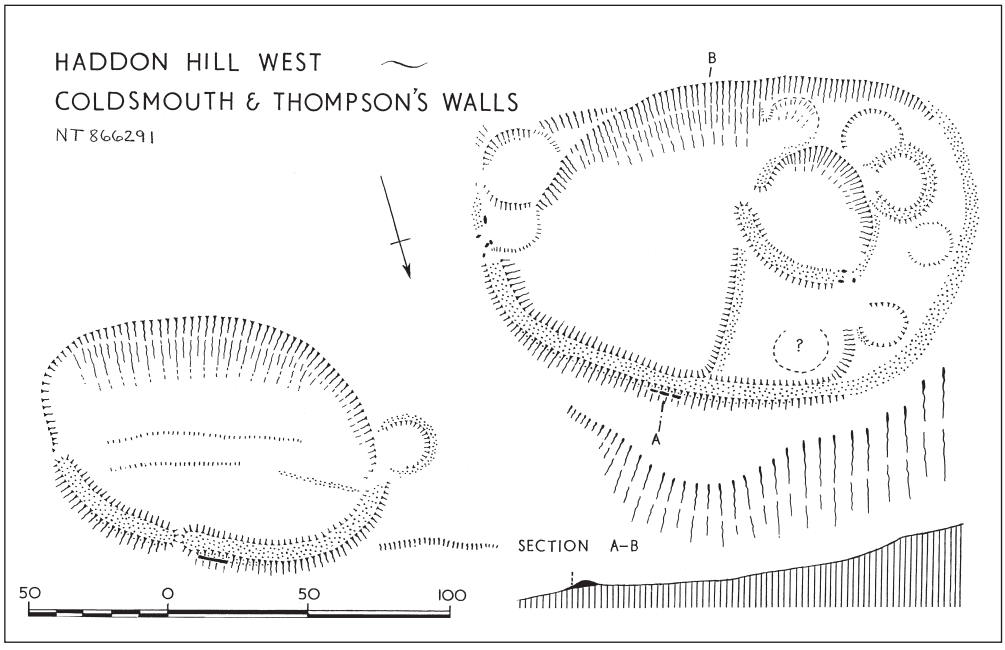


Figure 6. George Jobey's unpublished plan of the scooped settlements (reproduced by permission of Mrs E Gray)

The culmination of this growing concensus came with the publication in 1962 of George Jobey's perceptive discussion of this form of settlement in Northumberland (Jobey 1962). However, on the basis of his own survey of the two sites, which was carried out at some point shortly before 1962 (Jobey nd and Figure 6), Jobey listed both the examples near Ring Chesters simply as 'enclosed stone-built settlements', a type which he regarded as belonging firmly to the Romano-British period (Jobey 1964, 63). It is now generally agreed that there is no clear-cut distinction between these two categories and that the slight morphological differences are simply the result of adaptation to different topographic locations. Jobey's survey also hinted that the enclosures might post-date cultivation terraces, though neither the survey drawing nor his textual description made this explicit. Based on this work, the whole complex was protected as a Scheduled Ancient Monument on 18 June 1969 (DOE 1969).

In 1978, a more detailed survey of the two enclosures was made by Piers Dixon and Andy Ligema under the auspices of Colin Burgess of Newcastle University's Adult Education Department (Dixon and Ligema 1978). The plan added several minor features to Jobey's plan and explicitly showed that the enclosures overlay cultivation terraces.

Caroline Hardie described the enclosures in some detail in July 1994 in advance of the revision of the Schedule (English Heritage 1994b). She confirmed the important observation that both enclosures overlay, and therefore post-dated, cultivation terraces. Yet she implied that the enclosures were of late Iron Age origin, rather than Romano-British, by describing all the seven buildings she identified within the southern half of Enclosure B as 'prehistoric'. She noted that the two circular buildings in the northern half, first mentioned by Phillips in 1955 and described by him as being different in form, overlay the bank of the enclosure and faced outwards from the interior, observations which the more detailed English Heritage investigation in part supports. On the basis of this evidence, she suggested that these buildings were later additions. Like Phillips, Hardie was unable to identify any evidence for settlement within enclosure A and inferred that it may have acted as a pen for livestock. She also followed previous fieldworkers in suggesting the presence of a smaller structure adjoining the exterior of the enclosure, which the more detailed examination suggests to be a drainage ditch or quarry hollow. She noted for the first time a separate enclosure (labelled C below), which she also interpreted as a possible pen for livestock.

4. DESCRIPTION AND INTERPRETATION OF THE EARTHWORKS

4.1 Summary

The defences of the hillfort, as recorded by previous fieldwork, could be described as two concentric oval circuits formed by earthen banks and, positioned eccentrically within these, a near-circular circuit constructed of stone. The pair of earthen banks would probably have served to support timber palisades or hedges, while the innermost rampart would have been formed by a broad stone wall. Most previous investigators have tacitly accepted that these three circuits represent a single phase of construction. However, the English Heritage investigation suggests that the two outer circuits represent a 'bivallate fort' constructed in one phase, that the stone-built inner circuit represents a later phase, and that parts of all three earthworks were modified during the Romano-British period. In addition, the re-assessment suggests that there may have been an earlier enclosure on the hilltop, potentially predating all the circuits that have been recognised previously. The entrance on the north-west identified by MacLauchlan and others, but interpreted as a later modification by Jobey, appears to have been the principal entrance through the outer pair of circuits. There remains slight uncertainty as to whether the entrance on the south-east was constructed at the same time and this question potentially has implications for the development of the bivallate fort as a whole. The entrance on the north-west of the inner stone-built circuit appears to have been the sole original entrance in that perimeter, while the gap on the south, which was accepted by MacLauchlan and Jobey as its principal original entrance is probably a breach created in the Romano-British period.

As George Jobey first observed, there are two distinct phases of settlement within the hillfort. The earlier phase, which is presumed to lie within the Iron Age and may be contemporary with the use of the bivallate fort, is represented by a single large, circular building platform which retains traces of a 'ring-groove', that is, a circular foundation trench for timber uprights (Building 1). Of the two other examples of this type of structure identified by Jobey, one can probably be dismissed and the other almost certainly belongs to the later phase of occupation. However, re-examination of a bank mistakenly interpreted by Jobey as part of one of the later buildings suggests that it may define the edge of an earlier platform. The later phase, which is considered to lie within the Romano-British period, is characterised by at least seven smaller circular buildings with foundations formed by earth and rubble banks. These are associated with small yard-like compounds, possible ancillary structures and a network of banks that presumably once supported hedges or fences, which would have subdivided the interior of the fort into a series of small enclosures. Importantly, in several places these compounds and subdivisions can be seen to be contemporary with low stony banks that appear to represent crude attempts at reconstruction of the earlier ramparts, making use of the tumbled rubble as a building material. There is no obvious evidence for medieval or later settlement within the fort, or even for the temporary shelters associated with stock management that are commonly found in such locations. However, it is likely that the circular stone setting within one of the Romano-British buildings (6), interpreted as a possible prehistoric hearth by Caroline Hardie, was constructed in the 19th century as a marker for an Ordnance Survey triangulation station (English Heritage 1994a). The purpose of the second stone setting is less clear, but it too appears to be of relatively recent origin.

The detailed examination of the three scooped enclosures on the south-western side of the hill broadly confirmed many of the observations made by previous fieldworkers, but led to several important new observations. Previous investigators have concluded that the function of the northernmost enclosure (A) did not relate to settlement. The English Heritage investigation in part supports this, for the only possible structure in the interior identified previously is actually the dilapidated remains of a byre-house or similar rectangular stock pen, probably of medieval or later date. Yet there remains some doubt that the enclosure can have been used as a corral for livestock, as concluded previously, since the earlier agricultural terraces in the interior show no signs of having been worn down. As observed by previous investigators, Enclosure B has abundant evidence for settlement in the form of the remains of at least seven small circular buildings. Two of these, as noted previously, overlie the north-eastern end of the enclosure, suggesting that the occupation may have been prolonged. At the south-western end, a complex of three relatively prominent buildings fronting onto a yard also seems to have been superimposed over earlier remains, hinting that the sequence may have been more complicated. The investigation served to clarify the form and extent of Enclosure C, but sheds little more light on the question of its function.

The only other evidence for settlement in the landscape around the hillfort is a complex of 'shielings', or shepherds' shelters, lying at the foot of the slope some 500m south-east of the summit. These are probably of medieval or later date and have only previously been recorded from the air (Gates 2000b). The complex comprises as many as six rectangular buildings surviving as platforms or prominent earthworks, all grouped around a fairly large rectangular area characterised by the absence of earlier earthworks, which may represent a communal yard.

The complex patchwork of agricultural remains that covers the whole area surveyed by English Heritage can apparently be assigned to four broad and ill-defined periods of activity: prehistoric, medieval, post-medieval and 19th century. However, the physical relationships on which this conclusion is based are sparse and not in every case clear-cut. At least some of the agricultural terraces that predate the probable Romano-British scooped enclosures may well be contemporary with the occupation of the hillfort, but there are two slightly different kinds of terrace, and this difference may indicate a broader chronological span. Evidence for Romano-British agriculture is slight and open to considerable doubt, so is excluded from this synopsis, though discussed in Section 4.2. Traces of post-medieval 'low rig' are abundant and are very probably associated with the final occupation in the later 17th century of the nearby deserted village of Heddon (centred at National Grid Reference NT 862 284). However, in some places it seems likely that the rigs may have evolved from medieval ridge and furrow and this would be consistent with the earlier occupation of Heddon, which is first documented in the late 13th century. Similarly, the ploughing thought to have been undertaken in the 19th century is often difficult to distinguish from that of the post-medieval period, where the two follow the same alignment. Only on the north-eastern shoulder of the hill, where the furrows run across the contours rather than along them, can a discrete episode of ploughing be completely disentangled from earlier and later phases.

In the following sections, the remains are described in broadly chronological order, corresponding to the conjectural sequence outlined above.

4.2 The Iron Age hillfort and its immediate environs

NGR: NT 8670 2891. NMR: NT 82 NE 24

Possible early enclosure

The English Heritage investigation identified some evidence for a previously unrecognised enclosure underlying the innermost stone-built rampart of the hillfort. At the southern end of the circuit, a scarp up to 0.4m high describes an arc that approximately echoes the curve of the stone-built rampart but appears to underlie that circuit and thus to predate it. Evidence for the northern half of the circuit is more difficult to detect, which is not surprising given that most of it would presumably underlie the later rampart. However, it is noticeable that a stretch of the inner face of the quarry hollow behind the inner of the two earthen ramparts is more pronounced, as though the quarrying emphasised the form of a pre-existing feature. If this stretch indeed marks the line of the earlier enclosure, then it seems likely that it also predates the outer pair of circuits. This conclusion is supported by the condition of the earthwork, for it has a slight and degraded appearance and shows signs of having been dug into, presumably to obtain building material for later structures. The area enclosed by the circuit can be estimated as being about 0.25ha (0.62 acres). The earthworks give little clue as to the precise position of any entrance, but its seems likely that it may have lain somewhere along the north-western sector of the circuit.

The bivallate fort (outermost circuits)

The two outermost circuits describe an oval whose longer axis is aligned from north to south, the perimeter thus corresponding broadly to the limits of the natural knoll that forms the summit of the hill. Although the inner of the two demonstrably predates the stone-built innermost rampart, there is no conclusive proof that the two outermost circuits were constructed at precisely the same date as each other. However, there is strong evidence in the similar form and construction technique of the earthen banks and, perhaps more tellingly, in the close correspondence in the plans of their circuits, that the two were in contemporary use. They may well have been designed from the outset to function as a pair, forming a 'bivallate fort'. The area enclosed by the inner of the pair of circuits, that is, the space available for habitation or some other use, would have originally been about 0.41ha (1.01 acres), with maximum dimensions of 89m from north to south and *c* 60m from west to east. There seem to have been two entrances through the circuits: one on the north-western shoulder of the hill (labelled A on Figure 7) and the other overlooking the more level area on the south-east (labelled B).

The two ramparts maintain a regular distance from each other of 10m apart, so that the external ditch of the inner circuit would have effectively acted as a quarry providing material for the construction of the outer rampart bank. With the exception of a stretch only 15m long and of minimal depth on the south-west, there is no sign of any external ditch accompanying the outer rampart bank. Therefore, almost all the material for its construction must have come from the ditch immediately behind it. Similarly, a shallow depression along the inside of the inner circuit appears to have provided most of the material for that rampart. Both ramparts are formed by low banks of earth and rubble on average 6m wide across the base, which in effect would have served to accentuate the naturally steep slopes of the knoll that forms the hilltop. Facing stones, including both quarried blocks and unworked boulders up to 0.9m long and 0.5m high, survive *in situ* intermittently around the external faces of both

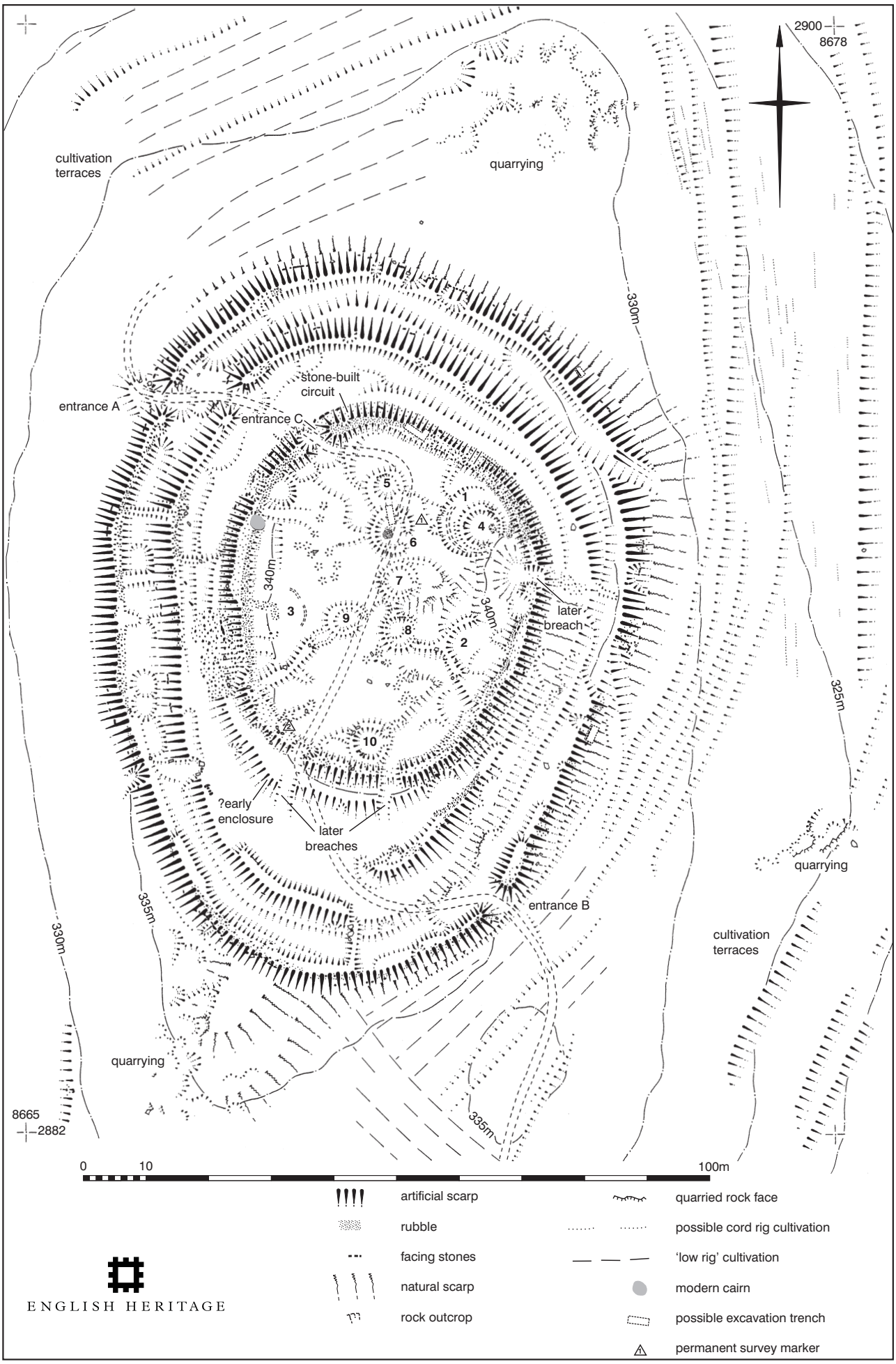


Figure 7. English Heritage plan of the hillfort and its immediate environs (reduced from original at 1:500 scale)

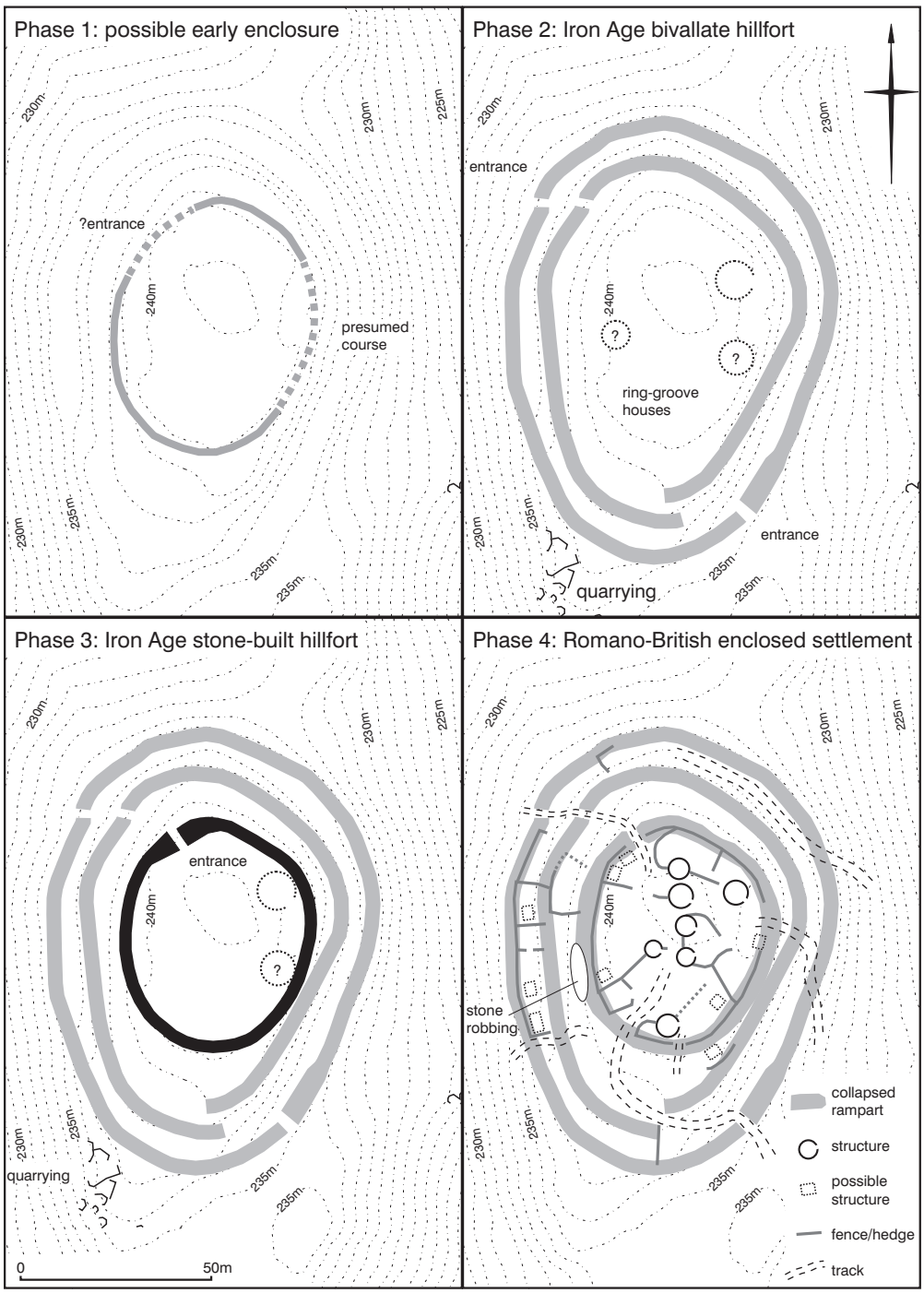


Figure 8. Interpretative plans of the development of the hillfort

banks; at two points, erosion has exposed two courses of smaller stones, but there is no evidence that such coursing was extensive. Some of the largest stones were used at the southern tip of the outermost circuit (Figure 9). This may be accounted for either by the greater vulnerability of this stretch of the defences (which runs across the tail of the knoll and does not make best use of the topography) or simply by the proximity of the small-scale quarries which were probably the source of the blocks. The facing stones define the original breadth of the earthworks, indicating that the banks were once about 2m narrower. In both cases, the facing stones seem to have formed a low revetment retaining the outer foot of the bank, rather than representing the remnant of an actual coursed wall. Seen from the exterior, the ramparts appear impressively massive, with external faces up to 1.2m high, but this belies the fact that both earthworks are for the most part formed by a slight enhancement of the naturally

Figure 9. View northwards towards facing stones at the southern tip of the outermost circuit

steep slope of the knoll that forms the summit of the hill. On the north side of the perimeter, the underlying steep natural scarp lends the defences a particularly imposing appearance. In the case of the inner rampart, this effect would have been further accentuated by the ditch/quarry hollow between the two ramparts, which is now almost completed silted up and is no more than 0.2m deep, but could conceivably have been much deeper originally. This construction technique would have minimised the effort required to construct the defences, for the upstanding element of each bank generally forms no more than a quarter of its full height, and this is reflected in the much lesser height of the inner face. However, the economy of effort would not have been reflected in the outward size and appearance of the defences, especially if, as seems likely, the earthen banks were surmounted by some form of superstructure, such as a hedge or timber palisade.

What seems to have been the more important of the two original entrances through the circuits, labelled A on Figure 7, is located on the north-western side of the hillfort (Figure 10). It has been regarded by most previous investigators as a 'minor' entrance and was apparently dismissed by George Jobey as being entirely the product of later damage (see Figure 4). To a large degree, this conclusion follows from the acceptance that all three ramparts were built in a single constructional episode and the recognition of the more conspicuous south-eastern entrance (labelled B). However, the English Heritage investigation suggests that, contrary to Jobey's suggestion, there is conclusive evidence in the form of entrance A itself that it is original and that it was probably the more important of the two. Firstly, the terminals on either side of the gaps in both circuits are off-set from each other by about 2m. This slight but distinct mismatch, which is not apparent on Jobey's own survey, clearly indicates that the gaps are original rather than later breaches. Secondly, there is an unusually high concentration of large facing stones on either side of the gaps in both circuits, many of which are still *in situ* or only slightly displaced, and the terminals of the banks flanking the gaps are slightly broader and higher, leaving an entrance passage only *c* 2m wide. Thirdly, the gap in the inner of the two circuits is some 5m further to the

north, producing a staggered approach. Lastly, the ditch/quarry hollow between the two ramparts appears to have terminated just short of the approach on both sides. These characteristics, which would have served to strengthen and emphasise the position of the narrow entrances, are typical of other Iron Age gateways.

Figure 10. View westwards towards the north-western entrance (A), seen from the entrance into the stone-built circuit (C)

Figure 11. View north-westwards towards the south-eastern entrance (B)

By contrast, while it seems highly probable that Entrance B is original, close examination casts doubt on the suggestion that it was the 'main entrance' and leaves slight uncertainty as to whether there may have been a more complex sequence of construction. The entrance in the outer circuit seems to have been less elaborate than that at A, with only a single small facing stone and no off-set at all between the terminals (Figure 11). At the very least, this relative lack of architectural elaboration tends to suggest that this was a less important entrance than that at A. In addition, the enlarged terminals of the bank on either side of the gap could be interpreted as the result of the deposition of spoil produced by the cutting of a breach in the bank, rather than as original features. On the other hand, the terminals of the bank of the inner of the pair of circuits were probably originally staggered by some 5m, implying that this was definitely an original entrance. Therefore, if this hypothesis is followed to its logical conclusion, the inner of the two circuits must have been added after the outer, with a south-eastern entrance that required the creation of a breach in the outer circuit. This proposal runs contrary to the fairly strong evidence put forward above that the two circuits are contemporary, so on balance it seems more likely that the entrance through the outer circuit at B was simply less elaborate than that at A. Finally, it should be noted that the original form of the entrance through the inner circuit was modified, apparently in the Romano-British period. This involved the foreshortening of the southern terminal by several metres and the addition of a bank connecting the truncated terminal to outermost circuit; the original extent of the rampart can just be discerned as a slight scarp. The superimposed bank cannot be interpreted as the remnant of a structure contemporary with the original gateway as suggested by Caroline Hardie (English Heritage 1994a).

At two points, one on the south-east and one on the north-east, rectangular cuttings into the face of the outer of the two circuits have exposed short stretches of the facing stones without disturbing them (see Figures 7 and 12). These cuttings seem unlikely to have been eroded by livestock, for they are straight-sided and regular, as though deliberately dug. In both instances, the facing stones are still precisely *in situ* despite the fact that they are barely retained by the bank itself, which suggests that they may have been exposed relatively recently. Based on their appearance, it is not inconceivable that the cuttings are the outcome of small-scale archaeological excavations, presumably intended to clarify the structure of the rampart bank. However, no excavations have been documented.

The stone-built (innermost) rampart

The English Heritage investigation suggests that the stone-built innermost circuit is a later development than the predominantly earthen bivallate fort. George Jobey acknowledged the possibility of multiple phases of construction, based on the staggered form of the southern entrance into the bivallate fort (B), but concluded that there was no firm supporting evidence for the idea (Jobey 1965, 43). Following the model of the so-called 'Hownam sequence' of expansion, which is based on the excavated site of Hownam Rings in Roxburghshire, Tim Gates has proposed the opposite sequence to that suggested by the English Heritage fieldwork (Gates 2000b, 13). The stone-built innermost circuit is nearly circular in plan, the interior measuring 0.19ha (0.47 acres) in area with a diameter of 54m across the north - south axis and 44m east - west. The circuit was apparently superimposed upon the bivallate hillfort, rather than integrated into the pre-existing design, for where it overlay the inner of the pair of earthen ramparts on the east, the earlier earthwork was graded and quarried away to produce a continuous steep slope immediately outside the new rampart. The resulting spoil seems to have been left to lie in the ditch/quarry hollow behind the outermost circuit, so that

the depression at this point is entirely masked. Other than this, there is no sign that the earlier defences were disturbed to obtain the large quantity of stone that would have been required, which implies that they were not regarded as completely redundant.

Unlike the circuits of the earlier bivallate fort, which were essentially earthen banks retained by a stone curb, the innermost circuit was apparently formed by a broad drystone wall, whose external face was evidently coursed to a considerable height. This now survives as a bank of tumbled rubble, 5m wide on average and up to 0.9m high externally; like the other circuits, much of the perimeter follows the contours so that the internal face is much lower. Within the mass of rubble, single facing stones and short stretches of facing survive *in situ* intermittently around the entire circuit, indicating the precise line of the outer face. In places, two or three courses of this face are exposed, which give an impression of skilful construction. Most of the material used in the face seems to have been split or quarried as fairly large but easily portable blocks, while the core of the structure comprises fist-sized and larger lumps of rubble. Very few stones that may be interpreted as elements of the inner face can be identified, but the earthwork traces suggest that the width of the wall remained constant around the circuit at about 2.7m. It is unclear whether the wall maintained this breadth to its full height, or whether a narrower parapet stood upon a broad foundation. In either case, a great volume of stone would have been needed, as is clearly demonstrated where the core of the bank has been exposed by intensive robbing over a distance of some 12m on the western side of the circuit. This robbing may well have been carried out in the Romano-British period; the source of the stone used to construct the wall in the first place is discussed further below.

Three of the four major gaps in the circuit, including that on the south identified as the principal entrance by Jobey and others, are almost certainly later breaches, probably relating to the remodeling of the settlement in the interior during the Romano-British period, and are labelled as such on Figure 7. The sole original entrance, labelled C on Figure 7, lies on the north-west of the circuit, oriented slightly further to the north than Entrance A, which gave access into the earlier bivallate fort. At this point, the smooth curve of the circuit is slightly distorted and the rubble bank on either side of the gap is a little wider, suggesting that the terminals of the wall may have been slightly broader or higher. There is also a concentration of larger facing blocks on the exterior, the last of which are slightly in-turned. These indicate that the passage through the wall can have been little more than 2m wide. This narrow opening could presumably have been closed by a timber gate, although earthwork survey cannot hope to provide any evidence that this was the case. The western terminal has been partially dug away at some later date, though whether this represents the robbing of loose stone or a deliberate attempt to widen the entrance is uncertain.

A shallow L-shaped cutting was recorded on the north-east of the circuit (see Figures 7 and 12). This cannot easily be dismissed as merely erosion caused by livestock, for it is straight-sided and regular, as though deliberately dug. The cutting is aligned so that its longer arm extends along the central line of the rubble bank and the shorter arm extends outwards at right angles towards the outer face. As with the two possible examples on the outer bank of the bivallate fort, it is not inconceivable that this cutting is the outcome of small-scale archaeological excavations, although no excavations have been documented. The form and arrangement of the trench does not seem to have been intended to examine the stone-built rampart itself (a section dug at right angles to the rampart would be standard practice for this). Rather, the trench may have been intended to investigate a stretch of the ground surface beneath the rampart, possibly to search for traces of a palisade.

Settlement remains within the hillfort

With one certain and two possible exceptions, all the circular buildings visible as earthwork remains within the stone-built innermost circuit are probably of Romano-British date. The principal evidence leading to this conclusion is the form of the buildings themselves: their foundations are formed by low rubble banks intermittently reveted by larger stones set on edge, a technique which has long been recognised as characteristic of that period. The distinctive 'organic' pattern of the settlement as a whole is an equally typical feature of other Romano-British enclosed settlements. In addition to this, there is also firm stratigraphic evidence that these settlement remains are relatively late in the sequence. The circular buildings are physically linked to a series of banks, presumably marking the former lines of hedges or fences, which radiate out to the stone-built circuit and in some cases beyond, thus subdividing the interior and the spaces between the circuits into smaller compartments suggestive of yards or pens. Where these banks directly overlie the ramparts, it is clear that they were built on top of the rubble bank, making use of the tumbled material. From this, it can be inferred that they were constructed at some point after the ramparts had collapsed or been demolished. Within the compartments, roughly rectangular depressions of negligible depth and fragmentary indications of low banks hint at the former existence of more structures, presumably constructed in a more insubstantial fashion, or only erected for temporary use. These may have been shelters, animal pens or simply areas of more intensive activity. The complexity of the settlement pattern seems to have been matched by the arrangements for access into and through the settlement, though the earthworks only allow fragments of the system to be understood. Two breaches were created through the southern sector of the tumbled rampart (see Figures 7 and 8). The more westerly of these, which was identified as the main entrance by George Jobey and others, appears to have been more intensively used and provided access into a relatively large forecourt-like enclosure. On the east, another breach was created in the stone-built circuit in order to allow a trackway that obliquely ascends the outermost rampart to enter the settlement. Further to the north, another trackway appears to have climbed the rampart and then run along the space between the pair of earthen circuits, as though entirely by-passing the settlement within the innermost circuit.

As George Jobey first pointed out, the Romano-British buildings appear to be the later of two types of buildings, the earlier type represented by one certain and two possible sites of circular timber buildings. These sites are generally identifiable as levelled circular platforms, usually of greater diameter than the Romano-British buildings, sometimes with a narrow foundation slot, or 'ring-groove', recognisable as a negligible depression or narrow line of tussocky grass upon the platform. The evidence for the existence of such structures at Ring Chesters is less widespread than Jobey proposed, for one of his examples can probably be dismissed, while the other is more likely to be of Romano-British date. However, Building 1 is a classic example of a ring groove structure built on a large platform, the platform being the only evidence for the building depicted by George Jobey. The platform was subsequently re-used as the site of Building 4, which is one of the stone-founded structures characteristic of the Romano-British settlement.

Of the ten possible circular buildings recorded by the English Heritage investigation, Buildings 1, 4, 6, 7, 8 and 10 were recorded in 1860 by MacLauchlan (MacLauchlan 1867). Jobey (1965) recorded all ten buildings, as well as two more that have been rejected outright as structures. He also recorded a few elements of the network of banks that subdivides the area into small yards and compartments.

Building 1 is evidenced by a well-preserved example of a ring-groove and therefore can be assigned with confidence to the prehistoric phase of occupation. The ring-groove lies concentrically within a perfectly circular platform terraced to a maximum depth of 0.3m into the slope to achieve a level surface. The edge of the platform abuts the inner side of the stone-built rampart and the construction of the building could therefore, at face value, have been contemporary with either this phase of the Iron Age defences or the earlier bivallate fort. However, Iron Age roundhouses are widely agreed to have had broad, sloping eaves, designed to carry rainwater well away from the walls and to diminish the danger of the roof being torn off by strong winds (for examples, see Reynolds 1979, 33-6; Jarrett and Wrathmell 1981, 67-74). If it is envisaged that Building 1 was roofed in this way, it is arguable that the space between the building and the rear of the stone-built rampart would have been insufficient to accommodate the eaves, which perhaps extended for more than a metre beyond the line of the ring-groove. At the very least, the juxtaposition would have hindered construction of the roundhouse. Aside from this, there is an almost imperceptible deviation in the line of the stone-built circuit, from which it may be inferred that the rampart was deliberately laid out so as to enclose the building platform, or perhaps a building that was still standing there. Therefore, it is not unreasonable to conjecture that the construction of the building is more likely to have been contemporary with the earlier bivallate hillfort, but that its use may have continued into the later phase. The platform was re-occupied by Building 4, masking part of the ring-groove itself, but the stretch that remains visible allows the diameter of the timber building to be estimated with a fair degree of accuracy at about 9m, excluding the spread of the eaves. The floor area of the building would therefore have been around 65m^2. The precise position of the doorway cannot be identified with confidence, but it must have lain in the sector between north-north-east and south-east if the building was indeed only used during the occupancy of the bivallate fort. Alternatively, if the building was designed to accommodate the stone-built rampart, or *vice versa*, and was built at the same time as that circuit, the doorway must have been oriented approximately south-east.

Building 2 was identified by Jobey as a remnant of one of the stone founded structures that represent the Romano-British phase of occupation within the hillfort. As such, it can almost certainly be dismissed, for the arc of bank seems much more likely to represent part of the network of low stony banks that divided the interior into yards and compounds associated with the Romano-British buildings. Nonetheless, the curve of the bank is suggestive and it is possible that it follows the rear of an earlier circular platform, cut into the slope like that of Building 1. The ground to the east of the curving bank is unusually level, like the surface of the platform created for Building 1, which offers some support for the possibility that an earlier timber building may have occupied the site.

Building 3 was first identified by Jobey and depicted as a semi-circular arc of ring-groove, implying that the building was part of the prehistoric phase of occupation. The narrow depression that he identified can still be traced on the ground, but the plan of the remains is unconvincing as a structure and the area is scarred by faint sheep tracks which may better account for what little can be seen.

Building 4, which lies off-centre within the platform originally created to support Building 1, is the largest and best preserved of the Romano-British buildings. It is formed by a stony bank up to 0.3m high with a number of facing stones still standing *in situ*, which defines an internal area of 26m^2, some 5.5m in diameter. The doorway is oriented roughly south-east, facing towards one of the breaches in the rampart

which are thought to have been created in the same period. The roughly circular setting of loose stones that lies within the building just to the north of the doorway was interpreted by Caroline Hardie as a possible prehistoric hearth (English Heritage 1994a). While it is not impossible that the feature was built as a hearth, its proximity to the doorway, amongst other things, argues against it being contemporary with Building 4; it seems more likely to be of relatively recent origin and is therefore described below.

Building 5 was first identified by Jobey and was depicted as a ring-groove, implying that it belonged to the Iron Age phase of occupation. He may have reached this conclusion because the earthen bank is less prominent than most of the others and appears to be partially overlain by Building 6, although Building 5 need not have gone out of use when this change was made. Despite this stratigraphic indication that the building is of earlier origin than its neighbour, the earthwork has nothing in common with ring-grooves and much in common with the other Romano-British buildings. The evidence therefore points more towards a slight remodelling of the Romano-British pattern, which in turn suggests that the settlement may have been more long-lived than it might at first appear. The position of the doorway is uncertain, but it is possible that it faced northwards onto a small yard.

Building 6 is a relatively large and well-preserved Romano-British building. The doorway, which (curiously) was not identified by Jobey, is oriented east-south-east. On the north, the stony bank appears to partially overlie the perimeter of Building 5, suggesting that it may belong to a later episode of construction, as described above. The circular setting of stones towards the western side of the interior was interpreted by Caroline Hardie as a possible prehistoric hearth (English Heritage 1994a). However, if used as a fireplace, it seems more likely to be of relatively recent origin, and there is some evidence that it may actually have been constructed as a marker by the Ordnance Survey in the mid-19th century. A shallow rectangular depression aligned radially to the building cuts across the stony bank on the north; this is interpreted as the site of a possible archaeological excavation trench, although no such excavation has been documented

Buildings 7 and 8 appear to represent a pair, for they are connected by a short stretch of bank and apparently faced onto a single small yard-like enclosure. The buildings are of similar size and form, and both doorways are oriented approximately eastwards onto the shared yard. The space between the two buildings was apparently interpreted by MacLauchlan as another small structure.

Building 9 is similar in form to the other Romano-British buildings, but seems to have been slightly isolated from the main part of the settlement, in that it lies separate from the row formed by Buildings 5, 6, 7 and 8. It is therefore possible that the building was not domestic in function. The entrance, which was not identified by Jobey, probably faced east, possibly onto a trackway crossing the settlement from south to north. The bank extending south-westwards from the building as far as the line of the stone-built rampart is much slighter immediately adjacent to the building, but it is unclear whether this represents the site of a gateway into the large yard to the north or later damage.

Building 10 is similar in size and form to the other Romano-British buildings and effectively forms a continuation of the row formed by Buildings 5, 6, 7 and 8. Jobey suggested that the entrance lay on the north-west, flanked by two large stones. Although larger stones are regularly used as doorposts, the earthworks suggest that

the stones formed part of the rear wall and that the real doorway was oriented eastwards. The building may have fronted onto a small yard, although the earthwork evidence for this is very slight.

Quarrying

Small-scale quarrying was identified around the fringes of the knoll some 40m north of the hillfort, on the shoulder of the high ground immediately to the south of the southernmost tip of the outermost circuit and around a rock outcrop on the hillside a short distance to the east. These are all places where the underlying rock clearly lies close beneath the surface. Most of the quarrying is marked by shallow pits cut into the slope, the most pronounced only 0.2m deep, each suggestive of the removal of small slabs, split along the lines of natural fractures. Where the outcrop is exposed on the slope to the east, it is also clear that natural fractures have been exploited to remove individual blocks of stone.

It is doubtful whether this unintensive superficial quarrying would have been sufficient to provide the large volumes of stone needed to construct the defences, especially the stone-built innermost circuit. The bulk of the material may have come from the summit of the hill, for much of the area within the stone-built innermost circuit has a scarred, pitted appearance suggestive of a somewhat more intensive operation. These earthworks, which are generally amorphous and of minimal depth, are depicted schematically on Figure 7, but the extent of the pitted area hints that a considerable volume of the hilltop, or perhaps a large outcrop, may have been quarried away.

Agricultural remains in the environs of the hillfort

The full pattern of the agricultural exploitation of the landscape is discussed in detail in Section 4.5, but the relationship of those remains to the hillfort itself will be dealt with briefly here. Cultivation terraces that are presumed to be of prehistoric origin extend to within 40m of the eastern side of the hillfort and possibly closer. However, at no point do the two features impinge upon each other, so it is impossible to demonstrate through earthwork survey alone whether the terraces were under cultivation during the occupancy of the hillfort.

Some 40m to the north-east of the hillfort, the terraces appear to be overlain by another form of cultivation covering a roughly rectangular area of *c* 0.2ha. This is in part characterised by the smooth appearance of the ground surface and the less tussocky nature of the turf, but in some places closely-spaced furrows of negligible depth are also visible, running on a slightly different alignment from the terraces. The ephemeral furrows lie on average 1.4m apart and could conceivably represent so-called ‘cord rig’, a form of cultivation believed to be of late Iron Age origin which continued into the Romano-British period; elsewhere, smoothed areas have also been interpreted as the product of leaving cord rig to lie fallow (Topping 1989, 167). If this interpretation were correct, the cultivation might be contemporary either with the occupancy of the hillfort or the Romano-British enclosed settlement. However, in the context of a landscape intensively cultivated in later periods, considerable doubt must hang over this conclusion. The furrows in question are not closely comparable to those interpreted with more confidence as being post-medieval, but nor are they entirely convincing as cord rig.

The remains of post-medieval arable cultivation, for which the term 'low rig' is becoming more widely used, extends right up to the periphery of the fort on the east, south-east and north-west. The dating evidence for this type of cultivation is discussed in detail in Section 4.5, but the rigs lying closest to the hillfort physically impinge upon it, confirming that they are of relatively late date. On the north-west, the closest furrow cuts into a spread of rubble that has tumbled from the outermost circuit, indicating that the rampart was already dilapidated by the time the cultivation took place. On the south-east, the closest furrow has produced a pronounced 'step' up to 0.3m high across the front of Entrance B and has presumably erased any possible traces of early trackways extending away from the gateway. Similar slight steps, or lynchets, become increasingly more pronounced as the rigs extend north-eastwards down the slope. The gradual accumulation of soil in this way, which is an inevitable consequence of ploughing on a slope, effectively makes it almost impossible to distinguish between the northern ends of the low rigs and the southern ends of the prehistoric cultivation terraces that they overlie. Further to the south, these broad low rigs are overlain by another strip of low rigs on a perpendicular alignment. This indicates a prolonged sequence of cultivation, which is entirely consistent with the patchwork of cultivated areas recorded elsewhere in the surrounding landscape.

19th-century and later features

A small cairn overlying the stone-built rampart on the west of the circuit is clearly of entirely modern origin. The stones remain loose and unweathered, suggesting that they were accumulated by walkers over the course of the later 20th century.

More contentious is the interpretation of two circular stone settings within Buildings 4 and 6. Both are formed by clusters of stone blocks exposed on the surface, each roughly circular in plan and approximately 1.5m in diameter. All the stones that form the setting within Building 4 are laid flat and some are so loose that they give the impression of having been laid on top of the turf. By contrast, a number of the stones that form the setting within Building 6 are laid on edge so as to form a curb around the stones in the centre, which are embedded in the turf, giving the impression of a more carefully built structure of somewhat greater antiquity. The two settings were interpreted by Caroline Hardie as possible 'prehistoric hearths' (English Heritage 1994a). However, there is little to support this suggestion, leaving aside the likelihood that Buildings 4 and 6 are probably Romano-British rather than prehistoric. Hardie herself observed that the settings are 'slightly off-centre' within the buildings, but in fact they lie so close to the walls that it is difficult to envisage how they could have been used as hearths while the buildings were standing, especially if the roofs were made of some organic material. Therefore, it seems likely that if either of the settings was used as a fireplace, it was at some later date, probably in the post-medieval period.

However, there is some evidence that the setting in Building 6 was constructed by the Ordnance Survey, not long before July 1860, to mark the site of a triangulation point. As such, the structure may have been opened and reconstructed on more than one occasion by the Ordnance Survey and its present appearance may owe something to these later modifications. MacLauchlan, whose plan was made in July 1860, depicted the setting as a small circle and used its central point as the base station for his own survey. The evidence has already been presented in Section 3 which suggests that MacLauchlan's survey took place shortly before the area was mapped by the Ordnance Survey and the 6-inch map eventually published in 1866 marks the same point as a triangle (Ordnance Survey 1866a and Figure 3). This suggests that the Ordnance Survey followed standard practice in establishing the point through the normal series

of prolonged observations of other stations well in advance of their detailed work and that MacLauchlan took the opportunity to complete his investigation at some point in the intervening period. A similar sequence of visits may have taken place at the nearby hillfort on Great Hetha (centred at National grid Reference NT 886 274), where MacLauchlan also made use of the point established by the Ordnance Survey. From this, it can perhaps be inferred that the former Ordnance Survey field surveyor was taking care to collaborate closely with his former employers while they were working nearby.

The setting in Building 4 cannot be accounted for in the same way, yet it too is unconvincing as a feature of any antiquity. It is possible that this structure was indeed a hearth, but one constructed by the Ordnance Survey fieldworkers in responsible for carrying out the prolonged observations for the triangulation. Alternatively, it may be significant that at the point where the perimeter of Building 6 comes closest to that setting, the bank appears to have been sectioned by a small archaeological excavation trench. It has been suggested that this and similar trenches may have been dug in the 1960s, a period when there was growing interest in physical reconstruction and experimentation as a means of advancing understanding of past technologies. The fact that a number of the stones that form the setting within Building 4 seem to overlie the turf would be consistent with an attempt to replicate the structure within Building 6 in a comparable position within Building 4. This would imply that those responsible also reached the conclusion that the setting in Building 6 was a hearth. The relationship of the stones to the turf could, in theory, allow the question to be settled through small-scale excavation.

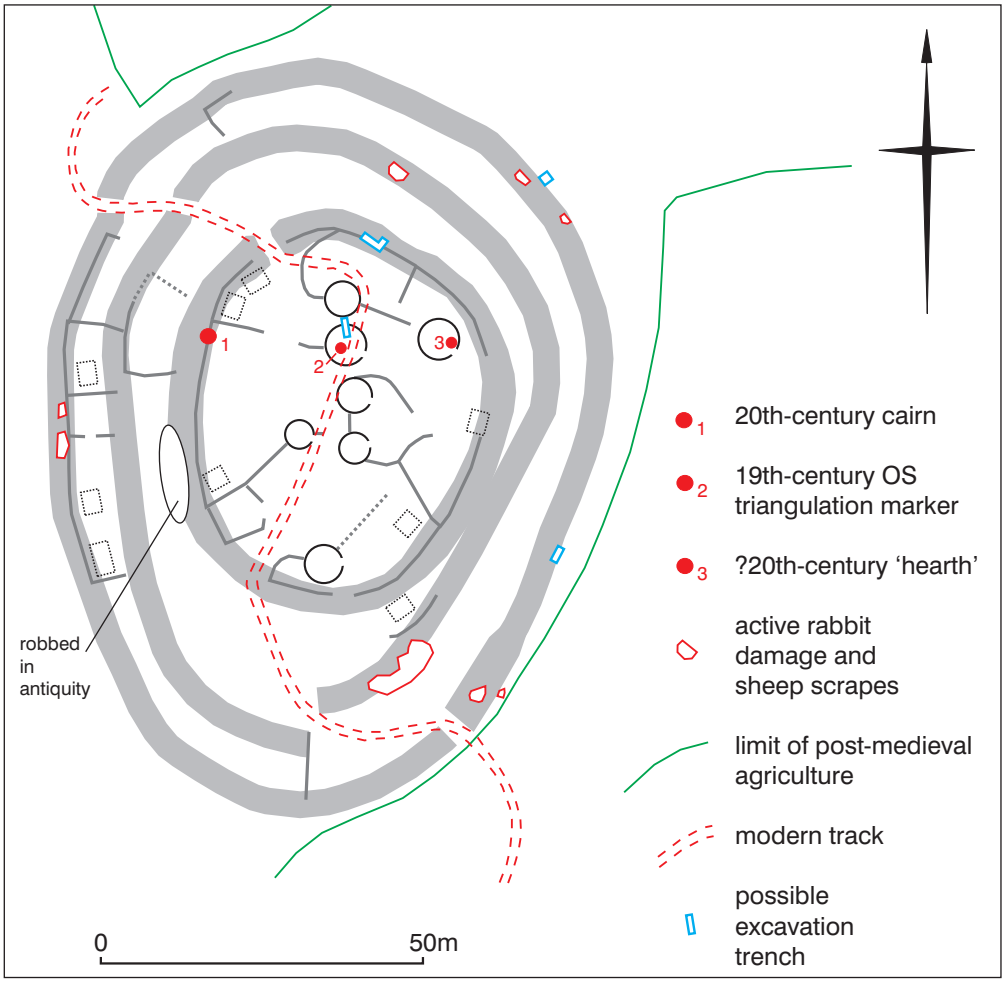


Figure 12. Location of excavation trenches and other features

4.3 The Romano-British scooped enclosures

NGR: NT 8662 2914. NMR: NT 82 NE 23

The term 'scooped enclosure' is conventionally applied to the numerous small settlements which are found throughout the Cheviots and are widely agreed to be of Romano-British or possibly late Iron Age date. The term describes the technique whereby level platforms were created by cutting into the natural slope on the upslope side and pushing the spoil downslope, then enclosing this area with a bank on the downslope side. Despite the general acceptance of the term and its use in this report, this type of settlement is unlikely to be different in any significant respect from enclosed settlements of similar size and composition found on level ground or in lowland locations. The two main enclosures on the north-western slope of Ring Chesters (A and B) were first recorded by the Ordnance Survey in 1860 and were surveyed at large scale by George Jobey, but it was not until 1994 that Caroline Hardie noted the denuded remains of a third, smaller enclosure (C) lying just to the south-west (Ordnance Survey 1866a; Jobey nd; English Heritage 1994b). The two best-preserved enclosures are typical scooped enclosures and the proximity and condition of the third suggests that it is very likely to be contemporary with them.

Enclosure A

Enclosure A is oval in plan with an internal area of 560m^2, the interior measuring 36m by 23m. The long axis is aligned along the contours from west to east, so that the southern side overlies and incorporates a stretch of one of the earlier cultivation terraces. The northern (downslope) side is defined by a broad stony bank up to 1.1m high externally with facing stones surviving intermittently along the upper edge, but it is more likely that this foundation was topped by a hedge or palisade rather than by any form of stone superstructure. The entrance, which has been distorted by post-medieval ploughing, lies at the eastern end of the circuit, as tentatively suggested by most previous investigators. The gap mid-way along the northern side of the circuit, identified as the entrance by Jobey (nd), seems to be a later breach perhaps associated with the later re-use of the enclosure. The interior of the enclosure is divided into two roughly equal parts by a low scarp; since this does not extend beyond the perimeter, it may represent a deliberately created platform rather than the fossilised remnant of an earlier agricultural terrace. However, another such scarp a few metres to the south probably does represent part of an earlier terrace. Although Aitchison referred to the enclosure as a 'homestead', most later investigators have concurred, in the absence of any firm evidence in the interior for typical stone-founded houses, that it was probably used as a corral for livestock. Yet this interpretation is inconsistent with the apparent survival in good condition of earlier earthworks in the interior, where they would presumably have been subject to intensive trampling. The interior of the enclosure has been slightly disturbed by ploughing at some point in the post-medieval period (a factor apparently not appreciated by previous investigators), but this damage seems insufficient to account for the absence of any convincing trace of buildings. Tim Gates (2000b, 14) has offered a plausible alternative explanation for the absence of stone-founded buildings, suggesting that timber structures may originally have been the norm and that in some cases these were eventually replaced by stone buildings.

Apart from Tim Gates, previous investigators have settled on other earthworks in attempting to identify possible contemporary buildings. At the western end of the interior lie the dilapidated remains of a possible longhouse or byre-house, or perhaps simply a rectangular pen, which is probably of medieval or later date. In 1955, Alan

Phillips of the Ordnance Survey interpreted the remains as a possible roundhouse contemporary with the enclosure, but George Jobey's survey subsequently proved otherwise by recording the better preserved southern wall as a straight line of rubble (NMR; Jobey nd and Figure 6). The western end of the building overlies the bank of the enclosure, providing additional stratigraphic evidence that it is unlikely to be contemporary with the enclosure. The doorway may have lain in the eastern end, which would not be typical for a longhouse or byre-house. However, since only the outline of the building can be traced, as a discontinuous line of half-buried stones, it is difficult to reach any definite conclusion about its function. The condition of the remains suggests that the tumbled rubble may have been deliberately removed, perhaps to facilitate ploughing in the post-medieval period. Two small cairns in the vicinity probably account for at least some of the building material, though it seems likely that more may have been taken away for re-use elsewhere.

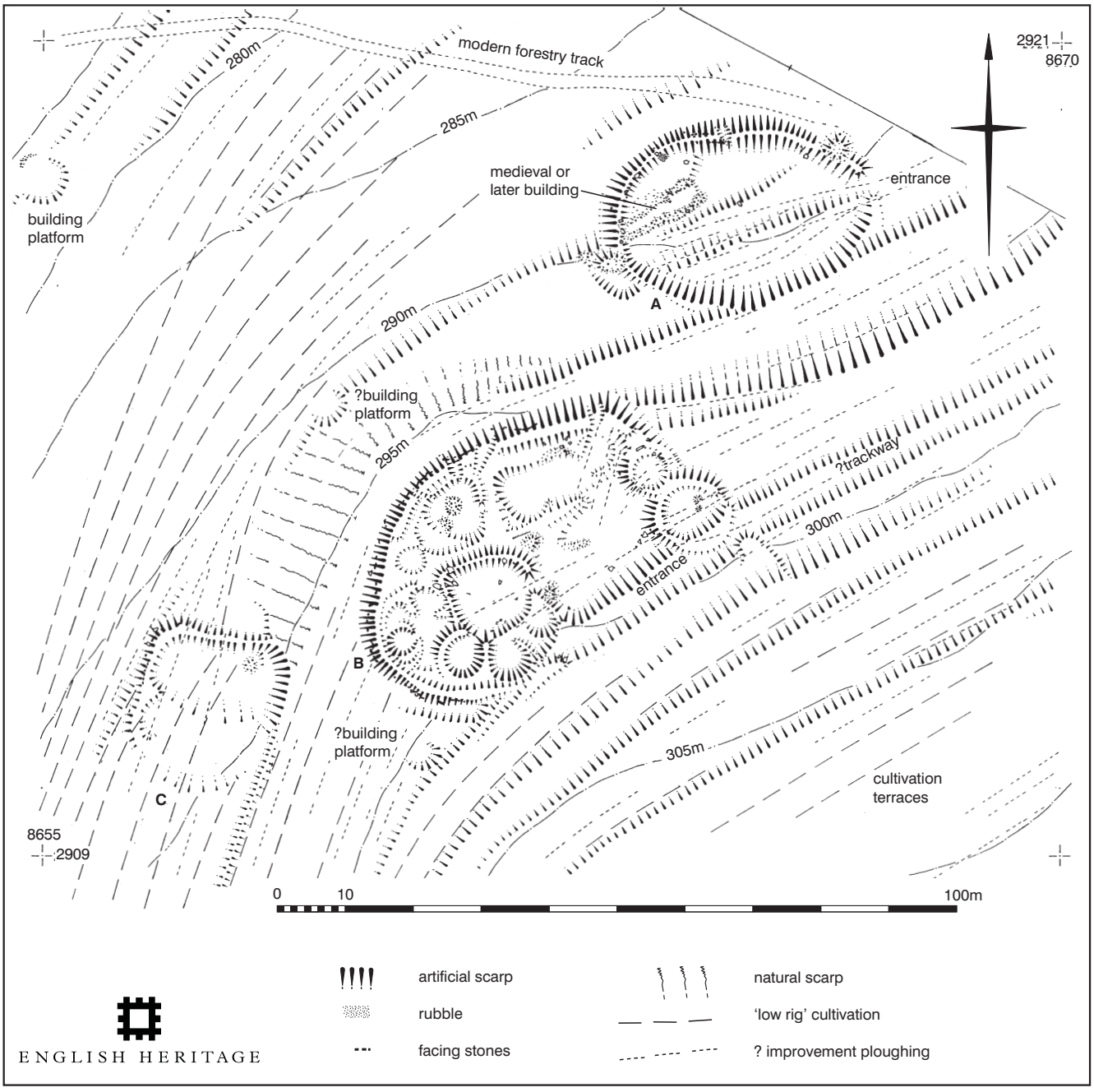


Figure 13. English Heritage plan of the scooped enclosures and their immediate environs (reduced from original at 1:500 scale)

Similarly, it seems unlikely that a small square-ended cutting dug into the natural slope adjoining the exterior of the perimeter at its western end represents a building platform, as suggested by both George Jobey and Caroline Hardie (Jobey nd; English Heritage 1994b). The original form of the cutting is partially masked by a mound of material that appears to represent a heap of cleared rubble, but it seems to have more in common with the ditches commonly found around part or all of the upslope side of scooped enclosures. Enclosure B has such a ditch and there, as in other cases, it is best interpreted as an attempt to improve the drainage in the interior by diverting water around the perimeter. The cutting perhaps also served as a small quarry providing material for the perimeter bank.

Enclosure B

Enclosure B describes a slightly polygonal oval in plan, 1120m^2 in area with maximum internal dimensions of 50m by 31m. Its long axis is aligned along the contours from south-west to north-east and it occupies a natural shelf on the top of a fairly prominent shoulder of the hillside. Like Enclosure A, the south-eastern (upslope) side of the perimeter incorporates a earlier cultivation terrace up to 1.5m high. The narrow level strip between this terrace and a less substantial one lying immediately to the south-east may have been used as a trackway approaching the enclosure from the north-east; gaps in the bank identified as possible entrances by previous investigators are probably breaches relating to later agricultural practice. The end of the terraced trackway overlooks a yard-like area some 15m square, onto which face a series of three or four small compounds. The bank that forms the perimeter on the downslope side is slightly larger than that of Enclosure A, reaching a maximum height of 1.4m, and a greater number of facing stones survive *in situ*, but here too, the earthwork is unlikely to have been topped by anything more substantial than a hedge or palisade. A segment of ditch some 14m long and up to 0.6m deep follows the exterior of the southern side of the enclosure. As mentioned above, this may well have been intended to improve drainage in the interior by diverting ground water around the perimeter.

As previous investigators have recorded, there are clear traces of seven building platforms in the interior and possible traces of two more, grouped in perhaps three or four small compounds. It has also been noted previously that two of the larger buildings overlie the eastern end of the circuit, suggesting that they were built at a later date (and that any hedge or palisade that may have existed must have been removed). There is further evidence, which has not been remarked before, that the settlement evolved over time in the plan and condition of the earthworks at the south-western end of the enclosure. Three of the compounds survive as relatively slight earthworks, each with only one or two circular building platforms up to 35m^2 in internal area facing onto a yard. However, at the southern end of the interior, three relatively large and well preserved platforms face onto a square yard some 90m^2 in area, with an east-facing entrance. The plan and more prominent enclosing bank of this compound suggest that it was a later addition, perhaps built after the other compounds had gone out of use. This putative remodeling may be more responsible for the slight condition of the other earthworks in the interior than the damage done by post-medieval ploughing.

Like the later phase of roundhouses within the hillfort, both the circular buildings overlying the eastern end of the enclosure are defined by low stony banks with occasional facing stones. It is not clear whether they were built at the same time as each other, for the more northerly building appears to have faced westwards into the

interior of the scooped enclosure, while the more southerly one apparently faced eastwards onto the open hillside, as noted by Caroline Hardie (English Heritage 1994b). It is therefore possible that the more northerly building is contemporary with the later compound at the southern end of the enclosure. The more southerly building may represent an even later phase, perhaps marking the complete abandonment of the interior of the enclosure, since the southern wall of the building appears to have partially blocked the putative terraced trackway. The building is also anomalous in terms of its considerably larger size, with an internal diameter of *c* 8m and a floor area of around 50m^2.

Enclosure C

Enclosure C is more rectangular than its neighbours and much less well-preserved. However, where the perimeter bank survives in relatively good condition to a maximum height of 0.5m, its appearance is closely comparable to the banks enclosing Enclosures A and B, suggesting that the three sites are broadly contemporary with each other. Post-medieval and perhaps medieval ploughing have reduced the south-western end of the enclosure, where the entrance was probably located, to a vestigial scarp. A low bank which runs into the upper edge of the perimeter on the east and extends for some distance to the south is almost certainly associated with the final episode of arable agriculture on the hillside, which is thought to date to the later 17th century. The slight surviving traces of the south-western end, taken together with the turn of the bank on the west, suggests that the enclosure was approximately 20m square with an internal area of about 300m^2. Caroline Hardie, who first identified the remains, tentatively interpreted the enclosure as a possible livestock

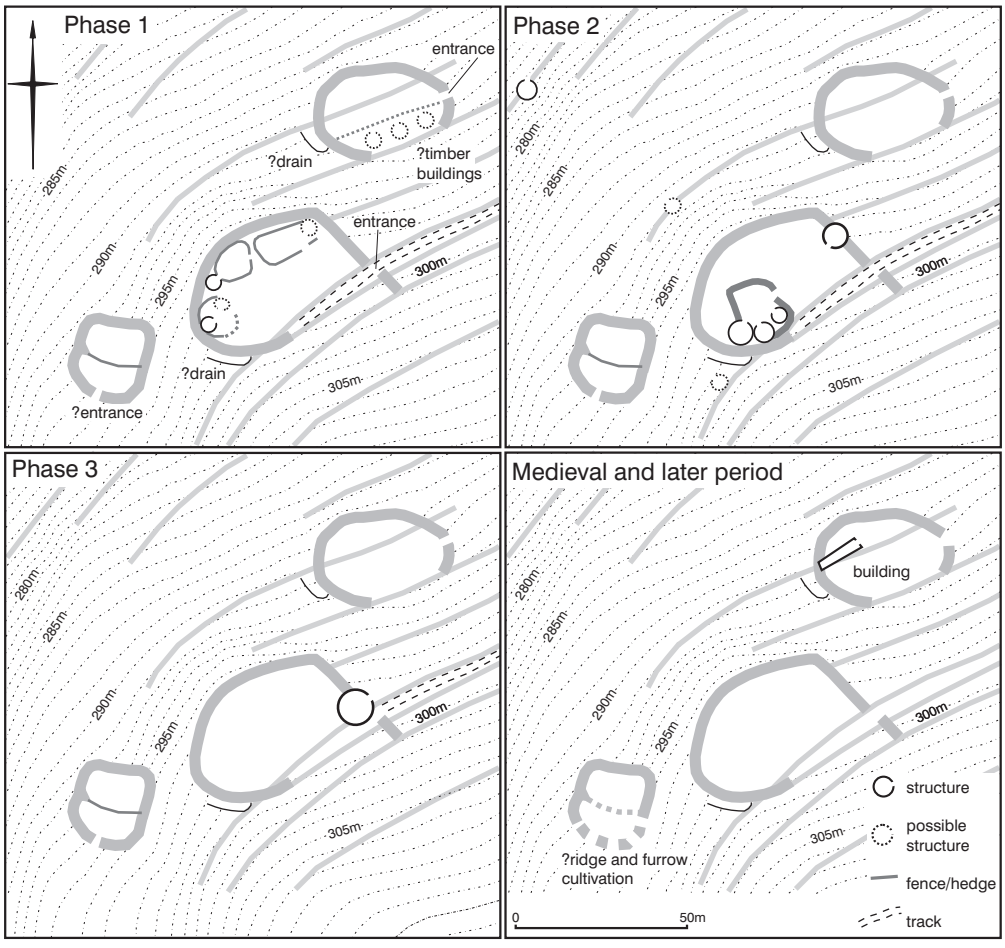


Figure 14. Interpretative plans of the development of the scooped enclosures

pen (English Heritage 1994b). While the more detailed investigation provides no firm evidence either to confirm or to disprove this suggestion, it may be significant that the interior seems to have been subdivided, which may be reminiscent of the small compounds within Enclosure B.

Two or three possible isolated building platforms, perhaps the sites of outlying ancillary structures, were identified in the vicinity, the most distant lying some 70m downslope to the north-west of Enclosure B. Whether these are contemporary with the scooped enclosures cannot be demonstrated through earthwork survey, but all three appear, like the enclosures, to cut into earlier cultivation terraces.

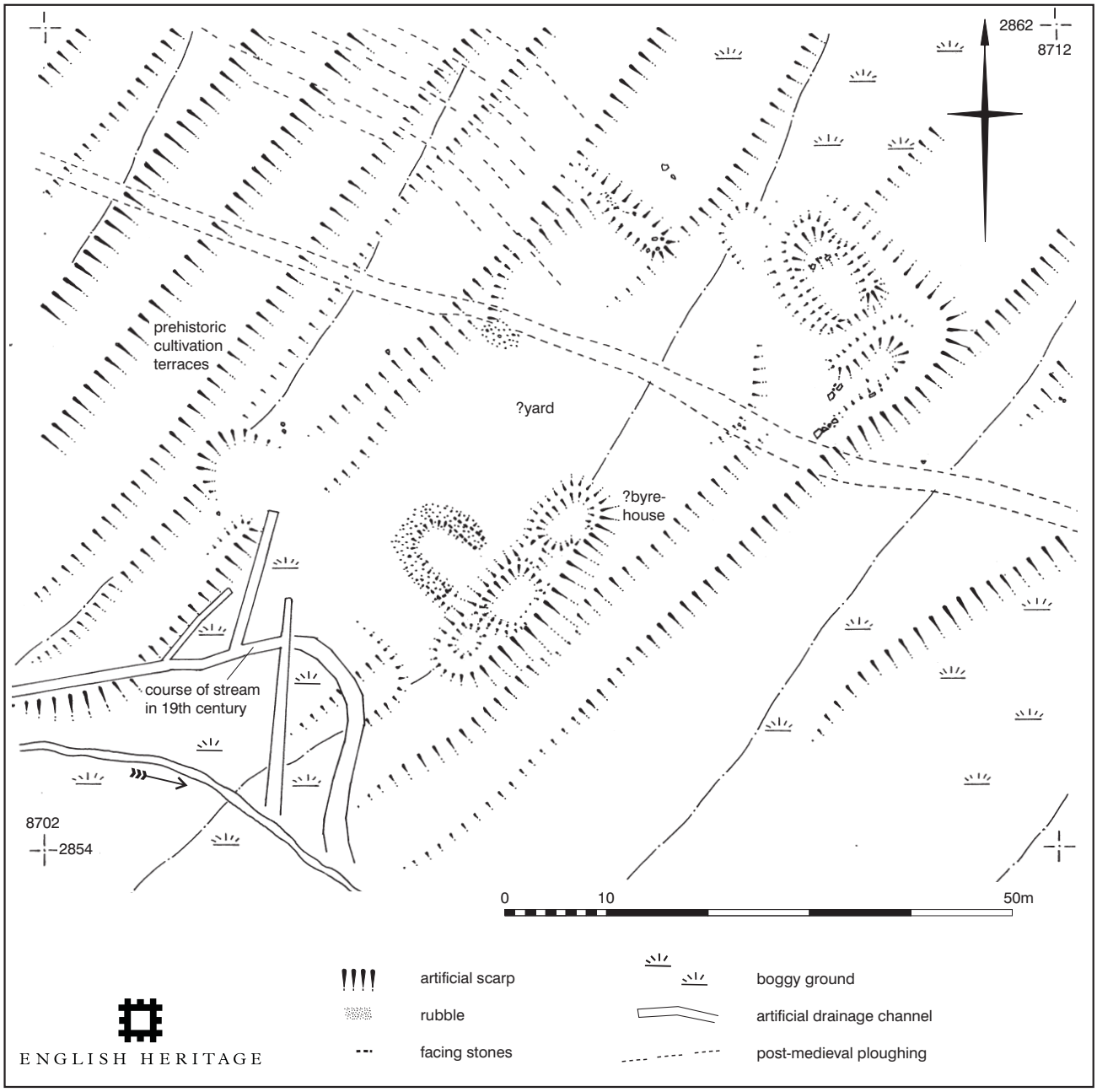


Figure 15. English Heritage plan of the medieval or later shieling complex (reduced from original at 1:500 scale)

4.4 The medieval or later shieling complex

NGR: NT 8706 2857. NMR: NT 82 NE 117

At the foot of the eastern side of the hill, the English Heritage investigation identified a cluster of buildings, surviving in fairly good condition as earthworks, that was first recorded from the air by Tim Gates (2000b). At least six small rectangular structures, including a possible byre-house, are grouped in the edges of a rectangular area some 30m square where all but the faintest traces of the underlying cultivation terraces have been erased. This lay-out is suggestive of a small 'shieling', or farmstead, of medieval or later date. Although there is some evidence that the complex was not constructed in a single episode, it was entirely disused by 1860, for it is not marked on the First Edition 25-inch scale map (Ordnance Survey 1866b).

At the north-eastern end of the yard-like area, two rectangular buildings lying at right angles to each other survive in fairly good condition as earthworks. The larger of the well-preserved buildings, whose perimeter is defined by a stony bank up to 0.4m high, is some 10m long by 6m wide, with a probable entrance at the south-east end and possible traces of an internal division. A small depressed platform adjoining the north-western end of the building suggests the site of another, less substantial structure. The second building, whose south-western end has been badly mutilated and now comprises a merely a discontinuous line of larger stones, was *c* 13m long and 4m wide; the entrance may have been located mid-way along the northern side.

At the south-western end of the yard-like area is a well-preserved range of buildings sited on top of one of the prehistoric cultivation terraces, following the same alignment from south-west to north-east. The range comprises two adjoining rooms of similar size, but the dimensions of the eastern room can be estimated more accurately at 6.5m by 4.5m. Adjoining the eastern end of this pair is a third room of similar size, with a probable entrance on the south. Although this room follows more or less the same alignment as the adjoining pair, a slight mismatch hints that this element of the building may have been constructed in a separate episode. As a whole, the range of three rooms is comparable to byre-houses or shielings of medieval and post-medieval date. In such buildings, the interior was divided into two or three rooms, of which one or two would be living space for humans and one would be a byre for livestock. The location of the range on top of the earlier terrace may have been important in aiding the drainage of the byre. At right angles to this main range and adjoining its northern side is a larger building, defined by a rubble bank which retains short stretches of large facing stones still *in situ*. Although its foundations are substantial and well-defined, the building seems to have been open on the side facing the range, which hints that it may not have been roofed and perhaps functioned as a pen for livestock.

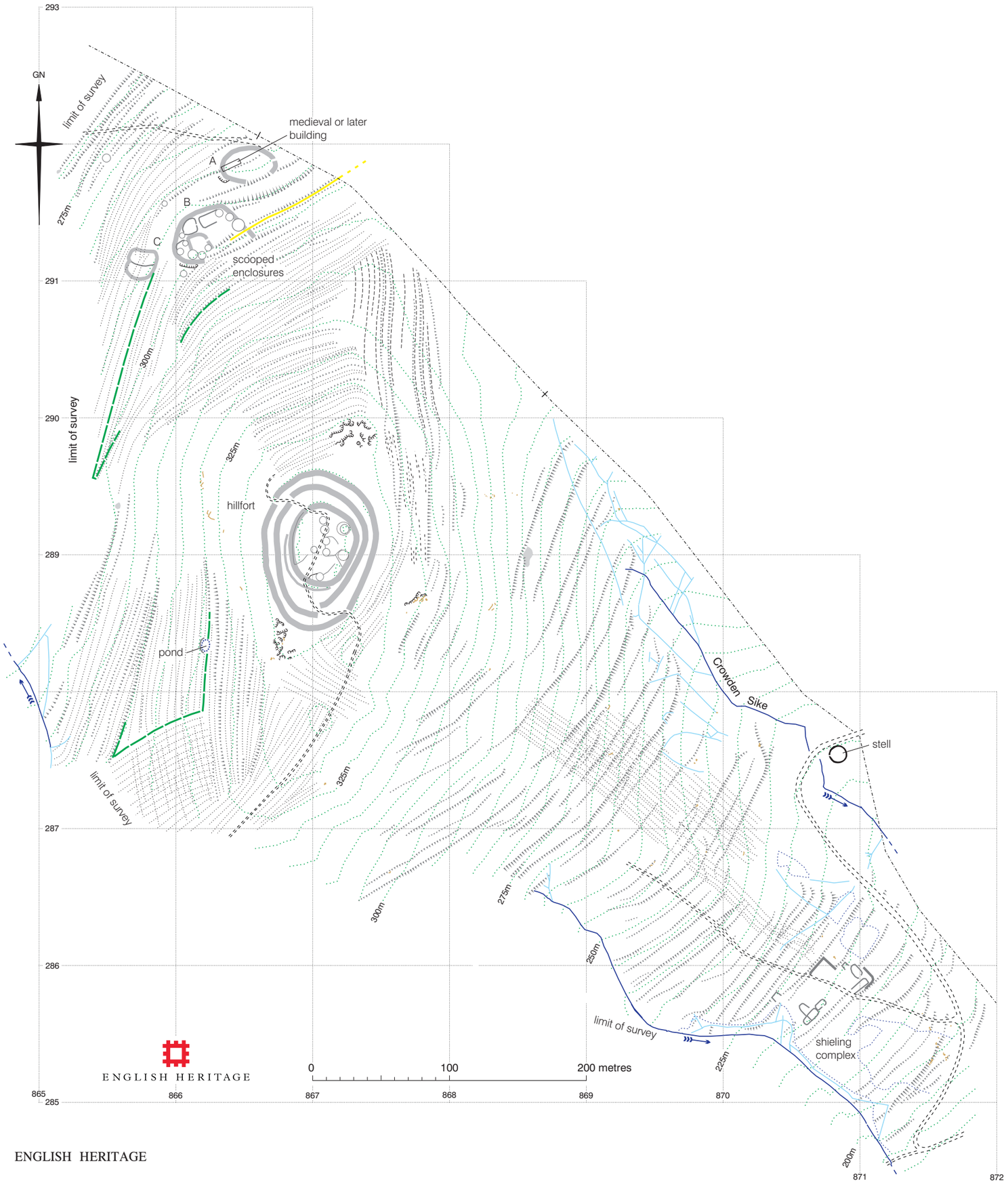
4.5 The agricultural landscape

NGR: NT 867 289. NMR: NT 82 NE 115

Aerial survey has demonstrated that the environs of Ring Chesters retain widespread traces of agricultural activity, ranging from massive cultivation terraces to very slight plough furrows (Gates 2000b). Prior to the English Heritage investigation, there had been no concerted attempt to reach any detailed interpretation of these remains, although Caroline Hardie has cautiously suggested that the cultivation terraces might be prehistoric (English Heritage 1994a; b). Tim Gates has stressed the problems involved throughout the northern Cheviots in distinguishing between traces that are often similar in superficial appearance because they result from an essentially similar process; that is, ploughing (Gates 2000b, 15-6). Interpretation is further complicated by the fact that the process of arable farming, unlike the construction of buildings, is effectively continuous or cyclical rather than episodic, so that any changes are likely to be evolutionary rather than revolutionary. Although the faintest of the remains at Ring Chesters can be seen much more clearly on aerial photographs than they can on the ground, field survey has detected a few important chronological relationships and subtle differences in form that are not immediately apparent from the photographs. While this may contribute to a better understanding of the complex sequence of agricultural exploitation of the landscape, any attempt to impose typological or chronological sub-divisions is likely grossly to over-simplify the truth. Therefore, although this description follows a broadly chronological order, it deliberately avoids any strict categories.

Cultivation terraces were recorded on all sides of the hillfort and are perhaps best seen as a continuation of the intensive cultivation on the slopes to the east of Elsdon Burn, which survived equally well as earthworks until the imposition of forestry plantations in the late 1950s or early 1960s. It seems likely that many of the terraces are of early origin, almost certainly prehistoric and perhaps contemporary with one or more of the phases of occupation within the hillfort, but this cannot be demonstrated from the earthwork evidence alone. Certainly, as Caroline Hardie suggested, the terraces on the north-west side of the hill seem to be earlier in date than the scooped enclosures, since they clearly influenced the siting of the settlements and were incorporated into the perimeters of the enclosures (English Heritage 1994b). However, this relationship is of limited help in terms of dating, since it remains an unproven assumption that the scooped enclosures are of Romano-British rather than late Iron Age origin. The proximity of the settlements to the terraces suggests that some terraces may have continued in use into the Romano-British period, so it is not impossible that similar terraces developed from scratch in the same period. Many also appear to have influenced the pattern of later cultivation, which hints that their use may have outlasted the Romano-British period.

Two slightly different kinds of terrace were noted, although it is not clear that this difference represents anything more significant than the adaptation of the same technique to different topographic conditions. On the north-eastern side of the saddle to the north of the summit, a series of at least twenty terraces cross the slope obliquely at a steep angle. One incorporates a large mound of rubble interpreted as a clearance cairn, and the largest examples reach 1.8m high. Despite the considerable depth of accumulated ploughsoil, the surface area available for actual cultivation may have been a narrow strip along the top of the terrace, no more than *c* 2m wide. At the northern end of this area, where the ends of the terraces reach the comparatively level ground alongside the Crowden Sike, the terraces turn sharply upslope, suggesting a



KEY

NATURAL FEATURES

Contours (at 5m intervals)

Boulders and outcropping rock

Stream

Limit of boggy ground

ARCHAEOLOGICAL REMAINS

Principal earthworks

Prehistoric and Romano-British buildings

Possible trackway

Quarrying

Probable prehistoric cultivation terraces

Probable prehistoric clearance cairn

Possible late Iron Age or Romano-British cord rig

Possible medieval ridge and furrow cultivation

Post-medieval low rig cultivation

Embanked boundary between strips of low rig

MODERN FEATURES

Fences

stile

Drainage channels (upcast material not shown)

Tracks

Figure 16:
Plan of the landscape around the hillfort (reduced from 1:2,500 scale)

deliberate avoidance of the boggy ground. As mentioned in Section 4.2, the southern ends of the terraces cannot be distinguished with confidence from the northern ends of the broad, low rigs described below, which are probably of post-medieval origin.

In contrast, many of the terraces on the south-eastern, western and north-western sides of the hill, including those that underlie the scooped settlements, more or less follow the natural contours. Those on the west and north-west have evidently been subject to much more intensive over-ploughing in later periods. Those on the south-east, which seem to have been less affected, are relatively slight by comparison with the terraces on the north-east, reaching a maximum of 0.5m high. This suggests that they developed over a much shorter time-span and never really reached the proportions of true 'terraces'. Some of those closest to the hillfort only extend for some tens of metres and occupy steep and relatively inaccessible locations, characteristics which may themselves be regarded as circumstantial evidence for a prehistoric origin. In this area, more secure evidence for a prehistoric date is lacking, since the identification of possible 'cord-rig' described in Section 4.2 is open to considerable doubt. However, the terraces are demonstrably overlain by the shieling described in Section 4.4, which is probably of medieval or later origin.

Long, sinuous strips of ploughing dominate the impression of the agricultural landscape on aerial photographs. Much of this is so-called 'low rig', essentially defined by widely-spaced shallow furrows without any pronounced intervening ridge. This form of ploughing is thought to be of post-medieval date, as discussed below. Yet in a few places, notably on the saddle to the north of the hilltop, some of the ridges are slightly more pronounced (though still not large by the standards of lowland ridge and furrow), standing to a maximum of 0.2m high. These few ridges are cut by the presumed post-medieval low rigs on the western slopes and describe a slight 'reverse-S' pattern. This pattern is widely agreed to be characteristic of arable agriculture where oxen were used as draft animals and is usually thought to be of broadly medieval date. The alignment of this fragment of putative medieval ridge and furrow follows that of the cultivation terraces and can only be distinguished because it has not been levelled by later ploughing. This observation gives rise to the suspicion that medieval ridge and furrow may once have been more widespread on the western slope of the hill. A plausible context for this putative earlier phase of farming may be provided by the deserted village of Heddon, a settlement of around twenty buildings situated on the saddle that forms the north-eastern foot of Coldsmouth Hill, nearly a kilometre to the south-west of Ring Chesters. The earliest documentary evidence for the village dates to the late 13th century (Dixon 1986). However a brief inspection of the site by English Heritage in the course of the investigation of Ring Chesters identified what may be the denuded remains of a Romano-British scooped settlement at the heart of the village (centred at National Grid Reference NT 8622 2845), which may indicate a much earlier origin. The hillside to the west of Ring Chesters lies some distance from the village and would probably have been 'outfield' land, that is, land that was not under permanent cultivation. This might help to explain the diminutive size of the ridges even where they appear to be relatively well-preserved.

Low rig - the type of arable agriculture most immediately evident on many aerial photographs of Ring Chesters - comprises blocks of between four and six long, sinuous cultivation ridges, the blocks separated from each other by slight lynchets on average 0.3m high. In a few places the lynchets are replaced by low banks, such as that adjoining Enclosure C, and in some cases these banks have clearly been cut into or nearly erased by later ploughing. Elsewhere, the lynchets probably directly overlie earlier cultivation terraces so that the two phases are practically indistinguishable

from each other. At the southern tip of scooped enclosure B, however, it is just possible to see that while the enclosure overlies the original cultivation terrace, it is itself overlain by the slight lynchet associated with the later ploughing. Within the blocks, each rig is 3m to 8m wide and is completely level, separated from its neighbours only by slight, narrow furrows. Where recorded in central and southern Scotland, the same type of agriculture has been termed 'low rig', to differentiate it from medieval and later 'ridge and furrow', which has a much more pronounced profile (RCAHMS 2001, 52). Although 'wide' and 'narrow' variant types have been proposed, there is no convincing argument that the narrower examples at Ring Chesters (or for that matter in southern Scotland) differ in any significant respect from the broader examples. Tim Gates (2000b, 16) has described this form of agriculture as 'poorly developed' ridge and furrow, and has expressed a suspicion that it may have a pre-medieval origin. However, field survey in the environs of the hillfort on nearby Mid Hill (NT 881 296) has demonstrated very clearly that 'low rig' overlies well-developed broad ridge and furrow typical of the medieval period (Oswald and McOmish forthcoming 2002). Investigations in Menstrie Glen, near Stirling in central Scotland, have recovered good documentary evidence that a patchwork of these blocks of low rig, strikingly similar in appearance to the pattern around Ring Chesters, dates to the century or so before 1760 and represents the latest phase of arable agriculture in that area (RCAHMS 2001). The patchwork effect and the low earthworks bounding the blocks of rig are thought to have related to the practice of 'tathing', or penning livestock overnight in small enclosures in order to manure fields ear-marked for cultivation the following season. This practice may also have been employed by the farmers of the deserted village of Heddon, for documentary evidence indicates that the village was occupied until the end of the 17th century (Dixon 1986). The likelihood that the low rigs directly overlie ridge and furrow strips need not imply that there was direct continuity of occupation or farming from the medieval period; indeed, the documentary record of Heddon points to a long interruption brought about by the border disputes of the later medieval period.

The advent of a predominantly pastoral farming regime is marked by the existence of two minor features. On the western side of the hill, centred at National Grid Reference NT 86622 28833, a small pond sited on the spring line cuts into, and therefore post-dates the abandonment of, lynchets associated with the post-medieval ploughing. The pond is almost entirely silted up and would presumably have become redundant once the cutting of drainage channels created another reliable and accessible source of fresh water in the vicinity. Some of these channels are shown on the First Edition 25-inch scale map surveyed in 1860 (Ordnance Survey 1866b), so it is likely that the pond was dug well before that date, possibly soon after the arable fields were turned over to pasture.

On the south-eastern side of the hill, a short distance to the east of Crowden Sike, centred at National Grid Reference NT 87084 28754, is a well-preserved sheepfold formed by a circular drystone wall - a type known locally as a 'stell'. The stell had certainly been built by 1860, for it is shown on the First Edition maps (Ordnance Survey 1866a; b).

In places, the remains of supposed 17th-century cultivation are overlain and confused by traces of closely-spaced furrows on the same alignment, which have produced a more uneven and disturbed texture on the ground surface. The evident determination to plough areas which could not practically have been cultivated, such as the interiors of the Romano-British scooped enclosures, suggests that the ploughing was probably carried out on a single occasion in the 19th century in order to improve the quality of

the pasture, rather than for arable cultivation. This ploughing may well be contemporary with the digging of several networks of drainage channels in boggy areas. Each drainage channel is of spade-width and a few are depicted as watercourses on the First Edition 25-inch scale map surveyed in 1860 (Ordnance Survey 1866b). Improvement ploughing has not been depicted on the plans accompanying this report, except where it has cut into the scooped enclosures.

On the north-eastern slope of the hill, a series of shallow furrows are aligned across rather than along the contours, so that they are much easier to distinguish from the earlier remains (although they could potentially be confused with lines created by modern bracken spraying on the same alignment). These too may have been intended solely to improve the surface drainage, since the furrows themselves cut into the cultivation terraces, but there is no evidence that the earlier earthworks are at all degraded on the lines of the intervening ridges. However, since the furrows are slightly more widely spaced than those interpreted as improvement ploughing, it is possible that they represent initial preparation for low rig cultivation of the type described above. The impossibility of confidently assigning a date even to this discrete and somewhat more easily identifiable episode of ploughing illustrates the wisdom of Tim Gates' caution.

5. DISCUSSION

The English Heritage investigation of Ring Chesters can unquestionably be termed a 'landscape study' in that it covered a large area and examined many archaeological remains that had previously only been analysed from the air. Yet it must be conceded that in the absence of any conclusive evidence that the use of the cultivation terraces was contemporary with the occupation of the hillfort, the field survey has made little headway in advancing the understanding of the Iron Age setting of the monument. Furthermore, despite the deliberate inclusion within the study area of the complex of scooped enclosures, the fieldwork has produced little fresh evidence for the organisation of the landscape in the Romano-British period, though that period is often better attested in the Cheviots. For example, investigation of the environs of the hillfort on West Hill, 2.6kms to the north-east, recorded numerous field boundaries and trackways associated with minor settlements of probable Romano-British date, offering a much more complete picture of the setting of the later settlement within the hillfort (Oswald *et al* 2000). The absence of such remains in the environs of Ring Chesters, which can only partly be accounted for by the degree of post-medieval agriculture, leaves the hillfort and the scooped enclosures as isolated points on the map, whose contemporary context remains at best dimly understood. It therefore seems most appropriate to discuss them more-or-less as separate entities. It is not proposed to deal with the exploitation of the landscape in the medieval and post-medieval periods, for that has been adequately discussed in preceding sections.

The Iron Age

The dating of the hillfort to the Iron Age (700 BC to AD 50) is secure given the general form and location of the monument, but in the absence of excavated evidence, the precise date of its construction must remain open to question. The conclusion that the defences were not the product of a single constructional episode, as most previous investigators have accepted, but were built in at least two major phases, is perhaps the most important outcome of the English Heritage investigation. The tentative identification of an earlier enclosure raises the possibility that the hillfort may have occupied the site of a much older monument, perhaps of Bronze Age or even Neolithic date. However, in the absence of any compelling evidence for this possibility, it is more likely that the earlier enclosure represents a direct precursor of the hillfort. Given the diminutive size of the earthwork, this may have been defined primarily by a timber palisade or hedge. Excavations at Hownam Rings, in Roxburghshire, revealed that successive palisaded enclosures were replaced in the 2nd century BC by a single stone-built circuit, which was in turn replaced by a larger multivallate hillfort in the late 1st century BC (Piggott 1948). This so-called 'Hownam sequence' was for long widely accepted as a standard model for the interpretation of hillforts in the Cheviots. In broad terms, it is still agreed that many examples were constructed from the 6th century BC onwards, often replacing earlier palisaded enclosures, this development coinciding with an intensification of arable agriculture (Jobey 1965, 23-4; Burgess 1984, 159-64). Radiocarbon determinations from the excavated ramparts of the comparable hillfort on Wether Hill overlooking the Ingram Valley broadly support this theory (Topping and McOmish 2000). Yet very few other hillforts in the region have been dated accurately either on artifactual evidence or by scientific dating techniques and excavations of hillforts at Broxmouth and Dryburn Bridge in south-eastern Scotland have revealed that the developmental sequence of the defences was seldom so straightforward (Hill 1982; Triscott 1982). This conclusion is borne out by the latter part of the sequence at Ring Chesters, which appears to be the reverse of the expansion that occurred at Hownam.

On the available evidence, the development of Ring Chesters seems to be remarkably similar to that of the hillfort on Great Hetha, 2.7kms to the south (Pearson and Lax 2001). In both cases, the later stone-built circuit is strikingly different from the bivallate fort - smaller in size, and different in construction technique and design in relation to the topography - hinting that there may have been a considerable interlude between the two phases. The basic change in the principal constructional material, from timber to stone, may even hint that timber suitable for construction was in short supply, as has been suggested previously (Burgess 1984, 161). At Ring Chesters, the evidence linking the construction of the one, or perhaps two, ring-groove buildings to the construction of the bivallate fort is slight and open to question. Yet allocating the buildings exclusively to either phase begs the question as to where people were living in the other phase. The most logical inference, which is supported by what little relevant physical evidence can be detected, would appear to be that the same building platforms were used in both phases. This suggests that however long the interlude between the constructional phases of the defences, occupation in the interior may have been continuous and prolonged. In short, the structures that have been referred to as Buildings 1 and 2 may actually represent successions of numerous buildings built time and again on precisely the same site. The desire to preserve the platforms of Buildings 1 and 2 when the stone-built circuit was added may in part explain why it was superimposed over the eastern side of the bivallate fort, rather than fitted concentrically within the pre-existing circuits.

The term 'hillfort', when used in the context of central and southern England, normally carries connotations of a defensive capability, impressive size, intensive settlement and central economic importance. It has been remarked that the only site in Northumberland that can possibly be classed as a hillfort by these criteria is the nearby example on Yeavering Bell, 4.5kms to the east (Hogg 1943, 138; Cunliffe 1983, 86 and fig 4; Ferrell 1997, 231). Yet the four steroetypical characteristics offer a convenient yardstick against which Ring Chesters may be compared.

Enclosures such as Ring Chesters unquestionably occupy commanding locations and the staggered designs of both entrances may be interpreted as evidence that their gateways were designed with defence in mind. However, the low, stone-revetted banks of the bivallate fort seem never to have been intended as insurmountable barriers in their own rights, but rather to have acted as foundations for hedges or timber palisades. Such defences would certainly have contained livestock or excluded wild predators such as wolves, but might not have been proof against concerted or prolonged attack. Their mere existence should therefore not be taken as proof that warfare was endemic throughout Iron Age society, or even that the function of the hillfort was primarily military. It has been recognised that the massive ramparts of southern hillforts were in part intended as architectural displays of power (Cunliffe 1984, 30; Bowden and McOmish 1987; 1989). This observation perhaps applies even more to the smaller defences of hillforts in the northern Cheviots. Around the northern sector of the perimeter of Ring Chesters, the steep natural slope has evidently been deliberately used to lend the defences on that side of the bivallate fort the illusion of great strength. This contrasts with the unimpressive size of the earthworks on the south, although that sector, where the perimeter breaks away from the contours to run across a stretch of level ground, would arguably have been more vulnerable to attack. The architectural elaboration of Entrance A, by comparison with that at B, also hints that the hillfort was designed to be seen from a specific direction. This display may well have been intended to convey the wealth or social status of the occupants, rather than military dominance. It is possible that the lower ground to the north-west was in some sense the 'territory' of the hillfort, or that the saddle to the north was a route into the College Valley.

Turning to the later phase of the fort, it is clear that its massive stone-built rampart and single narrow gateway may be regarded as defensive in character. However, the near-circular plan is common to many forts and is often laid out with little regard for slight variations in the topography. The perimeter is never perfectly circular, but it is unlikely that geometric precision would have been a primary concern in prehistory, when most architectural design was probably done by eye (Barnatt and Moir 1984, 204). The similarity of this plan to that of ring-groove houses may indicate that the settlement as a whole was intended to be a symbolic model of the individual household; a number of examples of this pattern are found in the ethnographic record (for examples, see Rapoport 1976; 1982; Kent 1990). In short, while the circularity of the perimeter would undoubtedly have been an asset in defensive terms, there may have been other factors involved in the design of the ramparts.

In terms of size, the hillfort on Yeavering Bell, with an internal area of 5.6ha, is exceptionally large in a regional context. Other stone-built circuits in the vicinity enclose areas ranging from 0.10ha to 0.50ha (the nearby forts on Staw Hill and Great Hetha respectively). The stone-built circuit at Ring Chesters, at 0.19ha, falls close to the middle of this lower range. Clearly, even if tightly packed with domestic buildings, such tiny areas cannot have supported very large populations. In any case, the re-interpretation of two of the ring-groove buildings identified by Geoge Jobey leaves only one, or at most two, Iron Age roundhouses whose occupation may have been contemporary with both phases of the defences. There are relatively few spaces in the remainder of the interior where similar platforms may have existed: Building 3 has not been dismissed outright because it is one such space, even though there is scant physical evidence to support Jobey's interpretation. Ring Chesters actually appears to be entirely typical in containing only a handful ring-groove buildings that may be interpreted as the sites of domestic roundhouses. So hillforts in the Cheviots certainly do not seem to represent the 'proto-urban' centres that southern examples are sometimes regarded as (Cunliffe 1991, 528-40). Nonetheless, at 65m^2, the interior of Building 1 is impressively spacious by comparison with the Romano-British buildings, which range from 15m^2 to 26m^2. This size, together with the apparent absence of subdividing boundaries in the interior of the hillfort suggests that there may have been relatively few occupants, with a close social bond between them - perhaps an extended family group (Ferrell 1997, 234).

The economic role of hillforts in the Cheviots remains an enigma, largely because it has so far proved impossible to detect any unambiguous evidence to support the suspicion that cultivation terraces, or perhaps fields (sometimes extensive) of later cord-rig cultivation, may have been farmed by the occupants of the forts. The existence of numerous storage pits and small raised buildings in many hillforts in southern and central England has long been accepted as evidence that the sites were communal stores for grain and other commodities, which may have acted as economic centres attracting craftspeople and other specialists. If many of the cultivation terraces surrounding Ring Chesters were indeed contemporary with the occupation of the hillfort, and if even a proportion of them were under cultivation at the same time, the yields of grain may have been sufficient to create a surplus. Yet if the occupants of the hillfort indeed represent an economic elite, the English Heritage investigation has recovered no evidence for the existence of any larger community in the wider landscape to whom this surplus may have been redistributed. The evidence is more consistent with the occupants of Ring Chesters being a small, autonomous, family-based group, within a social structure with no pronounced hierarchy (Ferrell 1997, 233). In short, like most other hillforts in the Cheviots, Ring Chesters was probably a defended farmstead.

So it is clear that most so-called hillforts in the Cheviots do not conform to the stereotype established for southern England. Yet they do conform to what may be seen as a 'local blueprint' and deserve attention as a form of monument in their own right. From this, it seems more likely that most 'hillforts' in the Cheviots result from the widespread adoption of a style of defensive architecture, not by ruling elites, but by individual family groups.

The Romano-British period

The term Romano-British has been used throughout this report, but it must be stressed that for most of the period between AD 50 and AD 410, the area north of Hadrian's Wall lay beyond the bounds of Roman rule. It has been suggested that at some point in the 3rd century AD, the Cheviots may have been deliberately depopulated by the Romans (Burgess 1984, 172). With the possible exception of this speculative event, it is likely that the influence of Roman culture on the region would have been slight and indirect (Higham 1986, 224-6). Most settlements lack the trappings of Roman culture normally found south of Hadrian's Wall, implying that the invasion itself brought about very little change in the pattern of daily life.

There seems little reason to reject the widely accepted hypothesis that stone-founded buildings belong to the Romano-British period. However, Caroline Hardie's use of the term 'prehistoric' to describe them serves as a reminder that it has yet to be established beyond doubt that this style of construction is genuinely of sub-Roman, rather than late Iron Age origin (English Heritage 1994a; b). The detailed fieldwork has confirmed that the scooped enclosures post-date the cultivation terraces, but since the origin of the terraces themselves is unclear, this relative chronology is unhelpful in pointing to any precise date. The similarity between the stone-founded buildings in the hillfort and those in the scooped enclosure constitutes reasonable evidence that the two types of settlement are broadly contemporary with each other, but the dating of the re-occupation of the hillfort also relies principally upon stratigraphic evidence.

Disregarding the problem of differentiating between the late Iron Age and Romano-British periods, there are striking differences between the early and later phases of occupation that have been identified. At first glance, the presence of supposed Romano-British structures within the hillfort, and especially the siting of Building 4 on the platform created for Building 1, would seem to suggest continuity of occupation on the site. Yet the English Heritage field survey suggests that the skilfully constructed stone-built rampart had already collasped, or been demolished, by the time some (if not all) of the stone-founded houses were built. Some of the tumbled stone was re-used to rebuild parts of the perimeter as a low stony bank which is suggestive of the foundation for a crude stockade. This was clearly not defensive to the same degree as the earlier rampart and there is no sign of the Iron Age concern for architectural display. This evidence strongly points to discontinuity in the occupation sequence; that is, a fairly prolonged period of abandonment prior to the re-occupation of the site. Turning to the building remains themselves, profound changes in both the construction technique and the physical articulation of social units suggest a similar picture. The evidence for Iron Age occupation is restricted to one or two large timber roundhouses, apparently enclosed only by the main rampart. In contrast, the evidence for Romano-British settlement is abundant, comprising at least five small compounds within the larger enclosure, each formed by one or two much smaller stone-built roundhouses facing onto a communal yard. In this respect, the settlement within the hillfort has much in common with the earlier phases of the settlement within scooped settlement B.

While the investigation has detected evidence for episodes of remodelling in the plans of both settlements, it is impossible to infer when either site was eventually abandoned. Although the earthwork remains associated with the first modification of scooped enclosure B are more massive and better defined, there is nothing to indicate that the social unit had changed in any significant respect. On the other hand, the roundhouse that seems to mark the end of occupation within the scooped enclosure is much larger and faces away from the interior. This suggests that its use was distinctly different from the occupation of the small compounds that had preceded it, both the earlier examples in the scooped enclosure and those within the hillfort. It has been argued that similar large stone-founded roundhouses overlying the rampart of the hillfort on Wether Hill may have been occupied well into the 5th century AD (Topping and McOmish 2000). However, it would be unwise to suggest based on the earthwork traces alone that the building overlying scooped enclosure B is of late Roman date. As Tim Gates (2000b, 18) has pointed out, the nature of the transition from the Romano-British to medieval periods remains a closed book. The English Heritage investigation has thrown up only one other point of potential relevance in this context: the possible scooped enclosure at the heart of the deserted village of Heddon. However, it is clear that medieval or later buildings, such as that within scooped enclosure A, often re-used earlier sites after long periods of desertion. So despite the possible existence of a scooped enclosure in the same location as the village, there are no firm grounds for inferring that the site was continuously settled, let along that the occupation of many other scooped enclosures continued beyond the Roman period.

The small patch of possible cord-rig cultivation, whose identification remains very tentative, is the only other feature within the study area that is potentially of late Iron Age or Romano-British date. It is certain that the ephemeral traces overlie cultivation terraces, whose use may have been partly or wholly contemporary with the earlier occupation of the hillfort. Although a post-medieval origin cannot be ruled out, the small size of the cultivated area and its proximity to the hillfort seem to support a relatively early date. Other patches of cord-rig which have been identified previously in the vicinity of the study area were examined briefly in the course of the English Heritage investigation. Tim Gates is certainly correct in re-interpreting an extensive area of narrow striations centred at NT 869 282 as the marks left by modern spraying undertaken to control the spread of bracken (Topping 1989, 176 and Plate 30a; Gates 2000b, 16-17). Further to the north on the same slope, marks of identical appearance on the same alignment were identified within the area of the English Heritage investigation. Since the striations there were interpreted as being of modern origin from the outset and demonstrably post-date post-medieval low-rig cultivation on the same alignment, no further recording was undertaken on the ground. However, Tim Gates (2000b, 17) also identified a much smaller patch of narrow ridges on the same alignment as the earlier cultivation terraces. Examination of this area on the ground indicates that the ridges are up to 3m wide - too broad for cord rig - and that the cultivated patch is directly overlooked by the poorly-preserved foundations of a stone-built rectangular building some 8m long. The similarity of the structure to the components of the medieval or later sheiling complex within the area of detailed survey strongly suggests that this cultivation is also unlikely to be of Romano-British date.

The very lack of evidence for the exploitation of the landscape in the Romano-British period is in itself remarkable. Although medieval and later cultivation was evidently fairly intense on the western slopes of the hill, even the eastern slopes, where fragmentary remains of trackways and field boundaries might be expected to survive,

are devoid of any remains that can plausible be interpreted as being Romano-British. In other words, the initial impression of the scooped enclosures and the later settlement within the hillfort as isolated monuments in an undeveloped landscape may not be far from the truth. Both enclosures comprise clusters of small compounds and pens suggestive of animal husbandry. Therefore, it is possible that most of the surrounding landscape provided common grazing for the scattered settlements, perhaps not greatly different in appearance from the landscape of today.

6. METHODOLOGY

The field investigation was carried out by Alastair Oswald and Trevor Pearson, with assistance from Stewart Ainsworth and Abby Hunt. A number of digital photographs taken by Alastair Oswald and Trevor Pearson are held on disk as part of the project archive.

The entire survey was carried out using a Trimble dual frequency Global Positioning Satellite (GPS) system. The base receiver was set up on the summit on permanent survey station ST01 and two receivers (Trimble 4700 and 4800 models) were used to record the remains, working independently in real-time kinematic mode. The contour model was derived from the same data. The co-ordinates of the base receiver were initially calibrated to the National Grid (OSGB36) using Trimble Geomatics software, based on the position of ST01 relative to Ordnance Survey active GPS stations at Carlisle, Glasgow, Edinburgh and Newcastle over a four-hour occupation. In addition to permanent survey station ST01, a second marker (ST02) was established, intervisible with the first, to allow future work with conventional survey equipment. The positions of both stations are marked by brass rivets set into rock outcrops. Their positions are indicated on the 1:500 plans and further details are recorded in Appendix 2. The resulting plan was plotted at 1:500 scale and 1:2,500 scale via AutoCAD 2000i, Key Terrafirma 5 and Coreldraw 8 software.

The hand drawn archive plan and CAD-based drawings were prepared by Alastair Oswald. The report was researched and written by Alastair Oswald, and edited by Stewart Ainsworth.

The site archive has been deposited in English Heritage's National Monuments Record, Great Western Village, Kemble Drive, Swindon SN2 2GZ, to where applications for copyright should be made (reference number: NT 82 NE 24).

7. ACKNOWLEDGEMENTS

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APPENDIX 1. Table of NMR numbers linked to the survey

Iron Age hillfort and Romano-British settlement	NT 8670 2891	NT 82 NE 24
Romano-British scooped enclosures	NT 8864 2912	NT 82 NE 23
Haddon deserted medieval settlement	NT 8618 2846	NT 82 NE 26
Agricultural remains (all periods)	NT 867 289	NT 82 NE 115
Medival or later building	NT 86641 29185	NT 82 NE 116
Medieval or later shieling complex	NT 8706 2857	NT 82 NE 117
Post-medieval pond	NT 86622 28833	NT 82 NE 123
19th-century ‘stell’	NT 87084 28754	NT 82 NE 124

APPENDIX 2. Locations of permanent survey stations

SURVEY STATION INFORMATION

ENGLISH HERITAGE

SITE NAME	Ring Chesters hillfort, Northumberland		
Station number	ST 01	**Status**	Permanent
Type of Mark	Brass rivet in rock outcrop	**NMR number**	NT 82 NE 24
Date of Survey	20-NOV-2001	**RSM number**	24575
Office of origin	York	**Surveyors**	AO; TP; SA

OS National Grid	**Eastings**	**Northings**	**Height**
	386713.863	628920.161	341.390

view from east

position of rivet

SURVEY STATION INFORMATION

ENGLISH HERITAGE

SITE NAME	Ring Chesters hillfort, Northumberland		
Station number	ST 02	**Status**	Permanent
Type of Mark	Brass rivet in large boulder	**NMR number**	NT 82 NE 24
Date of Survey	20-NOV-2001	**RSM number**	24575
Office of origin	York	**Surveyors**	AO; TP; SA

OS National Grid	**Eastings**	**Northings**	**Height**
	386692.258	628886.232	340.731

view from north-east

position of rivet