

◆ A topographical survey of Chanctonbury Ring, West Sussex

AN INTERPRETATION OF THE PREHISTORIC LANDSCAPE FROM THE NEOLITHIC TO THE MIDDLE IRON AGE

by Mark Tibble

This article results from a topographical survey of the landscape and hillfort of Chanctonbury Ring, West Sussex, carried out in the summer of 2003 and the winter of 2004 by the author. Produced as an undergraduate dissertation for the University of Southampton, the survey has recorded the site as it was in 2004 and has provided a base for future management. It has also recorded previously unsurveyed features which may prove to be Bronze Age round barrows. The aim was to contextualize the hillfort within its immediate topographical setting. This has provided a background against which an interpretation might be made of the prehistoric use of the landscape. This work approached the idea of the landscape as being inscribed with meaning and significance that is carried over a long timescale beginning in the Neolithic, although it is interpreted against the varying cultural backgrounds of the prehistoric communities. It also considers the construction of the Late Bronze Age hillfort and views this construction in part as the creation of a physical link to the mythical past.

INTRODUCTION

Chanctonbury Ring (TQ 139120) is a Late Bronze Age/Early Iron Age enclosure located on the South Downs, near Steyning, in West Sussex (Fig. 1). The enclosure was also the site of a Romano-British temple complex and has had various tree-planting activity on top of the ring from the eighteenth century to the early 1990s. The enclosure was constructed on the northern edge of the South Downs and is visible for many miles around. The site was used in the Second World War as a training area for the army. Chanctonbury Ring is a scheduled ancient monument (SAM 27091). The barrows and earthworks on Chanctonbury Hill were rescheduled by English Heritage in 1997 (West Sussex County Council Sites and Monuments Record). The site is currently used for pasture for both cattle and sheep. The landscape attracts many recreational users such as hikers, horse riders, mountain bikers, motorcyclists and 4 × 4 vehicle enthusiasts. The site is also important to contemporary pagans and is well-known to paranormal investigators as a centre for UFO and ghostly activity.

The reasons for performing a topographical survey on Chanctonbury Ring and its immediate landscape are twofold: as the landscape surrounding

the enclosure had not been accurately surveyed in the past, a good survey was needed of the area both to record the current landscape and the enclosure and to provide a baseline for the monitoring of any damage that is being caused to the monument. Some of the barrows in the landscape have been recorded, but on walking the site it appears that there may be a significantly denser concentration of round barrows than has generally been accepted.

It is important to recognize that a site such as Chanctonbury Ring is a palimpsest of activities leading up to the here and now. The physical results of the survey are discussed and presented graphically (see Survey Results). These results can, however, be linked with a more in-depth theoretical study of the prehistoric landscape (see Discussion). The use of a theoretical appreciation of landscape is now an established field of archaeological and anthropological research (Bender 2001, 76). Archaeologists such as Tilley (1994) and Thomas (2001) have used a wider, landscape-based approach for the British Neolithic and Hamilton and Manley (1997; 2001) used a similar approach in relation to the late prehistoric hillforts of southeast England.

The 'Discussion' is an examination of the prehistoric landscape. As a foundation for understanding the landscape aspects of it in the

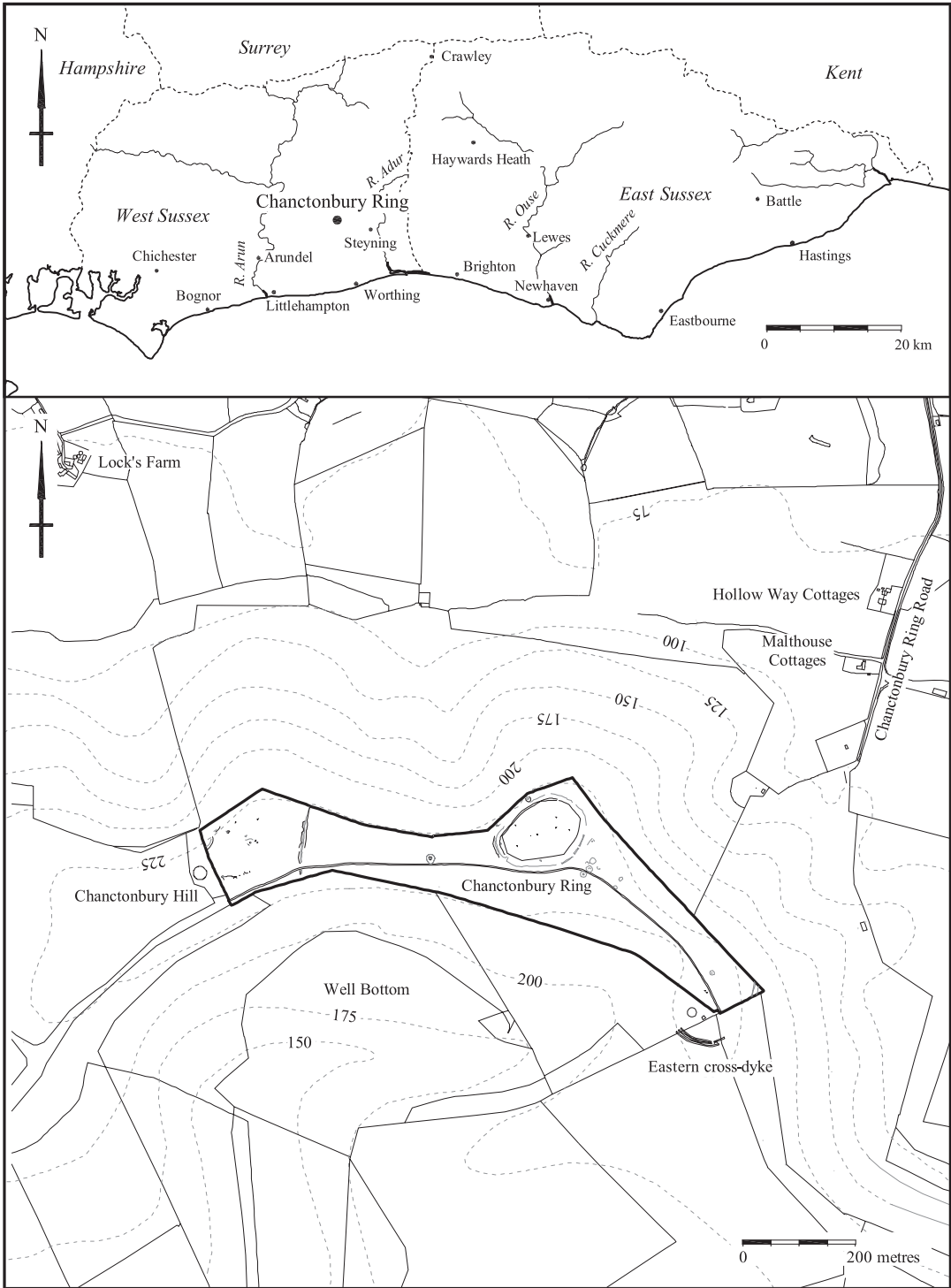


Fig. 1. Location of site. (Contour information derived from 1:25,000 OS Explorer map.)

Neolithic and the Bronze Age and the Late Bronze Age construction of the enclosure are discussed. This consideration of the symbolic landscape in a first-millennium BC context is also broadly in line with one of the five themes set out by Haselgrove *et al* (2001, 2) that warrants research to further our understanding of the Iron Age in Britain.

PREVIOUS ARCHAEOLOGICAL INVESTIGATIONS OF CHANCTONBURY HILL

The earliest recorded archaeological intervention at Chanctonbury Ring is the opening of barrow E (see Survey Results, Fig. 6) and barrows B, C and D (see Survey Results, Fig. 4) that lie close to the hillfort. These excavations were carried out by Colonel Lane-Fox (1869, 43) (later Pitt-Rivers). Lane-Fox did not find anything and assumed that the barrows were part of the defensive system of the hillfort. However, these barrows are considered to be Early Bronze Age in date (Grinsell 1934; Rudling 2003, 111).

The next phase of intervention was in 1909 (Mitchell 1910) when an excavation was carried out prior to tree-planting in the centre of the hillfort and located the foundations of a Romano-Celtic-type temple. Foundations of a polygonal shrine were also exposed.

A round barrow approximately 400 m due west beyond the survey area (TQ 1284 1205) was excavated in the 1950s to examine it before ploughing destroyed it entirely. Within this barrow was a flexed skeleton of a female of around 33 years of age and also a fine bronze ogival dagger of the Camerton-Snowhill type (Ratcliffe-Densham 1968, 44); the burial can be dated to around 1800–1500 BC. The round barrow also contained a cremation burial of a child of eight to ten years old and fragments of a tibia from a larger individual (Ratcliffe-Densham 1968, 45). This round barrow was interesting in that in form it resembles many of the mounds within the area of survey and had a central depression; it also contained an intrusive sherd of medieval pottery which points to an early phase of grave-robbing or other disturbance (Ratcliffe-Densham 1968, 42). This may explain why Lane-Fox found very little material inside the barrows that are within the area of survey.

Bedwin carried out an archaeological investigation in 1977 prior to a tree-planting episode within the hillfort interior (Bedwin

1980, 176). Areas within the hillfort interior were excavated and the rampart was sectioned. The western cross-dyke was also sectioned. The high winds of October 1987 caused the loss of many trees within and around Chanctonbury Ring. The tree-throw root pits exposed archaeological material and it was decided to excavate in 1988 primarily to identify areas where future tree-planting might cause further damage to the hillfort interior (Rudling 2003, 76). Before the site was replanted further excavations were undertaken by the UCL field archaeology unit in 1990 and 1991 (Rudling 2003, 76).

Both the 1977 (Bedwin 1980) and the 1988–91 (Rudling 2003) excavations produced evidence for a long site-history dating from the Neolithic to the present. The site was clearly an important religious centre in the Roman period; perhaps associated with the ‘cult of the boar’ (Rudling 2003, 112–18).

SURVEY METHODOLOGY

The topographical survey of Chanctonbury Ring was undertaken using a Leica Geo-systems TCR 405 Total Station. A total station is capable of measuring angles, distances and elevations. The addition of an onboard computer and internal memory allows data to be stored and downloaded into survey software. The total station used for the survey has a measurement error of 5 mm + 2 mm ppm (ppm stands for parts per million; i.e. for each million millimetres (one kilometre) there will be an additional error of 2 mm). Survey stations were set out across the landscape and measurements were radiated out from these control points. The readings were taken at 5-m intervals to ensure that a detailed topographical model representative of the landscape could be created. Extra readings were taken subjectively on areas where the topography displayed a variation from the normal landscape. As one of the prime purposes of the survey was to relocate and map any surviving round barrows or other features not previously recorded, it was an important part of this survey to determine the dimensions of these features accurately.

SURVEY RESULTS

The results, which should be read in conjunction with the relevant figures, have been interpreted

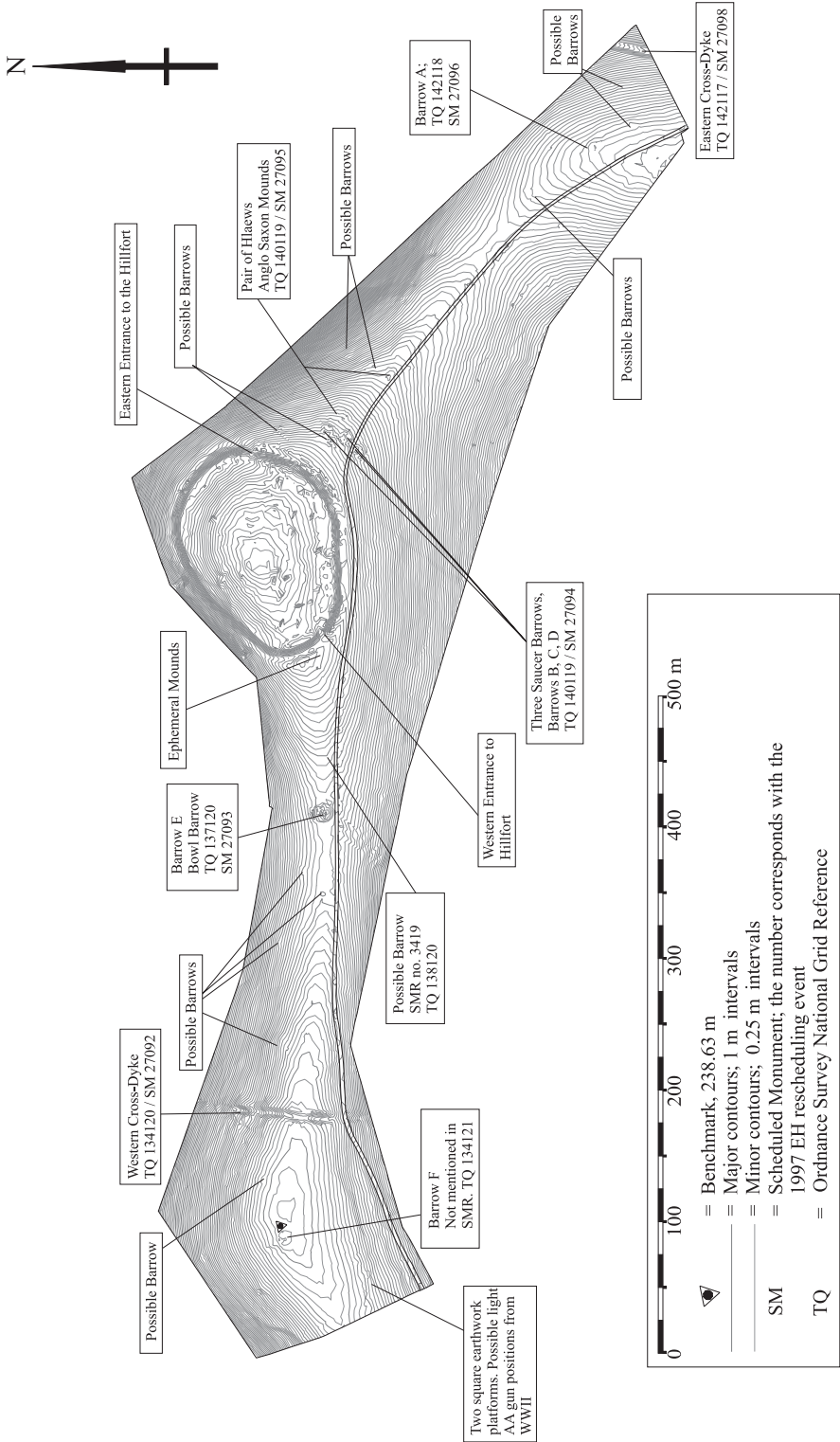


Fig. 2. Chanctonbury Ring, Sussex: landscape survey. OS ref. TQ 139120.

within the constraint of the topographical survey. Therefore features that have not previously been recorded on the site have been discussed in the context of this evidence. The 'Survey Results' are discussed initially as an overview of the landscape's topography and form. The landscape is then divided into five areas that are discussed in relation to the appropriate figure and finally the 'Survey Results' are concluded.

The survey results are discussed in this manner as it provides a cohesive approach to a large survey area. In this section all visible features are discussed. Barrows that are mentioned in the West Sussex County Council sites and monuments record (WSSCC SMR) or are depicted on Ordnance Survey maps are given a letter prefix which has been retained in this survey. The age of the barrow and the form are also sourced from the WSSCC SMR and from excavation reports where the information is available. The author does not here reassign any type of barrow but follows the barrow's description in the SMR. Where a surveyed feature has been named as a possible barrow in all cases this refers to a round barrow, although the ephemeral nature of the feature may make any description of form unsafe. Each of the possible barrows is characteristically a small ephemeral mound, but a diameter can be measured as they are distinct from the adjacent ground surface.

THE CHANCTONBURY LANDSCAPE (Fig. 2)

The topographical survey has highlighted the prominent position of Chanctonbury Ring on top of a narrow saddle of downland. The flatter area of the saddle top corresponds to the line of the present South Downs Way although the latter deviates to the south at the western end of the site (Fig. 2).

The surveyed features are mostly located within the flatter area of the ridge top rather than on the much steeper ground to the north and south. The ground falls away sharply on both the northern and the southern side of the ridge top. The landscape rises to a dome in two places; the hillfort is positioned on top of the most prominent dome. Barrow F (Fig. 2) and the Ordnance Survey triangulation pillar occupy the summit of the western prominence. This benchmark is at 238 m above sea level; the highest point in the survey area is within the hillfort where a height of 241 m was measured.

The surveyed distance from the southeastern corner to the western corner is 1055 m. There is an Ordnance Survey triangulation pillar located at the western end of the survey (Fig. 3). The cross-dykes are approximately equidistant from the centre of the hillfort; the eastern cross-dyke is 458 m distant and the western cross-dyke is 428 m distant. The hillfort dominates the easiest and flattest path through the landscape.

THE EASTERN CROSS-DYKE AND THE SURROUNDING AREA (Fig. 3)

The eastern cross-dyke (Fig. 3) is 458 m southeast of the hillfort and is only partially within the survey area. The western slope of the ditch is steeper and higher than the eastern slope (Fig. 3). The surviving earthwork in this position is in a relatively good condition. Curwen and Curwen (1918, 53) describe the entire earthwork. To summarize: the earthwork begins in the Chalkpit woods on the northern escarpment and sweeps around, crossing the South Downs Way (and now completely eroded by the track) and ends in a curve orientated to the northwest above Well Bottom. The date of the eastern cross-dyke has not been determined by excavation or other methods. The western cross-dyke was determined as Roman in date (Bedwin 1980, 182) and it is possible that the two features are contemporary, but this is not necessarily the case. Cross-dykes are normally considered to be of prehistoric construction and the eastern cross-dyke differs in form from the western cross-dyke. Curwen and Curwen (1918, 55) found it difficult to understand the course of the earthwork and they stated that the earthwork's irregular course was not dictated by the ground conditions.

Barrow A is 79 m northwest of the eastern cross-dyke (Fig. 3). This barrow has been dated to the Bronze Age. It has a central depression which is a feature common to all of the Bronze Age barrows in the surveyed area. These dips may be the original form of the barrows or more likely the result of invasive digging activity in the past. Another possible round barrow of similar dimensions stands 35 m southeast of barrow A. There are three more ephemeral mounds in the area. The two mounds that are 56 m northwest of barrow A are situated on the flat ridge (Fig. 3) and a further mound and small pit were identified 27 m northwest of the cross-dyke.

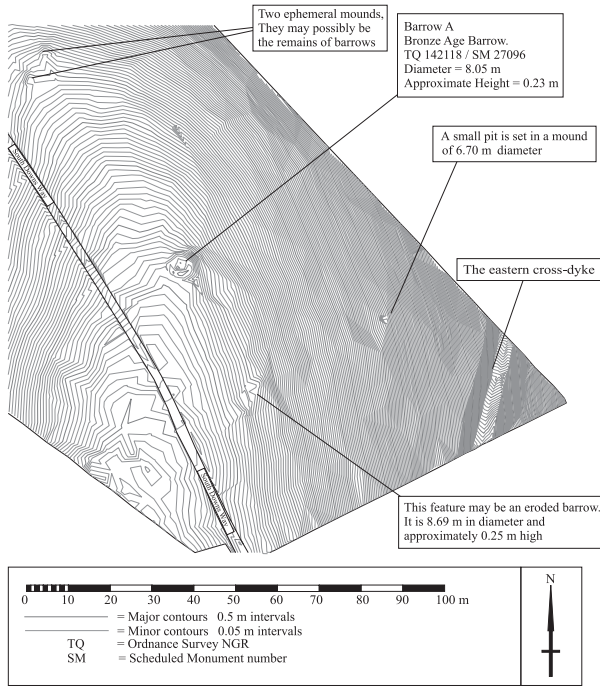


Fig. 3. The eastern cross-dyke and area: features in the landscape. OS ref. TQ 142118.

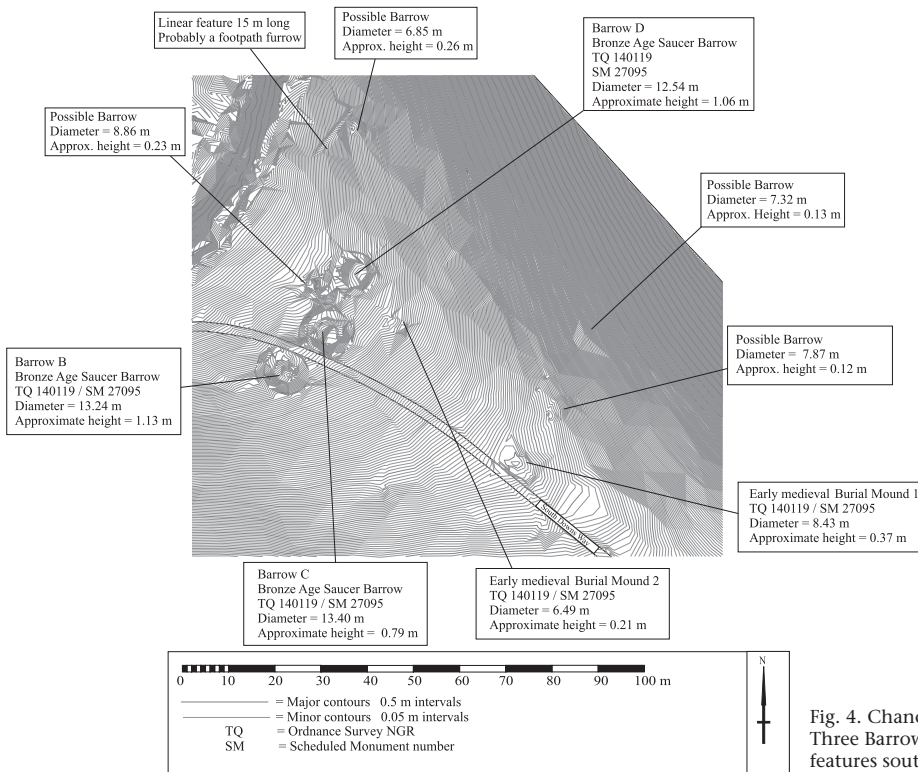


Fig. 4. Chanctonbury Ring: Three Barrows and other features southeast of hill fort. OS ref. TQ 140119.

THREE BARROWS AND OTHER FEATURES IMMEDIATELY SOUTHEAST OF THE HILLFORT ENCLOSURE (Fig. 4)

The group of three Bronze Age saucer barrows with surrounding ditches (B, C and D, Fig. 4) 38 m southeast of the enclosure rampart are well-documented. This group is situated on the flattest part of the chalk ridge. Each of the three barrows has a large depression in the middle. These pits may be the result of nineteenth-century grave robbing but barrows have been looted through antiquity (Garwood 2003, 48; Harding 2000, 85) and it must be considered that these barrows have had their contents removed in the more distant past. The South Downs Way has partly cut barrows B and C.

There are also two Anglo Saxon burial mounds (recorded as *hlaews* in the SMR) in close proximity to barrows B, C and D (Fig. 4). There is no record of excavation on these features so an Anglo-Saxon date is assigned on their form alone. This is insecure as Saxon mounds can often resemble Deverel-Rimbury-type barrows (Field 1998, 309). The mounds are placed directly on top of the chalk ridge and have a northwest — southeast orientation. They are 45 m distant from one another. Early medieval burial mound 2 (Fig. 4) is 16 m southeast of barrow D. Early medieval burial mound 1 (Fig. 4) is the larger of the two mounds and it is cut on its southwestern side by the South Downs Way.

There are four other mounds in the surrounding area. The WSCC SMR (WS3399–WS5272) mentions seven Bronze Age barrows recorded in this area some of which had become unsurveyable by 1971. This survey may have located these indistinct features. The linear feature 37 m north of barrow D heads towards a stile and it may be a footpath furrow.

THE HILLFORT ENCLOSURE (Fig. 5)

The hillfort is enclosed by a univallate rampart that is oval in shape (Fig. 5). The total circumference of the rampart is about 400 m. The survey has defined the physical location of the Late Bronze Age enclosure as being at the prominence of the chalk ridge that runs through the landscape and at 241.76 m OD it is the highest point in the survey area. This measurement was gained by comparing the height of the highest contour to the known height of the surveyed benchmark.

The interior of the enclosure retains the natural

slope of the ground with the highest point being slightly off-centre. The interior is heavily disturbed by tree throw (the pits in Fig. 5) and limited information can be gained from the topography. No barrows or other prehistoric features could be recognized on the interior surface though this does not mean that no such features existed prior to the construction of the enclosure. It should be noted that there are no obvious surface indications of the Romano-British buildings either. Topographical evidence of medieval or post-medieval activity, apart from the root pits caused by tree-planting schemes from the eighteenth century onwards, is not apparent. There was Second World War activity within the enclosure including the digging of trenches and rubbish pits (Bedwin 1980, 176; Rudling 2003, 79). The survey did not clearly pick up the detail of these features.

The rampart and ditch is the most extant feature of the enclosure; it is broken in two places by entrances. The eastern entrance (Fig. 5) is very disturbed by tree throw and other damage. The ditch ends in two terminals which can just be made out although these too are damaged by tree throw. The southwestern entrance passes through the ditch and the use of this entrance has eroded the bank; therefore it has been assumed to have been opened after the initial construction of the enclosure (Bedwin 1980, 173). In the Late Bronze Age building phase the enclosure is assumed to have had the one eastern entrance only (Rudling 2003, 111).

The highest section of the rampart is concentrated around the eastern entrance (Fig. 5) in the northeast side of the circuit. This may be an intentional result of the initial construction or it may be where the rampart is best preserved. The southeastern section of rampart is the most disturbed and in some places is in poor condition; however, it is an area where the ditch and fore rampart can be observed. The southwestern section also has a well-preserved ditch and fore rampart. The northwestern section of rampart mimics the slope of the scarp face, but the survey has revealed that a distinct rampart with a probable ditch was present here. The rampart here is less distinct owing to soil creep. The rampart was constructed in two stages; the Late Bronze Age stage was the earliest and it was refurbished in the Roman period (Bedwin 1980, 182). The present rampart can be considered an artefact of the Roman period that

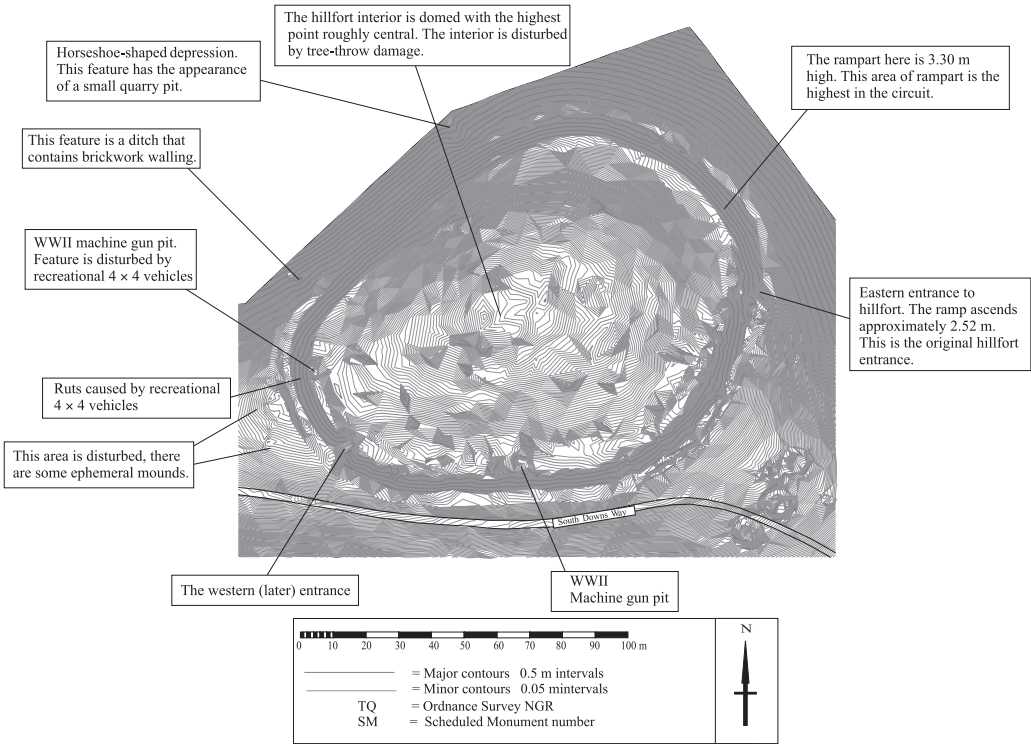


Fig. 5. Chanctonbury Ring, Sussex: the hillfort. OS ref. TQ 139120; SM27091.

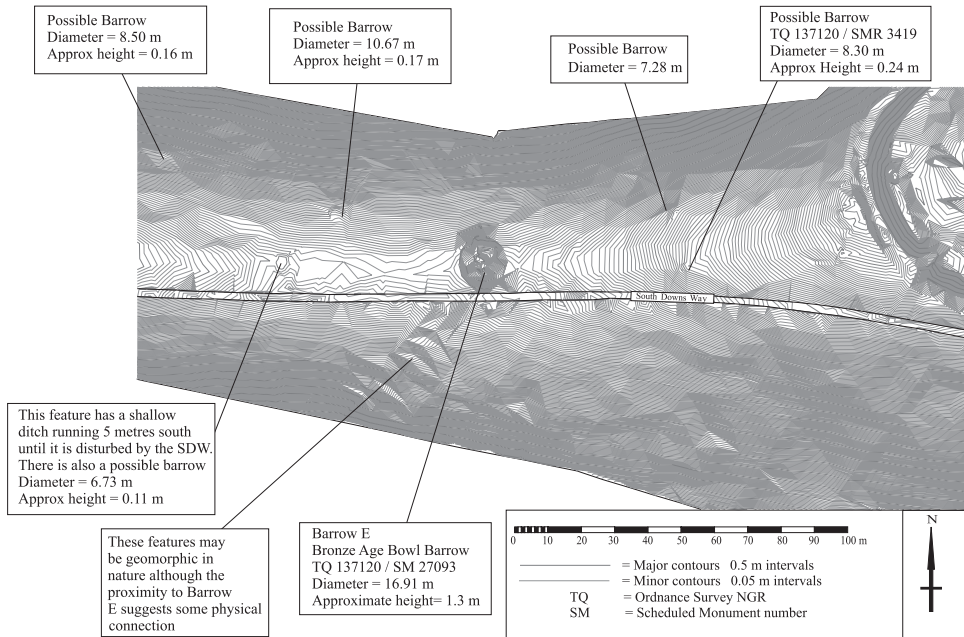


Fig. 6. Chanctonbury Ring, Sussex: Barrow E and the surrounding landscape west of the hillfort. OS ref. TQ 138120.

follows the line of the Late Bronze Age rampart. Second World War activity is also still visible in the form of machine gun pits within the rampart (Fig. 5). The southern pit is 59 m east of the southwestern entrance, the western pit is 26 m north of the southwestern entrance. Modern activity is also present on the monument; 27 m northwest of the southwestern entrance two ruts caused by four-wheel-drive vehicles are deeply cutting into the western rampart face (Fig. 5).

Immediately outside the eastern entrance there is a very slight flattening of the topography. This may be the remains of an old track. There is also a similar flattening of the topography leading from in between barrows C and D (Figs 4 & 5) to an eroded section of rampart. The southwestern entrance also has a flattening of the ground surface leading to it from the South Downs Way. The 1947 aerial photo of the site (Fig. 8) illustrates the heavy use of the landscape by vehicles and it is conceivable that these tracks relate to that period of use (WWII and immediately post WWII).

There is evidence of a small quarry pit 8 m north of the northern rampart and a ditch 58 m north of the southwest entrance that contains brickwork walling (Fig. 5). It is hard to date either of these features but they are probably post medieval. The area 20 m west of the southwest entrance is disturbed and very ephemeral mounds can be made out on the ground. These features are too ephemeral for further interpretation.

BARROW E AND THE SURROUNDING AREA (Fig. 6) Barrow E (Fig. 6), described in the WSCC SMR as a Bronze Age bowl barrow, is 134 m west of the southwest hillfort entrance. It is the largest barrow in the survey area and has a depression in the centre (Fig. 6). This is likely to represent antiquarian or earlier intrusive activity. Barrow E is centrally placed on the ridge which runs through the site and is positioned on the easiest path through the landscape, although the terrain either side of the feature is not so steep as to make walking difficult. Barrow E was placed on the narrowest part of the ridge within the surveyed landscape. The southern side of barrow E has been worn by wheeled traffic and the wear has revealed what may be a flint core.

There is a very low mound 63 m east of barrow E (Fig. 6) and this may be the Bronze Age barrow mentioned in the WSCC SMR (SMR 3419) at NGR TQ 137120. A small mound is also visible

15 m north of the latter feature (Fig. 6). Another mound placed directly on the ridge is 59 m west of barrow E (Fig. 6); this feature is also associated with a very shallow ditch that runs due south until it is obscured by the South Downs Way. Two more measurable mounds are present in this area (Fig. 6). These latter features are possible barrows. Immediately southwest of barrow E broad furrows can be seen - their proximity and unusualness in the survey area suggests some connection with barrow E.

THE WESTERN CROSS-DYKE AND ADJACENT TOPOGRAPHY (Fig. 7)

The western cross-dyke (Fig. 7) is 458 m west of the hillfort. The larger bank is on the eastern side but the height varies along the length of the earthwork. The cross-dyke has two gaps in its 129-m length; the first is 17 m north of the fence line, where the South Downs Way cuts through it. This gap does not appear to be original to the earthwork (Fig. 7). The survey points to it as having been eroded by the track. The second gap is not as clear as the first. It is 30 m north of the South Downs Way and again was not intended as a gap by the builders of the earthwork. There is no evidence of any gap being built into the earthwork at the time of its construction. The western cross-dyke has been assigned a Romano British *terminus post quem* on the evidence of a pottery sherd found within a section cut during Bedwin's 1977 excavations (Bedwin 1980, 182). Curwen and Curwen (1918, 53) stated that the western cross-dyke cuts the ridge at its narrowest point; it can clearly be seen that the western cross-dyke does not cut the ridge at its narrowest point. Barrow E is situated upon the narrowest point of the ridge. The ridge located at the western cross-dyke is approximately 32 m wide whereas the ridge located at barrow E is in the order of 20 m wide.

Barrow F is not noted in the WSCC SMR. It is 504 m west of the hillfort on a high point of the landscape and is in a very disturbed state. The 1947 aerial photograph (Fig. 8) shows that the ground surface in this location has been worn down to the chalk and there has clearly been heavy activity at this point.

Adjacent to barrow F, 5 m to the northwest, there is the trace of a semicircular feature. This feature is visible on the 1947 aerial photograph (Fig. 8) and is probably due to WWII activity on the site. Other WWII activity is possibly visible

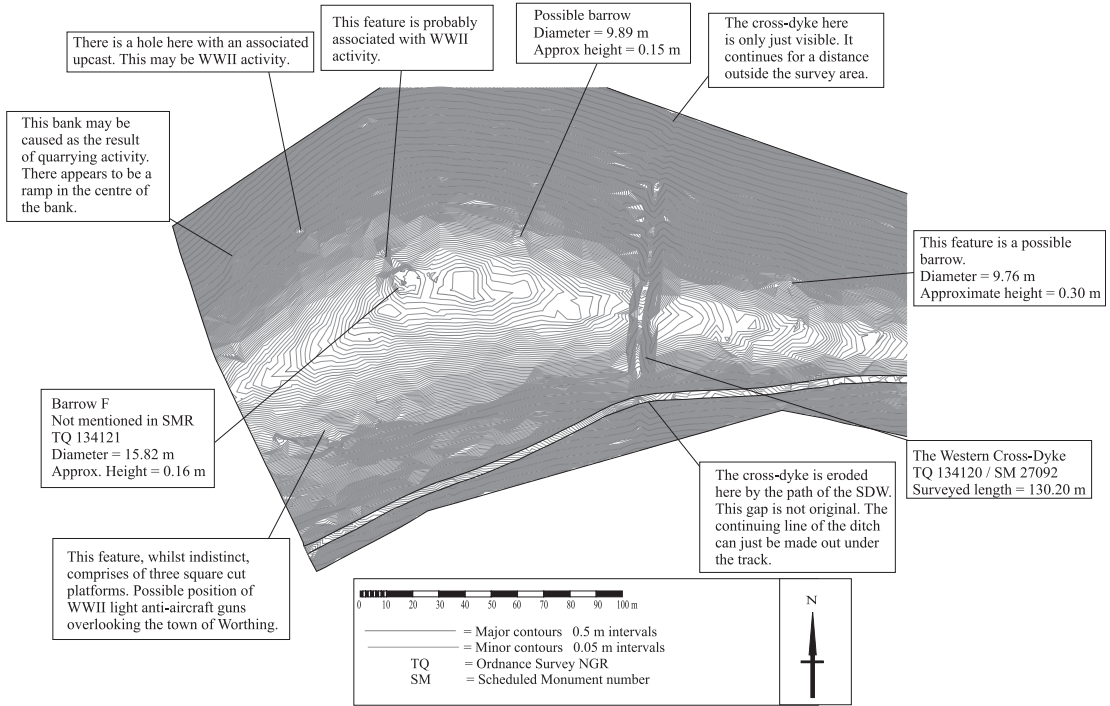


Fig. 7. Chanctonbury Ring, Sussex: the western cross-dyke and the surrounding landscape. OS ref. TQ 134120.

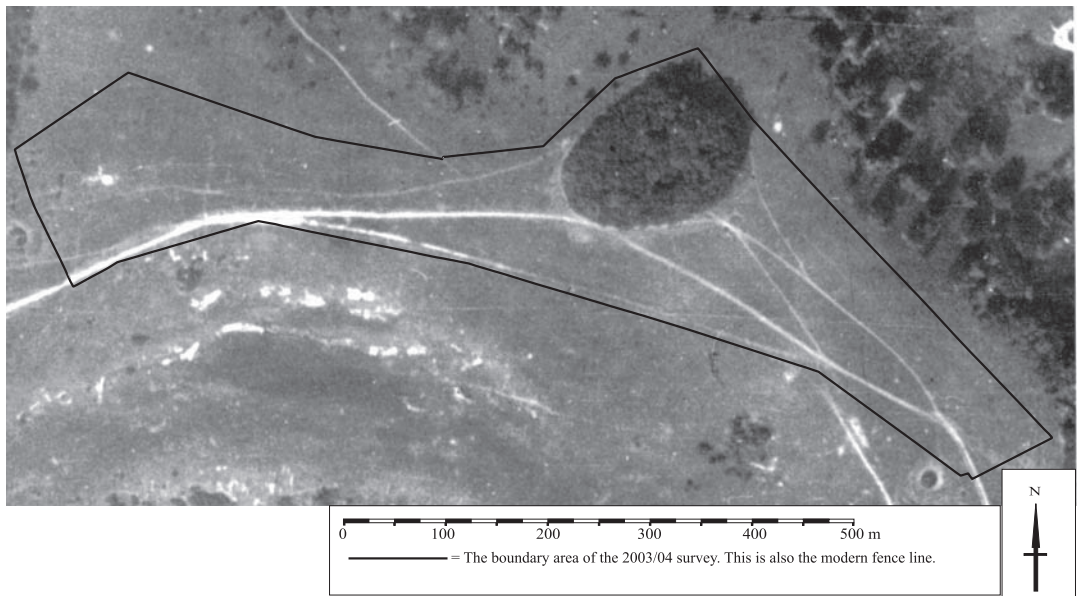


Fig. 8. August 1947 RAF aerial photograph (TQ11SW) of Chanctonbury Ring, Sussex. This aerial photo clearly shows the amount of WWII activity. In many areas vehicles have made deep tracks. (Photo sourced from West Sussex County Records Office. APH ACC13063.)

66 m southwest of barrow F. There are three indistinct square platforms that are orientated with their front edge facing towards the town of Worthing (visible at this point). These appear to be earthworks constructed to build a level surface. These features may have been the position of a WWII light anti-aircraft battery although the 1947 aerial photograph (Fig. 8) does not show any visible evidence of these features.

A small pit can be seen 43 m northwest of barrow F. The mound associated with this feature appears to be the upcast from the pit piled on the southeastern edge. Given the amount of WWII activity in this area, this feature is likely to be associated with that period of use although no firm conclusions can be made. A bank can be observed 28 m northwest of the latter feature. This bank is 49 m long and is broken in the middle by a gentler slope that has the appearance of a ramp. This feature may be the result of past quarrying but may possibly be a natural feature.

There are two mounds in this area; the first is 143 m east of barrow F. Its position is just below the chalk ridge. The second, also placed just below the ridge, is more ephemeral and is 48 m northeast of barrow F. Both are possible barrows.

CONCLUSION TO THE TOPOGRAPHICAL SURVEY RESULTS

In discussing the conclusion to the survey the site taphonomic processes should be considered. This is especially important for explaining how the possible barrows came to be in such an ephemeral condition. Having consulted the post-war aerial photographs of the site held at WSRO and talked to the landowner, it is clear that the site has not been ploughed since the Second World War. The patterns of round barrow damage have not received an in-depth consideration for Sussex or elsewhere (Garwood 2003, 47). The effect of pre-twentieth-century plough damage should not be underestimated. Flint cairns have been used as a source of easily available track-building material (Garwood 2003, 48) and the proximity of the South Downs Way, a track metalled with flints, may suggest that that fate befell many of the possible barrows within the survey area.

For the area of the 2003/4 topographical survey a unique form of erosion may have caused damage to many of the landscape features. The 1947 aerial photo (Fig. 8) suggests heavy use and erosion of the landscape by vehicles. The area was

used in 1942 by the 142 Royal Armoured Vehicle Corps (outfitted with 40-ton Churchill Tanks) for manoeuvres and the local South Downs were heavily used throughout the war for training by the Canadian army and other units, especially in the preparation for D-Day.

All of the visible features within the area of survey, most of which have not been previously recorded, have been accurately mapped. The survey has provided a baseline for the monitoring of future damage and erosion to the features in the landscape. It has shown how even ephemeral features can be detected by using a survey technique that utilizes an accurate digital methodology and it has illustrated the amount of archaeological information that can be gleaned from a non-invasive and relatively non-labour-intensive technique.

DISCUSSION

The following discussion examines the prehistoric use of the landscape and explores what meaning special landscapes may have had to past societies. It examines the notion of the past in the past, how a visible and remembered past has been experienced by those who travelled through or otherwise experienced the landscape. The interpretation will include the Late Bronze Age construction of the hillfort and will present this as the culmination of a landscape biography that may have had its beginnings as early as the Neolithic. The Roman use of the monument (Bedwin 1980; Rudling 2003) has been rather better considered than the earlier prehistory of the site and it is hoped that this interpretation will at least go some way to filling in the gap in our understanding of Chanctonbury Hill.

THE NEOLITHIC ON CHANCTONBURY HILL

The Neolithic period was considered to have been the period when the top of the South Downs was cleared of the wildwood (Rackham 1986, 72). However, the notion of widespread Neolithic woodland clearance is now not as accepted as it once was by environmental archaeologists (Somerville 2003, 239). Detailed environmental analysis of Chanctonbury Hill has not been undertaken so it is unsafe to assume that the summit was cleared during the Neolithic. It is, however, significant that the highest point in the survey area contains Neolithic flint artefacts. A laurel leaf point, polished axe and arrowhead were found within the area of

the 1977 excavation (Drewett 1980, 196) and more were recovered following the 1988–91 excavation (Butler 2003, 89). The Neolithic assemblage was considered to have been associated with woodland clearance and hunting activities (Drewett 1980, 196; Rudling 2003, 111) although the debitage now found suggests a wider use of the hilltop during the Neolithic. Bell (1996, 6) has suggested that the clearance of the top of the downs was completed by the Early Bronze Age at the latest.

The presence of Neolithic artefacts upon the summit of Chanctonbury Hill within the natural platform of the later enclosure suggests that here at least it was partially clear of woodland. If the top of Chanctonbury was clear then it becomes important to consider it in a wider landscape context; to the southwest there are the flint mines of Cissbury Ring and Church Hill, Findon. Harrow Hill flint mines can be seen by looking in a northwesterly direction. Thundersbarrow, a Neolithic long barrow, can also be seen from the summit of Chanctonbury Hill. In this context the deposition of fine flint tools, particularly the polished axe, could be seen as rather more than a chance loss during a woodcutting operation. However, a settlement can probably be discounted; confirmed settlements within the Neolithic of southern Britain are rare. Pollard (1999, 83) has taken the position that Neolithic communities in southern Britain were involved in the process of piecemeal clearance, seasonal movement, and temporary settlement. This is likely to have been the case and the perhaps seasonal use of the Cissbury flint mines (Edmonds 1995, 117–20) provides some evidence for this type of transience in the immediate landscape. However, woodland clearance and flint mining require considerable investments of time; it is unlikely that communities would stray far from these areas. The inscribing of the landscape with long barrow burial monuments also hints at a close tie with the immediate locale. Flint mines can be considered to be as much a symbolic as an industrial monument (Barber 2001). Chanctonbury may have offered Neolithic people an important place from which to view both the flint mines and also the monuments of the dead. Bradley (2000, 152) has stated how natural places in the landscape were perhaps the first venues for ritual activity associated with place. These assumptions, although based on very little physical evidence, suggest that the landscape at Chanctonbury Hill could have been of symbolic

importance to Neolithic communities. This may be the first ascription of a sense of human memory and place to Chanctonbury Hill. Landscapes are no longer seen as separate from the human experience but they are integral to movement, relationships, memories and histories (Bender 2001, 76). Ritual activity does not have to be materially visible; many cultures regard the unaltered landscape as a sacred locale (Smith 2001, 7).

The absence of a Neolithic constructed monument on Chanctonbury Hill should be considered against the background of monument construction in Sussex. Causewayed enclosures, such as at Whitehawk (Russell & Rudling 1996) and Offham (Drewett 1997), are part of the experience of Neolithic construction in Sussex and southern England. It is difficult to conceive that Chanctonbury Hill, with its prominent landscape position, would not have attained a particular significance for the communities of the Neolithic. Their communities were certainly present on top of Chanctonbury, as is evidenced by the flint scatters, but the locale was not chosen to be enclosed or in any other way modified by monumental construction.

THE EARLY–MIDDLE BRONZE AGE

It will be seen that from the discussion of the Neolithic above that the landscape was likely to have already been imbued with meaning before communities began to construct funerary monuments on top of Chanctonbury Hill. The creation of funerary monuments upon the hill inscribes the landscape with something powerfully different from the landscape devoid of features. The consideration of Early Bronze Age barrows needs to be contextualised with a landscape much wider than the limited area of the topographic survey. The South Downs have a great linear arrangement of round barrows that begins from the Arun Valley to Beachy Head near Eastbourne (Field 1998, 310). This distribution can be regarded as reflecting the social and economic activity of Early Bronze Age communities (Field 1998, 314). Chanctonbury Hill has a higher concentration of burial monuments upon it than has the surrounding area. The topographical site survey has revealed the possibility that Chanctonbury Hill has more round barrows centred upon it than has been previously considered (Fig. 9).

The location of round barrows in the landscape

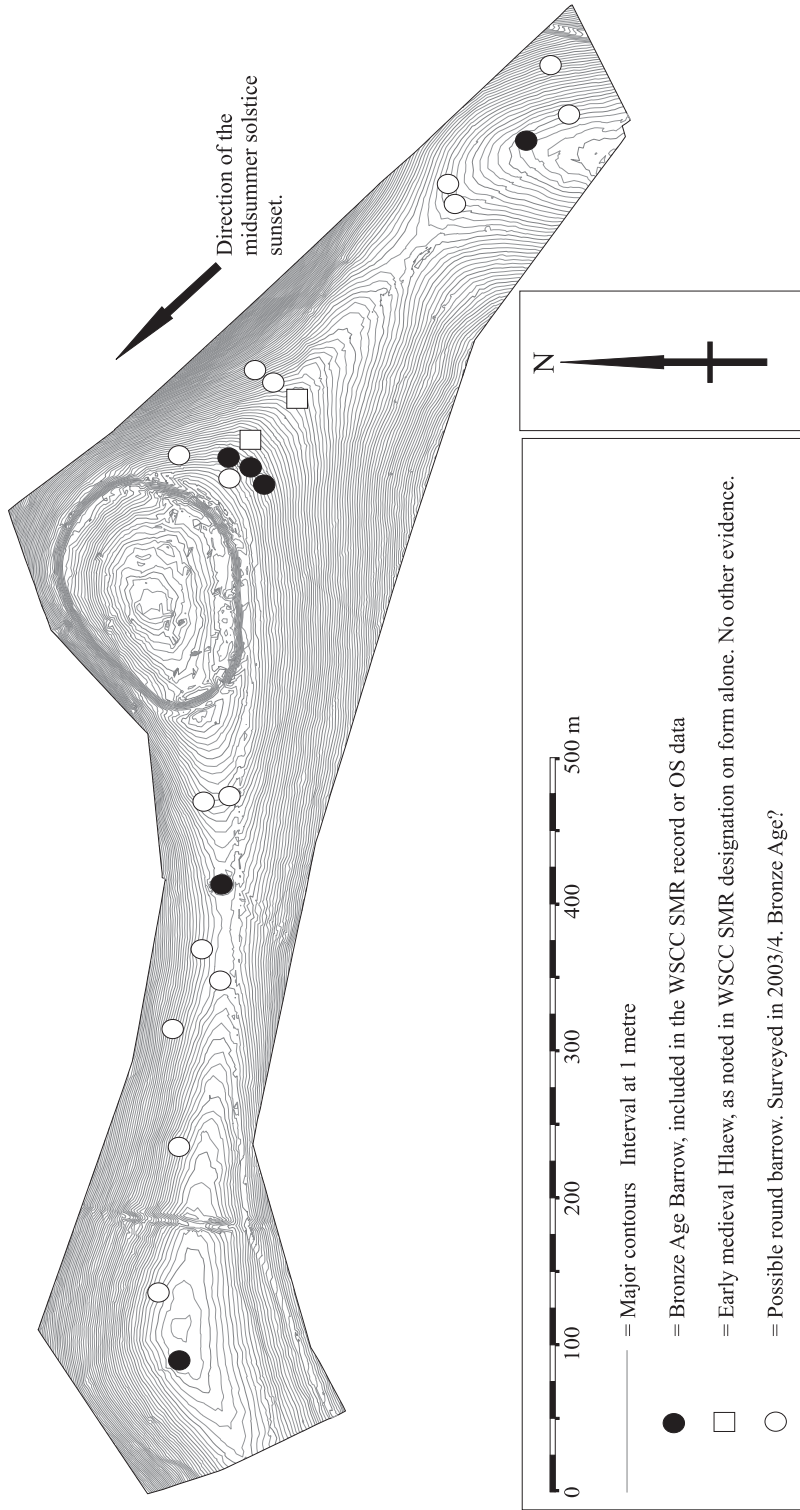


Fig. 9. Chanctonbury Ring, Sussex: the distribution of barrows, possible barrows and hlaeaws in the landscape.

is not a random event but a clear statement of purpose; many cemeteries in Sussex and southern England are aligned in a particular manner or they form certain alignments (Field 1998, 315; Garwood 2003, 57). The chalk ridge has been a thoroughfare for communities at least since the Neolithic; several barrows on the site are located directly on or across the ridgeway. Moving through the landscape upon the easiest path of the ridge would have entailed skirting or crossing these monuments.

The hill summit of Chanctonbury was clearly of special significance; perhaps as a result of the high visibility of the area. It is likely that the area was imbued with a sense of deep time; space and time in the landscape are inseparable (Robin & Rothschild 2002, 161). The Early Bronze Age monumentalization of landscape may have taken place in relation to an ancient and symbolic code (Watson 1999, 214). Gosden and Lock (1998) have regarded this ascription to the remembered past as a genealogical history. Early Bronze Age barrows are exclusive structures; not everybody in the society would have had access to this type of burial and it was clearly restricted to certain members of the population.

Round barrows in the Early Bronze Age were significant to the communities who experienced them in a number of ways; Brück (1999) has put forward a convincing argument that Early Bronze Age communities were transient with mixed subsistence strategies, a greater reliance on wild foods than is normally ascribed to them and with no fixed settlements. Certainly very little positive archaeological evidence of sedentary communities in the Early Bronze Age has come to light and human activity is marked either by funerary monuments or discrete flint scatters (Brück 1999, 55). People are always in contact with the landscape and are never nowhere (Bender 2001, 78). It is worth noting that Chanctonbury Hill has produced Bronze Age flint scatters within the areas of excavation inside the enclosure (Butler 2003, 89). This implies at least a certain amount of movement and use of the landscape and, therefore, an exposure of these communities to the round barrows within the landscape.

A further question must be asked of the Chanctonbury Hill survey: is there any topographical evidence for Bronze Age activity in the area where the hillfort is now situated? It is unlikely that such a prominent position with such

a large area of ridge would have been ignored as a suitable site for a round barrow or a cluster of round barrows. The topographic survey has not provided firm evidence of any definite mounds in the central area of the hillfort location. It has, of course, revealed a high level of disturbance in the hillfort interior which may have disturbed any barrows present, but given the diameter of Barrow F (see 'Survey Results' Fig. 7) at the western prominence any barrow within this large area of flat ridge top may have been large as befitting to an important location. It is possible that the Late Bronze Age construction, the Roman re-use or even the tree-planting episodes levelled any barrows. A sherd of a collared urn (1800–1200 BC) was found in the 1977 Bedwin excavation within the hillfort. This has been noted as unusual as it is a rare example of collared urn found out of a burial context (Drewett 1977, 196) although it may, of course, have been associated with a disturbed burial.

The area within the present rampart circuit was certainly frequented in the Bronze Age and Butler (2003, 89) has likened the flint assemblage to a settlement scatter. The Bronze Age use of the then unenclosed prominence of the hillfort interior may have had a more symbolic value rather than use as a settlement. As a place of settlement it is climatically hostile even if a marginally warmer climate in the early-mid Bronze Age is taken into account. Settlement would more likely have occurred on the sheltered valley sides or in the resource-rich Weald. In addition, it is likely that communities in the early-mid Bronze Age (certainly the early Bronze Age) were more mobile than has traditionally been accepted (Brück 1999, 55). The ridgeway and downs may have been rather liminal to the physical experience of early-mid Bronze Age communities (Field 1998, 321).

It is a distinct possibility that the high prominent area, which the hillfort encircles, was an occasional venue for active ritual activity in the Early and Middle Bronze Ages. Such activity would have been set in a landscape heavily invested with memory and significance. The nuances of meaning clearly would have been interpreted differently throughout the Bronze Age. Garwood's (2003, 57) idea of encountering the Bronze Age barrows as part of a pilgrimage or journey along the wider South Downs ridgeway provides another contextual meaning to Chanctonbury and other prominent locations along the South Downs.

Perhaps these significant natural positions acted as meeting places or as the stops along such a pilgrimage.

A site such as Chanctonbury is highly visible; as a journey was made along the South Downs ridge it may have acted as a natural place to stop, meet and perhaps engage in ritual activity associated with a journey through the landscape. Alternatively, an obvious and prominent location such as Chanctonbury Hill may have been the destination of such journeys. On a local scale the procession past a line or group of monuments may have presented a symbolic ordering of importance according to the mounds' location in the landscape, which groups of elite descent identified with as connecting themselves with past ancestor groups (Garwood 2003, 61). In other words a genealogical link (Gosden & Lock 1998) real or imagined was maintained and reinforced. In some locales this may have had a cosmological significance; in Sussex the Devil's Jumps and the Heyshott Down barrow groups are aligned with the midsummer solstice sunset (Garwood 2003; 60). Within the Chanctonbury landscape the orientation is closely allied with the landscape formation but there is also a cosmological alignment of the chalk ridge. The approach to the area of survey from the east is obscured by a blind summit that when crested provides a full view of the landscape and the hillfort prominence (Fig. 10). There is a northwestern alignment of the ridge if the hillfort prominence is approached from here towards the three saucer barrows B, C and D (Fig. 4). This is the alignment of the midsummer solstice sunset and some of the barrows are broadly aligned towards this cosmological point (Fig. 9). It is also highly significant that this group of three saucer barrows is just short of the prominence upon which the hillfort is positioned.

THE LATE BRONZE AGE AND THE CONSTRUCTION OF THE HILLFORT

The studies of the use and origin of Late Bronze Age and Iron Age hillforts are not now confined to the functional construction of the monument as a defensive measure against aggressive neighbours. Hillforts are not a homogeneous class of monument and a large variation in sites can be displayed nationwide (Collis 1996, 87) and in southeast England they are morphologically unclassifiable (Hamilton & Manley 2001, 11). Hill (1996, 108) has put forward the notion that hillforts should

be united under the broad classification of not being farmsteads. The wide variation in hillfort morphology throughout the Late Bronze Age to the Late Iron Age has led Hamilton and Manley (2001) to consider the southeast England hillforts as having three distinct traditions from the Late Bronze Age/Early Iron Age, Middle Iron Age and Late pre-Roman Iron Age. Chanctonbury Ring fits in to the Late Bronze Age tradition of hillfort construction. The variation in morphological shape of hillforts built in the Late Bronze Age may suggest a different purpose for the construction of each monument; however, that is not to suggest that early hillforts were exclusive to one use alone and there were probably a number of roles that they could fulfil in Late Bronze Age society.

The Late Bronze Age period of hillfort construction in southeast England coincides with a radical change in the nature of prehistoric society (Champion 1999, 95). This involved the disappearance of an archaeologically visible burial rite, an increased deposition of prestige metalwork in rivers and a change from the Middle Bronze Age settlement pattern of roundhouse groups set in enclosures (Hamilton & Manley 2001, 7).

Evidence for any intensive Late Bronze Age occupation within Chanctonbury Ring has not been found in any of the excavations to date; it is unlikely that any prolonged settlement would have been desirable upon the summit of Chanctonbury hill as it is very exposed to the elements. There is also a contemporary settlement site at Findon Park 2 km to the south and visible from the summit of Chanctonbury (Bedwin 1980, 173–4). In addition to these downland settlements, there are settlements off the top of the downs, both upon the coastal plain and to the north of the downs escarpment. One of these sites, to the north of the downs, is exemplified by the excavations at nearby America Wood, Ashington (Priestley-Bell 1994, 33–51). This site has illustrated how contemporaneous Late Bronze Age activity and settlement was not restricted just to the well-known downland locations. The probable Late Bronze Age settlement at America Wood, Ashington, is close to Chanctonbury Hill and the hillfort would have been clearly visible from this site.

If the hillfort was not built to enclose a settlement then other reasons must be considered for its construction. Chanctonbury has often been considered to have had ritual function;

Bedwin (1980, 186) certainly considered this to be a possibility. Hillforts should be considered in their individual topographic setting (Hamilton & Manley 2001, 11) to understand possible motives for their construction. As has been previously outlined in this article, the landscape within which the hillfort is placed possessed a long history that would have been apparent to the Late Bronze Age monument builders.

The interpretation of the landscape by past societies must not be seen as homogeneous from the Neolithic onwards and the landscape would have been interpreted against a backdrop of cultural values unique in that time and place. That the landscape was still regarded as significant in the Late Bronze Age is beyond doubt as the very existence of the hillfort points to this perception of place as unique. The re-use by past societies of monuments such as the Chanctonbury barrows comprised actions at or near to ancient landscape features that were given contemporary values of their own (Gosden & Lock 1998, 4). The construction of Chanctonbury Ring hillfort was perhaps a connection by those Late Bronze Age communities to the past but rather than a genealogical link, as has been argued above for the use of barrows in the earlier Bronze Age, there is a more mythical link to the landscape.

The enclosure of a symbolic locale by a rampart can be seen as an active decision to divide the once open landscape into a landscape with boundaries and it emphasizes the act of entering a monument; the interior is visibly protected (Hill 1996, 110). Where once all could engage with the open area of the prominence it was perhaps now only open to certain classes of society; especially at the moment of ritual. A sacred space is amongst the most dominant and enduring aspects of religious expression (Smith 2001, 6; Smith & Brookes 2001, 5). Sacred spaces have a typically defined route way to the site progressively moving from an outer zone arriving at an entry point that is a transitional zone (Smith 2001, 7). The approaches to the hillfort at Chanctonbury are through a landscape that is visibly impressive and has monuments that may be ascribed to the mythical past within it. When approached from the east the hillfort is hidden from view until the eastern cross-dyke (if contemporary or older) is crossed; even if the eastern cross-dyke is not contemporary or older than the hillfort then the approach from the



Fig. 10. The landscape is revealed here at the top of a blind summit approached from the east. The prominence upon which the hillfort is built is orientated in a northwesterly direction. This is in line with the setting of the midsummer solstice sunset. (photograph from author's collection)

east is still masked by a small summit where the modern gate is now located (Fig. 10). The eastern cross-dyke may be earlier than the Roman western cross-dyke (that may of course have been re-used and modified in the Roman period and in fact the original cross-dyke could be of Late Bronze Age origin) and may have formed part of this symbolic landscape. Cross-dykes on the South Downs can often be dated to the Late Bronze Age (Hamilton & Manley 1997, 100). It is perhaps significant that these two cross-dykes are equidistant from the centre of the hillfort therefore they could be contemporary. In addition Curwen and Curwen (1918, 61) noted the association of cross-dykes with barrow monuments. The latter association is clearly supported by this research.

When the growing Late Bronze Age ritual significance of food along with the environmental decline is considered (Champion 1999, 103) it may have become important to reaffirm links with the mythical to ensure the success of the harvest and the wellbeing of animals. This link to the mythical by certain classes of society reaffirmed their position as having the power to commune with supernatural forces on the behalf of the community. The location of Chanctonbury Ring drew upon the landscape biography to create a mythology that was beneficial to the local community; hence a reason enough to participate in the communal effort of building the monument.

The prominent position of Chanctonbury Ring along the South Downs ridgeway should also be



Fig. 11. Looking northeast.



Fig. 12. Looking east from the eastern hillfort entrance.



Fig. 13. Looking south from the southern rampart. Cissbury Ring; the location of Neolithic flint mines and Middle Iron Age Hillfort is in the centre of the horizon.



Fig. 14. Northern view from the northernmost rampart.

considered. Chanctonbury is intervisible with Harting Beacon, Thundersbarrow, Harrow Hill, Cissbury flint mines and Wolstonbury Hill. All of the enclosures can offer a view of Chanctonbury Ring which, given its unique landscape location with direct links to the mythical past, perhaps had a special significance amongst the Late Bronze Age enclosures. The view from the hillfort was all encompassing (Figs 10-14) and provided a dramatic circular backdrop to activity in the interior of the hillfort.

In addition, the all-round view from the hillfort enabled Chanctonbury Ring to be outward-looking

across the Weald to the North Downs and to the coast, the sea and rivers. Chanctonbury Ring can be seen from a long way inland, even if the hillfort itself is not visible, it is placed upon a distinctive topographical point that can be readily recognized. The fact that from Chanctonbury Ring one can see and it can be seen over a great distance may indicate that its topographical position also fulfilled the role of controlling or monitoring inshore maritime activity, movement through the landscape and land use.

Chanctonbury Ring has five excavated features that are perhaps related to the Late Bronze Age

ritual use of the hillfort. These comprise two post-holes and three pits. Feature 110 (Bedwin 1980, 179) produced pottery, human limb bones, burnt daub, imported red flint and granite from Cornwall. The composition of F110 (which may be Middle Iron Age in date) would fit Hill's (1995) reconsideration of Iron Age rubbish pits as having had a ritual rather than domestic function. Without the attendant evidence of settlement it is hard to explain why rubbish would be dumped in a pit in the interior of a rampart. Other finds within Chanctonbury Ring reflect its position as a special location. In the 1988–91 excavations (Rudling 2003) Late Bronze Age metalwork was discovered in a Late Bronze Age pit. The late Bronze Age deposition of metalwork in hoards is well-attested (Harding 2000, 352). The Ewart Park assemblages are contemporary with the highest archaeologically visible events of bronze deposition (Harding 2000, 355). The Chanctonbury assemblage can be ascribed to the Ewart Park tradition (Needham 2003, 102).

The Late Bronze Age Chanctonbury pottery assemblage, as well as providing a date for the construction of the hillfort in the seventh century BC (Hamilton 2003, 90), is characterized by a large number of cups, large jars, small jars, and also a number of vessels of any one type. These vessels include evidence of contacts with the Wealden areas of Sussex. This may represent a gathering of disparate communities to negotiate access to resources and environments off the South Downs (Hamilton 2003, 100). Hamilton has also suggested that a range of food storage and consumption took place on the site associated with a limited number of people or with an intermittent site use (Hamilton 2003, 99). Both of these conclusions lend themselves to a symbolic or religious use of the hillfort; it is possible evidence of feasting activity. The ceramic assemblage of Chanctonbury Ring is closely related to decorated assemblages from Harting Beacon and Highdown hill (Hamilton 2003, 99). This may hint at a similar use of the hillfort enclosures at these three locations.

The classic interpretation of hillforts as defensive enclosures should still not be disregarded. The Late Bronze Age was a period when the use of slashing swords and armour suggest a new form of combat and a new status for the fully-armed warrior (Champion 1999, 109). This change in what could now be termed as warfare has been closely allied

to the interpretation of hillfort construction as a means of defence in an increasingly martial society.

The interpretation of a ritual use for the Late Bronze Age hillfort at Chanctonbury ring does not then preclude a defensive role for the enclosure (and for other Late Bronze Age enclosures in Sussex). The defensive position of Chanctonbury is powerful; the western and eastern approach is dominated by the hillfort. The rampart is also highest in the area of the original eastern entrance. However, what Chanctonbury Ring was built to defend must be considered. There has been no evidence of settlement in the hillfort interior (Bedwin 1980, 186; Rudling 2003, 111). To an agricultural community the protection of open fields and livestock would be important. Livestock could certainly be corralled in the hillfort interior but there is no evidence for storage pits or grain silos (Bedwin 1980; Rudling 2003). Of equal importance is the physical protection of a ritually significant place. The destruction of a locale linked to an idea of the mythical past with a direct connection to the community could have had disastrous effects on that group by destroying or otherwise negatively affecting their identity and their spiritual beliefs.

Chanctonbury may have embodied ideas of protection and may have been used defensively as a last measure; perhaps as a place of retreat. The possible deposition of a bronze hoard in the hillfort interior may have been a symbolic action representing the protection that the hillfort could provide if needed: the act of furnishing the supernatural with the weapons they may need to protect the group. If Chanctonbury Ring had a ritual use then this was probably worth protecting and the deep connection to the mythical landscape acted as a further motivation for defending the locale. The perception of being close to the supernatural may have strengthened the arm of a defender. Persecuted people will naturally seek shelter and the substantial rampart and symbolic focus of Chanctonbury Ring would have acted as a refuge if it was needed.

For the majority of the time the hillfort was a peripheral location in line with Hamilton and Manley's (2001, 32) interpretation of Late Bronze Age enclosures. However, its highly visible hilltop position ensured that it and the other prominent Late Bronze Age hillforts, while

geographically peripheral, were never far from the daily experience of Late Bronze Age societies whether located on the downs, coastal plain or in the Weald and Chanctonbury in particular held a deep and mythical connection with the distant past that was occasionally reinforced by ritualistic activities carried out by those individuals who had a perceived link to the inscribed landscape.

THE MIDDLE IRON AGE

Chanctonbury Ring, along with Highdown and Harrow Hill, has not provided any evidence of continued occupation or use after the Middle Iron Age. This is broadly contemporary with the construction of the massive Cissbury hillfort (Bedwin 1980, 187) and has led to the hypotheses of the smaller hillforts being abandoned in favour of the large central fort. Cissbury ring is clearly not the same class of monument as Chanctonbury and certainly fulfilled different roles from these earlier and smaller hillforts. The 'abandonment' of Chanctonbury Ring never actually occurred as there is no evidence of any actual long-term occupation during the Late Bronze Age or Early Iron Age. The abandonment of Chanctonbury Ring as a significant locale probably never happened. The hillfort was either avoided entirely or it was used in such a way that has not provided us with any positive archaeological evidence. Even if the monument was consciously avoided, this cannot be classed as abandonment as conscious avoidance shows that it was clearly significant (even in a bad way) to the local community. Of the Iron Age shrines that are known to us only half of them have provided any associated artefactual evidence (Wait 1985, 178) apart from the evidence of the structure itself. Chanctonbury Ring has not been exhaustively excavated and the disturbance of the interior may have precluded the detection of ephemeral prehistoric features. It is as likely as not that Chanctonbury Ring continued as an occasional location for religious observance until the later formalization of the tradition in the Romano-British construction of the temple complex and refurbishment of the ramparts.

CONCLUSION

The above interpretation of the prehistoric landscape is by its nature theoretical as all interpretation of prehistory must be to a certain

extent. Hillforts are not monuments that were restricted to one use and the conclusions reached here about Chanctonbury Ring hopefully reflect this. There are connections to wider themes in Late Bronze Age society which are important, but each site warrants an in-depth interpretation particular to its own setting in the landscape. Regional interpretations of hillfort construction will only ever offer limited benefits. There is no reason why the interpretation of past human communities should be any less complicated than our less than complete understanding of contemporary society (Garwood 2003, 62).

The underlying theme throughout the interpretation has been the use of the past by societies in the past. The attractiveness of this theory for archaeologists is that they do not rely upon a shared set of cultural values as each society can interpret the landscape on a background of their own experience. Chanctonbury Hill has a history that lasted throughout prehistory and is still being written today. Our present notions of the past are set against a background of archaeological research; that is our current use of the past. In a sense this has a great deal in common with the way past societies interpreted and used the past to explain their own origins.

The topographical survey of Chanctonbury has produced pleasing results. In all 15 possible barrows were surveyed in the landscape. Clearly not all of these will be Bronze Age barrows, some may be early medieval in date and some may be other features unconnected with either period. However, even if half the features are proved not to be round barrows, this has still shown that there was a significant monumental landscape on top of Chanctonbury Hill prior to the Late Bronze Age. It is significant that all of the ephemeral mounds surveyed were on the northern side of the chalk ridge, a characteristic that is well attested for Bronze Age round barrows on the South Downs ridgeway (Field 1998, 316; Grinsell 1940, 213). All of the surveyed mounds, without exception (see Fig. 9), are placed on the ridge or with a false-crested position just in front of the ridge. The false-crested position acts as an optical illusion that makes the barrow appear more prominent against the skyline when viewed from the Weald. It is also significant that most of the measured diameters are between six to eight metres; which falls within the seven-metre diameter that Field (1998, 309) mentions as

the normal diameter for Deverel-Rimbury barrows in southeast England, although to attempt to date the surveyed features on their eroded form would clearly be unwise.

It would be useful to conduct a geophysical resistivity survey upon the possible barrows in the landscape to elucidate further their nature. In addition a fluxgate gradiometry survey of the entire landscape may be revealing as the author has utilized this method on chalk geologies before and barrow ditches have produced anomalies in the survey results. It would also be interesting to extend the area of the topographical survey to include other nearby barrows and features. It would be useful to map the extent of the eastern cross-dyke.

The topographical survey was completed in the winter of 2004. Since then the author has recently (August 2007) visually inspected areas where damage was recorded in the original survey. Unfortunately, recreational use of the landscape is still causing damage to many of the monuments within the original survey area. The metalled track of the South Downs way is being avoided (presumably due to its surfacing) by cyclists, horse riders and 4 × 4 vehicle enthusiasts. Areas of turf adjacent to the track are being eroded and rutted. Barrows are used as interesting jumps/obstacles to cross by cyclists or 4 × 4 enthusiasts. This will only cause continuing damage to the archaeological landscape, but it serves as an example of how quickly 3500-year-old field monuments can be removed by anthropogenic actions. The

recreational users of the landscape are not likely to be aware of the damage caused as it is not obvious to most that the features are monuments. A solution would be to signpost the monuments or to place notices at the entrance gates. Then visitors to the landscape would at least be aware of the nature of the 'lumps and bumps'.

Since the completion of this survey in 2004, the author has performed many other archaeological surveys whilst in the employ of the UCL Centre for Applied Archaeology (Archaeology South East). In view of subsequent experience the author would perhaps approach the survey of Chanctonbury Ring with a slightly different methodology than that used for this report. However, the 2003/04 survey that forms the basis of this report stands as a useful baseline for the management of the landscape and it underlines how modern survey equipment and CAD presentation can and should be used for surveying and recording archaeological landscapes.

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REFERENCES

- Barber, M.** 2001. Flint mines in the Early Neolithic and Beyond, in A. T. Smith & A. Brookes (eds), *Holy Ground: Theoretical Issues Relating to the Landscape and Material Culture of Ritual Space Objects*. Oxford: BAR International Series **956**, 21–6.
- Bedwin, O.** 1980. Excavations at Chanctonbury Ring, Wiston, West Sussex 1977, *Britannia* **11**, 173–222.
- Bell, M.** 1996. Environment in the first millennium BC, in T. C. Champion & J. Collis, *The Iron Age in Britain and Ireland: Recent Trends*. Sheffield: J. R. Collis Publications.
- Bender, B.** 2001. Landscapes on the move. *Journal of Social Archaeology* **1**(1), 75–89.
- Bowden, M.** 1999. *Unravelling the Landscape: an Inquisitive Approach to Archaeology*. Stroud: Tempus.
- Bradley, R.** 2000. *Archaeology of Natural Places*. London: Routledge.
- Brück, J.** 1999. What's in a settlement? Domestic practice and residential mobility in Early Bronze Age southern England, in J. Brück & M. Goodman (eds), *Making Places in the Prehistoric World: Themes in Settlement Archaeology*, 52–75. London: University College Press.
- Butler, C.** 2003. The flintwork (specialist report), in D. Rudling, Chanctonbury Ring revisited: the excavations of 1988–91, *Sussex Archaeological Collections* (hereafter SAC) **139** (2001), 75–121.
- Champion, T.** 1999. The later Bronze Age, in J. Hunter & I. Ralston (eds), *The Archaeology of Britain*, 95–112. London: Routledge.
- Collis, J.** 1996. Hillforts, enclosures and boundaries, in T. C. Champion & J. R. Collis, *The Iron Age In Britain and Ireland: Recent Trends*. Sheffield: J. R. Collis Publications.
- Curwen, E. & Curwen, E. C.** 1918. Covered ways on the Sussex Downs, SAC **59**, 102–3.
- Drewett, P. L.** 1977. The excavation of a Neolithic

- causewayed enclosure at Offham Hill, East Sussex, *Proceedings of the Prehistoric Society* **42**, 201–41.
- — 1980. The flint industry (specialist report), in O. Bedwin, *Excavations at Chanctonbury Ring, Wiston, West Sussex 1977*, *Britannia* **11**, 173–222.
- Edmonds, M.** 1995. *Stone Tools and Society: Working Stone in Neolithic and Bronze Age Britain*. London: Batsford.
- Field, D.** 1998. Round barrows and the harmonious landscape: placing Early Bronze Age burial monuments in South East England, *Oxford Journal of Archaeology* **17**(3), 309–26.
- Garwood, P.** 2003. Round barrows and funerary traditions in Late Neolithic and Bronze Age Sussex, in D. Rudling (ed.), *The Archaeology of Sussex to AD 2000*, 47–68. Brighton: University of Sussex.
- Godsen, C. & Lock, C.** 1998. Prehistoric histories, *World Archaeology* **30**(1), 2–12.
- Grinsell, L. V.** 1934. Sussex barrows, *SAC* **75**, 216–75.
- — 1940. Sussex barrows: a supplementary, *SAC* **81**, 210–14.
- Harding, A. F.** 2000. *European Societies in the Bronze Age*. Cambridge: Cambridge University Press.
- Hamilton, S.** 2003. A review of the early 1st millennium BC pottery from Chanctonbury Ring: a contribution to the study of Sussex hillforts of the Late Bronze Age/Early Iron Age transition (specialist report), in D. Rudling, *Chanctonbury Ring revisited: the excavations of 1988–91*, *SAC* **139** (2001), 89–100.
- Hamilton, S. & Manley, J.** 1997. Points of view: prominent enclosures in 1st millennium BC Sussex, *SAC* **135**, 93–112.
- — 2001. Hillforts, monumentality and place: a chronological and topographical review of first millennium BC hillforts of south-east England, *European Journal of Archaeology* **4**(1), 7–42.
- Haselgrove, C., Armit, I., Champion, T., Creighton, J., Gwilt, A., Hill, J. D., Hunter, F. & Woodward, A.** 2001. *Understanding the British Iron Age: an Agenda for Action*. Salisbury: Trust for Wessex Archaeology.
- Hill, J. D.** 1995. *Ritual and Rubbish in the Iron Age of Wessex: a Study on the Formation of a Specific Archaeological Record*. British Archaeological Reports British Series **242**. Oxford: BAR.
- — 1996. Hillforts and the Iron Age of Wessex, in T. C. Champion & J. Collis (eds), *The Iron Age In Britain and Ireland: Recent Trends*, 95–116. Sheffield: J. R. Collis Publications.
- Lane-Fox, A. H.** (Colonel) 1869. An examination into the character and probable origin of the hill forts of Sussex, *Archaeologia* **42**, 27–52.
- Mitchell, G. S.** 1910. Excavations at Chanctonbury Ring 1909, *SAC* **53**, 131–7.
- Needham, S.** 2003. The Bronze Age metalwork (specialist report), in D. Rudling, *Chanctonbury Ring revisited: the excavations of 1988–91*, *SAC* **139** (2001), 102–3.
- Pollard, J.** 1999. ‘These places have moments’; thoughts on settlement practices in the British Neolithic, in J. Brück & M. Goodman (eds), *Making Places in the Prehistoric World: Themes in Settlement Archaeology*, 76–93. London: University College Press.
- Priestley-Bell, G.** 1994. Archaeological excavations at America Wood Ashington, West Sussex, *SAC* **132**, 33–51.
- Rackham, O.** 1986. *The History of the Countryside*. London: Phoenix.
- Ratcliffe-Densham, H. B. A.** 1968. A woman of Wessex culture, *SAC* **106**, 40–48.
- Robin, C. & Rothschild, N. A.** 2002. Archaeological ethnographies: social dynamics of outdoor space, *Journal of Social Archaeology* **2**(2), 159–72.
- Rudling, D.** 2003. Chanctonbury Ring revisited: the excavations of 1988–91, *SAC* **139**, 75–121.
- Russell, M. & Rudling, D.** 1996. Excavations at Whitehawk Neolithic enclosure, Brighton, East Sussex 1991–93, *SAC* **134**, 39–61.
- Somerville, E.** 2003. Sussex: from environmental change to landscape history, in D. Rudling (ed.), *The Archaeology of Sussex to AD 2000*, 235–46. Brighton: University of Sussex.
- Smith, A.** 2001. *The Differential Use of Constructed Sacred Space in Southern Britain from the Late Iron Age to the 4th century AD*. British Archaeological Reports, British Series **318**. Oxford: BAR.
- Smith A. T. & Brookes, A.** 2001. Holy ground: theoretical issues relating to the landscape and material culture of ritual space, in A. T. Smith & A. Brookes, *Holy Ground: Theoretical Issues Relating to the Landscape and Material Culture of Ritual Space Objects*, 5–8. British Archaeological Reports, International Series **956**. Oxford: BAR.
- Thomas, J.** 2001. *Understanding the Neolithic*. London: Routledge.
- Tilley, C.** 1994. *A Phenomenology of Landscape*. Oxford: Berghaus.
- Wait, G. A.** 1985. *Ritual and Religion in Late Iron Age Britain*. British Archaeological Reports, British Series **149**. Oxford: BAR.
- Watson, A.** 2001. Round barrows in a circular world: monumentalising landscapes in Early Bronze Age Wessex, in J. Brück (ed.), *Bronze Age Landscapes: Tradition and Transformation*, 207–16. Oxford: Oxbow.
- West Sussex County Record Office**, 1947. RAF photograph: APH ACC 13063, Sheet TQ 11 SW.

