

**A Study of Activity at Neolithic Causewayed Enclosures within the
British Isles**

Brian G. Albrecht

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Abstract

Since the first explorations of causewayed enclosures, archaeologists have attempted to define these early Neolithic monuments in relation to territorial patterns, pottery typologies, and ultimately though the concept of structured deposition. While these concepts have been important in advancing our knowledge of causewayed enclosures, the interpretations of the material from the enclosures ditch segments and other areas of these sites have failed to take into account the importance of how objects and materials came to be at the sites, were produced and used there, *preceding* deposition. This thesis argues that activities at enclosures should not be categorically separated from the everyday activities of those who visited the enclosures. I argue that by looking in detail at the spatial and temporal distribution of objects in association with chronology that the practical activities people engaged in at enclosures have been overshadowed by interpretations stressing the ritual nature of structured deposits. These activities had a direct relationship with enclosures and local landscapes. This argues that perhaps more deposits within causewayed enclosures were the result of everyday activities which occurred while people gathered at these sites and not necessarily the result of a 'ritual' act.

A re-interpretation of the detail from nine causewayed enclosures within three 'regions' of the British Isles (East Anglia, Sussex and Wessex) will be examined. It will be shown that this theoretical approach to activity goes beyond the deposition of objects and also includes enclosure construction, object modification such as flint knapping, animal butchery, and the use of pottery and wood. On a micro scale this indicates that each community who constructed an enclosure deposited objects in a unique and 'personal' manner which was acceptable within their defined social system. On a macro scale, this indicates that although all British causewayed enclosures seem to 'function' in the same way, the individual sites were constructed, modified and used in distinctive ways. Some enclosures seem to have existed quite independently from their neighbours while other enclosures within close proximity to each other had a specialised role to play. These specialised roles indicate that some enclosures may have been constructed and used by groups who primarily came to them in order to carry out a specific set of activities which were then defined through deposition.

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0.1 Introduction

Neolithic Causewayed enclosures within the British Isles, and throughout north-west Europe, have continued to be subject to a wide debate during the last 100 years. Currently, the Neolithic within the British Isles dates to around 4000-2200 Cal BC, with the early Neolithic occurring around 4000-3500 Cal BC and is known as the first period when monuments were first constructed. The first of these were long barrows and long cairns which were thought to have been constructed and/or in use from around 3750-3550 Cal BC (Whittle et al 2007: 137) and may overlap in use with causewayed enclosures. These new dates may indicate that the start of the Neolithic as a whole may be earlier than first thought, thus pushing back the construction dates of causewayed enclosures which may be substantially revised in the final results of the new causewayed enclosure radiocarbon dating programme (Whittle et al.: in prep.). These dates may also show that an overlapping usage may have been occurring at least for a short period of time, with long barrows and cairns playing a role in the development of deposition at causewayed enclosures as shown through the similar types of objects located within the flanking ditches of long barrows.

Typically, causewayed enclosures are defined as being sub-oval or sub-circular earthworks with one or more circuits (Fig. 01.1). These circuits are then segmented forming the causeways through which people and animals gained access to the inner areas of these sites. These sites were constructed within upland and lowland locations, near earlier long barrows and, at some sites, near cursus monuments. The continuity of place was maintained by some sites then being overlain by later Iron Age enclosures such as Hambledon Hill (1980, 1988, 2008), Maiden Castle (Sharpley 1991a, 1991b) and The Trundle which will be looked at in detail in chapter 5.

It is thought that their use was for local gatherings at particular times of the year in order to celebrate a range of events, including, but not limited to, rites of passage, bountiful harvests and commemoration of the past, including ancestor worship. During these periods, groups would travel to causewayed enclosures with animals, pottery, stone tools, and perhaps totems such as human and animal bone. The use of the enclosure as a place where ritualistic practices were closely linked with those of both a domestic or utilitarian nature is evident through the placement of these objects,

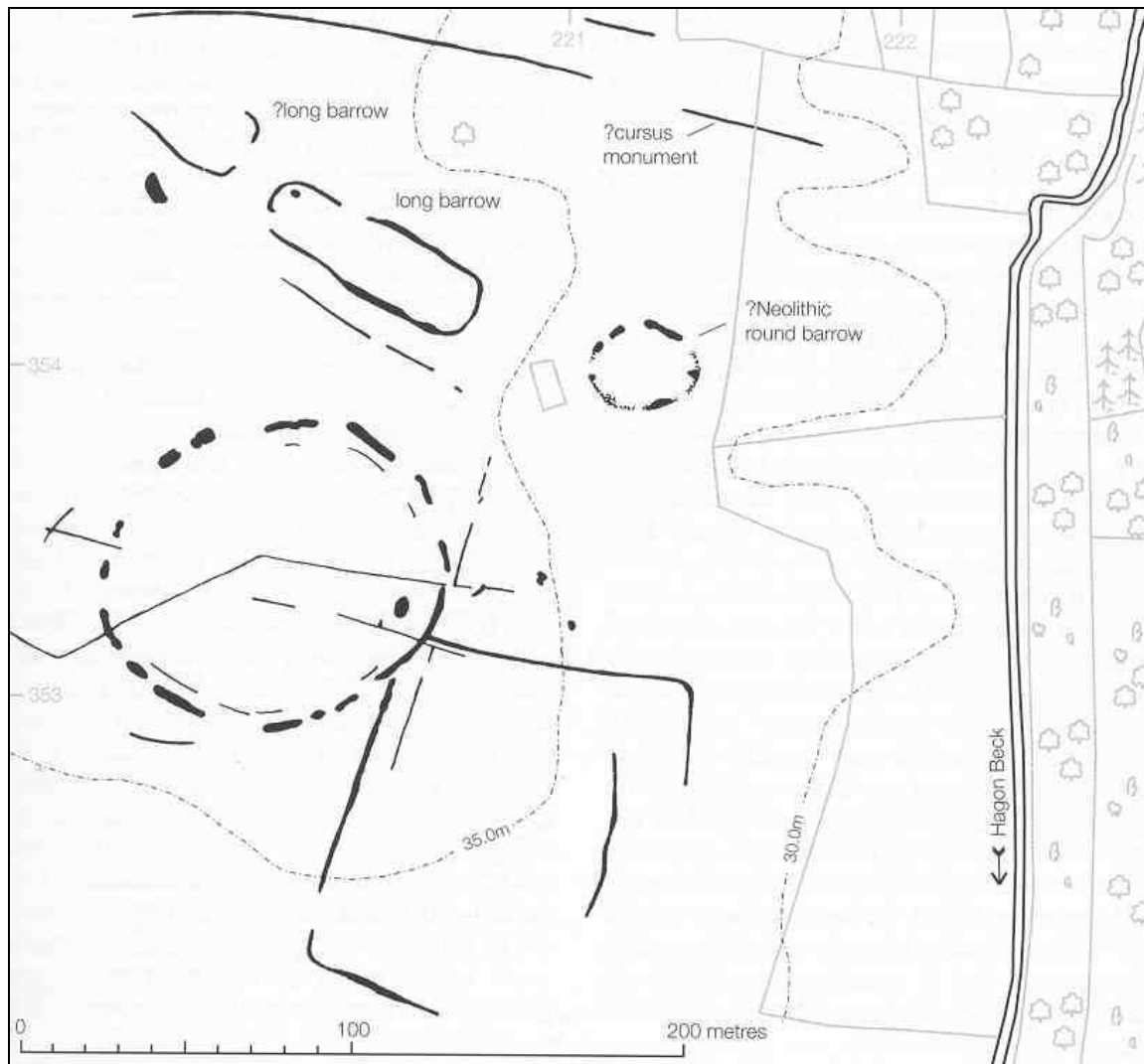


Figure 01.1 The causewayed enclosure of Roughton with associated monuments (Oswald et al. 2001: fig. 6.7)

either in association with each other in order to suggest a relationship between them, or as an independent act. The definition of ritual is complex, and with this study as with many others there is no definitive indication of what ritual is and what is not. Ritual is typically linked with a formalised practice in which a specific set of objects, motions, sound are used by one or more people in order to commemorate the past in the present. Deposition through ritual has been seen as a process where deposition is linked with magical or supernatural powers interconnected though material which is deposited as part of the ritual process, although for some cultures these lines begin to blur as clear distinctions between the sacred and profane become undistinguishable from one another (Darvill (2002a: 361). As Bradley (2003: 12) has indicated, ritual need not be separated from constructs such as monuments, but are part of everyday life where the structure and concept coexist within daily life.

Bradley goes on to make a suggestion that perhaps we should look at ritual as a process of 'ritualization' (Bell 1992: ix) where everyday acts became more formalised through time creating a 'theatrical performance' where activities involving objects and monuments were used (Bradley 2003: 21-1). The deposition or placement of objects in association with each other and in a specific context within causewayed enclosures may be one way of suggesting this relationship. The thesis aims to move away from the ritual implications as much as possible in order to consider the patterns of activity that took place at causewayed enclosures – activities like butchery, feasting, hide-working, flint knapping and tool making – and to consider the extent to which these patterns are consistent or differ across the range of sites studied. The construction of the enclosures will also be examined in order that their placement within the landscape can be shown to have directly impacted the patterns of activity within the enclosure ditch segments and other internal features.

In fulfilling this aim the thesis will achieve the following objectives:

1. Understand the role of the evidence for activities at causewayed enclosures in interpretations of this monument type over the past 100 years.
2. Re-evaluate the existing evidence through a detailed analysis of the patterns of enclosure construction, and how objects and people interact with each other, both within and outside of an enclosure. This will enable a detailed re-interpretation in chapters 3-5 of how the sites within and between regions compared and contrasted with one another in order to identify any differences in activities taking place. In association with a re-evaluation of the existing material culture at these sites, new chronological information will be used in order to suggest changes in the overlapping nature of enclosure construction and, ultimately, how those differences in enclosure construction and use will enable us to better understand the differences these sites had within the Neolithic.
3. Carry out a detailed analysis of nine different causewayed enclosures from three different regions within the British Isles (East Anglia, South Downs, and Wiltshire), considering the similarities and differences in activities between sites within each region. Each of these sites will be re-examined in order to indicate the differences in

construction, choice of deposition and what the people of each site may have incorporated into the deposits which reflect how they viewed their world.

4. An examination of each region which compares and contrasts each enclosure in order to define patterns of activity such as butchery, feasting, hide-working, flint knapping, including tool making, and the use and possible production of pottery. The major differences between the types of objects and where they were located in isolation or in association with one another represents a series of statements which defined the activities people were involved in at each enclosure.

5. Examinations of all three regions will then be compared and contrasted with one another in order to ascertain if any one enclosure was being used for a specific type of activity over time. I will also examine if there are any patterns of change in activity within each region over time, indicating a change in the ways objects were being created and used. This will demonstrate that objects were being used fairly consistently for a defined set of activities, that the same types of objects were being used for different types of activity, or if there was a 'wave' of change which affected which types of objects were being used in activities at all enclosures within this study.

0.1.1 Thesis structure

Chapter 1 examines causewayed enclosures through a historical narrative of archaeological thought and theory from the early 20th century to the present day, indicating how the changes in archaeological theory, particularly from the 1960s onwards, have shaped how causewayed enclosures were and are perceived today. It concludes that although previous studies have identified and classed causewayed enclosures by similarity of objects, depositional strategies and construction, they have failed to fully indicate the importance of the type and range of activities which occurred in space and through time at each enclosure. This is an important indication of the uniqueness of each individual enclosure, and how that uniqueness shaped regions and Neolithic life within the British Isles.

Chapter 2 creates a methodology which examines how the evidence for activity at causewayed enclosures may be examined, how the data for this thesis was selected and processed, and the limitations of some of the source material. In particular, it

establishes that specific types of activity can be interpreted from the available evidence, including butchery, hide-working, mortuary practice, tool production, pottery usage (and possibly production), woodworking, feasting, clearance, dairying, and culling. Pottery styles, forms and decorations within this study are difficult to classify. Specifically, the reports from the early 20th century are lacking in detail, with some reports not detailing sherd counts or weight, thus making it difficult to quantify the amounts of pottery located within any one enclosure ditch segment. This will be most notable from the sites of Whitehawk, and The Trundle within chapter 4, thus making it difficult to compare and contrast assemblages other than general interpretation of the amount of pottery deposited such as a larger amount being deposited in one enclosure ditch segment or area over another. Ideally, a visit to where the pottery collections are being held may prove useful in the future, but was not logistically possible within the constraints of this study.

The spatial arrangements of these activities are then examined at each site, analyzing the location of activities within the enclosures' ditch segments, and interior features, including palisades. Radiocarbon dates are then used in order to examine any change in activity through time to indicate if any one type of activity was practised across a large number of causewayed enclosures at any one time, and if so, do those sites change in activity, or remain relatively steady through an enclosure's lifetime.

Chapter 3 examines in detail two causewayed enclosures from the East Anglia region: Etton and Haddenham, identifying the main types and locations of activities, and how these fit within a regional context. The key points within this chapter are that the enclosure of Etton was constructed and used by a group of people within the local environment who based their world around the use of wood and the natural resources of those on the outside of the enclosure living, at least during particular parts of the year, in a waterlogged environment. Human and animal mortuary practice which consist of the intentional placement of human and animal bones within a structured or 'ritual' context at both Etton and Haddenham do not seem to be as prevalent as within these sites as at other causewayed enclosures. As only a few disarticulated bones were located, mainly consisting of skull parts which seem to be obscured from view by the fence line at Etton and the palisade at Haddenham, may indicate of the need at both enclosures to separate the living from the dead. The use of stone tools needed to

create objects of wood may have been the priority, but curiously only one cluster of flint was located which may symbolise this.

Chapter 4 examines three causewayed enclosures from the South Downs region: Offham Hill, The Trundle and Whitehawk, identifying the main types and locations of activities and considering whether a regional pattern can be identified. The key points within this chapter are that all of these enclosures are seemingly linked to the production of flint tools. This is shown through the large amounts of flint manufactured and deposited. This is particularly prevalent at Offham Hill where flint clusters defined spaces of the enclosure ditch segments, indicating a statement of the importance of this type of material to those who deposited it. The lack of implements also suggests that this may have been a location where flint tools were created, but were not primarily deposited. The sites of The Trundle and Whitehawk indicate a closer connection with flint mines, near which they are situated. This is evident in the fully articulated remains of a number of humans, found at both mines and causewayed enclosures which were often surrounded by chalk blocks and small carved chalk objects. These enclosures also indicate a different kind of relationship within the environment which is strongly connected with hunting and the use and respect of wild animals, as represented by the large amounts of deer antler used to dig both enclosures and mines, and the presence of a deer burial at Whitehawk.

Chapter 5 examines four causewayed enclosures from the Wiltshire (Wessex) region: Knap Hill, Robin Hood's Ball, Whitesheet Hill, and Windmill Hill, identifying the main types and locations of activities within each site, and how these fit within a regional context. Of all the regions, the Wiltshire landscape has been studied the most intently, but only one enclosure - Windmill Hill - has been extensively studied. Although the sites of Hambledon Hill and Maiden Castle have been excavated on larger scales they will not be used within this study. As this thesis was nearing completion, the final main publication of the Hambledon Hill complex was nearing publication, and there would not be enough time for its inclusion. Maiden Castle was not used within this study as it was thought that there was enough of a wide range of information to be able to suggest alternative interpretations of the nine sites within the three 'regions' based on the methodology presented. The four sites with the Wiltshire area were chosen because they presented the best information on a 'group' of

enclosures which were geographically close to one another, but were clearly constructed in different ways which may impact on the differing types of activities occurring at each of them. That said, I do acknowledge the fact that both Maiden Castle and particularly Hambledon Hill were important enclosures which were central to the creation and reaffirmation of social practices. Of all the sites within this thesis, Windmill Hill may be the enclosure which saw the widest range of activities. The suggestion that Windmill Hill was constructed and used intensively over a relatively short period of time indicates its importance within the local landscape. The radiocarbon chronology suggests that all of the enclosures overlapped in use, but Knap Hill, as suggested through its small-scale excavation, was used primarily for flint working, and Robin Hood's Ball for butchery and feasting.

Chapter 6 presents the conclusions of the examination of chapters 3-5, the implications of this within the wider Neolithic world of the 4th millennium BC, and thoughts for future research. As a whole, this thesis concludes that the construction and placement of an enclosure was a conscious choice made by the people who lived within the local area where the enclosure was constructed. The radiocarbon chronology suggests that there was overlapping construction and deposition occurring throughout the British Isles. The re-examination of the evidence within chapter 6 will suggest that the people who constructed and used these sites did so in different ways. These were according to economics or associated with commemoration of the past. Often one leads to the other. Objects such as flint, which is used for activities such as forest clearance, and deer antler for enclosure construction and flint mining, have been deposited because of what they had helped in achieving and, in the case of animal bone or antler, further suggested the link between activity, people and animals. These groups which came together had a common ideology of what an enclosure was, and what it represented within the landscape as a whole. In knowing this, they brought with them their world view of what was important to them, choosing to create and deposit objects in a different and 'independent' way from other enclosures in order to socially define and make their position stand out in the wider world. These activities included working with wood, flint, and the ability to have large feasts to celebrate important events through out the year.

Chapter 1

100 Years of Interpreting Causewayed Enclosures

1.1 Introduction

Ever since Isobel Smith's (1965) writing up of the Alexander Keiller excavations along with her own small scale excavations at Windmill Hill, the study of causewayed enclosures has become stagnant with the concept of these important sites of the early 4th millennium as 'rallying points' where a multitude of events took place. Generally, the literature over the past 60 years has focused on how causewayed enclosures were used in the same ways as places where practices such as burial, feasting, and lithic production took place, and seem to have little to do with the actual activities that took place at any individual enclosure at any specific point in time (Bradley 1998b, 2005: 116; Forde-Johnstone 1976: 65-6; Malone 2001: Ch. 4). As a result of this, the interpretations of causewayed enclosures have become stagnated in the search for answers within a purely ritual context, supplemented by anthropological analogies in order to infer meaning from structured deposition.

As there are only about 70 causewayed enclosures so far identified within the British Isles (Oswald et al. 2001: 3), we need to ask ourselves if specific causewayed enclosures were in use more often than others, and what the differences in site usage may have been over time. For example, could some causewayed enclosures have had a specific use based on their location and size? If the interpretation of over 70 (of the known) causewayed enclosures within the British Isles is that they were being used on a 'seasonal basis', it is quite possible that some of these enclosures were used more often, while others may have been left for a few hundred years before being used again.

Over the last 60 years causewayed enclosures have been studied from various angles in which archaeological theory has been used to help explain their origins and uses. These included the eras of processual thinking, which came about in the late 1960s, the post-processual movement during the mid 1980s and, most recently, the interpretive or cognitive phase. Although each of these theories on the surface seems

to be different, they are only separated by time and the labels which are applied to them. In reality they are all interconnected, having both strengths and weaknesses in a continuing struggle to unravel and understand the social fabric of Neolithic society within the British Isles. Although these theories for the use of causewayed enclosures are valid, they tend to gloss over the specific roles and experiences in which individuals engaged at these monuments. In this chapter I will illustrate the changing theoretical conceptions of causewayed enclosures in a chronological framework from the early 1900s to the present day, and concluding with how these theories were applied to the complex workings of these multi-functional monuments of the early 4th millennium.

1.2 Causewayed Enclosures from the early 1900s to the 1960s

1.2.1 The First 30 Years: c. 1900-1930

Some of the first surveys and site plans of causewayed enclosures were those such as Whitehawk in 1821 by Skinner (Oswald et al. 2001: fig. 2.3) and Combe Hill (Allcroft 1908, 1916). One of the first reports to look at a causewayed enclosure in detail was Cunnington's in 1909. At Knap Hill in Wiltshire, Cunnington suggested, although the causeways seemed to be intentional, the site was used for defensive purposes. The positioning of the causeways was thought to be of an unfinished state and "may have been left as platforms from which to enfilade the ditch, the defenders being stationed upon them for this purpose" (Cunnington 1909: 51). Later, Cunnington would point out after the small-scale excavation of two ditches that "the camp cannot be of a later date than the Bronze Age, and it is quite likely that they are Neolithic" (Cunnington 1912: 57). This was based on the findings, which consisted of pottery, flint flakes, sarsen stone and fragments of animal bone (Cunnington 1912: 60-1).

Also in Wiltshire, the excavations by Alexander Keiller at Windmill Hill were reported on by Crawford (1927) who described trial excavations of the circuits at this enclosure. Although this does not report any findings of the site it does show that Keiller was planning ahead in his methods for excavating the site and future interpretation of it. He states astutely that "it is merely futile to assume that future generations will not have further comparative data upon which to work, which will

enable them doubtless to obtain more information from the excavation of a site than lies within our power to-day” (Crawford 1927: 104-5). The excavation itself would be conducted in a manner that would allow future generations of archaeologists to regard the work as being “reliable and accurate” (Crawford 1927: 105). Comparatively, the work undertaken by Keiller was a large leap in developing excavation methods. As we will see in chapter 6, the excavations conducted at Windmill Hill, compared to those by Curwen at Whitehawk and The Trundle, are examples of a higher degree of recording and collection.

That same year the first report for the site of Abingdon was published (Leeds 1927). It was suggested through the cultural material within the ditches that the site was used for habitation, indicated by the remains of a large stone, which seemed to form part of a hearth, in association with flints and charcoal, indicative of fire being used directly within the ditch (Leeds 1927: 443). A large amount of the finds, though, are of Abingdon style pottery and are described in terms of the pottery’s relationship with the Windmill Hill and Peterborough styles by looking at them in terms of distribution within the landscape (Leeds 1927: 459-62; Fig. 9). This type of reporting was common during the early 20th century, and tended to focus on flint and the creation of a pottery typology, which could then be compared to others across different enclosures and other Neolithic monuments. The following excavation season and subsequent publication (Leeds 1928) showed a greater diversity in material culture at Abingdon, including finds of human remains (Leeds 1928: 476-7). The discussion is again aimed at description of the finds more than an interpretation of the site. Issues such as periods of time when silting occurred within the ditches, the trenches being uncomfortable to live in due to the amount of bone fragments along the ditch floor, and the fact that the enclosure was built along waterways in the Neolithic, were all typical of the ways in which enclosures were perceived (Leeds 1927: 477).

Two years later, the results of excavations at the enclosure at The Trundle, located within an Iron Age hillfort in Sussex, would be published (Curwen 1929). Curwen suggested that the enclosure’s causeways would have hindered the defence of the site (1929: 73) and that, due to the gaps in the innermost rampart at points opposite the causeways across the inner ditch, “it is reasonable to infer, therefore, that the scheme

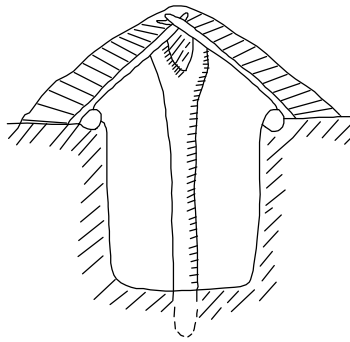


Figure 1.1 The inhabitation of causewayed enclosure ditches based on analogy with Hungarian potato storage pits drawn by Curwen (After Butler 1936: fig. 6)

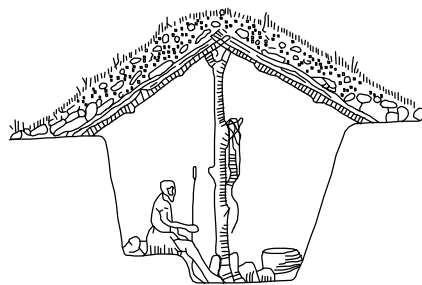
of defence comprised one or more ramparts with external ditches, both of which were interrupted by numerous strongly fortified wooden gate-towers” (Curwen 1929: 73). Curwen then compared The Trundle to a passage in the Iliad in which Homer describes the Achaean defence as consisting “of a rampart with external ditch and palisades, broken at intervals by several timber towers through which gates opened” (Curwen 1929: 74). The main conclusions, as would be later stated in the early 1930s, then consisted of the dating of the site and the conclusion that the second ditch was in fact a “row of roofed Neolithic dwellings” (Curwen 1929: 149). These ideas came about through the ways in which ditches were covered and used, similar to constructions such as the Hungarian potato storage-pits (Fig. 1.1).

1.2.2 *The next 30 years: 1930-1960*

In 1930 Curwen published a list of the then known enclosures (Windmill Hill, Abingdon, Whitehawk, The Trundle, Combe Hill, Robin Hood’s Ball, Yarnbury, Scratchbury and Rybury) and six possible sites (The Brown, Dinas, Maiden Bower, Buzbury, Barkhale Down, and a site described as ‘near Overton Hill’). In this publication, Curwen described excavations undertaken within the British Isles, and the similarly styled causewayed enclosures in France and Germany. Curwen concluded that the enclosure ditch segments were insufficient for defence where there is a steep drop on one side of the monument, and that the ditches were used as quarries to construct ramparts where “the various work parties dug their own pits and were not particular to whether they established communication with neighbours in adjacent pits” (Curwen 1930: 48-9). Curwen, though, would later concur with

previous assumptions in the second report on The Trundle by concluding that within the second ditch, where post-holes were discovered, they were used as roofed dwelling pits; the holes around the margins of the pits indicated that they were contemporary and “probably formed part of some scheme for roofing them with long ridge-roofs” (Curwen 1931: 108-9). Comparisons were also made with similarly styled enclosures in Germany, mainly the site of Frauenberg, near Marburg where a pit was discovered surrounded by postholes angled into the ground so as to suggest that a roof of some type may have been used in conjunction with them (Curwen 1931: 109). This led to the conclusions about these types of sites by Crawford, several years later. He suggested that, due to the large amount of material culture contained within the ditches, they must have been covered by sloped roofs or pent-houses and that they were a form of pit-dwelling or hut (Crawford 1933: 344) and had been used as habitations (Crawford 1937: 210), as seen in Piggott’s conception of the habitation of the pits under Kemp Howe barrow (Fig. 1.2).

In contrast to Curwen’s early interpretations of causewayed enclosures, Williamson (1930) noted that the enclosure at Whitehawk may have been occupied by a large population for a short time and that the ditches may have been refuse-dumps. This suggested that the ditches were not of so much of a defensive nature as previously



**Figure 1.2 Reconstruction of “long pit-dwelling” under Kemp Howe barrow
(After Piggott 1935: fig. 7)**

thought “as they would be a weakness to a fortified position” and that the evidence for flint mining at that time would indicate a peaceful period (Williamson 1930: 87; Curwen 1934: 117-8; see also Curwen 1930: 32). The site of Whitehawk with its numerous finds of pottery and animal bone was closely noted and compared to Windmill Hill and The Trundle. The oxen horn cores ‘agree exactly’ with those from the Neolithic levels at Windmill Hill, while the bones of goat are fewer than those of

pig, mirroring what was also found at Windmill Hill and The Trundle (Williamson 1930: 82). Fragments of a chalk cup were also suggestive of the same types of material encountered at The Trundle. Mollusca were also used to identify climatic conditions. Based on the findings it was suggested “the faunule is that of damp woodland or scrub, and these conditions must have existed on the Downs when the Camp was occupied” (Kennard 1934: 129). The site at this time was still being described like other enclosures, as seen in the earlier ditch in C II, section I where “the greater part of pottery and other relics came from this layer, which to all appearances, must have combined the functions of house, dust-bin, and cemetery” (Curwen 1934: 107).

During that same year, Keiller himself would describe the nature of the excavations being conducted at Windmill Hill, noting the finds of pottery, stone, flint and bone, both human and animal. Although not found at the lowest levels of Windmill Hill, the pottery rims became “more marked and better formed and include the graceful rounded type” as seen through prior excavation at Abingdon (Keiller 1934: 136). The human remains recovered suggested that they “belonged to a dolichocephalic race apparently identical with individuals found buried in British long barrows” (Keiller 1934: 137). Numerous animal bone implements were located and also resembled those found at Abingdon (Keiller 1934: 137) and Avebury, while the discovery of sarsen pounders and mullers, saddle-querns and rubbing-stones on the bottom of the ditch may indicate “that grain must have been ground in considerable quantity from the earliest period of the settlement” (Keiller 1934: 137). Mollusca found on the site would point to climatic conditions being damper than those of the modern day, very comparable with the analysis of previous enclosure reports (Keiller 1934: 138).

Excavation would continue for a third season at Whitehawk, where the interpretation in some respects was taking on a new direction not seen in prior reports of the site. The inner ditch, for example, was noted as serving “very largely as a midden for domestic refuse – not as an actual place of habitation. Strangely enough, we found no evidence of habitation on the surface in its immediate neighbourhood” (Curwen 1936: 63). The pottery was also analysed at this site by Piggott (1936: 75) who saw comparisons with the Abingdon styled assemblage in terms of plain vessels, while the flint was suggested to characterise “incomplete stages of manufacture” (Curwen 1936:

80). Animal remains of sheep, pig and dog occurred, and large ox vertebrae were recovered, which were likened to those previously recovered from sites such as Woodhenge, Stonehenge, the Sanctuary, Windmill Hill, Bryn Celi Dhu and the Thickthorn Down long barrow (Curwen 1936: 90). The mollusca, again analysed by Kennard, show that the climate conditions were colder and damper than those of today on the South Downs and that the water table at that period would have been much higher than it is today, as seen through the species of *Acme lineata* which is usually found in wetter conditions (Kennard 1963: 91).

The early 1900s was a period of exploration, discovery, and excavation. Material located within the enclosure ditch segments was perceived as rubbish, left behind by uncivilized populations of prehistoric peoples. The linear ditches and banks at causewayed enclosures were interpreted on many occasions as defensive. The identification of Iron Age hillforts overlying enclosures such as Maiden Castle may also have further complicated enclosure excavation as the two periods which occur at these sites could have reinforced this interpretation of sites for defence. This is not surprising, given that some of these early excavators had a military background, particularly during World War I, where trenches were often used for protection from the enemy. The assemblages located within causewayed enclosure ditches focused on pottery and flint, both of which have excellent preservation, and were readily compared to other sites such as long barrows. Animal bone was seen as by-product of food consumption, rather than an integral part of the expression of activity and identity through structured deposits (see below). By the mid-1930s, objects such as flint and quern stones were recognised as part of a larger process of activity. The mollusca located from within the ditches was also beginning to be analysed, suggesting differences in climate and local environmental conditions. Although some objects were recognised as having been used within them, enclosures were still being interpreted mainly as places where refuse was dumped. A majority of the interpretations of the sites excavated within the 1930s is indicated within the specialist reports on the mollusca and animal bone. The in-text comments support an interpretation of refuse being dumped into the ditches (Curwen 1936: 63), perhaps indicating the last vestiges when enclosures were seen as settlements.

1.2.3 *The 1950s: towards a social archaeology of causewayed enclosures*

The first publication about causewayed enclosures in 1950 concerned the site of Coombe Hill (Musson 1950). The excavation analysis here, based primarily on pottery, indicated that the sherds were “all of a Neolithic B type and had no affinity with the Neolithic A lugged and carinated ware found at The Trundle and Whitehawk” (Musson 1950: 106). As well as the pottery, numerous flint flakes were located and it was thought “that the occupants of this trench filled their time with flint knapping” (Musson 1950: 108). Flat stone slabs were also located and it was suggested that they might have been used as a base for a wooden pillar to support a roof (Musson 1950: 108). Overall, the evidence from the site was uncertain and the cultural affinities with other known Windmill Hill pottery producers within southern England were thought possible (Musson 1950: 113). The antler-combs, however, were thought to show similarities with the Michelsberg Culture and may be an example of cultural borrowing (Musson 1950: 113-4). One year later, Wheeler (1951: 2) from his work in the 1930s, observed two lines of ditches, both inside and outside the enclosures at Maiden Castle, in which flint and bone occurred as well as a chalk doll, and this was then compared to similar French finds in conjunction with Eurasiatic mother-goddess cults.

In Wiltshire, another small-scale excavation took place at Whitesheet Hill (Piggott 1952). Located within the two enclosure ditch cuttings were flint flakes and the skull of an ox, which were noted as similar to those found at Windmill Hill, while the pottery fragments agreed with the with the same types from the primary levels also at Windmill Hill (Piggott 1952: 408). Two years later the publication of Stuart Piggott’s book, *Neolithic Cultures of the British Isles*, attempted to explain causewayed enclosures as being constructed by cattle breeders and subsequently used as cattle corrals through their creation within a cleared area with ‘freedom from the heavily wooded and swampy regions’ (Piggott 1954: 18). He also described the function of the ditches, in terms of the fragmentary human remains and the prominence of skulls, as locations where cannibalism was practised (Piggott 1954: 47).

Also, in 1954, the site of Abingdon would be reinvestigated (Case 1956). Here the investigation centred on the outer ditch which Leeds suspected existed but was unable to examine before his death. This excavation trench and the subsequent interpretation

of its contents made by Case, consisted mostly of pottery; the analysis of this is compared to other known sites, namely Windmill Hill, Whitehawk, The Trundle and Lyles Hill in Ireland (Evans 1953). The parallel with the Windmill Hill assemblage is with the shell-gritted ware, where it is noted that about half of the rims which occur at Abingdon are of the same style (Case 1956: 24-5), while The Trundle shows similarities only in relation to stone-gritted ware (Case 1956: 27). At Whitehawk the argument for comparison can be seen in stone and shell-gritted sherds, the difference being that most of the shapes were open (Case 1956: 27). Finally, in Ireland the Lyles Hill ware is comparable in terms of preference of “heavy rims (including some T-headed) and apparently deep, globular or shallow bowls, with or without shoulders – some of an open type with flaring profiles” (Case 1956: 26; cf. Evans 1953: 32). The pottery was a large part of the analysis and was used to track its movement and found to have a west to east origin based on “a movement into these Islands of an immigrant strain distinct from that represented by the primary Neolithic of Windmill Hill” (Case 1956: 30). Based on this, the site of Lyles Hill was thought to fit into Piggott’s classification scheme as Early Neolithic, while Windmill Hill and Abingdon fit into Piggott’s Middle Neolithic phase, both lasting into the Late Neolithic phase (Case 1956: 30).

By 1958, causewayed enclosures were still being seen by some as cattle enclosures, based on the large amounts of animal bone, and where postholes were found they were interpreted as gates to help keep the cattle in after corralling them from the surrounding landscape. In addition, the ditches themselves were not seen as being functional, but as merely being dug out and their material used to help create fences or palisades (Copley 1958: 46). In the same year, Smith (1958: 268) implied, based on the on-going excavations at Windmill Hill, that there might have been some kind of permanent dwelling as indicated by the construction of a timber structure which contained a hearth packed with sarsens and chalk. The fragile condition of the sarsens suggested that the area had been used for a prolonged period of time. The timber structure may have led Smith to come to this conclusion, as the theory of dwellings within the ditch segments may have been still been a valued interpretation of possible habitation. Within the cutting of the outer ditch, pottery, including an Ebbsfleet rim, was located, as were Windmill Hill sherds; other cultural material including later Neolithic pottery types suggested “evidence for repeated visits to the camp” (Smith

1958: 268). Smith's further interpretations of Windmill Hill suggested that "whatever the original purpose of the camp, successive generations of visitors had been engaged in exactly the same kinds of activities within it during the whole of the period represented by the natural accumulation of silt in the ditches" (Smith 1958: 269; 1959: 161). The natural silting, then, of the ditches and the banks could not facilitate the argument for defence and therefore "it is beginning to seem doubtful that such was ever their function, at any rate on Windmill Hill" (Smith 1958: 269).

The "unbroken continuity of tradition" implied for Windmill Hill was thought to have correlations with the blocking of the West Kennet long barrow as evidenced by the Late Neolithic layer in Outer Ditch V (Smith 1959: 161). Bones from West Kennet and other barrows in the area were interpreted as having been removed and interred within the ditches at Windmill Hill as they were located throughout all levels of the ditches. As previously thought by Smith, the bones do not show any signs of cannibalism since they had no "cut marks and nearly all are parts of skulls and long bones, precisely the bones removed from the skeletons in a long barrow" (Smith 1959: 161). In addition to the bone found in the ditches, chalk figurines and other objects related to ritual practice "were thought to have protective or thaumaturgic powers and were used in ceremonies held within the camp" (Smith 1959: 161). The amount of Peterborough ware within the ditch and seen in the blocking of West Kennet may suggest that "it is difficult to avoid the conclusion that the community identified by this ware was responsible for the continuity of tradition at both sites" (Smith 1959: 161).

In summary, the excavations carried out during the 1950s relied heavily on Piggott's pottery typology, as shown through the interpretations of the excavations at Whitesheet Hill and Abingdon. Sites on the European continent were being investigated during this time and were compared to the causewayed enclosures, and the objects related to them, in the British Isles. As we will see, Smith's alternative observations on the objects from the enclosure ditch segments at Windmill Hill would have a profound effect on future research and interpretation.

1.3 Causewayed Enclosures from the 1960s to the 1980s

1.3.1 *The 1960s: A decade of excavation and modelling*

The 1960s saw a new dimension to ideas connected with causewayed enclosures. At a conference in London in 1962 on the Neolithic in Britain, Isobel Smith reported on the finds at Windmill Hill and suggested that the cultural remains within the ditches, some of which had teeth marks from dogs, indicated that there had been a “deliberate covering of food-refuse” (Case 1962: 215) after being left exposed on or near the enclosure. It was further suggested by Professor Atkinson that the enclosures were used for periodic gatherings and that ritual feasts took place during these times (Case 1962: 215). The discovery of Robin Hood’s Ball in Wiltshire by Sir Richard Colt Hoare in the early 1800s and the subsequent excavations (Thomas 1964: 3) showed a subtle change in the approach to the study of causewayed enclosures. As with other previously known sites, Robin Hood’s Ball included pottery, animal bone and flint. Based on the evidence within trench 2 it was suggested, because of the pottery remains on the top of layer G found in association with “two bones with joints still articulated”, that the ditches may have filled up quite quickly after deposition (Thomas 1964: 11). The evidence of sheep and goat bones may point to a landscape being widely available for grazing (Thomas 1964: 12). Although doubtful, one grain-impression was found on a pot and was taken as evidence for the pre-existence of farming (Thomas 1964: 12). The overall evidence points to the site being used in an intensive manner due to the number of pots which were broken and the amount of meat consumed. Using this evidence, and that of the soil analysis, it is suggested that at least this ditch was used for only a short duration (Thomas 1964: 11). Overall, Thomas suggested that Robin Hood’s Ball was constructed using a similar ‘digging technique’, to that used for other causewayed enclosures and that they may have ‘served a variety of purposes’, including defence (Thomas 1964: 12).

One year later Knap Hill was revisited by Connah (1965). Connah’s 1961 excavation consisted of four trenches across the site from which flint, animal bone and a human skeleton were recovered. The idea of the site as a defensive earthwork may also still be seen. Knap Hill’s location overlooking the Vale of Pewsey could facilitate this as it is where the ditches were dug on the sloping side of the hill and “seem to be advanced far enough down the slope to minimize the danger of ‘dead ground’ in too

close proximity” as well as the height of the surviving bank in one location measured at 2 feet (Connah 1965: 21) which may present a defensive obstacle. Connah further suggested within the main report that, as a group of monuments, causewayed enclosures served a variety of purposes and that the causeways themselves may be of two types. The first is that some could have been entrances, while the second type would have been too narrow to be a practical entrance (Connah 1965: 22). A defensive nature was still proposed, based on the position of the causeways, banks, and the lack of material culture, particularly pottery, indicating that the site was abandoned during an early period. The seemingly ‘incomplete nature’ of the site still confounded any possible explanation for the form of the enclosure (Connah 1965: 21-2).

Three years later with the publication of Windmill Hill, Smith (1965) again noted that, at least for Windmill Hill in terms of defensive purposes, the natural defensive aspects of the landscape were not used and that, through the depths of the ditches and the evidence of silting in the ditches that had occurred, it should be reasoned that there was no attempt to keep them open (Smith 1965: 18). Other notions that the site was a communal place where episodic gathering took place and served as a “rallying-point” for groups within the area were also suggested by the pottery assemblage (Smith 1965: 19). Later, Smith (1971: 111) seemed to have been influenced by Case’s interpretation of causewayed enclosures, which suggested that the remains located within the ditches may have been material deposited “because of the supposed magic powers of its fertilizing properties”.

With these kinds of key statements suggested by Case and Smith, the 1960s became a central period for the study of causewayed enclosures. The publication in 1965 of the Keiller excavations by Smith included the important interpretation that enclosures may have been ‘gathering places’ within the landscape, an interpretation shared by Atkinson. The excavation of Robin Hood’s Ball reflected this new form of interpretation as Connah began to note material such as the articulated remains of animal bone, and the natural ditch silting at Robin Hood’s Ball as important factors of site function.

1.3.2 The 1970s: the rise of processual theory

During the late 1960s and coming to the forefront in the 1970s was the idea of a New or Processual Archaeology. Brought to the mainstream by David Clarke (1968) in Britain and Lewis Binford (1968) in North America, it set out to transform archaeology using differing disciplines of science, including geography, to explain cultural phenomena at an archaeological level. Though the two differed on some aspects of New Archaeology, the main aspects they agreed on included: “a belief in past societies and social processes as the prime object of archaeology’s endeavors, and the possibility of reconstructing them, the adoption of a systems theory as a means of explaining social organisation and a view of culture as an adaptive response” (Champion 1991: 132). New Archaeology also used new technologies within the computer field to create mathematical modelling programs using quantitative analysis to help show patterns within the landscape (Champion 1991: 132). During this time of technological growth, the use of aerial photography (Wilson 1982) was used in conjunction with computer modelling to create distribution maps.

The pioneering work of Crawford in the early to mid 1920s (Crawford 1924, 1928) helped pave the way for the importance of aerial photography in archaeology culminating in many of the photos which were included in his 1930 publication on ‘Neolithic camps’. Although independent of post-processual theory, but influential in furthering the concepts of, for example, territorial organisation, the use of aerial photography increased the then known number of causewayed enclosures dramatically (St. Joseph 1964; 1966; 1970; 1973) (Fig. 1.3). These methods were to be extended to many sites and projects during the coming years and no more so than to investigation of causewayed enclosures during the 1970s.

Influenced by the then known causewayed enclosures within southern England, Renfrew attempted to divide areas within the landscape into territorial centres as chiefdoms (Fig. 1.4). These territories were separated using mathematical formulae such as Thiessen polygons in relation to long barrows. This was then in turn used to map out chiefdoms of local population centres and the movement of Neolithic groups based on the construction of the monument within the landscape (Renfrew 1973: 549, fig. 1). Causewayed enclosures then fit into this model by acting as the home of an emerging chiefdom with an average of 20 long barrows in each territorial area

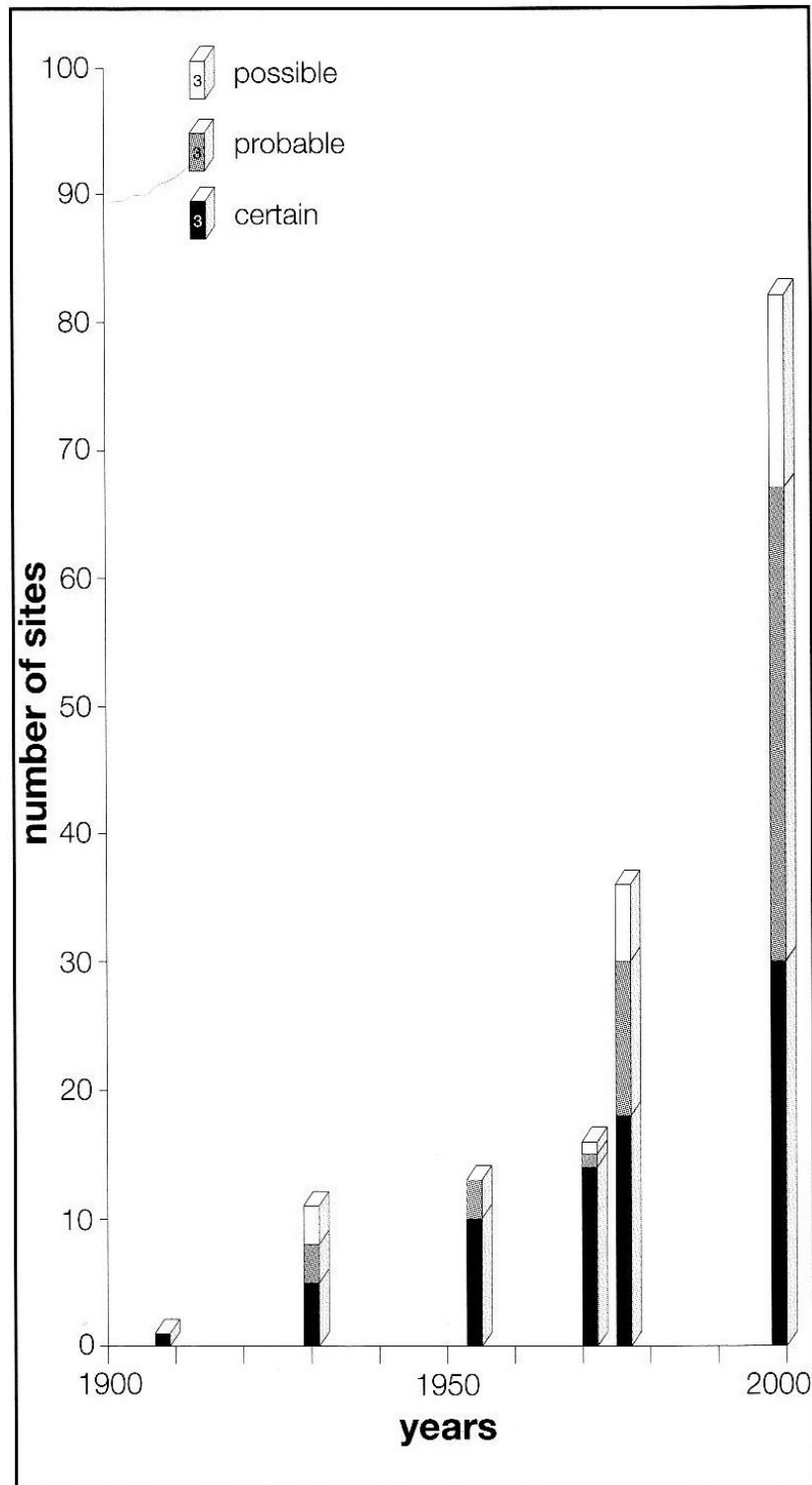


Figure 1.3 Number of causewayed enclosures located over time
(Oswald et al. 2001: 31, fig. 2.25)

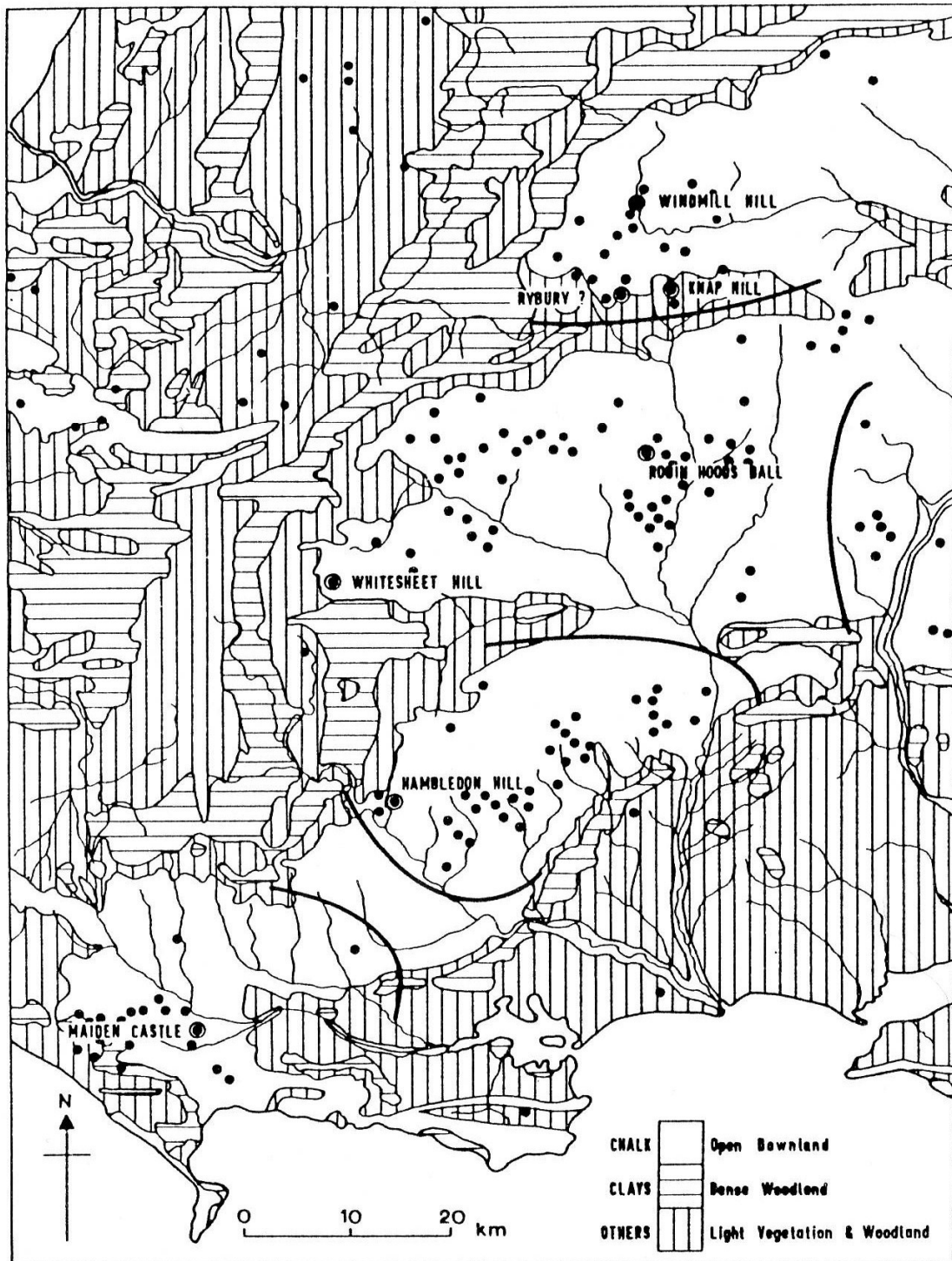


Figure 1.4 Renfrew's territorial centres as chiefdoms
(Renfrew 1973: 550, fig. 3)

(Renfrew 1973: 549). This was, in turn, related to an estimation of how many people could have lived in each of these territories and thus contributed to the construction of long barrows and causewayed enclosures. Although this approach did indicate the relationship the earlier long barrows had with causewayed enclosures, it did not take into consideration the individual use each enclosure may have had, and how different each of the groups within these territorial areas were.

Following on from Renfrew's work, the processual or New Archaeology, at its high point in the mid 1970s, was also exemplified by Wilson (1975) in the description of the linear ditches of causewayed enclosures as "the technological limitations of early Neolithic man; but perhaps it chiefly indicates a lack of interest in achieving geometric regularity in earthwork construction" (Wilson 1975: 178-9). He then uses four types of enclosures: simple enclosures, enclosures with several ditches, promontory enclosures and complex enclosures (Wilson: 1975: 178-9). The details within these types are compared with already known examples of enclosures by their ditch lengths, course length, width and spacing and diameter which are noted as being comparable with other known enclosures (Wilson 1975: 182). The construction of sites with multiple circuits, though it is not mentioned that defence was not paramount, did suggest that "the object would have been to exclude wild animals and casual visitors rather than tribal war-bands" (Wilson 1975: 182). One important point Wilson brings up is the location of causewayed enclosures in relation to one another, and what that said about territories and/or social organisation within the Thames Valley, and their differences from those constructed in the areas to the south, the Midlands and East Anglia, situated near rivers where the number of ditch circuits and their spacing at each site may indicate a form of regional variation based on constructional choices (Wilson 1975: 184).

As seen through Palmer's use of aerial photography, causewayed enclosures would bring up the argument for a defensive position for low-lying sites with ditches closer together than the wider-spaced ditches which tend to be located in higher areas within the landscape (Palmer 1976: 166). One important fact, though, that Palmer does not note, is that in fact sites may have had circuits added to the original site over a long period of time (Fig. 1.5). Palmer's study was based on the then known causewayed enclosures. Since the early 20th century, because the known number of enclosures has

risen substantially, the four territories (Midlands, Thames, Sussex, Southwest), have now grown together, possibly indicating causewayed enclosures had a relationship with other enclosures on a much smaller geographical scale (Oswald et al. 2001: 108) (Fig. 1.6).

Two other important sites were published during the late 1970s, Offham Hill (Drewett 1977) and Orsett (Hedges and Buckley 1978). The site of Offham Hill in East Sussex consisted of two incomplete circuits and was one of five enclosures known at that time. Here, Drewett argues that the site may have been more suitable for pastoralists, due to its hilltop location, than for agriculturalists in terms of settlement (Drewett 1977: 223). The idea that the enclosures were for the keeping in cattle at Offham Hill is less likely due to its wide entrances and causeways and its probably open eastern side would not facilitate this use of the site (Drewett 1977: 224). The evidence for a possible trade centre is weak as well, with only one foreign stone indicating that material was found locally (Drewett 1977: 224). Human bone located at Offham Hill may point to the exposure of bodies prior to them being interred in the ditches as shown by the complete crouched burial and disarticulated remains. The disarticulated remains, which would have been scattered and remained on the ground before being placed into the ditches, may show a relationship with sites such as Hambledon Hill where it appears that bones may have been collected after their decomposition and similarly interred (Drewett 1977: 226).

'Casual finds' in the area of Offham Hill included arrowheads, polished flint and stone axes, representing the activity of groups in other locales of the landscape, were being compared to the distribution of earlier monuments within the landscape in order to propose any connections between them and any territorial divisions they may have had with causewayed enclosures (Drewett 1977: 226). It has also been suggested, as based on the information of the five then known enclosures for the Sussex area, that those sites "represent non-overlapping territorial areas made up of several smaller settlement territories" within proposed 4km territory circles (Drewett 1977: 227, fig. 12). The overall role for this enclosure, based on the material evidence from other enclosures such as Windmill Hill and Whitehawk, is that "different original functions or different development" occurred and that "if it was accepted that the primary function of causewayed enclosures was that of containing exposure burials, then the

individual development of each site may be related to either the status of the social group, or more likely, the status of the individuals buried at any site” (Drewett 1977: 226). This may be one of the key elements in determining the differing roles of causewayed enclosures among Neolithic communities in the British Isles, as specific enclosures were used for the deposition of objects or, in the case of Offham Hill, mortuary practices involving particular individuals within the local community who were held in high esteem.

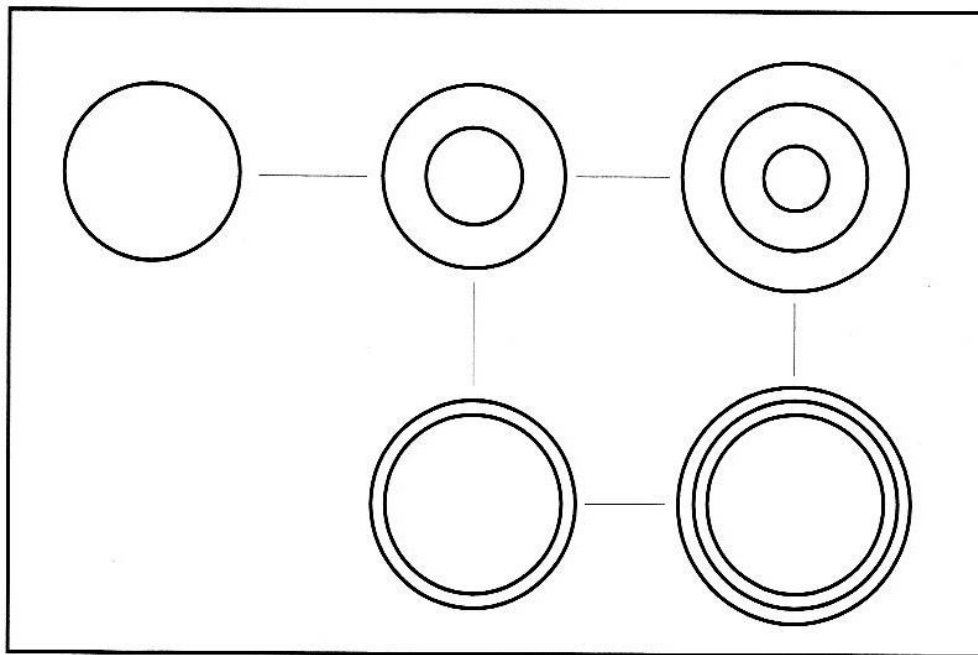


Figure 1.5 Palmer's classification of causewayed enclosures by number and spacing (Palmer 1976: fig. 5)

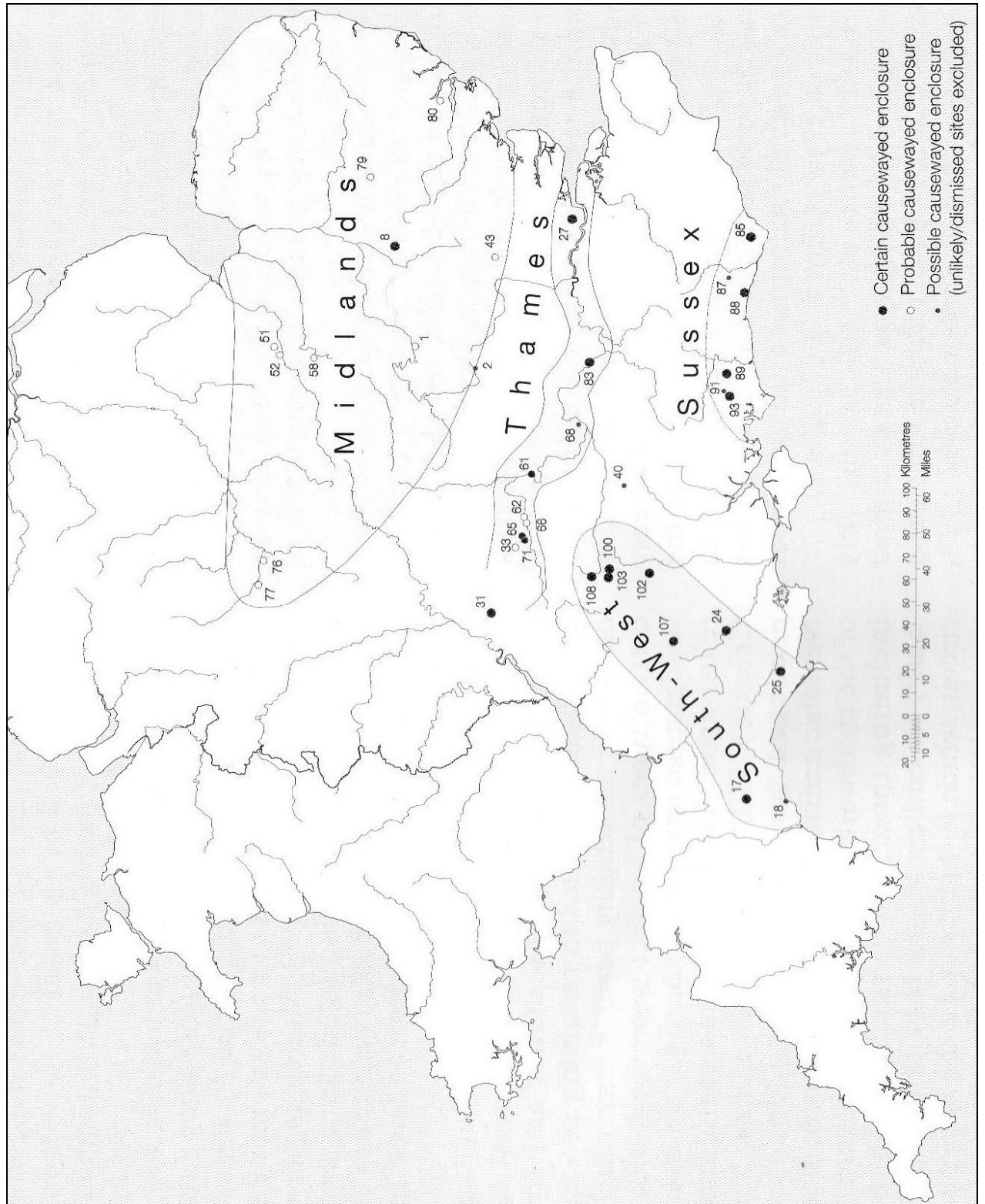


Figure 1.6 Land use territories for causewayed enclosures within central Southern England. Offham Hill (87), Whitehawk (88), The Trundle (93), Knap Hill (100), Robin Hood's Ball (102), Whitesheet Hill (107), Windmill Hill (108) (Oswald et al. 2001: fig. 6.1 after Palmer 1976: fig. 9).

The second site, Orsett, also in Essex, was first noted by Curwen in a letter to the Inspectorate of Ancient Monuments in 1935 as “part of an ancient concentric-ringed enclosure with at least two ditches” and he was supportive of its preservation, but unsure of a Neolithic date (Holden 1973: 109). At the time of publishing, in 1978, of the excavation for Orsett, which occurred in 1976 (Hedges and Buckley), the known causewayed enclosures at that time numbered 46. The site of Orsett itself was found to have not two circuits as Curwen suggested, but three incomplete circuits and a palisade. One of the more interesting assumptions for Orsett is that “the inner ditch contained the greatest number of finds”, which is in agreement with other sites such as Briar Hill, Windmill Hill, Abingdon, and Hambledon Hill (Hedges and Buckley 1978: 248). Hedges and Buckley (1978: 250) emphasise that “the ditches may have had separate functions and constructional phases, and it is only with further investigation of the area between the middle and inner ditches that further knowledge may be learned”. This is another important key element in helping to define causewayed enclosures as having their own identity, both spatially and temporally, through the characterisation of changes in function and constructional phases where the local ways of commemorating people and events in a defined regional area were of central importance within small-scale community structures.

In terms of the “outer ditches and palisade, Orsett could be regarded in the same light as the ‘outworks’ at Hambledon Hill, inasmuch as they define a zone of particular importance within which lie the inner ditch and the main area of activity” (Hedges and Buckley 1978: 250). The palisade itself may have links to enclosures on the continent such as the multi-period site of Sarup in Denmark and Budelsdorf in Holstein (Hedges and Buckley 1978: 250-1). Another attempt to put causewayed enclosures into perspective was made through viewing the use of land around enclosures as pastoral. This employed a land use theory incorporating farming within the early Neolithic to describe seasonal land conditions within an economic model (Barker and Webley 1978). Cultivation and soil properties dominate the model pointing to the landscape around the enclosures as suitable for animal grazing and farming (Fig. 1.7). Causewayed enclosures of central southern England were then divided into economic territories demonstrating that, though each enclosure may be different, the resources which were needed to graze animals would have been available regardless of location (Barker and Webley 1978: Fig. 2) (Fig. 1.8). This

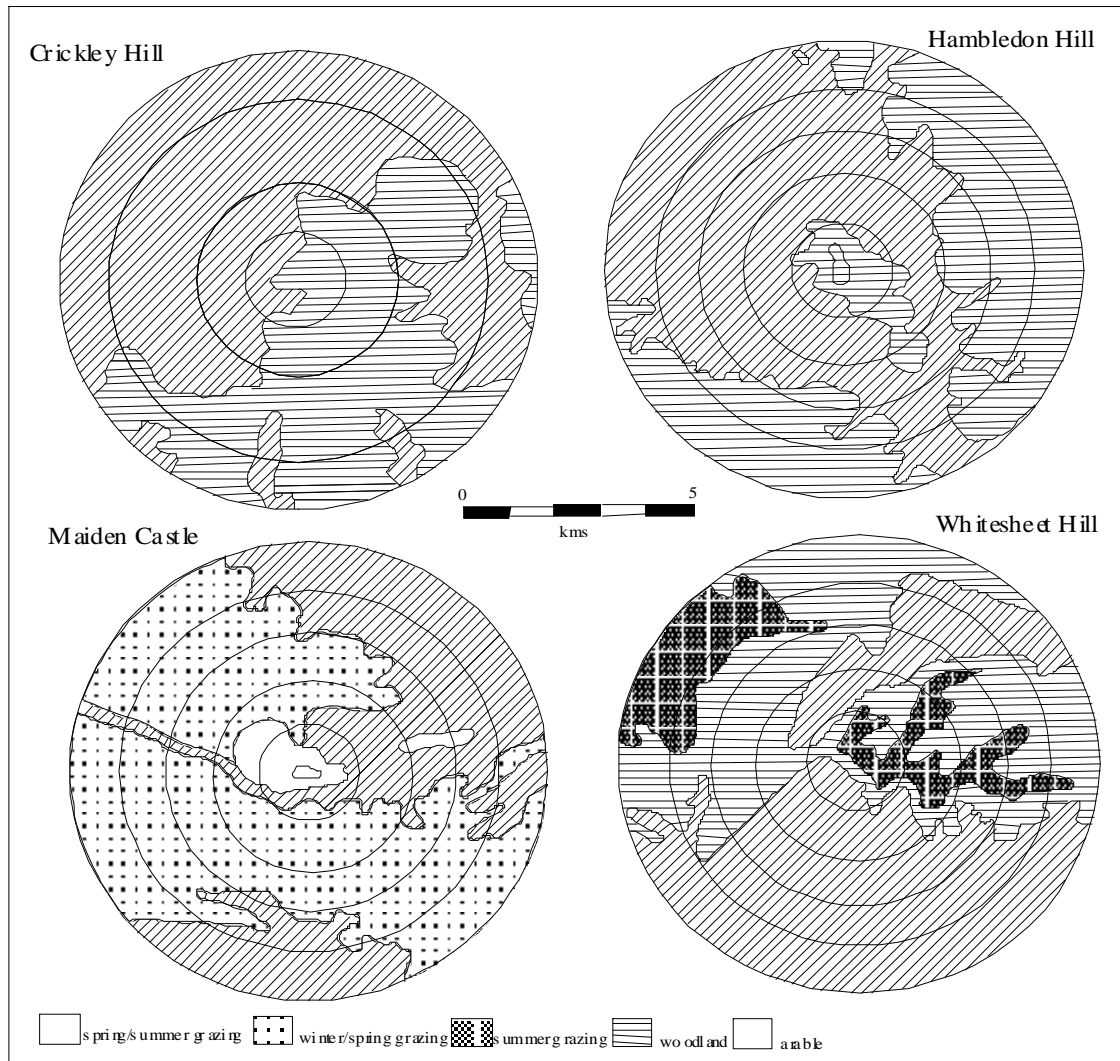


Figure 1.7 Land use potential for four causewayed enclosures during the early Neolithic (After Barker and Webley 1978: fig. 3).



Figure 1.8 Land use territories for causewayed enclosures within central Southern England. The larger circles indicate causewayed enclosures, smaller circles long barrows, dashed lines territories (Barker and Webley 1978: fig. 2)

model could have implications on the amount of animal bone located within some enclosures, as animals could have been readily available and in greater quantity. The environs suggested for Whitesheet Hill may be comparable to the local landscape around Windmill Hill where, as we will see in chapter 5, a considerable amount of animal bone was recovered from the enclosure ditch segments.

The exploration of regional variation during the 1960s and particularly the 1970s demonstrated the use and, at times, reliance on the ‘view from above’ in the interpretation of causewayed enclosures. The concept of regionalising not just causewayed enclosures, but also other Neolithic monuments such as long barrows, demonstrated patterns could be found in construction technique and placement within the landscape. Studies of enclosures such as Orsett were beginning to take into consideration the complex nature of the act of deposition, and the objects which were subsequently located within the enclosure ditch segments. The use and placement of objects is indicative of how an enclosure was used and possibly perceived by the people who created, modified, and carried out activities within them. This will be discussed in chapters 3-5, and in chapter 6, arguing that indeed the conscious choice of where to construct an enclosure had a direct bearing on how it was used and dictated, in some ways, what objects were included within a site.

As the 1970s were coming to a close, larger changes in interpretation were starting to occur with enclosure publications. One of these was Whittle’s (1977) recounting of enclosures in Britain and throughout Europe. The first since Curwen’s 1930 publication, his ideas concerning causewayed enclosures move towards thinking which would become prevalent during the 1980s. This can be seen in a section titled ‘contents of the ditches’. Here, Whittle hints at the potential meanings of ditch contents and the recounting of what was relevant within them. An example of this can be seen when looking at the site of Hambledon Hill where the skulls located on the bottom of the ditches could be seen as “foundation deposits or prophylactic totems, but need not be taken to characterise the range of function of the site as a whole” (Whittle 1977: 343). Again, this idea is leaning more and more towards the next stage in theoretical conception as an interpretive account of causewayed enclosures and how there may have been multiple meanings or interpretations, which can be applied when looking at them in terms of social uses. As the 1970s came to a

close, the world of causewayed enclosure study would be forever changed by the publication of the interim report on Hambledon Hill in Dorset.

1.4 Causewayed Enclosures from the 1980s to the present

1.4.1 *The 1980s: a time of theoretical change*

In 1980 Roger Mercer published the first major report for the on-going excavations at Hambledon Hill. This multi-period site located in Dorset consists of a main causewayed enclosure and the smaller Stepleton enclosure, outworks which surround part of the site and long barrows, all in association with a later Iron Age hillfort. An extensive palisade also covered part of the outworks and it has been suggested that some 3000 vertical posts would have been needed for its completion (Mercer 1980: 59). The main enclosure may have been for normal domestic activity, while cattle dominate the animal bone assemblage with sheep and pig occurring as well, although in small quantities (Mercer 1980: 61).

Other objects located, including pottery, may hint at local potters as “50% of all pottery on the main enclosures executed in a fabric of very uniform structure, with sand and flint-gritting” (Mercer 1980: 62). The origin of stone axes is also of importance. At Hambledon Hill, axes from the main causewayed enclosure consisted of Group I, IV and XVI from the Cornwall and south-west area, Group VIII from the South Wales area, Group VI from the Langdale factory in Cumbria and finally two axes, one of nephrite and one of jadeite, which may have come from Brittany or Switzerland (Mercer 1980: 62). The large quantity of skeletal material at the site has been considered suggestive of “a giant necropolis constructed for the exposure of the cadaveric remains of a large population” (Mercer 1980: 63). The remains of individuals (of which 60% are children) at Hambledon Hill are also deposited with placed objects, which may have been backfilled and then recut at a future time, while feasting may have accompanied this (Mercer 1980: 62-3). The placement of skulls within the ditches leaves “little doubt that this selection was quite deliberate and in some way reinforced the physical or psychological strength of these boundaries” (Mercer 1980: 65). During this excavation the second causewayed enclosure was located (which will be looked at below) and implies that “this second enclosure’s function is so clearly different from that of the first must regulate the concept of

‘causewayed enclosure’ to that of a constructional technique with no overall functional implication” (Mercer 1980: 65).

The site of Abingdon (Avery 1982) would be revisited and excavated with trench cuttings put in at intervals around the circuit segments, which surrounded the gravel pit. The material that came from the inner ditch was seen as being quite old and is suggestive of being placed purposefully within it (Avery 1982: 24). Two reasons proposed at the time for the burial of the material are for it being either magical or utilitarian. If it were magical then perhaps burying it under sterile gravel would prevent vegetation from growing in that location (Avery 1982: 24). If utilitarian then the site was being cleared for further activities by removing the “refuse which was clearly felt to obstruct some further activity and was systematically removed from deposits within the area enclosed by the inner ditch and was buried” (Avery 1982: 24). The burial in the inner ditch may have been placed there with the “eroded ditch and bank still visible, and that they were known to be artificial with perhaps their original functions still recalled” (Avery 1982: 24). With the scattered remains of Middle Neolithic sites along the River Thames it is quite possible that the peoples of Abingdon used the river for transport and the enclosure itself as a centre for exploration of the surrounding landscape (Avery 1982: 24). Based on the material culture found, which includes pottery, flint and animal bone, it is surmised that the occupation of Abingdon during the phase one period lasted a few decades with around 30 inhabitants and that within these 30 individuals perhaps two nuclear families remained at the enclosure during certain parts of the year, based on the animal bones and mollusca (Avery 1982: 25).

The function of the enclosure may have also differed from settlement sites in the area, as pigs seem to have been slaughtered away from the site. Based on the information above, the enclosure may have increased in size through fruitful habitation from an estimated 6 or so families (Avery 1982: 25). The interpretation of a large oval mound near the causewayed enclosure may also throw some light on the relationship it has with the enclosure itself (Bradley 1986; 1992). The ditch, which surrounds the mound, contains finds that correspond to those of the previous excavation within the interior and the ditches of Abingdon, and they include intentional deposits of “Abingdon ware sherds, a series of flint implements and four groups of used or

unused antler which seem to have been placed in the same area of the site on separate occasions, in which their limits were marked by human cranial fragments” (Bradley 1986: 186). These four groups of antlers were tightly structured and placed in the same location within the site, but during different periods (Bradley 1992: 139). Radiocarbon dates of the barrow and the remains from the enclosure ditches would seem to indicate that both of these ditches were in contemporary use and that the inner ditch may have been used on a more formal basis. The recutting of the ditch and the “occupation debris” “taken together, seem to indicate a rather specialised function for the inner earthwork at Abingdon” (Bradley 1986: 186). The closest association it may have with any other sites is with the small square enclosure at Windmill Hill.

The post-processual or interpretative phase in archaeological theory took hold in the mid to late 1980s with ideas put forth by individuals such as Bradley (1984) in his book, *The Social Foundations of Prehistoric Britain*. The title itself is suggestive of the change that was occurring within the field of archaeological theory. In this book Bradley looked at a number of factors which he considered fundamental to the understanding of causewayed enclosures. One of these was the role of material located within the ditches, in particular citing lithic scrapers which are found on just about every enclosure site and may be considered a marker for everyday activity (Bradley 1984: 26). The location of sites near or on flint mines or lithic sources may also be of importance, as it seems the manufacture of flint tools was at times completed at the site before being taken elsewhere. Within Wessex, the sites of Maiden Castle, Hambledon Hill and Windmill Hill are all located near flint sources, while the sites of Bury Hill and Offham are on lithic sources themselves (Bradley 1984: 27).

Long barrow ditches are also noted as being similar in style to that of the liner ditches found with causewayed enclosures where the construction of the ditches could have been “shared between independent groups” (Bradley 1984: 28). The existence of higher status settlements could have been possible from the evidence of feasting and special types of artefacts including decorated pottery wares, and lithics which may include arrowheads and axes (Bradley 1984: 28-9).

The placement of the dead within the enclosure is another factor in the role of enclosure sites (Bradley 1984: 31). Here the emphasis is on the relationships that long barrows had with causewayed enclosures and the similarity of deposits of animal bone, most specifically whole cattle skulls and cranial fragments from sites such as Abingdon. The chronology and subsequent change is also questioned where ritual was used to dissolve “social antagonisms” and may have changed through time as complex settlements came into being and the “differences of power and prestige were no longer hidden through the celebration of the ancestors” (Bradley 1984: 32). As such, with larger or more complex enclosures being constructed, the social system may have been changing at the same time and facilitated a way of thinking in which the idea of collective burial was being phased out and a greater emphasis placed on the identity of specific individuals, or that newer funerary monuments no longer had the same meanings attached to them, but instead were used as “a demonstration of an elite’s power over human labour” (Bradley 1984: 32). In addition to Bradley’s focus on social politics and on ritual and belief systems, Hodder drew on ethnographical analogies of tribes within Africa in an attempt to explain the relationships between objects and human behaviour in European prehistory.

Hodder studied the Ngenyn (1984), where he noticed differences in spatial patterning over time. Another study in the differences of decoration and use of calabashes between the Tugen and Njemps were also examined by Hodder (1985), and indicated a distinct set of ‘social strategies’ often associated with defined tribal boundaries influenced through restrictions on marriage and the acquisition of cattle wealth. These examples of how the study through ethnoarchaeology of living societies who still use(d) ‘primitive’ tools and techniques demonstrates how they had an impact on the ways in which the interpretation of causewayed enclosures would turn. They also, perhaps more importantly, suggested there were patterns to the discarding or deposition of objects, which could be separated from one another by what they indicate within the groups’ social system.

During the 1980s key words started taking hold in reports and papers - words such as experience, negotiation, individual, process, and ideology, which were bound together to create an idea in which people became the centre of archaeological study and social action. The use of individuals’ social action and the fact that humans are in a constant

state of change with their surroundings, indicate that they are in a state of “active use” and that “prediction is impossible” because humans are always renegotiating and restructuring their social roles (Hodder 1985: 14). These studies in the early 1980s were influenced by scholars stepping back from the material culture for a moment and trying to identify how people would have dealt with the same types of situations, but in different ways. At causewayed enclosures these would have included mortuary practices, and feasting, where an event created different forms of meaning depending on an individual’s position within society. These ideas of how objects and people orchestrated themselves within Neolithic society would start to become widely used as interpretation during the late 1980s, as evidenced through the interpretations of Staines, Hambledon Hill, and Crickley Hill.

Staines, located in the county of Surrey, (Robertson-Mackay 1987) is situated on a low-lying area in the Lower Thames Valley. Due to poor survival conditions, information at Staines is sparse compared to the wealth of information for sites within the chalk environs of Wiltshire, but its location along a watercourse would have been desirable in terms of subsistence (Robertson-Mackay 1987: 23; 125). All types of finds are represented at Staines, including pottery, flint and bone, both human and animal.

Surviving traces of possible structures with pits around them occur, which may hint at some form of settlement. Burnt flint occurs in the northern part of the interior more than anywhere else and suggests that “the cooking or other activities which may have produced burnt flint were practised beyond or outside the supposed primary domestic foci” (Robertson-Mackay 1987: 60). It could be surmised that the interior and the inner ditch were primary locations where activity took place, based on the evidence of human burials and material present within the butt-ends of the ditches, while the outer ditch contained a quantity of animal bone and decorated Ebbsfleet pottery and a larger number of flints compared with flint waste than the inner ditch, emphasising possible boundaries through placement of different types of material culture in specific areas of the site (Robertson-Mackay 1987: 60). The occupation of Staines, based on the amount and variety of flint, is suggestive of a longer duration of occupation, while the different styles of pottery may be indicative of this as well (Robertson-Mackay 1987: 125). The range of activities at Staines is consistent with that at sites such as

Hambledon Hill, with patterned depositions within the ditches and the movement of stone axes to the site, the ditch and interior burials “and the potentially symbolic nature of the enclosure itself, offering a division of space into inside and outside” (Robertson-Mackay 1987: 126).

The Hambledon Hill complex would be revisited (Mercer 1988) with some preliminary results of the excavation of the main causewayed enclosure and new results of the smaller Stepleton enclosure. It is the latter which I would like to present here. This smaller enclosure, through its ditch deposits and the associated outworks, appears to have had a different use from the main enclosure.

The material culture recovered on the site included pottery and broken flint tools as well as a pit, which seemed to contain a pottery kiln or oven and would suggest a domestic nature (Mercer 1988: 100). It seems that the site had taken on this domestic nature through “industrial activities such as antler-working, pottery production and flint-tool manufacture, the building of shelters and the burial of rubbish” (Mercer 1988: 101). During phases 2a and 2b the outworks were built with a timber-framed “box-constructed” system supported with some 10,000 oak beams and estimated to be 3,000 metres in length. The requirements for this task would have been great as demonstrated by small shafts two metres deep for locating unweathered flint (Mercer 1988: 103). As is well known, the site was probably attacked as is shown through oak posts that combusted to their sockets and a collapse of the rubble core into the rampart. Underneath this rubble were two adult male skeletons, one of which had a finely worked leaf-shaped arrowhead which had penetrated its thoracic cavity from the back (Mercer 1988: 104). Three other skeletons were located, one was in the upper fill of Phase I and seems to have been dismembered by dogs or wolves; one of the other two Mercer (1988: 104) suggests was involved in the fire and was buried with heavily scorched chalk rubble known only from the shattered rampart. But as Mercer (1988: 105) suggests, “hundreds of thousands of man hours must have been invested by the people living in these lands in the construction of the site – first as a mortuary centre together with its cognate occupation site, possibly for a specialist elite group, and later as a great defensive complex”. The “human skulls are regularly encountered in the outwork ditches which must have deepened the impression made by the site on the beholder and which clearly link the whole site conception together”

(Mercer 1988: 104). Although Hambledon Hill had not been fully analysed at this time, Mercer was using an interpretative framework which built on the foundations of earlier theoretical concepts of post-processual archaeology during the late 1970s and early 1980s.

Published within the same volume as Mercer's account of Hambledon Hill (1988), the site of Crickley Hill (Dixon 1988) was also shown to have been attacked during its usage, and the report reflected the current archaeological theories during the 1980s. Although on a much smaller scale, this site underwent similar changes to those of Hambledon Hill, including being used as a later Iron Age hillfort. This causewayed enclosure contained two D-shaped circuits and a series of posts, which served as part of its defensive nature. A later long mound was constructed with what seems to have been a roadway and included fences that led into the central area of the enclosure (Dixon 1988). Sometime around phase 1d the palisade was constructed, being an estimated 2 metres high. Like Hambledon Hill, Crickley Hill saw the end of the enclosure period in turbulent times. More than 400 leaf arrowheads were found in the eastern entrance passageways and roadways towards the interior, so it seems that the enclosure came under attack, and that the palisade and ditches were constructed in order to defend the enclosure from incoming projectiles (Dixon 1988: 82). The site overall may be thought of as an enclosure which was visited enough times to warrant rebuilding or at least a high degree of upkeep due to its value as a ceremonial centre, was then attacked, but continued to be a sacred place within the landscape into the Bronze Age (Dixon 1988: 86-7). Over all, Dixon (1988) suggests that Crickley Hill was an enclosure located within a concealed area of the landscape where the dead were not buried, but where animal sacrifice took place within visually blocked off areas of the site, all on the edge of a settlement. Both Crickley Hill and Hambledon Hill indicate that the end of their use as enclosures was a violent one. It may be possible in the future to re-assess these two sites in order that they might indicate a change in depositional strategies just prior to their demise which differs from those within this study.

By the late 1980s the conceptions of causewayed enclosures were being re-evaluated in light of new ideas concerning social organisation and causewayed enclosures. All of these ideas were bound up in what Evans (1988a: 88) noted as monuments as

projects and that it is through their repetition of construction that we can see how the form of the enclosure has been passed down and applied through individual variation (Evans 1988a: 88). The ditch segments are suggestive of being constructed with the social identification of the groups who constructed them. The segmented nature of the enclosure implied spatial awareness and a solidarity of groups. The maintaining of the enclosure and the significance which it had could only be through the maintaining of the ditches, for example recutting, and the symbolic attachment the objects placed within them had (Evans 1988a: 89). The fact that social meanings are attached to causewayed enclosures and the ability of small groups to recognise those meanings, through patterns of formal deposition and subsequent recutting of the ditches, makes the enclosure a 'ceremonial' place (Evans 1988a: 89). The maintaining of ditch segments may have had a significant relationship with the movement of people and/or their animals, which may have a direct impact on the use of the site whether it was visited every year or every five years (Evans 1988a: 91).

1.4.2 1990 to c. 2000: the formulation of an interpretative archaeology

One of the first major publications of the 1990s was on the large-scale excavations of Maiden Castle (Sharples 1991a, 1991b). The causewayed enclosure, overlain by a later Iron Age hillfort had been dated to around 3800 BC. The double-ditched enclosure contained the burial of a child as well as large numbers of finds within the inner ditch. For about 200 years after construction the inner ditch may have stayed open facilitating deposition (Sharples 1991a: 253). In addition to the two enclosure ditches, the ceramics from the bank barrow suggest that the activity occurring in the inner ditch was associated with the interior of the enclosure where activities were taking place (Sharples 1991a: 254). Large amounts of flint by-products and implements suggest on-site production of tools (Sharples 1991a: 254). Based on the amount of material culture in the ditches it was suggested that the domestic activity at Maiden Castle consisted of cooking cattle and sheep, and the processing of skins, which the flint and pottery would have been a large part of (Sharples 1991a: 254).

Overall, the site of Maiden Castle was thought to have been an area within the landscape where peoples of the Winterbourne Valley gathered to perform ceremonial duties, and to reaffirm and maintain established links with other groups in the local environs (Sharples 1991a: 255). Over the next 300 years, forest clearance suggested a

growing population. The enclosure would have been a place where the growing population could resolve differences and disputes, but also where competition and the creation of hierarchies would have taken place (Sharples 1991a: 255). The end of Maiden Castle as a causewayed enclosure was suggested though the construction of a bank barrow, as several broken arrowheads were located there (Sharples 1991a: 255).

Another important focus on causewayed enclosures, and indeed other forms of prehistoric monument in terms of the notion of an interpretative archaeology during the 1990s, was the work by Hodder (1990, 1994) in his theory of the *Domus*, *Agrios* and *Foris*. These concepts centre on the idea that there are rules surrounding culturally specific spaces within structures and monuments constructed in the landscape based on individuals' or groups' concepts of inside/outside, male/female, and wild/tame. It is through these notions that the inside of a creation within the landscape such as a causewayed enclosure or long barrow would have a different meaning depending on whether an individual was standing inside or outside it. These are notions of how people perceive and create symbolic control of the world from two different areas and an attempt at this control may be made through communal activities on the inside of a monument. The evidence for defence (as noted above for Hambledon Hill and Crickley Hill) lends itself to the *domus-foris* which is adopted by the wider community for aspects such as controlling space and restricting entrances, but through this a 'community boundary' is formed and "as a result, new principles of social life are engendered, based less on community structure and more on warring and hunting in the wild" (Hodder 1990: 260). As Whittle, though, points out (1996:70-1) the concept of the *Domus* "is still rooted in a modern, Western conception of the autonomy of the household". This also includes the ideas of individually, privacy and the knowledge of how households were communally structured (Whittle 1996: 70). As Whittle argued, Hodder's concept of 'domus' interprets the evidence from Neolithic life from a specific western understanding of the cultural beliefs involved in domestication. Nonetheless, Hodder's use of the concept of the 'domus' did try to explain the construction and use of causewayed enclosures in terms of cultural logics of Neolithic social action, and this approach has become extremely influential. The influence of attempts to identify cultural principles in the construction and use of causewayed enclosures is evident in other work from the 1990s. For instance, the end of the 1990s saw the publication of two large-scale

excavations, Etton (Pryor 1998; see also 1988a) and Windmill Hill (Whittle et al.: 1999; see also Whittle 1990 and Whittle and Pollard 1998), both of which interpreted patterns in the deposition of objects, bodies and materials in terms of a cultural ordering of space, time and society.

As with Evans (1988a), Edmonds (1993) painted a picture of causewayed enclosures in a social context. Ideas such as enclosure construction may be attributed to how groups perceived cyclical nature, which reflected how Neolithic groups saw themselves and the communities they lived in (Edmonds 1993: 108-9). The social associations the living had with the dead may have strengthened the bonds between individuals and the sites they were placed in through deposition. Deposition could also have been used to define differences between groups by how deposits were placed within the site. By placing human bone within an enclosure a statement was being made by the living that the dead which were placed there were of importance in their community or in a distinct family grouping, thus possibility solidifying their place in people's memory. The ways in which human bone was placed within an enclosure, including where and with what associated objects (if any), could have communicated to other groups and individuals that the individual who placed the remains had a social significance within the community which bordered on that of an individual who was able to communicate with the ancestors through action and spoken words.

Other objects such as flint-knapping debris and cattle bone associated with feasting may have been attributed in the same ways (Edmonds 1993: 112). Feasting may also have been an integral part of seeing cattle as "sources and expressions of standing" and through placing cattle bones, after feasting, in association with other previous depositions within a ditch a connection could be made between the herd and the gift of cattle from one group to another through the consumption and status of this animal (Edmonds 1999: 118). Edmonds (1993: 116) emphasises that a majority of the human bone at enclosures is often that of children placed in specific locations within sites, which hints at the importance of a symbolic value and rights of passage in order to be able to be included in the ideal that was the ancestors. It has also been noted in relation to movement within an enclosure and through causeways that the movement from one space to another not only involves a physical move, but also a social move

where the social identity may be shown and changed (Harding 1998: 209). Following Van Gennep's (1960, 1996) model of the rights of passage in order to explain how people would have interacted with each other while at causewayed enclosures feasting, artefact and animal symbolism and rights of passage can all be seen as Edmonds (1999: 118) suggests, involving "a tripartite structure where an initial stage of *separation* gives way to a period of *liminality* and this in turn is followed by a process of *reincorporation*"

The approaches of the 1990s stressed that other stone objects such as axes (Hodder 1982, Hodder and Lane 1982) may have been procured for exchange at specific events including marriage and between people of differing age groups in order to signify specific social standing within the wider community (Edmonds 1993: 121). These objects, such as axes, then were brought to the enclosure for exchange perhaps, in order to "provide a context in which the place of those objects within local systems of meaning and value could be defined – a prerequisite for their use in further exchanges" (Edmonds 1993: 125). As has been shown through anthropological studies in areas such as Melanesia, the meaning of exchange has far-reaching effects within communities (Battaglia 1990, 1992 Foster 1990).

It is these places that had long-term significance within the conceptions of individuals and so they marked them with the construction of a monument to symbolise the past and may have used those ideas of construction as a means of controlling its use (Bradley 1998:a). These places could have been areas in which settlement had previously taken place or where earlier monuments such as long barrows occupied the land (Bradley 1996). In a more general sense, Bradley (1998b: 194) suggested that groups within the landscape had similar ways of doing things, but within those conceptions they had a uniqueness specifically tailored to specific groups and their conceptions of the world, perhaps facilitated through social relations (Harding 1998: 206). This concept is, perhaps most discernable at the Etton causewayed enclosure in East Anglia.

Etton, located in Cambridgeshire on the fen edge, is part of a wider prehistoric monument landscape. The site itself consists of a single circuit in which a wealth of material culture was found due to the waterlogged conditions, which created excellent

preservation circumstances. The material found within the ditch segments, and which will be analysed in detail in chapter 4, consisted of wood and flint as well as human and animal bone. The site was split into two halves, the western and eastern arcs, and they seem to have separate 'functions', which make them distinguishable from one another in terms of structured deposition. For example, the western arc had a high degree of variety in the wood deposited, possibly indicating a choice in deposition. The eastern arc contained a higher amount of organic remains within recuts, indicating the knowledge of a past episode of deposition (Pryor: 1998: 66).

Pryor (1998: 363-71) sees Etton as an enclosure of two halves, each having a distinct role in the ways that deposition of objects occurred. The 'fence line' may also have had a part to play in dividing the enclosure into further zones where distinct forms of activity took place. Structured deposits were located within both arcs, the majority of in the eastern enclosure ditch segments. Interior small filled pits provided a place where smaller personal statements could be made, and perhaps these acted as markers for kin-groups. Specific causeways may have been areas of 'high status' where animals such as sheep were deposited within the terminal ends of some segments. Overall, Pryor sees Etton as a place where activities such as rites of passage and the use of querns and axes were important in both a utilitarian and symbolic sense.

The second of the major publications in the latter part of this decade is that concerning Windmill Hill (Whittle et al.: 1999). As mentioned previously (Keiller 1934; Smith 1958, 1959, 1965, 1966; Whittle 1990; Whittle and Pollard 1998), this site has been extensively excavated and in addition to a re-examination of prior field work, the results of the 1988 excavation are presented in this report. The interpretation of Windmill Hill (Whittle et. al. 1999: 371, Table 197) has shown that there were distinct areas where particular activities took place within each enclosure ditch circuit. Patterns of material culture were plotted in order show areas in which objects were seen in spatial density, suggesting areas where objects may have been deposited more often. Much of the interpretation of the site was made through reference to the numerous structured deposits within the enclosure ditch segments all indicating the possible symbolic relationships people had with objects, particularly animals. The interpretations of the Windmill Hill site, just as the previous interpretations of sites in an earlier era, focused on ideas contained within the

thoughts of structuralism, post-structuralism, and interpretive archaeology which applied a social perspective where the social lives of people and objects in association with deposition were seen as symbolically linked to one another. The details of this site and Etton will be discussed within chapter 5.

1.4.3 The Turn of the 20th Century to the Present Day

For about the past ten years, the study of causewayed enclosures has taken several forms. Different theoretical perspectives have been used in order to attempt a better understanding of human behavioural attitudes within the wider landscape (Darvill and Thomas 2001). One of these angles was to try and explain the differences in flint implements from a select number of causewayed enclosures in order to gain a better understanding of their potential roles within site functions (Saville 2002, Bradley 2004). In addition to objects created by human means, the study of human remains has become a topic of discussion in recent years. Harris (2003, 2005, Forthcoming) has commented on the roles that gender may have played at Windmill Hill and Etton. Memory, tempo and personhood (Fowler 2001, 2002, 2003, 2004a, 2004b) may also have helped link activity at causewayed enclosures, ideas which will be explored within chapter 6. The importance of structured deposition within the enclosure ditch segments also is still prominent in the literature (Pollard 2001, 2004a, 2004b, 2006a, 2008), and the importance of not falling back into the ‘map trap’ of the past when looking for new ways to locate and interpret causewayed enclosures (Brophy 2004, 2009).

All of these ideas are key points in the study of causewayed enclosures. One of the key themes in this study is that the choice of location to construct a causewayed enclosure was based on a larger known ideology of Neolithic practices. Taking the concept of what a causewayed enclosure was used for, local communities came together to construct enclosures; in a similar way, but fundamental to this study, constructional and functional choices (number of circuits, location, appropriate practices, etc.) reflected who they were, and how they viewed their world. All of this was brought into the enclosure, changed through practices with other objects and then brought out into the local environment with new meanings through the activities carried out within specific areas of each site.

The idea of causewayed enclosures being regionally constructed has been succinctly brought together by Oswald et al. (2001). This includes the ideas put forward above by Renfrew (1973), Palmer (1976), and Barker and Webley (1978). Oswald et al. (2001), suggest that 'regionalism' may have occurred on a small scale as demonstrated by 'groups' of causewayed enclosures near the Rivers Nene and Wellend, all of which are of similar size and plan (Oswald et al. 2001: 110) (Fig. 1.9). Other groupings may be suggested in the Marlborough Downs (Fig. 1.10), Thames Valley (Fig. 1.11), and in the South Downs area; the use of causewayed enclosures in this region was linked to the local flint mines either in the past or present (Fig. 1.12) (Oswald 2001: 117), which I will discuss in chapter 4. The above groupings of causewayed enclosures have furthered the debate as to the movement of people in relation to the construction of causewayed enclosures (Oswald et al. 2001: 112), where pairs of causewayed enclosures may have been used through time (Fig. 1.13). I will argue in the following chapters that the detailed evidence within a spatial and temporal analysis, in relation to the constructional manner and position in the landscape in which it was chosen to sit, represent a very local way of enclosure usage. Just as not all causewayed enclosures were in use at one time, is also possible that some groups only used enclosures within a known area.

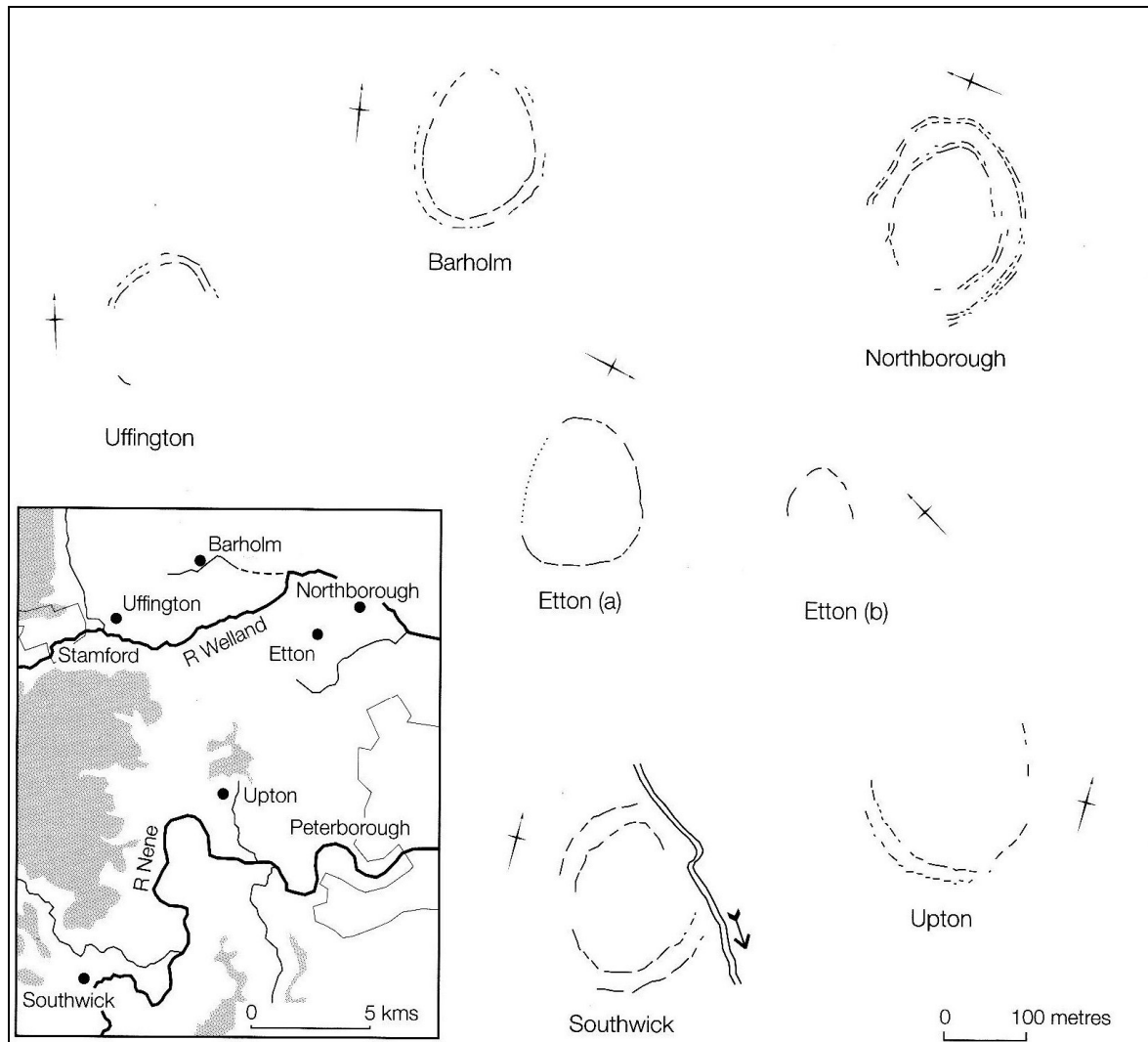


Figure 1.9 Causewayed enclosures within the Valley of the Rivers Wellend and Nene (Oswald et al. 2001: fig. 6.3)

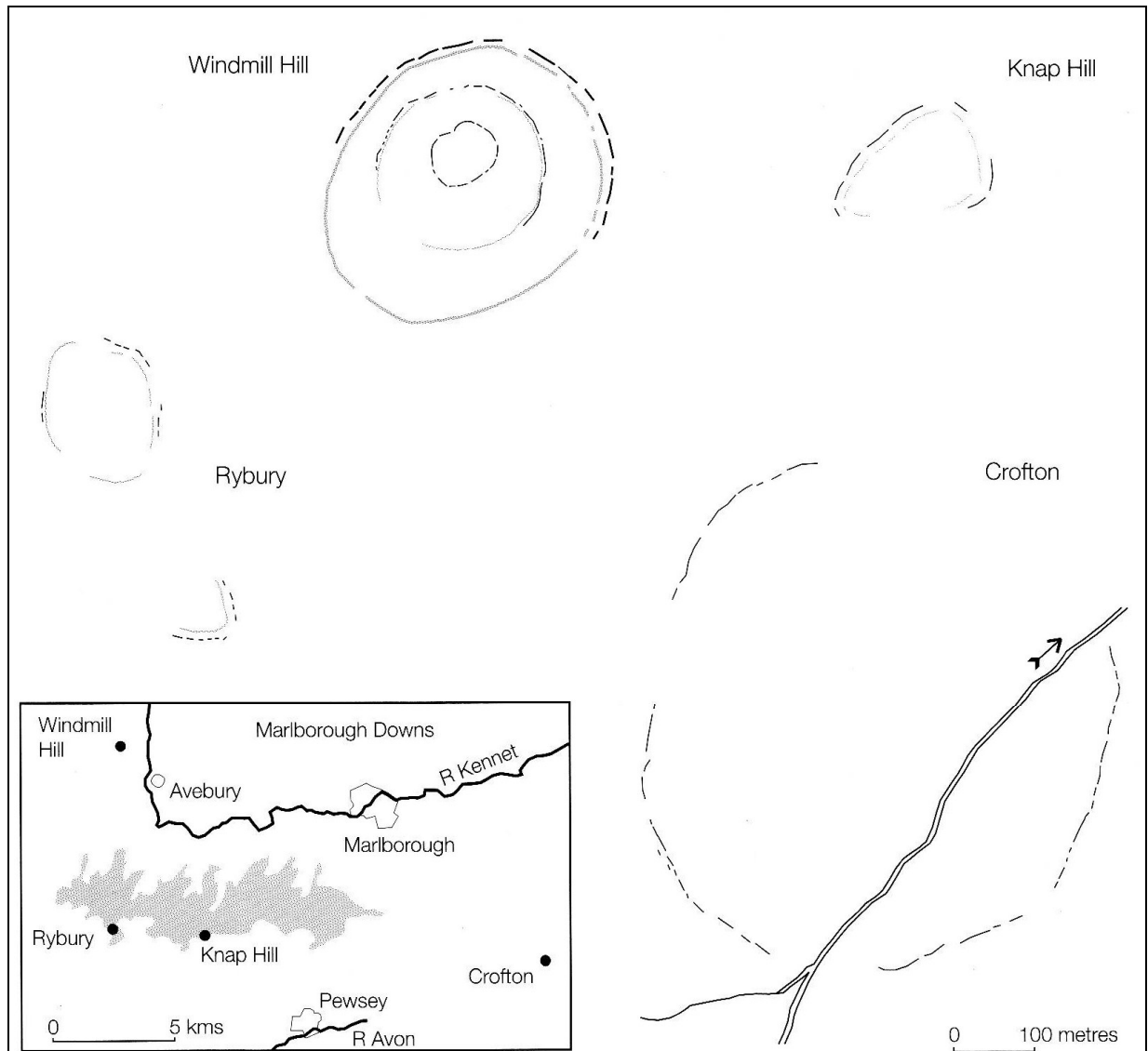


Figure 1.10 Causewayed enclosures within the Marlborough Downs (Oswald et al. 2001: fig. 6.2)

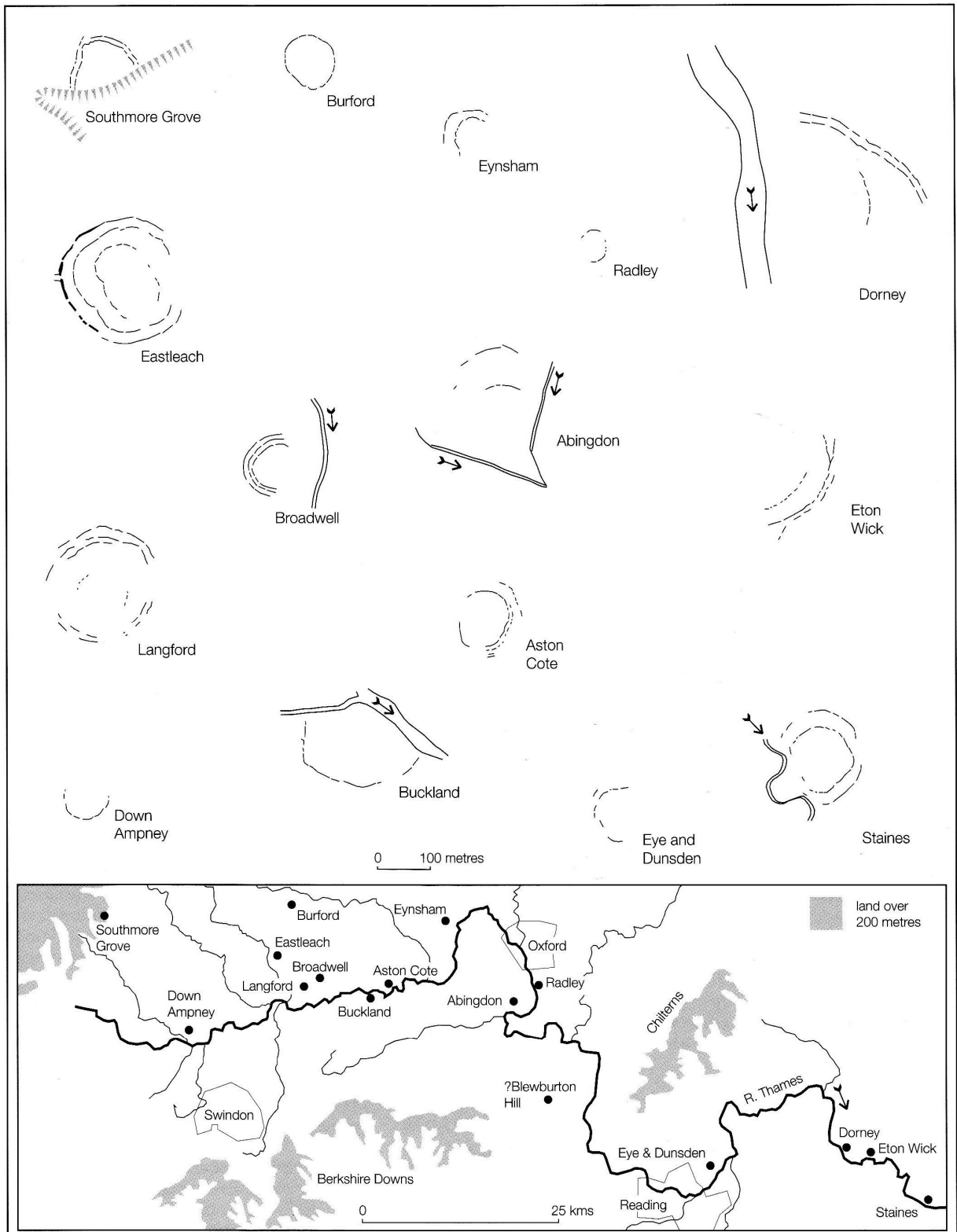


Figure 1.11 Causewayed enclosures within the Thames Valley (Oswald et al. 2001: fig. 6.4)

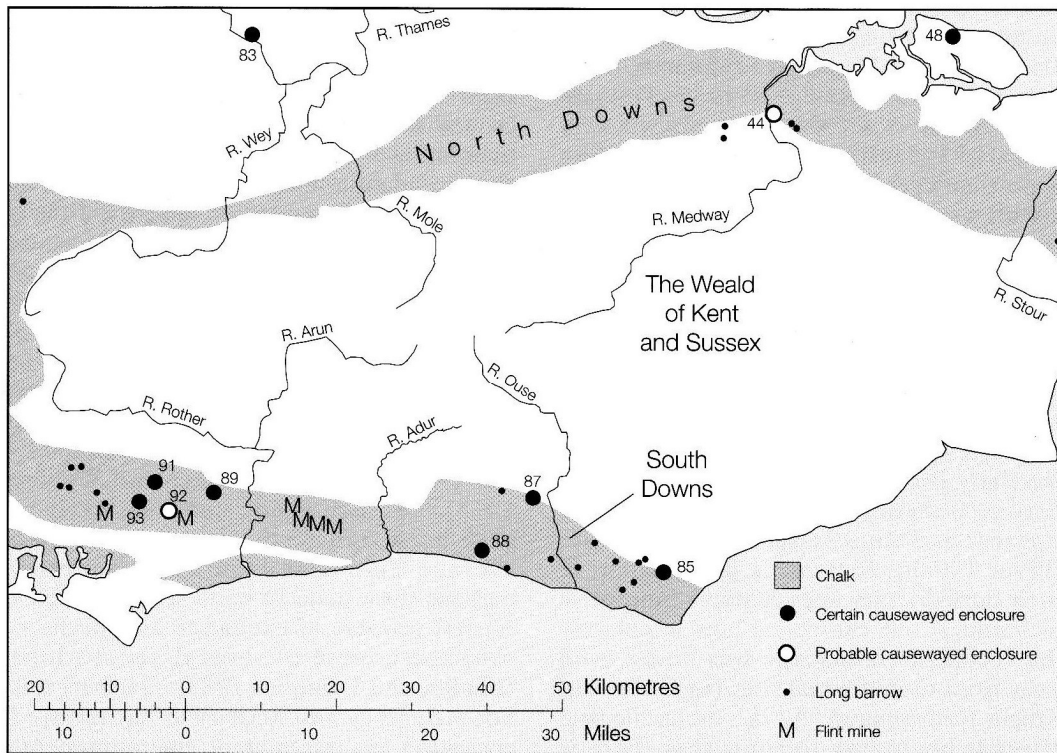


Figure 1.12 Location of causewayed enclosures in relation to flint mines in the South Downs (Oswald et al. 2001: fig. 6.4)

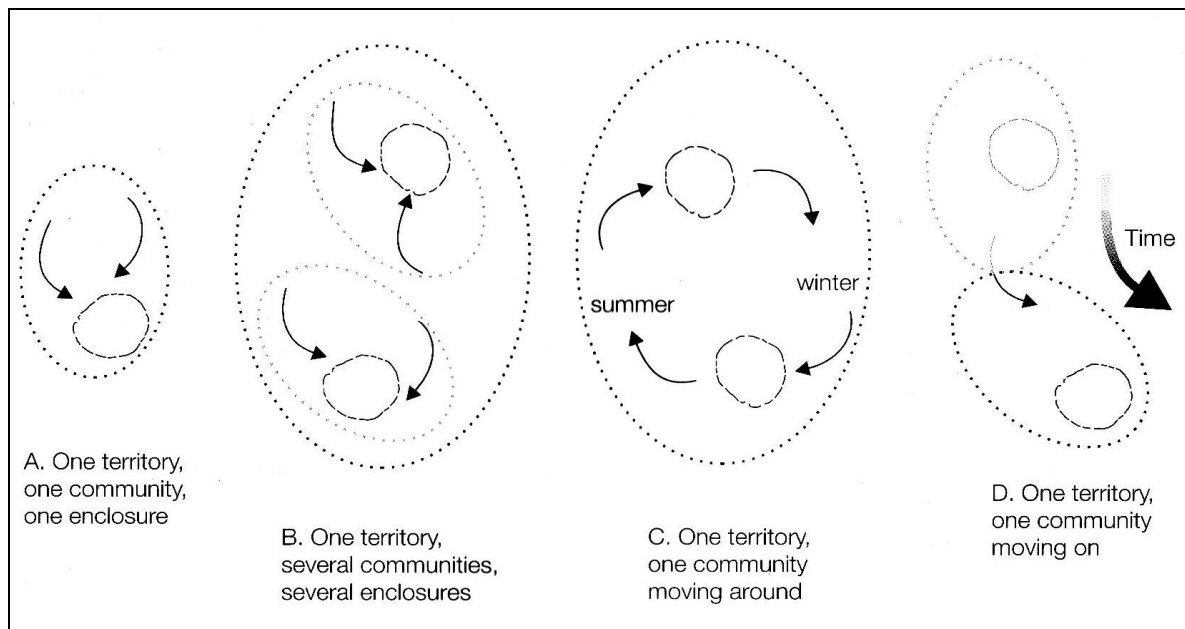


Figure 1.13 Human movements in relation to the position of causewayed enclosures within the landscape (Oswald et al. 2001: fig. 6.4)

With the exception of Haddenham (Evans and Hodder 2006), publications of causewayed enclosures over the past ten years have consisted of small-scale excavations which have extended our knowledge of on-site practice (Gent and Quinnell 1999; Evans et al. 2006; Tingle 2006; Allen et al. 2008). Recently, Horne and Oswald (2000) and Horne et al. (2001, 2002) have discovered the causewayed enclosure of Green How in Cumbria which, if confirmed, will be the most northerly causewayed enclosure in England. Pushing for a distribution outside of Southern England, Waddington (2001) has suggested the possibility of the existence of enclosures in Northern England, while Brophy (2004) suggests that there is a possibility of causewayed enclosures existing within the Irish Sea zone.

As the first decade of the 20th century is coming to a close, the interpretation of causewayed enclosures is changing to a greater focus on the specific meanings, such as gender, between individuals, animals, and the ways they are reflected within the deposition of cultural material. At the same time, the geographical distribution of causewayed enclosures will grow, to encompass other areas of the British Isles such as the north of England, following the discovery of Green How, which may in time shed new light on form and practice.

1.5 Conclusion

This chapter has attempted to trace the theoretical history of causewayed enclosures from the early 20th to 21st centuries in order to indicate how causewayed enclosures have been interpreted through excavation and, more generally, through the archaeological literature in an attempt to explain their 'functions'. All of these theories through the decades have sought to resolve a relationship between the general and the specific in order to establish how and why causewayed enclosures were constructed and used. All of these theories indicate a pattern of results which have then been used in order to identify a function, mainly through structured deposition.

While these theoretical positions through time have helped to indicate the location of enclosures within the landscape, the variation in construction, and the placement of objects within the enclosures' ditch segments and small filled pits, they do not fully take into consideration the possibility that each enclosure may have had its own identity created by people through the natural environment in which they lived.

As will be indicated in the following chapters, each causewayed enclosure may have been created and used by local people in order to fulfil a widely known ideology. Similarities in causewayed enclosures have been seen time and again, including the deposition of cattle skulls and other significant objects within the terminal ends of the enclosure ditch segments. These observations were adopted by the post-processual movement and, more recently, through 'interpretive' archaeology where people have become the centre of attention, distancing them from the earlier theoretical observations of the 1960s and 1970s.

Although the key objective of the present study is about regionality, it has much less to do with 'mapping out' where enclosures are and defining territories or land use patterns as shown above in the 1970s, but focuses on how the enclosures were used according to how the people within the local areas perceived their world, a world which was brought into the enclosure, modified, and deposited within the enclosure's ditch segments. This will be accomplished, through a detailed analysis of the available literature about the sites contained within the proposed three regions, assessing their strengths and limitations in defining activity within a local setting.

Chapter 2

Re-assessing the evidence for activity at causewayed enclosures: developing an interpretive approach

2.1 Introduction

As shown in chapter 1, the interpretive framework of the study of causewayed enclosures from the early 1900s to the present day followed a pattern of excavation and object description. This type of analysis continued until the 1960s when the concept of structured deposition became popular within archaeological theory, primarily resulting from Isobel Smith's (1965) analysis of the deposits from Windmill Hill. Combined with Smith's theoretical perspective on enclosure ditch deposition and the coming of the computer age, models were created primarily during the late 1960s and 1970s in an attempt to understand the constructional patterns of causewayed enclosures and the relationship they had with other earlier Neolithic monuments, particularly long barrows (Renfrew 1973). During the 1980s, interpretation of causewayed enclosures began to focus on the individual (Hodder 1988) in an attempt to draw out the complexities of how we, as archaeologists, interpret the relationships between the objects humans create from the world around them which gives them inherent meaning. During the 1990s and for most of the first 10 years of the 21st century, the interpretation of causewayed enclosures has still revolved around the meanings created through structured deposition. The recent volume on causewayed enclosures (Oswald et al. 2001), the first such since Curwen listed the then known enclosures in Britain (1930), has come some way towards establishing the importance of other types of enclosure study, including form, distribution within the landscape and their uses and meanings.

The intent of this chapter is to follow each of these theoretical lines – that is, to indicate how landscape distribution, construction, deposition and chronology relate to the interpretation of structured deposition. In the past, these theoretical lines have focused on the aspects of cosmologies and the general indications of the interrelationships people had with animals and other individuals within the realms of “value, exchange, sacrifice, feasting, substitution and storage” (Whittle 2003: 161-2).

These have dominated our conceptions of causewayed enclosures leaving other aspects, such as the role activity may have had, to one side. I will attempt to explain the important, and often overlooked, underlying implications for the choices in enclosures' construction and how the local environment played a part in defining how local communities represented who they were and what they did in life. All of these things were represented through deposition which was not necessarily structured or a part of a ritual process, By this I mean a process where the objects deposited within causewayed enclosures is not grounded within supernatural powers, magic or 'the ancestors' in particular, but is representative as part of everyday activities such as butchery, flint manufacturing and food processing, among others within the present. This is not say that activities were not the result of past knowledge, but were more concerned with indicating the importance of who people where and the objects and animals central to their world.

I will show the differences in topographical distribution of causewayed enclosures in relation to the potential mobility of Neolithic communities and the sitting of causewayed enclosures. This will give an indication of the different relationships people, and possibly animals, had to particular enclosures. The material deposited suggests that either movement was occurring between enclosures or, as is argued here, that enclosures were perhaps constructed and used by primarily local communities. This will be followed by an examination of the differences in construction techniques. There is no doubt that causewayed enclosures changed over time with the additions of circuits or palisades. The initial laying out of an enclosure and the subsequent changes (if any) in association with the differing amounts and types of objects clearly indicate individual characteristics each causewayed enclosure had. Following this, the interpretations of structured deposition will be critiqued, demonstrating how it has dominated our interpretations of causewayed enclosures. Within this, structured deposition may be better defined in order to understand the roles it played in local social systems. I do not want to indicate that structured deposition was less important than other activities occurring at causewayed enclosures, or that structured deposition was not occurring at all. What I do want to indicate is that, although the enclosures may be structurally similar, each has differences that go beyond structured deposition to broader activities which result in the production of certain patterns in the artefacts present at the site. These differences in activity leading to deposition may ultimately

indicate the differences in social organisation of the people who constructed and used these sites. Rather than focusing on the act of deposition it is time to focus again on the activities preceding deposition.

Next, I will show the importance activity had in relation to community identity. Each enclosure was created and used in different ways through the different types of material culture located within the enclosure ditch segments. These differences will be shown through the choices people made in the types of objects that were deposited (structured or unstructured). The construction and deposits of a particular enclosure reflected how people within a local environment adapted a Neolithic lifestyle to their own needs. Not all groups within the British Isles who constructed and deposited objects at causewayed enclosures would have viewed the world in the same way. I will suggest that the use of enclosures reflected these differences in world views in order to represent and then reaffirm their communities both economically and symbolically.

Finally, the last section of this chapter aims to indicate the limitations of the data used in this study. Much of the data acquired originated from excavation reports written during the early 20th century. Not all locations within enclosures were excavated fully and the quality of the data produced varies significantly throughout the century. With this in mind, there is still scope for interpretation of these sites through what has been recovered in relation to enclosure placement within the landscape and size as described above.

2.2 The regional distribution of causewayed enclosures in the early Neolithic

As Thomas (1993a) argued, defining what the Neolithic *is* is a daunting enough task, but the attempt to create interpretations under this umbrella in order to attempt to define territories or some form of territorial organisation is just as complex. As shown in chapter 1, the work of Palmer (1976), Wilson (1975) and Renfrew (1973) attempted to interpret how monuments were located in relation to one another and the surrounding landscape. Recently, other social interpretations have attempted to discern the relationships landscape had with Neolithic monuments. The distances people travelled may have depended on exchange (Orme 1979; Edmonds 1999) and

through what Chamberlin (2006) terms 'symbolic conflict' amongst small-scale groups where competition, feasting, and war are bound within a ritual context for the acquisition of knowledge. This knowledge could have been gained through travelling or from other people who travelled to sites on a limited basis, where this knowledge would be communicated. This knowledge could be accepted, rejected or modified to an existing communal social structure. The creation of new types of material culture such as pottery and the refining of other materials such as stone axes may also have contributed to the creation of local identities (Bradley 2004: 110). These objects, in combination with developing social systems and the creation of new monuments, aided in the creation of these separate community identities. This may have to do with other patterns of distribution within the landscape, such as that of pottery. In the Wiltshire area, Windmill Hill ware is located within all enclosures, whereas Abingdon ware is found within most of the enclosures in Oxfordshire, and Mildenhall ware is almost exclusively restricted to the Fenland areas. This could be the result either of the movement of ideas, or people, perhaps on a small-scale, for example specialised potters who were nominated by their local community to represent them.

Many causewayed enclosures located near earlier long barrows may have been constructed because of these earlier monuments. The sites of Knap Hill, Hambledon Hill, Haddenham, and Roughton are an indication of the relationship these two classes of monuments had with each other. The long barrow at Hambledon Hill actually intersected the enclosure, and it was possible that both were being used at the same time (Oswald et al 2001: 114; Mercer 1980: 43). Deposits similar to those within the linear ditches at causewayed enclosures have also been located in the long barrow at Hambledon Hill and at Thickthorn Down and the rest of the barrows of the Dorset Ridgeway Group which may have been connected to enclosures in the area, including Maiden Castle. The places where enclosures were constructed may have been partly due to the connection they shared with the past. However, not all enclosures were located near earlier barrows. Those which were not could have belonged to communities which severed ties with monument construction entirely from the earliest parts of the Neolithic. Some of the concepts such as linear construction of flanking ditches at long barrows were integrated into the concepts of enclosure construction. Other areas where enclosures are not located near long barrows may be the result of geology, but may have more to do with how crop marks appear in areas

predominately composed of chalk, sands and gravels (Oswald et al. 2001: 84-5). Alternatively, this could be the result of the differences in prehistoric social systems within different locales which are not identifiable through survey or excavation.

Many enclosures, especially those located on or near the River Welland in East Anglia (of which Etton will be discussed in chapter 3) and the River Thames to the north of the Berkshire Downs, may have been sited close to water for its resources and also for transportation. It has been suggested that, in south-central Britain, this grouping of enclosures may have been in an area that was highly populated compared to other areas of the country (Harding 1995: 118-23), as the number of enclosures within this area number around 15 (Oswald et al. 2001: 110). Drewett (1978: 25) has suggested that the 'simpler enclosures' within the South Downs (Barkhale, Offham Hill and Combe Hill) are located in the northern areas, while the larger sites of Whitehawk and The Trundle positioned partially on hilltops within the southern area of the South Downs maybe an indication of the differences between them. These enclosures were all constructed in different areas and used the surrounding environment for the needs of the communities who constructed them. Some Neolithic communities saw water as central to their lives, while perhaps others, such as those constructing hilltop enclosures; saw the sky as of central importance. The importance here on a macro scale is that the objects located within sites which have been excavated may provide evidence for a far greater use of enclosures on a local scale.

While enclosures are 'densely' located within the southern area of Britain, in some areas few or no enclosures are found, such as in the Yorkshire Wolds where the chalk-based landscape would seem an ideal constructional region (Oswald et al.: 2001: 114). The enclosure at Duggleby Howe in North Yorkshire may have more in common with early henge monuments and could represent that, within the northern areas of England at least, the flow of information may have been constructed in different ways depending on the information groups received, or that groups chose not to construct enclosures at all (Oswald et al: 2001: 114). The flow of information and how it was interpreted by different communities could have contributed greatly to the diversity of enclosure position, construction and types of objects located within the linear ditch segments. The siting of these monuments could be defined by the geology on which they were situated. In other areas of the country where enclosures have not been

located, it may be that either they were not constructed there or that the proper weather conditions for discovery by air has not been adequate (Oswald et al. 2001: 114). Away from the chalk country, sites constructed in a similar manner and known as tor enclosures (Mercer 1980: 61) may have been one way in which the people in the Cornwall area used the local geology in order to create their own interpretations of an enclosure.

If attempts are to be made to regionalise causewayed enclosures there is possibility of falling into a 'map trap' in order to force patterns onto the landscape which correspond to monument distribution (Brophy 2009: 6-7). The Neolithic is thought to have had a semi-mobile population with a semi-sedentary way of life which included some small-scale horticulture. The debate between a sedentary lifestyle and mobility has been discussed at length, where people may have practised a division of time between two or more places within the landscape (Whittle 1997: 21-2). The scientific study of human bone is beginning to give a new understanding of how far people may have travelled, either on their own or possibility as remains carried and deposited by others. Recently, work carried out using strontium isotope analysis of the bones of four Neolithic individuals has shown that they travelled approximately 80km from the north-west to where they were buried together, in a pit, calibrated to a date of 5500-5100 BP (c. 3490-3090 BC), at Monkton-up-Winbourne in Dorset (Montgomery et al. 2000: 374). Another new study on the activity of corn grinding by Roe (2009) has suggested that perhaps the selection of stone for the querns was made locally within an area of not more than 80km radius, and that there may have been plentiful resources within the local environment and a 'regional loyalty' whereby the stress of locating resources was diminished (Roe 2009: 31).

2.3 Causewayed enclosure construction

The areas in the landscape where Neolithic monuments have been constructed have been shown to have great importance (Tilley 1994: Ch. 5). It is important to think of construction as an activity just as ditch-digging or deposition. The gathering of like-minded people in the creation of a large place within the landscape in order to reinforce identity through further activity can be detected in three ways.

The first is how construction relates to landscape location. The participation and construction of monuments has been discussed by McFadyen (2007) who argues that the gaps or time in between constructional phases at long barrows helped to maintain memory of place and things when people returned, thus having an effect of "remembered events, as concrete memories, embedded themselves in the ways in which people understood themselves in relation to each other" (McFayden 2007: 29). Similarly, Richards (2004: 78-9) noted the importance of social relations during the construction of dolmens in Pembrokeshire, arguing that the process of monument construction may have been just as important as the complete form. Recently, Oswald et al. (2001: 54) has shown that there is a large amount of variation between the choices of construction technique and suggests that this relates to each enclosure's placement within the landscape. The circuits and spacing of a majority of the causewayed enclosures within the British Isles are not entirely circular, but were constructed in a sub-oval or 'D' shape. I will demonstrate that the differences in where an enclosure was constructed may have important implications for the different types of objects which have been located within these sites.

The second way is how enclosure building relates to a sense of community during construction. A community would first have to decide on an appropriate location to construct the monument. Community organisation then would need to be put into place in order for trees to be felled which may have provided heat for comfort, cooking and pottery production. Finally, the enclosure would have to be marked out and the ditches dug for the deposition of objects. All of these activities would have created a tighter sense of community and purpose to the relation of an enclosure, perhaps making the importance of deposition in the end even greater. As Evans (1988: 85) has indicated, the form of enclosures was most likely not static, but was a continually being modified over time through the idea of 'monuments as projects'. This study will investigate if this may be true through the comparative forms of enclosures and the previous analysis of the incorporation of circuits - over time at some sites, while others may have been constructed all at once. Each of these observations will be investigated in order to ascertain the usefulness they have in determining the types and duration of activities in space and time, how activities changed as enclosures were modified and the relationship between deposition and site expansion.

Finally, temporality, memory and the passing of time at causewayed enclosures was another important component of their creation. Temporality in the landscape has been widely discussed by Ingold (1993) within a 'dwelling perspective' based on people's engagement with the world. This goes hand-in-hand with Gosden and Lock's (1998) paper entitled 'prehistoric histories' which argued that prehistoric societies directed their actions in the present to those of the past. In order to create this history, aspects of people's lives which contain myths and legends associated with time and memory centred within specific areas of the landscape are involved, binding them with importance (Cummings 2000, 2003, 2007; Jones 2003; Pollard 2005). This thesis will indicate that the construction of causewayed enclosures, including the later addition ditches and circuits and the change over time in the use of objects, can be shown to have distinct differences. I will show this through the changes in construction layout and enclosure ditch modification through time. This will suggest that different communities may have had quite different conceptions of the past as they deposited objects within enclosure ditch segments in their prehistoric present.

2.4 A context for assessing activity through deposition

Within a British prehistoric framework deposition took place within pits or pit clusters such as those located in East Anglia (Garrow et al. 2005, Garrow 2007). A majority of these pit clusters indicated that they may have been used during short episodic visits to the site. Other pit clusters indicated they were more 'developed' and suggest that these areas of the site were occupied for a longer period of time (Garrow et al. 2005: 156). In another study, Garrow (2007: 20-1) concluded that deposition at a variety of sites situated in East Anglia indicated a distinct difference between the deposits at each site. Pit digging also seems to have continued into the later parts of the Neolithic in East Yorkshire at Rudston Wold. Harding (2006: 124) has shown through the lithic assemblage and the analysis of Peterborough and Grooved ware that these represent the renegotiation between people and objects and the cosmological links between them and their life-cycles. Harding also goes on to make the important point that deposition need not only be an event which is governed by ritual, but could also be part of the everyday activities of people who chose to dig and make deposits at the pits (Harding 2006: 124). The point here is that structured deposition within causewayed enclosures may not have been to do with just ritual acts or acts which

could be interpreted as having great symbolic value, but that the representation of the everyday may also have been demonstrated through deposition; this may have been just as important as those deposits associated, for example, with the ancestors.

Within larger sites such as the henge monuments of Durrington Walls Richards and Thomas (1984) suggested that the structured deposition of pottery and animal remains which occurred was the result of ritual activities, particularly feasting. This interpretation has led many other interpretations to similar conclusions where structured deposition has become too great a focus on sites such as henges and causewayed enclosures and has become a key theme in interpretation. Within another later Bronze Age context the structured middens at Runnymede Bridge may have had an 'economic function' as places where material was deposited and then reused in the creation of other or 'new' objects (Needham and Spence 1997: 84). This would imply that the deposition was not just strictly within a ritual context, but that the deposition had another intended action where activities took place, primarily "food consumption, pottery breakage and craft production". These were places where groups came together for production at 'refuse heaps', and over time would become imbued with meaning. Needham and Spence (1997: 88-9), though, argue that feasting within 'midden sites' is only one interpretation in a "changing social geography, rather than as the central reason for their formation" Structured deposition during the early Bronze Age has also been suggested by Needham (1988): metalworking hoards in non-utilitarian contexts suggest a ritual component to their placement, which was arranged so as to imply permanence (Needham 1988: 232). This may indicate that these were meant to be hoards or votive deposits which had an interrelationship through exchange with other people where "elaborate protocol" may have been employed in order to separate which objects were deposited as grave goods or "offered to the supernatural" (Bradley 1987: 360). I will suggest in the following chapters that the depositions of objects may have been treated in similar ways. Objects such as flint have been noted many times in causewayed enclosures as being knapped within the ditches. There is no reason that this need be ritual activity, but a ditch was perhaps considered a place where it was socially acceptable. The by-products left in the ditch were a result of this activity.

The importance of deposition has also been indicated at middle Bronze Age settlements, where Brück (1999: 160) suggests that it was determined by the differences in household roles and the accompanying changing social conditions placed upon them. A final example of structured deposition comes from the Balkan Neolithic and Copper Age (Chapman 2000). Here Chapman identifies the similarities and differences in structured deposition as the result of how social practice within structured deposition was governed, where each community may have interpreted the social dynamics behind deposition in differing ways at different times according to the importance attached to social reproduction (Chapman 2000: 82-3). These theoretical interpretations from the Neolithic and the Bronze Age indicate a reliance on structured deposition and exchange, bound within a ritual context. This approach opens up new possibilities to the differences in structured deposition within causewayed enclosures where differences in the meaning of objects and the act of deposition varied much more according to local communities rather than a larger 'nationwide' conception of how deposition should be conducted.

I would now like to turn to the interpretation of structured deposition within causewayed enclosures in order to assess the contribution of this theory in previously published work and to highlight the differences in activity leading to structured deposition, which at present is lacking in detail. Pollard (2008: 43) has recently commented that the term 'structured deposition' is problematic and that deposits are structured in most cases. Chapman (2000a: 73, 2000b: 49-54) has shown how structured deposition may differ depending on the association of objects. His examples centre on the association of objects such as pottery with human remains. Human remains, particularly articulated skeletons, associated with other objects around the body within a site will be structured. As will be argued later, deposition may not only be shown as a ritualized activity or a part of ritual, but indicates the continuity of communal tradition and a display of the activities which were central to their livelihood. This could come about in two ways. First, there is highly structured deposition of materials where specific objects were purposely associated with each other in order to create a meaning for the depositor. These could include articulated human and animal deposits either associated with other material or with one another. It is those objects which have been deliberately brought together for deposition regardless of meaning. The second is deposition of material which is not structured

but can still have important meanings attached. This material includes linear deposits, groups of objects, and what have been called 'sweepings' or 'dumps' where material such as flint and other 'discarded' bone were seemingly thrown together within enclosure ditch segments. Objects such as flint and pottery which may be re-fits from other parts of a site are problematic as they would have acquired increased meaning through deposition, but may not have been incorporated within a structured deposit if deposited within isolation from other objects. Pot-sherds from broken vessels or flint implements may also have acquired similar meanings if they were carried to a site from the surrounding landscape. Although these examples do not seem to be as highly structured as other deposits, the meanings behind them may have corresponded to the activity which produced these random 'sweepings' or 'waste', and as such they deserve to be interpreted on an equal basis. Mary Douglas (1966: 67) speaks of food taboos, and Henrietta Moore (1996: Chapter 6) has shown that there can be large differences in the way material such as ash is perceived, which suggests that there is no reason why objects may not have been assigned the same or differing associations. These differences will be shown through the variation in the assemblages of each enclosure within this study.

2.5 Deposition at causewayed enclosures

The reports on other sites within this study - Whitehawk, The Trundle, Offham Hill, Knap Hill, Whitesheet Hill, and Robin Hood's Ball, all of which have been excavated to different degrees - are primarily descriptive, broadly suggesting that objects were associated with one another. That said, changes in the locations of specific activity throughout sites over time have not been considered thoroughly in the archaeological literature for Windmill Hill or other causewayed enclosures. Contained primarily within specialist reports, brief suggestions of what some objects, particularly flint, were used for have been noted as shown below. However, as of yet, change over time has not been fully explored within structured depositions and the associated activities which aided in their conception. This is a key contribution this thesis will address.

In a spatial analysis, objects can be shown to have had importance in the ways in which they were deposited, either in isolation or in association with one another within specific areas of a site. This is important because objects may have been given

their own areas within an enclosure where it was seen as being acceptable to use them for a given activity. For example, a cluster of flint by-products may indicate an area where flint was knapped, or alternatively where the disposal of flint was 'supposed' to occur within a pre-determined area away from other activities or objects. The spatial analysis in this study intends to build on these concepts of object placement in conjunction with analyses of object types and amounts at any one given site. This will enable a fuller picture of which types of objects may have been used more frequently from site to site or within each site in specific areas.

Structured deposition has influenced the interpretations of deposition at causewayed enclosures for many years, and this rethinking of structured deposition provides a basis from which causewayed enclosures can now be reinterpreted. For many causewayed enclosures, the structured deposition and the interpretation of a ritual component have often been compared with data from the Windmill Hill report by Smith (1965). It is worthwhile, at this point, indicating the commonness of this interpretation in the literature in order to indicate how I will build on past assemblages from the sites in this study.

As will be shown in chapter 5, Windmill Hill was obviously an important site in the Wiltshire landscape. The size of the enclosure and the scale of objects placed therein are testament to its importance within the wider landscape. Noted by Whittle et al. (1999) are the symbolic ways deposition affected the people who participated in feasting and rites of passage, for example, and activities such as burial where deposition is seen as a meaningful form of action. These forms of action resulting in deposition are termed "‘deliberate placements’, ‘less formalised deposits’, and intermediate type'" dependant upon bone size condition and articulation (Whittle et al.: 1999: 357). While this does set a method for the analysis of animal bone, it does not take into consideration other deposits such as flint or pottery, which may have been deposited without bone.

The major report on Etton (Pryor 1998: 369-70) focuses on structured deposition as ritually based. This is particularly so with the prominent structured deposits in the eastern half. The western half contained similar types of material, but they were not clearly structured. The internal pits on both sides of the enclosure did contain the

same types of material, some of it burnt prior to deposition. In the third modern report, from the Haddenham enclosure (Evans and Hodder 2006), the analysis of structured deposition and the interpretation of the types of activities (with the exception of labour involved in construction) is lacking. While important, much of the Haddenham report relies on the description of the finds. This in part is due to a lack of organic preservation which may mask the true associations objects had with one another with the exception of ditch segment I (see below). Recutting, backfilling and burning of material at Haddenham may have been equally important as structured deposition.

2.6 Interpreting activities at causewayed enclosures

Artefacts and material have use-lives before deposition. Objects such as flint and stone are described as "being used for a variety of activities" including woodworking and food production at Briar Hill (Bamford 1985: 134), "woodworking, cleaning hides and variety of other activities" at Maiden Castle (Sharples 1991: 47), "antler combs for skin preparing" (Musson 1950: 113), "rubbing stones perhaps used in food preparation", and areas which may have a "relation to the manufacture of tools used in woodland clearance" (Drewett 1994: 24) at Combe Hill. At Staines, pottery and burnt flint were interpreted as evidence for feasting (Bradley 2004: 118), but the material as a whole was taken as representing that "some domestic activities were being carried out, but these seem to have been undertaken against a background of structured or ritualistic practices" (Bradley 2004: 121). At Crofton, Harding (1995: 20) suggested that the knapping waste from core preparation indicated "small-scale activity for domestic purposes". Another example, from Northern Ireland at the sites of Donegore and Lyles Hill, indicated that the flint assemblages "are dominated by tools serving scraping and cutting functions" and the scrapers are suggested "to have served a number of purposes relating to hide, wood and bone working" (Neils 2003: 214). At Abingdon in Oxfordshire, Avery (1982: 24) suggested that activity within the enclosure was either "magical or utilitarian". Areas were cleared of material except where a burial occurred near an eroded ditch and bank, which may have been left alone because this area was remembered by the people during a period of "renewed habitation" (Avery 1982: 24). The animal remains at Abingdon suggested

that slaughtering/butchering took place within the enclosure (Cram 1982: 44-5) and that the enclosure may have been "constructed and maintained with subsistence activities in mind" (Avery 1982: 24). The evidence for this comes from grain impressions on pottery, including emmer wheat and six-row hulled barley (Murphy 1982: 47). Although this does not entirely represent cereal growing, the position of the enclosure near a watercourse may have aided in growing some cereals for which rubbers, pounders and other quern stones were used in processing food.

These examples from previous causewayed enclosure literature indicate the need for a detailed analysis of activities occurring at causewayed enclosures. Instead of stating that there 'were a variety of activities' occurring at causewayed enclosures, we need to ask what *different* kinds of activities were occurring at each causewayed enclosure. We need to ask how those activities differ from enclosure to enclosure, and whether differences relate to factors such as constructional choice (size and number of circuits) or placement within the landscape (upland or lowland). We need to consider how such activities changed over time and, if so, what those changes indicate about life in the landscape in which they were constructed and the implications that may have within Neolithic social systems.

The approach in this thesis will attempt to answer these questions while arguing that the differing assemblages within causewayed enclosures cannot be treated as one all-encompassing way of depositing objects. By creating a methodology based on the potential for variation between sites and the activities which took place within them, it may be possible to indicate the differences between the social acts resulting in deposition. Threading this together with a detailed re-assessment of the assemblages within each enclosure (chapters 3-5) and the location and construction, it will be proposed that what has been located within the ditch segments and small-filled pits at causewayed enclosures were, at the time, quite different from one another which may indicate what the activity (butchery, hunting, food processing, mortuary activity, etc.) within specific areas of each site contributed to. This form of interpretation will suggest that, although similarities can be shown in the amount, type and number of objects deposited, such as cattle bone, it does not necessarily indicate that the enclosures were used in similar ways. This will be shown through the differences in how similar objects were treated prior to deposition, suggesting that structured

deposition does not always equal ritual (Schiffer 1999). This is not say that ritual activities did not take place, but that events involving this form of practice may have been on a much smaller scale, and were perhaps conducted with less frequency. The deposition and reaffirmation of the everyday goes hand in hand with the reaffirmation of identity (Barrett 1994).

At the same time I will suggest that community identity was created at causewayed enclosures not only through structured deposition but through the activities, such as butchery, flint production, and food processing, represented by deposition. I will argue that patterns in activity suggest that the groups who constructed and used causewayed enclosures were very familiar with the local environment. This is significant as it necessitates a rethink of the idea that enclosures were liminal places (Edmonds 1999: 118) or somehow separated from the rest of the Neolithic world through boundaries (Hodder 1990: 260-2). Instead I will explore how the materials and objects deposited represent the wider world beyond the enclosure, which was the reason the activities (butchery, flint knapping, etc.) were originally undertaken.

Enclosure construction and deposition were important elements in the construction of identities, and if these follow regional patterns then we could argue for regionalised identities. I do not wish to attempt to re-construct gender at causewayed enclosures as Harris (2006) has done, but to use existing data to consider community identity and how that identity was represented through the different choices in enclosure construction and through the differences in objects deposited within the ditch segments and pits. What I would like to focus on is the deposition of objects, which was the result of prior activity based on their prehistoric histories where genealogy and myth complement each other in reproducing a community's past of places and people (Gosden and Lock 1998).

Joanna Brück (2004) has made a good case for the creation of identity in Bronze Age burials where the objects placed with an individual created a link between person and object. For example, cattle parts located with a human burial may "act as a totem or symbol of clan or family identity" (Brück 2004: 324). Identity is also created through the constructing of monuments and the creation of artefacts within an operational chain (Jones 2003: 69). These chains of operation require a structure or narrative and

are directly linked in producing and re-producing memory and identity within specific times, places and technologies. Within the chain of operation at the early Bronze Age site of Trelen 2 in Cornwall, Owoc has further shown that there may have been considerable spatio-temporal variation between people which resulted in differences between the perceptions of different members of a community (Owoc 2005).

As individuals we like to think of ourselves as acting independently from one another, but in reality we are all tied to the social systems into which we were born. That is, the people who raised us did so as part of their past relationships and experiences of the world. While this differs from culture to culture and place to place, each community made up of 'individuals' acts according to social rules created in order to reinforce and replicate those rules. Within a modern context these lines begin to blur as people are able to cross vast extents of the world quickly, enabling them to gain new experiences which change social perspectives.

Within the British Isles the role of activity, identity and community would have been bound within the concept of landscape; that is, people, animals and places (Pollard 2004). Through the creation of monuments such as causewayed enclosures, community identity was created not only in the past, but within the present (Pollard 2005). Activities, as described by Hind (2004: 41), "are responses to successive goals, which affect every aspect of life in a community" which include the reproduction of technological skills and the paths and places which wind their way through the landscape. Groups may also have had specific areas in which they moved in and between where the resources needed in order to reproduce identity were available (Hind 2004: 46). This creates an important concept of how people may have used objects which represent the landscape, and includes ideas of time, tradition (Barrett 1989) and religion (Garwood 1991), where landscape was bound within the activity of creating objects which are represented through deposition. Thomas (2001: 177-81) has suggested that memory, things and events together create identity between people and the landscape, resulting in particular ways of 'being-there' (Thomas 1993b: 30). Such ways of 'being-in-the-world' (Thomas 2001: 170-2) can create memory which is intimately attached to the identity of place and the creation of monuments (Thomas 2000). The landscape, that is animals, people and the politics associated with it, is the key factor to creating identity and, through this current study,

Ingold's concept of temporality within the landscape is central as a 'dwelling perspective' where "the landscape is constituted as an enduring record of – and testimony to – the lives and works of past generations who have dwelt within it, and in doing so, have left there something of themselves" (Ingold 1993: 152).

2.7 Temporality and the importance of changing activities at causewayed enclosures

The use of radiocarbon chronologies where possible gives an important insight in to the sequential use of causewayed enclosures (Whittle et al.: in prep). Although the methods of use for radiocarbon dating in order to create a chronological framework for the Neolithic have been questioned (Ashmore 2003), such dating has been used to some effect on a series of long barrows (Whittle et al. 2007) and cursus monuments (Thomas 2006) in order to better understand their construction and use.

With perhaps the exception of Etton, Haddenham and Windmill Hill within this study, the use of radiocarbon dating has been employed primarily alongside pottery and flint assemblages in order to identify an enclosure as being Neolithic. While this has helped in confirming causewayed enclosures as part of the Neolithic, the dates at some of these sites have been few and have not helped us to fully understand the temporal nature of these monuments or how the construction, use and deposition of objects have overlapped with other enclosures. The new dates from causewayed enclosures provided by Frances Healy (Whittle et al.: in prep.), particularly those from sites mentioned in chapter 1 excavated in the early 20th century, will help in filling a temporal gap in the sequences at causewayed enclosures, which will better help in threading together the re-assessment of the material culture from these sites in chapters 3-5. This has proved successful in determining change, particularly for those sites excavated in the early 20th century, and will focus on using radiocarbon dates in order to reconstruct possible sequences of activity through the use of objects within causewayed enclosures and, ultimately, put forward a suggestion as to how the people who constructed these monuments used them in very different ways.

Just as important as the spatial analysis of objects is the frequency of use or deposition through time. A temporal analysis is essential in order to understand how objects may have been used and/or deposited within the same areas over a long period of time, or changed within the same spaces over time. This can be determined by an examination of objects through layers or phases within a site in combination with radiocarbon dates (Whittle et al.: in prep). As will be examined in the section below, not all areas of the sites in this study can or have been radiocarbon dated, but the objects which have been dated along with the possible construction phases and use dates can indicate if the time between certain constructional phases influenced the types of objects deposited in the different areas of a site. By using this method of a re-analysis of objects it is possible to indicate the differences in activity from one enclosure to another within each of these three regions within this study. Overall I will seek to determine if any of the objects deposited indicate that some enclosures were primarily being used for one type of activity based on a select type and/or number of objects. If so, this may indicate a 'wave' of activity which changed through time. If not, the objects used in particular activities remained relatively stable throughout the use of causewayed enclosures during the early part of the 4th millennium BC.

2.8 Challenges and limitations of early 20th century excavation

Although other sites such as Staines (Robertson-Mackay 1987), Briar Hill (Bamford 1985) and Orsett (Hedges and Buckley 1978) have been published, the nine sites chosen were picked in order in order to compare and contrast the similarities and differences between enclosures with the necessary amount of published information. Another reason is to be able to re-visit the older reports of the early 20th century in order to re-examine these sites, particularly Whitehawk and The Trundle, in order to compare the types of assemblages there with those which were excavated within the modern era. The ways in which reports have been written and published has greatly changed with each shift in interpretation and the methods by which material is excavated. Over the past 100 years the quality of data and subsequent publishing of causewayed enclosures has varied greatly. Sites which were excavated in the late 20th century, like Windmill Hill (Whittle and Pollard: 1998; Whittle *et al.* 1999) and Etton

(Pryor 1998), are recorded to a high standard and have led to a larger amount of data that can be included in this study, such as complete section drawings and detailed assemblage totals. Other sites, though excavated in the early 1920s and 30s such as Knap Hill (Cunnington 1909; 1911), The Trundle (Curwen 1929; 1931) and Whitehawk (Williamson 1930; Curwen 1934; 1936), offer information, but in a less detailed manner where assemblages are presented in a vague fashion.

The excavation reports of The Trundle are one example where pottery and bones are described in three categories, + for “moderate quantity”, ++ for “considerable quantity” and +++ for “great quantity” (Curwen 1931: 101). The word “few” is also used to describe the presumably low occurrence of material excavated as a spit, where soil is removed in one measured amount in increments, usually between 1 and 10 cm in reverse order (Darvill 2002: 401). Although the symbol + will not give an exact number it can still give an amount of information that can assist interpretations about which ditches would have had a greater number of objects within them, leading to a more detailed interpretation of site activity.

At Whitehawk the finds tables, noted as relic tables, only give detailed information for the flint assemblage while smaller assemblages such as the chalk are described as found *in situ*. Animal bone is recognised within the relic table (Williamson 1930: 88-96), but no quantities per spit are given, only a description of the bone elements (Williamson 1930: 82). In Curwen’s report on Whitehawk (1934), there is no table at all listing the objects, only comments on each of the categories in which the most interesting of objects are presented. Of the flint implements at Whitehawk, Clark states: “the following inventory records the most important flint objects obtained from the excavation” (1934: 121), but does not take into consideration the probable waste material from which they were produced. The animal remains in the Curwen (1934) excavation report show the same lack of detail. Jackson (1934: 129) notes for the domestic animals: “ox remains occurred in all the cuttings at Whitehawk Camp, and no purpose will be served by giving their locations”. The excavation report of Curwen’s third season at Whitehawk (1936) saw for the first time numbers corresponding to the section drawings so a greater understanding can be achieved in determining the structure of the deposits. The material from the deposits themselves, though, has no table, so no provenance is stated in the specialist reports with the

exception of the pottery, where just a sample is given of the different forms excavated (Piggott 1936: 75).

The first excavation report of the site of Knap Hill (Cunnington 1909: 52) was very descriptive with objects only being noted as found on the bottom of the ditches. A further report with cuttings both in the plateau enclosure and in the ditches, specified as A-A (Cunnington 1911-12: 44), shows the location of the trench cutting. Within this trench cutting, though, the report is lacking: a description of the finds is made, but there is no accompanying section drawing as there is with those from the plateau enclosure. The most recent report on Knap Hill, however (Connah 1965), does contain a table listing all the objects found during excavation, but its limitations are due to the fact that the section drawings do not contain a number or lettering system by which to compare the objects to the layer as presented within the table (Connah 1965: 12, table 1).

The excavation report of Robin Hood's Ball also presents problems (Thomas 1964) since the total amounts of pottery; flint and animal bone are presented in tables. The table presented within the report for the animal bone (Thomas 1964: 22) is totalled for trenches 1 and 2, yet the total number of bones per layer does not match up with the overall totals presented. The problem here is that of the molars from the Inner Ditch, Trench 1, Layers G and M. For layers G and M it is just stated that they contain molars, but there is not a specific number with which to include them in this study. To solve this, the molars will be removed from the data set in order to alleviate any confusion in the totals and percentages for the Inner Trench.

Another limitation to the data for this study is the poor preservation of bone which has been identified at sites such as Briar Hill (Cullen 1985: 125 and Harman 1985: 126) and Orsett (Wadhams 1978: 293). Even with more modern excavating techniques, the locations of Briar Hill and Orsett may reflect a lack of material through poor preservation due to the acidity of the soil which can break down organic material and thus leave an incomplete picture of site activity. For causewayed enclosures this is troublesome mainly from the viewpoint of the human and animal bone assemblages where the acidic soil conditions tend to break down bone into a very fragmentary state which makes identification difficult and at times impossible. This will affect the ways

in which the data is presented and may seem to skew one object over another to give false indications of specific kinds of social action. There is no way to remedy this but to acknowledge and keep in mind the fact that the fragments which are found indicate that there were animals on the site and they were just as important in the process of social activity as the detailed assemblages are for other causewayed enclosures.

A final consideration to keep in mind is that all of these enclosures have been excavated to a greater or lesser degree than others. Based on the in-text comments and estimations based on the site plans indicating the excavated areas, about 80% of Etton has been excavated where as at Robin Hoods Ball only two trenches had been examined, one within the inner ditch and one within the outer, a total that is probably less than 1% of the site (Fig 2.1). The result is a more thorough examination and interpretation of some sites than others. The sites which have been excavated on a smaller scale though can be interpreted on the basis of differing types of materials and if any depositional patterns within the areas investigated share any commonalities such as size and position within the landscape within other sites within the same landscape or within other parts of the British Isles.

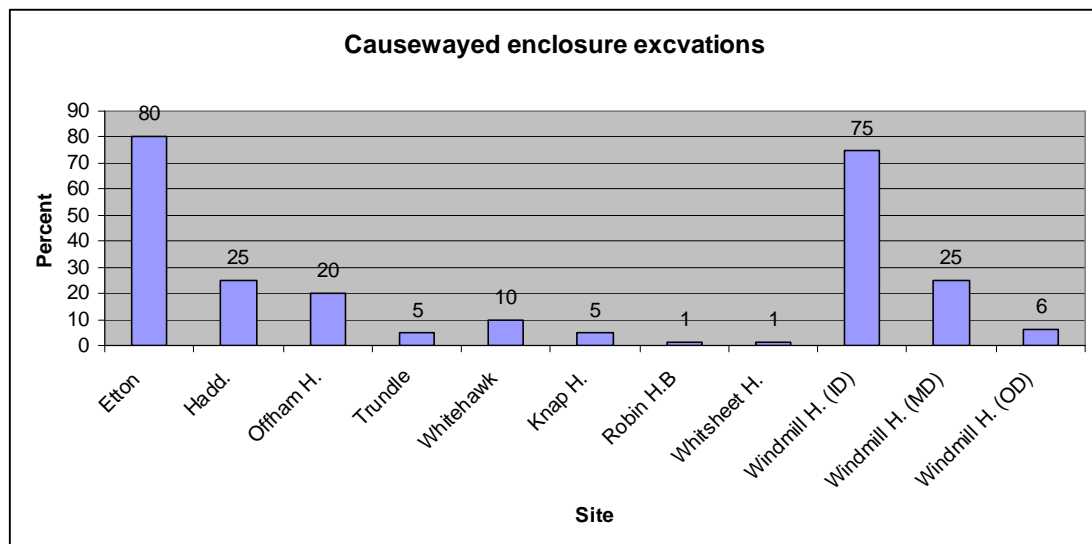


Figure 2.1 Estimated percentages of the total excavated areas of causewayed enclosures within this study

Nevertheless, interpretations can be made from the important material recovered from the earlier excavated sites and those with poor preservation conditions. The excavations and subsequent publications of causewayed enclosures, no matter the form, can be useful in helping to test the idea that causewayed enclosures have no specific 'function' as has been suggested in the past. By comparing causewayed enclosures to one another on a regional basis, in East Anglia, the South Downs and Wiltshire and then comparing and contrasting them as a whole by interpreting the patterns of deposition within them in detail, a 'bigger picture' of Neolithic life within the British Isles will begin to emerge.

2.9 Conclusion

This chapter has developed a fuller understanding of what archaeologists have spoken about very briefly in interpreting the activities at causewayed enclosures. It has shown that the interpretation of structured deposition does not always constitute ritual. The identity created within community groups is shown through the differences in landscape position, size, constructional techniques and material deposited within ditches and small-filled pits.

This chapter has also indicated that, although there are limitations to some sets of data, specific questions can be asked about the use of causewayed enclosures, and different types of social action may be applied to each of them. Each causewayed enclosure may have served multiple functions over its lifetime, and overlapped in social meanings and applications which contributed to the ways each was used. Within the next three chapters, I will show through a detailed examination how objects were distributed over causewayed enclosure sites as a whole, through time (vertically) and across space (horizontally), to better understand the choices that were made in deposition during particular use phases (seen as layers of excavated ditch deposits), and during those phases where objects were deposited over the site as a whole in order to see which objects can give a better understanding to the roles activity played in deposition.

Using this approach, it is possible to answer each of the above questions in detail to determine what kind(s) of social activities were occurring at each site and during particular times of its use within the Neolithic. By studying each site assemblage it will be possible to see if there are certain causewayed enclosures defining specific spheres of social activity from region to region within the British Isles. The next three chapters will look at deposition, both structured and unstructured and the activities that may be recognised by studying the contents of such deposition in each phase of each area at each site. This will include other factors, such as geographical position, size and layout, which may strengthen the idea that each enclosure may have served a defining social purpose within the wider landscape of the early 4th millennium BC.

Chapter 3

The Causewayed Enclosures of East Anglia

3.1 Introduction

In comparison with other causewayed enclosures throughout the British Isles, the sites within East Anglia, and more specifically those of the Fen edge area, present a different set of circumstances to interpretation. These include the enclosures of Barholm, Uffington, Southwick, Upton and Northborough, all of which are located in low-lying positions (Pryor 1998: 379). Other confirmed causewayed enclosures in the area include Great Wilbraham, situated in an upland location, and Haddenham, which will be discussed below. Other Later Neolithic sites include Maxey, a henge thought to have been constructed from timber and earth, and the Etton cursus, of which one end was constructed through the Etton causewayed enclosure. Other sites such as Flag Fen and Welland Bank (Pryor 2002) have also indicated areas occupied by prehistoric people within a waterlogged environment. The waterlogged nature of these sites created a high degree of preservation where materials such as wood were commonly found, a defining feature to the uniqueness of the lives of communities within East Anglia. Although other causewayed enclosures such as those noted above, have been located in the East Anglian landscape, only Etton (Pryor 1983, 1986, 1988, 1998, 2006; Pryor and Kinnes 1982; Pryor et al. 1985) and Haddenham, (Evans 1988; Hodder 1992; Hodder and Evans 2006) two of the best investigated causewayed enclosures, will be the focus of this chapter.

The material deposited at Etton was similar to those of other enclosures in the British Isles with a variety of human and animal bone, pottery and flint objects. A varying amount of activity occurred at Etton with the placement of objects within the enclosure ditch segments. The recutting of segments may have been just as important an activity as other more 'obvious' activities, such as butchery which is suggested by

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cut marks on recovered animal bone. One of the defining questions I will be asking in this and subsequent chapters is what do the distributions of finds in the enclosures suggest about the distribution of activities? Also, what is the significance of the larger quantity of material within some enclosure ditch segments?

Etton and Haddenham are well-excavated and well-published sites. I will use the information from the reports to define activity areas for practices such as mortuary rituals, flint processing areas and animal butchery. This will not be a site-wide explanation, but a focused re-interpretation of specific ditch deposits and the potential of what they can tell us for localised types of activity at Etton, in order to indicate how Neolithic people may have deliberately positioned objects so as to conceptually define the entirety of a ditch segment. At the end of this chapter the two sites will be compared and contrasted in order to see how the differences in construction, and objects such as human bone and animal bone, were used in different ways to communicate similar kinds of meanings, as demonstrated through a spatial and temporal analysis of objects located within each enclosure.

In what follows, a detailed account within a spatial and temporal view of the objects deposited in the enclosures' ditch segments and small filled pits at Etton and Haddenham will be considered in order to give a clearer picture of how of the activities within the chosen specific areas of Etton were conducted. This will set the stage for the conclusion of this section where the knowledge of the detailed data in combination with the specific locations chosen suggest activity areas, perhaps chosen by very small groups of people or individuals.

3.2 Etton

3.2.1 Location and background

The Etton causewayed enclosure (Fig. 3.1) (NGR TF 13830739) (Pryor 1998: 1), located by Steve Upex, flier to the Nene Valley Research Committee, is located in a flat landscape on the edges of the Fenland north of Peterborough, in the low-lying

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plains of the Welland Valley (Pryor and Kinnes 1982: 124; Pryor 1983: 3, 1988: 107, 1998: 7). The monument was discovered in 1976 and subsequent excavations took place from 1981 to 1987.

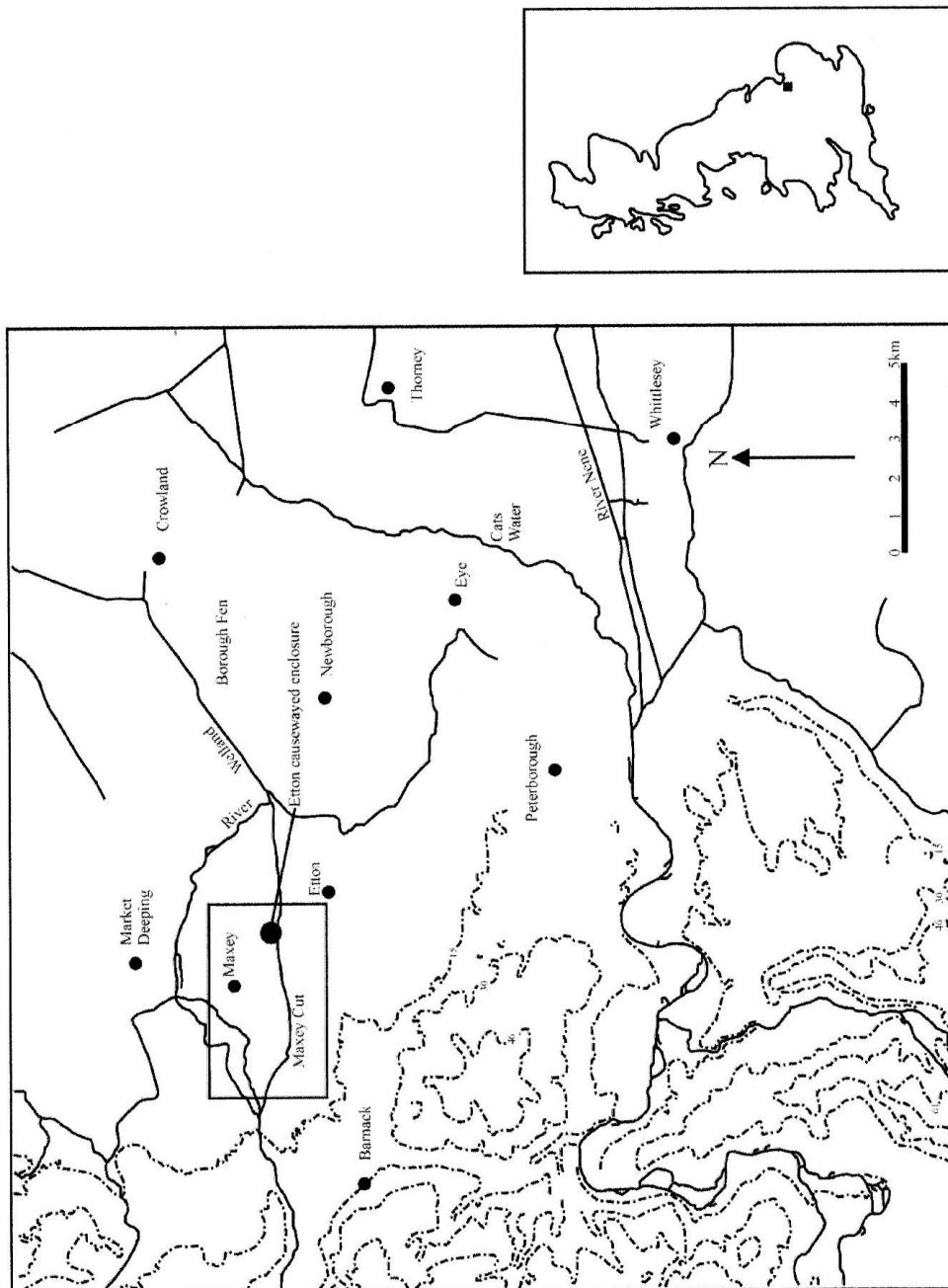


Figure 3.1 Location of the Eton causewayed enclosure (after Prvor 1998: fig. 1)

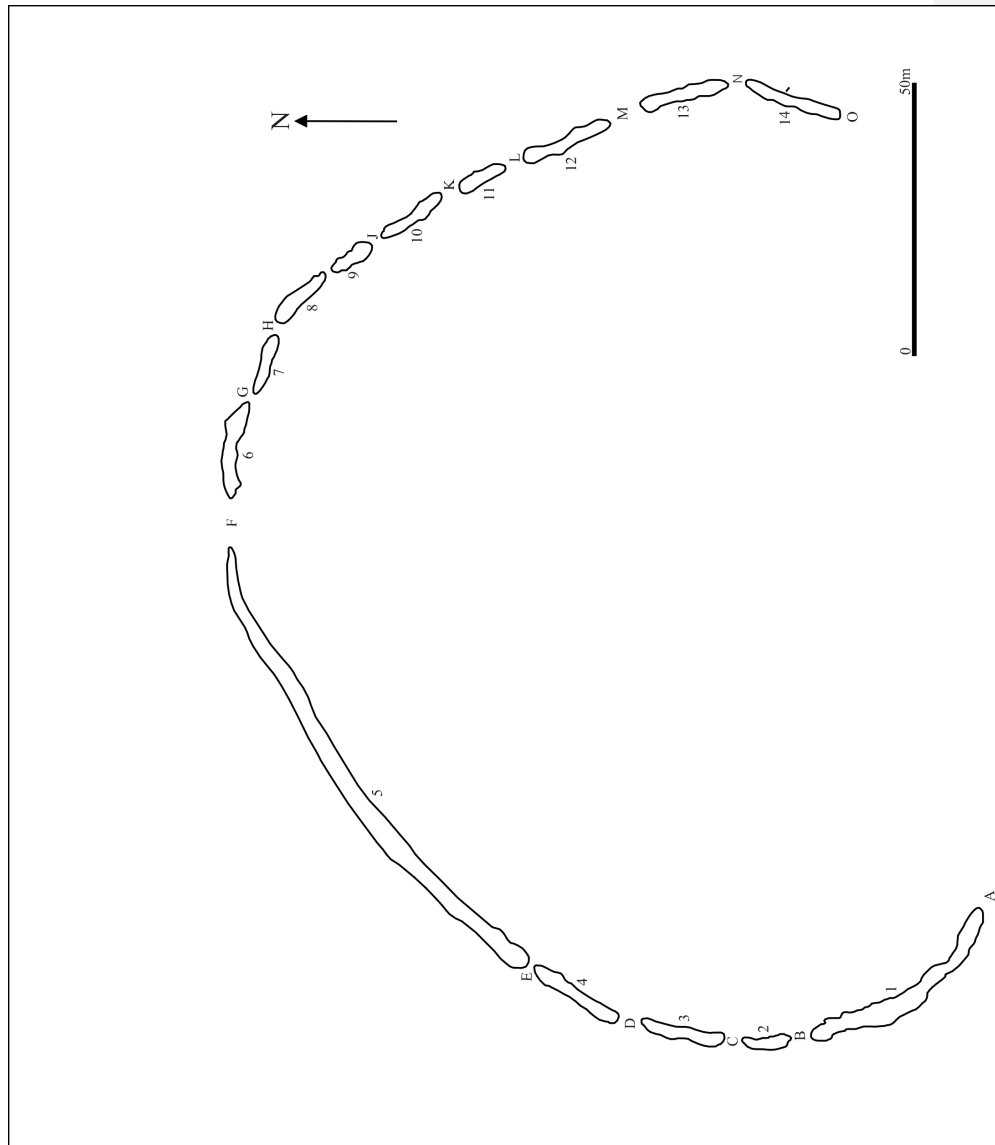


Figure 3.2 Etton causewayed enclosure site plan indicating segment numbers (1-14) and causeways (A-O) (after Pryor 1998: fig. 10)

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The physical layout of the enclosure has a single circuit sub-oval plan, which measures about 180m E-W by 140m N-S (Pryor: 1988: 107) and consists of 14 segments and 15 causeways (Fig. 3.2). The western arc represents segments one to five and causeways A through E, while the eastern arc consists of segments six through fourteen and causeways G to O. The lengths of the segments are fairly uniform in the western arc, with the exception of segment five - the longest at 81m. The gaps between the causeways show a large difference in the ways Etton may have been constructed, with causeway F having the largest such gap. This gap was modified over time and includes signs of a timber gateway, which changed through multiple phases in the enclosure's use life (Pryor 1998: 359). To the north-west of Etton is the main Maxey complex of cropmarks including the Maxey henge and

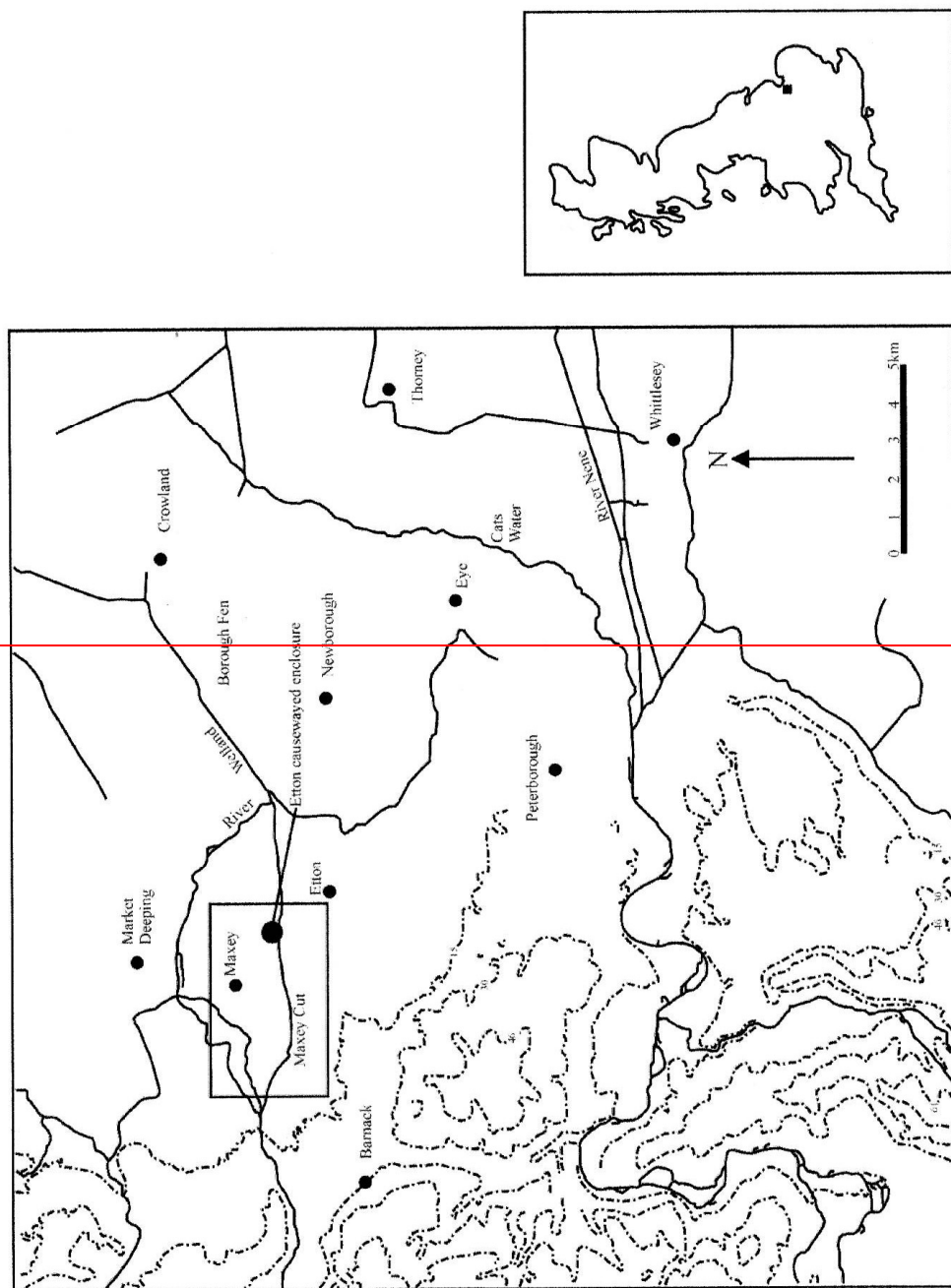


Figure 3.1 Location of the Etton causewayed enclosure (after Pryor 1998: fig. 1)

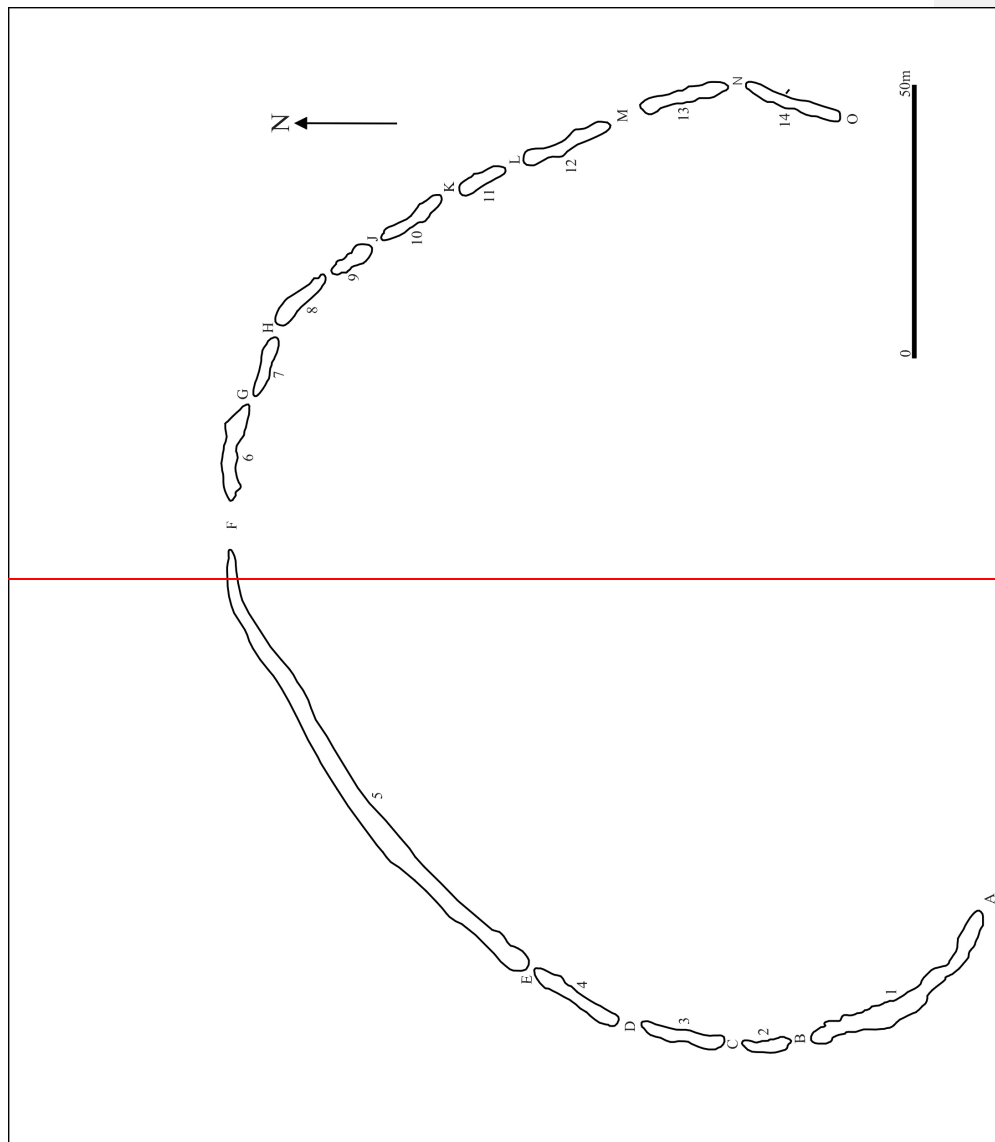


Figure 3.2 Etton causewayed enclosure site plan indicating segment numbers (1-14) and causeways (A-O) (after Pryor 1998: fig. 10)

curtus. To the east are the barrow fields of Borough Fen and Cat's Water, a Neolithic site where a subrectangular mortuary structure was constructed out of posts, and pits containing Grooved Ware located in proximity to the later henge monument (Pryor 2001: 47), all of which seem to be associated within the same landscape setting. Unlike other enclosures in Southern England, that have been damaged by ploughing from medieval times onward, Etton has been spared due to a covering of 50cm of clay

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alluvium. The only part that seems to have been damaged by the Maxey Cut, a flood relief channel of the River Welland constructed in the 1950s (Pryor 1998: 3), is a small southern section, which is estimated to be about 10-15% of the total area (Pryor 1988: 107).

It is quite possible that, at some points in the year, the only way into the enclosure would have been across water, and this may suggest that the site was used primarily at the beginning of the growing season as water levels receded (French and Pryor 1992: 66). Wood, pottery and human and animal remains have been recovered, some of which were placed within the butt-ends of ditches. As Pryor and Kinnes (1982: 124) note, the waterlogged environmental setting in which Etton lies is of great importance. These exceptionally well-preserved waterlogged deposits include organic, ceramic and lithic artefacts pretty much as they were placed in context during the earlier Neolithic. It should be noted though that the water level in the western arc of the enclosure has fallen considerably since the 1953 construction of the Maxey Cut, this leading to rapid decay of the waterlogged deposits (French and Taylor 1985: 149).

The animal bones at Etton consisted of mainly cattle, sheep, and pig, while human bones, especially those of the skull, were used as central markers within ditch segments (Pryor 1998: 361-2). Interestingly though, no articulated human burials occurred, which may be an indication of a different type of treatment of the dead (Pryor 1998: 362). Pottery of the Fengate style occurred mostly in Phase 2, while Mildenhall styles were located mostly in Phase 1 (Pryor 1998: 363). The large amount of wood that was recovered from the enclosure ditch segments included roundwood, coppiced alder, and birch bark. Artefacts made from these materials include thin birch bark sheets and vegetable-fibre twine, which would have to be soaked and beaten, as well as planks that were found with artefacts placed on them (Pryor 1998: 363). Assessing the organic remains in sequence, Pryor (1998: 363) suggests that as the site became older, the woodworking techniques became more specialised.

3.2.2 *Previous interpretations*

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Pryor notes that those using Etton had a sophisticated appreciation of the cycles of flooding and drying at the site. He suggested that the enclosure was constructed in a landscape which was known to be covered by water for at least some parts of the year, especially in segments 1-5 and perhaps 6 (Pryor 1998: 364). The waterlogged environment of the western side of the enclosure would have forced other kinds of activities to be practised on the eastern side of the enclosure. As Pryor suggests, the eastern portion of the enclosure may have been used for more specialised or 'placed deposits', while the western portion may have been used for keeping cattle and working and/or depositing wood-based material in association with pottery, and human and animal bone. Some of the deposits of, for instance, cattle skulls and wood-working debris, was possibly placed in water-filled ditches, becoming immediately consumed or partially covered by water and out of view.

Recently, further reinterpretations of the depositional strategies at Etton and Windmill Hill by Pollard (2001) have shown that the people who constructed causewayed enclosures may have had an 'aesthetics of deposition' where material was selected and deposited in a prescribed manner and location which was dependant upon the 'world view' of the people involved (Pollard 2001: 319-22). Harris (2003, 2005) has also shown that Etton and Windmill Hill may be shown to have focused on the concepts of agency and identity. Specifically, these ideas were linked to deposition through age, gender and personhood, focusing on the theoretical ideals of Foucault, Butler and Bourdieu (Harris 2003: Ch. 2).

The social origin and physical construction of Etton, and the objects which were deposited, are the medium through which specific 'activity zones' will be shown below to have been significant during specific times (phases) and places (ditch segments or interior pits). Specific objects such as scrapers and large amounts of primary flakes can indicate that activities such as hide working and core reduction were taking place. Other objects such as pottery may have been used in order to store fat or contain water during the hide-working process.

Previous interpretations have also focused on the ditch deposits at Etton. For example, Whittle (2003: 98) notes the distinct deposits at the terminal ends of

segments, and suggests that “when examined in detail, the scale of action is intimate and personal, and animals were involved as a fundamental presence”. While this certainly is true, other objects such as pottery and flint played a large role in association with animal remains, helping to define the meanings behind deposition at Etton. Another observation of deposition at Etton is by Edmonds (1993: 111; 1999: 110-14). He comments on the objects deposited and the symbolism the site may have had to its users. These include the crossing of boundaries, such as entering or exiting the enclosure, symbolic activities such as the exchange of objects like stone axes (for example the axe found within the small filled pit at Etton) and information such as “local, seasonal histories” (Edmonds: 1999: 112).

The ditch deposits at Etton show a rich assemblage of animal remains including some wild species. It is through these materials that it is possible not just to describe what is contained within the ditches and small filled pits, but to define specific activity areas based on detailed evidence to gain a better understanding of the social practices or activities carried out at the site. Activities such as butchery, tool making, mortuary practice involving animals, woodworking and, perhaps on a smaller scale, human mortuary practice and hide production can be identified. As noted in the final Etton report (Pryor 1998), the evidence for structured deposition occurs most regularly within segments 6-14, while segments 1-5 consist mostly of individual placed deposits.

What follows is a detailed analysis of the 14 segments, with regard to the activities suggested above, which indicate the types of activity that took place in specific areas of the site. This is followed by an analysis of how patterns of activity changed through time.

3.2.3 Chronology and dating

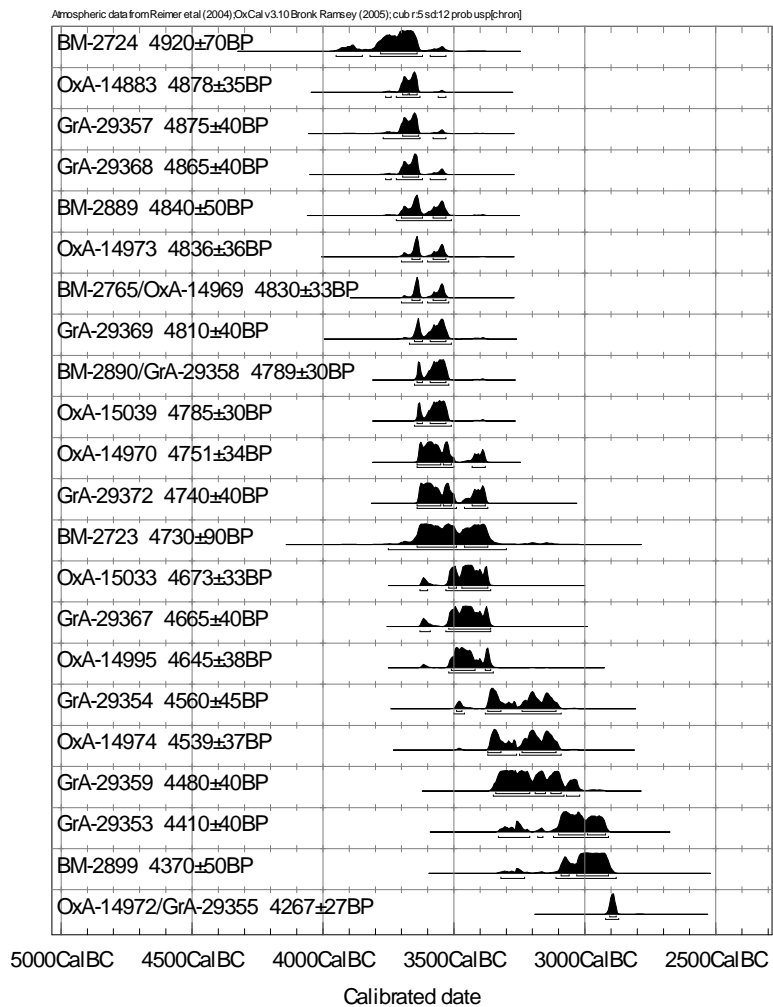
The radiocarbon results from the Etton causewayed enclosure place it firmly in the early to middle dates of the Neolithic within the British Isles (Table 3.1). The contexts of the radiocarbon samples are shown in Table 3.2. The chronology of the site consists of five phases -of activity based mainly on pottery typology (Pryor 1998:

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82). Phase 1 is divided into three sub-sections: 1A, initial cutting of the enclosure ditch segments, 1B, extensive periods of recutting including the large gateway structure in causeway F, and 1C, where causeway F was narrowed and the interior becomes more formalised between the north and the south. All of these dates clearly show that Etton was conceived and used during the early to middle Neolithic.

A majority of the radiocarbon dates obtained are from Phase 1A deposits. These dates indicate that a variety of animals were being used and deposited during the same periods along with wood and Neolithic pottery. In Phase 2 approached, Ebbsfleet ware was present, indicating a change in style and possible use of pottery at Etton. The dates submitted for the radiocarbon dating programme suggest that “Neolithic activity at Etton started in *3775–3650 cal BC (95% probability)*, probably in *3725–3670 cal BC (68% probability)*. From the first dated material, which is from the bottom of segment 1, it can be estimated that the ditch was cut in *3710–3645 cal BC (95% probability)*, probably in *3705–3670 cal BC (63% probability)* or *3665–3655 cal BC (5% probability)*, use of the enclosure ended in *3330–3095 cal BC (95% probability)*, probably in *3310–3210 cal BC (68% probability)*, and overall, the enclosure was in use for *350–630 years (95% probability)*, probably for *385–510 years (68% probability)*” (Whittle at al.: in prep.).



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Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (95%)
BM-2724	3780-3640	3950-3530
OxA-14883	3695-3640	3760-3530
GrA-29357	3695-3635	3770-3530
GrA-29368	3695-3635	3760-3530
BM-2889	3700-3530	3720-3510
OxA-14973	3660-3530	3700-3520
BM-2765/OxA14969	3660-3530	3700-3520
GrA-29369	3650-3530	3670-3510
BM-2890/GrA29358	3640-3530	3650-3520
OxA-15039	3640-3530	3650-3510
OxA-14970	3640-3510	3640-3380

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GrA-29372	3640-3380	3640-3370
BM-2723	3640-3370	3750-3300
OxA-15033	3520-3370	3630-3360
GrA-29367	3520-3360	3630-3360
OxA-14995	3510-3360	3520-3350
GrA-29354	3490-3110	3500-3090
OxA-14974	3370-3110	3370-3090
GrA-29359	3340-3090	3350-3020
GrA-29353	3100-2920	3330-2910
BM-2899	3090-2910	3320-2880
OxA-14972/GrA-29355	2905-2880	2920-2870

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Table 3.1 Calibrated radiocarbon dates from the Etton causewayed enclosure

BM-2724	Cattle innominate	Segment 1 [5–6] (3) 3780/7297 96 cm deep. Near base of ditch, overlying layer 4+5 which was equivalent to layer 8 in [2–4] (Pryor 1998, 45–46, 63–64)
OxA-14883	Neolithic Bowl body sherd, probably from the same pot as second sherd from same context (P93)	Segment 1 [0–1] (8). In SE butt of segment, with complete pot on birch bark mat (Pryor 1998, 21). Bag of P94 marked ‘associated with P90 – whole pot on mat’. L8 was on base of ditch (Pryor 1998, fig. 59: A), but this may not have been the first cut of the segment (Pryor 1998, 21).
GrA-29357	Unidentified bark. 1 fragment 12 mm thick	Segment 1 [2–4] (8) c 6.15 m OD, 85 cm deep, 8784/7293. Extracted from roundwood twigs associated with wooden axe handle (W409) in basal layer (Pryor 1998, 21–24, 53–54, 148–9, fig. 59: B).
GrA-29368	Cattle. One of a bundle of 20 ribs from both sides of the body of an animal which had died in the first year of life. Cut marks on some indicate detachment from the sternum and vertebral column (Armour-Chelu 1998, 278)	Segment 1 [5–6] (3). Found as a bundle near base of ditch segment, overlying layer 4+5 which was equivalent to layer 8 in [2–4] (Pryor 1998, fig. 60: A, B).
BM-2899	Roundwood	Segment 1 F40 (2) in [5–6] 3778/7298. In lower fill of pit cut into outer edge of ditch segment, with complete cushion quern or pounder (Pryor 1998, 21–24, 53–54)
OxA-14973	Caprine. Pair of mandibles from sheep aged 18 months to 2 years (Armour-Chelu 1998, 280-281)	Segment 12 [227–0] (6). Found together, in group of 6 bones, including vertebrae, probably from same sheep, in lens of turf within gravel fills on base of S butt (Pryor 1998, fig. 74: C).
BM-2765	Pig. Tibia. Replicate of OxA-14969	Segment 1 [2–4] (8). In basal layer with waterlogged wood and axe haft. (Pryor 1998, 21–24, 53–54, 148–9, fig. 59: B). Unfused epiphysis in bag marked ‘22’ suggests that shaft and epiphysis were together in ground, and hence that the animal from which it came was recently dead

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GrA-29369	Sheep. L humerus articulating with ulna (B5342)	Segment 3 [35-0] (3) 6.48 m OD 3766/7338. In lowest fill of ditch (Pryor 1998, 25, fig. 64: A). Heaped in segment butt with 25 other bones from a single 3-4-year-old sheep, some of them butchered (Armour-Chelu 1998, 278-9)
BM-2890	Roundwood	Segment 1 [5-6] (3) 3780/7297. Near base of ditch segment, overlying layer 4+5 which was equivalent to layer 8 in [2-4] phase 1' peat deposit (Pryor 1998, 21-24, 53-54, 148-9)
OxA-15039	Pig. Cervical vertebra with unfused epiphysis and cut marks	Segment 3 [40-0] (3) 6.46-6.53 OD. Layer on base of ditch (Pryor 1998, fig. 64: C)
OxA-14970	Sheep/pig fitting unfused vertebra and vertebral centrum	Segment 1 [15-16] (2). In an upper layer.
GrA-29372	Cattle. 2 articulating phalanges	Segment 13 [228-0] (5) at 105 cm deep. Layer overlying L7 and underlying layer 3 in N butt (Pryor 1998, fig. 75: A). Found at same depth and same grid reference. This strongly suggests that they were still linked by soft tissue when buried and that the animal from which they came was not long dead
BM-2723	Cattle tibia	Segment 5 [125-130] (3). Near base of ditch segment, overlying stream channel (Pryor 1998, 26-29, 61, fig. 69:C)
OxA-15033	<i>Quercus</i> sp. 1 fragment sapwood, 1 too degraded for its maturity to be assessed	Segment 3 [35-0] (3) 6.48 m OD 3766/7338. In lowest fill of ditch (Pryor 1998, 25, fig. 64: A). The small diameter of the twigs shows that they were only a few years old when buried
GrA-29367	Carbonised internal residue from large, well-preserved shell-tempered Neolithic Bowl body sherd, which was one of at least 10 probably from the same pot	Segment 13 [239-0] (6) at 85 cm deep. In S butt (Pryor 1998, fig. 56: H). NB The notations used here are from the bag. In the figure caption the layer is 4
OxA-14995	Carbonised residue from one of 7 joining Neolithic Bowl sherds forming a single fragment c. 11 x 15 cm	Segment 1 [13-14] (2). In an upper layer
GrA-29354	Carbonised residue from shell-tempered body sherd	Segment 12 [217-221] (3). Middle fill of phase 1C recut (Pryor 1998, 19, fig. 74: B)
OxA-14974	Roundwood fragment, collapsed and with insufficient structure for identification	F505 (6) 3844/7429 55-60 cm. Basal layer of the recut of a large pit just inside N apex of site (Pryor 1998, 98-99, figs 99, 104), cut by ditch F313 which was in turn cut by the Etton cursus. Bone deposit at base of pit, with some waterlogged twigs and Mildenhall Ware, covered with layers of loose backfilled gravel, extending to surface
GrA-29359	Roundwood fragment. Structurally collapsed and degraded, but possibly <i>Alnus glutinosa</i> , <i>Corylus Avellana</i> , <i>Salix</i> sp. or <i>Populus</i> sp.	From the same context as OxA-14974
GrA-29353	Thick, fresh internal residue from 1 of 2 fresh, well preserved sherds from an Ebbsfleet Ware vessel	Segment 10 [0-205] (2). From the lower part of a rich deposit of cultural material, in one of the pits of F994 (Pryor 1998, 41, fig. 44:E)
BM-2899	Roundwood	Segment 1 F40 (2) in [5-6] 3778/7298. In lower fill of pit cut into outer edge of ditch segment, with complete cushion quern or pounder (Pryor 1998, 21-24, 53-54)
OxA-14972	Exceptionally fresh and thick internal carbonised residue from large shell-tempered body sherd. Replicate of GrA-29355	Segment 12 [227-0] (2). Layer overlying phase 1C recut in S butt of segment (Pryor 1998, fig. 74: C)

Table 3.2 Radiocarbon material submitted for dating (Whittle et al.: in prep.)

3.3 Deposition at Etton

The material from the enclosure ditches, which includes pottery, flint, and human and animal bone will be analysed to indicate the differing types of activity in the enclosure ditch segments and the interior small-filled pits, and the differences in defining areas for deposition. The depths and lengths of the ditches and the lengths of the causeways all have an effect on the ways in which material was deposited and will be considered, as will the size and depth of the interior pits. Rather than attempting to interpret each object from each phase of the site, an interpretation will follow the analysis of the enclosure ditch segments and internal features with a discussion of how each object interrelated with other objects and how those objects were used in the context of specific activities during specific phases (1A, 1B, 1C, and 2). It will be shown that specific activities in particular areas of Etton, involving the deposition of objects, indicated how the people of Etton may have used this enclosure in order to convey who they were. The site plans in the following sections clearly show the changing uses of each enclosure ditch segment through time and the role that using and depositing each object played in the social meanings which were created at Etton, and how social action was carefully orchestrated.

3.3.1 *Enclosure ditch animal bone*

As seen in Figures 3.3 and 3.4, a large quantity of animal bone was recovered from ditch segment 1, with cattle (37.61%) and large ungulates (20.52%) dominating all

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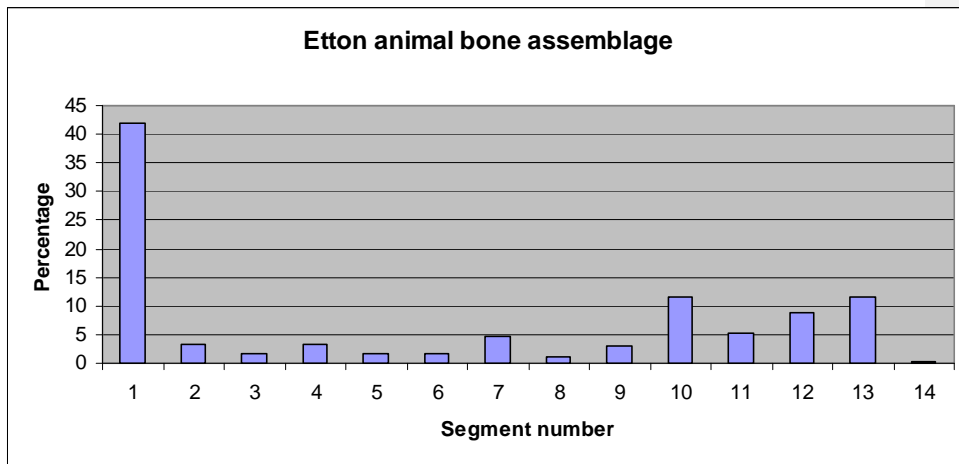


Figure 3.3 Percentage of animal bone in each segment throughout all phases at Eton
 (based on Armour-Chelu: 1998a: tables 57-60)

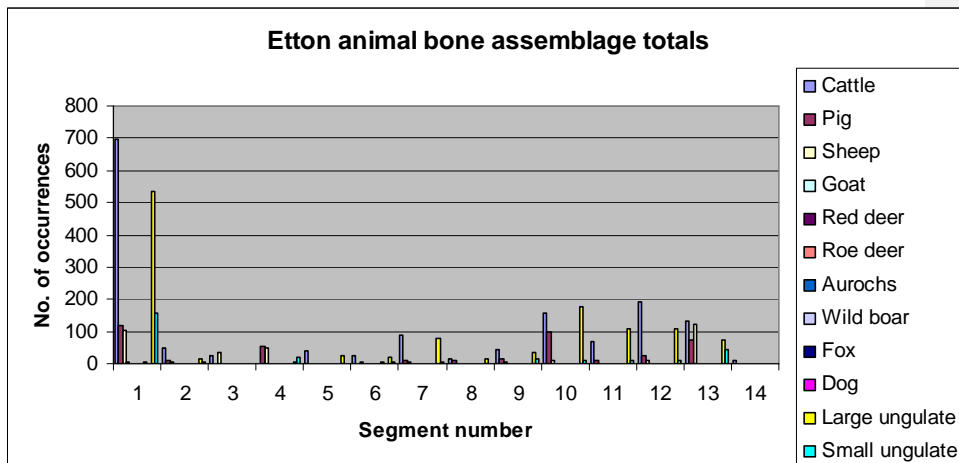


Figure 3.4 Eton animal bone assemblage by ditch segment
 (based on Armour-Chelu: 1998a: tables 57-60)

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species. Of the total animal bone assemblage (3831), segments 2 to 9 have the lowest occurrences, while segment 14 is almost entirely devoid of finds. The overall animal bone, horn and tooth assemblage at Etton includes a larger amount of cattle bone

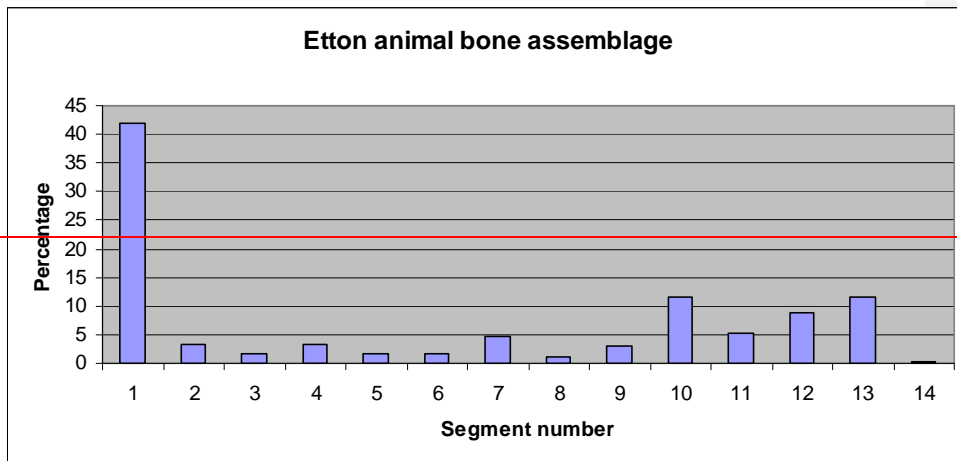


Figure 3.3 Percentage of animal bone in each segment throughout all phases at Etton (based on Armour-Chelu: 1998a: tables 57-60)

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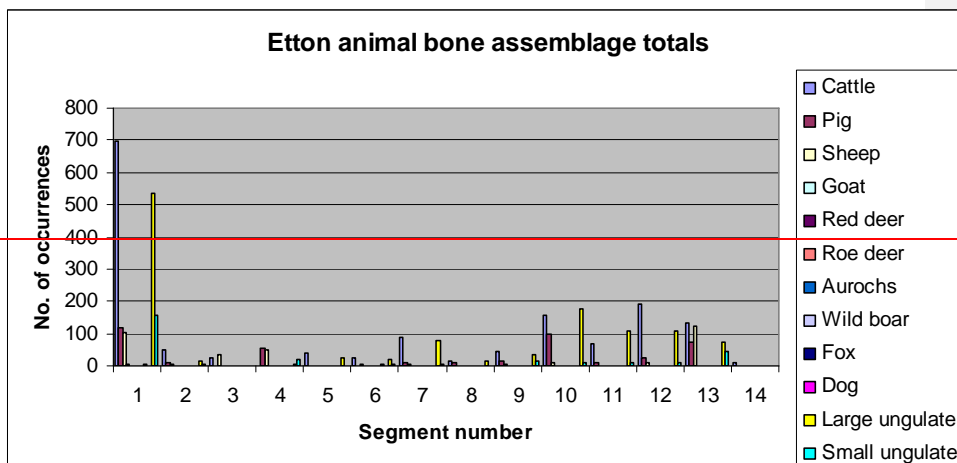


Figure 3.4 Etton animal bone assemblage by ditch segment (based on Armour-Chelu: 1998a: tables 57-60)

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which accounts for 39.97%; large ungulates, 31.53%; pig, 10.93%; sheep, 9.06%; and small ungulates 7.68%. The large ungulates and small ungulates are those species which could not be assigned taxa and are thought to represent cattle, pig, sheep and goat (Armour-Chelu 1998a: 276). Other species were also found: red deer, roe deer, auroch, wild boar, fox, and dog, all of which have an occurrence of less than 1% each within the total animal bone assemblage. Although there is no detailed information for the animal bone by layer, it does seem that segment 1 has a high incidence of deposition during all phases.

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The deposition of animal bone at Etton varies by segment and shows that different species were being deposited at different times during each phase and in specific segments within the site from all phases, with segment 1 having the largest amount with 1625 occurrences or 42.41% of the entire animal bone assemblage. The variation in animal bone deposition within the enclosure ditch is clearly seen in a phase by phase comparison. In Phase 1A, segment numbers 1, 4 and 10 have the highest accumulation of animal remains. The highest count for cattle and sheep occurs in segment 1 (166 and 63 respectively), while large ungulates (86), and pig (66) dominate segment 10.

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3.3.1.1 *Phase 1A*

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If the segments are broken down by Phase and segment, it becomes apparent that the animal bone is being used in specific ways in different areas of the enclosure. In Phase 1A (Figs. 3.5 and 3.6), a large number of bones were deposited within segments 1 and 10, and make up 55.61% of the total assemblage. Cattle (166) and sheep (63) are represented most highly within segment 1. These large amounts of sheep and cattle bone may indicate within segment 1, or within the western segments as a whole, the remnants of feasting.

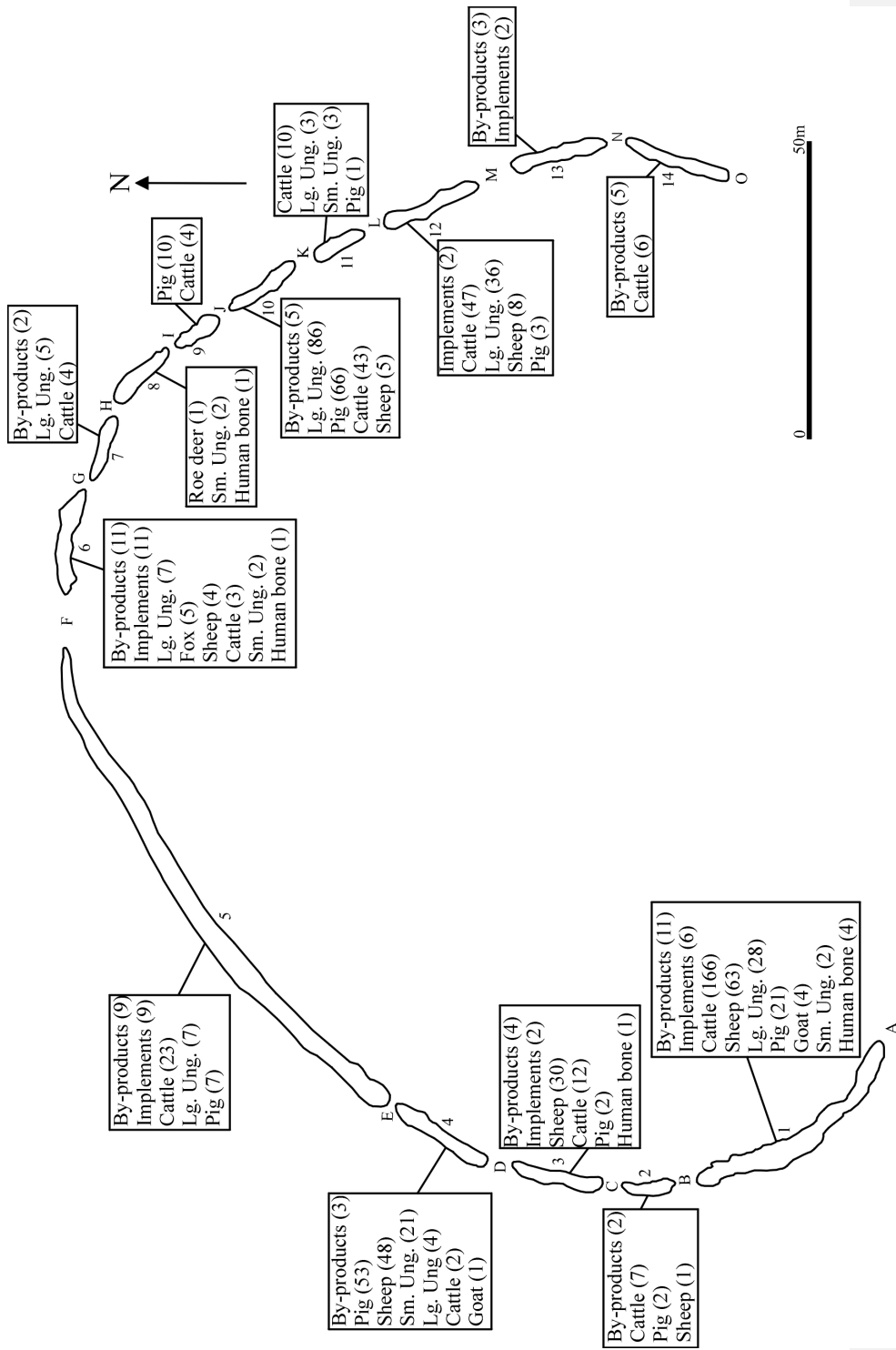


Figure 3.5 Etton Phase 1A, numbers of worked flint and animal bones from the enclosure ditches (After Middleton 1998: 239 and Armour-Chelu 1998a: 276)

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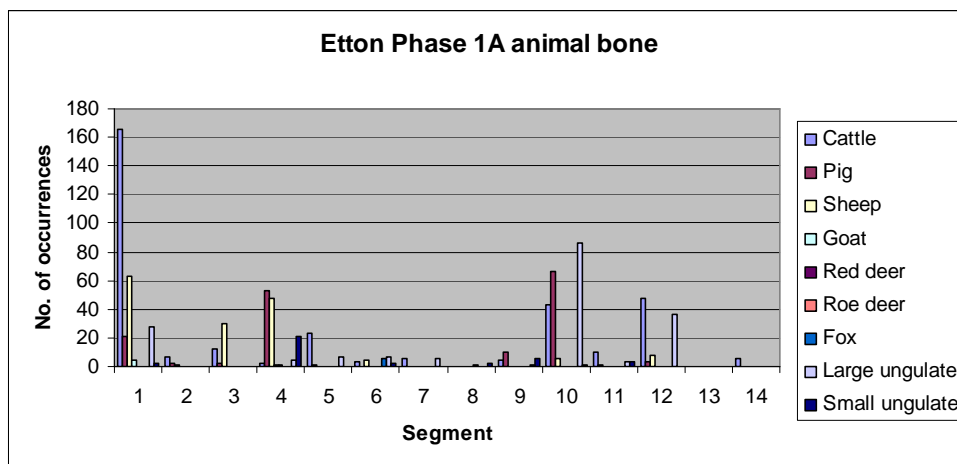


Figure 3.6 Animal bone from Etton, Phase 1A (based on Armour-Chelu: 1998a: table 57)

Even though cattle and large ungulates dominate Phase 1A statistically, sheep and pig totalled 159 finds each out of 872, comprising 36.46%. Segment 4 shows that the deposition of both pig and sheep was the main focus of activity with 53 and 48 finds each. In comparison, cattle only have two finds within the segment, while the small ungulates total 21; the latter may also represent unidentifiable pig, sheep, or goat bones, thus possibly pushing the number of finds for these species higher. Segment 10, which also contained a high number of finds for Phase 1A, is dominated by pig with 66 finds, but if cattle (43), and large ungulates (86) are taken together, it could possibly indicate a greater emphasis being placed on those species.

The large numbers of pig located within phase 1A may be related to the find of a partial pig skeleton, determined to have been no more than six months of age at the time of death (Armour-Chelu 1998a: 280). Cut marks were located on some of the bones, suggesting that this animal may have been eaten, but equally because the pig was not located in a disarticulated state, it may have been part of a ritual rite in which

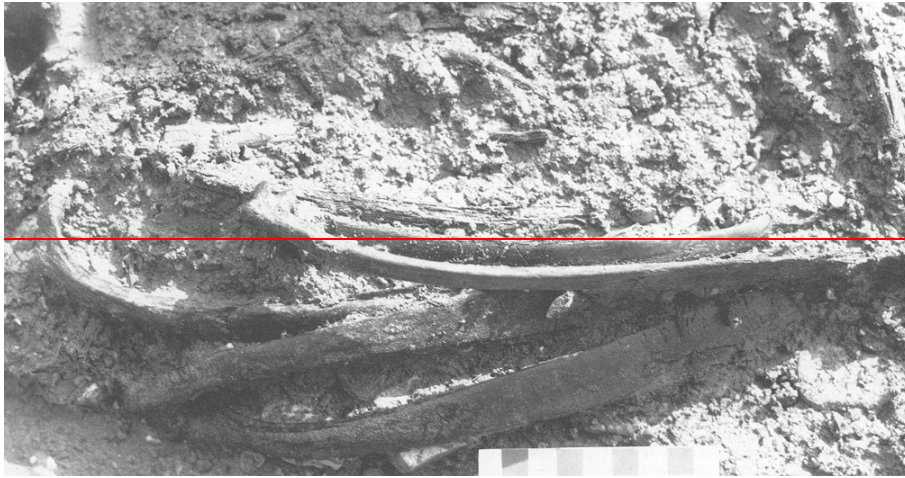


Figure 3.7 Bundle of cattle ribs from Etton, ditch segment 1, phase 1A (Pryor 1998: fig. 16)

it was killed and only partially eaten, the remainder going into the enclosure ditch segment. A butt-end deposit at causeway K of at least two pigs and cattle vertebra, both with cut marks suggest these animals were defleshed (Armour-Chelu 1998a: 280).



Figure 3.7 Bundle of cattle ribs from Etton, ditch segment 1, phase 1A (Pryor 1998: fig. 16)

Segment 10 may also have been remembered by groups which used Etton, through the deposition of two cattle skulls during phase 1C. Other enclosure ditch segments in

phase 1A also contained animal bone remains with cut marks indicating the defleshing of meat. Other animals at Etton also may have been used in feasting, for example, within segment 1, a partial sheep skeleton and a bundled group of cattle ribs (Fig. 3.7) in segment 3, and partial sheep skeleton near causeway C. In segment 5, cattle remains suggested as ‘disarticulation of the carcass prior to burial’, juvenile pig ribs with cut marks from segment 9, and in segment 13 sheep bones were located near causeway M, suggesting that ‘the meat had been defleshed from the bone’ (Armour-Chelu 1998a: 281).

3.3.1.2 *Phase 1B*

As in the previous Phase 1A, within Phase 1B (Fig. 3.8 and 3.10) a large number of animal species were located in the enclosure ditch segments. The focus of animal deposition continues to be within segment 1 in the western segment, and segments 12 and 13 in the eastern segment, which contain a larger proportion of pig and sheep, some bearing cut marks indicative of butchering (Fig. 3.9) (Armour-Chelu 1998a: 277, 281).

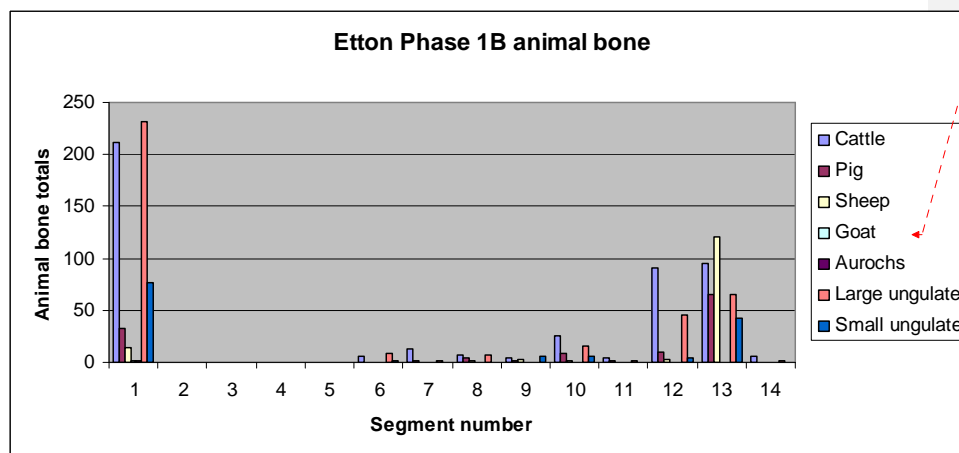


Figure 3.8 Animal bone from Etton, Phase 1B (based on Armour-Chelu: 1998a: table 58)

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Figure 3.9 Phase 1B sheep bone with cut marks located near causeway M (Pryor 1998: fig. 243)

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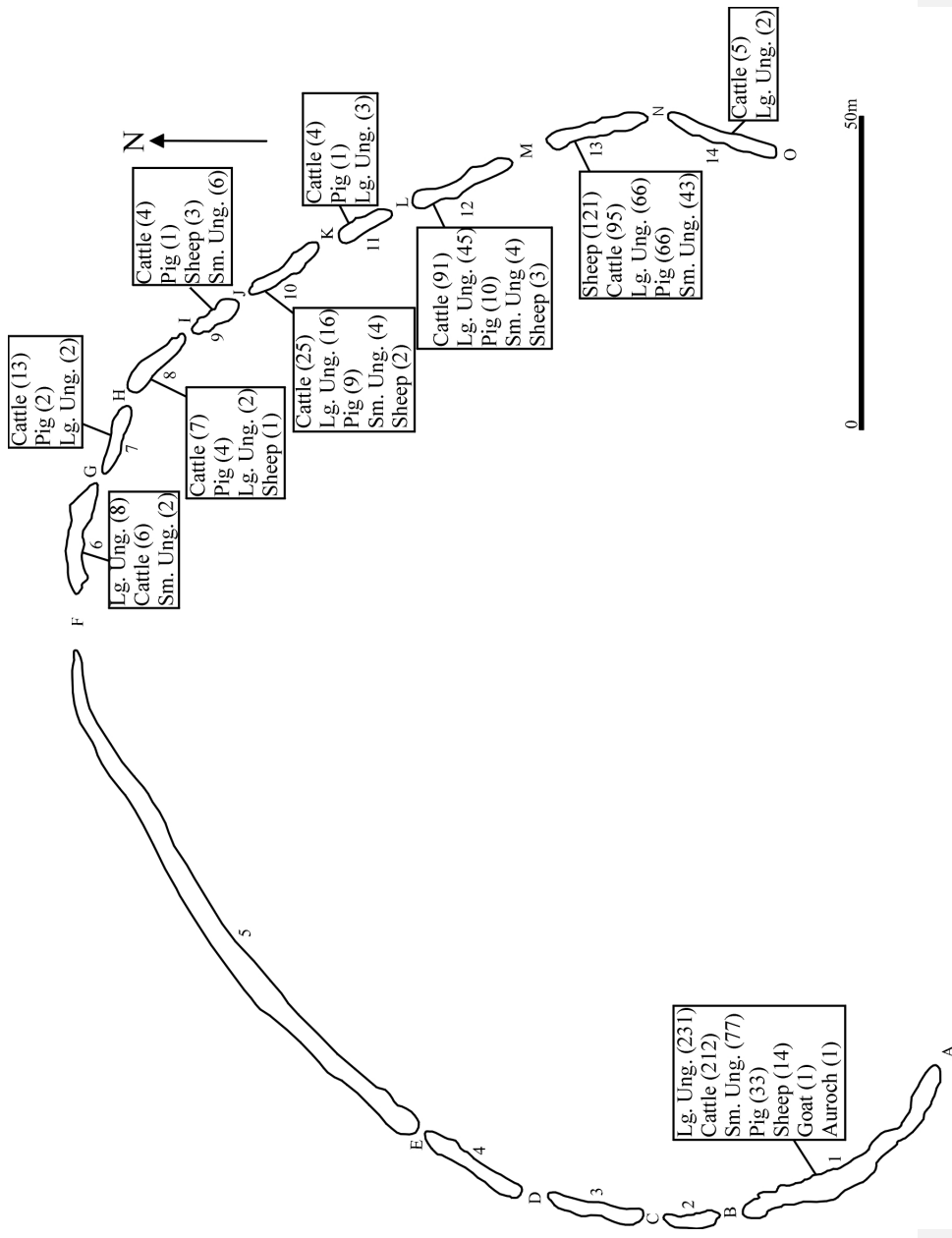


Figure 3.10 Etton Phase 1B, numbers of animal bone from the enclosure ditch (After Armour-Chelu 1998: 276)

3.3.1.3 *Phase 1C*

In Phase 1C (Figs. 3.11 and 3.12), the use of cattle rises in terms of numbers located, with a focus on deposition in segment 1 in the western segments, and within 10, 11, and 12 in the eastern enclosure ditch segments. No butchery marks are noted for this phase. Pig sheep, and other small ungulate animal bones in this phase continue to decline in number. Overall, during Phase 1A the construction of the enclosure commenced and activities occurred involving feasting on animals, particularly sheep and pig in enclosure ditch segments 1, 3 and 4. In Phase 1B, the deposits of sheep appear to shift to the eastern side of the enclosure within segments 12 and 13, while segment 1 saw an increase in the deposition of cattle. The final Phase 1C deposits reflected an increasing number of cattle. This could demonstrate that the use of pig and sheep was common during the primary stages of the enclosure, and they were deposited accordingly within the western arc of Etton. During Phase 2 perhaps a shift in economic needs involving sheep and pigs decreased, while people herding cattle increased as shown through the Phase 2 deposits.

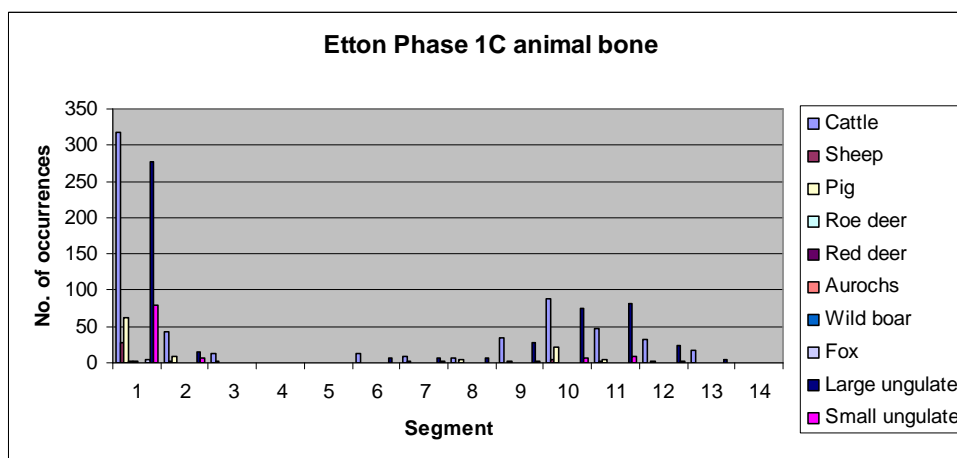


Figure 3.11 Animal bone from Etton, Phase 1C (based on Armour-Chelu: 1998a: table 59)

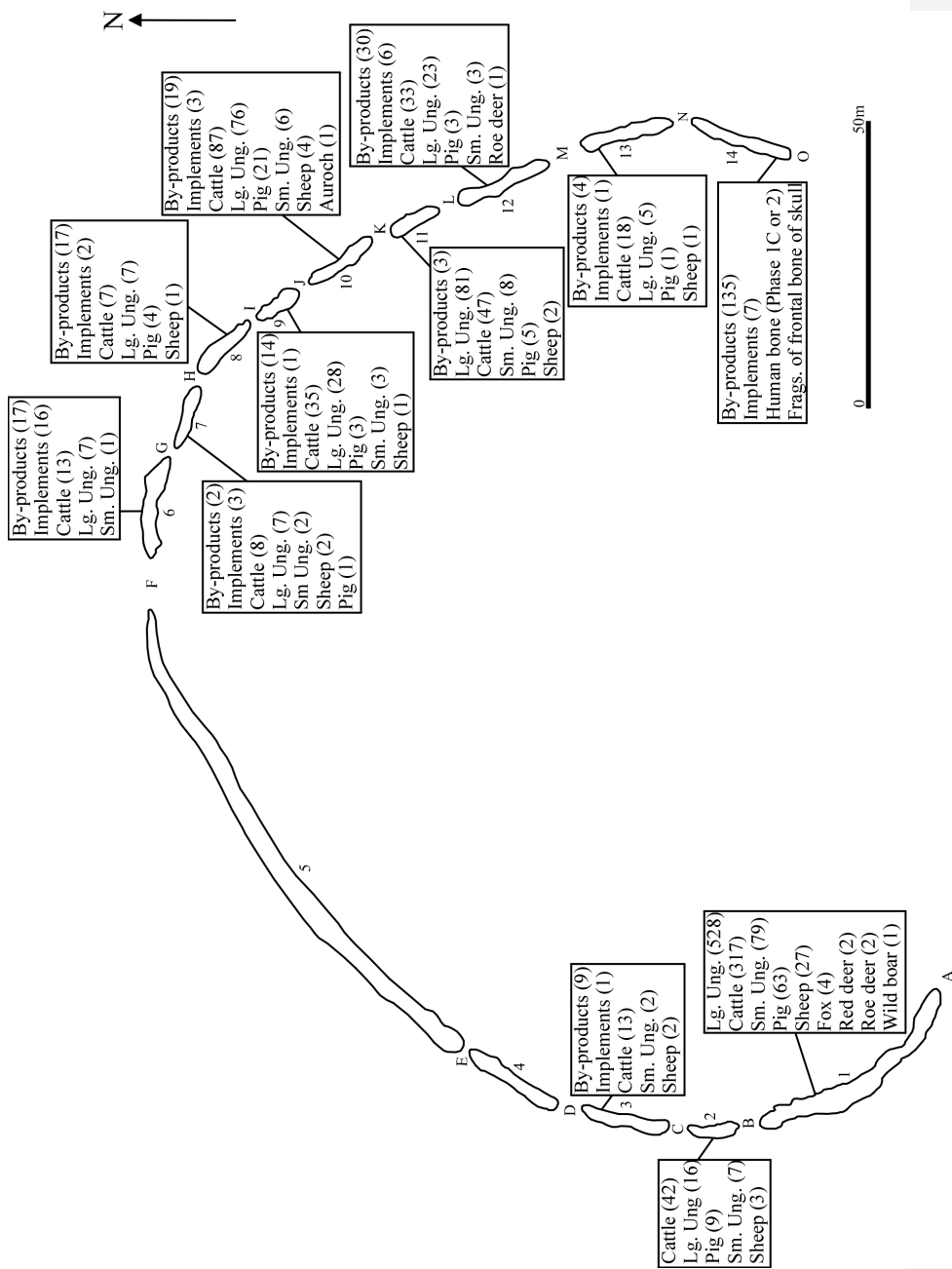


Figure 3.12 Etton Phase 1C, numbers from the enclosure ditch animal bone assemblage (a) After Armour-Chelu 1998: 276

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3.3.1.4 Phase 2

The decline in small ungulates (Figs. 3.13 and 3.14) and the increase in large ungulates continue to increase in Phase 2. Again no cut marks or butchery can be assigned to this phase. The most distinctive feature is the large amounts of cattle and other large ungulates within segment 7, which may indicate a focus on the proposed entrance at causeway F. Placed deposits, such as a cattle skull with horncores in segment 12 (Fig. 3.15), continue within the eastern segments. The evidence suggests that perhaps that the groups who used Etton during Phase 2 either shifted to a largely cattle-based diet, or perhaps pig and sheep became decreasingly important for activities such as feasting, and other ritually associated activities involving these two species.

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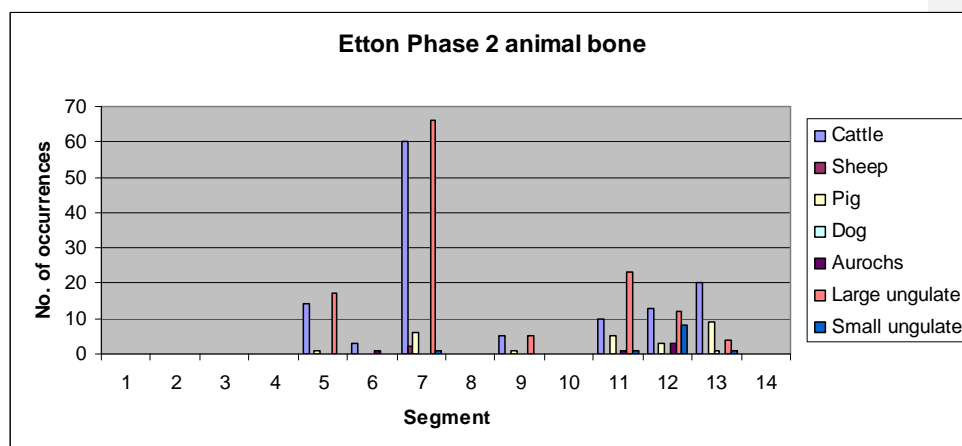


Figure 3.13 Animal bone assemblage from Etton, Phase 2
(based on Armour-Chelu: 1998a: table 60)

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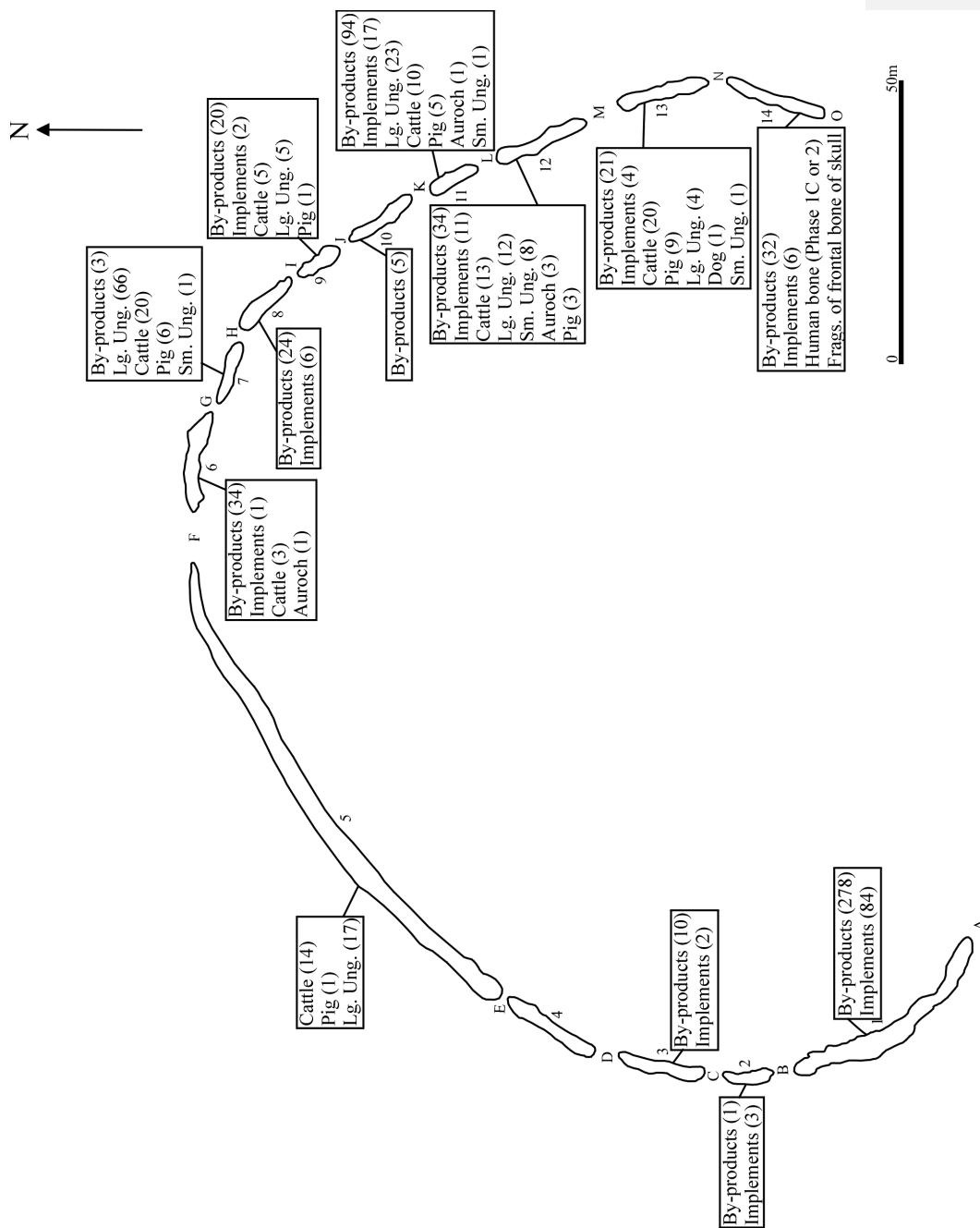


Figure 3.14 Etton Phase 2, numbers from the enclosure ditch animal bone assemblage (After Armour-Chelu 1998: 276)

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Figure 3.15 Skull and horncores from Etton, Phase 2, ditch segment 12 (Pryor 1998: fig. 50)

3.3.2 *Interior animal bone*

The interior pits containing animal bone from phase 1 contexts is shown in Figure 3.16. The assemblage totalled 2316 (Fig. 3.17) finds of which the largest numbers were unidentified due to the large amount of burnt bone (93%), which may have been cremations. No human bone was identified from any of the interior small-filled pits. At least half of the pits contained two species and all skeletal elements were found, including teeth (Armour-Chelu 1998a: 282). About 85% of the bones had been burnt white indicating a high temperature during the cremation process. Burning is not found inside the pits, thus it is most likely that the bones were burnt elsewhere and transported to the site in a burnt condition for inclusion in depositional practices within the interior (Armour-Chelu 1998a: 282). A horse skull with an associated antler pick (Fig. 3.18) was located in a Phase 2 pit, which may be of a later date, but demonstrates a continuation of the practice of structured deposition within the site.

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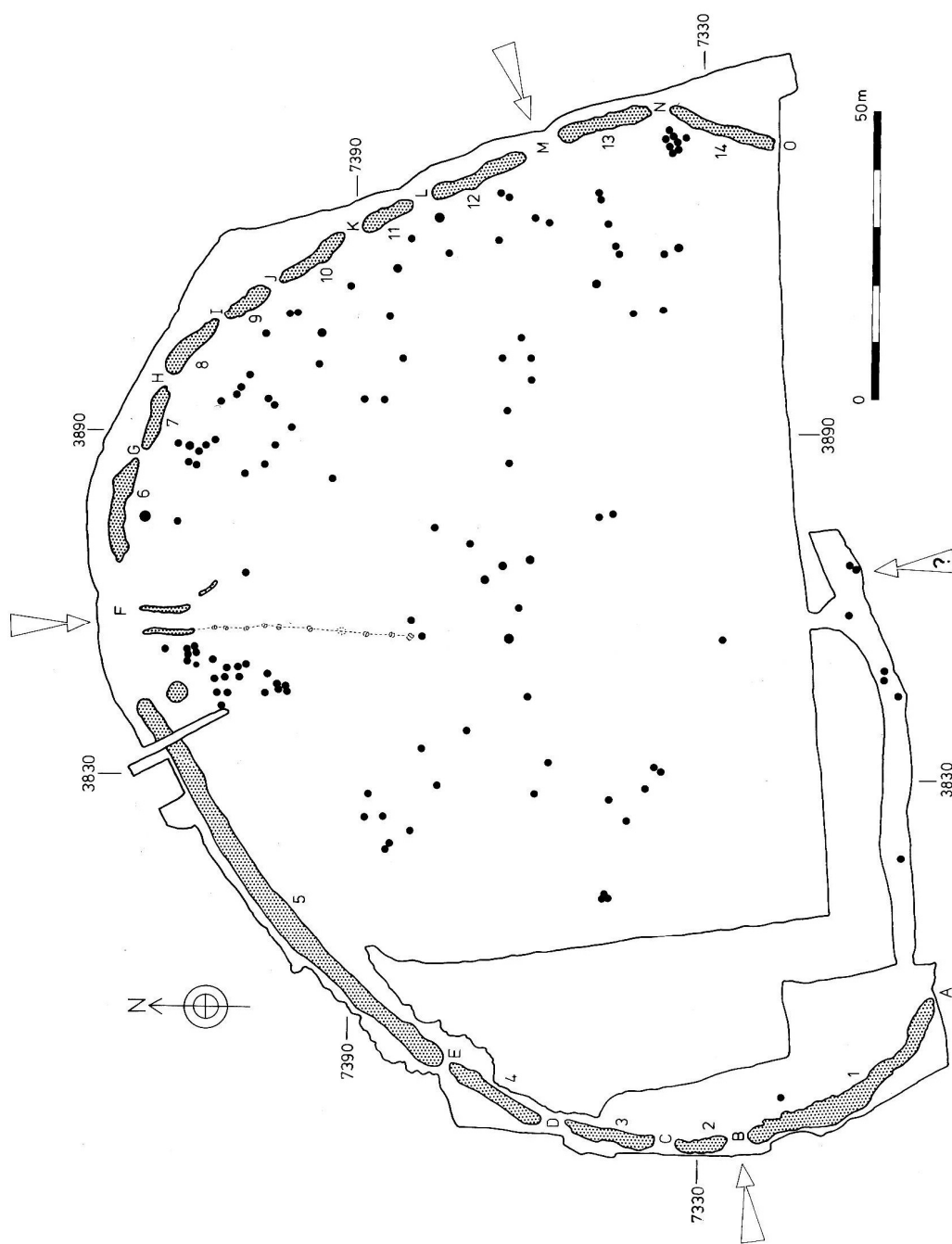


Figure 3.16 Etton Phase 1 small-filled pits (black circles) (Pryor 1998: fig. 103)

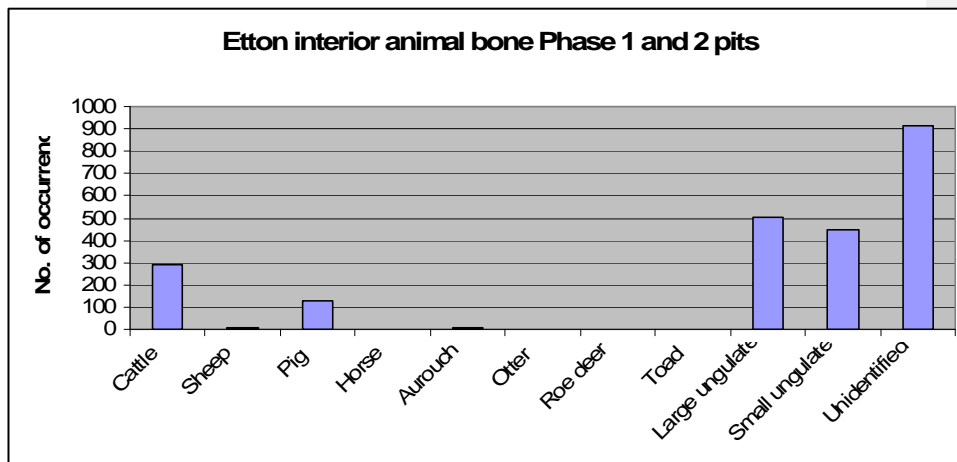


Figure 3.17 Animal bone from interior pits at Etton, phases 1 and 2
(based on Armour-Chelu: 1998a: table 61)

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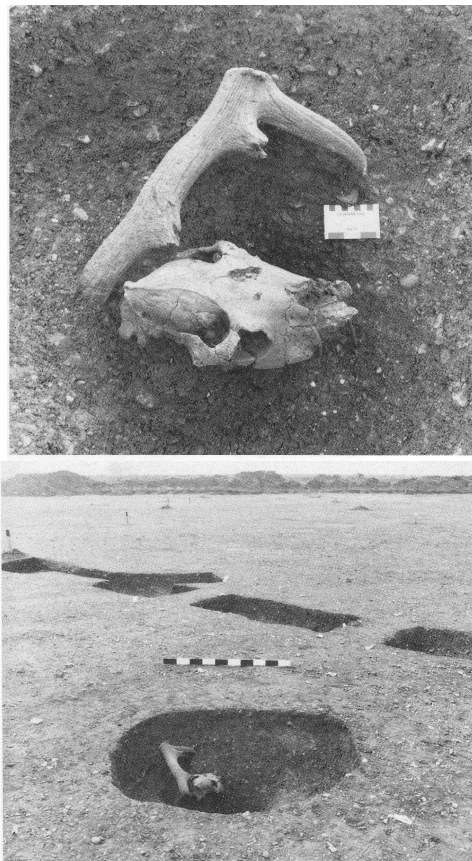


Figure 3.18 Horse skull with antler pick
(Pryor 1998: fig. 119, top; fig. 120, bottom)

The animal bone within the enclosure ditch segments at Etton indicate that a wide range of animals were being defleshed and eaten within Phase 1 for certain, and although there is no evidence for the remaining phases, it is probable that this continued into Phase 2. Two key interpretations from the animal bone assemblage at Etton may be considered. The first is the large proportion of pig and sheep/goat within the Phase 1A and 1B contexts. These included six partial skeletons from Phase 1A and two from 1B, which constituted 70% of the total sheep assemblage, and as such must not be considered site-wide phenomena, but may be considered to have been 'highly prized', and thus were incorporated into the terminal end deposits (Armour-Chelu 1998a: 285). The second is the fact that from Phase 1A to Phase 2 a steady decline in the numbers of sheep, pig and other small ungulates occurs, where the cattle and other large ungulates increase. It is not apparent why, but perhaps it was either to do with a change in pastoral practice through time, or that small ungulates such as pigs and sheep were not seen as having a strong representational factor for the groups which used Etton, particularly around Phase 2, and were only being used on special occasions.

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3.3.3 *Human bone*

Human bone within the enclosures at Etton was uncommon. A total of only 15 bones was located within ditch segments, 1, 3, 6, 8, 10, 12, 13, and 14 (Fig. 3.19). The distribution of human bone is uneven between the western and eastern halves, as the western arc only contains bone in segments 1 and 3, while the remaining bone comes from the eastern arc. This small bone assemblage is dominated by long bones and parts of the skull. Figure 3.20 indicates the distribution of human bone elements for each enclosure segment.

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With the exception of one scapula and one femur from segments 12 and 13, all of the bone from the enclosure ditches contained skull or skull parts. It is likely that the human bone was left in the open for a period of time to deflesh and the larger bones were possibly transported to the site and deposited in open ditches to be viewed. The weathered look of the bones and canid gnawing of the femur in segment 3 (Fig. 3.21) may be testament to this idea (Armour-Chelu 1998b: 271-2).

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If we look at the human bone assemblage by Phase again, a different picture begins to appear. Within Phase 1A, human bone is confined to segments 1 and 3. In Phase 1B, a wider distribution pattern is shown, which tends to group around the southern portion of the enclosure in segments 10, 12, and 13. The only exception is the one find within segment 6 of a skull/part. Phase 1C only has three finds; though widely spread, in segments 1, 8, and 13. In Phase 2 no finds were discovered. Skulls and/or parts were located in segments 6, 10, 12, 13. All of the bone elements were located within the eastern half of the enclosure and, of these, only one find, a femur, was deposited with another skull/part in segment 13, Phases 1B and 1C. The only other area within the site in which human bone was deposited in the same locale, is in segment 1 where two scapulas, one humerus, and one femoral head were found in Phase 1A and one femur in Phase 1C. As will be discussed below, the involvement of human bone in activities accompanying those manipulating other objects and animals remains may be key to understanding the generic 'use' of Etton and the kinds of emotive connections formed at the site.

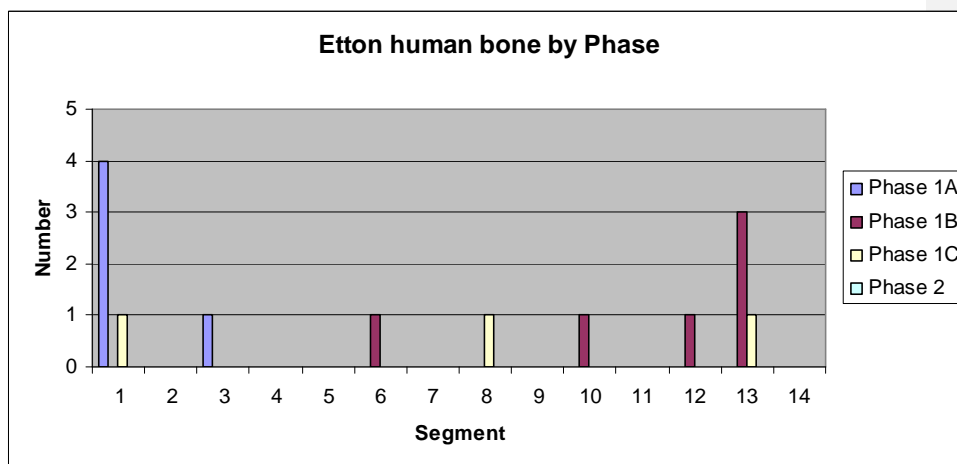


Figure 3.19 Etton human bone assemblage by enclosure ditch segment and phase (based on Armour-Chelu: 1998b: 271-2)

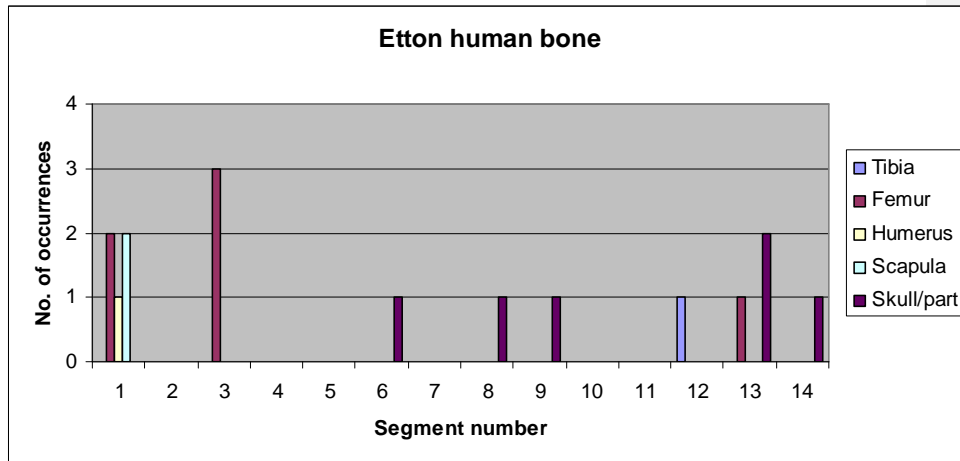


Figure 3.20 Etton human bone element totals from all enclosure ditch segments (based on Armour-Chelu: 1998b: 271-2)

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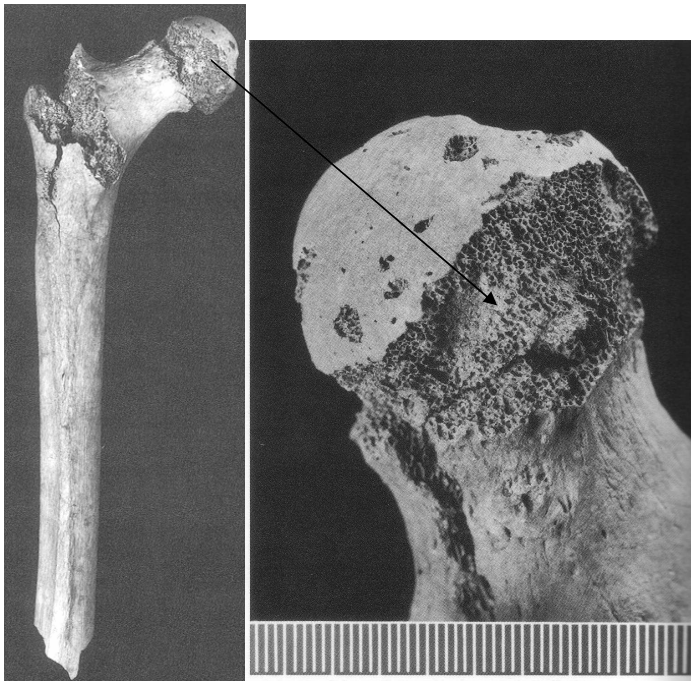


Figure 3.21 Human femur from ditch segment 3 with canid gnawing (Pryor 1998: fig. 242)

3.3.4 Pottery

The early Neolithic pottery at Etton contains an overwhelming amount of Mildenhall ware compared to the quantities of Peterborough ware and its subtypes, Ebbsfleet and Fengate (Figs. 3.22, 3.23, 3.24-6), concentrated within the eastern enclosure ditch segments and the interior. Grooved ware is representative of the later Neolithic, and Beaker pottery is also present, numbering 32 and 5 sherds respectively.

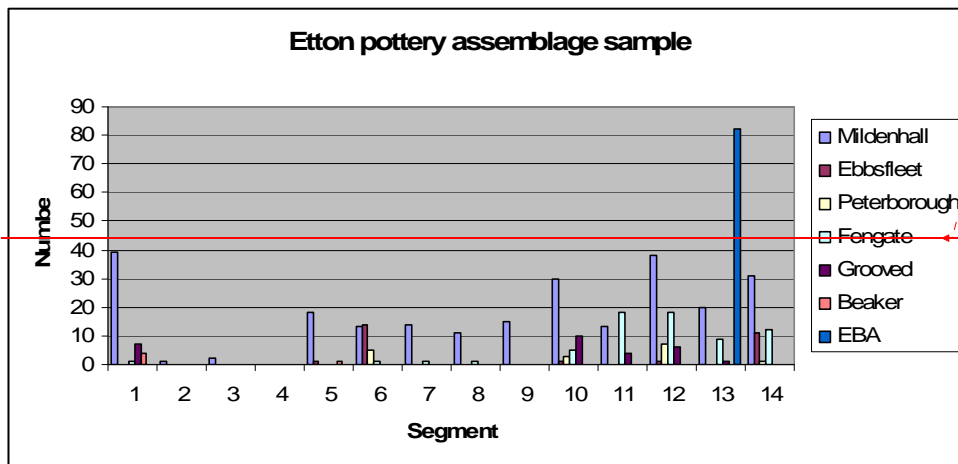
The analysis for the pottery from Etton comes from the information provided by the large sample of illustrated finds in the main Etton report (Kinnes 1998: chapter 5) (Figs. 3.25-6). The quantity and types of pottery have been compiled from this chapter by locating the section number which corresponds to the proper enclosure ditch segment. No distinction is made between Phases 1A, 1B or 1C, as a large

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Figure 3.22 Pottery assemblage from the enclosure ditch segments (based on Kinnes 1998)

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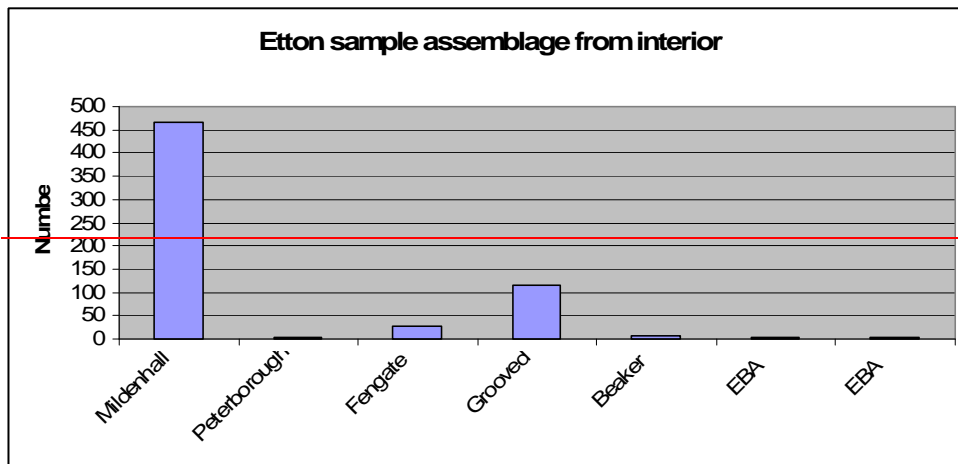
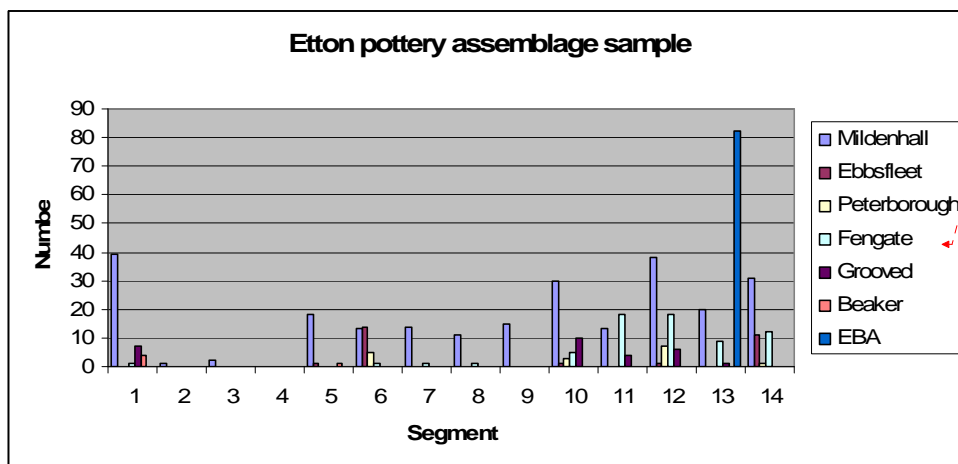


Figure 3.23 Pottery assemblage from the interior (based on Kinnes 1998)

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number of the sherds were not committed to any specific phase. Therefore, any sherds which are not securely attributed to a specific phase or sub-phase have been placed within the unsecured phase category. As Figure 3.24 indicates, a large quantity of Mildenhall ware was located within enclosure ditch segment 1, with a

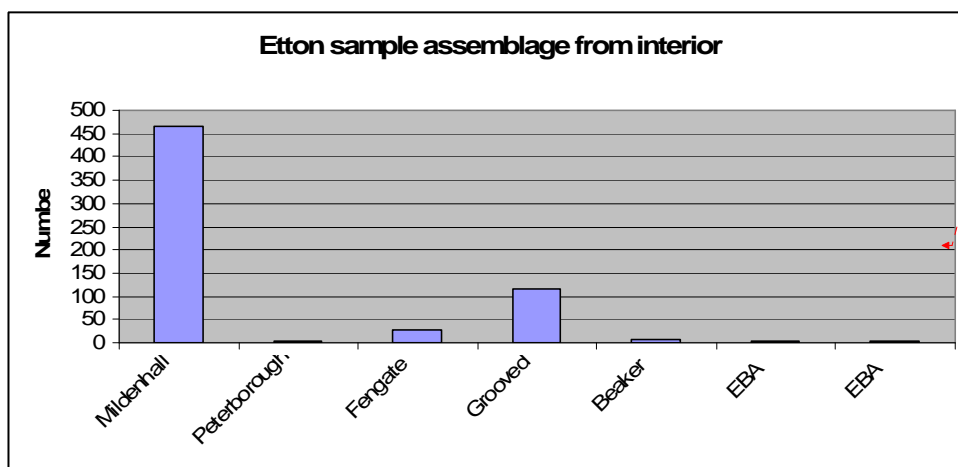
minimal amount in segments 2 and 3, while segment 4 contained no finds within this sample. However it is noted that this segment was the least fully excavated, and contained a small amount of pottery (Pryor 1998: 25-6).



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Figure 3.22 Pottery assemblage from the enclosure ditch segments (based on Kinnes 1998)



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Figure 3.23 Pottery assemblage from the interior (based on Kinnes 1998)

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A majority of the later Neolithic pottery is grouped around segments 10-14 and may indicate an ongoing pattern of deposition in which the south-eastern area of the site is a main focus of activity involving the areas where burning was taking place, perhaps indicating that pottery, particularly Mildenhall ware, was being use as containers. An

overwhelming amount of Mildenhall ware was also located within the interior pits (Fig. 3.23), suggesting that if the burnt material of cattle was in fact scooped up and placed in these areas within the interior of the site, the activity such as feasting associated with the cattle was equally important as demonstrated through the deposition of these two objects.

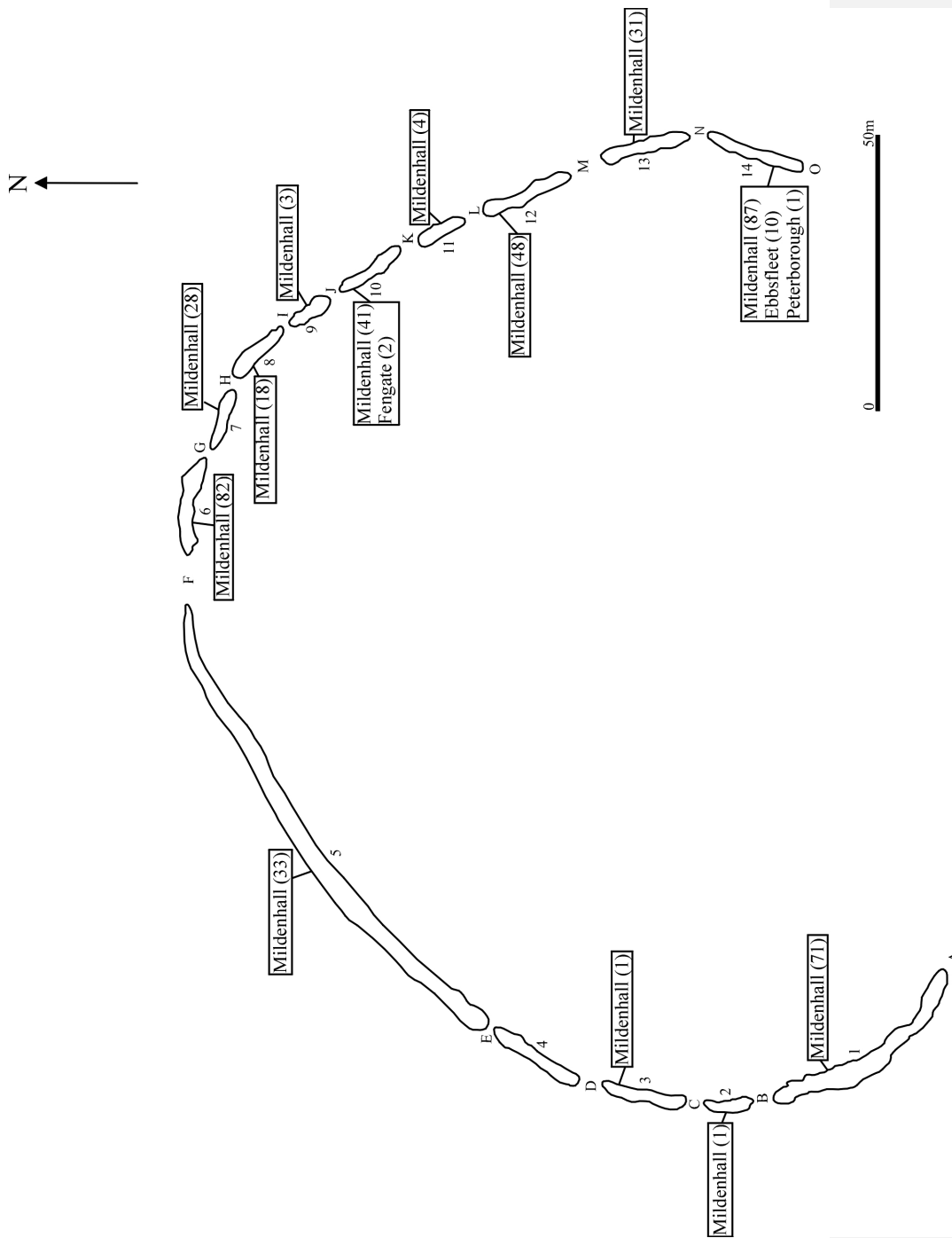


Figure 3.24 Etton Phase 1 pottery numbers according to ditch segment (based on Kinnes 1998)

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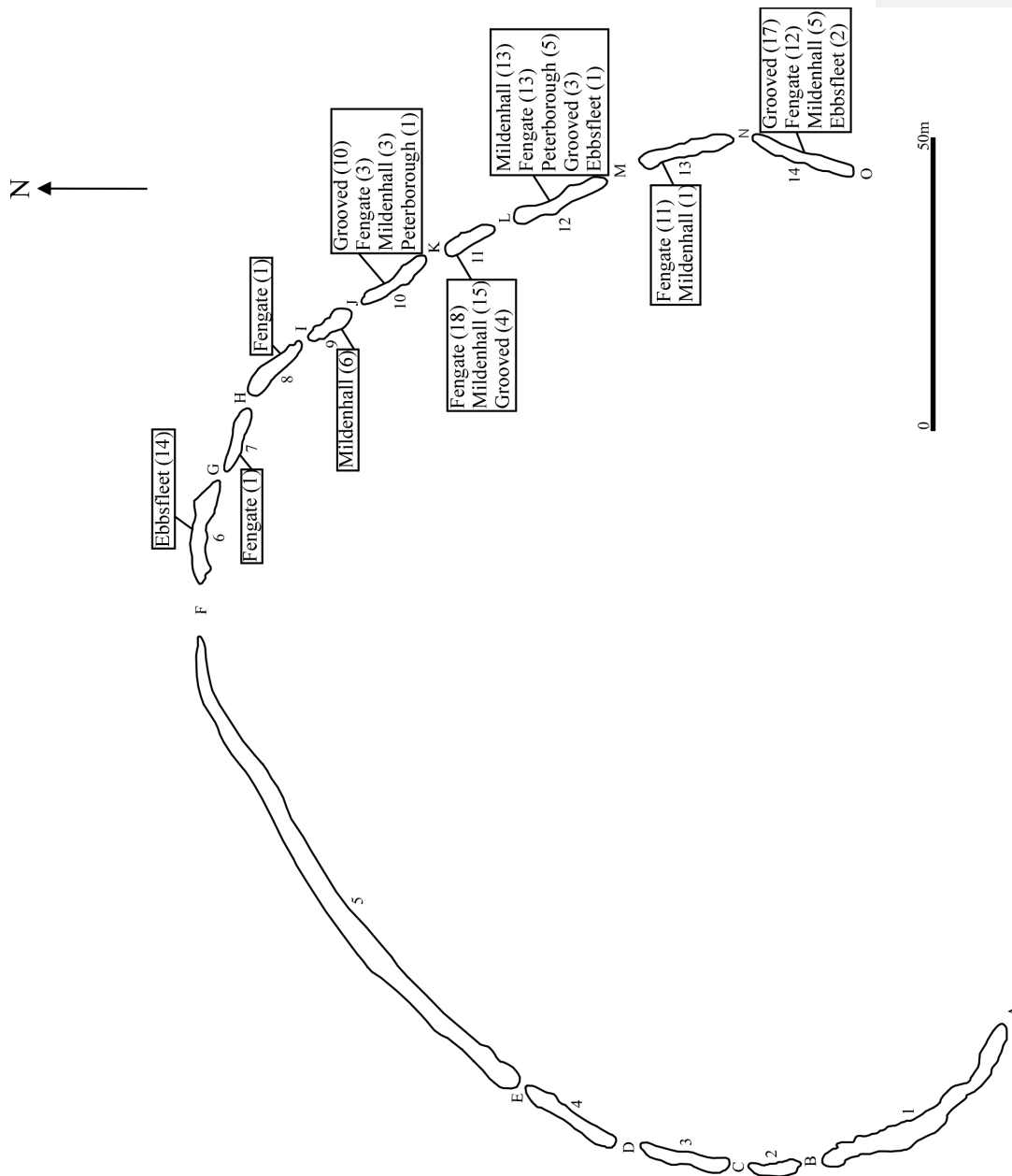


Figure 3.25 Etton Phase 2 pottery numbers according to ditch segment (based on Kinnes 1998)

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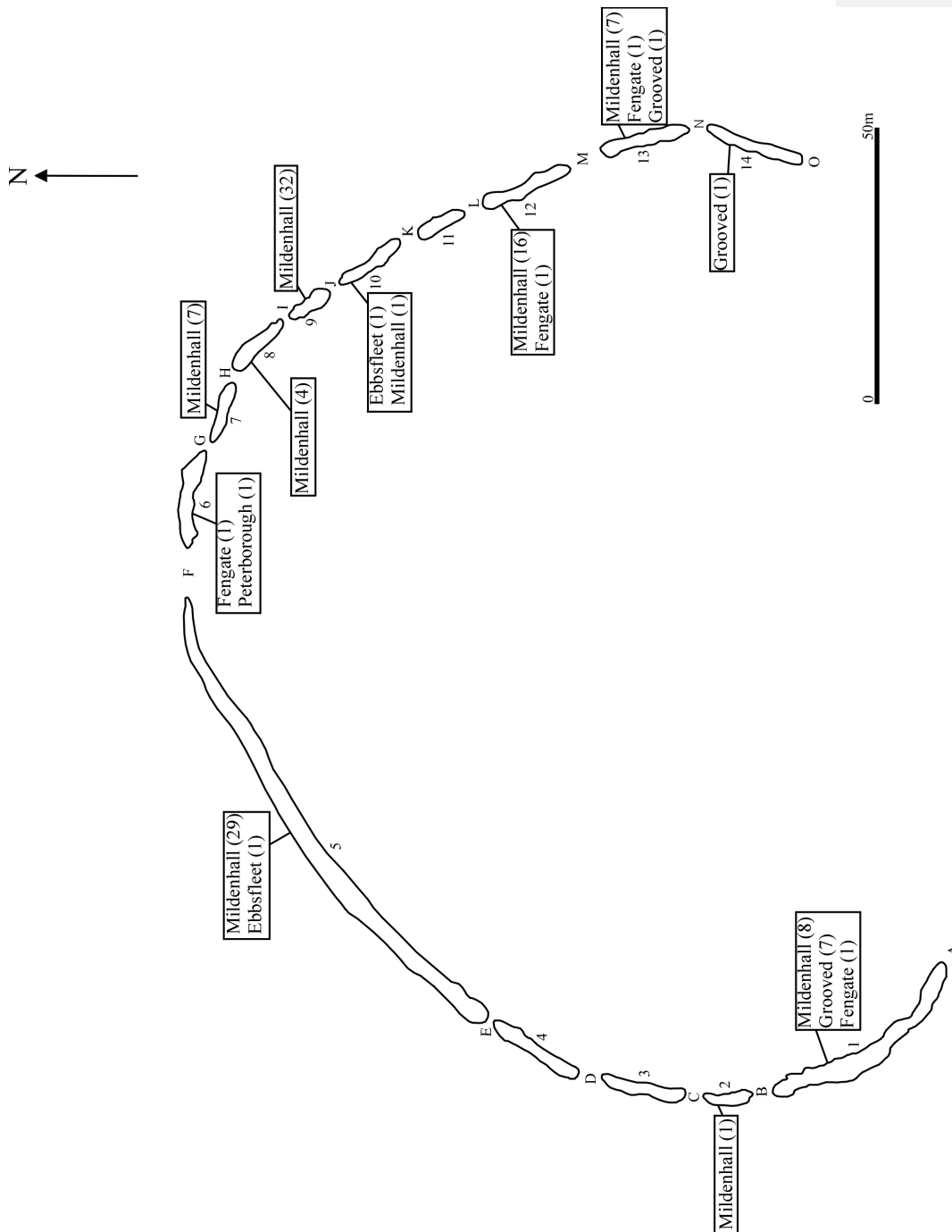


Figure 3.26 Etton unsecured phase enclosure ditch pottery numbers (based on Kinnes 1998)

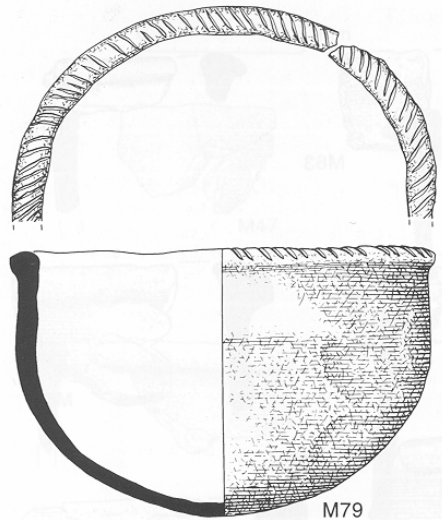


Figure 3.27 Upside down Mildenhall bowl from ditch segment 7, Etton (left: in situ; right: illustration) (Pryor 1998: figs. 31, 181)

The Mildenhall pottery exhibited a large variety of decoration, especially the rimpots: of 352 rimsherds, 242 were decorated (Pryor 1998: 209). The Mildenhall bowl found upside down in ditch segment 7 associated with a fox mandible and decorated antler

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comb could be an example of a pot which is meant to look like a human skull (Pryor 1998) (Fig. 3.27). The condition of the pottery is fresh, indicating that after the sherds were deposited the ditches and small filled pits of the interior were probably backfilled. In addition the evidence of decorated sherds, including a high frequency of rimsherds, indicates an importance in the ways in which pottery was chosen for inclusion within the site (Pryor 1998: 211-2).

The small number of Ebbsfleet sherds came from Phase 2. The only occurrence of Ebbsfleet within the enclosure ditches came from the western arc and consisted of sherds of a single broken vessel (Pryor 1998: 212). The Peterborough ware sherds at Etton were few compared to the Mildenhall assemblage and interestingly, no complete pots were found, which may indicate a change in the way pottery was being used during Phases 1C and 2 (Pryor 1998: 212). Fengate ware seems to overlap with Mildenhall ware in the Phase 1C deposits and the small filled pits, its occurrence in association with Mildenhall ware was near in the small filled pits of F237, F697 and F933 and could indicate a relational importance in the choices of deposition (Pryor 1998: 212). Of the eleven interior features located which contained Fengate ware, four of them are grouped together behind the 'fence line' to the north close to causeway F, another five are within 50m of an eastern enclosure ditch segment, while the final three are well within the interior of the site. Fengate ware only occurs in the eastern arc ditch segments and seems to be contemporary with Ebbsfleet pottery. A conscious choice may have been taken place to deposit Fengate ware in a location close to the deposits within the enclosure ditch segments in order to reflect the importance that was being attached to them on a smaller scale or perhaps an individual basis. Mildenhall ware occurs in every enclosure ditch segment with the exception of the less intensively excavated segment 4. Mildenhall ware is associated with Fengate ware in enclosure ditch segment 10, and with Ebbsfleet and Peterborough ware in segment 14.

It is possible that the main focus of enclosure ditch segment deposition for pottery was in segment 14, which may have come towards the end of Phase 1. As Phase 2 begins Mildenhall ware is still being deposited, but the focus has entirely shifted to the eastern enclosure ditch segments, especially segments 10-14. The deposits of pottery in segment 12 contain at least 1 sherd of all types of Neolithic pottery.

Segment 10 contains all types with the exception of Ebbsfleet, and segment 14 all types with the exception of Peterborough ware. The abundance of Mildenhall ware and the associated decoration on the rims suggests that the pottery may have been meant to be placed in the enclosure ditch segments whole and viewed by looking from above from the ditch sides. The fresh condition of the sherds within Phase 1 contexts could also suggest that they were included in activities where material was covered after a short period of time.

3.3.5 *Flint*

A total of 1854 pieces of worked flint located at Etton were within the ditch segments, together with two waste flakes of chert, with by-products accounting for 1450 pieces (78.20%) of the total assemblage (Fig. 3.28). The flint is classified into two groups: by-products and implements. As with the animal bone, each category can be divided into phases within the enclosure (Phase 1A, 1B, 1C, and Phase 2).

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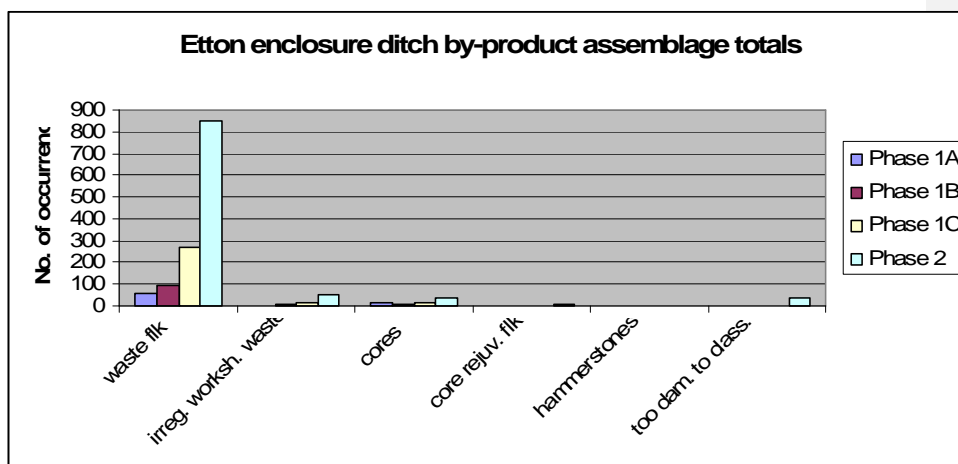


Figure 3.28 Etton enclosure ditch flint by-product totals by phase (after Middleton 1998: table 52)

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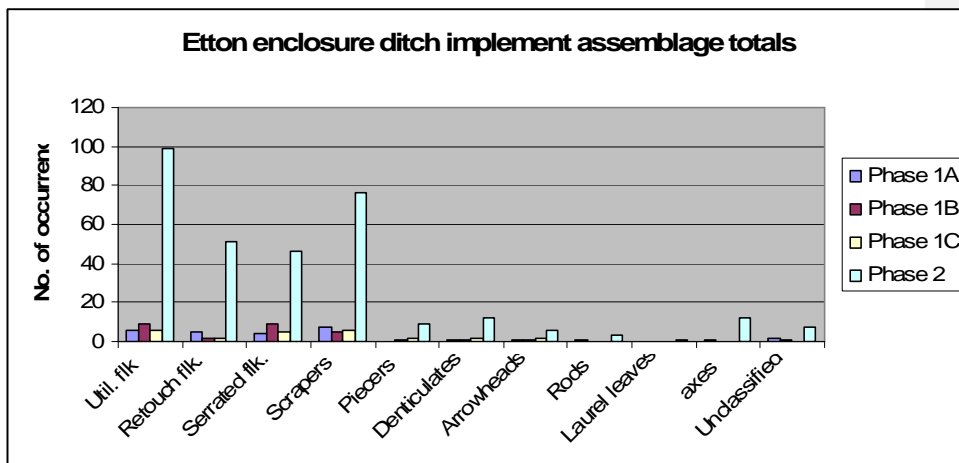


Figure 3.29 Etton enclosure ditch implement totals by phase (after Middleton 1998: table 52)

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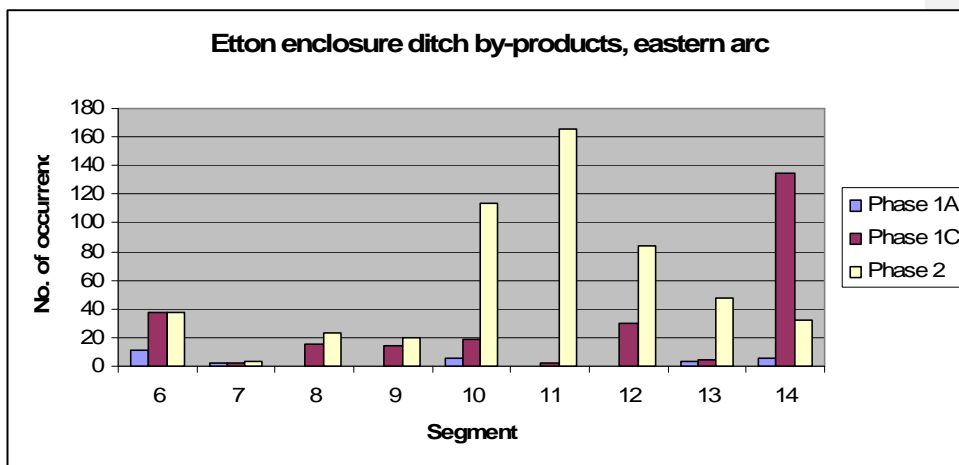


Figure 3.30 By-product totals by phase for enclosure ditch segments 6-14, eastern arc (after Middleton 1998: fig. 230)

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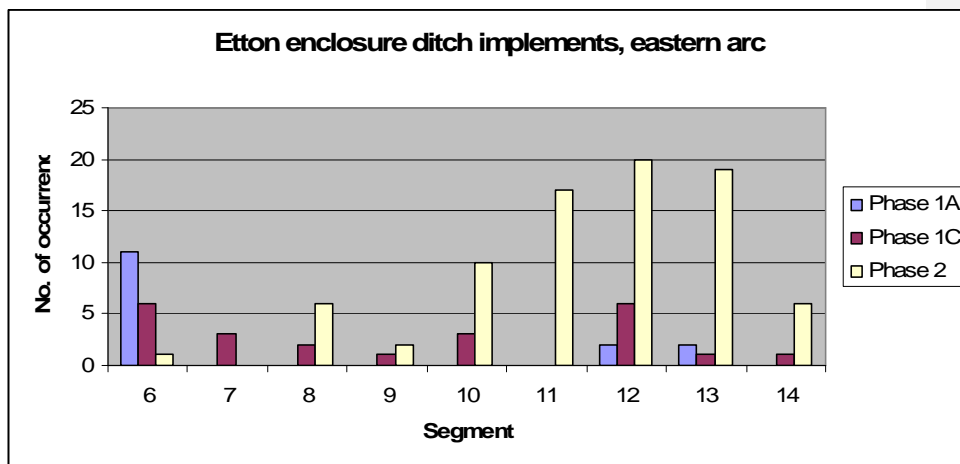


Figure 3.31 Implement totals for enclosure ditch segments 6-14 (after Middleton 1998: fig. 230)

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As there is no information in the main report for implements in the western half of the enclosure, only the eastern segments have been interpreted. A small amount of by-product material was located within Phase 1 (61, 4.20%) compared with the Phase 2 period, which dominates the assemblage with a total of 851 (58.68%). The implement totals reflect the amount of waste from the manufacture of the implements, which numbered 404 (21.79%) (Fig. 3.29). Waste flakes accounted for 1274 (68.71%) of the total assemblage. The implement assemblage totals for all phases had a combined total of 404, with utilised flakes numbering the most with 120 (29.70%). High numbers of utilised flakes (99, 24.50%), retouched flakes (51, 12.62%), serrated flakes (46, 11.38%), and scrapers (76, 18.81%) represent the implements. The

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implement total also reflects the by-product totals, increasing in number through time from Phases 1A to 2.

The eastern arc of the enclosure is an example of the distinct differences in selective deposition over each phase. With the exception of segment 6 in Phase 1A, the majority of by-product deposition occurs within ditch segments 10-14, which account for 474 finds or 58.37% (Fig. 3.30). The implements reflect the by-product patterns in segments 10-13 in Phase 2 making up 55.46% of the assemblage total for the eastern arc (Fig. 3.31). In segment 6, 11 by-products and 11 implements were found, the highest number anywhere together on the site. The depositional patterning for segment 6 may indicate its importance as an area for entrance into and out of the site. Among the by-products of segment 7, all Phases contain finds, but in minimal quantities in Phases 1A (2), 1C, (2), and Phase 2 (3). Only implements are found in segment 7 in Phase 1C, and the same is true of segment 11 in Phase 2.

3.3.6 *Interior flint*

The Etton interior flint assemblage is broken down into the Middle Neolithic (Phases 1A-1C), Late Neolithic (Phase 2), Early Bronze Age (Phase 3) and Buried soil (which is Bronze Age in date) (Middleton 1998: 240). The total amount of flint within the interior pits at Etton numbered 4503 pieces. The by-products numbered 3748 (83.23%), and the implements totalled 755 (16.76%). The debitage within the interior had a similar abundance as the enclosure segments with 3297 (87.96%) of the 3748 finds being waste flakes (Fig. 3.32). Utilised flakes also dominated the implement totals with 227 of the total 755 finds (30.06%) (Fig. 3.33). The Neolithic assemblage as a whole shows a large quantity of waste flakes (1110) in the by-product category and a large number of serrated flakes within the implements (52).

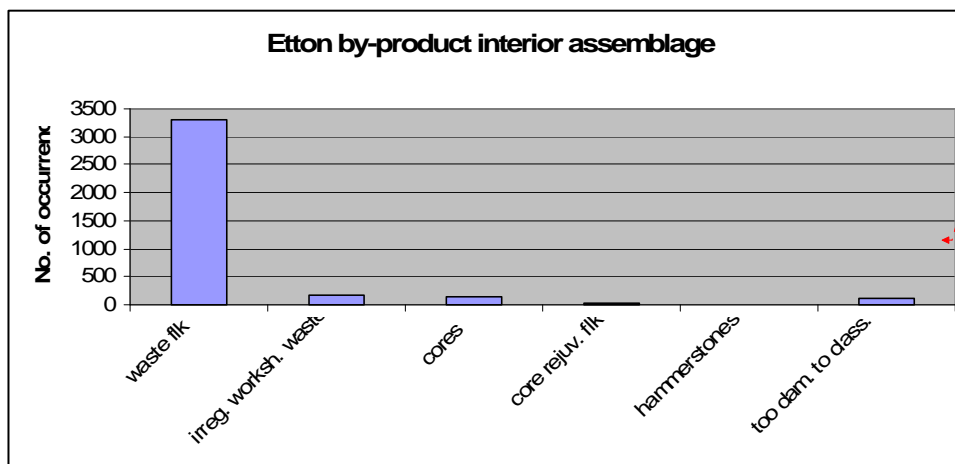
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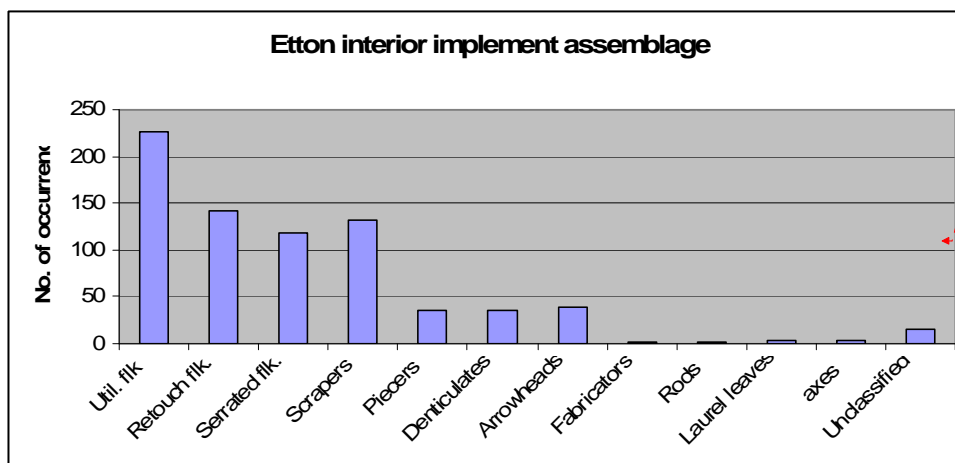
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Figure 3.32 Etton interior by-product assemblage totals (after Middleton 1998: table 53)

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Figure 3.33 Etton interior implement assemblage totals (after Middleton 1998: table 53)

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The by-product and implement assemblages indicate a high degree of core reduction and the creation of implements that increases through time from Phase 1A to Phase 2. The large number of modified flakes may correlate with, for example, a change in the use of animals as discussed above, with pig and sheep becoming less common towards Phase 2, and cattle increasing in importance, creating a greater need for more implements. The number of cut marks on the animal bone may also be a result of the primary use of serrated flakes in defleshing the finer part of animals close to the bone;

these flakes were ultimately deposited within an enclosure ditch or interior pit. The increase in the number of scrapers may be related to the increase in woodworking, as coppicing and stripping bark, for example during the later phases of the site, would have been involved in the construction process of the 'fence line', the wooden structure near causeway B, and perhaps the wooden bowls. It may be that Etton was becoming more important through time as larger groups of people visited the enclosure, with a focus of activity within the eastern enclosure ditch segments, reflected in the increasing numbers of debitage and implements left on site. The low

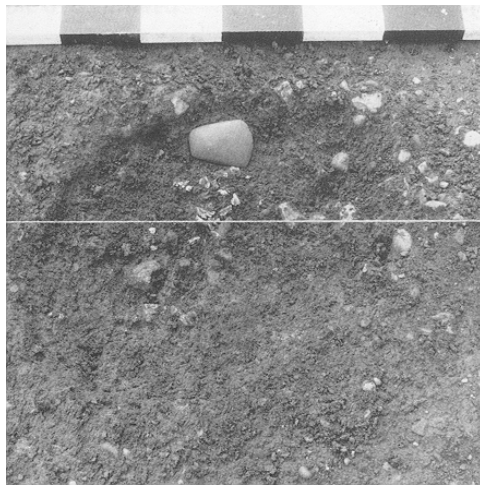


Figure 3.34 Polished stone axe with calcined bone from F263 in situ (Pryor 1998: fig. 108)

number of axes at Etton may be the result of their being functional, and highly prized, as indicated through the deposition of the axe within the interior pit of F263 associated with calcinated animal bone (Fig. 3.34).

3.3.7 *Stone and other objects*

Querns, rubbers, polishing stones, polished stone axes and a small number of fired clay objects were found both in the enclosure ditches and within the interior at Etton. All of the querns came from Phase 1, and some may have been imported from some distance (Dawn 1998: 259). Of the querns found, three were complete, two were deposited in small pits, one of them upside down, and the third quern was located in

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enclosure segment 10, Phase 1 (Dawn 1998: 259). Two querns and fragments were found in small filled pits in the interior and were found to have been heavily used for processing of foodstuffs, while the querns and fragments from the enclosure ditch, including pit F40 (Fig. 3.35) seemed to be less used or almost unused (Pryor 1998:

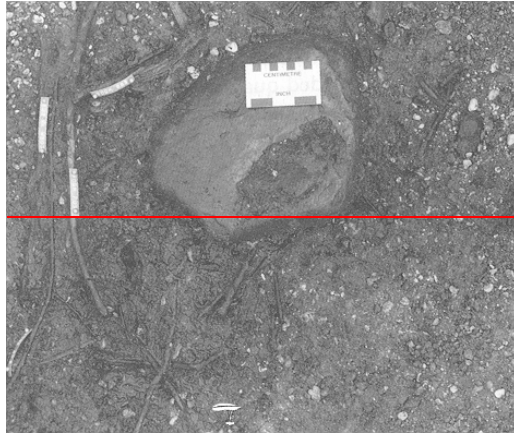


Figure 3.35 Quern in waterlogged pit F40 near segment 1 (Pryor 1998: fig. 15)

259). Some of the querns show that they had been in contact with fire; a rubber that was placed beneath a quern in pit F711 had been burnt, while the quern placed with it was not, indicating a possible deliberate deposition of the two stones together (Dawn 1998: 259).



Figure 3.35 Quern in waterlogged pit F40 near segment 1 (Prvor 1998: fig. 15)

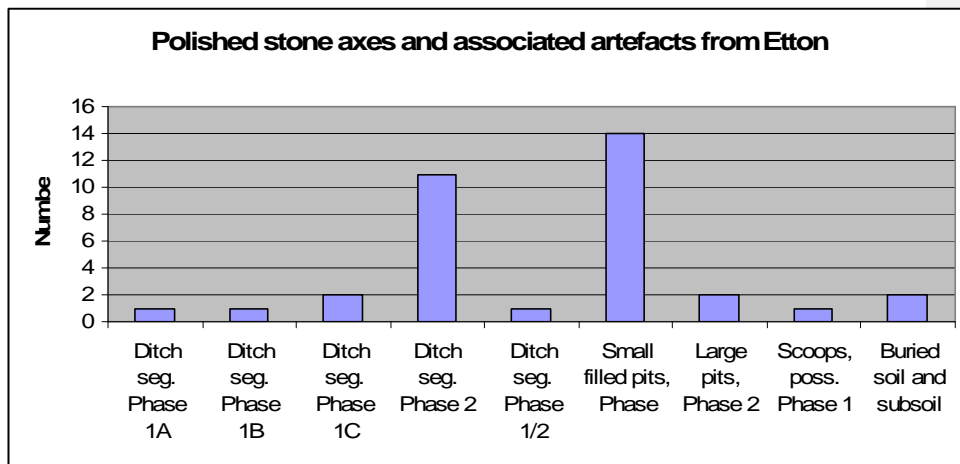


Figure 3.36 Stone objects from all phases within the enclosure ditch segments. No phase is given for the small filled pits (based on Edmonds 1998: 260-8)



Figure 3.37 Polissoir from pit F786 in situ (Prvor 1998: fig. 110)

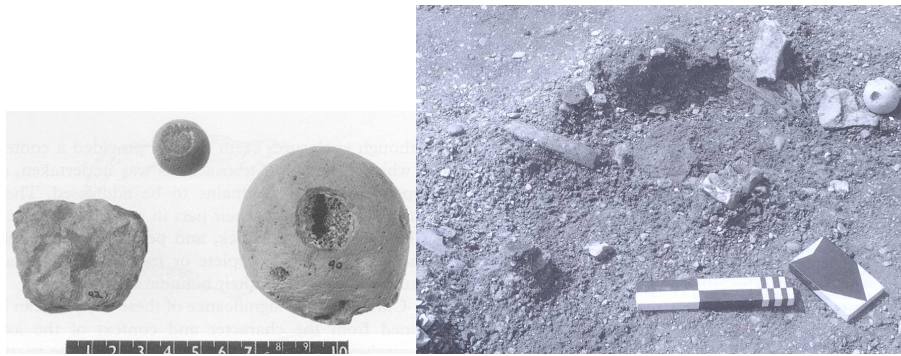


Figure 3.38 Stone with pecked hole (left) and in situ with associated finds from enclosure ditch segment 8 (right) (Prvor 1998: figs. 240 (top); 32 (bottom))

Polished stone axes and a small number of other objects, including a polissoir, were located in the enclosure ditch segments and interior pits (Edmonds 1998: 260). Within the enclosure ditches it becomes apparent that a majority of this small assemblage is representative of Phase 2 (Fig. 3.36), and 14 (40.00%) of these artefacts were distributed within the interior of the enclosure in small filled pits. The enclosure ditch, Phase 2, is represented the most, having 11 finds or 31.42% of the total

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assemblage. Within pit F786, a polissoir was located (Fig. 3.37) (Pryor 1998: Fig. 239); made of a fine ground quartzitic pebble it is quite rare within Neolithic contexts,

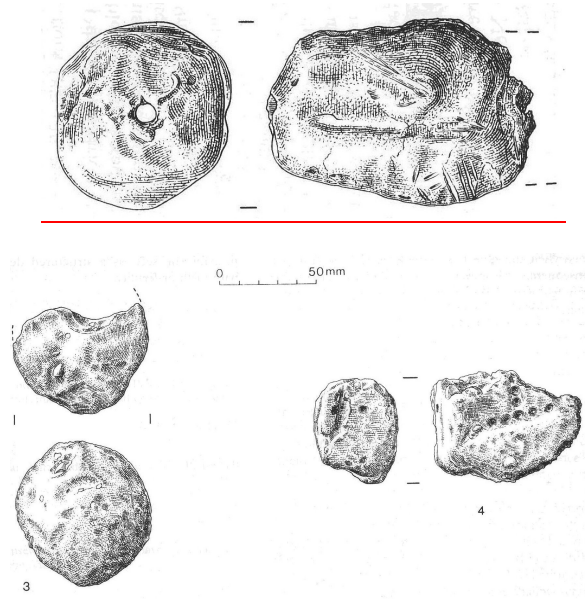
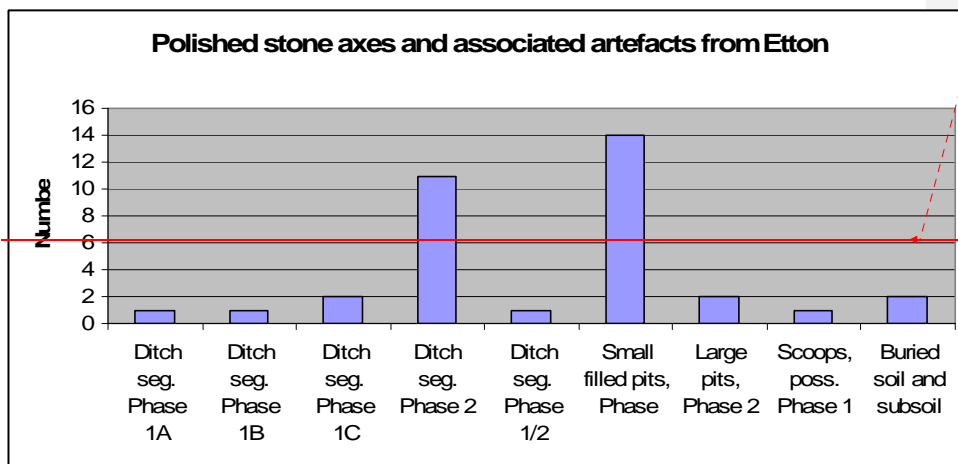


Figure 3.39 Fired clay objects from enclosure ditch segment 7 (Pryor 1998 fig. 241)

and similar objects have only been found at two other causewayed enclosures in the British Isles, at Abingdon and The Trundle (Edmonds 1998: 266). Three other unique

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Figure 3.36 Stone objects from all phases within the enclosure ditch segments. No phase is given for the small filled pits (based on Edmonds 1998: 260-8)

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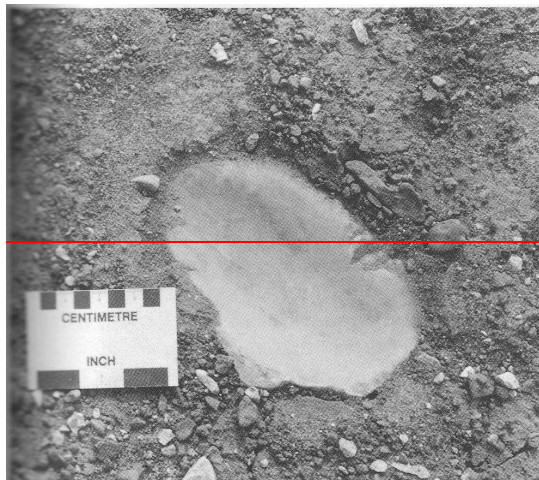


Figure 3.37 Polissoir from pit F786 in situ (Pryor 1998: fig. 110)

objects of stone were located within the structured deposit in the butt end of enclosure ditch segment 8, associated with pottery, flint, stone, and a fragment of human skull (Fig. 3.38). Four small objects of fired clay were also found at Etton, one within pit F871 (Phase 1), while the other three all came from enclosure ditch segment 7 (Phase 1). The object from pit F871 is well made and fired with a good finish, rare for

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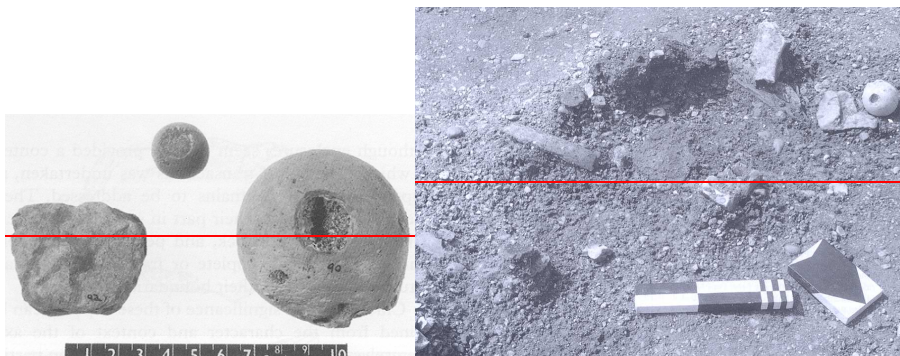
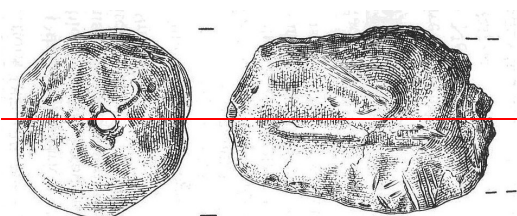


Figure 3.38 Stone with pecked hole (left) and in situ with associated finds from enclosure ditch segment 8 (right) (Pryor 1998: figs. 240 (top); 32 (bottom))

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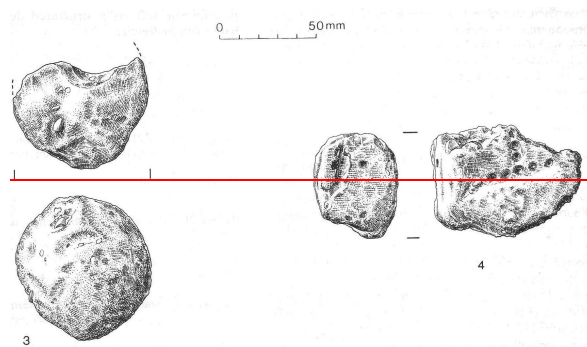


Figure 3.39 Fired clay objects from enclosure ditch segment 7 (Pryor 1998 fig. 241)

Neolithic contexts (Kinnes and Pryor 1998: 269-70). The other three objects from ditch enclosure segment 7 are all associated with one another. These three objects are all phallic in shape, and decorated, one with a perforation through it (Fig. 3.39).

This high degree of activity in the interior areas at Etton, especially the small filled pits, seems to complement the flint activity within the enclosure ditches during Phase 2, suggesting that the making and utilisation of flint was not as intense until Phase 2, when the number of by-products rises dramatically, leading to a rise in implement totals. A number of social factors could be responsible for this change, which will be explored below in the overall discussion of Etton.

3.3.8 *Wood*

The quantities of wood found within the enclosures ditches at Etton is most remarkable as it is the only causewayed enclosure within the British Isles to have evidence of preserved wood within the ditches. The preservation of wood at Etton is made possible by its location on the fen edge in a heavily waterlogged area, although it is highly susceptible to drying and dissolving, which makes the decisions and techniques of excavation problematic (Taylor 1988; 1998: 118-9; French and Taylor 1985). The wood was distributed in a similar manner to the other materials, in linear spreads within the enclosure ditches (Fig. 3.40), although the stream channel which cuts through segments 5 and 6 may have affected the distribution of finds.

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Figure 3.40 A linear distribution of wood from enclosure ditch segment 3 (Pryor 1998: fig. 135)

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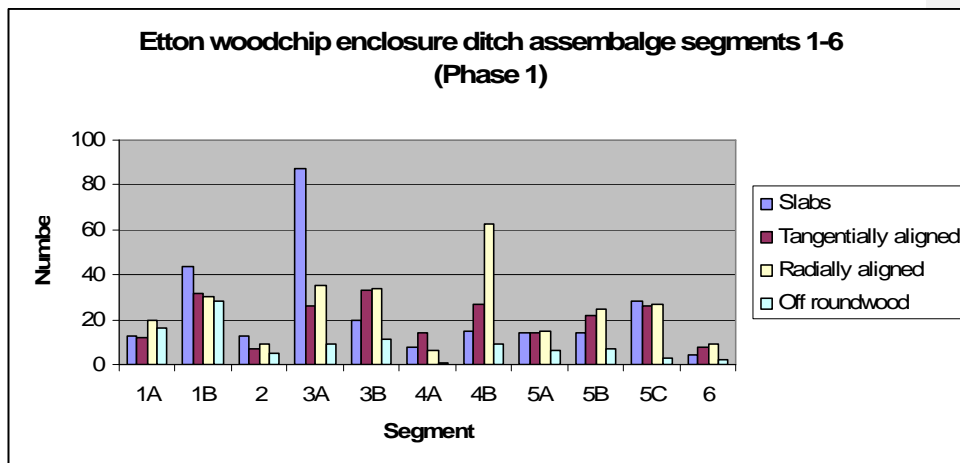


Figure 3.41 Etton wood assemblage for the western arc, segments 1-6
(after Taylor 1998: table 14)

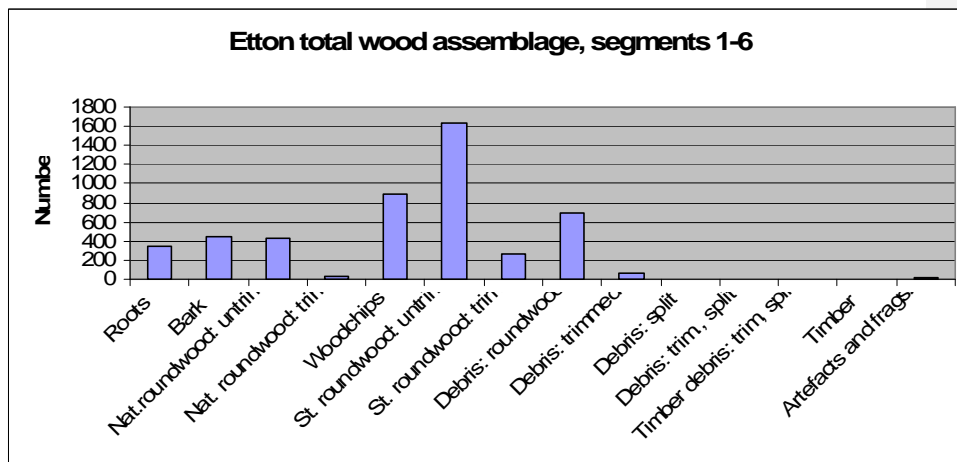


Figure 3.42 Etton wood assemblage for the eastern arc, segments 1-6
(after Taylor 1998: table 10)

Wood was only recorded from the western arc (segments 1-6), and consisted of three categories: naturally occurring wood, by-products, and products. The western arc segments were divided for the excavation of the wood, beginning with segment 1, then 1A, 1B, 2, 3A, 4A, 4B, 5A, 5B, 5C, and 6. Figure 3.41 presents the breakdown of specific wood objects and their totals for the whole of the western arc. Straight untrimmed roundwood occurred in the greatest quantities, numbering 1637 or 33.87% of the total wood assemblage.

The presence of the large amounts of roundwood, especially in segments 1B, 3A, and 4B, may be an indication of the making of hurdles, biers and/or screens for use within

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the enclosure (Taylor 1998: 158). Large numbers of woodchips may also indicate that small roundwood was coppiced, perhaps within the ditches themselves. The differences in woodchip quantities are indicated in Figure 3.42, where slender blade-like woodchips dominated the assemblage, but occurred more often in segments 1B, 2, 3A, and 5A (Taylor 1998: 158). Longer and narrower woodchips may indicate the cutting of rods from coppices, while shorter squatter woodchips may indicate secondary working (Taylor 1998: 158). Overall, the greatest amount of activity which produced woodchips took place within segments 3 (255, 29.96%), 4 (142, 16.68%) and 5 (152, 17.86%). The occurrence of bark primarily within segment 5B and 5C, along with a large number of tangential splits and sapwood/bark trimming debris may indicate an area of the enclosure where cutting and/or trimming timber or wood planks took place (Taylor 1998: 158). In addition to these waste materials there were also preserved within the enclosure ditch objects fashioned from wood.

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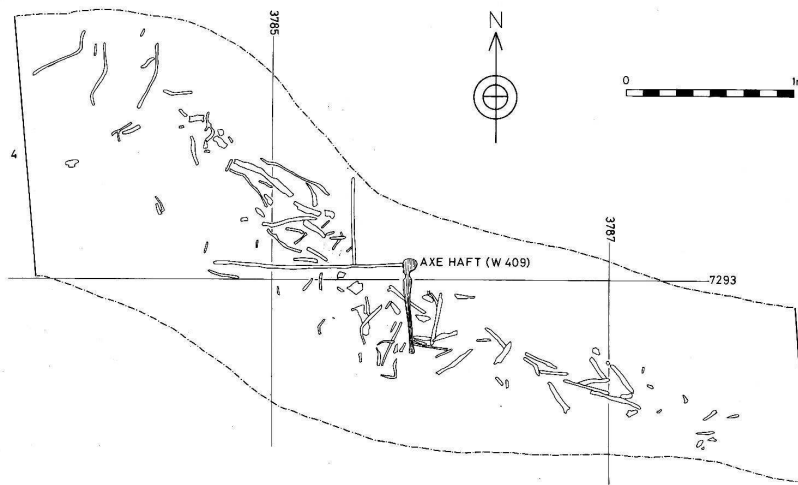


Figure 3.43 Wooden axe haft from Etton, segment 1 (Pryor 1998: figs. 159, 160)



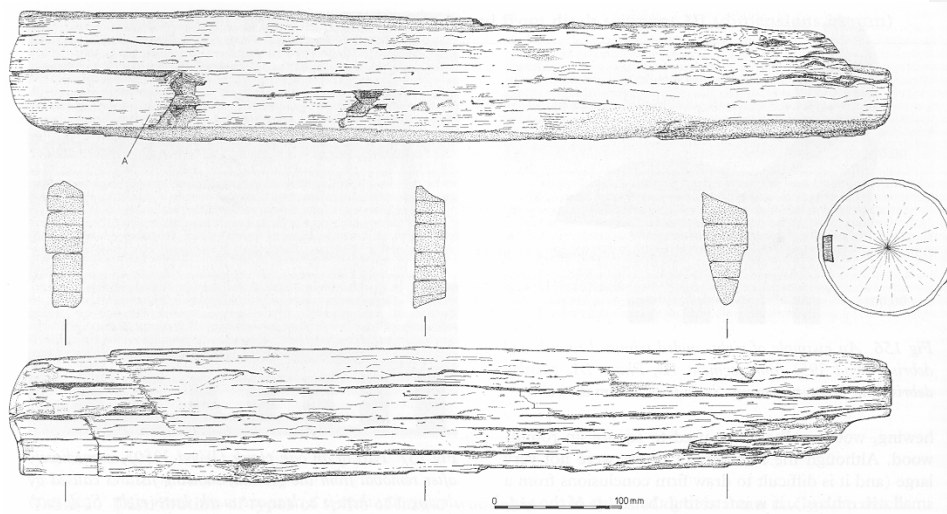


Figure 3.44 Split oak timber from enclosure ditch segment 5 (Pryor 1998: figs. 158, 159)

Within ditch segment 1 between sections 4 and 5 an axe haft was located (Fig. 3.43). The axe haft was probably made from a single piece of wood and had been damaged prior to deposition, possibly by trying to remove the axe, indicated by the haft having a split down the middle (Taylor 1998: 150-1). Within ditch segment 5 in Phase 1A/1B, a large tangentially split oak timber was located with the end having been cut with an axe (Fig. 3.44). A second piece of timber, also oak, was found beneath the two auroch skulls in the Phase 2 pit of segment 12.

In segments 4 and 5 a group of 5 'forks' were located (Fig. 3.45). The use of these 'forks' is not clear; they were trimmed and may possibly have been used during coppicing in the ditch and then discarded, (Taylor 1998: 152). Four wooden bowl fragments were found in segment 6, pit F953 at Etton. One of these bowls (Fig. 3.46) has what may be a rim decoration shown by transverse lines such as those found on Peterborough and Mildenhall ware (Taylor 1998: 152). Of the four bowls, ~~two~~ two appear to mimic pottery vessels. The rim of Wood 4960 appears to copy later Neolithic styles of transverse decoration, while Wood 4905 is noted as being a 'simple, plain deep bowl' and could compare with pottery of the same time period

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(Taylor 1998: 154). These bowls could have served the same functions as the pottery sherds they are thought to represent, or could have been used to represent the same style of pottery within the same or different activities at the site.

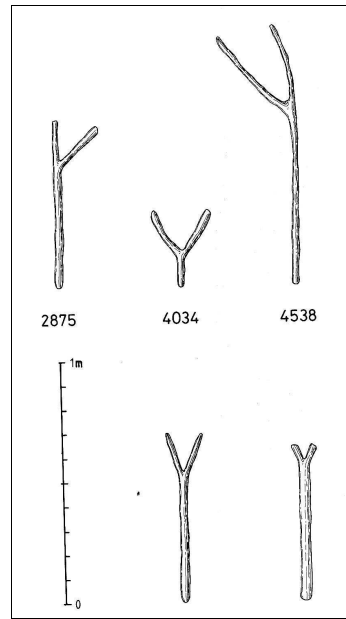


Figure 3.45 Wooden 'forks' from enclosure ditch segments 4 and 5 (Pryor 1998: fig. 163)

The final wooden artefacts to consider within the enclosure ditch are the two birch bark mats located in segment 2, Phases 1A and 1C (Fig. 3.47). The first piece was found underneath the complete bowl M3, in the butt end of ditch segment 1A, Phase 1C. The second piece was a thin fragile sheet located in segment 2, causeway B,

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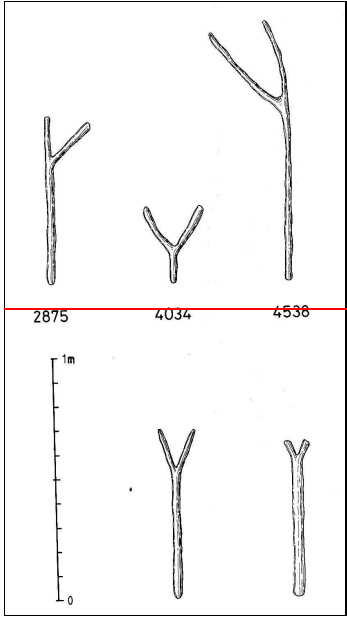


Figure 3.45 Wooden 'forks' from enclosure ditch segments 4 and 5 (Pryor 1998: fig. 163)

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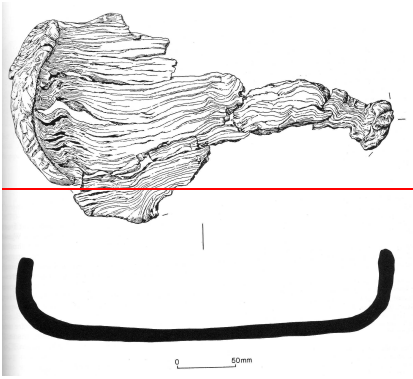


Figure 3.46 Wooden bowl part from pit F953 within enclosure ditch segment 6 (Pryor 1998: fig. 165)

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Figure 3.47 Folded birch bark mat from enclosure ditch segment 2 (Pryor 1998: fig. 172)

Phase 1A, and had been folded over (Taylor 1998: 156-7). The birch bark mat found within the enclosure was discovered to have been purposely cut square and folded before being placed into the ditch (Taylor 1998: 157). Other European contexts in which birch bark has been found may point to it being used as a type of waterproofing for floors (Taylor 1998: 157). Providing a waterproof layer may be one reason why the birch bark sheet was placed beneath the two auroch skulls. If groups came back to the enclosure when the water table of the western segment was at its lowest, then perhaps birch bark mats such as the ones located within segment 2 were used in a way which kept the objects they were depositing as dry as possible during their display prior to deposition.

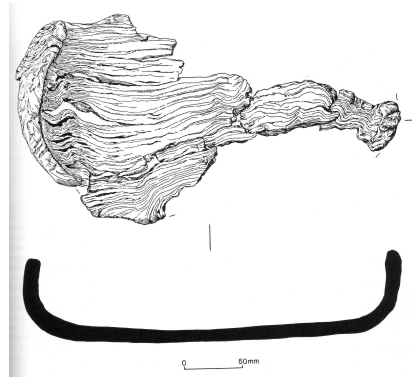


Figure 3.46 Wooden bowl part from pit F953 within enclosure ditch segment 6 (Pryor 1998: fig. 165)

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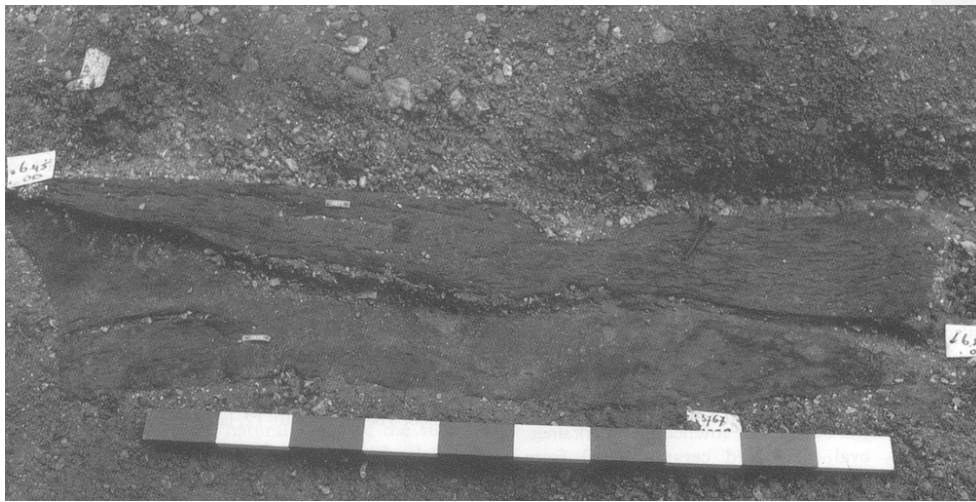


Figure 3.47 Folded birch bark mat from enclosure ditch segment 2 (Pryor 1998: fig. 172)

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The distribution of wood at Etton contained within Phase 1A of the western arc, remarkably, remarkably demonstrated that woodworking as an activity was occurring on the site, if not inside the enclosure ditch segments themselves. The distribution of the wood assemblage shows a large number of woodchips and roundwood indicating a high degree of activity either with the making of objects such as the wooden bowls, birch bark mats and the axe haft, or of coppicing within the enclosure ditches. Like the flint assemblage, which showed a large amount of waste flakes, the wooden objects also include a high amount of by-products in the form of woodchips and

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different forms of roundwood, possibly indicating a similarity to finished tools in the ways that by-products were treated.

3.4 Material and associated activity areas

3.4.1 *Woodworking*

At Etton, linear spreads of wood along the ditch segment floors of the western segments indicate its importance as a material for the construction of the enclosure, but also the symbolism it invokes as an important material for participatory events. One segment in particular, segment 5, demonstrates this.

3.4.1.1 *Segment 5*

Segment 5, the longest of any segment, measuring 81m in length and 4m at its widest point, would have been an ideal location for growing and coppicing wood, in which larger groups of people may have participated. The large amounts of woodchips, the by-product of the manufacture of items such as the wooden bowls, two fragments of stone axes and worked antler indicate a labour-intensive ditch segment where the focus is on the making of things and maintenance of the ditch segment. Placed deposits do occur though, but may be seen as being part of the woodland from which they came, -for example the red deer antler crown associated with animal bone and wood debris within the butt-end of segment 5 at causeway E. Ethnographically, communities such as the Malawi see wild animals as being in opposition to the village, with the woodland associated with wild animals and the spirits of the dead and a 'cool' place which is used in initiation rites for boys (Morris 1995: 311-2). The placing of the red deer antler crown at Etton may have been serving a similar purpose in the symbolic role of human animal relationships, which was made manifest through its intentional deposition within a heavily wooded enclosure ditch which symbolised not only where the deer had come from, but the wooded environment in which it lived.

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In addition to the enclosure ditches, the small filled pits of the interior and the material they contained can also tell a story of the ways in which events played out at Etton. Pit F263 may be an example of a small-scale activity during which one polished stone axe along with a quantity of calcined bone -was placed in the ground. Smaller axe fragments were located in the enclosure ditch segment, but it is from this pit that the only complete stone axe was found. There was also a quartzite polissor located within pit F786. Most of the small filled pits contained material in the upper filling and seem to have been backfilled quickly (Pryor 1998: 103). A group of six pits near causeway F and a cluster around causeway N reflect their importance as arenas for activity. Pryor (1998: 354) suggests that, because pits within Phases 2 and 3 never intercut one another, a 'mental map' was created whereby the deposits which came before were respected over many generations.

3.4.2 *Animal bone butchering/processing areas*

3.4.2.1 *Segment 10, F994 'pyre' feature*

Four small filled pits cut into ditch segment 10, (Fig. 3.48) and may point to an area in which cooking and/or butchery took place. Incorporated within these pits is a large amount of animal bone and flint. The northernmost pit contained a large quantity of animal bone along with one plain bodysherd, one scraper, one piece of irregular knapping waste, and one core. The pit below contains animal bone, one plain bodysherd, and one waste flake.

The third small pit to the south contained animal bone, one scraper, one plain and two decorated rimsherds of Mildenhall ware, one decorated rimsherd of Peterborough ware, one waste flake, and one burnt flake. The southernmost pit contained the least amount of material, including a small linear spread of animal bone, two waste flakes, and one scraper. It has been noted that this area gave high readings on the magnetic susceptibility survey indicating that burning had occurred. It is possible, based on this survey and the implements, that the small pits contained within ditch segment 10 were used for the dismembering and scraping of hides, and the cooking of food, possibly associated with the events involving the cranium near causeway K. The northern- and southernmost pits only contained flints while the middle two pits, with the exception

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of one burnt flint, contained exclusively pottery. Measuring about 1m long, the upper middle ditch contained a pit-within-a-pit in which a placement of animal bone was deposited. It is therefore suggested that the northern and southern pits were used for the preparation of animals for cooking, while activities involving pottery took place in the central portion of the ditch.



Figure 3.48 Four pits within enclosure ditch segment 10 c.
6.55-6.90m (after Pryor 1998: fig. 44)

3.4.3 *Mortuary practices*

Mortuary activity can be seen at a number of locations at Etton. Mortuary events need not be funerary events. Mortuary practices may involve handling bone in association with other objects and may result in, for instance, votive deposition which Bradley (1987, 1998b) has demonstrated with axes during the Bronze Age within the British Isles and the main European continent. Funerary routines though, would indicate that the remains went through a transformation, such as excarnation, where bones were left to decay in the open, which is how some bones may have a weathered look, and were gnawed upon by animals before deposition. The amount of human bone deposited within the enclosure ditch segments at Etton is small considering the high standard of preservation of the animal bone. Within all phases, only 14 human bones were located. Of these, one element each occurred within segments 3, 6, 8, 10, 12, and 14. Five elements occurred within segment 1, while three were located in segment 13. Large numbers of animal bones within these enclosure ditch segments, some with cut marks, attest to the assumption that feasting or cooking took place, and that human remains may have been a focal point for such activities.

3.4.3.1 *Segment 1, Phase 1A*

Within this segment five elements of human bone were located, four of which came from segment 1 within sections 5-6, in layer 2. Consisting of one humerus, two scapulas and a femoral head, the bone deposited here may have come from another location as the human bone seems to be weathered compared to the relatively fresh animal bone. It suggests that the human bone may have been deposited with numerous cattle bones within Phase 1A and then quickly covered. This may have been done in order to seal the deposit of the event being carried out, such as a feast where the human bone was central to the meaning behind deposition, in order to 'quickly'

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conclude an event which had taken place, central to the order or meaning behind the objects and deposit. Alternatively it was covered in order to keep animals from disturbing the deposit.

3.4.3.2 Segment 6, Phase 1B Recut

Individual acts in the eastern segments during specific times at Etton may be more clearly seen through the enclosure ditch segment drawings. Within the Phase 1B recut of segment 6 (Fig. 3.49) several distinctions or 'event zones' may be seen, indicating where specific activities took place when specific placements of objects in opposition to objects placed within enclosure ditch segments occurred in a structured, but linear way. Phase 1B produced a total of 16 animal bone elements (cattle, 6; large ungulate 8; small ungulate 2), a human cranium, associated with a red deer antler 'baton', and based on the sample information of the pottery, 82 sherds are represented within Phase 1 contexts, all of which are Mildenhall ware. This may indicate that two separate activities occurred in the same location, with the placement of objects within the Phase 1B recut as a result of specific meaning, perhaps through memory of what had gone before, originating from the prior deposition of the large quantity Mildenhall ware within Phase 1A.

Within this recut are, also, a large deposit of wood, one decorated bodysherd of Mildenhall type, three waste flakes, one lightly burnt blade, several large Mildenhall plain rimsherds and a quantity of animal bone distributed throughout this end of the ditch. As little human bone was recovered from Etton, the main focus was most likely the deposition of the human cranium in association with the red deer antler 'baton'. The 'pyre' material in the extreme butt-end of causeway G contained some animal bone and a decorated Mildenhall sherd. The lightly burnt blade in association with the northernmost animal bone deposit may have been brought over to this area after its use was finished. Two plain body sherds seem to separate the northernmost bone group from the wood and the rimsherds to the south. Small thin pieces of wood are stretched out, completing the separation of the animal bone from this wood grouping. The grouping of plain body sherds and the three sherds underneath the rock were used as a separator between the main foci of the event.

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As discussed above, since human bone is rare within Etton in all phases, the choice in re-cutting segment 6 for the deposition of the human cranium would have been a significant event in which a fire was made for a small feast, consumed within the area in association with perhaps a complete decorated Mildenhall pot, of which a sherd was left behind. Alternatively, after the pot had been used for holding liquid or meat it could have been purposely broken, and a sherd selected for inclusion within the deposit in order to define its role in the event which had taken place. The animal bones were then transported away from the human bone deposit and separated from the wood in the middle of the ditch. This wood may have had a direct symbolic association with the deposition of the cranium and the red deer which involved the association of the wooded landscape outside the enclosure and could have been used to fuel the butt-end 'pyre'.

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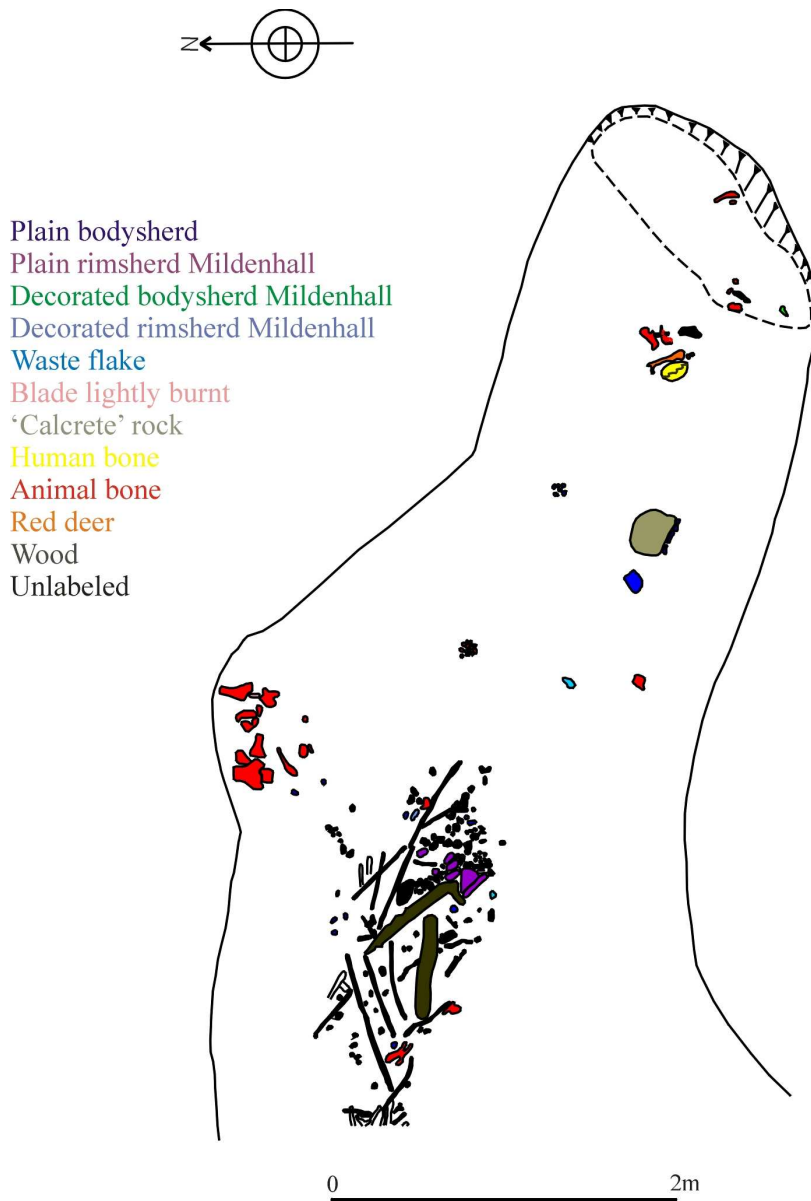


Figure 3.49 Segment 6, Phase 1B recut from Etton (after Pryor 1998: fig. 24)

3.4.3.3 *Segment 10, Layers 1 and 2*

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Human bone also occurs within a butt-end deposit at causeway K (Fig. 3.50). Here, it may be significant that 13.70% of the animal bone from Phase 1C comes from this segment, the second highest next to segment 1 (54.39%). Of the bone totals, cattle number 87, pig 21, and sheep 4. Again, with the exception of segment 1, the highest number of pig bones within this phase is in segment 10, and may be an indication of feasting in relation to the event surrounding the deposition of the human cranium. The variety of flint waste, including some burnt waste flakes, may be a further indication of feasting. The variety of pottery is also quite striking in that four sherds of Mildenhall ware are present, three decorated bodysherds and one decorated rimsherd, and one decorated bodysherd of Fengate ware, which is quite rare at Etton, perhaps indicating an intentional selection of pottery to be deposited.

From this evidence it may be suggested that, due to its weathered nature, this human cranium may have been brought to Etton specifically to be placed within this butt-end deposit; specific pottery was used to during the event and was perhaps smashed at the conclusion leaving all sherds behind, which were included, having been 'swept' into the ditch or deliberately placed. The large amount of pig compared with other segments within this phase suggests that it had great importance in this event and was consumed in some quantities. The evidence for burning, both within the soil and waste flakes, indicate that cooking may have been taken place.

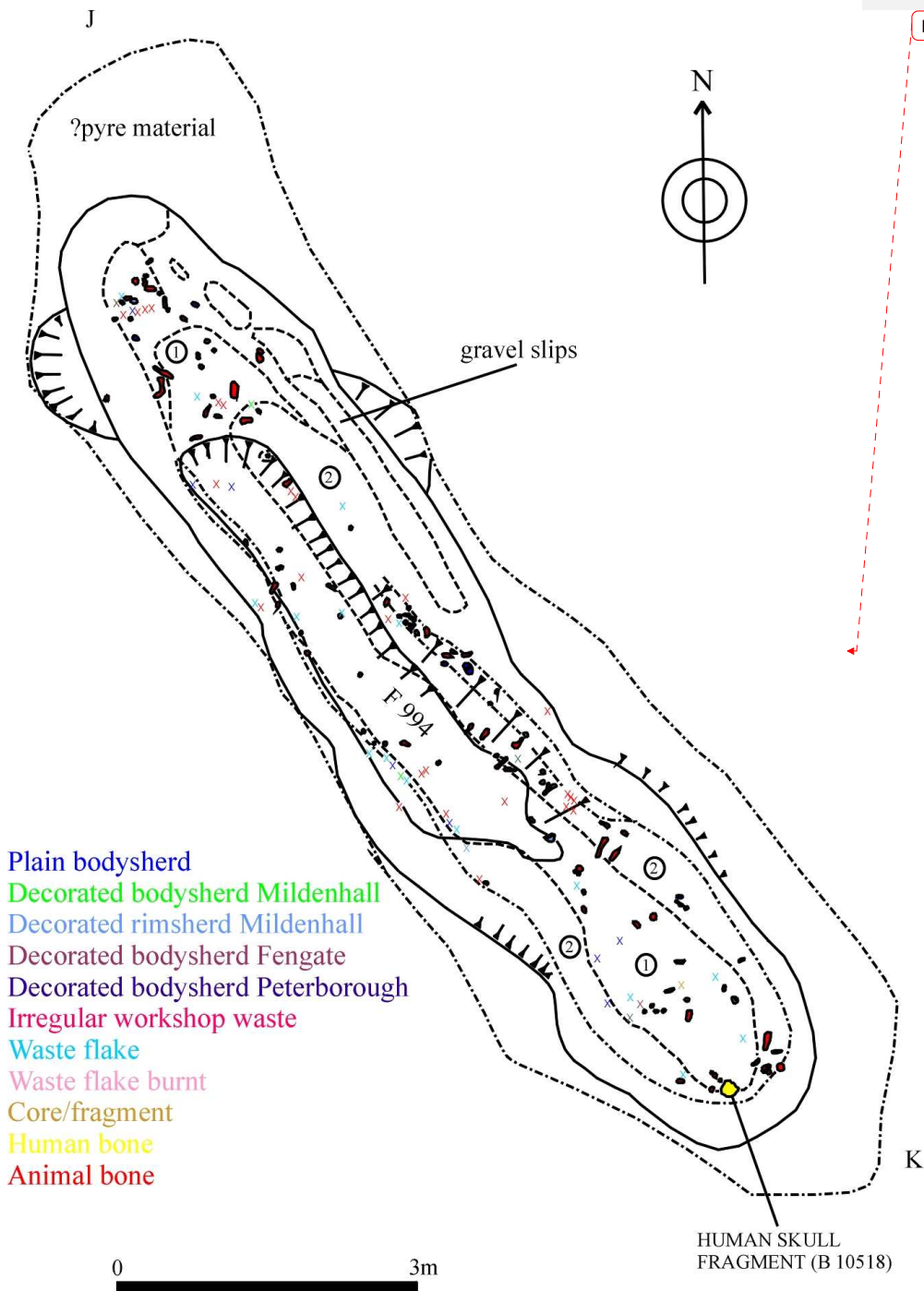


Figure 3.50 Etton enclosure ditch segment 10 assemblage, layers 1 and 2 from c. 6.70 7.00m OD (after Pryor 1998: fig. 43)

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3.5 Other activity areas

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3.5.1 Terminal end deposits

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Cut marks, as discussed above on animal bone, typically show that an animal has been dismembered and eaten. Cut marks can also show that bone had been modified, changed with decoration being added, or turned into something entirely different, such as an antler comb. Within the enclosure ditch segments at Etton a variety of forms of evidence, particularly flint scrapers, suggest that the butchering and subsequent processing of animals was a key activity within all phases, and increased through time.

3.5.1.1 Segment 1

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Within the western ditch segments, material tends to be deposited in more isolation than the far more structured deposits of the eastern ditch segments. Perhaps the depositional practices had more to do with the fact that the western segments were most likely waterlogged for large parts of the year. Although no site plans for the western segments exist in the final report for that area of the site, descriptions of the objects illustrate that many of these were associated with the dismemberment of animals. From the pottery sample, it is evident that a small amount of material was deposited within segment 1, but the pottery that was deposited was associated with the butchered remains of animals. The deposit of a partial sheep skeleton in the butt-end at causeway A could also signify the importance of its relationship. The Phase 1 deposits numbering 1627 cattle bones attest to its importance as a place which saw either feasting or the dismemberment of animals which were then taken to the eastern side of the enclosure for inclusion in symbolic events. Further weight to this suggestion may be that a significant number of dung beetles were located within the area of ditch segments 1 and 2, which points to an area where cattle were kept for a period of time (Pryor 1998), indicating herding and a strong pastoral focus the Neolithic people brought to Etton. In the northern end of segment 1, the bundle of cattle ribs may have been used to mark a distinct area in which cattle dominated, and was seen as such by individuals when making their way into the enclosure through causeway B.

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Five human bone elements from segment 1 were located, all of which were in a weathered state, some with gnawing, suggesting that bodies were exposed and defleshed before deposition within the enclosure. The animal bone on the other hand is quite fresh. Another way to interpret this then is that the animal bone was deposited within segment 1 and at some point not too long afterwards the human bone was brought to segment 1 in part of a closing ceremony for the segment, which may or may not have involved the complete Mildenhall bowl at causeway A and the bundle of cattle ribs at causeway B. Segment 1 is 42.00 metres long and would have provided an adequate area where numerous people would have been able to participate in the placement of human and animal bone, within and inside the ditch. This could have defined how the enclosure was socially used by the community within the western segments for a good harvest, or other large-scale event which affected all people who lived within the local environment. The eastern segments were reserved for smaller, individual deposits which reflected personal life situations such as a birth or death of someone close.

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3.5.1.2 Segment 7, Phase 1C

Within segment 7, near causeway H (Fig. 3.51), a more distinct group of animal bone was produced in a probable Phase 1C context. Here, animal bone dominates, and again we can see the placement of a few plain bodysherds which seem to have been used to separate three different groups of animal bone. A circle of bone appears to make a 'ring' around the larger bone deposit with the two plain bodysherds directly associated with a larger piece of bone. The one flake implement could suggest small-scale butchering, but the ways in which the three groupings have been made may better suggest that the bone was brought from elsewhere and formally grouped together by at least three people for viewing as people moved through causeway H.

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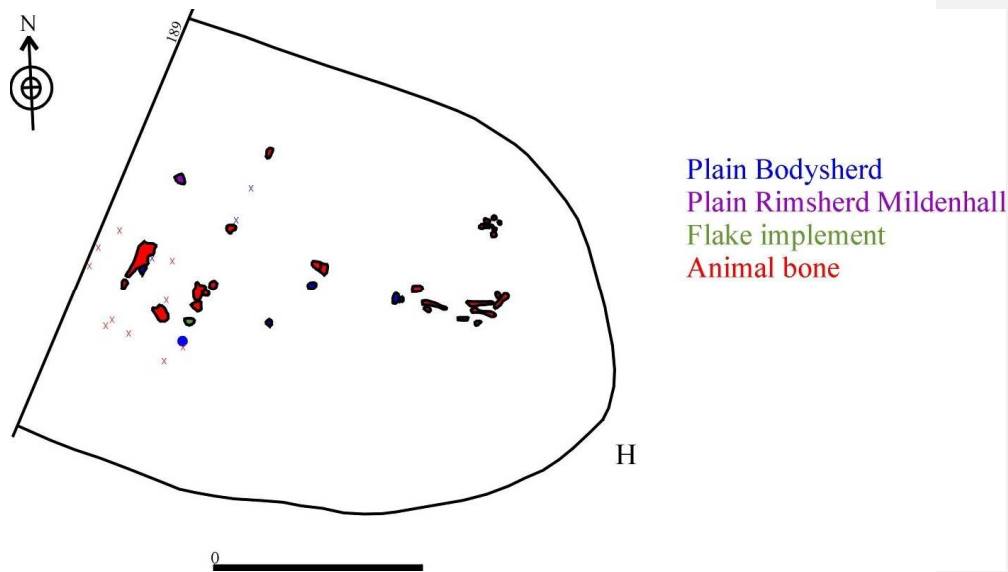


Figure 3.51 Etton terminal end of enclosure ditch segment 7, Phase 1C Assemblage (after Pryor 1998: fig. 29)

3.5.1.3 *Segment 9, Phase 1C Recut, Layer 2*

Within this deposit 70 animal bones were located, a majority in the southern end at causeway J. A linear spread of animal bone occurs to the north, but as it approaches the butt-end, it appears that a spread in the form of two semi-circles is being made. The first, to the north, is more circular in nature and accompanied by two decorated rimsherds of Mildenhall ware, one just outside the circle, the other within the other larger sherd inside the circle. This is separated by three plain bodysherds from a second, more tightly grouped spread of bone just to the northwest. Separating the linear spread of animal bone in the butt-end deposit are two plain rimsherds of Mildenhall ware, possibly acting as an indicator to the separate identity of these two deposits. Seven waste flakes are located within these deposits, all occurring in the outlying areas along the recut edge, possibly indicating a boundary zone to which objects or people adhered. The animal bone within this segment, though, is the centre of attention in the manner in which it has been arranged, and suggests that the other material associated with it is perhaps of secondary meaning.

3.5.1.4 *Segment 9, Phase 1C, Layer 3*

In contrast to the previous layer, layer 3 shows a dramatic change in the ways and types of objects which were deposited within this segment. The most evident

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distinction is the two querns which seem to separate the entire ditch segment into thirds (Pryor 1998). In the northern third animal bone dominates, with three, possibly four, placements of small groupings of animal bone. Although there do not appear to be any formal 'rings' of bone, plain bodysherds are still important in that, in the north butt-end, one sherd appears to be acting as a terminal point for the deposit. In addition to the placement of the querns, three portions of mandibles are located in each third of the segment, which could be suggestive of separating them through the use of the querns in a highly formalised manner. It is also interesting that the flint which occurs in this enclosure ditch segment is all located within the southern portion of the enclosure. In this respect, the quern may also be separating or restricting flint from the northern portions of the ditch segment.

3.5.1.5 Segment 10, Phase 1C, Layers 1 and 2

A large amount of animal bone (195 bones) is present within enclosure ditch segment 10, layers 1 and 2 (Fig. 3.52). There are differences between the two ends of the segment and a series of small pits was located within F994. The animal bones in the northern portion of the segment appear to consist of a half circle with a number of plain bodysherds massed around them. Two decorated bodysherds, a few waste flakes, and a plain Mildenhall rimsherd complete the small deposit. At the southern end another circular deposit of animal bone is present along with six waste flakes and one scraper. The final major deposit is located at the butt-end of the segment at causeway K. Here, a single plain body rimsherd is placed in between the circular formation of animal bone and waste flakes and two much smaller animal bone deposits which may have been made by an individual or a small group.

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Figure 3.52 Etton enclosure ditch segment 10 assemblage, layers 1 and 2 from c. 6.90-7.10m OD (after Pryor 1998: fig. 42)

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3.6 Summary

In summary, the causewayed enclosure at Etton presents us with a unique look into Neolithic life. Owing to the excellent preservation, the amount of woodworking material gives us an insight into one of the central themes of activity at Etton. The enclosure was constructed on a known watercourse, and presumably trees were coppiced directly from the enclosure ditch segments, the greatest evidence coming from segment 5. Woodworking was an important part of life at Etton as shown through the creation of ‘fences’, wooden ‘forks’, and bowls, which probably comprise only a small portion of a diverse set of objects created from the surrounding forested landscape. This is not to say that wood was not an important component to people within other areas such as the South Downs (below). Due to preservation constraints, the evidence for the use of wood within these areas is much lower and as there is no evidence for large scale construction involving wood for the creation of palisades at any other enclosure with the exception of Hambledon Hill.

Etton is not a large causewayed enclosure compared to others in the British Isles, and the near total excavation of the site produced only 7407 modified flint objects, 1344 of which were implements. It could be that Etton was not seen as a place where the deposition of flint was integral in creating a social statement, but was used more often in a utilitarian context such as butchery and tree felling. The exception to this may be the stone axe within an interior pit and the only flint cluster located within segment 14 near causeway O. As we will see in the chapter on the South Downs enclosures, flint was as much a part of life for those Neolithic communities as wood was to the people of Etton.

Human bone is also only represented by disarticulated remains; this is also of considerable importance considering the scale of excavation, indicating that human bone was either separated on site after excarnation, for example, or brought to the enclosure to be included with other cultural material.

The use of animals at Etton changes quite dramatically. From Phase 1 to Phase 2 there is a steady increase in the amount of cattle bone being deposited at Etton. Within Phase 1A deposits, large amounts of pig and sheep/goat were placed within

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the terminal ends of the enclosure ditch segments. Most of these deposits were of younger animals in a semi-articulated state, perhaps indicating that they had another function in opposition to just food. As noted above, sheep may have been prized, and their placement within the ditch terminal at causeway F, a proposed entrance, may give added weight to this interpretation. From Phase 1B to Phase 2, cattle become increasingly important to the people in the Etton landscape, and may reflect a greater knowledge of how to control herds and a general understanding of breeding cycles. This increase in cattle is shown through the areas such as segment 10, where the evidence of fire and separate pits may indicate cooking and processing areas.

As Pryor suggests, a majority of the structured deposits were located within the eastern enclosure ditch segments, the auroch skull located on top of a wooden object, probably a box, is indicative of this. A majority of the objects located in the enclosure ditch segments could have been placed deposits which were not structured, but were indicative of the activities involving cattle. Within the western segments, the linear placed deposits of wood predominated, particularly in segment 5. The upside-down Mildenhall bowl from segment 1 could be considered a structured deposit because of its positioning within the ditch and its completeness. The interior pits which contained burnt material, but not burnt themselves, could be considered placed deposits as the material contained within each pit could have been deposited all at once.

3.7 Haddenham

3.7.1 Location and background

The Haddenham causewayed enclosure (TL 414/737) comprises a single circuited interrupted ditch within a concentric internal palisade trench (Evans 1988: 127; Evans and Hodder 2006: 239) (Fig. 3.53). Located 14.4km north of Cambridge on the southwest fen edge, the causewayed enclosure was discovered by D. R. Wilson on aerial photos from the Fenland survey being undertaken by David Hall of the Haddenham-Over barrow field (Evans 1988: 127). Encompassing about 8.5ha, the Haddenham causewayed enclosure is one of the largest in the British Isles (Evans 1988: 127). Geographically, the enclosure sits on the southwest quarter of the

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Figure 3.53 Plan of Haddenham causewayed enclosure (Oswald et al. 2001: fig. 4.11)

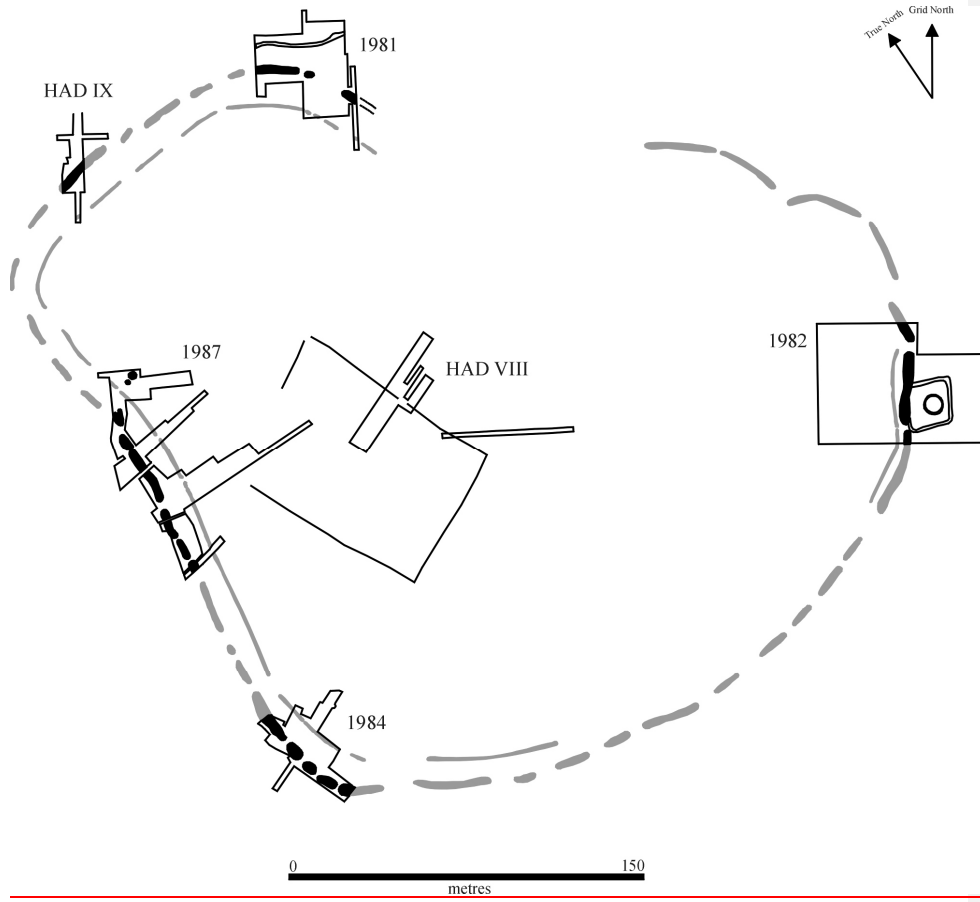


Figure 3.54 Haddenham causewayed enclosure showing excavated areas (after Evans and Hodder 2006: fig. 5.1)

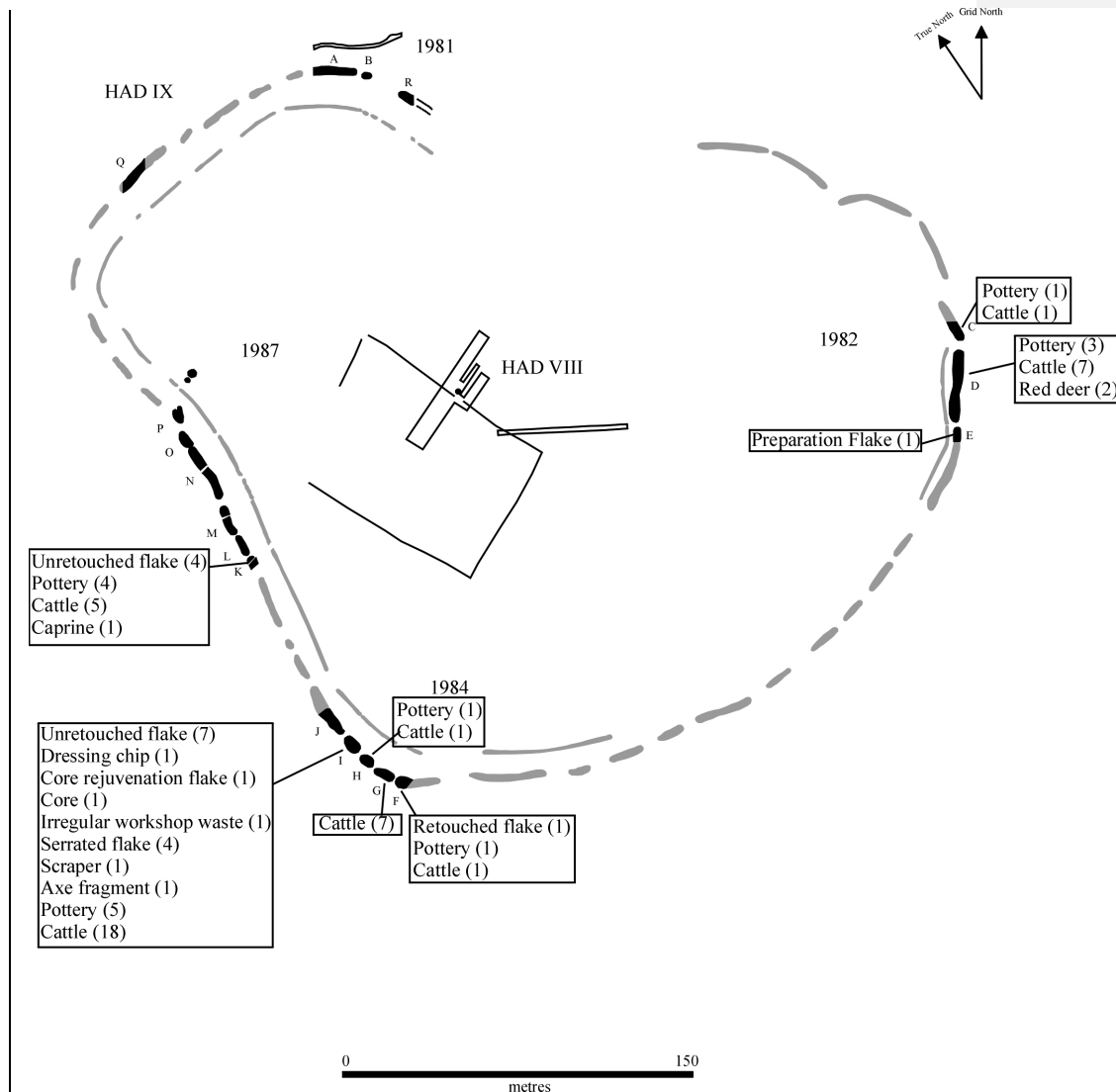


Figure 3.55 Distribution of material within a primary context at Haddenham (after Middleton 2006; Gdaniec 2006; Legge 2006)

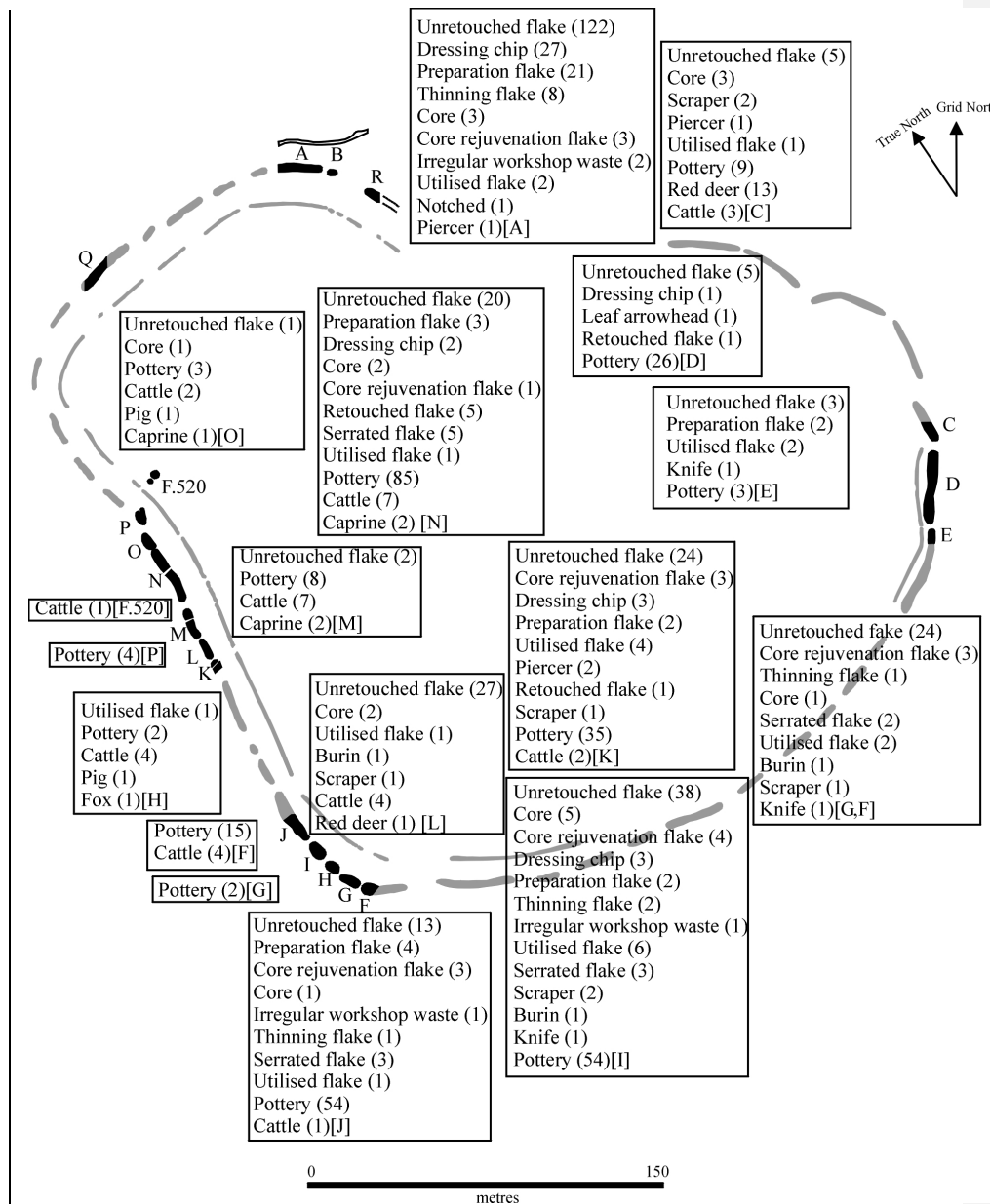


Figure 3.56 Distribution of material within a secondary/tertiary context at Haddenham. Letters in brackets indicate ditch segment (after Middleton 2006; Gdaniec; 2006; Legge 2006)

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Upper Delphs. The western side of Haddenham extends along the straighter width of the ridge, while the northern portion of the site is the only area to follow the 2.10m contour of the terrace side. The south-eastern and north-western portions of the site, by contrast, are more circular in nature and suggest that the northern and western sides of the enclosure may have been the first portions of the site to be constructed and ultimately governed the construction of the eastern side of the site through the topography (Evans and Hodder 2006: 239).

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Figure 3.53 Plan of Haddenham causewayed enclosure (Oswald et al. 2001: fig. 4.11)

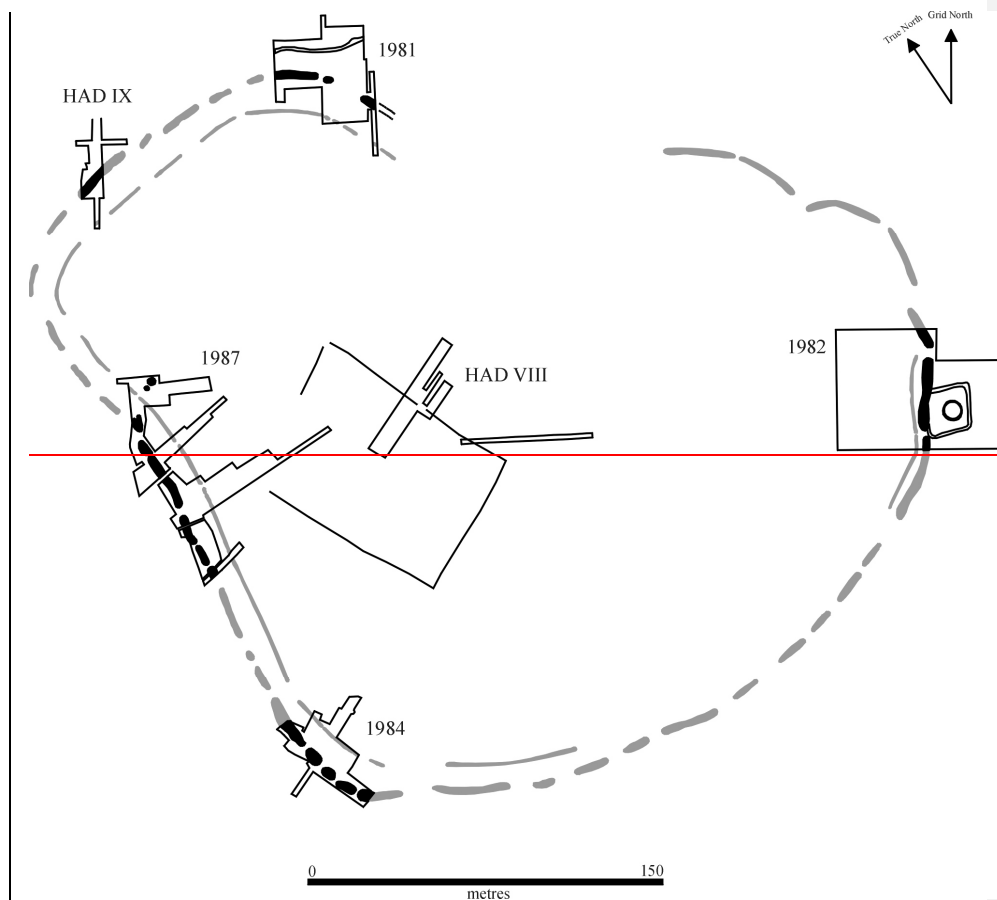


Figure 3.54 Haddenham causewayed enclosure showing excavated areas (after Evans and Hodder 2006: fig. 5.1)

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The site was excavated over four summers: 1981, 1982, 1984, and 1987, including the excavations of HAD VIII and IX (Evans and Hodder 2006: 239) (Fig. 3.54). Although portions of the site were excavated in distinct spatial areas in order to achieve maximum information, the actual work undertaken is very small in comparison to the total area of Haddenham. A total of about 230m of enclosure ditch segment was excavated of the 1113m long perimeter, and represents only about 20% of the entire site (Evans and Hodder 2006: 239). The interior investigations were on an even smaller scale, with only about 5% being excavated, and have led the authors to note that this small amount “is insufficient to ‘know it’” and that “a degree of interpretive modesty is warranted when evaluating the results” (Evans and Hodder 2006: 239). With this in mind, it is not possible to re-construct a site-wide evaluation. The areas of Haddenham which have been excavated will be explored, and a tentative

suggestion will be made as to the activities which were being conducted in a sample of enclosure ditch segments and the interior features. The comparison to Etton at the end of this chapter will attempt to bring an interpretation that links the two sites together through their close geographical position within the landscape, while comparing and contrasting activity areas.

The large area of the site was a major challenge to the excavators but, over four seasons of excavation, the cultural material which is 'common' at other causewayed enclosures within the British Isles has confirmed its importance. In addition to the large area Haddenham occupies, the palisade in the interior of the enclosure adds another dimension to the ways mortuary and lithic activities were spatially carried out. The cultural material was of a 'typical' nature, consisting of flint, human and animal bone and pottery. Recutting and the possible burning of material was evident in the enclosure ditches, also indicating the different ways in which cultural material was socially used and deposited within the site. The primary and secondary site plan distributions (Figs. 3.55 and 3.56) of the material attest to this suggestion, and point to areas which saw a high level of specific material use.

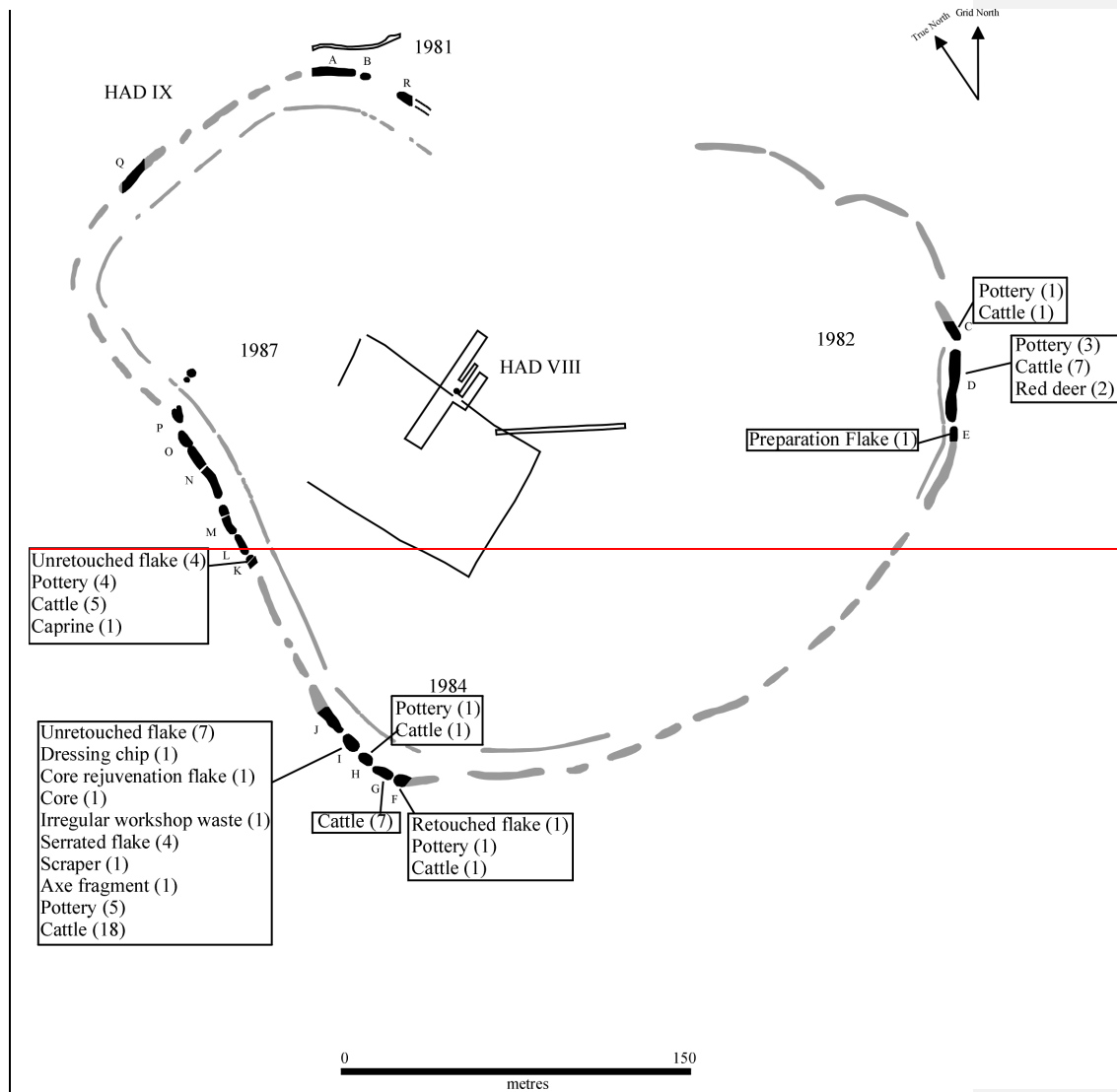


Figure 3.55 Distribution of material within a primary context at Haddenham (after Middleton 2006; Gdaniec 2006; Legge 2006)

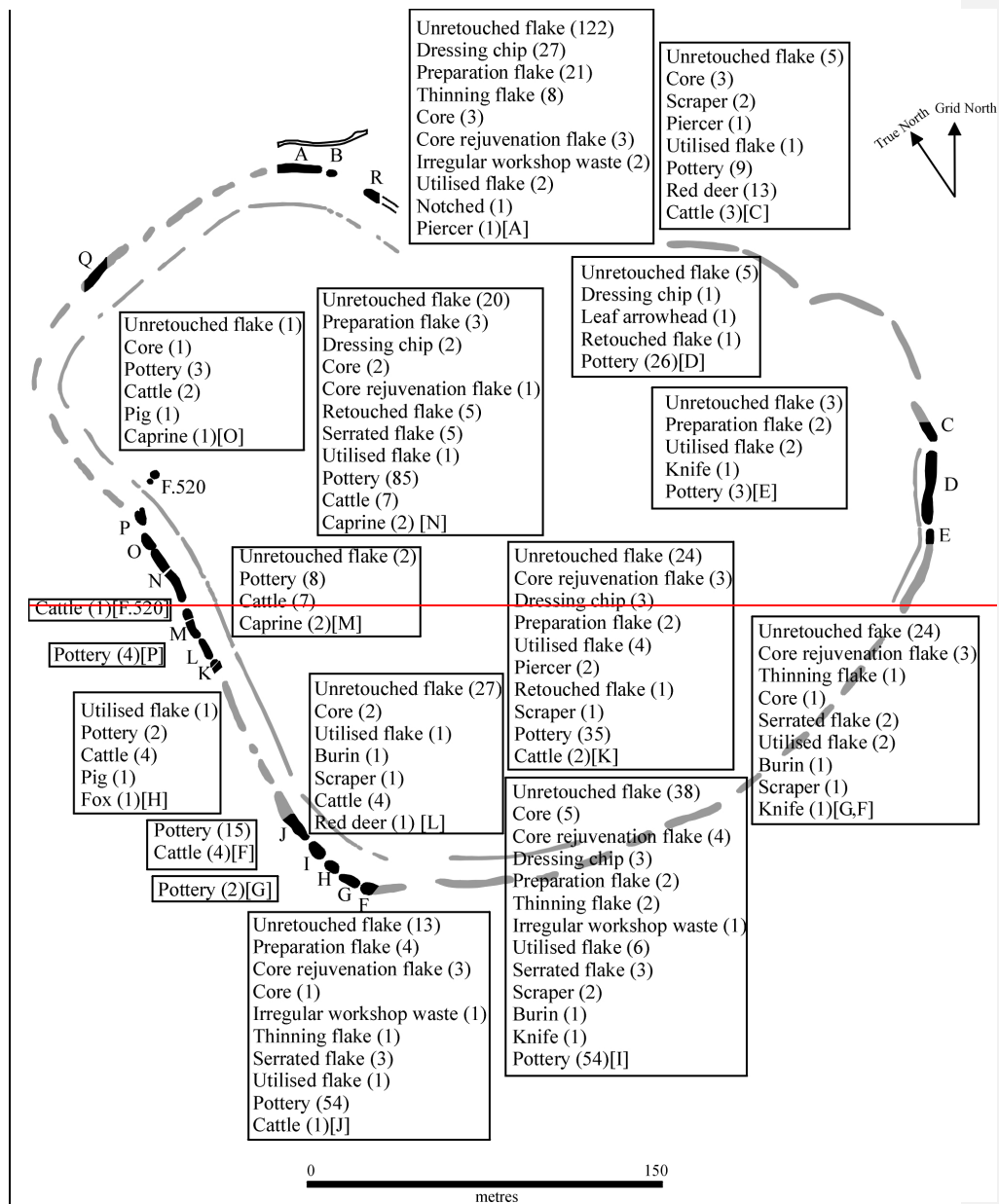


Figure 3.56 Distribution of material within a secondary/tertiary context at Haddenham. Letters in brackets indicate ditch segment (after Middleton 2006; Gdaniec, 2006; Legge 2006)

3.7.2 Previous interpretations

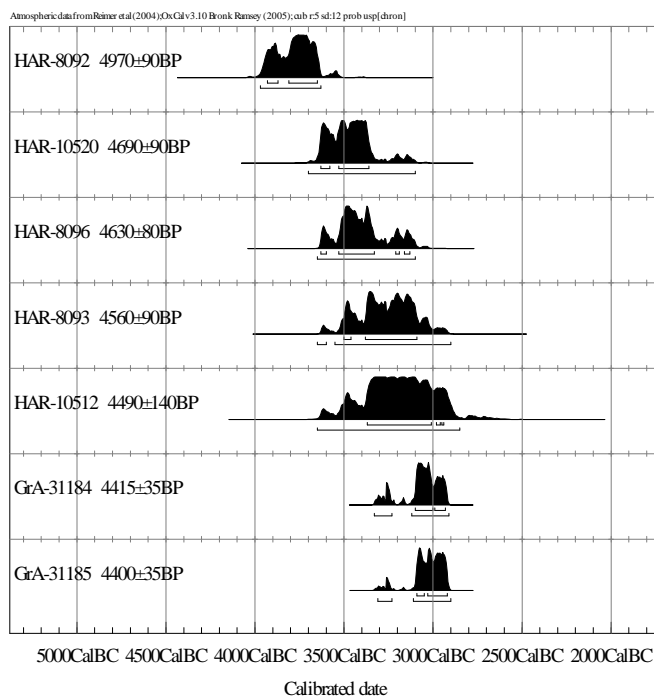
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Prior to the publication of the Haddenham report (Evans and Hodder 2006), Hodder (1992) suggested that the Haddenham enclosure involved a hermeneutic spiral. This interpretation suggested that the people who used Haddenham represented “stable social relations” between the groups within different areas of the enclosure were “continually and actively being renegotiated and realigned” (Hodder 1992: 239). Evans and Hodder (2006) would later emphasise the importance that Haddenham was a place where communities were built as the enclosure was being built. Recutting within the enclosure ditch segments was important and could indicate a seasonal cycle. Communities may have stayed at Haddenham for a period of time, but no settlement was suggested. A reconstruction model of the assemblages suggested that the enclosure was constructed and used by 100-200 people (10-40 groups or 3-7 lineages) and that the enclosure may have been intensively used for shorter periods of time (Evans and Hodder 2006: 329).

3.7.3 *Chronology and dating*

In addition to the radiocarbon samples collected from the Haddenham causewayed enclosure, additional material has been sampled, and is presented in Table 3.3 in calibrated BC form. These dates from the new radiocarbon determination programme (Whittle et al.: in prep.), suggest that “Haddenham was constructed in 3820–2930 *cal BC* (95% probability), probably in 3290–2975 *cal BC* (68% probability). The ditches had infilled by 3100–2460 *cal BC* (95% probability), probably by 3065–2860 *cal BC* (68% probability). Overall the enclosure was in use for 1–1090 years (95% probability), probably for 1–395 years (68% probability). The large uncertainty on this estimate is an artefact of a statistically inadequate series of dates, but the shape of this distribution does suggest that the Haddenham enclosure may have been in use for a relatively short period of time”. As will be shown below, the small assemblage at Haddenham may add further weight to the use of the site being short, but intensive.

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Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (95%)
HAR-8092	3930-3650	3970-3630
HAR-10520	3630-3360	3700-3100
HAR-8096	3630-3130	3650-3100
HAR-8093	3500-3090	3650-2900
HAR-10512	3370-2940	3650-2850
GrA-31184	3100-2930	3330-2910
GrA-31185	3090-2920	3310-2900

**Table 3.3 Radiocarbon dates from the Haddenham causewayed enclosure
(after Whittle et al.: in prep.)**

HAR-8092	Bulk sample of unidentified charcoal	Segment I, F120, context 1888. Recut near top of largely silted ditch, in burnt, charcoal-rich matrix including Peterborough Ware. No sign of burning <i>in situ</i> (Evans and Hodder 2006, fig 5.15). Stratified above HAR-8096
HAR-10520	Bulk sample of unidentified charcoal	Segment C, F42, context 362. From a burnt post in the secondary fills of the east side of the butt end of the causewayed enclosure ditch (Evans and Hodder 2006, 247–8)
HAR-8096	Bulk sample of unidentified charcoal	Segment I, F137, context 1747. Fill of S part of ditch around axial ridge from which primary silts had been cut away. Clay and gravel containing bone and charcoal bonded with heavy iron concretion, including human skull fragments. Stratified below HAR-8092
HAR-8093	Bulk sample of unidentified charcoal	Segment J, context 1841. From the surface of a possibly natural shell marl platform in the centre of the segment, overlying a small amount of initial silt and covered by a thin layer of sandy clay with charcoal and burnt bone (Evans and Hodder 2006, 255–7)
HAR-10512	Peat	Segment O, context 3992. Although there is some slight doubt of the exact provenance of this sample, it appears to date the final recutting of this segment of the causewayed enclosure ditch (Evans and Hodder 2006, 263–4)
GrA-31184	Single fragment <i>Quercus</i> sp. sapwood	From the same context as GrA-31185

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HAR-10512	Peat	Segment O, context 3992. Although there is some slight doubt of the exact provenance of this sample, it appears to date the final recutting of this segment of the causewayed enclosure ditch (Evans and Hodder 2006, 263–4)
GrA-31185	Single fragment <i>Corylus avellana</i> or <i>Alnus glutinosa</i> or <i>Salix/Populus</i> sp.	Segment J, context 1866. From a ?solution hollow in the surface of the platform which supplied the sample for HAR-8093. The material may have been primary, carried up as the marl 'erupted' through the ditch fills, or, more probably, may have lain in the base of a recut (Evans and Hodder 2006, 255–7)

Table 3.4 Radiocarbon material from Haddenham submitted for dating (Whittle et al.: in prep.)

3.8 Deposition at Haddenham

3.8.1 Animal bone

The animal bone at Haddenham reflects the depositional patterns of cattle as seen in the enclosure ditch segments at other causewayed enclosures. The numbers represented at Haddenham may not reflect the actual amounts of social activity due to the high acidity levels in some portions of the site (Evans and Hodder 2006: 245; Legge 2006: 311). Cattle numbered 58 (81.69%) of the total assemblage, fox 1 (1.40%), pig 3 (4.22%), and caprine 3 (4.22%).

Within the first constructional phase or primary phase, at Haddenham dated to c. 2830-3930 cal BC, (Whittle et al.: in prep.) it is clear that enclosure ditch segment I contains the largest amount of animal bone represented by 18 finds or 25.35% (Fig. 3.57). Cattle bone was only located within enclosure ditch segments F, G, H, I, and J (1984 excavations) and segment C (1982 investigations).

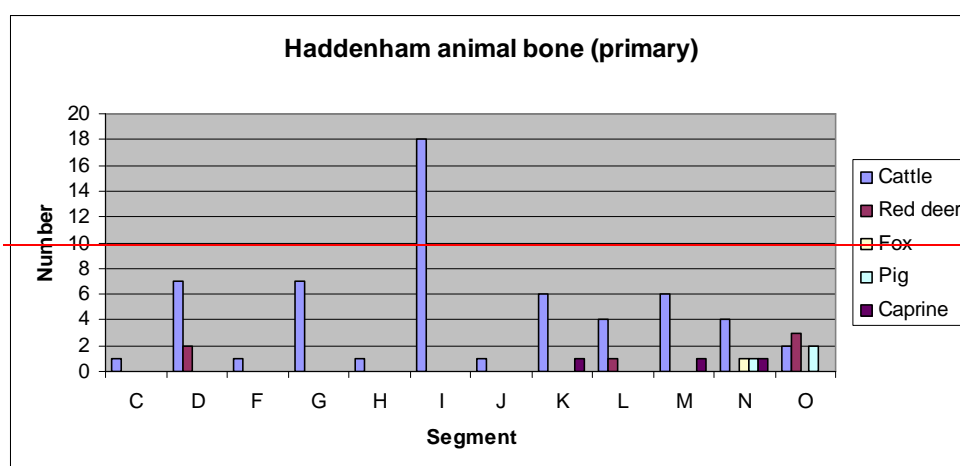


Figure 3.57 Haddenham primary animal bone assemblage (after Legge: 2006: 313)

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With the exception of enclosure ditch segment D, which contained two finds of red deer, the remainder of the animal bone assemblage is generally more mixed in character, with enclosure ditch segments N and O containing at least one element from each species and only red deer missing from segment M. Segments K, M, N, and O all contain 7 finds, while segments L and O contained 5 and 0 respectively. Overall, the primary phase of the 1987 excavations is representative of a mixing of the animal species within the same enclosure ditch segments, while the 1984 areas show a distinct segregation of animal species with only cattle represented and enclosure ditch segment I standing out with its overall high numbers of finds.

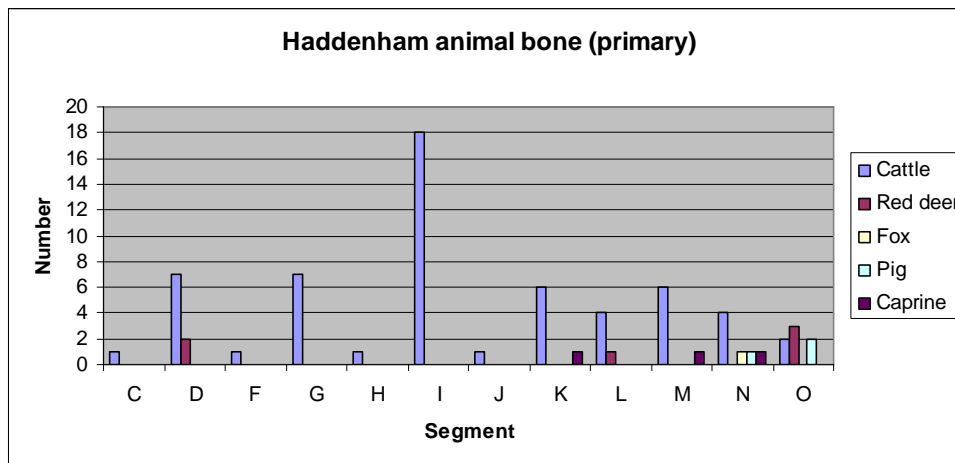


Figure 3.57 Haddenham primary animal bone assemblage (after Legge: 2006: 313)

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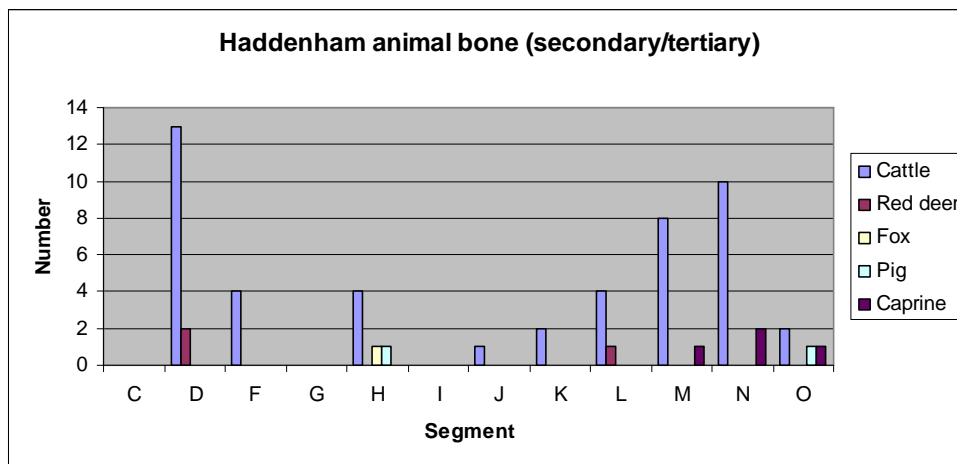
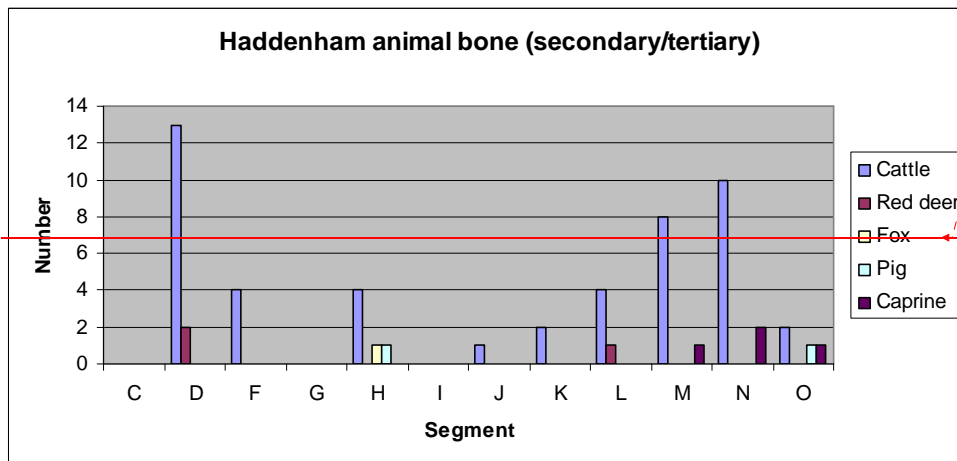


Figure 3.58 Haddenham secondary/tertiary animal bone assemblage (after Legge 2006: 313)

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The secondary/tertiary phase paints a different picture of the social use of animal bone at Haddenham (Fig. 3.58). The most noticeable is the absence of any bone in enclosure ditch segment I, as well as in segments C and G. As a whole, the 1984 excavation area shows a major decline, while the 1987 excavation shows a dramatic increase, in the deposition of animal bone. Enclosure ditch segment D is an example



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Figure 3.58 Haddenham secondary/tertiary animal bone assemblage (after Legge 2006: 313)

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of this change as it increases from 9 to 15 finds. The 1987 excavations of animal bone show that this portion of the site was still being used to a greater degree for the deposition of animal bones, these only decreasing in number from 33 to 32. A greater

emphasis is placed on the deposition within ditch segments M and N with 9 and 12 finds each.

3.8.2 *Human bone*

Human bone at Haddenham is limited and consists mainly of skull fragments (62) and one femur— deposited within enclosure ditch segments I, M, N, and O. The main amount of material came from enclosure ditch segment I, with finds of five refitting skull fragments, the left posterior portion of an adult mandible with dentition, possibly male aged 25-35, and twenty cranial fragments of a young adult or sub-adult, representing a minimum of two individuals (Dodwell 2006: 306). Within Ditch segment M, thirty-three fragments of skull were located, many of which refit. In Ditch N, a mid shaft of an adult sized femur and three fragments of adult skull were located within enclosure ditch segment O (Dodwell 2006: 306-7). The large amount of recutting and burning within enclosure ditch segment I indicate a high degree of temporal activity, suggested by the radiocarbon dates from the large deposits of charcoal. The placement of human bone consisted of cranial fragments and the deposition of two tibia shafts, a fibula shaft, and one navicular fragment. The mound constructed in the middle of enclosure ditch segment I also contained a Group VI axe (Evans and Hodder 2006: 253), which may be closely tied to the human bone being placed in this location, as may be the position of the palisade to obscure the activities from individuals on the inside of the enclosure.

Ditch segment I has the most convincing evidence for mortuary activity with the deposit of a human crania along with a polished stone axe on a raised 'mound' within the ditch. The numerous recuttings of this segment attest to the 'historical' importance placed upon it. The only animal remains to be deposited within segment I were 18 elements of cattle in a primary context, with none recorded in a secondary context; this may point to a small-scale feast during which limited numbers of individuals were allowed within the confines of the ditch. It is therefore suggested that during this same social event the human crania and the stone axe were deposited. The intentional creation of a mound on which the stone axe was placed would have created a central focus for the event, while the human remains were placed in a socially acceptably way near the causeway between segments I.

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3.8.3 *Flint*

The flint assemblage at Haddenham totalled 2245, of which 1673 pieces (73%) came from the buried soil (including HAD VIII and HAD IX), 474 (21%) from the enclosure ditches, 51 (2%) from the palisade, and 83 (4%) from HAD VIII pit (F.534). The flint from the palisade, primary enclosure ditches and the F.534 pit are the only secure contexts and represent only 7% of the total assemblage (Middleton 2006: 282).

From the primary phase it is clear that the focus for the deposition of flint was within the palisade with 37 unretouched flakes, 1 dressing chip and one core rejuvenation flake. The deposition of unretouched flakes within the palisade alone makes up 46.25% of the entire primary lithic assemblage and 55.00% for the palisade alone (Fig. 3.59). Four retouch flakes, one preparation flake and one core rejuvenation flake of the 1982 palisade make up the second highest total of the primary assemblage at 9.52%.

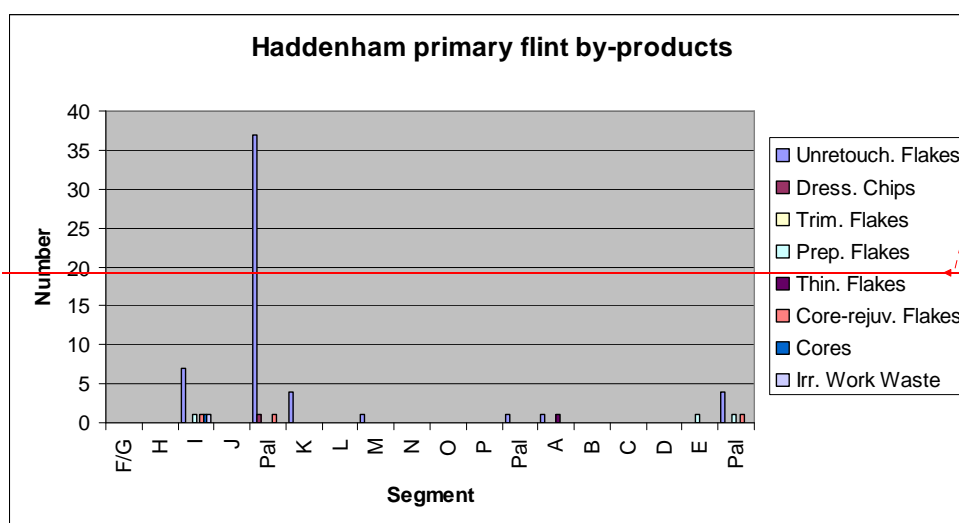
The implements within the primary deposit, though, are confined to the 1984 and 1987 areas (Fig. 3.60). Again, the palisade within the 1984 area contains a large number of flints compared to the other areas (5, 33.33%). Segment I contains the highest number with six (40.00%). It is the variety, though, which stands out between segment I and the palisade deposit in the 1984 area. Segment I contained four serrated flakes, one scraper and one axe fragment, while the palisade deposit contained two utilised flakes, one retouched flake, one piercer and one axe fragment suggesting a variety of activities involving the working of flint and the production of implements.

The secondary deposits show a much more varied spatial distribution within the excavated areas. The by-products (Fig. 3.61) are again dominated by unretouched

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Figure 3.59 Haddenham primary by-product assemblage (after Middleton 2006: table 5.15)

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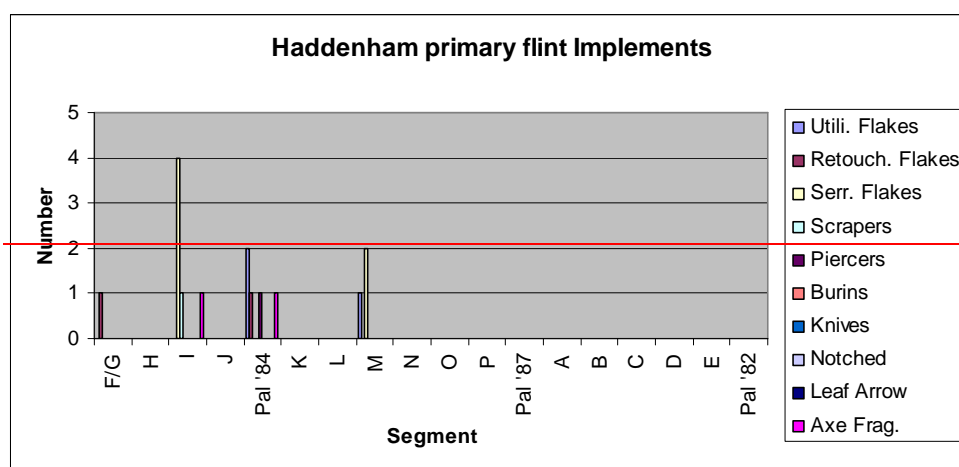


Figure 3.60 Haddenham primary implement assemblage (after Middleton 2006: table 5.15)

flakes (259), which make up 58.20% of the entire secondary flint assemblage. A majority of these flakes came from segment A, numbering 122 or 27.41% of all the by-products in a secondary context. Segment A also contained the highest amount of secondary lithic activity with 193 (42.41%) of the finds making up almost half of the assemblage. Segments I, J, and K make up a majority of the rest of the assemblage,

and account for 30.78% of all by-products. The implements in secondary contexts (Fig. 3.62) are distributed fairly evenly through all the excavated segments. Utilised flakes are the most widespread throughout the assemblage (21, 35.00%), with serrated flakes (13, 21.66%) and scrapers (8, 13.33%) making up a majority of the rest of the secondary implement assemblage. Segment I contains the highest quantity of finds with 13, comprising 21.66% of the entire assemblage.

Within the palisade contexts (Fig. 3.63), the HAD 1981 area contained the greatest variety of implements with utilised flakes (18.00%), scrapers (18.00%) and retouched flakes (11.00%) making up over half of the located material. As there are no specific numbers for the palisade flint material, numbers of objects cannot be shown. However, the percentages obtained from the main report suggest that a majority of the flint deposited within the palisade consists of the secondary working of flakes, indicated by the high numbers of serrated, utilised and retouched flakes, with a smaller, but consistent number of scrapers (1 to 2) located within all excavated areas.

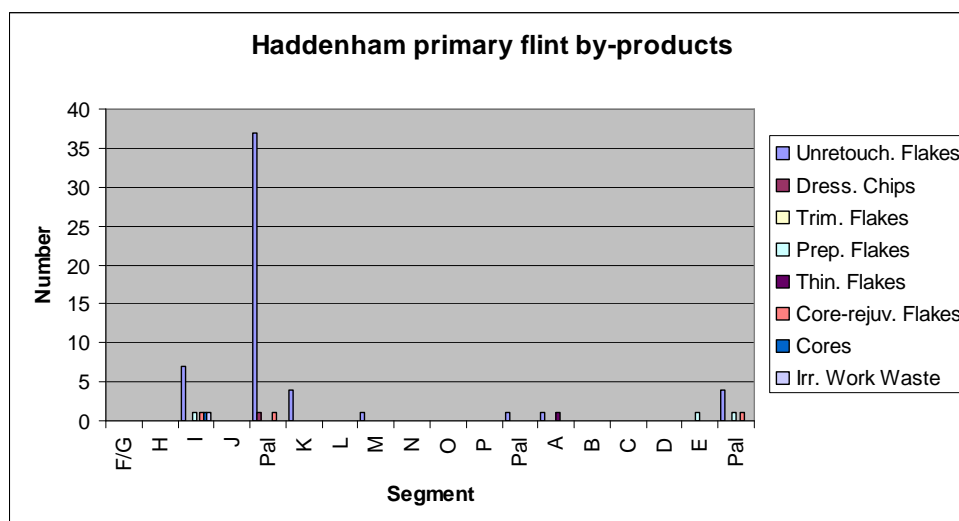


Figure 3.59 Haddenham primary by-product assemblage (after Middleton 2006: table 5.15)

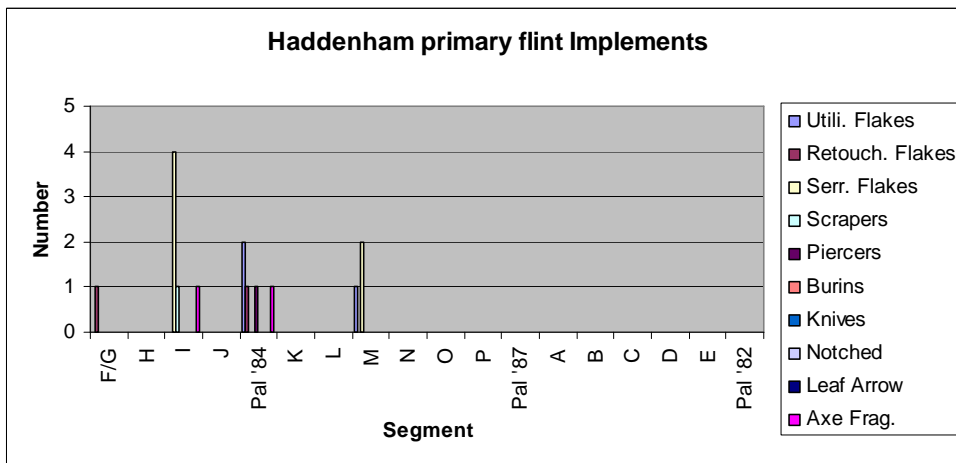


Figure 3.60 Haddenham primary implement assemblage (after Middleton 2006: table 5.15)

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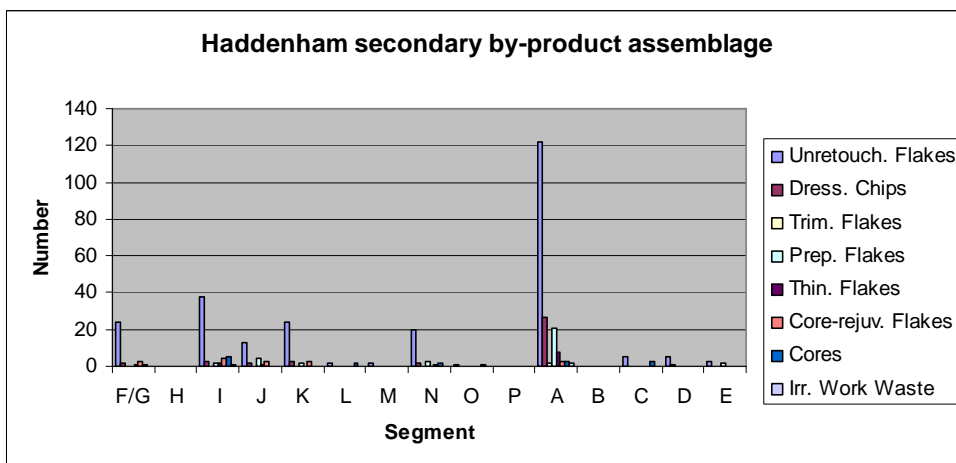


Figure 3.61 Haddenham secondary by-product assemblage (after Middleton 2006: table 5.16)

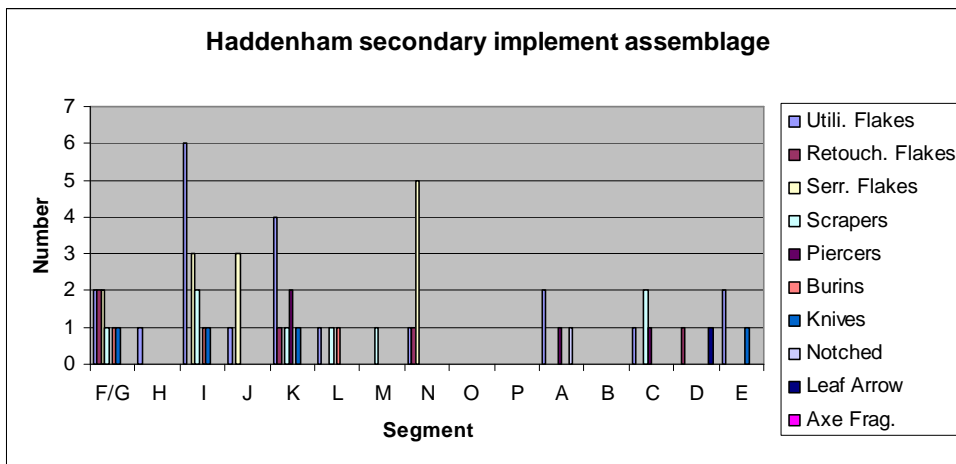


Figure 3.62 Haddenham secondary ditch silts implement assemblage (after Middleton 2006: table 5.16)

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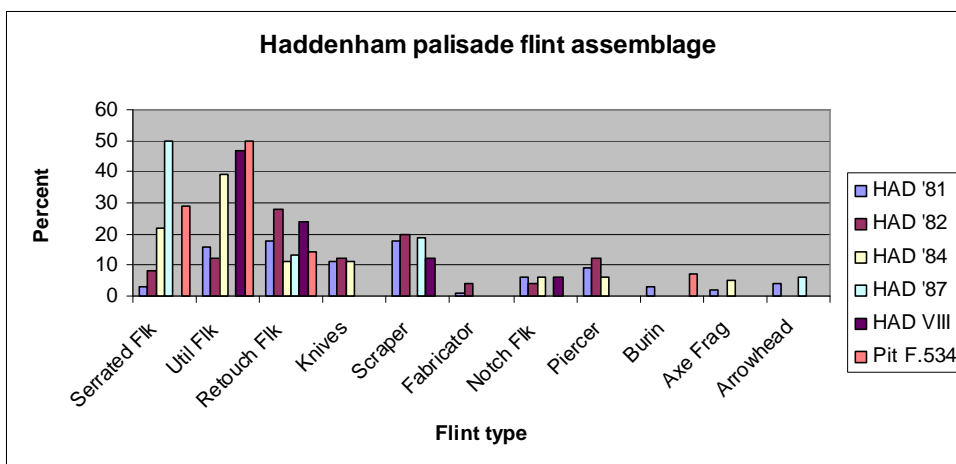


Figure 3.63 Haddenham palisade secondary worked flint assemblage

(after Middleton 2006: table 5.15)

3.8.4 *Pottery*

The pottery assemblage totalled 409 prehistoric sherds, but some were in a state of deterioration, consisting of crumbs (Gdaniec 2006: 299). Most of the earlier Neolithic assemblage consisted of plain body sherds, with 30 rims recovered. Of these rims, 10 were decorated and consisted of impressed or incised motifs (Gdaniec 2006: 299-300). A majority of the pottery is described as being of a general Neolithic date and consists of 266 sherds or 48.89% of the total pottery assemblage (Fig. 3.64). The Middle to Later Neolithic assemblage was small, and included Peterborough ware from enclosure ditch segment I, one sherd of Mortlake from N, Grooved ware from ditches O and N, and within pit F.520. One possible sherd of Beaker was also located within pit F.520. Mildenhall ware makes up the second largest group, numbering 84 (15.44%) of the total pottery assemblage.

The pottery may be another ~~clue~~ clue to the continuity of importance placed upon segment I. Only five sherds were found within a primary context, whereas the number jumps to 83 in a secondary/tertiary context, suggesting that segment I was still seen as being important. The same may be said of segment N, where the mid shaft of an adult femur was found. Only eight sherds of pottery were located within the segment in a primary context but, as with segment I, that number increases to 85 in secondary/tertiary contexts, suggesting that the use - or perhaps distribution of pottery to other areas of the site - took place from segment N. All other excavated segments also show a rise in pottery numbers, including those with human remains in segments M and O and the remainder of the segments with no evidence of human bone, but not to same extent as segments I and N, which when combined make up almost 50.00% of the secondary/tertiary pottery assemblage.

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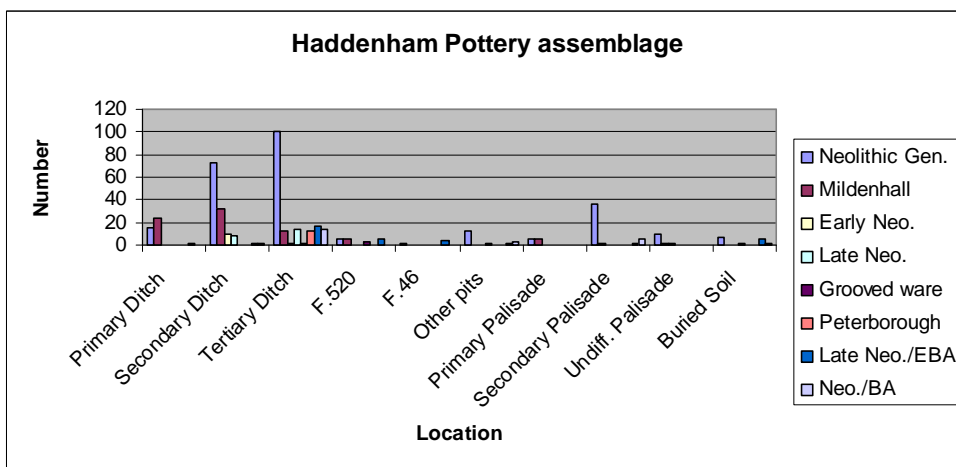


Figure 3.64 Haddenham pottery assemblage from all phases and areas (after Gdaniec 2006: table 5.23)

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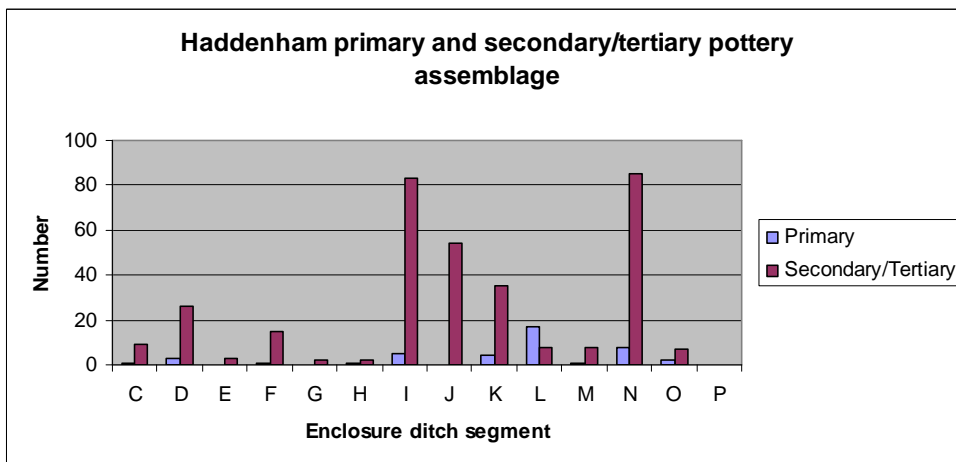


Figure 3.65 Haddenham primary and secondary pottery assemblage contexts
(after Gdaniec 2006: table 5.25)

Only 12 sherds of Peterborough ware were located within a tertiary context and subsequently make up only 2.2% of the entire pottery assemblage. A further 2.2% of the assemblage is described as 'Early Neolithic'. The pottery is defined statistically by the secondary/tertiary deposits which make up 337 sherds or 88.68%. A further 34 sherds are classed as unknown, and are not included in the analysis. Within a primary context (Fig. 3.65), enclosure ditch segment L has the highest quantity of sherds with 17, making up 39.53% of the assemblage. Within the secondary/tertiary layers, enclosure ditch segments I and N account for 168 sherds or 49.85% of the secondary/tertiary assemblage.

3.9 Material and associated activity areas

3.9.1 *Hide working areas*

The small number of implements at Haddenham makes interpretation difficult, but some enclosure ditch segment patterns may be put forward. A majority of the implements are located within the 1984 and 1987 areas. Scrapers were located within a primary context in segment I (1) and, in secondary contexts, within segments C (2), G/F (1), I (2), K (1), and L (1), and M (1). The heavily recut segment I is the only segment in which human bone and scrapers occurred and may be a further indication of the ways in which segment I was used.

As with the lithic material, the use of pottery is also confined to one ditch segment (J). From this segment, 54 sherds were located from a secondary context. The large quantity of sherds found within a secondary context in segments I (83) and N (85), suggests that a great deal of activity took place where pottery and human bone were used, perhaps in association with the large amounts of cattle bone also present within the segment. The deposition of just pottery within these segments may have been associated with the scraping of hides, in which water was held in pots, or perhaps animal fat was stored. Within two segments, K and N, a connection between pottery and unretouched flakes (24 and 20) may be noted as they are the highest

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concentrations outside of segment A within a secondary context and may suggest that, during one shorter period, flint was modified within these enclosure ditches, but this was not the main area in which lithic activity took place. The pottery associated with these retouched flakes may have served a different purpose, such as containers for transportation of material to other areas of the site for inclusion in different kinds of activities.

3.9.2 *Lithic production areas*

Within the limited Haddenham excavations there appears to be a specific relationship between certain objects and the location which was seen as being socially acceptable for them. Within segment A, only lithic material is present. The large number of unretouched flakes (122), dress chips (27) and preparation flakes (21), along with three cores, may be an indication of a specialised place to which material was brought to the site. Cores and other lithic material occur in portions of the site, but it is possible that segment A was a focal point for the production of implements as it has the highest occurrence of any of the other excavated segments within a secondary context. Lithic material then, may have been brought to the site, modified into tools within segment A, and then included in other more formalised deposits.

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3.10 Summary

As Evans and Hodder (2006: 316) state, the interpretation of Haddenham centres around the ways in which the enclosure was constructed, but does not seek to show 'how the enclosure *worked*', and therefore the digging and subsequent recutting of the ditches and causeways, along with the construction of the palisade, are discussed in detail. One reason for this may be the small number of artefacts recovered compared to other, previously-excavated causewayed enclosures. Within this section, I have attempted to investigate these sections of the site, in order to strand together the limited evidence available into a narrative based upon the activity shown through deposition. Overall, the enclosure is thought to have been constructed and used by 100-200 individuals (10-40 residential/familial groups or 3-7 'lineages'), and that the primary use of the enclosure may have been 10-50 years, but possibly no longer than 100 years (Evans and Hodder 2006: 329). A majority of the evidence centres on the use of pottery in a variety of activities such as hideworking. The scraper assemblage

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is small compared to serrated flakes and piercers, perhaps indicating a choice in cutting implements, which may indicate that there was more butchery occurring at Haddenham. The small amount of pig at Haddenham is also interesting when compared to the much higher numbers of pig and sheep/goat species recovered at Etton perhaps indicating the 'special' relationship the people who used Etton had with sheep and goats, as indicated by the placement of sheep/goat bones within the terminal ends of enclosure ditch segments.

The only structured deposit Haddenham may be the stone axe placed upon the small mound within segment I. The human skull fragments located near the axe could be related, but are not incorporated, and as such cannot be treated as a structured deposit. It is probable that with a larger area excavated more structured deposits would have been located.

3.11 Conclusion

The two sites may have had more to do with other closer sites, as Haddenham is part of the Ouse Valley system, where the site of Cardington is located. Etton is associated with the Nene Valley system and so could be closely linked to Northborough and Barholm (St Joseph 1970; Palmer 1976: 180, 184) among others. Future research in the future may help in defining the relationships each of these enclosures may have had with each other. Nevertheless, based upon present information, the people who used and constructed Etton and Haddenham may have been in contact with one another and represent the differing ways two enclosures were conducting activities.

The structured deposits at Etton and Haddenham vary greatly, due to Etton being entirely excavated. It is clear, and I agree with Pryor's suggestion, that the eastern segments may have been primarily for 'ritual' activities, whereas the western segments may have been used for larger and varying activities involving economic or domestic activities. Structured deposits occurred at both enclosures, but almost entirely within the eastern segments at Etton and perhaps only within segment I at Haddenham. Placed deposits perhaps relating to the participation or involvement of people in activities occurred more often within the western segments at Etton which

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involved wood. At Haddenham, a majority of the placed deposits were flint, located within the palisade, perhaps indicating the importance flint had in the creation and maintenance of this structure which surrounded portions of the site.

Woodworking would have been extremely important at both Etton and Haddenham. The felling of trees and the construction of the 'fence' line' at Etton and the palisade at Haddenham would have involved many people. Both the 'fence' and the palisade would have had the function of blocking views from other 'individual' activities, such as the placement of the axe on top of the mound in segment I at Haddenham and the placement of objects within the small-filled pits on the western side of the 'fence' at Etton. If, as suggested, Etton was knowingly constructed on a watercourse, perhaps the two enclosures were being used on a rotational basis, for example while portions of Etton were flooded, activities such as the butchering of animals would take place at Haddenham. Future evidence from other enclosures within the area may confirm or disprove this theory. During drier periods, people would return to Etton to coppice the small trees from enclosure ditch segment 5, and create the wide range of wooden objects such as the wooden bowls, birch bark 'mat', axe haft and wood by-products in the form of woodchips.

The stone tool assemblages at Etton and Haddenham indicate that the production of implements was important for activities such as hide-working, but the large quantities of unretouched flakes at Haddenham and the large amounts of waste flakes at Etton, specifically within the later phases, were of central importance to the 'function' of both causewayed enclosures, and indicate that perhaps both sites played a large role in core reduction activities. The implements recovered from Etton and Haddenham consisted mainly of modified flakes, most of which were located within the palisade at the latter. These are two types of flint tool which could be easily made and implemented to remove meat from a bone or to cut tendons easily. The scrapers could have been employed in the earlier stages of butchery, and were taken away with individuals as they may have been more useful for other tasks such as stripping bark from trees. A small number of piercers at Haddenham (16) and Etton (9), suggest that these tools may have been part of the hide-working process. As Haddenham has not been fully excavated, the number located there could rise, indicating that piercers were used to carry out a different set of activities. The large amounts of woodchips

and the axe haft located within enclosure ditch segment 1, in relation to the large amount of flint by-products in enclosure ditch segment 14 within a Phase 2 context at Etton, and the large amount at Haddenham within a secondary/tertiary context in enclosure ditch segment A, suggest that during the later use of the site specific areas were being used for the importation and/or the production of implements found within other areas each site. These include the large amount of flint within secondary contexts at Haddenham in segment A, or the similarly large quantity of by-products in segment 14 at Etton. The small implement assemblage at Haddenham suggests objects were being used for a wide variety of activities, including use on animals for butchery, particularly within the secondary periods as shown through an increase in the amount of cattle remains which were located.

The placement of the complete stone axe in the small filled pit of the interior at Etton may indicate a more personal deposit due to the size of the area in which it was deposited, and thus may have involved fewer people in its deposition. In comparison, the axe within enclosure ditch I at Haddenham seems to have placed in 'public' view on top of a small mound in the centre. With the exception of the stone axe and human cranial fragments within segment I at Haddenham, there are no 'placed' deposits as found at Etton, particularly in the eastern enclosure ditch segments. If Etton and Haddenham were in fact in use at the same time, perhaps activities such as those surrounding placed deposits were reserved for Etton whereas other activities such as flint production were conducted at Haddenham.

The Early Neolithic pottery located at both Etton and Haddenham contained more Mildenhall ware than other styles of pottery, which points to perhaps pottery being taken to and from each site for inclusion and deposition within both sites. Sherds and crumbs of pottery were located at Haddenham, but complete bowls at Etton indicate that pottery was not just a utilitarian component of people's lives but an integral part behind the reasons for deposition associated with a wide variety of human and animal bone. A majority of the pottery located at Haddenham was within segment I, where it appears a majority of activity took place centred on the placed deposit of the axe on top of the small mound in the centre of the ditch segment. Pottery may have been part of this as a small amount appears within this segment in the primary phase, with the overwhelmingly large amount of cattle bone within segment I.

Human burial at both Etton and Haddenham consisted of cranial fragments and portions of disarticulated long bones, with no complete inhumations. This evidence suggests that, at both Etton and Haddenham, importance was being placed on mortuary practice where human remains were placed within recuts at major entranceways where the remains were meant to be seen by those who entered (or exited) the causewayed enclosure. The construction of the 'fence line' at Etton and the palisade at Haddenham in relation to the placement of the recuts and human remains within them, indicate that perhaps this was a way in which the living were separated from the dead, but still in 'public' view. The radiocarbon dates at Etton and Haddenham also suggest that both causewayed enclosures may have been in use at the same time, thus the similarities in activity may have been seen as socially acceptable for this region.

Chapter 4

The Causewayed Enclosures of the South Downs

4.1 Introduction

Following the causewayed enclosures of Etton and Haddenham in East Anglia, the sites of Offham Hill, The Trundle and Whitehawk on the South Downs will be explored. Moving away from the wetter Fenland areas, these three sites are situated primarily within a chalkland environment along the south-east coast. The sites in the South Downs differ not only in the ways objects were treated through activity, but the construction of the enclosures themselves indicates distinct differences. Where the enclosures of East Anglia are open single circuit sites, a majority of the enclosures within the South Downs contain two or more circuits of enclosure ditch segments. The differences in the construction methods could be linked to an increasing population base over time, which was linked to the presence of the flint mines in the local landscape as shown through similarities, particularly through working flint and mortuary practice of humans and animals. The results of the activity areas at Offham Hill, The Trundle, and Whitehawk in the final section of this chapter will demonstrate the similarities and differences each of these enclosures may have had within the South Downs area during the Early Neolithic.

4.2 Offham Hill

4.2.1 *Location and background*

The causewayed enclosure of Offham Hill is located in East Sussex (TQ 399 118), and rests on the South Downs between 91 and 122m on a north-facing slope, just off the top of Offham Hill itself (Drewett 1977: 201) (Figs. 4.1 and 4.2). Curwen (1930) knew of this enclosure, but was not certain that it was actually a causewayed 'camp' (Drewett 1977: 201). After the site was surveyed in 1972, Holden (1973) remarked that it may in fact be a causewayed enclosure, and soon afterwards Wilson (1975) included Offham Hill in his study of the then known causewayed enclosures (Drewett

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1977: 201). Extensive plough damage and quarrying affected the site and thus the surviving portions of the site were excavated under rescue circumstances for two months in June and August 1976 under the direction of Peter Drewett (Drewett 1977: 201-2) (Fig. 4.2). The molluscan evidence indicates a shade species from layer 3 of the inner ditch which may point to a clearance phase, and suggests the inner enclosure ditches were constructed before the outer (Thomas 1977: 238). This is an important point which suggests that there may be chronological variation between enclosure ditch segments and their contents. Unfortunately, the small amount of radiocarbon dates as shown below cannot suggest this, but the charcoal from the inner ditch does date slightly earlier and so may have been at least used if not constructed before the outer ditch (Table 4.1-2).

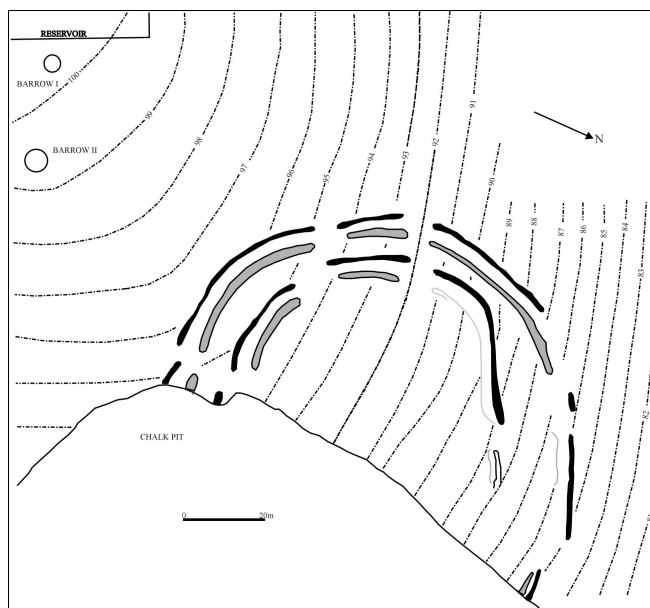


Figure 4.1 Location of the Offham Hill causewayed enclosure (after Drewett 1977: fig. 2)

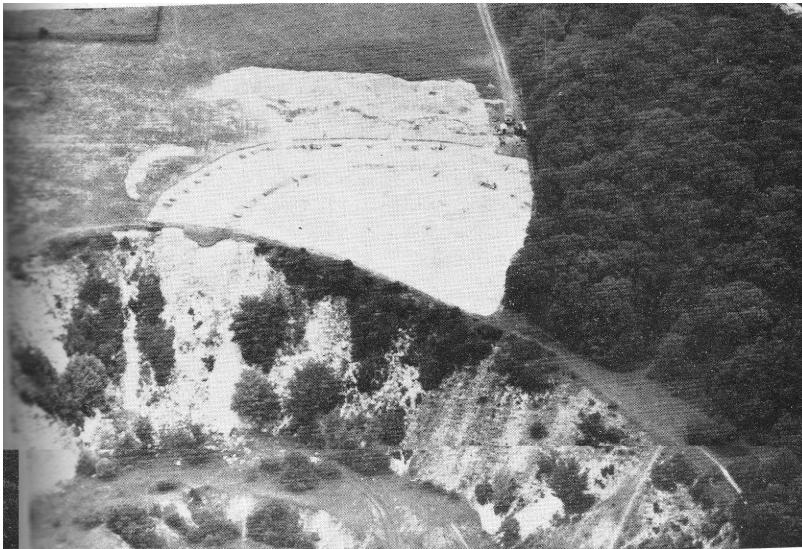


Figure 4.2 Offham Hill causewayed enclosure during excavations (Drewett 1977: pl. 14 (top))

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Figure 4.3 Offham Hill under excavation (top) and plan indicating excavated areas (bottom) (Drewett 1977: pl. 14, fig. 3)

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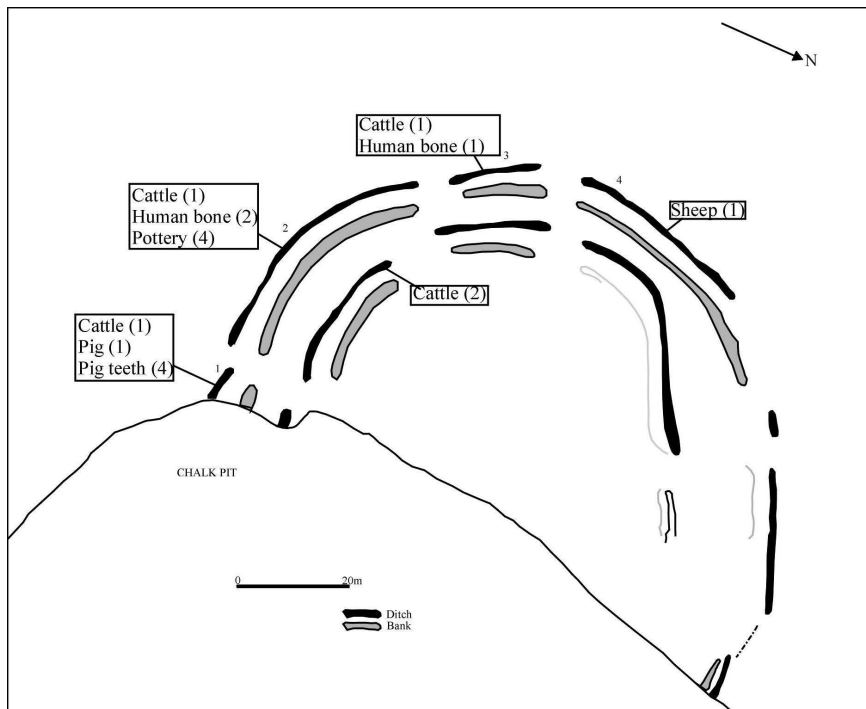


Figure 4.4 Offham Hill primary finds context (after Drewett 1977: fig. 2)

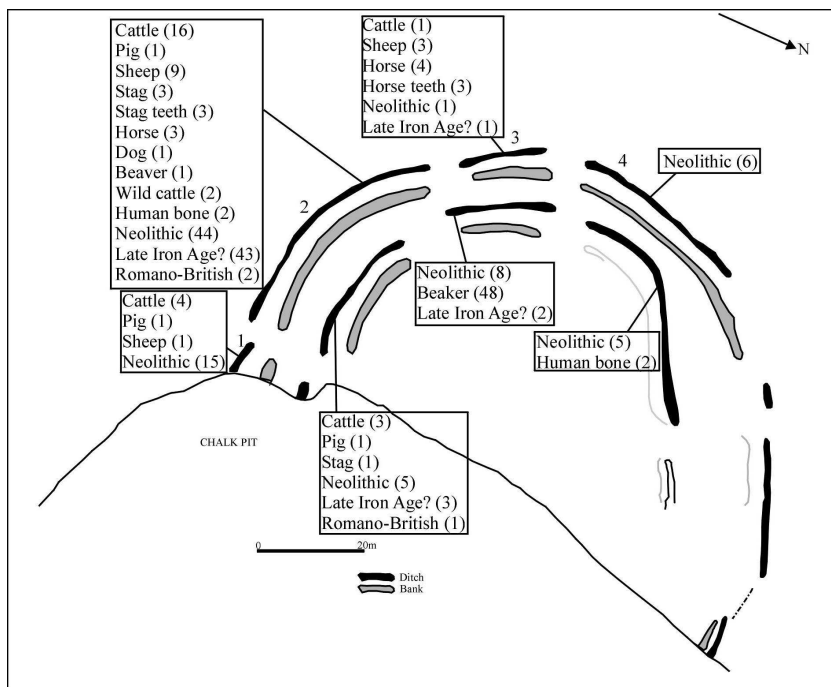


Figure 4.5 Offham Hill secondary finds context (Neolithic, Late Iron Age and Romano-British indicates number of pottery sherds) (after Drewett 1977: fig. 2)

Due to poor preservation and the ploughing of the site, cultural material such as the animal bone is in a very fragmentary state. The enclosure ditches may have been up to 1.5m deep when constructed but, when excavated, they measured 'from only a few centimetres to 80cm' (Drewett 1977: 205). An attempt has been made by the present author to divide the cultural material into primary and secondary contexts (Figs. 4.4 and 4.5), with layers 4 and below indicating a primary context, layers 3 and above a secondary context. No flint by-product counts were included in the Offham Hill report, but a small number of implements (23) were located although, with the exception of flint clusters within the enclosure ditch segments, the context is unknown. The stratigraphy within the site makes ascertaining reliable layers in which objects were securely found extremely difficult. As with the animal bone, the pottery analysis uses the number of objects located within the enclosure ditch segments and layers as described by Drewett (1977: 218-21), and included as numbers of sherds. As much as possible, the animal bone will be treated in the same contextual way (primary and secondary material) in order to create a continuity that will enable an interpretation of activity areas at Offham Hill.

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4.2.2 *Previous interpretations*

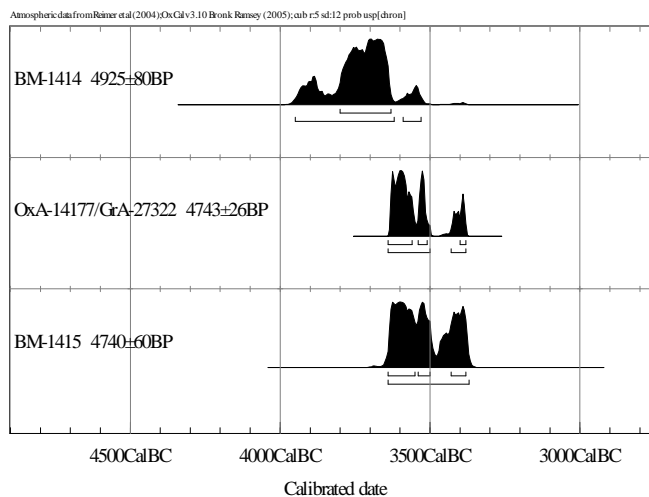
The excavations by Drewett (1977) provided a great contribution to knowledge of the enclosures with the South Downs area. Molluscan evidence indicated that the inner ditch may have been constructed before the outer ditch segments. Large quantities of leaf-shaped arrowheads, flakes, few implements and a large amount of cores together suggest that flint working was taking place on site (Drewett 1977: 214). This was suggested by the flint clusters within the ditch segments (below) which may have been collected on the surface or from the excavation of the ditches (Drewett 1977: 217). The ditches at Offham were discounted by Drewett (1977: 224) as being for cattle corralling or defence. Only one piece of foreign stone was located, suggesting that trade may have been limited or that the people of Offham Hill could obtain flint from in or around the site in abundance (Drewett 1977: 224).

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4.2.3 *Chronology and dating*

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Only three suitable radiocarbon samples from primary contexts were used. Two of these were obtained from charcoal and one from human bone (Whittle et al.: in prep.); they can thus only yield a basic chronological perspective of this causewayed enclosure (Tables 4.1 and 4.2). Based on this information, activity was occurring between 3950-3370 Cal BC, a period of about 500 years. The mollusca evidence suggests the enclosure had a ‘multi-staged history’ and the low level of deposition indicates that Offham Hill was used infrequently (Whittle et al.: in prep).



<u>Lab No.</u>	<u>Date Cal BC Sigma 1 (68%)</u>	<u>Date Cal BC Sigma 2 (95%)</u>
BM-1414	3800-3630	3950-3530
OxA-14177/GrA-27322	3640-3380	3640-3380
BM-1415	3640-3380	3640-3370

Table 4.1 Radiocarbon dates from the Offham Hill causewayed enclosure

Offham Hill inner ditch		
BM-1414	Oak charcoal	Inner ditch, segment 2, layer 4. 4 was the lowest layer, lying directly on the ditch base (Drewett 1977, 205).
BM-1415	Oak charcoal	Inner ditch, segment 2, layer 3. 3 was the second-lowest layer (Drewett 1977, 205).
Offham Hill outer ditch		
OxA-14177	Proximal end of L femur of 20 to 25 year-old-male. Replicate of GrA-27322	Outer ditch, segment 4, bottom. Buried articulated in a pit cut into the base of the outer ditch (Drewett 1977, 209, figs 4-5, pl. 17)

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Table 4.2 Radiocarbon samples and contexts from Offham Hill (Whittle et al.: in prep)

4.3 Deposition at Offham Hill

4.3.1 *Animal bone*

The excavated animal bone in the main report of Offham has been broken into three groups by O'Connor (1977a: 229). Group A consisted of the primary material in and under layer 4; Group B consisted of some Neolithic material, but also intrusive material in layers 3 and 4, and so has been termed material within a secondary context; the final group, Group C, consists of Pits 1 and 2 within outer ditch segment 2. The material which makes up the animal bone portion of the Offham Hill analysis is derived from Appendix II (O'Connor 1977a: 229-32), and includes teeth from both pig and stag. Poor preservation of the animal bone coupled with its fragmentary state has made the identification of any butchery marks impossible (O'Connor 1977a: 232). Some of the bones do look "heavily weathered" and are "of considerable antiquity, probably pre-burial" (O'Connor 1977a: 232). This could indicate at least some of the animal bone came from other places within the landscape, or that the enclosure ditches were allowed to stay open for a time before being backfilled or allowed to silt up naturally.

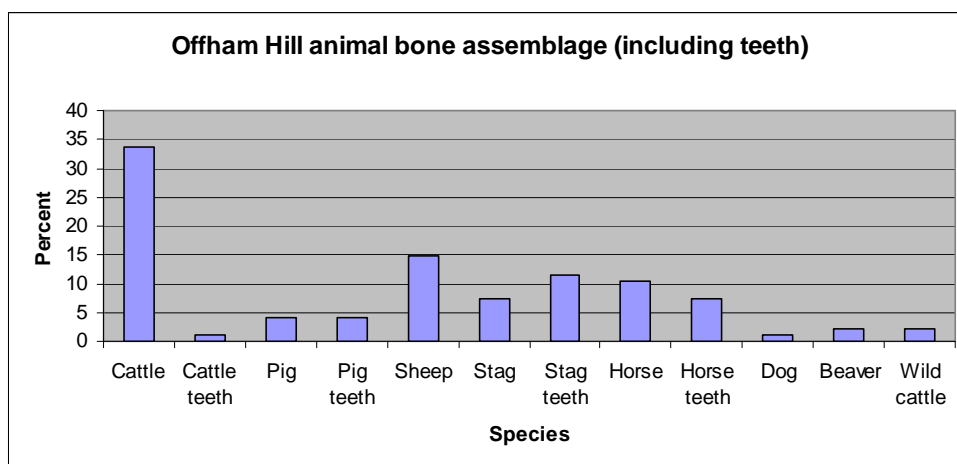


Figure 4.6 Offham Hill animal bone assemblage (after O'Connor 1977b: 229-31)

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Of the 95 animal bone elements and teeth located at Offham Hill (Fig. 4.6), cattle dominated the assemblage with a total of 32 or 33.68% of the entire animal bone assemblage. Sheep make up the second highest proportion of animal bone with a total number of 14 (14.73%). The remainder of the animal bone assemblage consists of horse (10, 10.52%), horse teeth (7, 7.36%), stag (7, 7.36%), pig (4, 4.21%), pig teeth (4, 4.21%), beaver (2, 2.10%), wild cattle (2, 2.10%), cattle teeth (1, 1.05%), and dog (1, 1.05%).

4.3.1.1 *Primary context*

The primary contexts (Fig. 4.7) yielded only ten animal bones, four of which were pig teeth from outer ditch segment 1, and these account for 10.52% of the total animal bone assemblage. One find each of pig and cattle was also located within outer ditch segment 1 in a primary context. One find each of pig and cattle was also located within outer ditch segment 1 in a primary context. Overall, outer ditch segment 1 has the highest degree of activity involving different species (cattle, pig teeth, and sheep). The remaining four segments containing cattle bone were located within a primary context, with the exception of outer ditch segment 4, where one find of sheep was located.

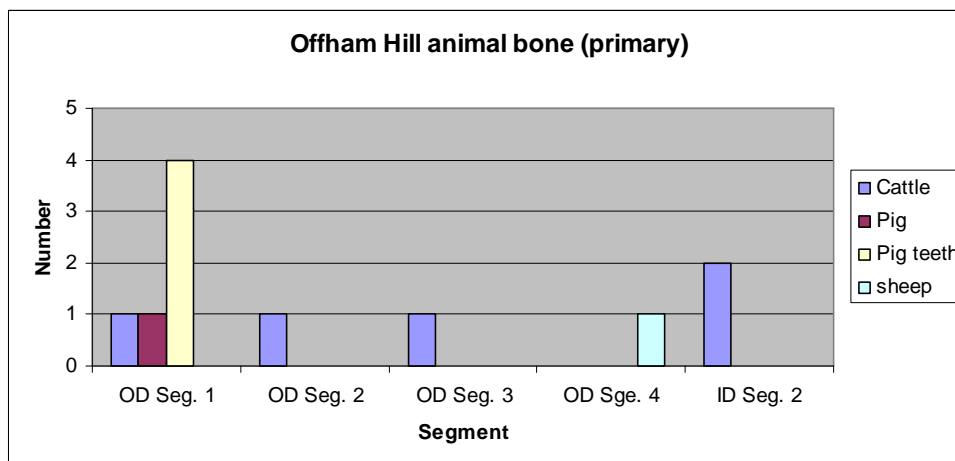


Figure 4.7 Offham Hill primary animal bone assemblage (after O'Connor 1977b: 229-31)

4.3.1.2 *Secondary contexts*

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The secondary context at Offham Hill (Fig. 4.8) represents an increase in the deposition of animal bone. This is best seen in outer ditch segment 2, which produced 41 finds or 59.42% of the entire secondary animal bone assemblage. Not only does this segment contain the most finds in terms of numbers, but it also contains the widest diversity of species represented within the total excavation, with cattle (24, (34.78%) and sheep (16, 23.18%). Outer ditch segment 2 is also the only segment in which dog (1) and wild cattle (2) were located.

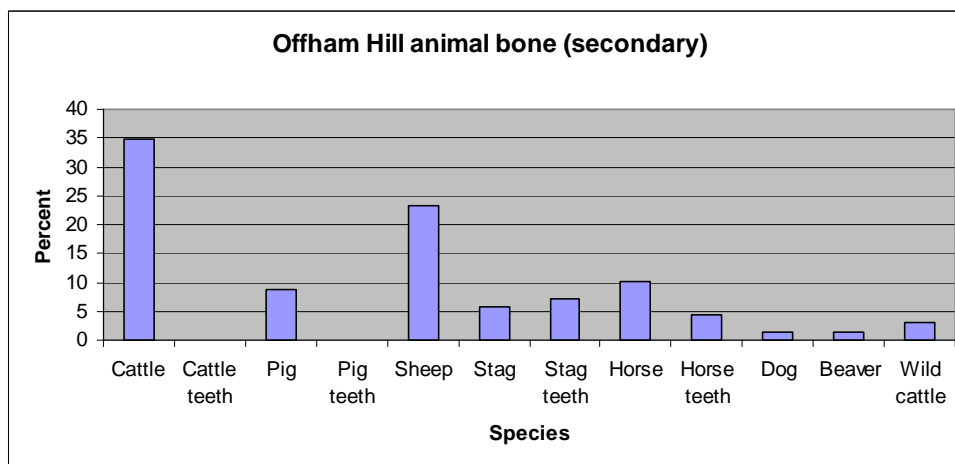


Figure 4.8 Offham Hill secondary animal bone assemblage (after O'Connor 1977b: 229-31)

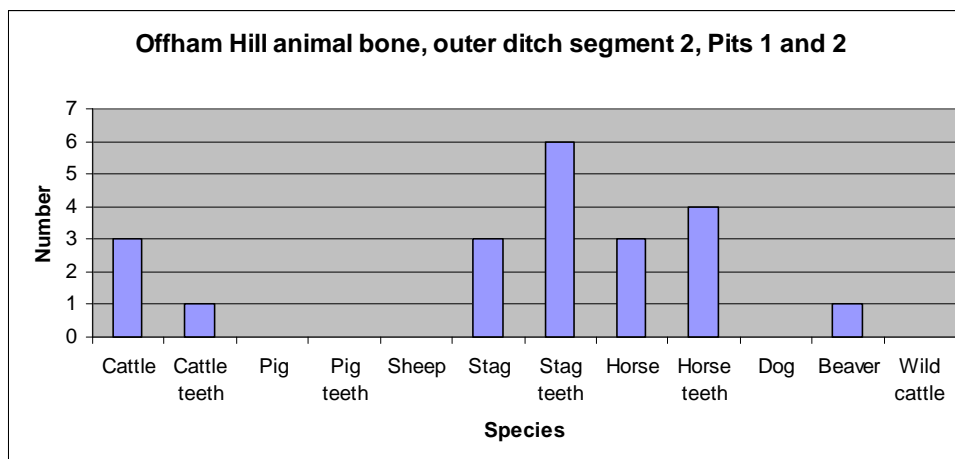


Figure 4.9 Offham Hill animal bone from pits (after O'Connor 1977b: 229-31)

4.3.1.3 *Internal pits*

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Two pits were also located within outer ditch segment 2, and contained a great diversity of finds (Fig. 4.9). A total of 21 bone elements and teeth ~~waswere~~ found (O'Connor 1977b: 231). Interestingly, 14 (66.66%) of the finds located within these two pits from outer enclosure ditch segment 2 were teeth, which may indicate that skulls were being deposited in these two pits and then moved to a different location, perhaps off site. Alternatively, this could be a preservational bias based on the poor state of bone preservation, as mentioned above. It is not clear if these are primary or secondary pits which have been dug into outer segment 2 but, as will be explored in the discussion, they may have a purpose in their relationship to the human bone they appear to be separating, which may indicate a close association with one another.

4.3.2 Pottery

Like the animal bone assemblage, the pottery assemblage at Offham Hill is separated into primary and secondary contexts, although much caution should be taken as the numbers used from the original report indicate a high amount of intrusive material (such as the possible Iron Age sherd mixed in with Neolithic sherds as in outer ditch segment 3, layer 2). The pottery assemblage at Offham Hill numbered 276 sherds, 171 of which were comparable with Neolithic types, 48 Beaker, possibly from the same pot, one Early Bronze Age, (Drewett 1977: 218). The entire assemblage is thought to contain no more than 20 pots (Drewett 1977: 218).

4.3.2.1 Primary context

One sherd of Neolithic and a possible late prehistoric sherd of unknown type were located from outer ditch segment 2. (Drewett 1977: 218-21).

4.3.2.2 Secondary context

The secondary context (Fig. 4.10) should be regarded with as much caution as the rest of the pottery assemblage. Although this may be a limiting factor, the distribution of what is in the enclosure ditches is still of much interest, particularly the 48 Beaker

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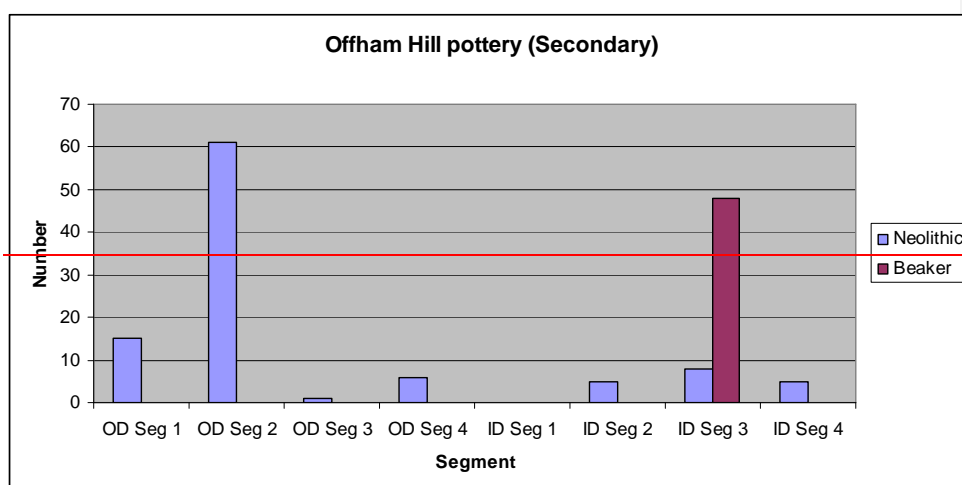


Figure 4.10 Offham Hill secondary pottery assemblage (after Drewett 1977: 219-221)

sherds from inner ditch segment 3, along with 15 and 61 Neolithic sherds located within outer ditch segments 1 and 2 respectively (Drewett 1977: 218).

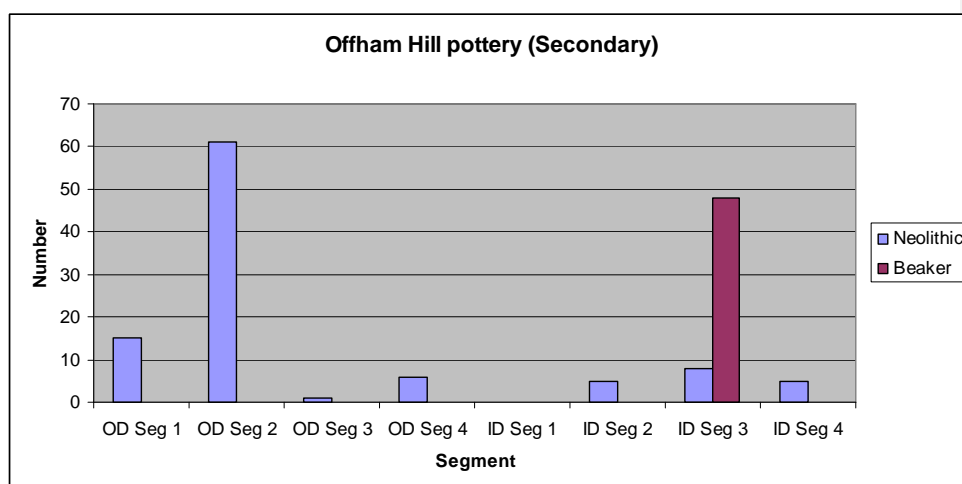


Figure 4.10 Offham Hill secondary pottery assemblage (after Drewett 1977: 219-221)

4.3.3 *Human bone*

Six finds of human bone were located within the enclosure ditches at Offham Hill. Of these, two are possible primary finds from outer ditch segment 2, while the other four came from secondary contexts within outer ditch segment 2 (2) and inner ditch segment 4 (2). In the primary layer (4) at the terminal end of outer ditch segment 2,

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half of a mandible of a person aged 35-40 years with some dentition present was located (O'Connor 1977b: 229). Just above this find, in layer 3, another mandible with some dentition was located. This individual is thought to have been about 30-35 years of age (O'Connor 1977b: 229). One other bone was located within outer segment 1, a femur, which was placed near Pit 1 and may have some association with the finds within it.

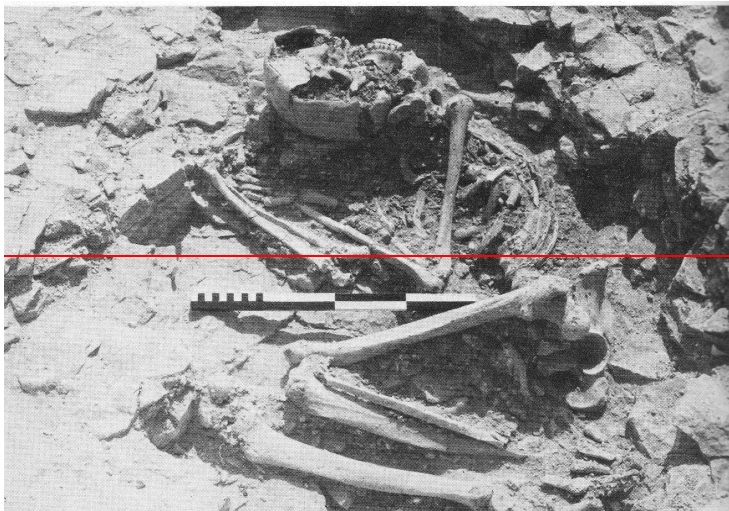


Figure 4.11 Burial from Offham Hill, Outer Ditch segment 4 (Drewett 1977: pl. 17)

In addition to these isolated finds, an inhumation was located within the bottom of a small pit in outer enclosure ditch segment 4 (Drewett 1977: 209) (Fig. 4.11), and so is most likely in a primary context. The skeleton is that of a young man in his twenties, placed in a crouched position with no accompanying grave goods (Drewett 1977: 209). Only two human bones were located within inner enclosure ditch segment 4, and consisted of one second phalanx and a rib fragment. The fact that these two elements were the only human bone located in the inner enclosure ditches, and within segment 4, may indicate a similarity in the placement of the individual in outer ditch segment 4, which was dated to 3640-3380 Cal BC (Tables 4.1 and 4.2).

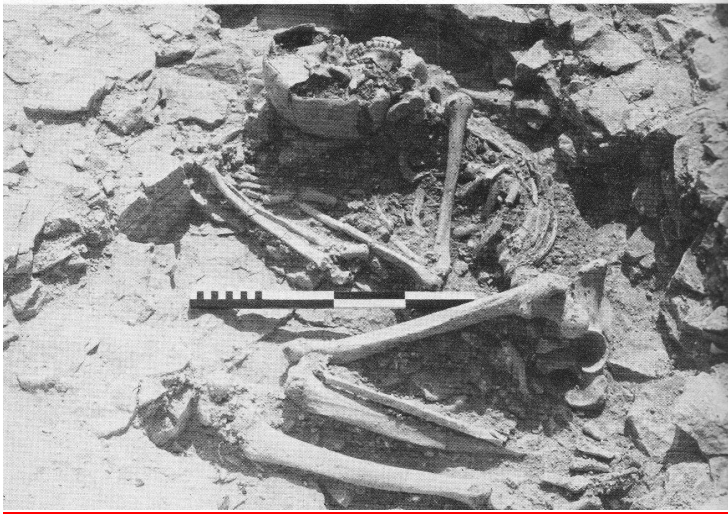


Figure 4.11 Burial from Offham Hill, Outer Ditch segment 4 (Drewett 1977: pl. 17)

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4.3.4 *Flint*

A total of 6830 worked flints were recorded from the Offham Hill excavations and a small area of field walking (Drewett 1977: 211). Most of the flint derived from the enclosure ditches and originated from the local area around the site (Drewett 1977: 211). The interior produced 151 flakes and one flint axe from an unknown location (Drewett 1977: 211). Small flint clusters were also recorded within enclosure ditch segments 2 and 3 of the outer segment, and enclosure ditch segment 3 of the inner (Figs. 4.12 and 4.13).

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4.3.4.1 *By-products*

Although there are no tables in the final report (Drewett 1977) indicating the exact count and position of either the by-products or implements, the waste flakes were divided into primary and secondary contexts, including surface finds, which numbered 4523 and 2225 respectively (Drewett 1977: 212). Sixty-nine cores were located, 52 within primary contexts, 15 within secondary, and 2 from the surface, of which seven have signs of being used as hammerstones (Drewett 1977: 212). Of the cores located, 60% still retained cortex, suggesting that raw material was abundant at or near Offham Hill (Drewett 1977: 212).

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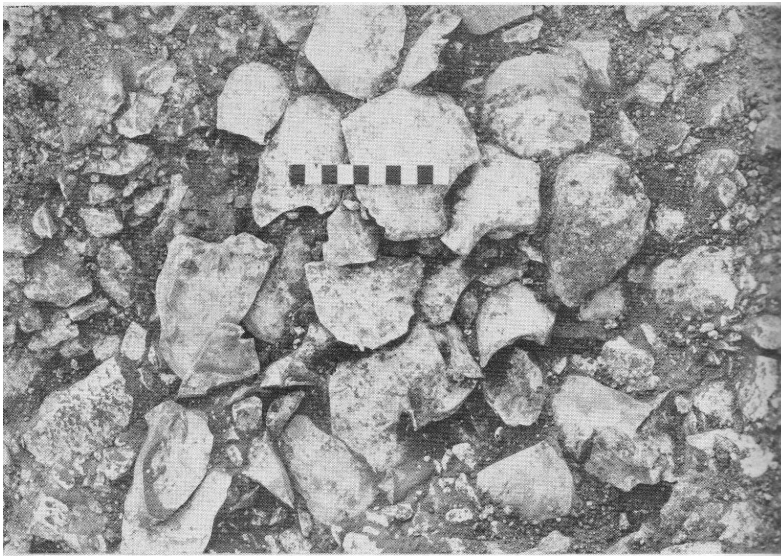


Figure 4.12 Flint cluster from Offham Hill, Inner Ditch, Segment 3 (Drewett 1977: pl. 17)

4.3.4.2 *Implements*

The small quantity of implements located at Offham Hill numbered 23 and consisted of arrowheads (8), serrated flakes (7), retouched flakes (5), scrapers (2), and one polished axe from the buried soil of the interior (Drewett 1977: 213). Of the eight arrowheads, four were from primary contexts, and two were unfinished. Both of the scrapers were found within secondary contexts and had been modified on one end only (Drewett 1977: 214). The polished axe located within the interior of the enclosure shows signs of wear and has been reground on at least one occasion (Drewett 1977: 214). Only two of the seven serrated flakes were located from primary contexts, all containing small denticulations, and were formed through the removal of a single chip on each side of the flint (Drewett 1977: 214).

It has been suggested that the small flint assemblage as a whole was knapped within the ditches, shown by the eight flint concentrations throughout both the inner and outer enclosure ditch segments (Drewett 1977: 214). The implements were then relocated to the interior of the site where a very small amount of by-products were located along with the lone stone axe from secondary contexts (Drewett 1977: 214). Drewett (1977: 217) also suggests that Offham Hill was a source for flint which came from the material which was unearthed during the process of the construction of the

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enclosure ditches. The cortices from the larger pieces of flint were then removed to shape cores, which were then removed from the site, leaving only the waste flakes behind (Drewett 1977: 217).

4.4 Material and associated activity areas

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The Offham Hill assemblage represents a small but diverse amount of cultural material, with the variety of animal bone being the most noteworthy. All species that were located within the enclosure ditches at Offham Hill are similar to those located in similar contexts at causewayed enclosures in the British Isles. Based upon the amount of finds, it is clear that a majority of the activity on site may have been highly sporadic or that the site was in use for a short period of time before being encroached upon again by the woodland environment which surrounded it (Thomas 1977: 238).

4.4.1 *Knapping flint*

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The activity surrounding the working of flint is demonstrated through the large amount of by-products (6748) of which 4523 or 67.02% were located from primary contexts. Although the exact positioning of both the primary and secondary flints within the enclosure ditches cannot be ascertained, the flint concentrations in outer ditch segments 2 and 3, and inner ditch segment 3, indicate continuity in the use of the enclosure from the construction of the inner to outer segments. With 69 cores being located throughout the site and the small amount of implements, flint knapping may have been the primary activity for the people who used Offham Hill. The small flint clusters may have been created as a way to spatially mark specific zones within enclosure ditches in which particular material was placed, as suggested for some of the enclosure ditch segments at Etton.

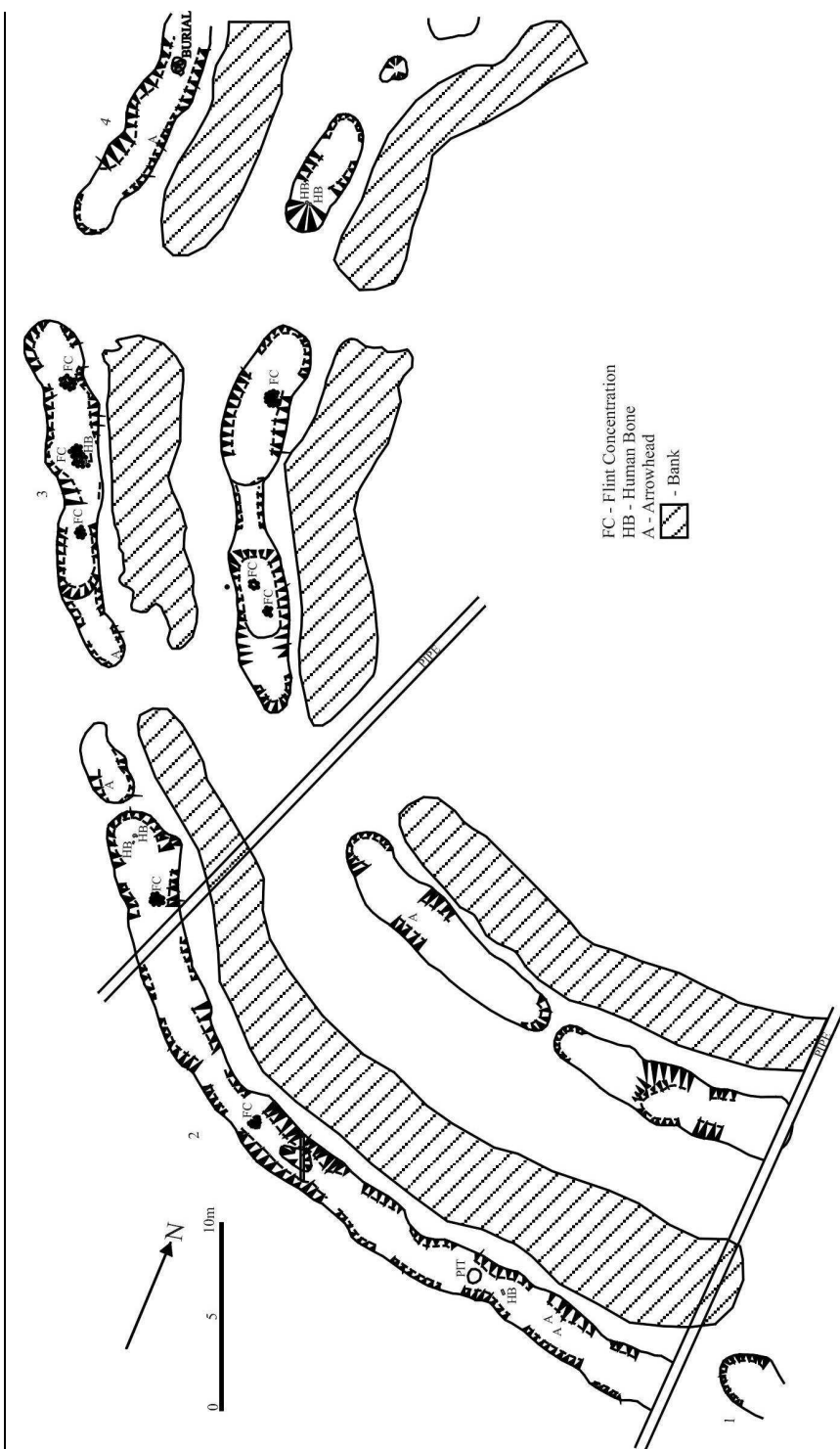
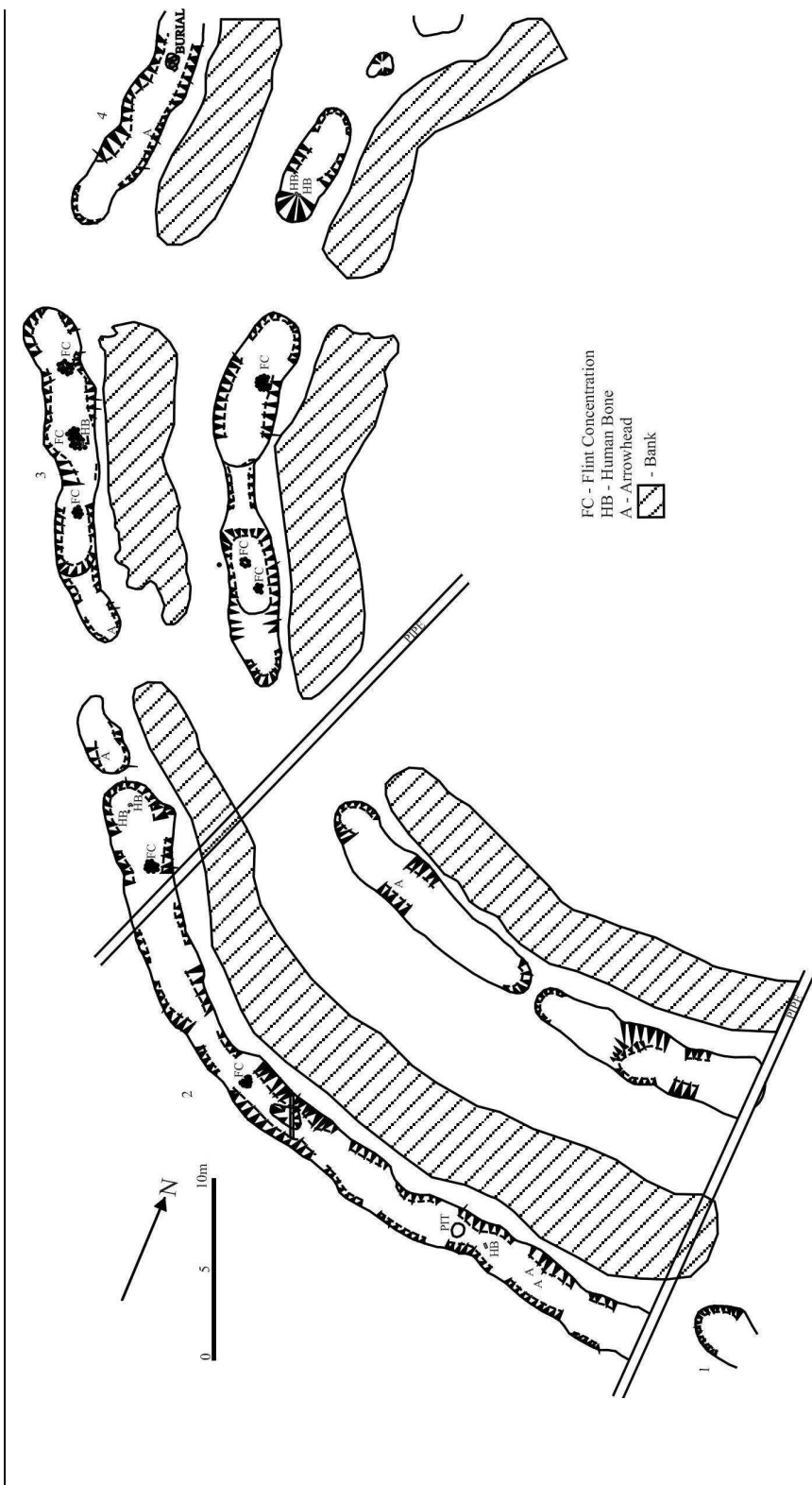


Figure 4.13 Position of human bone, flint clusters, and arrowheads at Offham Hill (after Drewett 1977: fig. 4)

As James (1977: 210) has suggested, the flint "is of presumably local derivation" and that "the assemblage consists almost wholly from the ditches of the enclosure". The use of space could be postulated as a means by which the users of Offham Hill (and their activities) were symbolised by flint knapping, with the clusters of flint



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Figure 4.13 Position of human bone, flint clusters, and arrowheads at Offham Hill (after Drewett 1977: fig. 4)

corresponding to the boundaries in which flint was knapped within the enclosure ditches. In other words the flint clusters represented distinct activity areas in which specific groups or individuals knapped flint and produced tools. The small amounts of tools could indicate that they were taken away from the site, possibly suggesting that only tools which had created a life history or life-cycle (Thomas 1999) were brought back to the site to be deposited in a specific manner in association with pottery and animal bone. In this way the flint at Offham Hill may have had a 'birth' through its modification into implements, a use period in which the tool(s) travelled the landscape being used for specific purposes (butchery etc.), and when the use of the tool was finished it was brought back to the enclosure where it was 'born' and placed back into the enclosure ditch from whence it came and was transformed into its 'death' stage (Thomas 1999).

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4.4.2 *Mortuary practice and flint*

The human bone located within outer ditch segments 2 (3), 3 (1) and 4 (inhumation), indicate that the remembrance of the dead also played an important role at Offham Hill. If the construction of the inner ditches preceded the construction of the outer ditches, it is suggested that the placement of the human second phalanx and a rib fragment may mirror the later placement of the individual within outer ditch segment 4 as the placement of these bones are in close approximation to the burial. There could, therefore, have been a known symbolic link between the two, or at the very least a link between the same types of material. Compared with other segments which contain a diverse amount of objects, inner segment 4 contains five sherds of Neolithic pottery, while the outer segment contains one sheep bone and six sherds of Neolithic pottery. The two mandibles located within layers 3 and 4 of the terminal end of outer ditch segment 2 and one human femur near Pit 1 may also have defined boundaries between not only different types of objects, but also between the living and the dead.

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Through the nature of the evidence, I agree with Drewett (1977: 217) that the main focus at Offham Hill was the manufacturing of flint reduced down from cores which were collected from the surface locally, or from the spoil produced during the creation of the enclosure ditch segments. The production of flint, central to the people who

used Offham Hill, was shown through the flint clusters within outer ditch segments 2, and 3, and inner ditch segment 3; in lack of other evidence for the placement of animal bone, this is a defining characteristic of the people who created and used Offham Hill. I would suggest that the activity areas formed by the production of flint through the flint clusters within the enclosure ditch segments created distinct areas or 'zones' which created symbolic areas in accordance with the knapping clusters, perhaps defining different people or smaller groups who undertook work here. For example, the relationship the flint clusters had with human bone can be seen in the inhumation in outer segment 4 and the two elements in inner segment 4.

The inhumation within outer segment 4 contains only 1 sheep bone element and six sherds of Neolithic pottery, while the inner segment contains only five sherds of Neolithic pottery. At the terminal ends of inner and outer segment 3, flint clusters are present. It is therefore suggested that the flint clusters were created as a marker in order to distance individuals from segment 4. Another example is from outer segment 3, where three flint clusters were created, one of which is in close approximation to the placement of a human fibula which served to separate the segment into thirds. Within outer ditch segment 2, the flint concentration creates a zone between the two human mandibles and the terminal end of the segment. The southern pit in this same segment could also be suggestive of creating a separation of the human femur from other objects into an area of its own.

From pottery sherds located within the enclosure ditches at Offham Hill, around 20 pots are thought to have been located (Drewett 1977: 218), an indication that pottery was not used on a large scale. The large amount of animal bone within outer ditch segment 1 and 2 may account for the equally high amount of pottery in these two segments (15 and 44) in a secondary context, indicating a specific ditch segment where both animal bone and pottery were being used. Two scrapers were located from a "secondary ditch filling in the same section" (Drewett 1977: 214). If the implements, as suggested by Drewett, were in fact taken to the interior of the enclosure or from the enclosure altogether then it could be suggested that implements were highly prized or a scarce commodity. If animals were being butchered for food and processed for skins, the ratio of implements to animals would be too low in order to complete such an activity. The small number of tools that have been located at the

site could be interpreted as having a ‘special’ kind of significance in which they were purposely brought back to the enclosure for inclusion in deposition.

4.5 Summary

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The evidence for activity at Offham Hill involves the use of flint. The flint clusters located within the enclosure ditch segments indicate either that material was knapped inside the ditch segments, or that knapping material was gathered and placed in a cluster. These could represent placed deposits. The ‘large’ amounts of pottery and cattle bone located within outer ditch 2, suggest feasting, and perhaps some butchery. Although the two human mandibles were located within the terminal end of outer ditch 2, the placement of the articulated human remains away from any flint clusters and may indicate a separation of this individual from the knapping and manufacture of flint at Offham Hill and represents a structured deposit.

4.6 The Trundle

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4.6.1 *Location and background*

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The Trundle (Fig. 4.14) is located near the town of Chichester, and rests upon a prominent hilltop known as St. Roche’s Hill (Curwen 1929: 33). The Trundle was first discovered through aerial photography in 1925 by O. G. S. Crawford, and interpreted to be the same type of site as Windmill Hill (Curwen 1929: 33-4). The causewayed enclosure consists of a complex arrangement of interrupted ditch segments overlain by an Iron Age Hillfort. Three ditch segments and a spiral segment were confirmed through the technique of bosing, and were subsequently described and planned. Possibly more existed before the construction of the Iron Age ramparts, which may have destroyed other evidence for the continuation or additional circuits of segmented ditch.

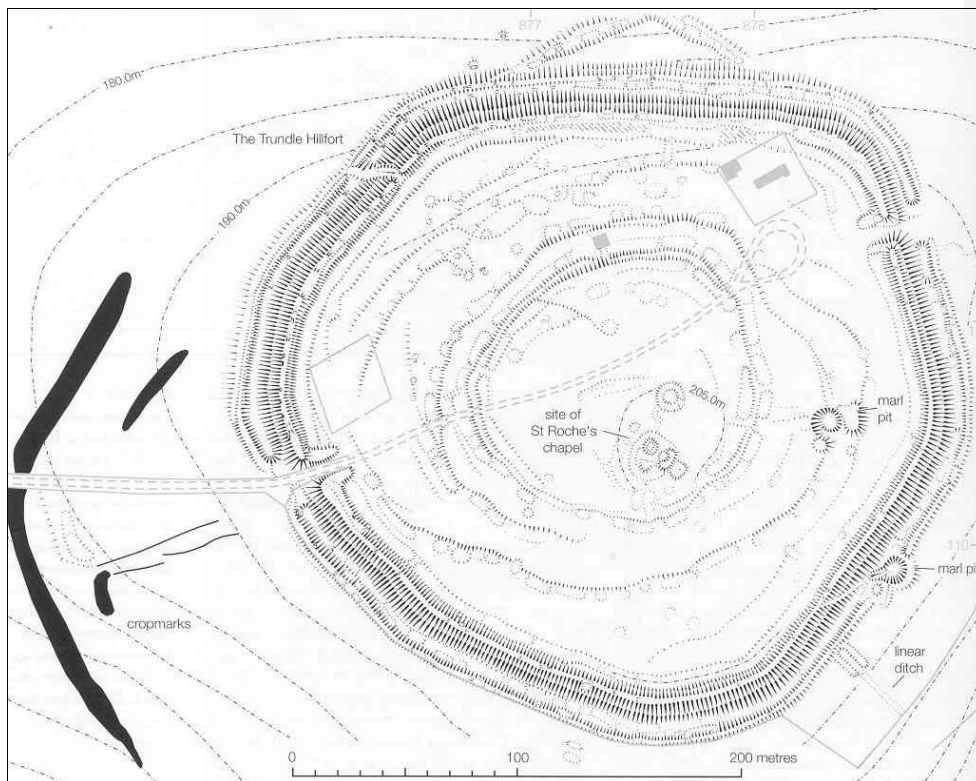


Figure 4.14 Plan of The Trundle causewayed enclosure (Oswald et al. 2001: fig. 8.6)



Figure 4.15 The Trundle from the air. The causewayed enclosure occupies the inner portion of the surrounding Iron Age hillfort ramparts (Oswald et al. 2001: fig. 2.22)

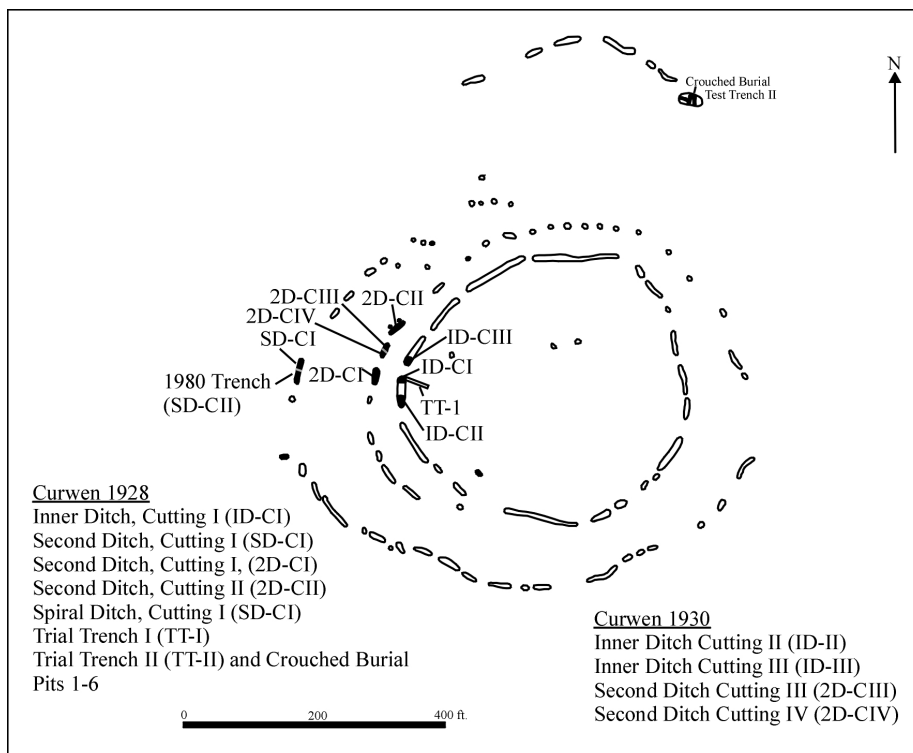


Figure 4.16 The Trundle causewayed enclosure indicating all excavations (after Bedwin and Aldsworth 1981: fig. 2.)

Two seasons of excavation were undertaken by Cecil Curwen in 1928 and 1930 (1929, 1931) and one small trench in 1980 (Fig. 4.16). In the first season four cuttings were made across the enclosure ditch segments, two across the Inner Ditch (I.D.-C.I., T.T. 1), two cuttings across the Second Ditch (2 D.-C.I., 2 D.-C.II.), one across the Spiral Ditch (S.D.-C.I) and in Pits 1-6 (Iron Age), and one across the Outer Ditch (T.T. 2). Curwen's second excavation season consisted of cuttings in the Inner Ditch, (I.D.-C.II., I.D.-C.III.), Second Ditch (2D.-C.III, 2D.-C.IV.) and Pits 7, 9, and 10. The East Gate and associated pits were also excavated. In addition, a small trench was excavated in 1980 in preparation for a new radio tower to be erected on top of the hill and consisted of the extension and full completion of Curwen's S.D.-C.I, which will be called S.D.-C.II. The enclosure ditch segments are all of Neolithic origin, while the pits within the enclosure and the East Gate are from the Iron Age.

The stratigraphy at The Trundle consists of mould (humic material?) and chalk mix in the upper fills, while the lower fills consist mostly of chalk rubble (Curwen 1929,

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1931). The layers of chalk rubble usually occur around 27 inches (68.58cm) below the surface and are indicative of a primary Neolithic context.

Using this as a stratigraphic marker, the layers which occur at depths of up to 26 inches will be considered secondary as they contain the greatest quantity of Iron Age and Bronze Age material. The layers *c.* 27 inches and below will be considered the primary layers as they contain a majority of the Neolithic material within the chalk rubble from the bottom of the enclosure ditch segments. The only exception is 2D-CII for which Curwen specifically points out that “the Early Iron Age occupation level was almost confined to the top 9 inches, the soil below yielding remains of the Neolithic period down to 27 inches, below which the filling was absolutely sterile down to the bottom at or about 42 inches” (Curwen 1929: 41) (Figs. 4.17-4.20). This could indicate that this cutting was cleared of material and then backfilled, or that there was a period of natural weathering where the ditch was partially in-filled before another deposit was made. The secondary layers will not be considered here.

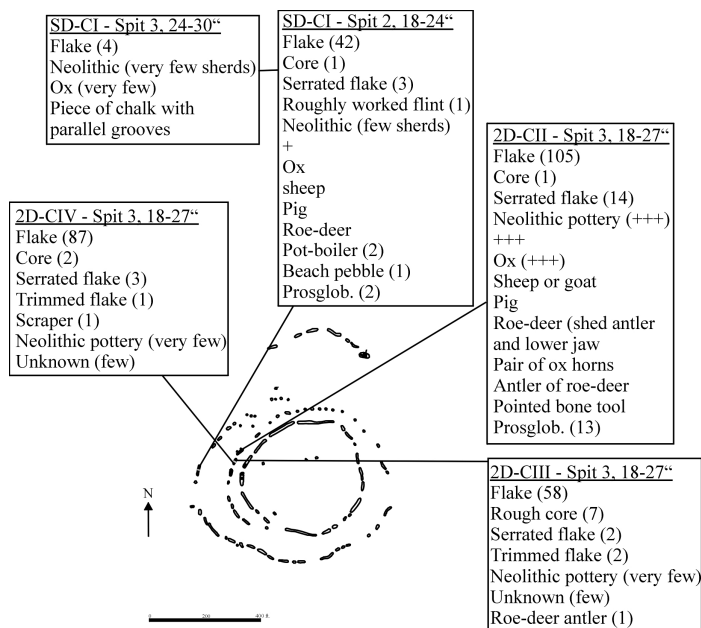


Figure 4.17 Objects located from The Trundle, *c.* 18-30" (46-76cm)

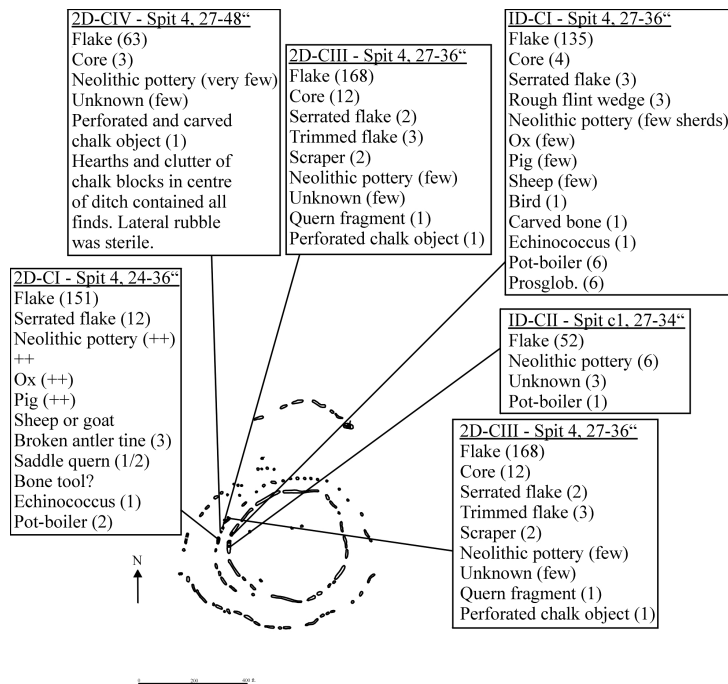


Figure 4.18 Objects located from The Trundle, c. 24-48" (61cm-1.22m)

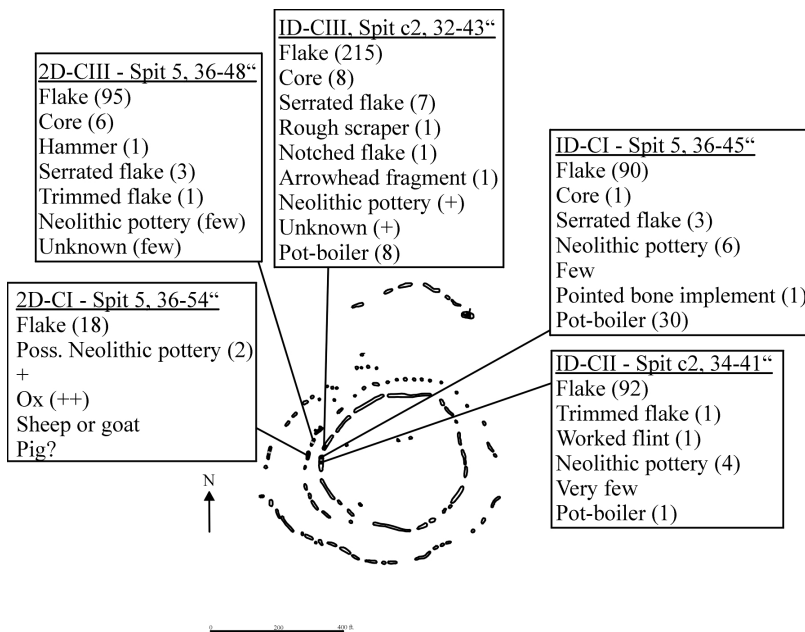


Figure 4.19 Objects located from The Trundle, c. 32-54" (81cm-1.4m)

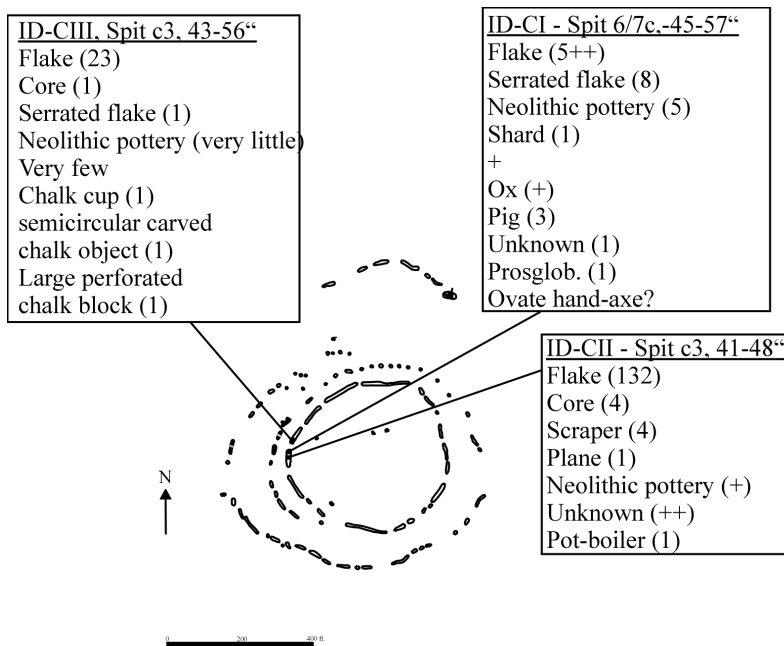


Figure 4.20 Objects located from The Trundle, c. 41-57” (1.0-1.5m)

The material from primary layers will be analysed and interpreted in plan form as with previous sites in order to identify kinds of activity and where they occurred in different areas of the site. As the Trundle is overlain with an Iron Age hillfort, some issues with the phasing have arisen as objects from both periods have been located in similar contexts indicating a mixing of objects which may not give a clear picture to activity patterns in the Neolithic. Also, as noted in chapter 2, the amount of material contained within each enclosure ditch segment is not exact, as Curwen uses a combination of numerical values and description in order to categorise different kinds of material culture. Where the plus (+) sign is noted within the site plans for the primary contexts it indicates a “moderate quantity”, (++) for “considerable quantity”, and (+++) for “great quantity”.

4.6.2 *Previous interpretations*

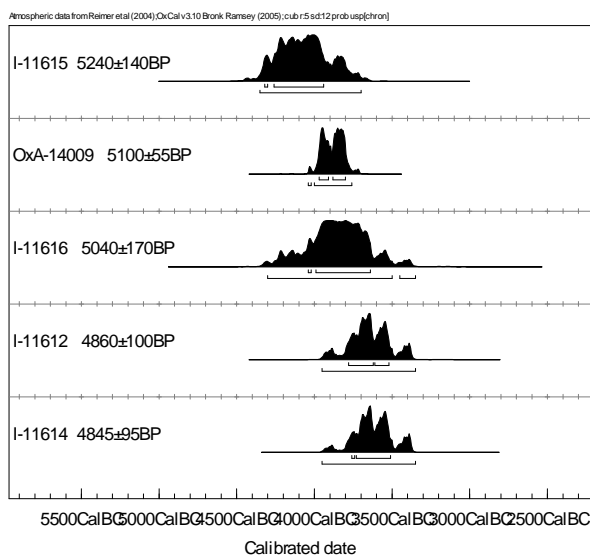
During the 1927 excavations Curwen (1928: 73) suggested that The Trundle was a defensive site where the interrupted ditch segments and “numerous fortified wooded gate-towers” were constructed in order to aid in the defence of the site. Curwen also noted the similarities in styles between flint, pottery, bone pins, and chalk cups

located within the flint mines of Sussex. During the next season's excavations Curwen suggested that the most important interpretations were that there was a confirmation of the site as Neolithic, and that the previous interpretation of a second Neolithic ditch was "in reality a row of roofed Neolithic dwellings" (Curwen 1931: 149). The small 1980 excavations by Bedwin and Aldsworth (1981) confirmed the discovery of a portion of the spiral ditch discovered by Curwen. Land snails suggested that the spiral ditch was constructed in a cleared landscape and that the area was cleared again prior to later Iron Age activity (Bedwin and Adsworth 1981: 209). The plan of the later hillfort may have been influenced by the layout of the earlier enclosure, which perhaps suggests continuity between the people of the Neolithic past and the Iron Age present (Edmonds 1999: 150-1).

4.6.3 *Chronology and Dating*

Five radiocarbon dates are presently available from the radiocarbon determination programme (Tables 4.3 and 4.4). The small scale nature of the excavations makes interpretation of the phasing of The Trundle problematic. What can be said though is that ditch 2 is interconnected within a complex construction and re-modification of the site and may have some bearing on the spiral ditch and other circuits (Whittle et al: in prep). Russell (2002: 75-6) suggests that the construction of the spiral ditch may have been used to lead people to the inner portions of the site. The dates come from pottery residue samples (GrA-26817 and OxA-14009), and cattle (I-11614, I-11615, and I-11612). Based on these samples, "and since there is no evidence that any of the samples was freshly deposited, the best evidence for the construction of each circuit is provided by the latest material dated from it. No chronological model is possible, since all the samples are *termini post quos*. All that can be said is that the inner ditch may date to after 3900–3370 cal BC (95% confidence; I-11614), probably after 3710–3525 cal BC (68% confidence). Ditch 2 may have been dug after 3650–3520 cal BC (95% confidence; OxA-14024), probably after 3640–3530 cal BC (68% confidence). The spiral ditch dates to after 3940–3370 cal BC (95% confidence; I-11612), probably after 3710–3530 (67% confidence)" (Whittle et al.: in prep).

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<u>Lab No.</u>	<u>Date Cal BC Sigma 1 (68%)</u>	<u>Date Cal BC Sigma 2 (95%)</u>
I-11615	4320-3940	4350-3700
OxA-14009	3970-3800	4040-3760
I-11616	4040-3640	4300-3350
I-11612	3780-3520	3950-3350
I-11614	3760-3510	3950-3350

Table 4.3 Radiocarbon dates from The Trundle (Whittle et al.: in prep.)

I-11615	Cattle. Femur	Inner ditch 2. Cutting I. Spit 5. From the same spit as sample for I-11616
OxA-14009	Carbonised residue from 1 of 2 coarse, plain Neolithic Bowl body sherds in fresh condition, ?from same pot. Vestigial internal residue	Inner ditch. Cutting I. Spit 7. Spit 7 was the lowest in this cutting, immediately above the ditch floor, and was only 3 in (0.08 m) deep (Curwen 1929, 79, pl III). The sherds would have been in primary fill on or just above the ditch floor
I-11616	Cattle. Femur	Inner ditch 2. Cutting I. Spit 5. Spit 5 was the lowest one, at 36 in to 54 in (Curwen 1929b, 80)
I-11612	Cattle vertebra, calcaneum fragment, radius fragment; sheep/goat radius fragment; pig scapula fragment	Spiral ditch. Cutting I. Layer 4. In lowest layer of fill, which had entered from interior
I-11614	Cattle. Femur and other bones	Inner ditch. Cutting I. Spit 6. Spit 6 was the antepenultimate one and lay in chalk rubble, as Curwen's finds list indicates (Curwen 1929b, 79, pl. III)

Table 4.4 Radiocarbon samples and contexts from The Trundle (Whittle et al.: in prep)

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4.7 Deposition at The Trundle

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4.7.1 *Animal bone*

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A majority of the animal bone consisted of ox or cattle (2D-CII), pig, sheep and goat, roe-deer (SD-CI 2D-CII and 2D-CIII respectively), and bird (I-D-CI). Like the pottery, the animal bone within the enclosure ditch segments at The Trundle are described using the plus (+) sign. As noted above, the larger amounts of pottery are located within 2D-CI and 2D-CII. Within 2D-CI, the animal bone is listed as (++) , ox (++) , pig (++) , and sheep or goat. In 2D-CII, spit 2 the animal bone finds are listed as (++) , ox (+) , sheep or goat, and pig (no symbols indicating quantity). In spit 3 of the same cutting, a larger amount of animal bone was located (+++) , consisting of ox (+++) , sheep or goat, pig (no symbols indicating quantity), and a roe-deer with shed antler and lower jaw (no symbols indicating quantity). Also within 2D-CII spit 3, a pair of ox horns, an antler of roe-deer, and a pointed bone tool were located. The only other modified bone implement was from ID-CI, where a bone gouge-shaped tool lacking a point was found. By contrast, other enclosure ditch segments at The Trundle indicate a relatively small amount of deposited animal bone. For example, ID-CII contains an unknown amount of animal bone listed as (++) or as 'very few', as is the case for ID-CIII, 2D-CIII, 2D-CIV, and SD-CI. This evidence suggests that the main activity areas for the use of animal bone at The Trundle were largely confined to 2D-CI and 2D-CII, with some activity on a small scale occurring within ID-CI.

4.7.2 *Human bone*

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The only human bone to be noted during any season of excavation was in 1928 when the burial of a woman 25-30 years old was found in the outer segment of TT-2. As at Offham Hill, this individual was buried in a flexed position with no grave goods, although it is noted that within the "series of trial trenches" where the burial was found "a couple of animal bones and a piece of scoured-chalk were located" (Curwen 1929: 46).

4.7.3 *Flint*

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4.7.3.1 By-products

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The excavated flint assemblage at The Trundle consists of a large amount of by-products in relation to implements. Only flakes and cores can be considered within the by-products category (Curwen 1929: 78-85; 1931), where a large amount of core reduction must have been taking place (Bedwin and Aldsworth 1981: 211). This is indicated by the total number of by-products located within the primary assemblage, numbering 2314 flakes (97.59%) and 57 cores (2.40%). The largest amount of primary by-product activity occurs within ID-CIII, which produced 772 flakes and 13 cores or 33.10% of the entire assemblage. The second largest amount of by product activity is from 2D-CIII, which produced 347 flakes and the largest number of cores (27). Together, the flakes and cores from 2D-CIII make up a total of 15.77% of the entire by-product assemblage.

4.7.3.2 Implements

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The implement assemblage from primary contexts suggests that the creation and/or deposition of serrated flakes may have been of great importance, as they numbered 80 or 74.07% of the entire assemblage. 2D-CII contained the highest amount of serrated flakes with 26. The remainder of the serrated flakes came from ID-CIII (15), ID-CI (14), 2D-CI (12), 2D-CIII (7), 2D-CIV (3), and SD-CI (3).

The large amount of serrated flakes and the low numbers of scrapers (8, 7.40%) suggest that the production and/or the deposition of the serrated flake was used more often than the scraper for cutting or scraping. Perhaps the groups which used The Trundle were inclined towards a specific tool to complete a specific task. Alternatively, as at other sites, in this case scrapers may have been taken from the site and used elsewhere. The pointed bone implement such as the one found in ID-CI, spit 5, may add further evidence to this as a bone tool may be used to pressure flake the edges of struck flakes in order to create the necessary fine serrations for any activity involving cutting or scraping. In addition, nine (8.33%) trimmed flakes could perhaps be abandoned pre-forms for other serrated flakes.

4.7.4 Pottery

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The pottery consists of the typical ‘Windmill Hill type’ with round bottoms, a variety of rims, and decoration consisting of combings and stabbed dots with transverse parallel lines on the lip (Curwen 1929: 51). A weight of about 4kg of sherds is noted for the 1930 season (Curwen 1931: 134). As noted above, the pottery at The Trundle is reported using description and the plus (+) sign as an indication of the quantity of material found in any one spit. Although this method limits the ways in which this can be shown statistically, differing amounts of material were deposited in space and through time. Only two of the enclosure ditch segments show a large amount of pottery deposited within primary spits. Within 2D-CI, spit 4 the pottery is noted as being (++) , the other is 2D-CII, spit 2 (++) , and spit 3 (+++). Interestingly, these two segments also contain the highest amount of animal bone, suggesting that the use of pottery and animal bone for the dismembering of carcasses or perhaps the skinning of hides was primarily undertaken within this area. Further evidence for this is the fact that these two segments also contain some of the highest numbers of serrated flakes (2D-CI, 12; 2D-CII, 26). All other enclosure ditch segments contain (+), listed as having ‘very few’, ‘very little’, or numerically as having no more than six sherds, within a given spit.

4.7.5 *Querns*

A small number of querns (three and one fragment) were located within the Neolithic levels at The Trundle: in 2D-CIV, spit 4, where the lower stone of a saddle quern was located; 2D-CII, spit 2, parts of an upper and lower stone; 2D-CIII, and in spit 5, one quern fragment (Curwen 1929: 63, 1931: 144). Although small in quantity, the quern fragments and the one split quern demonstrate the possibility that foodstuffs, possibly grain, were processed near or within the Second Ditch at the Trundle.

4.7.6 *Chalk objects*

Modification and decoration of the natural chalk was also important. Modified chalk or chalk blocks used in deposition were located within ID-CIII, spit c3, as was a chalk cup, a semicircular chalk object, and a large perforated chalk block was located. Within 2D-CIII, a perforated chalk object was located, and within 2D-CIV, a perforated carved chalk object and what is described as “hearths and clutter of chalk blocks in centre of ditch contained all the finds, the lateral rubble was sterile”

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(Curwen 1931: 113). Chalk was also located within SD-CI and SD-CII. In SD-CI, one piece of chalk with parallel grooves was located. In SD-CII, three pieces of craved chalk objects were located from Layer 4 and consisted of a circular chalk object, a large irregular chalk block with incised lines and an antler pick mark, and a small irregular chalk block with incised lines (Drewett 1981: 211).

4.8 Material and associated activity areas

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Within The Trundle specific areas can be seen which are indicative of activity areas for the production of tools and the use of animals.

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4.8.1 *Animal processing*

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Within 2D-CI and 2D-CII a large amount of activity took place involving animal processing. The large amount of serrated flakes may indicate that butchering, in comparison to hide working, was occurring within these two cuttings, as the sharper blade-like edge of a serrated flake may cut flesh and tendons better. Large amounts of pottery (2D-CI, spit 4 ()); 2D-II, spit 2 (++) and 3 (+++) may indicate that pots were being used to hold liquids such as blood or fat.

4.8.2 *Flint processing*

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The content in the remainder of the enclosure ditch segments (cuttings) is suggestive of the processing of flint, possibly for use within the 2D as a whole. The large numbers of flakes and cores show that extensive flint working was taking place, specifically within ID-CIII where 772 flakes, 13 cores and 15 serrated flakes were located. While these are present elsewhere, this cutting also produced the two notched flakes and two arrowhead fragments, indicating that this cutting was perhaps being used not only for the 'typical' implements within The Trundle, but for specialised kinds of implements such as those that may be hafted. The low numbers of implements located within the enclosure ditch segments may also indicate that, as at Offham Hill, the majority of implements created at The Trundle were taken away. The three pieces of chalk (cup, semicircular carved object, large perforated block) from this segment could have further indicated the importance of the work taking place. The enclosure was created through digging into chalk which would have been a constant reminder of where the enclosure rests within the landscape, and the work

which was being carried out simultaneously at local flint mines which were part of the same landscape. The chalk could be a further indicator of the separation of the site into zones of activity similar to the use of the flint within Offham Hill. In essence, the same types of activities could be represented at both sites, but within the boundaries of a highly symbolic relationship in which each site made a similar representation through different objects.

The largest number of cores (27) came from 2D-CIII along with 347 flakes, seven serrated flakes, six trimmed flakes, and an object described as a hammer, possibly being a hammerstone. The small amount of pottery ('few', 'very few') and animal bone (+, 'few') within all spits suggests that the primary activity in or near this part of the segment revolved around flint production. A focus on flint production is also evident within 2D-CIV where less material was located: as in 2D-CIII, 'few' or 'very few' pottery sherds and animal bone were found, along with one chalk object and a "clutter" of chalk blocks. The cuttings of ID-CIII, 2D-CIII, 2D-CIV, and SD-CI are all examples of the importance of flint processing or manufacturing areas within the Trundle.

4.9 Summary

The cultural material located within the enclosure ditches at The Trundle provides an insight into the specific areas of activity which occurred during the Neolithic. A majority of the objects located together suggests placed rather than structured deposits, indicating that perhaps a majority of the objects which were deposited represent daily activities associated with flint. The large amount of flakes and cores suggests the extensive creation of implements including serrated, and to a lesser extent, trimmed flakes, which may have been used for butchering animals. A small number of carved chalk objects with parallel lines suggest a connection with the flint mines within the local landscape, where a number of smaller portable chalk objects have also been located. Larger chalk blocks may have been used to separate areas within enclosure ditch segments or to indicate areas where the deposition of objects was seen as being socially acceptable. The animal bone was consistent with other enclosures in the British Isles with a greater quantity of cattle and some quantities of pig, sheep, and goat. No isolated human remains were located in any of the enclosure

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ditch segments, but a flexed burial of possible Early Bronze Age date was located within the outer enclosure ditch segment under the Iron Age Rampart.

4.10 Whitehawk

4.10.1 *Location and background*

Whitehawk is located on the South Downs in East Sussex. Consisting of four concentric circles of ditch covering an area of less than one square kilometre (Fig. 4.21), the enclosure occupies a hill-top location between two eminences with a ridge which angles sharply to Whitehawk Bottom to the east and to Baker's Bottom to the West (Williamson 1930: 56). Today, the Whitehawk causewayed enclosure is overlain by Brighton Race Course, accompanying stables, Freshfield Road to the north, Whitehawk Road to the south and Manor Hill, a small road which crosses the entire area of the site from the north-west to the south-east (Fig. 4.22).

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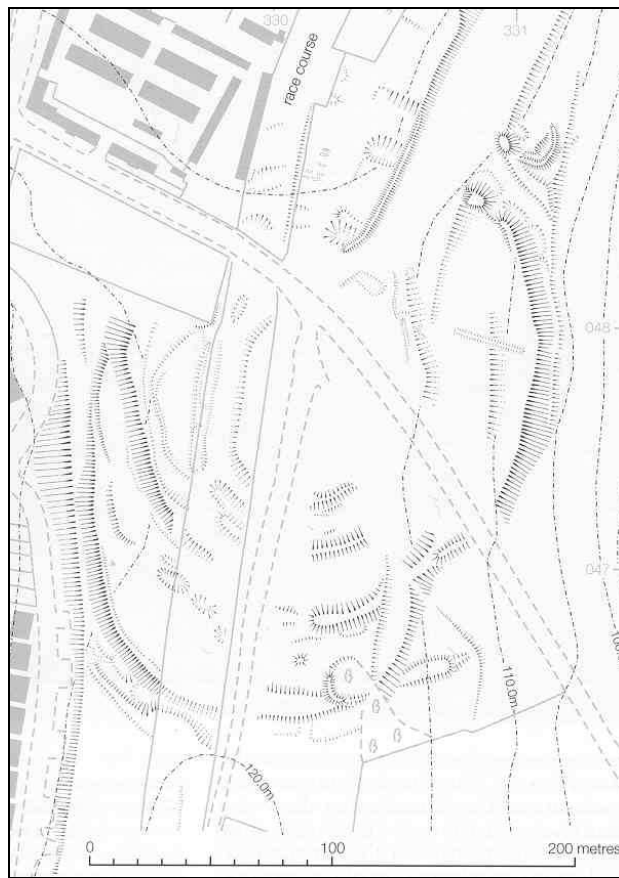


Figure 4.21 Plan of Whitehawk causewayed enclosure (Oswald et al. 2001: fig. 5.31)

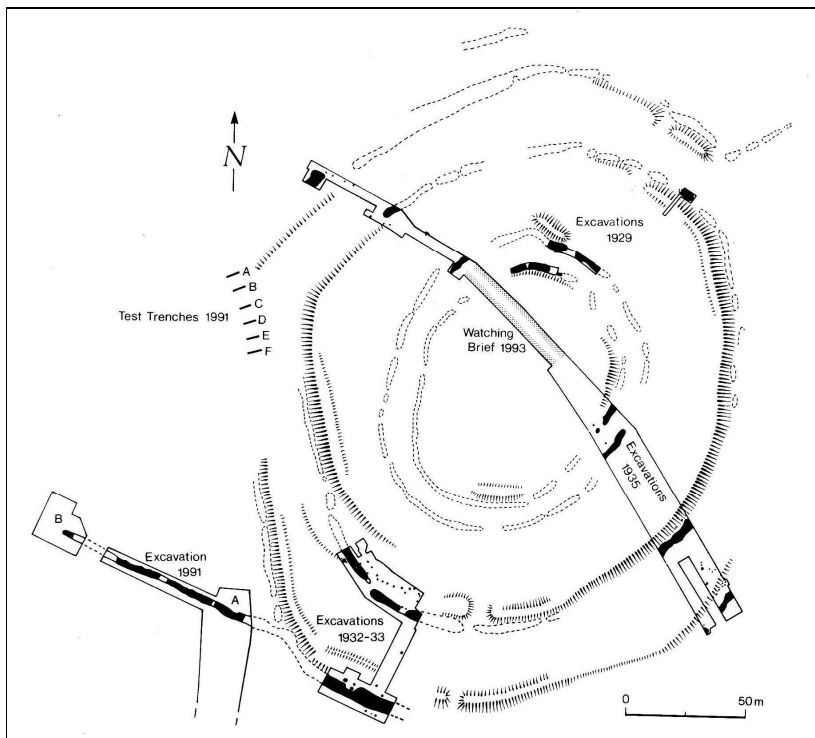


Figure 4.22 Excavations at Whitehawk (Russell and Rudling 1996: fig. 2)

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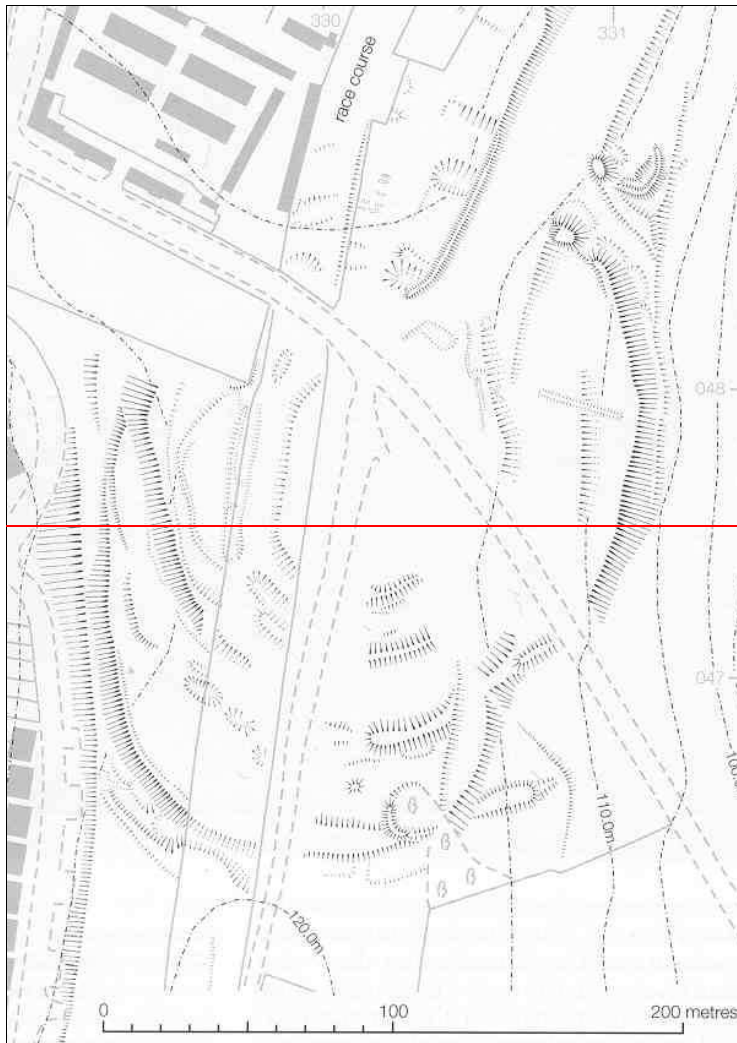


Figure 4.21 Plan of Whitehawk causewayed enclosure (Oswald et al. 2001: fig. 5.31)

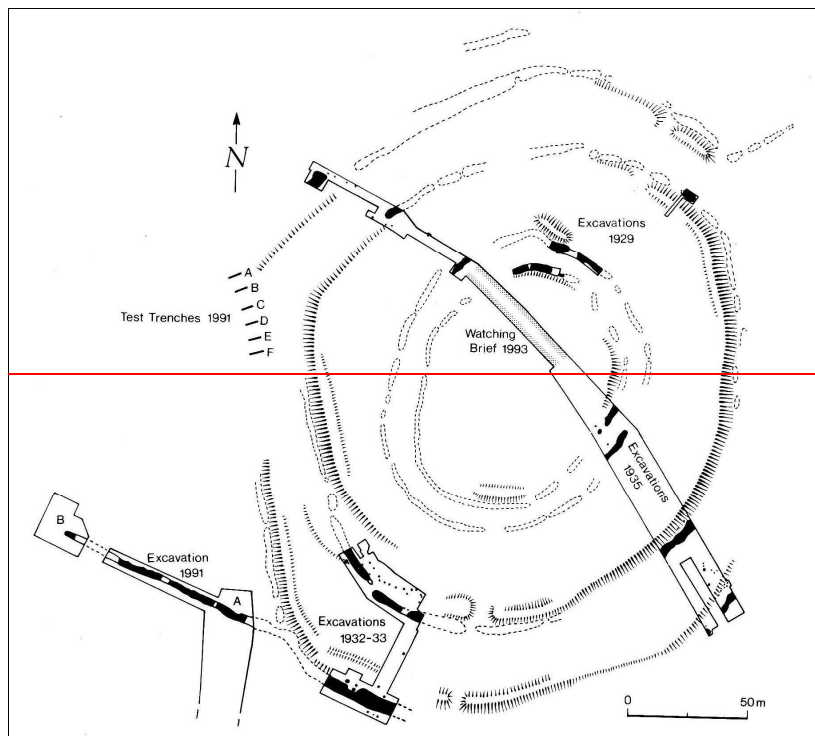


Figure 4.22 Excavations at Whitehawk (Russell and Rudling 1996: fig. 2)

The site was located using bosing, as was The Trundle (Williamson 1930: 59). It was excavated on four separate occasions, the first of which was in 1929 by R. P. Ross Williamson (1930) who excavated northern portions of the inner, second and third enclosure ditch segments (Figs. 4.23-4.29). The second season of excavation was by Curwen (1934) who explored the southern sections of the third and fourth enclosure ditch segments, and the area around and between the segments. The third season of excavation was again by Curwen (1936), who looked at a long but thin area across the centre of the site encompassing portions of ditch segments from all the circuits of Whitehawk, including the areas in between enclosure circuits. The final series of excavations was conducted by Miles Russell and David Rudling (1996) from 1991-93. Investigations to the south-west of the enclosure were conducted prior to the

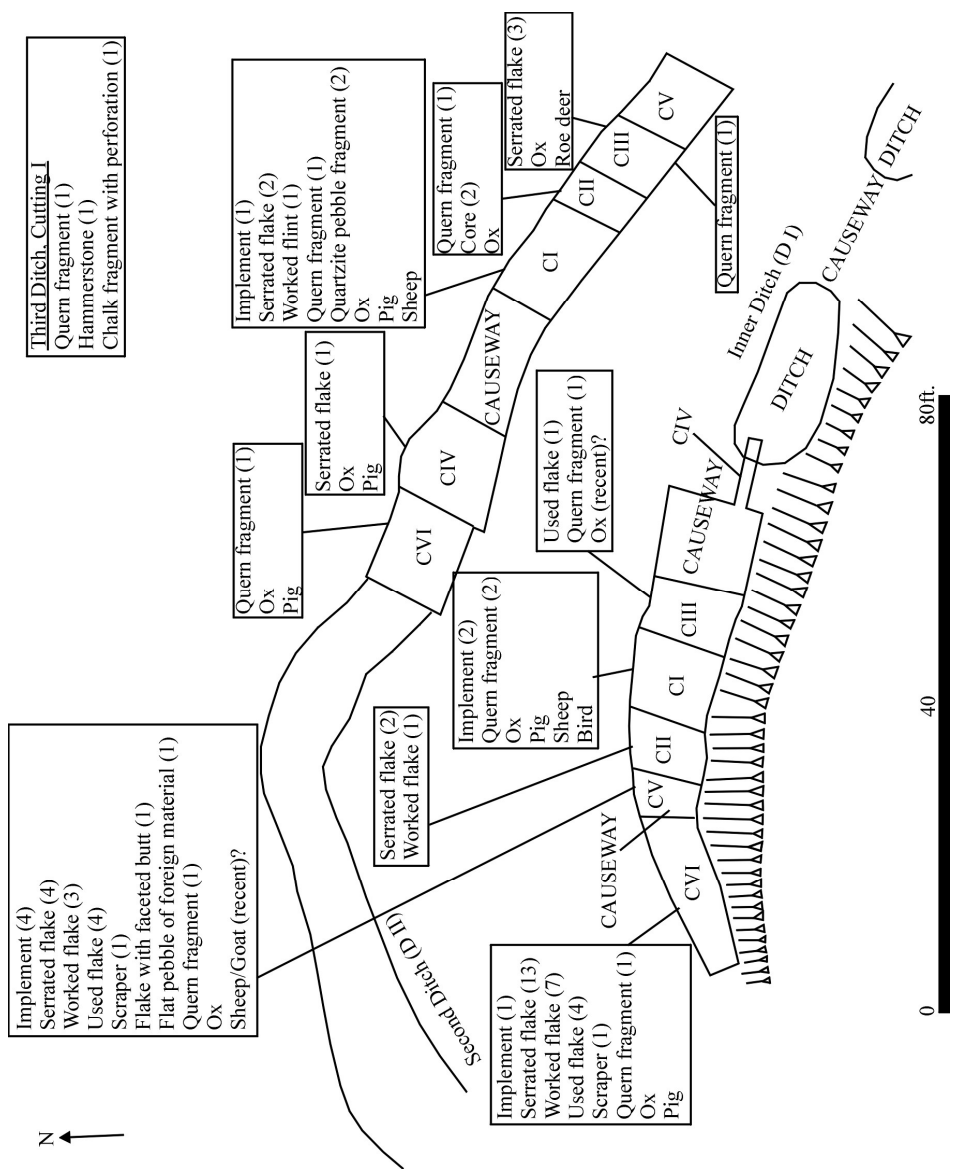


Figure 4.23 Objects located from inner and second ditch segments c. 0-9" (c. 0-23cm) (after Williamson 1930: pl. II and 88-96)

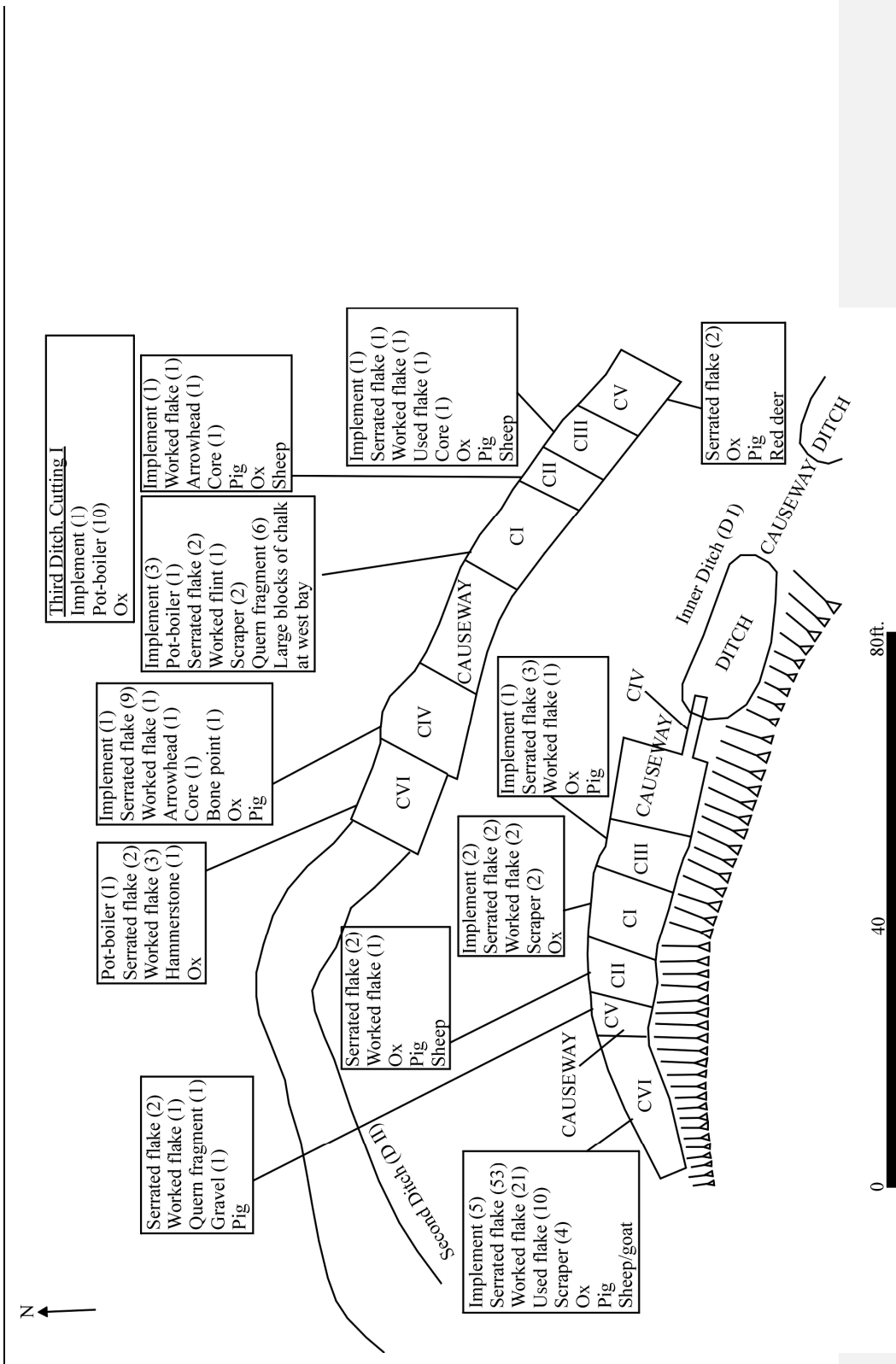


Figure 4.24 Objects located from inner and second ditch segments *c. 9-18''* (*c. 23-46cm*) (after Williamson 1930: pl. II and 88-96)

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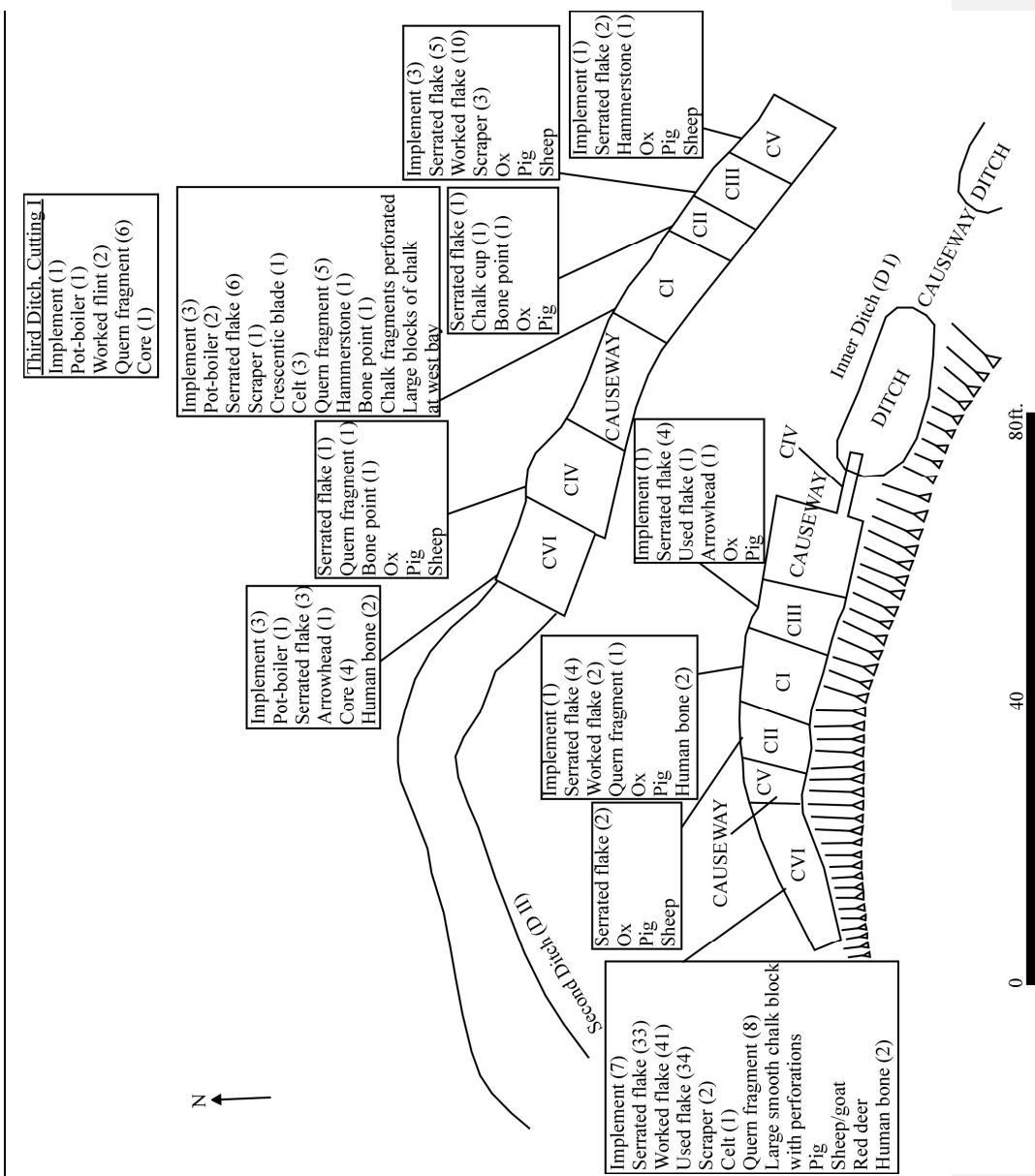


Figure 4.25 Objects located from inner and second ditch segments c. 18-27'' (c. 46-69cm) (after Williamson 1930: pl. II and 88-96)

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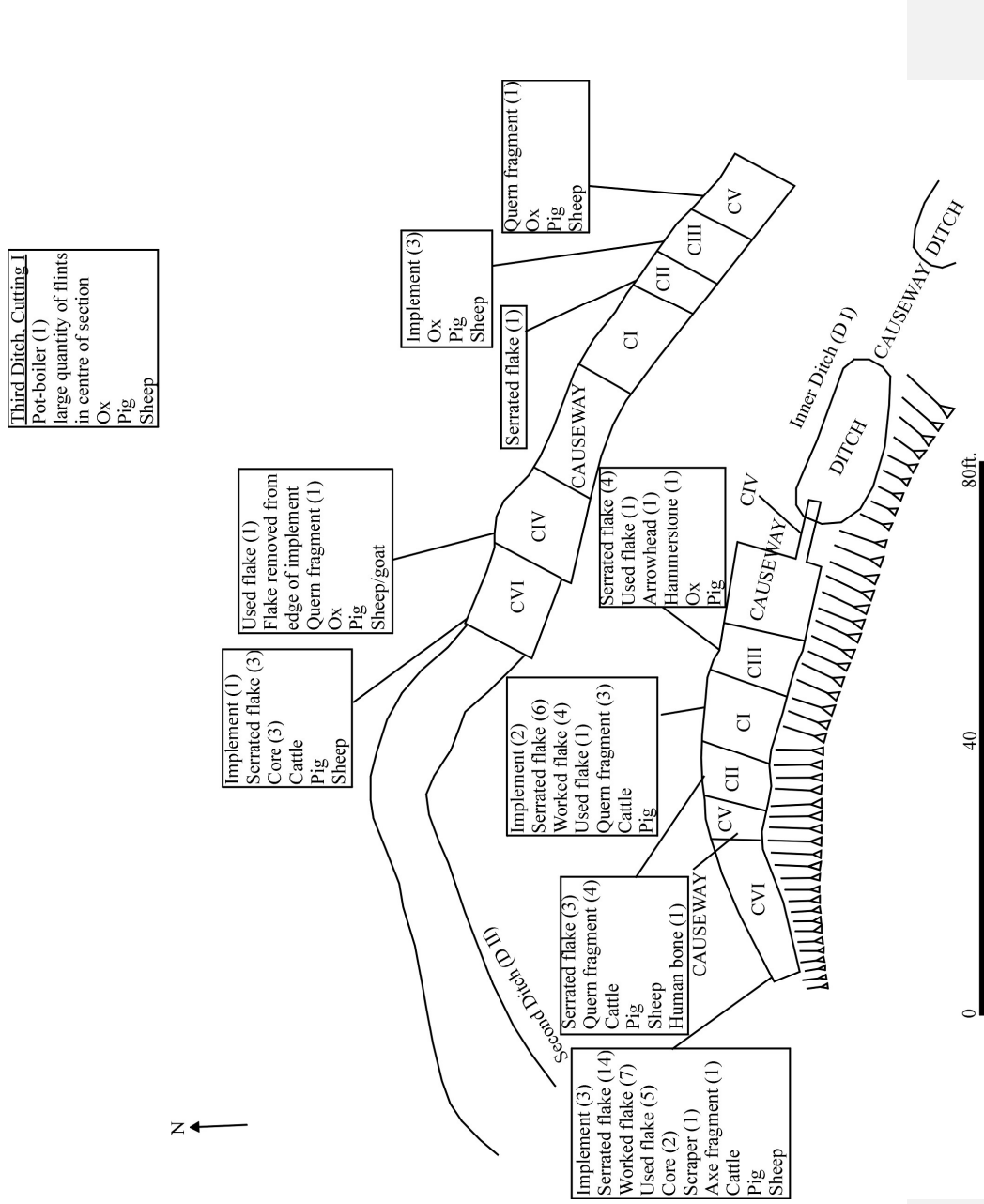


Figure 4.26 Objects located from inner and second ditch segments c. 27-36" (c. 69-91cm) (after Williamson 1930: pl. II and 88-96)

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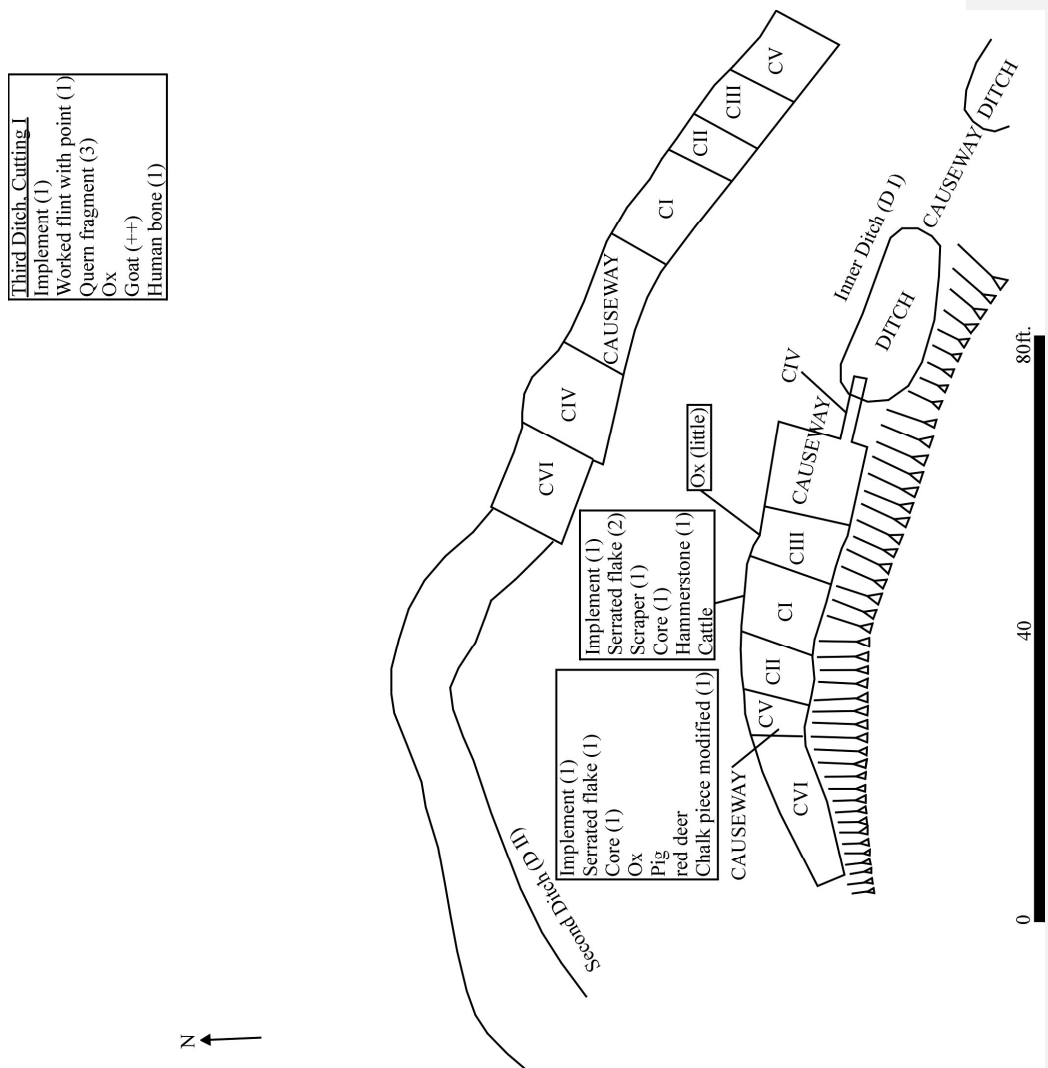


Figure 4.28 Objects located from inner and second ditch segments c. 45-54'' (c. 1.1-1.4m) (after Williamson 1930: pl. II and 88-96)

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Third Ditch, Cutting J
Chalk, small piece scored

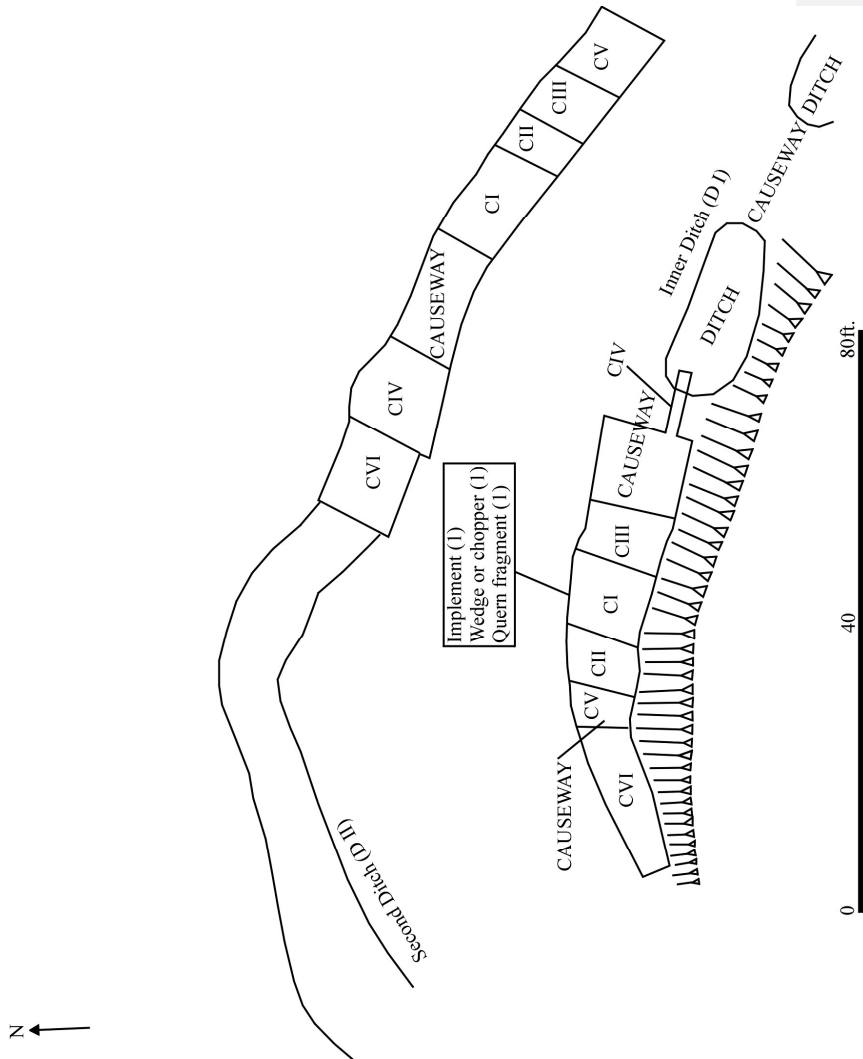


Figure 4.29 Objects located from inner and second ditch

segments c. 54" (c. 1.4m) plus (after Williamson 1930: pl. II and 88-96)

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construction of a housing development, and consisted of a excavation of a linear feature on a north-west to south-east alignment, six test trenches to the north, and a watching brief in north-west portion of the inner circuit where bollards and a gate were being installed (Russell and Rudling 1996).

During the above excavations, especially the seasons by Williamson and Curwen, an abundant amount of animal bone, flint, and pottery was located within the enclosure ditch segments. A large amount of human bone was also found, consisting of articulated skeletons and isolated cranium fragments. As noted in Chapter 2, some of the following evidence will be reviewed differently due to the ways in which excavation was conducted and written up during the early 1930s. From the available information in the reports of the 1930s and the small excavation in the early 1990s, it is still possible to create an interpretation of how the people of Whitehawk may have symbolised themselves through activity.

4.10.2 *Previous interpretations*

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The first interpretations of the excavations at Whitehawk by Williamson (1930: 86), note that the form of Whitehawk was similar to that of The Trundle and Windmill Hill. The large amount of pottery contained within the ditches also led him to suggest that the site may have been occupied by a large population for a short time period. The enclosure ditch segments were not seen as having been used for habitation as they contained pottery, animal bones and "other domestic rubbish" so may have "served as the community refuse-dumps" and flint mining was considered suggestive of a "peacefulness of the period" (Williamson 1930: 87). Although this is quite debatable, it does suggest that Williamson was aware of the connection flint mines may have had with causewayed enclosures within the South Downs. The later Curwen excavations (1934, 1936), as noted in chapter 1, contained very little interpretation and are heavily reliant on description. Curwen did identify the importance of post-holes possibly

representing a portion of a palisade and a started to indicate a temporal distribution of objects within the ditch segments. The major interpretations of the small-scale excavations by Russell and Rudling (2006) concluded that re-cutting and re-defining of circuits 3 and 4 indicated that a new pattern of ditch alignment was created. This suggests that the enclosure may not have been constructed all at once and may have been 'in use' for a longer period of time as successive alterations were made to the site (Russell and Rudling 2006: 58-60) (Fig. 4.30).

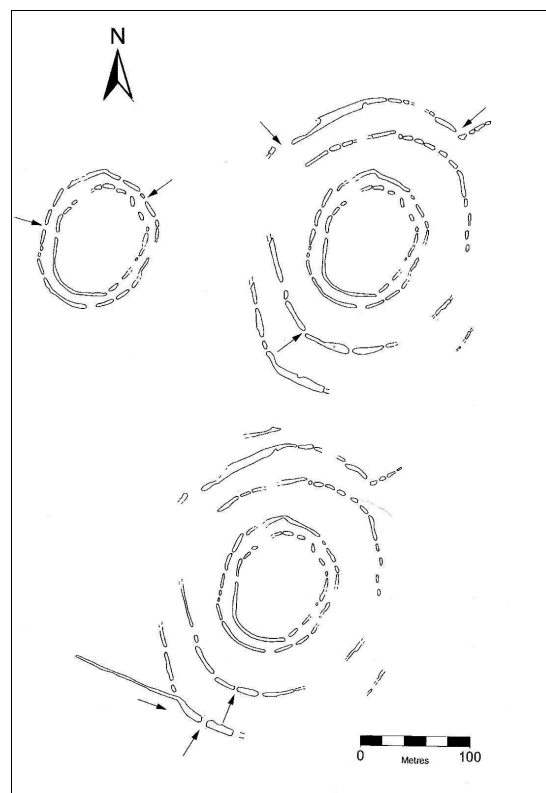


Figure 4.30 Proposed constructional phases for Whitehawk (Top left, Phase 1, top right Phase 2, bottom Phase 3. The arrows indicate proposed entrances into the site (Russell 2002: fig. 40))

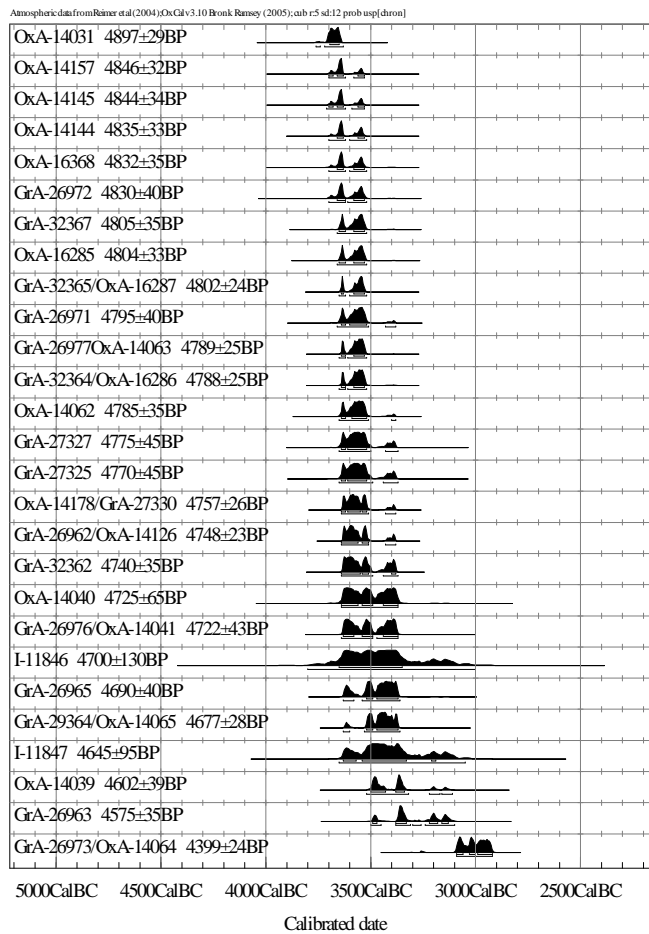
4.10.3 *Chronology and dating*

Like other causewayed enclosures, Whitehawk seems to have gone through a series of constructional phases which included the addition of ditches and/or circuits (Fig. 4.27). The information which follows is from the new radiocarbon determination programme (Whittle et al.: in prep.), which has re-analysed a range of samples; of

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which 27 were deemed as being reliable for dating the construction of particular enclosure ditches (Table 4.5 and 4.6). From this analysis it has been interpreted that, based on the 'black mould' (GrA-32367) from Site A, Layer 2, the construction date of Ditch I occurred around 3635–3560 cal BC (95% probability). The construction of Ditch II comes from sample OxA-14031, and is the only available measurement



<u>Lab No.</u>	<u>Date Cal BC Sigma 1</u> <u>(68%)</u>	<u>Date Cal BC Sigma 2</u> <u>(95%)</u>
<u>OxA-14031</u>	<u>3695-3650</u>	<u>3760-3630</u>
<u>OxA-14157</u>	<u>3700-3530</u>	<u>3700-3530</u>
<u>OxA-14145</u>	<u>3700-3530</u>	<u>3710-3530</u>
<u>OxA-14144</u>	<u>3660-3530</u>	<u>3700-3520</u>
<u>OxA-16368</u>	<u>3660-3530</u>	<u>3700-3520</u>
<u>GrA-26972</u>	<u>3660-3530</u>	<u>3700-3520</u>

GrA-32367	3650-3530	3660-3520
OxA-16285	3650-3530	3660-3520
GrA-32365/OxA-16287	3640-3530	3650-3520
GrA-26971	3640-3520	3660-3380
GrA-26977/OxA-14063	3640-3530	3650-3520
GrA-32364/OxA-16286	3640-3530	3650-3520
OxA-14062	3640-3520	3650-3380
GrA-27327	3640-3520	3650-3370
GrA-27325	3640-3520	3650-3370
OxA-14178/GrA-27330	3640-3520	3640-3380
GrA-26962/OxA-14126	3640-3510	3640-3380
GrA-32362	3640-3380	3640-3370
OxA-14040	3640-3370	3640-3370
GrA-26976/OxA-14041	3630-3370	3640-3370
I-11846	3650-3350	3800-3000
GrA-26965	3520-3370	3630-3360
GrA-29364/OxA-14065	3520-3370	3630-3360
I-11847	3630-3190	3650-3050
OxA-14039	3500-3340	3520-3110
GrA-26963	3490-3130	3500-3100
GrA-26973/OxA-14064	3090-2920	3090-2920

Table 4.5 Whitehawk radiocarbon dates (based on Whittle et al.: in prep)

OxA-14031	Internal residue from Neolithic Bowl body sherd in fresh condition	Ditch II, Site B, layer 5. Layer 5 does not figure in the published description or section of this ditch (Curwen 1936, 70–61, fig. E: first section). The fill is, however, described as consisting of ‘four principal layers’, which leaves open the possibility of others, and layer 5 is given as the context on the envelope in which the sherd was stored. Since layers were numbered from the top, it would have lain between layer 4 and the base of the ditch. This context must date to very shortly after the original digging of the segment
OxA-14157	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to GrA-26965 and OxA-14040	Ditch I, Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20–30 in (0.50–0.75 m)
OxA-14145	Single fragment of <i>Quercus</i> sp. ?sapwood charcoal extracted from find that consisted mainly of bone	Ditch III, Segment CIII–CV, Cutting IV, spit 5H (= ‘spit 5 hearth’), Hearth with pottery and human and animal bone in ‘occupation layer’ (Curwen 1934a, 111; pl. XIV; fig. 2: sections II and III). Spit 5 lay 40–50 in (1–1.27 m) below the surface
OxA-14144	Single fragment of <i>Corylus avellana</i> charcoal extracted from find predominantly of oak	Ditch III, Segment CVI–CVIII Cutting VII spit 6. Spit 6 lay at 60–70 in (1.50–1.75 m) below the surface and partly coincided with the ‘occupation layer’ (Curwen 1934a, fig. 2: sections IV and V).
OxA-16368	Cattle, 1 of 2 articulating lumbar vertebrae, epiphyses fused	Ditch II, segment CI+CH+CIII+CV, CH, spit 3. CI and CH were contiguous arbitrary sections and spits 2 and 3 were contiguous arbitrary spits (Ross Williamson 1930, pls. II, III). Spit 3 lay at 18 in to 27 in and was 9–10 in deep. Ross Williamson’s section E–F (1930, pl. III) shows spit 3 as the lowest, straddling ‘black mould’ and primary chalk rubble. The ‘black mould’ seems the most likely context, since finds were concentrated in it (Ross Williamson 1930, 61)

GrA-26972	Label: 'Proximal end of right tibia of ox, found with skeleton of roe deer, Whitehawk, Jan 1933'. In weathered condition	Ditch IV. Segment CV-CVI. Cutting V. Hole 5. Found with near-complete articulated skeleton of roe deer (missing April 2004) in pit cut into surface of fairly low causeway truncated by recutting of ditch IV. 'The south wall of the hole was partly broken away' suggests that it may have been truncated when the ditch was recut (Curwen 1934a, pls XII, XV; fig. 1: section IV).
GrA-32367	Cattle. Metatarsal fragment articulating with navicular-cuboid to which 2nd and 3rd tarsals fused	Site A. DI, layer 2. Typed on envelope: 'WHITEHAWK (East) EXCAVATIONS 26th Oct., 1935. Ditch 1. Level 2, black earth. OX, bones and teeth of' (Curwen 1936, 62-63, fig C)
OxA-16285	Cattle. Cervical vertebra articulating with another form DII CI S2, epiphyses unfused	Ditch II, segment CI+CII+CIII+CV, CII, spit 3. CI and CII were contiguous arbitrary sections and spits 2 and 3 were contiguous arbitrary spits (Ross Williamson 1930, pls. II, III). Spit 3 lay at 18 in to 27 in and was 9-10 in deep. Ross Williamson's section E-F (1930, pl. III) shows spit 3 as the lowest, straddling 'black mould' and primary chalk rubble. The 'black mould' seems the most likely context, since finds were concentrated in it (Ross Williamson 1930, 61)
GrA-32365	Cattle. L astragalus articulating with unfused distal tibia fragment. Replicate of OxA-16287	Site B. Ditch II, layer 3. Typed onto envelope containing these and one other bone 'WHITEHAWK (West) excavations 29th Oct., 1935. Ditch 2, Level 3, light grey. OX, Bones of.' Sketch section in Curwen's 'Field-Book' shows L3 as 'light grey', labelled 'occupation level' above L4 'chalk slip'. Described in report as 'A light grey triangle of occupation debris, containing a large quantity of animal bones, some worked flints, but very little pottery' (Curwen 1936, 71, fig. E)
OxA-16287	Cattle. L distal tibia epiphysis articulating with astragalus. Replicate of GrA-32365	From same articulation, same find and same context as GrA-32365
GrA-26971	Human. Rib fragment from articulated skeleton of female, 25-30 years old	Ditch III. Segment CII, in 'occupation layer'. Articulated (Curwen 1934a, fig. 2: section I, marked 'S')
GrA-26977	Human. Rib fragment from articulated skeleton of female 20-25 years old	Ditch III. Segment CIII-CV. Cutting V, in 'lower part of occupation layer' (Curwen 1934a, 108-10, pl. XIV, fig. 2: section III, pl. XVII: 2). Articulated, with articulated remains of infant, in elongated oval area surrounded by chalk blocks with 2 perforated chalk fragments, covered with soil to top of blocks
OxA-14063	Replicate of GrA-26977	From the same context as GrA-26977
GrA-32364	Cattle. Distal R radius fitting an unfused epiphysis. Replicate of OxA-16286	Ditch II, segment CIV+CVI, CIV, spit 4. Spit 4 lay at 27 in to 36 in (0.68 m to 0.91 m) deep (Ross Williamson 1930, 94) and the segment was 3 ft (0.90 m) deep. Spit 4 must have been on or close to the base, although a very few finds are recorded from spit 5, which did not reach the full spit depth of 9 in. There is no mention of any 'black mould' in this segment (Ross Williamson 1930, 94-5), nor is any shown on the one published section (Ross Williamson 1930, pl. III: section K-L)
OxA-16286	Cattle. Unfused R radius epiphysis fitting distal radius fragment. Replicate of GrA-32364	From the same context as GrA-32364
GrA-29364	Red deer. Antler tine tip, anciently broken from beam	Ditch IV. Site A. DIV layer 4. In the lowest fill of the ditch (Curwen 1935, fig. C), which is likely to have accumulated within a couple of years of its originally having been dug.
OxA-14065	Replicate of GrA-29364	From the same context as GrA-29364
OxA-14062	Cattle. Proximal phalanx articulating with medial phalanx, which in turn might articulate with unprovenanced distal phalanx	Ditch III. Cutting II spit 4. Spit 4 lay 30-40 in (0.75-1 m) below the surface, and would have been above skeleton I and the 'occupation layer' if spits were measured from the disturbed surface rather than from a level below it (Curwen 1934a, fig. 2: section D).
GrA-27327	Single fragment of <i>Cornus</i> sp./ <i>Viburnum</i> sp. charcoal extracted from find predominantly of oak	Ditch III. Segment CVI-CVIII Cutting VII spit 6. Spit 6 lay at 60-70 in (1.50-1.75 m) below the surface and partly coincided with the 'occupation layer' (Curwen 1934a, fig. 2: sections IV and V).
GrA-27325	Single fragment of Pomoideae charcoal extracted from find predominantly of oak	Ditch III. Segment CIII-CV. Cutting IV, spit 5H (= 'spit 5 hearth'). Hearth with pottery and human and animal bone in 'occupation layer' (Curwen 1934a, 111; pl. XIV; fig. 2: sections II and III). Spit 5 lay 40-50 in (1-1.27 m) below the surface
OxA-14178	Goat. Humerus articulating with radius from subadult individual. Animal bone from this spit includes elements from 2 goats, this one represented by at least 10 long bones and a scapula	Ditch III. Cutting CI, spit 6. Spit 6 was the penultimate spit and lay in chalk rubble at 50-60 in (1.30-1.50 m) from the surface and 18-28 in (0.45-0.70 m) above the uneven base of the ditch, beneath the 'occupation layer' (Ross Williamson 1930, 96; pl. III: section G-H). The number of bones recovered from a single individual makes it possible that the entire skeleton was present, given that excavation by pick and shovel did not make for complete bone retrieval
GrA-27330	Replicate of OxA-14178	From the same context as OxA-14178

GrA-26962	Red deer. Antler tine tip. Damage to the tine tip and an ancient break at tine base suggest that the sample formed part of an antler pick	Ditch I. Segment CI-CIII, cutting II, spit 6. This was the bottom spit and lay at 45–54 in (1.10–1.30 m; Ross Williamson 1930, 89, pl. III: section C–D)
OxA-14126	Replicate of GrA-26962	From the same context as GrA-26962
GrA-32362	Pig. R distal tibia fragment articulating with astragalus	Ditch II, segment CI+CII+CIII+CV, CI, spit 2. Spit 2 lay at 9 in to 18 in (0.22 m to 0.45 m) deep. Ross Williamson's section E–F (1930, pl. III) shows spit 2 straddling tertiary fill, 'black mould', and primary chalk rubble. The 'black mould' seems the more likely context, since finds were concentrated in it (Ross Williamson 1930, 61)
OxA-14040	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to OxA-14157 and GrA-26965	Ditch I. Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20–30 in (0.50–0.75 m)
GrA-26976	Possible internal residue from Neolithic Bowl body sherd. Replicate of OxA-14041	Ditch III. Segment CIII–CV. Cutting V. Spit 5. Spit 5 lay 40–50 in (1–1.25 m) below the surface and partly coincided with the 'occupation layer'. From the same find as OxA-14041
OxA-14041	Possible internal residue from Neolithic Bowl body sherd. Replicate of GrA-26976	From the same context and the same find as GrA-26976
I-11846	Cattle. Femur	Ditch III. Segment CVI–CVIII. Cutting VII. In 'coarse chalk rubble'. This was the lowest layer recorded in the ditch (Curwen 1934a, fig. 3: section VI)
GrA-26965	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to OxA-14157 OxA-14157 and OxA-14040	Ditch I. Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20–30 in (0.50–0.75 m)
GrA-29364	Red deer. Antler tine tip, anciently broken from beam	Ditch IV. Site A. DIV layer 4. In the lowest fill of the ditch (Curwen 1935, fig. C), which is likely to have accumulated within a couple of years of its originally having been dug.
OxA-14065	Replicate of GrA-29364	From the same context as GrA-29364
I-11847	Cattle. Femur	Ditch IV. Segment CV–CVI. Cutting V. In 'coarse chalk rubble'. This was the lowest layer recorded in the ditch (Curwen 1934a, fig. 1: sections IV–V)
OxA-14039	Internal residue surviving on lowest part of large, well-preserved sherd of carinated Neolithic Bowl with faint channelling on lower body joining two others from DI CII 4	Ditch I. Segment CI–CIII, cutting III, spit 5. Spit 5 was the penultimate one and lay at 36–55 in (0.90–1.10 m; Ross Williamson 1930, 90, pl. III: section A–B)
GrA-26963	Internal residue from 1 of 5 Neolithic Bowl body sherds, from at least two separate vessels, in fairly fresh condition, all with internal residues	Ditch I. Segment CI–CIII, cutting I, spit 4. Spit 4 lay at 27–36 in (0.70–0.90 m; Ross Williamson 1930, 89, pl. III: section A–B)
GrA-26973	Red deer. Probable antler pick, weathered. Base and beam. Brow and bez tines broken off, brow recently, bez anciently. Numerous small antler fragments from the same spit in the same cutting suggest that the complete pick (even a second pick?) was present at the time of excavation	Ditch IV. Segment CV–CVI. Cutting V. Spit 7. CV was of uneven depth, so that spit 7, at 60–70 in (1.50–1.75 m) below the surface, would have been in coarse chalk rubble on the bottom of the ditch in the east of the cutting (Curwen 1934a, fig. 1: section IV) and would have been well in the middle of the fills well above the coarse chalk rubble in the west (Curwen 1934a, fig. 1: section V)
OxA-14064	Replicate of GrA-26973	From the same context as GrA-26973

Table 4.6 Radiocarbon samples and contexts for Whitehawk (Whittle et al.: in prep)

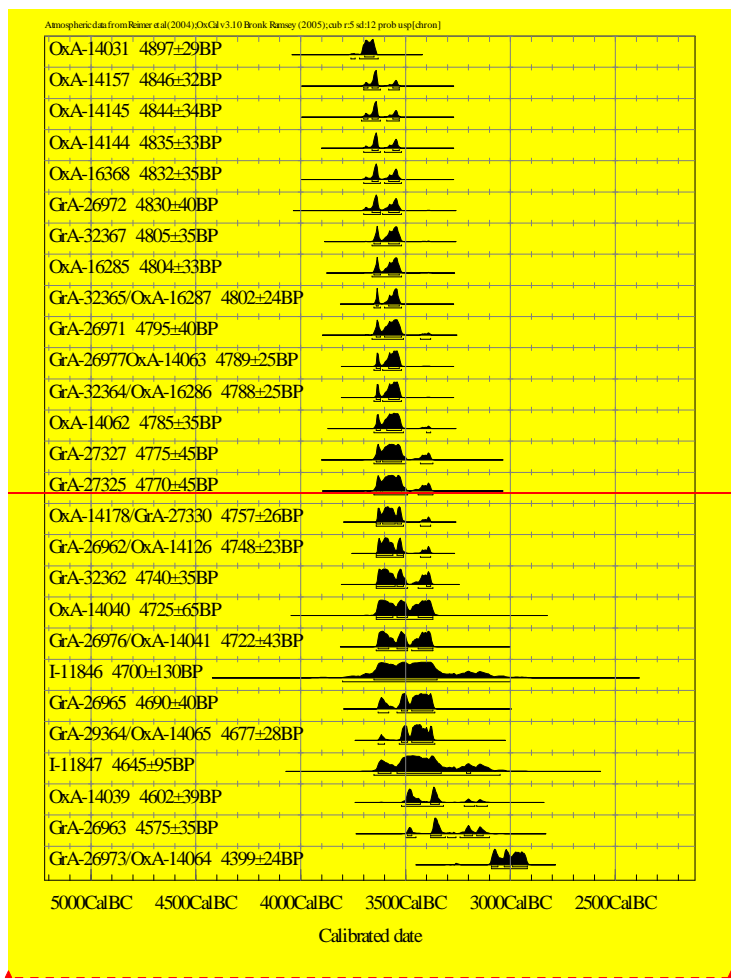
which is definitely from below the 'black mould' in Ditch II. Based on this sample it is estimated that Ditch II was dug in 3675–3630 cal BC (72% probability). The radiocarbon dates from the complex Ditch III indicate 3660–3560 cal BC (95% probability), but that this almost certainly applies to the recut rather than the original ditch. The date of the construction of the site is based upon one existing date, two new samples from CV in Curwen's excavations in the south of the circuit (GrA-26972, I-11847, antler R3688/139/M), one new sample from his section across the east of the circuit on site A (antler R4100/141/P), and a disarticulated cattle femur from the coarse chalk rubble on the base of the recut in the same section [IV] (I-

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11847). Based on these dates the construction date for Ditch IV is estimated as 3650–3505 cal BC (95% probability) and almost certainly applies to the recut rather than the original ditch (Whittle et al.: in prep).

The authors of this recent radiocarbon study conclude “it must be admitted, however, that our chronology is less than entirely satisfactory. The only dateable material from



Lab No.	Date-Cal BC-Sigma-1 (68%)	Date-Cal BC-Sigma-2 (95%)
OxA-14031	3695-3650	3760-3630
OxA-14157	3700-3530	3700-3530
OxA-14145	3700-3530	3710-3530
OxA-14144	3660-3530	3700-3520

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OxA-16368	3660-3530	3700-3520
GrA-26972	3660-3530	3700-3520
GrA-32367	3650-3530	3660-3520
OxA-16285	3650-3530	3660-3520
GrA-32365/OxA-16287	3640-3530	3650-3520
GrA-26971	3640-3520	3660-3380
GrA-26977/OxA-14063	3640-3530	3650-3520
GrA-32364/OxA-16286	3640-3530	3650-3520
OxA-14062	3640-3520	3650-3380
GrA-27327	3640-3520	3650-3370
GrA-27325	3640-3520	3650-3370
OxA-14178/GrA-27330	3640-3520	3640-3380
GrA-26962/OxA-14126	3640-3510	3640-3380
GrA-32362	3640-3380	3640-3370
OxA-14040	3640-3370	3640-3370
GrA-26976/OxA-14041	3630-3370	3640-3370
I-11846	3650-3350	3800-3000
GrA-26965	3520-3370	3630-3360
GrA-29364/OxA-14065	3520-3370	3630-3360
I-11847	3630-3190	3650-3050
OxA-14039	3500-3340	3520-3110
GrA-26963	3490-3130	3500-3100
GrA-26973/OxA-14064	3090-2920	3090-2920

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Table 4.5 Whitehawk radiocarbon dates (based on Whittle et al.: in prep)

OxA-14031	Internal residue from Neolithic Bowl body sherd in fresh condition	Ditch II, Site B, layer 5. Layer 5 does not figure in the published description or section of this ditch (Curwen 1936, 70-61, fig. E: first section). The fill is, however, described as consisting of 'four principal layers', which leaves open the possibility of others, and layer 5 is given as the context on the envelope in which the sherd was stored. Since layers were numbered from the top, it would have lain between layer 4 and the base of the ditch. This context must date to very shortly after the original digging of the segment
OxA-14157	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to GrA 26965 and OxA-14040	Ditch I. Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20-30 in (0.50-0.75 m)
OxA-14145	Single fragment of <i>Quercus</i>, sp. ?sapwood charcoal extracted from find that consisted mainly of bone	Ditch III. Segment CIII-CV. Cutting IV, spit 5H (= 'spit 5 hearth'). Hearth with pottery and human and animal bone in 'occupation layer' (Curwen 1934a, 111; pl. XIV; fig. 2: sections II and III). Spit 5 lay 40-50 in (1-1.27 m) below the surface
OxA-14144	Single fragment of <i>Corylus avellana</i> charcoal extracted from find predominantly of oak	Ditch III. Segment CVI-CVIII. Cutting VII spit 6. Spit 6 lay at 60-70 in (1.50-1.75 m) below the surface and partly coincided with the 'occupation layer' (Curwen 1934a, fig. 2: sections IV and V).

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OxA- 16368	Cattle. 1 of 2 articulating lumbar vertebrae, epiphyses fused	Ditch II, segment CI+CH+CHH+CV, CH, spit 3. CI and CH were contiguous arbitrary sections and spits 2 and 3 were contiguous arbitrary spits (Ross Williamson 1930, pls. II, III). Spit 3 lay at 18 in to 27 in and was 9-10 in deep. Ross Williamson's section E-F (1930, pl. III) shows spit 3 as the lowest, straddling 'black mould' and primary chalk rubble. The 'black mould' seems the most likely context, since finds were concentrated in it (Ross Williamson 1930, 61)	Formatted: Line spacing: 1.5 lines
GrA- 26972	Label: 'Proximal end of right tibia of ox, found with skeleton of roe deer, Whitehawk, Jan 1933'. In weathered condition	Ditch IV. Segment CV-CVI. Cutting V, Hole 5. Found with near-complete articulated skeleton of roe deer (missing April 2004) in pit cut into surface of fairly low causeway truncated by recutting of ditch IV. 'The south wall of the hole was partly broken away' suggests that it may have been truncated when the ditch was recut (Curwen 1934a, pls XII, XV; fig. 1: section IV).	Formatted: Line spacing: 1.5 lines
GrA- 32367	Cattle. Metatarsal fragment articulating with navicular cuboid to which 2nd and 3rd tarsals fused	Site A, DI, layer 2. Typed on envelope: 'WHITEHAWK (East) EXCAVATIONS 26th Oct., 1935. Ditch 1. Level 2, black earth. OX, bones and teeth of' (Curwen 1936, 62-63, fig C)	Formatted: Line spacing: 1.5 lines

OxA-16285	Cattle. — Cervical — vertebra articulating with another form DH CI-S2, epiphyses unfused	Ditch II, segment CI+CH+CHH+CV, CH, spit 3. CI and CH were contiguous arbitrary sections and spits 2 and 3 were contiguous — arbitrary — spits — (Ross Williamson 1930, pls. II, III). Spit 3 lay at 18 in to 27 in and was 9–10 in deep. Ross Williamson's section E-F (1930, pl. III) shows spit 3 as the lowest, straddling 'black mould' and primary chalk rubble. The 'black mould' seems the most likely context, since finds were concentrated in it (Ross Williamson 1930, 61)	Formatted: Line spacing: 1.5 lines
GrA-32365	Cattle. L astragalus articulating with unfused distal tibia fragment. Replicate of OxA-16287	Site B, Ditch II, layer 3. Typed onto envelope containing these and one other bone — 'WHITEHAWK' — (West) excavations 29th Oct., 1935. Ditch 2, Level 3, light grey. OX, Bones of: Sketch section in Curwen's 'Field Book' shows L3 as 'light grey', labelled 'occupation level' above L4 'chalk slip'. Described in report as 'A light grey triangle of occupation debris, containing a large quantity of animal bones, some worked flints, but very little pottery' (Curwen 1936, 71, fig. E)	Formatted: Line spacing: 1.5 lines
OxA-16287	Cattle. L distal tibia epiphysis articulating with astragalus. Replicate of GrA-32365	From same articulation, same find and same context as GrA-32365	Formatted: Line spacing: 1.5 lines
GrA-26971	Human. Rib fragment from articulated skeleton of female, 25–30 years old	Ditch III. Segment CH, in 'occupation layer'. Articulated (Curwen 1934a, fig. 2: section I, marked 'S')	Formatted: Line spacing: 1.5 lines

GrA-26977	Human. Rib fragment from articulated skeleton of female 20-25 years old	Ditch III. Segment CIII-CV. Cutting V, in 'lower part of occupation layer' (Curwen 1934a, 108-10, pl. XIV, fig. 2; section III, pl. XVII: 2). Articulated, with articulated remains of infant, in elongated oval area surrounded by chalk blocks with 2 perforated chalk fragments, covered with soil to top of blocks	Formatted: Line spacing: 1.5 lines
OxA-14063	Replicate of GrA 26977	From the same context as GrA 26977	Formatted: Line spacing: 1.5 lines
GrA-32364	Cattle. Distal R radius fitting an unfused epiphysis. Replicate of OxA-16286	Ditch II, segment CIV+CVI, CIV, spit 4. Spit 4 lay at 27 in to 36 in (0.68 m to 0.91 m) deep (Ross Williamson 1930, 94) and the segment was 3 ft (0.90 m) deep. Spit 4 must have been on or close to the base, although a very few finds are recorded from spit 5, which did not reach the full spit depth of 9 in. There is no mention of any 'black mould' in this segment (Ross Williamson 1930, 94-5), nor is any shown on the one published section (Ross Williamson 1930, pl. III: section K-L)	Formatted: Line spacing: 1.5 lines
OxA-16286	Cattle. Unfused R radius epiphysis fitting distal radius fragment. Replicate of GrA 32364	From the same context as GrA 32364	Formatted: Line spacing: 1.5 lines
GrA-29364	Red deer. Antler tine tip, anciently broken from beam	Ditch IV. Site A. DIV layer 4. In the lowest fill of the ditch (Curwen 1935, fig. C), which is likely to have accumulated within a couple of years of its originally having been dug.	Formatted: Line spacing: 1.5 lines

OxA-14065	Replicate of GrA 29364	From the same context as GrA 29364
OxA-14062	Cattle. Proximal phalanx articulating with medial phalanx, which in turn might articulate with unprovenanced distal phalanx	Ditch III. Cutting II spit 4. Spit 4 lay 30–40 in (0.75–1 m) below the surface, and would have been above skeleton I and the ‘occupation layer’ if spits were measured from the disturbed surface rather than from a level below it (Curwen 1934a, fig. 2: section I).
GrA-27327	Single fragment of <i>Cornus</i> sp./<i>Viburnum</i> sp. charcoal extracted from find predominantly of oak	Ditch III. Segment CVI–CVIII Cutting VII spit 6. Spit 6 lay at 60–70 in (1.50–1.75 m) below the surface and partly coincided with the ‘occupation layer’ (Curwen 1934a, fig. 2: sections IV and V).
GrA-27325	Single fragment of Pomoideae charcoal extracted from find predominantly of oak	Ditch III. Segment CIII–CV. Cutting IV, spit 5H (= ‘spit 5 hearth’). Hearth with pottery and human and animal bone in ‘occupation layer’ (Curwen 1934a, 111; pl. XIV; fig. 2: sections II and III). Spit 5 lay 40–50 in (1–1.27 m) below the surface

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OxA-14178	Goat. Humerus articulating with radius from subadult individual. Animal bone from this spit includes elements from 2 goats, this one represented by at least 10 long bones and a scapula	Ditch III. Cutting CI, spit 6. Spit 6 was the penultimate spit and lay in chalk rubble at 50–60 in (1.30–1.50 m) from the surface and 18–28 in (0.45–0.70 m) above the uneven base of the ditch, beneath the ‘occupation layer’ (Ross Williamson 1930, 96; pl. III: section G–H). The number of bones recovered from a single individual makes it possible that the entire skeleton was present, given that excavation by pick and shovel did not make for complete bone retrieval	Formatted: Line spacing: 1.5 lines
GrA-27330	Replicate of OxA-14178	From the same context as OxA-14178	Formatted: Line spacing: 1.5 lines
GrA-26962	Red deer. Antler tine tip. Damage to the tine tip and an ancient break at tine base suggest that the sample formed part of an antler pick	Ditch I. Segment CI–CIII, cutting II, spit 6. This was the bottom spit and lay at 45–54 in (1.10–1.30 m; Ross Williamson 1930, 89, pl. III: section C–D)	Formatted: Line spacing: 1.5 lines
OxA-14126	Replicate of GrA-26962	From the same context as GrA-26962	Formatted: Line spacing: 1.5 lines
GrA-32362	Pig. R distal tibia fragment articulating with astragalus	Ditch II, segment CI+CII+CIII+CV, CI, spit 2. Spit 2 lay at 9 in to 18 in (0.22 m to 0.45 m) deep. Ross Williamson’s section E–F (1930, pl. III) shows spit 2 straddling tertiary fill, ‘black mould’, and primary chalk rubble. The ‘black mould’ seems the more likely context, since finds were concentrated in it (Ross Williamson 1930, 61)	Formatted: Line spacing: 1.5 lines

OxA-14040	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to OxA-14157 and GrA-26965	Ditch I. Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20–30 in (0.50–0.75 m)	Formatted: Line spacing: 1.5 lines
GrA-26976	Possible internal residue from Neolithic Bowl body sherd. Replicate of OxA-14041	Ditch III. Segment CIII–CV. Cutting V. Spit 5. Spit 5 lay 40–50 in (1–1.25 m) below the surface and partly coincided with the ‘occupation layer’. From the same find as OxA-14041	Formatted: Line spacing: 1.5 lines
OxA-14041	Possible internal residue from Neolithic Bowl body sherd. Replicate of GrA-26976	From the same context and the same find as GrA-26976	Formatted: Line spacing: 1.5 lines
I-11846	Cattle. Femur	Ditch III. Segment CVI–CVIII. Cutting VII. In ‘coarse chalk rubble’. This was the lowest layer recorded in the ditch (Curwen 1934a, fig. 3: section VI)	Formatted: Line spacing: 1.5 lines
GrA-26965	Internal residue from 1 of 25 Neolithic Bowl body sherds. From different vessel to OxA-14157 OxA-14157 and OxA-14040	Ditch I. Segment CVI, spit 3. There is no section of CVI; its average depth was 4 ft (1.22 m; Ross Williamson 1930, 61). Spit 3 lay at 20–30 in (0.50–0.75 m)	Formatted: Line spacing: 1.5 lines
GrA-29364	Red deer. Antler tine tip, anciently broken from beam	Ditch IV. Site A. DIV layer 4. In the lowest fill of the ditch (Curwen 1935, fig. C), which is likely to have accumulated within a couple of years of its originally having been dug.	Formatted: Line spacing: 1.5 lines
OxA-14065	Replicate of GrA-29364	From the same context as GrA-29364	Formatted: Line spacing: 1.5 lines
I-11847	Cattle. Femur	Ditch IV. Segment CV–CVI. Cutting V. In ‘coarse chalk rubble’. This was the lowest layer recorded in the ditch (Curwen 1934a, fig. 1: sections IV–V)	Formatted: Line spacing: 1.5 lines

OxA-14039	Internal residue surviving on lowest part of large, well-preserved sherd of carinated Neolithic Bowl with faint channelling on lower body joining two others from DI CII 4	Ditch I. Segment CI-CH, cutting III, spit 5. Spit 5 was the penultimate one and lay at 36-55 in (0.90-1.10 m; Ross Williamson 1930, 90, pl. III: section A-B)	Formatted: Line spacing: 1.5 lines
GrA-26963	Internal residue from 1 of 5 Neolithic Bowl body sherds, from at least two separate vessels, in fairly fresh condition, all with internal residues	Ditch I. Segment CI-CH, cutting I, spit 4. Spit 4 lay at 27-36 in (0.70-0.90 m; Ross Williamson 1930, 89, pl. III: section A-B)	Formatted: Line spacing: 1.5 lines
GrA-26973	Red deer. Probable antler pick, weathered. Base and beam. Brow and bez tines broken off, brow ?recently, bez — anciently. Numerous small antler fragments from the same spit in the same cutting suggest that the complete pick (even a second pick?) was present at the time of excavation	Ditch IV. Segment CV-CVI. Cutting V, Spit 7. CV was of uneven depth, so that spit 7, at 60-70 in (1.50-1.75 m) below the surface, would have been in coarse chalk rubble on the bottom of the ditch in the east of the cutting (Curwen 1934a, fig. 1: section IV) and would have been well in the middle of the fills well above the coarse chalk rubble in the west (Curwen 1934a, fig. 1: section V)	Formatted: Line spacing: 1.5 lines
OxA-14064	Replicate of GrA-26973	From the same context as GrA-26973	Formatted: Line spacing: 1.5 lines

conclude “it must be admitted, however, that our chronology is less than entirely satisfactory. The only dateable material from the primary chalk rubble from Ditch II is a residue sample from a single sherd, which could have been redeposited. The date of Ditch IV depends on non-optimal samples, and those for both Ditches III and IV may relate to recuts rather than to the original circuits. Many elements of the complex remain undated. Within these limitations, it appears that the four circuits were built between the middle of the 37th century and the end of the 36th century cal BC. The major period of construction may have been confined to the second half of the 37th

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century cal BC. Overall, Whitehawk was in use for 75–260 years (95% probability)” (Whittle et al.: in prep.).

▲ ~~Table 4.6 Radiocarbon samples and contexts for Whitehawk (Whittle et al.: in prep)~~

▲ ~~the primary chalk rubble from Ditch II is a residue sample from a single sherd, which could have been redeposited. The date of Ditch IV depends on non-optimal samples, and those for both Ditches III and IV may relate to recuts rather than to the original circuits. Many elements of the complex remain undated. Within these limitations, it appears that the four circuits were built between the middle of the 37th century and the end of the 36th century cal BC. The major period of construction may have been confined to the second half of the 37th century cal BC. Overall, Whitehawk was in use for 75–260 years (95% probability)” (Whittle et al.: in prep.):~~

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▲ ~~4.11 Material and associated activity areas~~

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▲ ~~4.11.1 *Hunting and animals*~~

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The animal bone from all excavations at Whitehawk contained the ‘typical’ species found at other causewayed enclosures. These included cattle, pig, sheep/goat, dog, and deer, both red and roe. As there are no actual numbers which can be statistically used here, it is possible to show only which species are present within which enclosure ditch segments and cuttings. With the Williamson (1930) excavations ox dominates the assemblage with remains located within each of the enclosure ditch segment cuttings. Pig is also well represented, as this species occurs in all cuttings with the exception of DI-CV. Cattle, pig and sheep/goat are the most common combination of animal bone being found in 20 of the excavated layers. Cattle and pig are the next most common species combination, with 14 layers that contain only these two species, while cattle and sheep/goat occur together exclusively within five layers.

A large amount of goat may have been located within the third ditch, cutting I, layer 6, represented with ++ in the report, an indication of a substantial amount of this one species being placed within a possible 'ritualistic' context as it was associated with a human humerus.

4.11.1.1 *Deer*

The symbolism in the placement of deer seems to have been regarded as highly important at Whitehawk. During the first excavations, Musson (1930: 82) noted that roe and red deer were usually represented by antler fragments, albeit scarce. However a complete red deer was found in a crouched position within Hole 5 of cutting V of the fourth ditch segment (Fig. 4.31), which Curwen suggested may have been specifically dug for the placement of the animal for ritual or sacrificial purposes (Curwen 1934: 102). All of the excavations conducted in the 1930s contained fragments of antler and some disarticulated bone from the enclosure ditch segments. During the 1932-3 excavation a majority of the deer was located within DIII in cuttings V, VI, VII, and VIII. Curwen notes that "fragments of red deer antlers – not picks" (Curwen 1934: 104) were located in cutting V of the fourth ditch. The fragments from these antlers may represent the tools which were modified from a living animal within the enclosure ditch construction process. Alternatively, the fragments were not used within the process of ditch construction at all, but were socially connected to the deer within Hole 5.

The relationship of this type of digging is comparable to the digging in flint mines within the Sussex region, possibly during overlapping periods. These relationships will be discussed in the following section. Disarticulated deer bone was noted in the 1934 excavation, consisting of four finds of humeri, 2 radii, one metacarpal, and two incomplete mandibles with teeth (Jackson 1934: 89). In addition to the complete deer skeleton, these disarticulated finds of deer must represent at least a further two deer which were brought to Whitehawk, used possibly for food, and then dismembered for the skin and antler, the remaining bones transported off site or placed within the enclosure ditch. In addition, to the remains of deer, wild boar bones were located, and consisted of a large calcaneum and two fragments of a mandible, each with missing teeth (Jackson 1936: 89).

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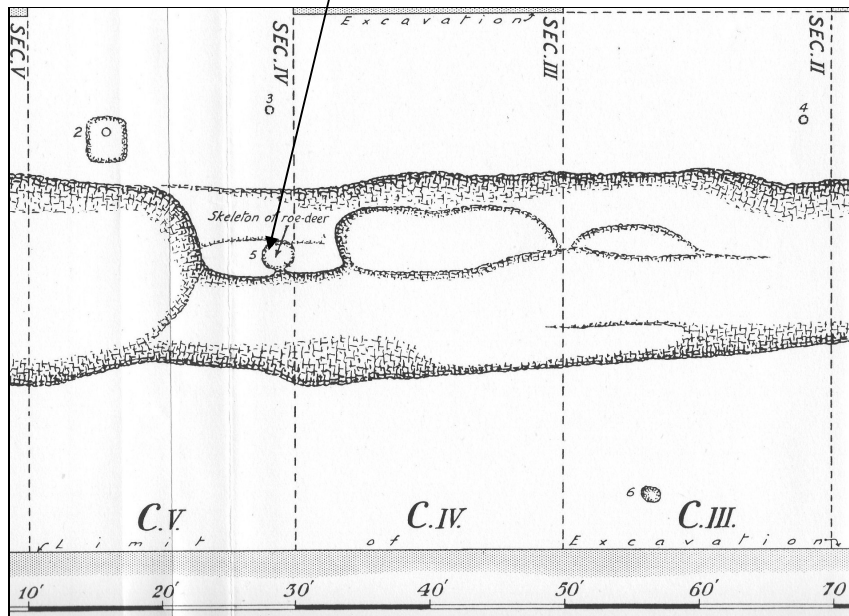


Fig. 4.31 Cuttings within fourth ditch indicating roe deer skeleton within Cutting V (Curwen 1931: pl. XV top, XIII bottom)

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4.11.1.2 *Dogs*

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Although dogs may have been used for activities other than hunting, it is possible they were used in tracking down wounded animals which had run a distance before dying. The evidence for dogs is limited, but the 1932-33 excavation of DIII CVII, layer 3 produced a fragment of lower jaw with teeth (Jackson 1934: 129), and the 1935 excavation of an unknown location, produced three partial mandibles with teeth (Jackson 1936: 90). Within the 1991 excavations in Area C a partial articulated dog burial was located, and in another context “a small group of juvenile” bones was located (Russell and Rudling 1996: 48).

4.11.2 *Quarrying and human bone*

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4.11.2.1 *Flint*

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A large amount of lithic material came from the enclosure ditch segments at Whitehawk as Williamson notes that “flakes were found in large quantities at all levels in every cutting” (1930: 76). Although the location of lithic material is not available, scrapers, serrated flakes, used flakes, and polished axe fragments were all found in the enclosure ditch segments during the 1932-33 excavation season. Only the “most important flint objects obtained from the excavation” (Clark 1934: 121) are listed within the specialist lithic report, but a wide range of objects were located, including polished axe fragments, arrowheads, serrated, trimmed, and used flakes, scrapers, and choppers (Clark 1934: 121). All of these indicate a wide variety of activities in which the location and procurement of lithic material would have taken on special significance, possibly within the flint mines of the local area, or collected from seams on the surface.

4.11.2.2 *Chalk and mortuary practice*

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The activity of digging an enclosure ditch would have been much more than just about getting as much material out to create a hole within the Earth. As noted in the section above, the symbolism of deer and the use of their antler in activities such as digging would have been highly important. Antler may have been used to dig out enclosure ditch segments and small isolated pits within many causewayed enclosures, including Whitehawk. An example of this is an antler pick “signature” located within one of the lower fills of an enclosure ditch segment during the 1991 excavations

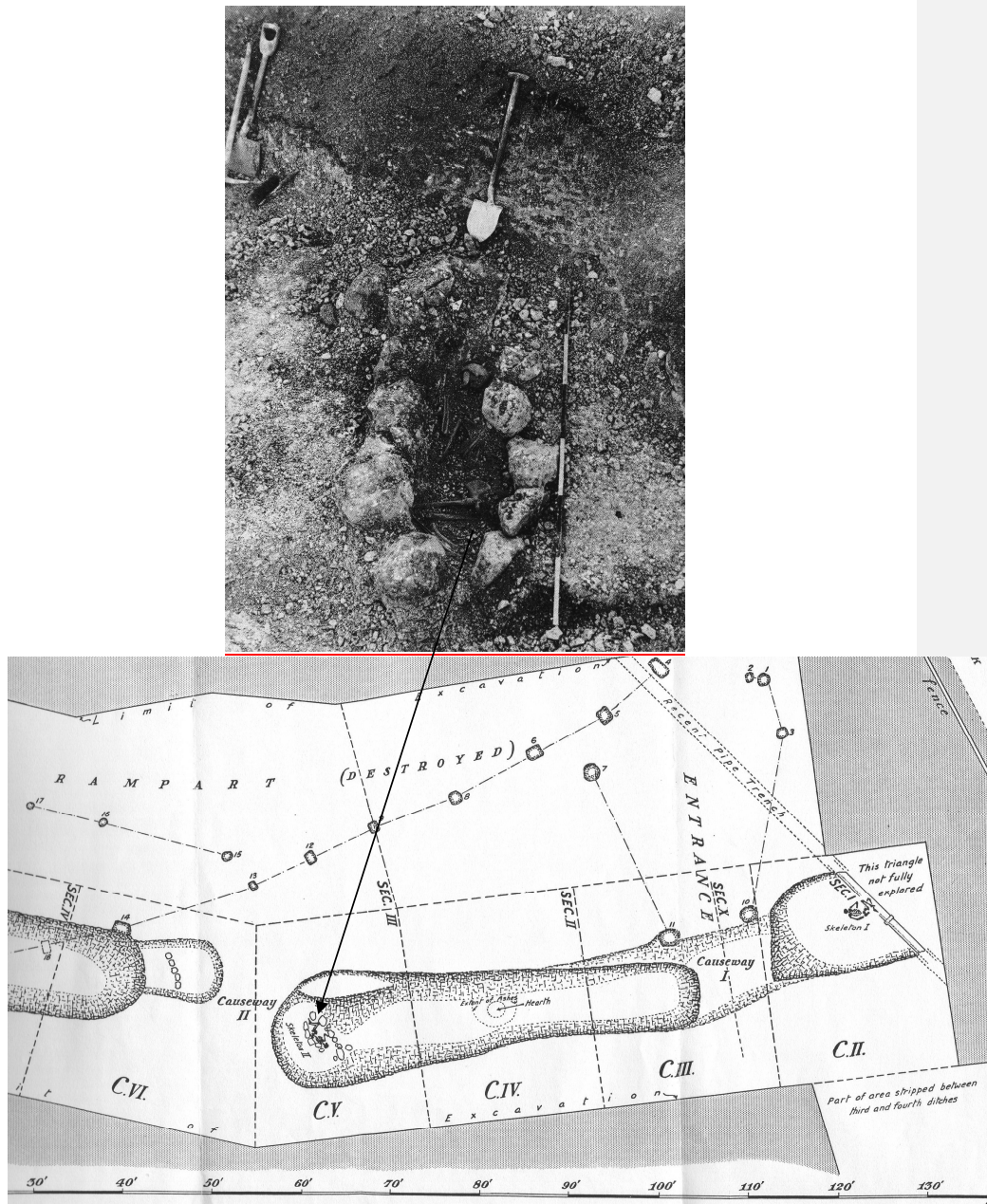


Figure 4.32 Burial of a young woman at Whitehawk surrounded by chalk blocks within D-III, CV of the Outer Trench (Oswald et al. 2001: fig. 8.4 top, Curwen 1934: pl. XIV bottom)

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(Russell 2000: plate. 27). The modification of flint and chalk was an important activity involving the creation of something new from the ground. The use of chalk may have provided some of the same symbolic meanings which were not able to be

created through the modification of stone. The idea of using chalk as a representational object may have run deeper than small individual objects of stone.

A total of four skeletons were found, numerous long bones, and portions of skulls were common. In the first series of excavations, human remains were located within both the inner and second ditches in a disarticulated state (Williamson 1930). During subsequent excavations by Curwen (1934, 1936) a total of four articulated skeletons were located both within and between the enclosure ditch segments.

The burial of human remains created a direct reflection with the activity of flint mining. A strong argument for this comes from the burial of a young woman surrounded by chalk blocks within D-III CV. Similar to this was the body of a young man from the Cissbury flint mine that was also surrounded by chalk blocks (Barber et al. 1999: 62-3). This suggests that perhaps people working in the flint mines and the people who used Whitehawk shared a common view of how flint and chalk interact together. The woman may have died while at the enclosure or in a flint mine and was thus placed within the enclosure ditch segment or gallery surrounded with chalk blocks in order to symbolise what she did or was a part of in life.

Further evidence for the use of chalk and the placement of human came from the 1929 excavation of DIII, CI, layer 6, within which small pieces of chalk, scored with incised lines, were associated with a human humerus (Williamson 1930: 80-1). In DI CV, layer 3, a large block of chalk with perforations, weighing some 32lbs., was located along with the femur of a child and an ulna from either a child or adult. Interestingly, the layer within this cutting also contained a polished and rechipped axe, two scrapers, and all of the major animal species found within Whitehawk including red deer (Williamson 1930: 91). Excavations in 1932-3 revealed two articulated skeletons, both within the third ditch, cuttings II and V. In the latter the remains of a female and possible unborn child were located surrounded by small and large blocks of chalk (Fig 4.32), two of which had evidence of perforations (Curwen 1934: 108). Associated with the child were two small perforated pieces of chalk, or "pendants" (Curwen 1934: 110) (Fig. 4.33). Within the two layers directly below this skeleton were portions of two "chalk weights", both of which were also perforated. Immediately above the remains of these two individuals was the majority of the

Neolithic pottery located from this cutting (Curwen 1934: 109). This may indicate that the pottery was used as a “capping” for the burial or was placed at a date as a marker in remembrance to the individuals who were located within the ditch. The discovery of Skeleton IV during the 1935 (Curwen 1936) excavations provides more evidence for the use of chalk in the burial of human remains. Here, inches above

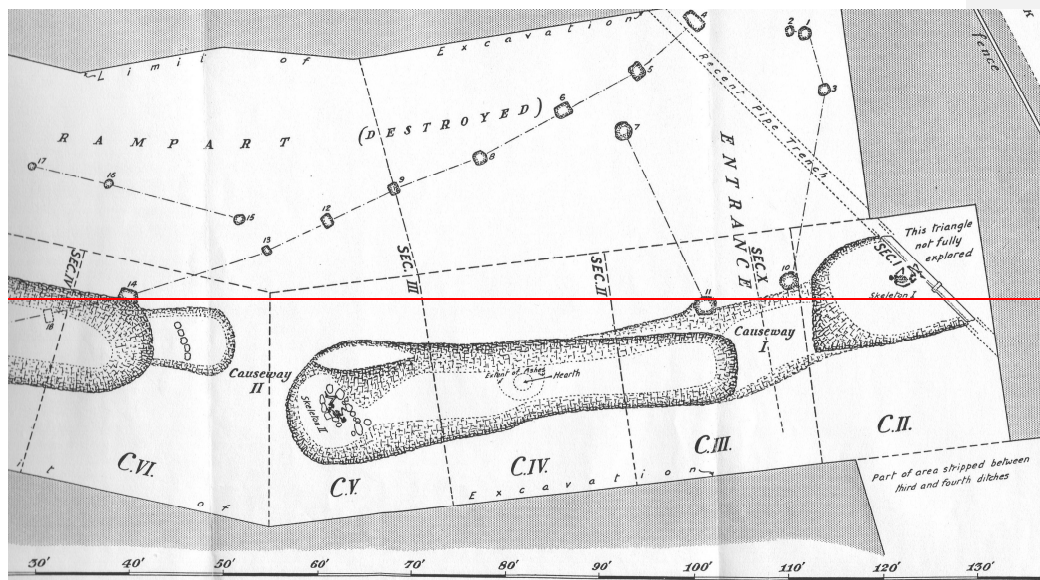
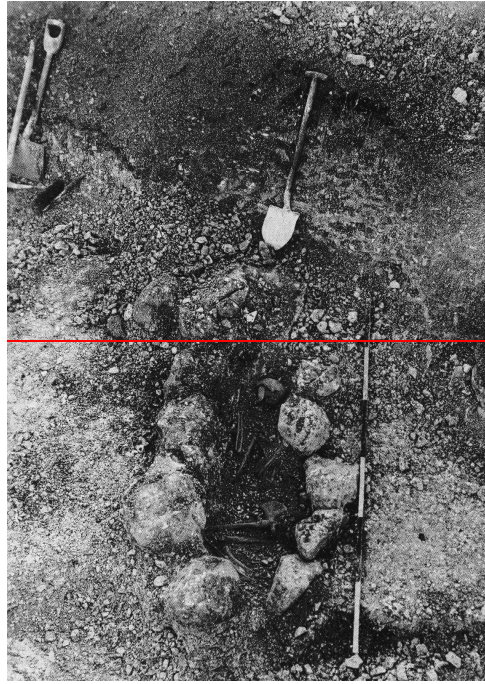


Figure 4.32 Burial of a young woman at Whitehawk surrounded by chalk blocks within D-III,

CV of the Outer Trench (Oswald et al. 2001: fig. 8.4 top, Curwen 1934: pl. XIV bottom)

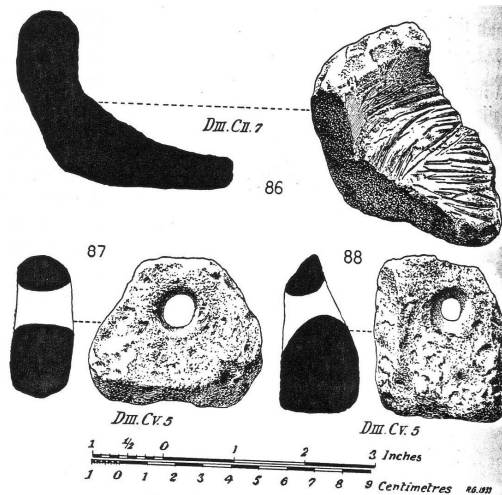


Figure 4.33 Possible chalk pendant and portion of chalk bowl from Whitehawk (Curwen 1934: figs. 86-8)

Skeleton IV, was a piece of chalk with incised lines associated with no more than four sherds of Neolithic pottery which Curwen likened to the burial of the roe deer found during the previous season's findings (Curwen 1936: 73).

4.11.2.3 *Isolated chalk objects*

Other small modified chalk objects were located within the enclosure ditches at Whitehawk, which may add further weight to the importance of its use in a non-mortuary context. Evidence for this came from DIII CII, layer 7 where a fragment of chalk cup was located, and the two small perforated pieces of chalk within DIII, CV layer 5 (Curwen 1934: 131). Other chalk objects included a chalk cup from the 'black triangle' of Site A, DI layer 2, and a 'triangular' piece of perforated chalk from Site A, DIII, layer 4 (Curwen 1936: 85-6). From Site A DIII, layer 4, comes a carved piece of chalk with incised lines in a 'chessboard' pattern (Fig. 4.34), which Curwen noticed as being similar to marks found at the flint mine at Harrow Hill (Curwen 1936: 87). One of these pieces in question is from Harrow Hill, Shaft 21, where a

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Figure 4.31 Chalk ‘chessboard’ from Whitehawk (Curwen 1936: pl. III)

piece of chalk was found with eight parallel lines running through it. Another highly scored indication of the modification of chalk also comes from Shaft 21, which is very reminiscent of the scored ‘chessboard’ piece. A further example from Shaft 21 is a series of deep incised lines possibly made by a flint object. These markings have been linked to the causewayed enclosures in the Sussex area. One interpretation of these scouring marks on the chalk is that they are ‘community markers’ (Russell 2000: 113) or, as Rodney Castleden has theorised, the markings may represent a ploughed field, indicating a link between farming and flint mines (Russell 2000: 113).

4.12 Summary

The material culture recovered from Whitehawk indicates that the groups who used this enclosure had direct links with the flint mines in the South Downs area. As noted above within the radiocarbon dates, cattle, sheep/goat, red deer and pottery sherds are all represented within the enclosure ditch segments (Table 4.6). The phasing of the site is far from straight forward as many of objects taken for dating were from ditches which had been recut, thus making the indication of constructional phases that much more difficult. Based on the proposed constructional phases above (4.10.3), it could be suggested that the enclosure ditch circuits were constructed fairly ‘quickly’ as all

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four estimates are within the range of about 3600-3500 Cal BC and may further suggest that if the site was 'in use' for about 75-260 years, it may have been used intensively by larger groups of people who returned to the site more often which created the recuts. The number of flints and modified chalk objects attest to this. This has been shown through the similarities in structured deposition in the mortuary practice of articulated human remains surrounded by chalk blocks at Whitehawk and in Cissbury flint mine. Dog skeletons were also located within Whitehawk indicating an importance possibly connected with flint and hunting. Humans and animals, particularly wild species such as the complete deer skeleton, indicate a symbolic link between Whitehawk and the outer world. Deer antler used to dig in the ground within both enclosure ditch segments and in flint mines are another important link people had with nature and the control and modification of it.

4.13 Conclusion

The enclosures of Offham Hill, The Trundle, and Whitehawk offer unique views into the differences in the use of causewayed enclosures. Chronologically, the enclosures of Offham Hill and The Trundle may have been constructed at a similar point in time than Whitehawk. The constructional phases as shown above suggest that Offham Hill and the ID and SD at The Trundle may have been during a similar period while the 2D at The trundle and ditches I-IV at Whitehawk may have been constructed or 'in use' around 3600-3500 cal BC. Although these dates are for specific portions of a site they do demonstrate that it is possible that Offham Hill and The Trundle were constructed and used over a longer period of time, while Whitehawk was constructed, and used more intensively over a shorter period of time.

Based primarily on the working of flint, they were places where groups met in order to carry out the reduction of cores and the creation of implements. Perhaps groups travelled seasonally to the nearby flint mines, and then convene at Whitehawk or The Trundle where short-term stays would take place, as the animal and pottery remains

Site	Lab No.	Sample	Context	Date BP	Date Cal BC
Black Patch, West Sussex	BM-290	Antler pick	Shaft 4	5090±150	4310 to 3550
Church Hill, West Sussex	BM-181	Antler picks	From a gallery	5340±150	4490 to 3810
Cissbury, West Sussex	BM-183	Antler picks	From a gallery	4720±150	3900 to 3030

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	BM-184	Antler picks	From a gallery	4650±150	3870 to 2920
	BM-185	Antler picks	Shaft 6 (Gallery?)	4730±150	3910 to 3040
	BM-3082	Antler	From antler at base of shaft	5100±60	4040 to 3780
	BM-3086	Antler	From base of shaft 27	4710±60	3640 to 3360
Harrow Hill, West Sussex	BM-182	Antler pick	From gallery	4930±150	4040 to 3370
	BM-2071R	Antler	From basal fill of shaft 13	4900±120	3990 to 3370
	BM2075R	Charcoal	From basal fill of shaft 13	5020±110	4040 to 3540
	BM2097R	Charcoal	From shaft 13 fill	5140±110	4240 to 3700
	BM-2098R	Charcoal	From shaft 13 fill	5350±150	4500 to 3810
	BM-2099R	Antler	From basal fill of shaft 13	5040±120	4220 to 3540
	BM-2124R	Charcoal	From fill of shaft 13	5060±90	4040 to 3690
	BM-3084	Antler	From gallery 2, shaft 21	4880±30	3780 to 3740 or 3710 to 3630 or 3570 to 3540
	BM-3085	Antler	From the base of shaft 25	5070±50	3990 to 3780

Table 4.7 Radiocarbon dates from West Sussex flint mines (after Barber *et al.* 1999: 81-2)

suggest. If flint was being quarried, as noted above, within the enclosure ditch segments at Offham Hill, perhaps the groups who used this site had a different view of the conception of flint. The small placed concentrations of flint within the enclosure ditch segments attest to defining space reflecting the creation and use of flint. [Radiocarbon dates from the flint mines and enclosures with the South Downs](#)

Site	Lab-No.	Sample	Context	Date-BP	Date-Cal-BC
Black Patch, West-Sussex	BM-290	Antler-pick	Shaft 4	5090±150	4310 to 3550
Church Hill, West-Sussex	BM-184	Antler-picks	From-a-gallery	5340±150	4490 to 3810
Cissbury, West-Sussex	BM-183	Antler-picks	From-a-gallery	4720±150	3900 to 3030
	BM-184	Antler-picks	From-a-gallery	4650±150	3870 to 2920
	BM-185	Antler-picks	Shaft 6 (Gallery?)	4730±150	3910 to 3040
	BM-3082	Antler	From-antler-at-base-of-shaft	5100±60	4040 to 3780
	BM-3086	Antler	From-base-of-shaft-27	4710±60	3640 to 3360
Harrow Hill, West-Sussex	BM-182	Antler-pick	From-gallery	4930±150	4040 to 3370
	BM-2071R	Antler	From-basal-fill-of-shaft-13	4900±120	3990 to 3370
	BM2075R	Charcoal	From-basal-fill-of-shaft-13	5020±110	4040 to 3540
	BM2097R	Charcoal	From-shaft-13-fill	5140±110	4240 to 3700
	BM-2098R	Charcoal	From-shaft-13-fill	5350±150	4500 to 3810
	BM-2099R	Antler	From-basal-fill-of-shaft-13	5040±120	4220 to 3540
	BM-2124R	Charcoal	From-fill-of-shaft-13	5060±90	4040 to 3690

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	BM-3084	Antler	From gallery 2, shaft 21	4880±30	3780 to 3740 or* 3710 to 3630 or*
					3570 to 3540
	BM-3085	Antler	From the base of shaft 25	5070±50	3990 to 3780

Table 4.7 Radiocarbon dates from West Sussex flint mines (after Barber *et al.* 1999: 81-2)

Radiocarbon dates from the flint mines and enclosures within the South Downs area suggest area suggests that the former are earlier in date (Table 4.7), but it is possible that the mines were remembered and possibly replicated within the enclosures.

The variety of objects located within both sets of sites has indicated a connection between the two. At Offham Hill, the intentional clustering or grouping of flint was indicative of the ways in which the groups who used the site defined the roles of flint and the spatial organisation within each enclosure ditch segment. The small numbers of implements may indicate that groups used this enclosure primarily for core reduction and implement making before travelling to Whitehawk where larger statements would be made about the use of flint, in relation to the world around them as they knew it.

Deposits of human bone occurred within Offham Hill, The Trundle and Whitehawk. Within these three enclosures articulated human remains were located within the outer ditch segments, and interestingly between circuits at Whitehawk. Although the dating evidence is far from clear it may be possible to say that the construction tempos of each enclosure could indicate that different phases of construction had an impact on deposition. At Whitehawk, not only was a hearth located between the third and fourth ditches, but just within Site B, also between the same two circuits, skeleton IV was located. This may indicate that circuits, or at least new segments were being constructed, skeleton IV was chosen either to be placed within the boundaries of the site, but not within a segment or that this individual was placed on what was then the outside of the enclosure only to be encompassed by the fourth circuit during a later phase of construction. If, as discussed above the outer circuit at Offham Hill was constructed after the inner circuit, the placement of the articulated body within ditch segment 4 could indicate as similar treatment to articulated human remains. The

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burial within the trial trench in the outer circuit at The Trundle may have some relationship to the phasing and tempo of use of the other two enclosures, but as indicated above, perhaps only through further excavation could a better interpretation be made with the relationship human bodies had with constructional phases.

The placement of disarticulated skeletal elements, particularly, the deposits of human mandibles within the terminal ends of enclosure ditch segments acknowledge an overarching identity Offham Hill shared with other causewayed enclosures with the region. The sites of The Trundle and Whitehawk share broadly similar deposits of objects relating to the local flint mines. These include the procurement and modification of chalk objects into 'lamps', cups, and a variety of socio-religious objects, including phallic representations. Another is the use of chalk within burial. Within both Whitehawk and Cissbury, articulated human burials were located surrounded by chalk blocks, indicating a representation between those for digging for flint and, perhaps, the digging of enclosure ditch segments. Another indication of a link between human burial and causewayed enclosures is the positioning of the dead. Within causewayed enclosures, a variety of human and animal remains have been located in the terminal ends of enclosure ditch segments. These terminal ends often may have acted as prominent entrance points whereby the very act of entering the enclosure would 'force' people to see what was on either side of them as they passed through the causeway to the interior of the site. At Cissbury, the placement of a woman was located at the entrance to gallery 1, and could have served the same purpose, before the gallery was blocked off or filled in (Russell 2000: 130), similar to an enclosure ditch being either left to silt naturally with the body being exposed or back-filled shortly after an individual was deposited.

In addition to the animal remains located in a fragmentary state at Offham Hill, the animal remains within the enclosure ditches at The Trundle and Whitehawk demonstrate a wide variety of activities. These include feasting and butchery as indicated through the numerous serrated flakes and smaller blade-like flints, which could be used in the later stages of animal processing where a finer implement may have been necessary. As we will see in the next chapter, the placement of complete animals occurs within the enclosure ditch segments at Windmill Hill. In no other enclosures thus far excavated, though, has there been a find of a complete wild

species of animal such as the red deer located within Hole 5 at Whitehawk. The placement of this deer could be a further symbolic gesture to the relationship Neolithic groups had with the outside world which was not tamed (Hodder 1990). The deer within the enclosure could also reflect the use of antler in the construction of the enclosure ditch segments and associated pits, and as a digging implement so often found in the shafts of flint mines. Deer, digging and flint were therefore intimately tied together through the local environment in which they all originated.

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Chapter 5

The Causewayed Enclosures of Wiltshire

5.1 Introduction

The third and final geographical section will focus on four causewayed enclosures within the Wiltshire region. These will include Knap Hill, Robin Hood's Ball, Whitesheet Hill, and will conclude with Windmill Hill.

Wiltshire is an area of England which has been well documented, and contains some of the best preserved Neolithic sites within the British Isles. While this chapter focuses on only four of the causewayed enclosures within this study area (Knap Hill, Robin Hood's Ball, Whitesheet Hill, and Windmill Hill), other causewayed enclosures located in this area include Crofton (Lobb 1995) and Rybury (Booney 1964). Within this rich prehistoric landscape, other well-known Neolithic Monuments, such as the West Kennet long barrow (Piggott 1962; Thomas and Whittle 1986), Silbury Hill (Whittle 1997a) and the sites of Stonehenge (Parker Pearson and Ramilisonina 1998; Pollard and Ruggles 2001), Avebury (Burl 2002; Pollard and Reynolds 2002) and their surrounding locales (Whittle 1993), all add to the importance of this dynamic social landscape.

The chalkland sites, in particular Windmill Hill, have been the most intensively studied of all the areas within the British Isles. This has been both a blessing and a curse. While much information about how people constructed and interacted with objects and themselves at Windmill Hill has shed new light on the early Neolithic, those ideas have been applied to all enclosures, creating an assumption that all causewayed enclosures were created to 'function' in the same ways by similar groups of people. As mentioned previously, this thesis is an attempt to dispel Windmill Hill as a 'type site' and, in turn, to think about enclosures as having an identity through

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activity involving the use and manipulation of objects that is unique to the people who used and constructed them. This is no less true for the enclosures in Wiltshire than it is for the enclosures within chapter 3 and 4. The enclosures in this chapter differ from those in previous chapters by giving evidence to suggest that a large proportion of people who came to enclosures within Wiltshire were pastoralists. Here, the lack of large palisades, such as those seen in East Anglia and possibly within the South Downs, indicates they were places which were more open, and not subjected to areas where activities were meant to be fully out of sight.

5.2 Knap Hill

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5.2.1 *Location and background*

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The site of Knap Hill in Wiltshire rests on a hill overlooking the Vale of Pewsey. On the north side of the enclosure the ditches sit on the slope of the hill, while on the south side the hill falls steeply away to the valley below. A single circuit enclosure, Knap Hill consists of seven ditch segments with a later Romano-British plateau enclosure situated to the east. To the west of Knap Hill lies Walker's Hill, upon which the long barrow of Adam's Grave can be found.

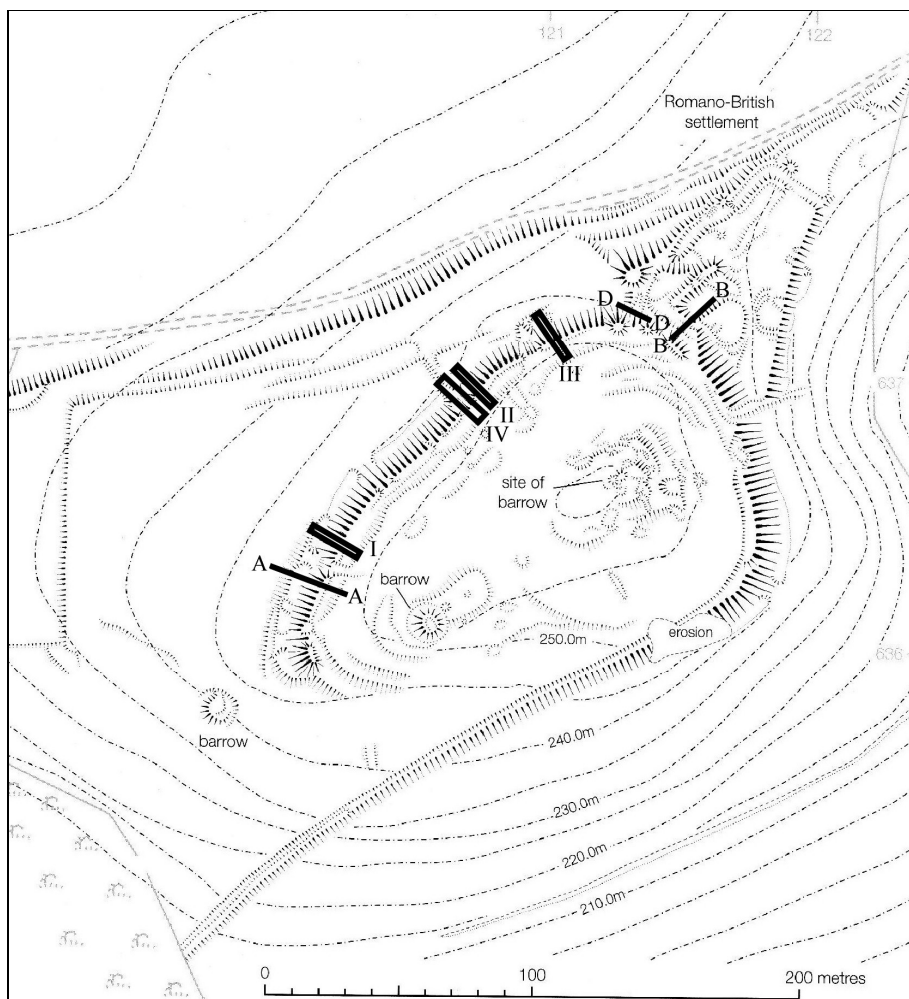


Figure 5.1 Plan and excavation trenches at Knap Hill
(after Connah 1964: fig. 1 (I-IV), Cunnington 1912: 44 (A, B, D))

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5.2.2 Previous interpretations

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The first examination of Knap Hill was by Cunnington in 1909 and although no locations of finds are mentioned in the report on the site, it was noted from the flint flakes and "rude pottery" located on the floor of the ditch that the site may date from the late Neolithic or early Bronze Age (Cunnington 1909: 52). A further series of trenches was excavated and published a few years later (Cunnington 1912; fig. 2.1). The enclosure ditch segments excavated included segment 2, trench A-A near the causeway to segment 3 and another trench, D-D, buried under the trench of the later plateau enclosure. The most recent excavations on Knap Hill by Connah (1965) were

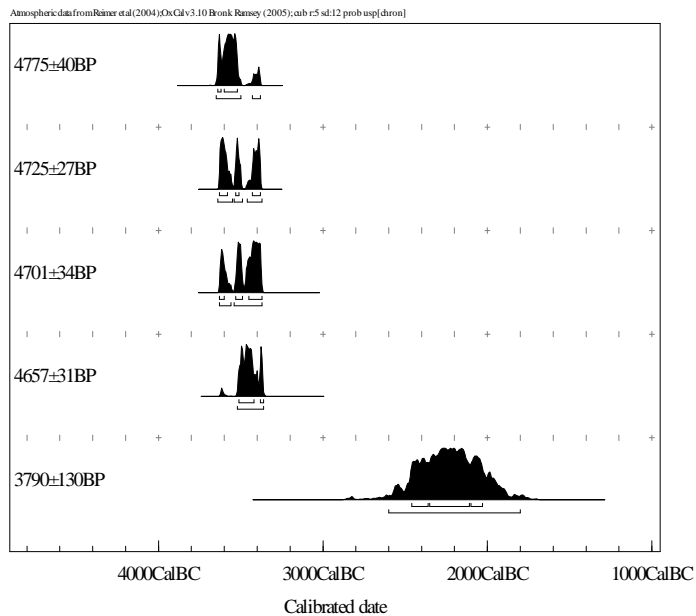
of a more detailed nature with trenches dug exclusively along the ditches of the causewayed enclosure and are numbered i-iv (Fig. 5.1).

5.2.3 *Chronology and dating*

The Radiocarbon Determination Programme included five samples located from reliable contexts from which dates and contexts are shown in Tables 5.1 and 5.2 (Whittle et al.: in prep). It is noted that the dates obtained for the antler are not statistically consistent, but the two dates on the cattle are. It is further suggested that the position of the antler is residual or that the ditch was constructed before the bank (Whittle et al.: in prep).

Overall, the radiocarbon programme results proposed that the construction of Knap Hill occurred sometime around “3620-3585 cal BC (4% probability) or 3530-3375 cal BC (91% probability), probably in the 35th century cal BC (3510-3435 cal BC (53% probability) or 3425-3400 cal BC (15 % probability))” (Whittle et. al.: in prep.). The primary fill of the ditch may have accumulated by “3620-3575 cal BC (3% probability) or 3525-3220 cal BC (92% probability), perhaps by 3505-3495 cal BC (2% probability) or 3445-3330 cal BC (66% probability)” (Whittle et al.: in prep.). The probable lifespan for the use of the site is thought to be around “1-460 years (95% probability), more probably either for 1-65 years (23% probability) or 115-280 years (45% probability)” (Whittle et al.: in prep). This is based on the evidence “that the ditch was left to infill naturally and there is no sign of recutting, and because there is a scarcity of sherds and bones, we believe that a short duration, probably of well under a century and perhaps only a generation or two, is more plausible” (Whittle et al.: in prep).

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Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (95%)
GrA-29810	3640-3520	3650-3380
OxA-29809	3630-3380	3640-3370
OxA-15305	3630-3370	3630-3370
OxA-15199	3510-3360	3520-3360
BM-208	2460-2030	2600-1800

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Table 5.1 Knap Hill calibrated radiocarbon dates (after Whittle et al.: in prep.)

GrA-29810	Cattle. R radius of mature individual found with fitting ulna	Segment 6, cutting III, layer 8. Under bank. 'Lying right on top of (8)' (findsbook). Found together with ulna on old land surface beneath bank of enclosure (Connah 1965, fig. 2), at 20' 10" x 7'0" x 2'1". The fact that the two bones were given a single find number and measured-in at a single point indicates that they were found in articulation
GrA-29809	Cattle. Proximal half of L metacarpal found articulated with 2 carpals (G. Connah). Replicate of OxA-15200	From same context as OxA-15200
OxA-15305	Fresh internal carbonised residue adhering to inner surface of Neolithic Bowl sherd (Connah 1965, 21). Sherd now formed of fragments glued together along recent breaks	Segment 6, cutting III, layer 6.. At top of primary chalk rubble (Connah 1965, fig. 4) At 49'8" x 1'4" x 3' 6"
OxA-15199	Cattle. Radius from immature individual, with articular ends missing, found with fragmentary fitting ulna	Segment 3, cutting I, layer 8. Under bank. At 21'9" x 1'9" x 1'10". Found together with ulna on old land surface beneath bank of enclosure (Connah 1965, fig. 2). The fact that the two bones were given a single find number and measured-in at a single point indicates that they were found in articulation
BM-208	Unidentified bulk charcoal sample. 'All the charcoal from that layer was pooled in order to make up a large enough sample' (Connah 1969, 305)	Segment 5, cutting II, layer 4. In topmost fill of ditch, with sherds of long-necked Beaker (Connah 1965, fig. 3)

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Table 5.2 Radiocarbon samples and contexts from Knap Hill (after Whittle et al.: in prep)

5.3 Deposition at Knap Hill

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The excavations at Knap Hill located a limited amount of cultural material from the enclosure ditch segments and banks, including human and animal bone, pottery, flint and stone. Only the Connah (1965) excavation can be assessed statistically, as no lists of finds have been published from the Cunnington excavations.

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5.3.1 *Animal bone*

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During the Cunnington excavations, several small groups of animal bone associated with other objects were located, including bone fragments consisting of "two shoulder blades of an ox", and in one group, "ox bones (including one horncore), representing at least five individual animals" (Cunnington 1912: 61). The cattle bone deposits located within the Connah excavations (Fig. 5.2) at Knap Hill indicate a large reliance on cattle, as this species makes up about 45.45% of the entire animal bone assemblage. Smaller amounts of sheep/goat (4.95%), and pig (4.13%) were found. Most of the animal bone was in a fragmentary condition, although there were three instances of articulation which will be suggested below as possible forms of activity.

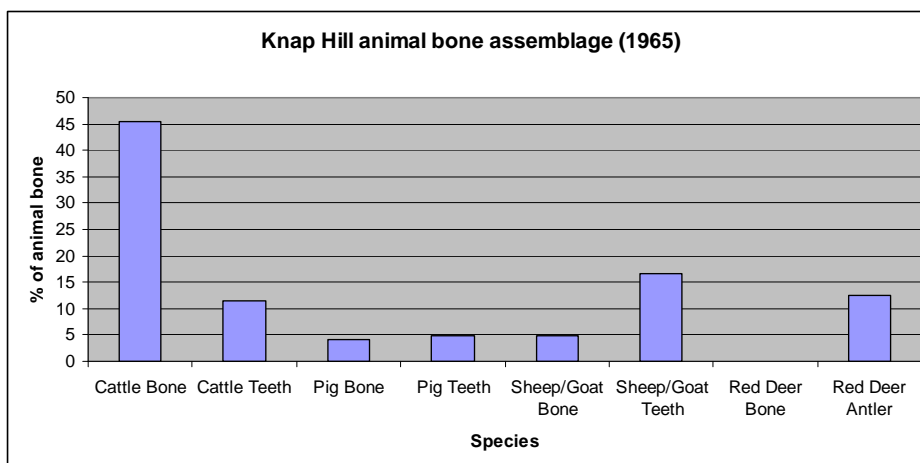


Figure 5.2 Knap Hill animal bone assemblage (After Connah 1965: table 1)

5.3.2 *Flint*

Small concentrations of flint, including one group of 72 found around 6ft. (1.83m) deep, another containing 44 flint chips, one hammerstone, one core, an unknown number of burnt flints, and a third group, including one hammerstone, one core, and a scraper were located within the Cunnington excavations (1912: 61). As shown in Figure 5.3, a majority of the flint located at Knap Hill during the Connah excavations was of primary flakes (50.64%) and knapping waste (31.01%). A small number of hammerstones (2.23%) and utilized flakes (2.49%) were located, perhaps indicating that Knap Hill was a place where the creation of tools was appropriate, but not the placement of them within the enclosure ditches.

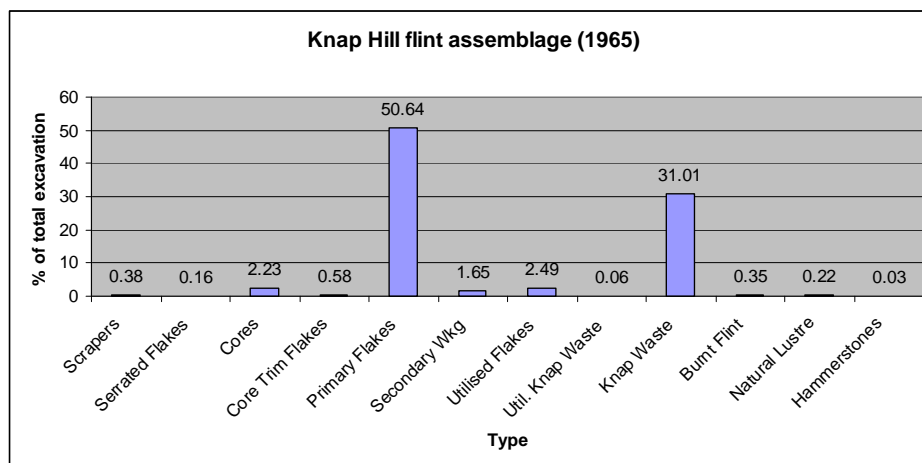


Figure 5.3 Knap Hill flint and stone assemblage totals (After Connah 1965: table 1)

5.3.3 *Pottery*

A small amount of pottery was located from both the Cunnington and Connah excavations. The Cunnington excavations located about 45 pieces of pottery, while the Connah excavations found 15 sherds of Neolithic pottery and 22 Beaker sherds (Connah 1965: 11). The pottery located within both of these excavations was associated with animal bone and a wide range of flint objects (Cunnington 1912: 61; Connah 1965: table I).

5.3.4 *Stone objects other than flint*

A very small amount of sarsen was located within both excavations. Cunnington describes a single 'sarsen chip' associated with a group of flint chips, some of which were burnt, animal bone and a fragment of pottery (Cunnington 1912: 61). Thirty-six 'sarsen lumps', some of which were burnt, were recovered from the Connah ~~excavations, excavations~~; of these only four may be from a primary context (Connah 1965: table I).

5.4 Material and associated activity areas

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Although the excavations undertaken at Knap Hill were small in scale compared to other enclosure sites, some general conclusions can be made as to the types of activities occurring on this hill during the Neolithic.

5.4.1 *Trench A-A*

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Cunnington (1912: 60-1) describes the finds from Trench A-A as including hand-made pottery, flint flakes, pieces of sarsen stone, burnt flints, fragments of animal bone, including a pig's jaw at 4ft (1.22m), and fragments of antler of red deer. A human jaw bone was also found around 6ft. (1.83m) deep and was described as rather small with worn teeth. In another location also around 6ft. (1.83m) were found 72 flint chips within approximately a foot (3.48cm) or so from the bottom of the ditch (Cunnington 1912: 61). The section cut through this enclosure ditch segment may indicate a re-cut. The first event occurred when the human bone, possibly part of a child, was deposited in association with portions of a red deer antler. This was followed by a re-cut of the ditch where pig and possibly cattle were butchered and cooked. Cunnington (1912: 62) noted that there was no evidence of fire on the bottom of the ditch, but that two areas were located where a fire may have been after the ditch silted up, around 3ft. (61cm) and 4ft (1.22m) deep. This fits well with the placement of the animal bone, sarsen, pottery, and burnt flints located around 1.22m, all of which indicate an area where the meat of pig and cattle may have been consumed. The flint waste may indicate that tools were created within or near the ditch segment, perhaps to aid the butchering and processing, and then taken away to be used or deposited in another location at Knap Hill or within a number of sites in the surrounding landscape.

5.4.2 *Cutting I*

Within Cutting I, the largest amount of flint was deposited. In Layer 6, Connah separates the flint by describing it as 'from the ditch floor' (504) and 'the rest' (40). The low occurrences of other objects such as animal bone and pottery, not only within this layer but within the whole cutting, may indicate an area primarily where the modification and production of tools was to take place. Antler and the only hammerstone to be located within any of the cuttings may add additional weight to this interpretation.

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5.4.3 *Cuttings II and III*

The large amount of primary flakes located within the Connah excavations, indicates tool-making was occurring, or at least the reduction of cores in preparation for tool manufacture. A majority of the remains of tool manufacture comes from Cuttings II and III. These trenches together contained 890 of the 1561 primary flakes. A reason of the large amount of flint activity within these two areas may be related to the creation of tools for butchery. Within Cutting II, two articulated portions of cattle were located within a bone group consisting of a 'broken metacarpal, a magnum and an unciform', and in the second the 'broken end of a tibia, an astragalus, calcaneum, and another tarsal bone' (Connah 1965: 17). In the surface of the buried soil of Cutting III, were the radius and ulna of cattle (Connah 1965: 17).

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During the Connah (1965) excavations, further discoveries were made, including a minimal amount of stone, animal bone, and earlier Neolithic pottery. The largest amount of material recovered was flint. Connah's interpretations were similar to those of Cunningham's, suggesting that the enclosure had a defensive purpose and that the site was left in an unfinished state, as indicated through the small amount of pottery recovered (1965: 21-2). The large amount of flint, though, was not mentioned in Connah's conclusion; this indicates that just over 50% of the total assemblage is knapping waste, while primary flakes make up just over 31% of the total assemblage for stone.

5.5 Summary

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Although some implements were located in both the Cunnington and Connah excavations, Knap Hill may have been used for a greater proportion of time as a place where cores were brought to the site and worked down into smaller forms to be taken to other locations within the landscape, as indicated by the large amounts of primary and waste flakes. This suggests that placed deposits represented daily activity. Cunnington (1912: 62) notes that “flakes were found together in groups or clusters”, proving “they were actually worked on the spot when they were found”. That food was consumed at Knap Hill is shown through the finds of cattle (particularly within Cuttings II and III), sheep/goat, and pig remains. The small amount of red deer antler could have been used in the production process of flint or equally for the excavation of the ditches., the minimal amount of pottery could be a subsidiary of cooking. The still smaller amount of human remains suggests a possible argument for mortuary practice. Cunnington noted that the mandible located within Trench A-A was small, and could indicate the placement of part of a child within the enclosure ditch segments as part of a larger mortuary rite. As we will see in the last section on Windmill Hill, the importance of placing children, women and younger animals within specific areas of the site, particularly the ‘outer areas’ in a multi-circuited enclosure, may have been of prime importance as an indication of where people fit within the social sphere of Neolithic life.

5.6 Robin Hood’s Ball

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5.6.1 *Location and background*

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This site of Robin Hood’s Ball (Fig. 5.4) lies just north-east of the town of Shrewton and consists of two segments or circuits facing to the south. Nearby, are numerous long barrows and a cursus (Thomas 1964: 1) (Fig. 5.5).

Robin Hood’s Ball was first described by Sir Richard Colt Hoare, but the first examination of this enclosure was by Curwen in 1930, followed by a small excavation near the rifle-butts in the south-west quarter (Thomas 1964: 3). Four trenches were

excavated during 1956 by Thomas (1964). Trenches 1 and 3 were positioned to examine the inner ditch, bank and causeway, while trenches 2 and 4 were situated in the outer segment and causeway. Trenches 3 and 4 did not contain any cultural material. A single post-hole was located within the Outer Bank around Layer N. Further small-scale survey and excavations were conducted on the outside of the enclosure in 1984, and in 1986, when a series of shallow pits was discovered and subsequently excavated in order to ascertain a possible relationship with Robin Hood's Ball (Richards 1990: 61). All of these investigations, with the exception of the Curwen investigation, can be seen in Figures 5.6 and 5.7.

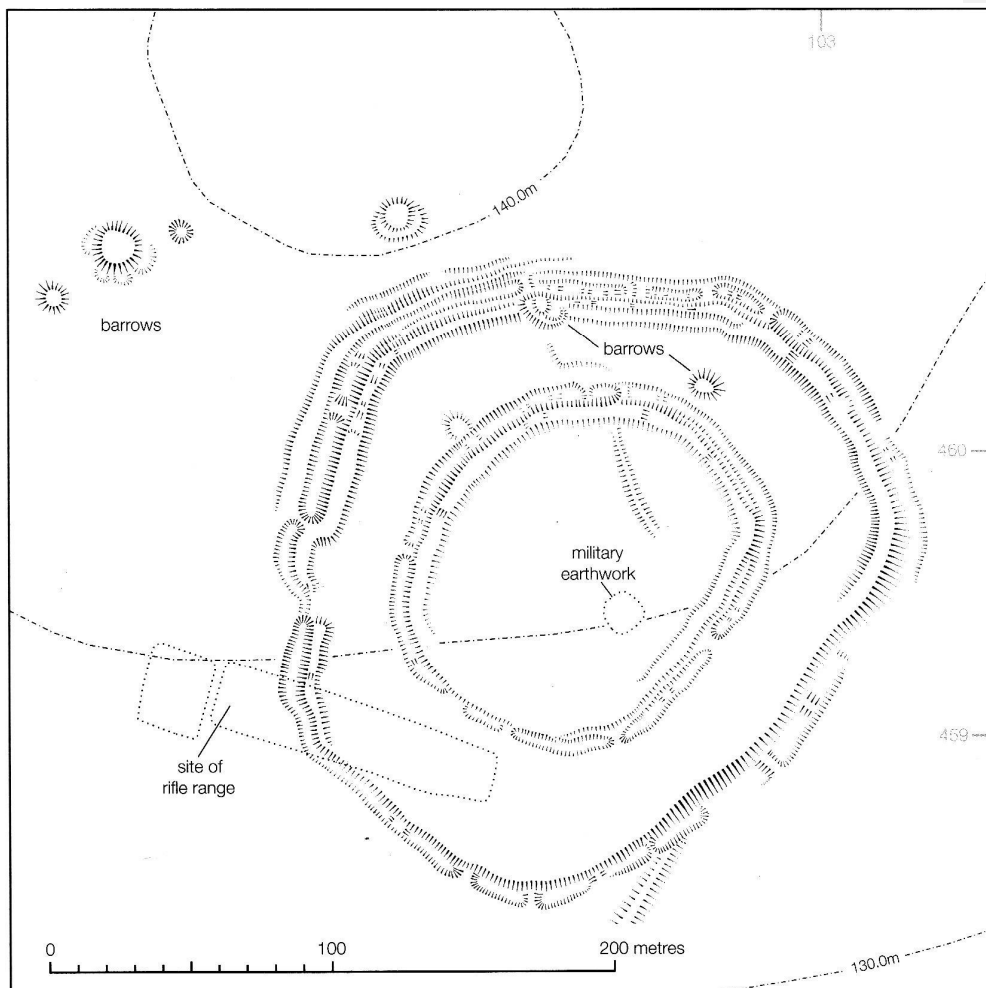


Figure 5.4 Plan of Robin Hoods Ball causewayed enclosure (Oswald et al. 2001: fig.1.4)

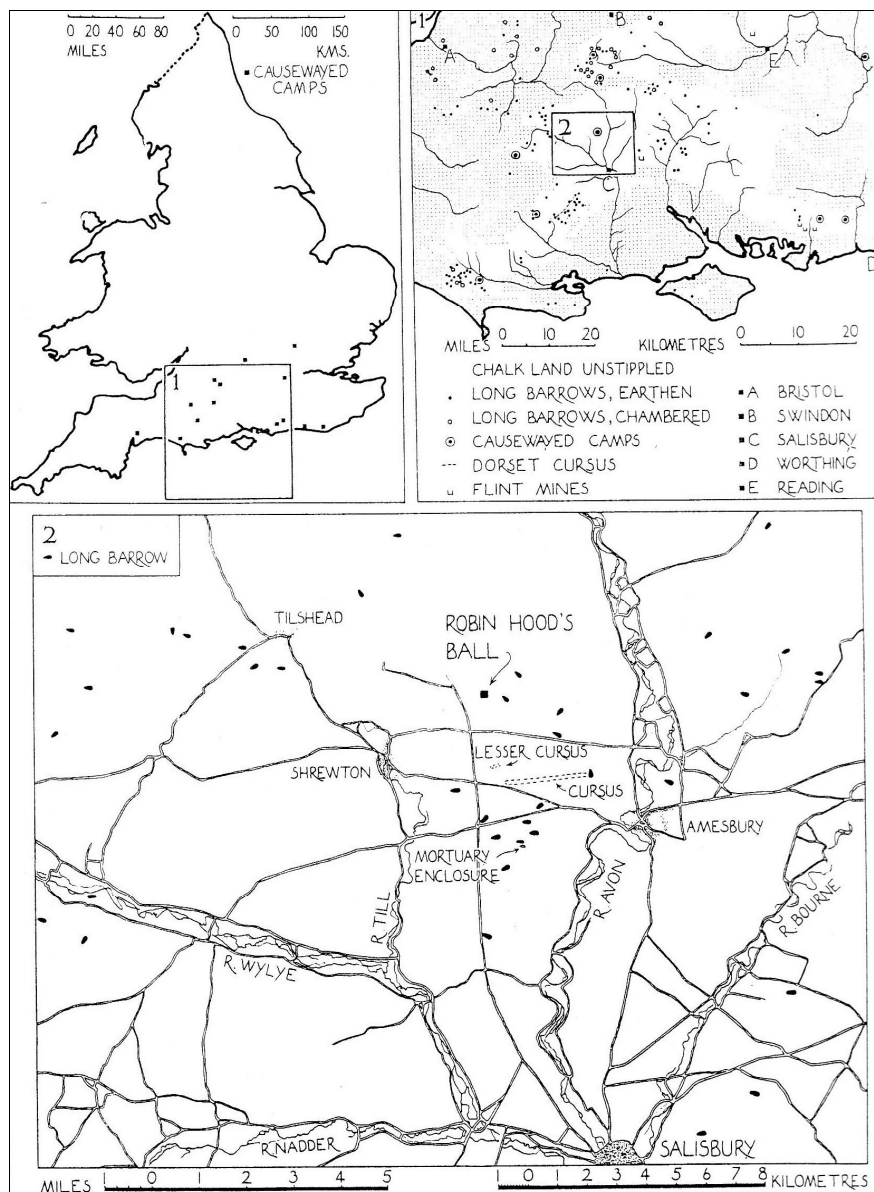
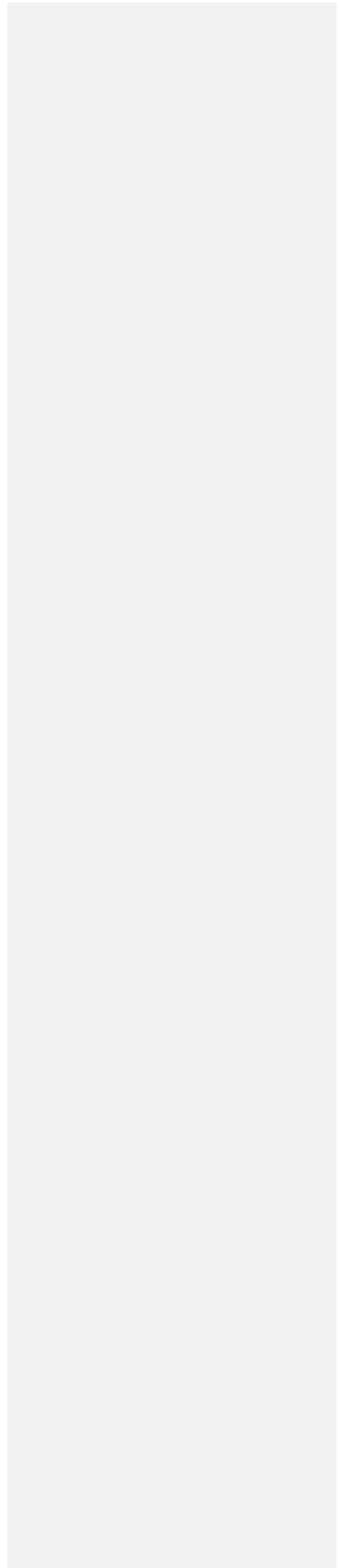


Figure 5.5 Location of Robin Hood's Ball and monuments within the surrounding landscape (Connah 1964: fig. 1)

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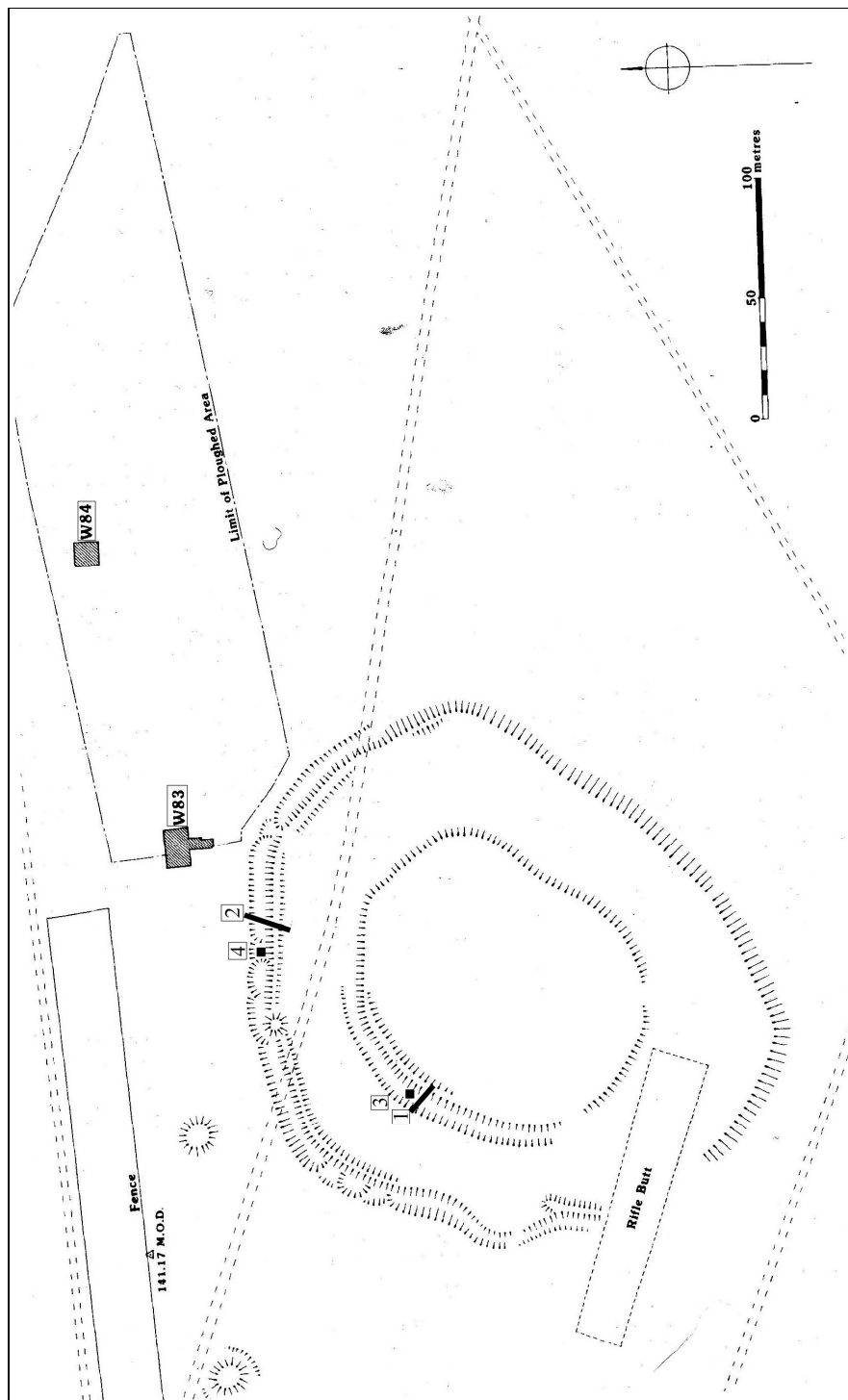


Figure 5.6 Robin Hood's Ball. Trenches 1-4 from Connah excavations in 1956. W83-4 trenches from Richards excavations (After Richards 1990: fig. 34)

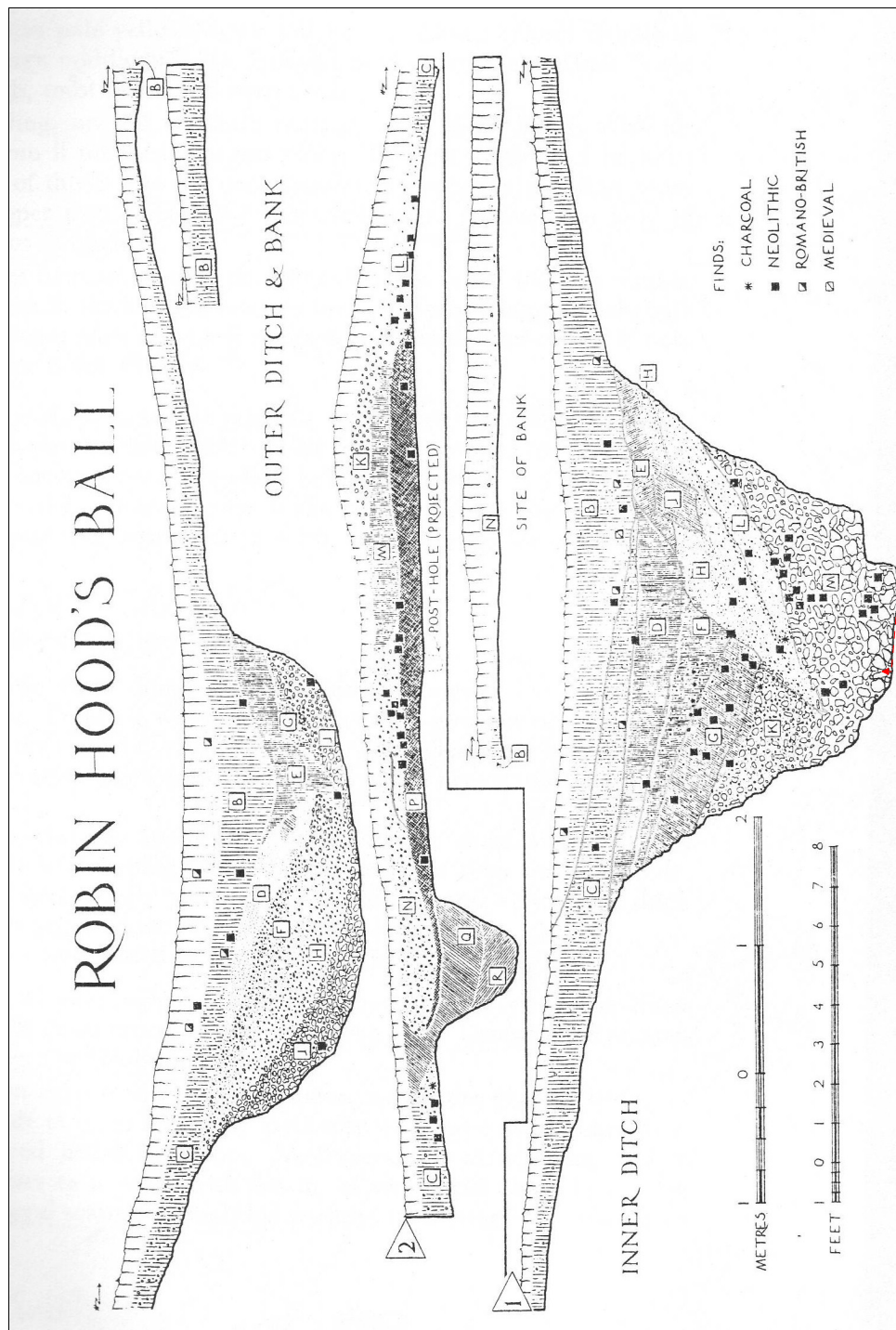


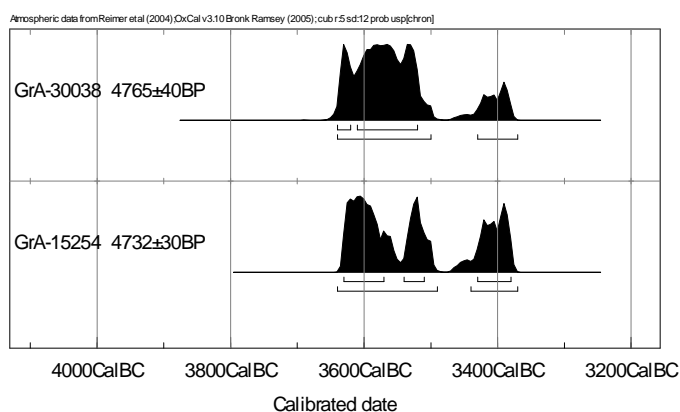
Figure 5.7 Robin Hood's Ball ditch sections (Connah 1964 fig. 3)

5.6.2 *Previous interpretations*

The excavation undertaken by Thomas concluded that objects within the second ditch were deposited in two stages, with a deposit of pottery in the upper fill and a second deposit within the lower fill, closer to the bottom of the ditch, containing similar pottery to the upper fill, as well as charcoal, and animal remains (Thomas 1964: 11). The amount of pottery located within Trenches 1 (1.9kg), 2 (1.1kg), and from under the back of the outer rampart (1kg), suggested that the main area of occupation of the enclosure was situated between the inner and outer ramparts (Thomas 1964: 11). The single post-hole located within the Outer Bank may indicate the construction of wooden structures, while the "unusually high proportion" of sheep/goat bones suggested that the enclosure was constructed within an open landscape.

5.6.3 *Chronology and dating*

No radiocarbon dates were included in the final report for Robin Hood's Ball, but the new radiocarbon determination programme has used some of the material from the Thomas excavations to try and secure a series of dates for the use of the enclosure and where it falls in relation to other Neolithic activity in the Wiltshire area (Whittle et al.: in prep.). Two residue samples, all from pottery within the inner ditch, were submitted for dating (Tables 5.3 and 5.4).



<u>Lab No.</u>	<u>Date Cal BC Sigma 1</u>	<u>Date Cal BC Sigma 2</u>
<u>GrA-30038</u>	<u>(68%) 3640-3520</u>	<u>(95%) 3640-3370</u>
<u>GrA-15254</u>	<u>3630-3580</u>	<u>3640-3370</u>

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GrA-15254	3630-3380	3640-3370
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Table 5.3 Robin Hood's Ball calibrated radiocarbon dates (after Whittle et al.: in prep.)

GrA-30038	The largest of three Neolithic Bowl sherds, 2 of them with internal residue	At interface of layers K and G (N. Thomas 1964, fig. 3). Stratified above RHB I (74).
OxA-15254	Neolithic Bowl sherd with internal residue extracted from larger find	On the surface and in the very top of layer M, overlain by layers K and L (N. Thomas 1964, fig. 3). The sample formed part of a spread of sherds, some joining, and of bone, on what would have been a temporary surface. Stratified below RHB I (50) and above RHB I (65)

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Table 5.4 Radiocarbon samples from Robin Hood's Ball (Whittle et al.: in prep)

Based on the small number of dates, it has been suggested that “that the inner ditch at Robin Hood's Ball was constructed in 3640–3550 *cal BC* (81% probability) or 3545–3510 *cal BC* (9% probability) or 3430–3390 *cal BC* (5% probability), probably in 3635–3575 *cal BC* (67% probability) or 3570–3560 *cal BC* (1% probability). As it is based on so few samples, this estimate is highly tentative. It is also not possible to estimate the duration of activity at the enclosure with so few samples” (Whittle et al.: in prep).

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5.7 Deposition at Robin Hood's Ball

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The material located within Trenches 1, 2, and from under the outer bank consisted of domestic animal species cattle, pig, sheep/goat and one species of wild animal, red deer. Other objects located included pottery and a small amount of worked flint. No human bone was located within any of the trenches. The animal bone in the main report is listed by layer and element within the Inner Ditch, Trench 1 and Outer Ditch Trench 2 (Thomas 1964: 22). In order to make a statistical comparison, all of the elements have been totalled for each layer, as seen in Figures 5.9 and 5.10. These statistical comparisons should be met with caution, as much of the animal bone located was in a fragmentary state, but they do give an indication of the ways in which deposition occurred. The pottery was also statistically analysed by counting the sherd numbers within the corresponding layers of each trench (Thomas 1964: 16-18).

5.7.1 *Animal bone*

As at other causewayed enclosures, cattle was the abundant animal species located within the trenches numbering 47 (65.27%); sheep/goat 12 (16.66%), red deer 7 (9.72%) and pig 6 (8.33%) round off the total animal assemblage. A majority of the cattle bone was located within the Inner Ditch, Layers L and M (Fig. 5.8). Sheep/goat was spread fairly evenly throughout the layers, the exception being Layer M which is the only layer to contain all four species. Cattle were also located in smaller quantities in the Outer Ditch, Trench 2, numbering 5 finds within Layer A and 4 within Layer N (Fig. 5.9). At least one element of all other species was located within each layer.

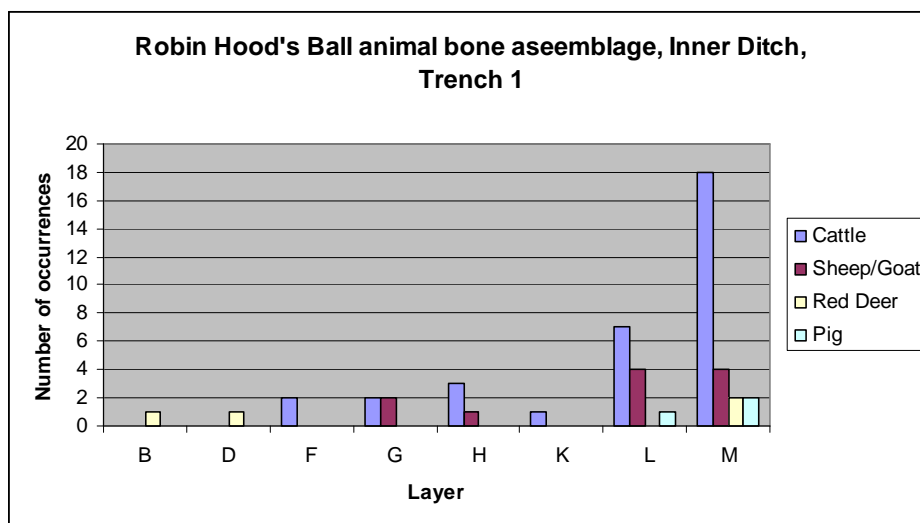


Figure 5.8 Robin Hood's Ball animal bone assemblage, Inner Ditch, Trench 1 (after Thomas 1964: 22)

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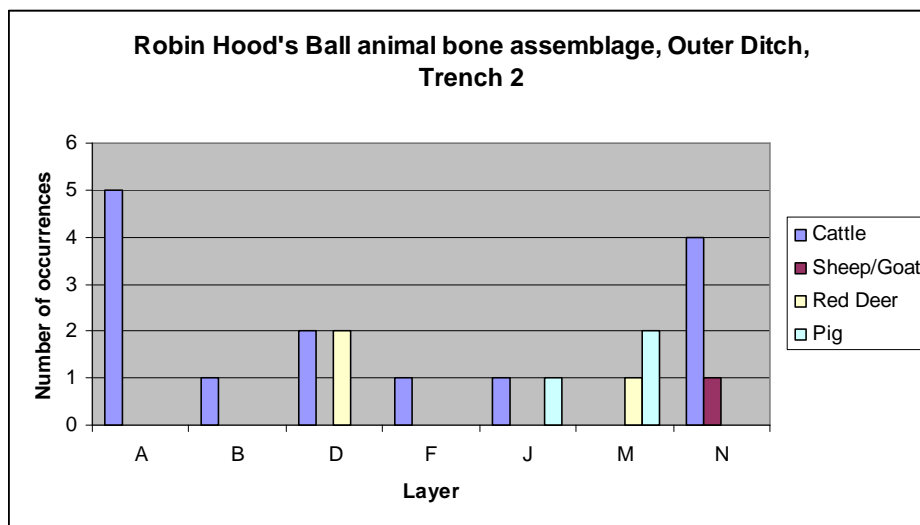


Figure 5.9 Robin Hood's Ball animal bone assemblage, Outer Ditch, Trench 2 (after Thomas 1964: 22)

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5.7.2 *Flint*

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Only 59 pieces of flint were located within the Inner Ditch, Outer Ditch and Outer Bank (Fig. 5.10). Of these, only 6 could be considered implements; these were located within Layer M (2 scrapers, 1 large broad flake), Layer K (1 broad oval blade, 1 narrow parallel-sided blade), and Layer E (1 broad flake) (Thomas 1964: 19-20). The largest amount of flint deposited was in the Outer Ditch where 27 of the 28 flakes located formed a small grouping within the upper fills of Layer F (Thomas 1964: 20). The remaining layers of the trenches each contained between three and eight finds.

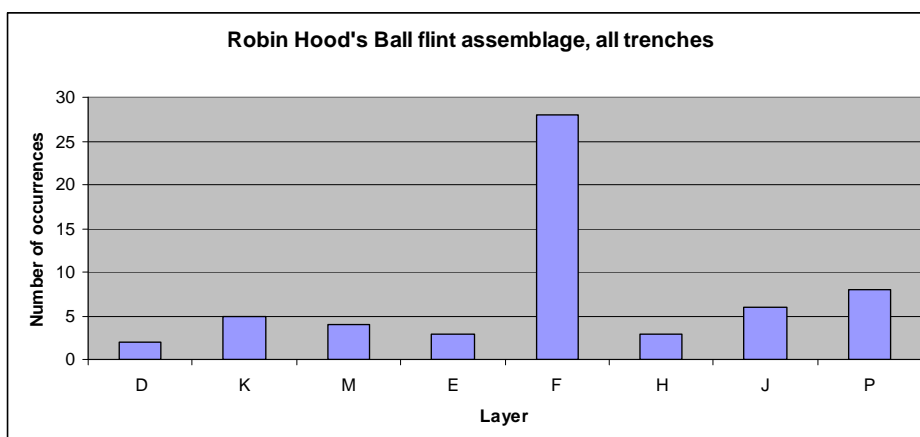


Figure 5.10 Robin Hood's Ball flint assemblage (Layers D, K, M, InnerDitch), (Layers E, F, H, J, Outer Ditch), (Layer P, Outer Bank) (Connah 1964: 19-20)

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5.7.3 Pottery

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Close to 230 pottery sherds, weighing 3kg, were recovered from the Inner Ditch (122) (Fig. 5.11) and Outer Bank (108) (Fig. 5.12). A large number of sherds were located from Layers G, H, K, and L of the Inner Ditch and Layers Q and N from the Outer Bank, possibly indicating a specific area for the deposition of pottery.

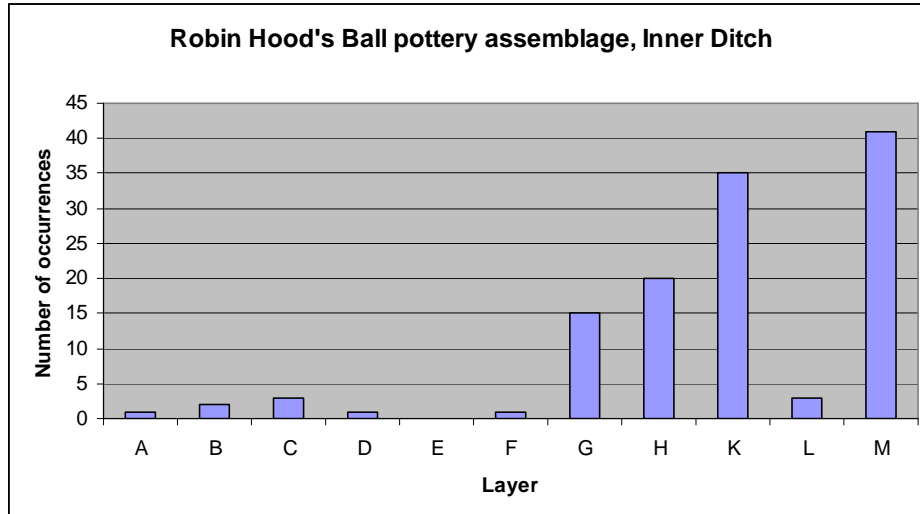


Figure 5.11 Robin Hood's Ball pottery assemblage, Inner Ditch, Trench 1 (after Thomas 1964: table 1)

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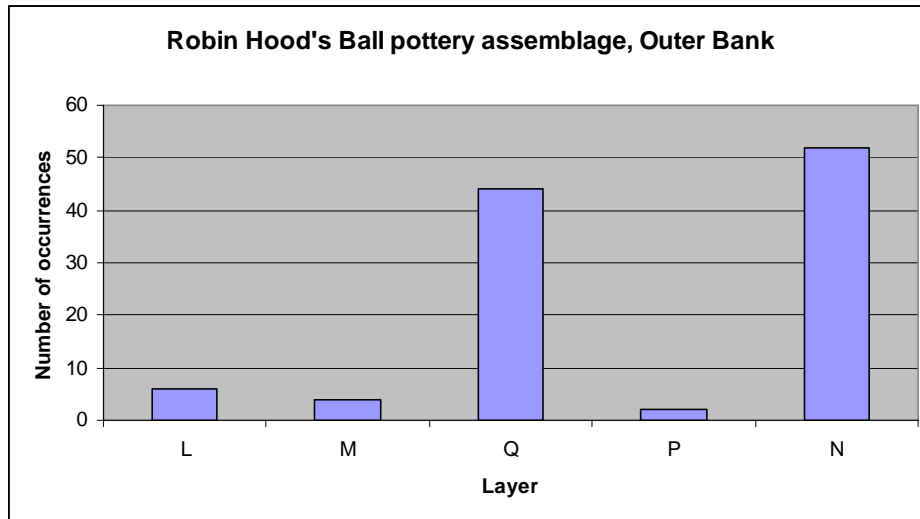


Figure 5.12 Robin Hood's Ball pottery assemblage, Outer Bank (after Thomas 1964: table 1)

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5.8 Material and associated activity areas

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5.8.1 *Butchering, feasting, and flint knapping*

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5.8.1.1 *Inner Ditch (Trench 1)*

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In the Inner Ditch (Trench 1) a high proportion of cattle remains were located, including an articulating radius and ulna found within Layer M associated with sheep/goat, pig and red deer, over 40 sherds of pottery, three of the six implements found (two scrapers and one large broad flake). These finds may indicate an area where animals were skinned and/or butchered. Above this, in Layer G, a 'high concentration of Neolithic pottery' in association with flint flakes, a serrated blade, and charcoal were located, which suggests the possibility that cooking took place. High concentrations of pottery in Layers H and K may also indicate a place which was returned to for repeat activities of the same type.

5.8.1.2 *Outer Ditch (Trench 2)*

The small cluster of 27 flints, one cattle element and two sherds of pottery within Layer F may indicate an area where perhaps the creation of tools took place.

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5.8.1.2 *Outer Bank (Trench 2)*

High concentrations of pottery were located within Layers L and N, and in P, associated with charcoal in the top of the layer. Red deer, pig, cattle, and sheep/goat were all deposited within Layers M and N of the Outer Trench, which may have had some bearing on the activities in these layers of the Outer Bank.

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5.9 Summary

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These small trenches at Robin Hood's Ball suggest that the areas which were excavated often contained pottery, which was either disposed or placed mostly within the Outer Bank and Inner Ditch, or the remains of butchery and/or consumption of animals, particularly cattle with Layers G, H, K, L, and M of the Inner Ditch. The large amounts of pottery within the Outer Bank, specifically Layers N and Q/R, may signify that once pottery was used or broken, it was to be placed away from the animal bone, or alternatively the pottery was meant for segregation as it had a different purpose altogether. The pottery may have been seen as a material which was not to be within the same category of 'death' as that of the animal bone, suggesting that the animate and inanimate were deliberately separated. The main activity area for the use of flint was located in the Outer Ditch just above Layer F, and consisted of a "concentration of 27 unworked flints" and two scrapers on the bottom of the ditch (Thomas 1964: 20). This may show that the placement within this area was seen as being one where the production of flint was to take place. Overall, the evidence points to the Outer Bank being used in activities associated with pottery, the Outer Ditch with flint and stone, and the Inner Ditch, pottery and animal bone.

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5.10 Whitesheet Hill

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5.10.1 *Location and background*

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The causewayed enclosure of Whitesheet Hill is situated on the western edge of Salisbury plain in close vicinity to another circular enclosure of uncertain date, and a later Iron Age Hillfort located below the hill upon which the enclosure is located (Fig. 5.13) (Rawlings et al. 2004: 145). The enclosure consists of a single circuit of around 23 segments, including an internal bank, which has been measured to have an area of

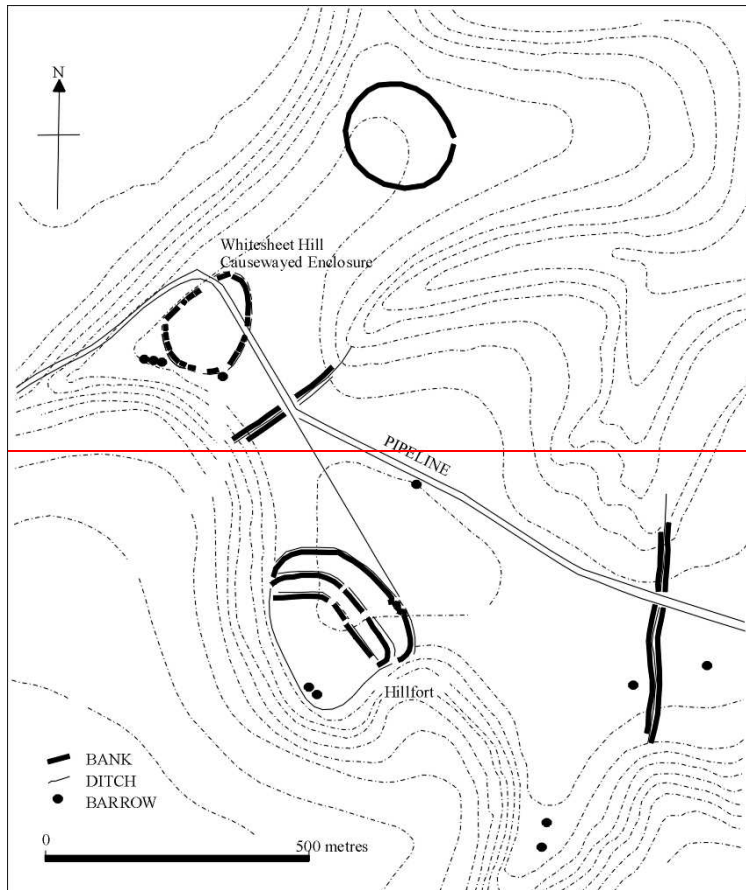


Figure 5.13 Location of Whitesheet Hill causewayed enclosure (after Corney and McOmish 2004: fig. 2)

2.3ha or 5.7 acres (Rawlings et al. 2004: 146). Two sections of the enclosure ditch were excavated by Stuart Piggott (1952), one within the north of the site, the other to the south. The northern trench measured 10 feet wide and 5 feet deep, and contained a mixture of small Neolithic pottery sherds, a scraper and flint flakes in the primary fill (Piggott 1952). On top of this the primary fill was “the skull of the long horned ox” (Piggott 1952: fig. 2). The southern trench produced no finds (Piggott 1952).

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Recent excavation (Rawlings et al. 2004) has also taken place in advance of a water pipeline project (Fig. 5.14). This has allowed a further study of the enclosure,

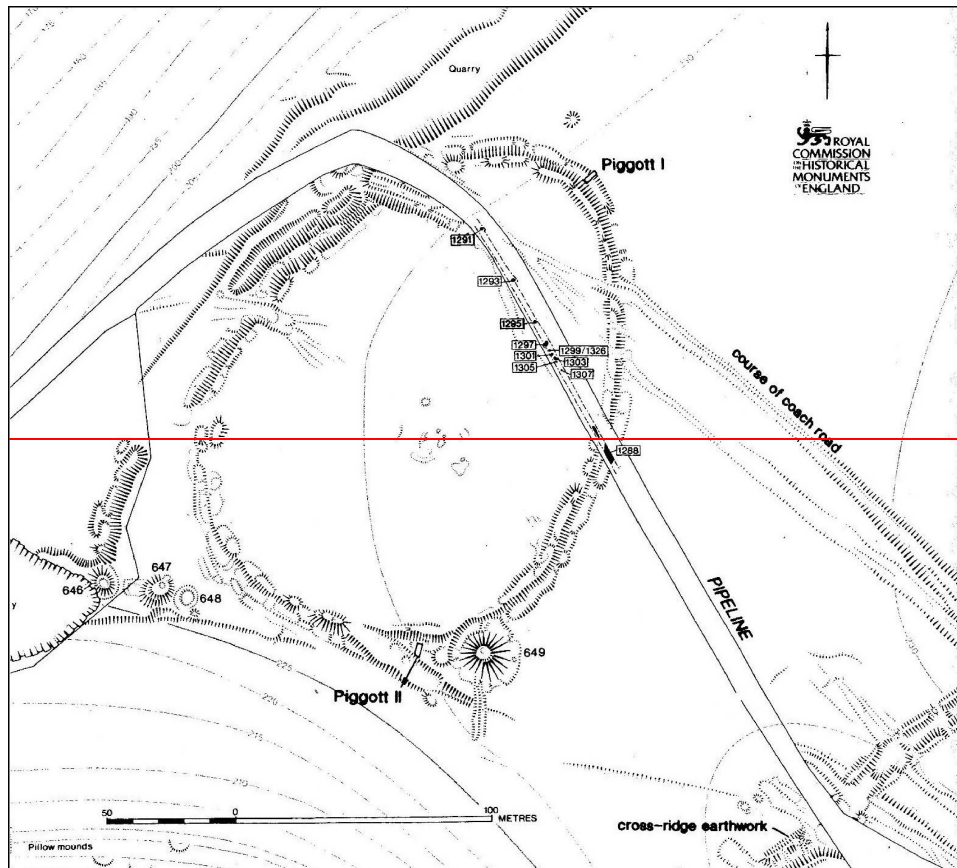
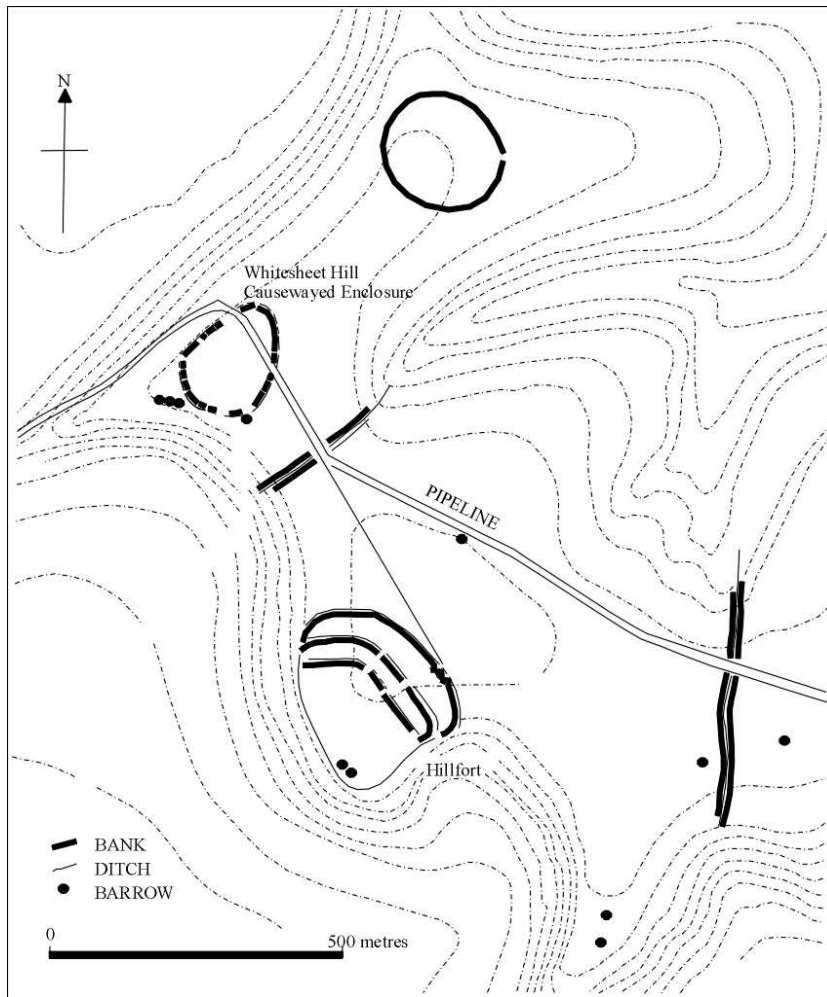


Figure 5.14 Whitesheet Hill Piggott and 1989-90 excavations (Rawlings et al. 2004: fig. 3)

concentrating mostly within the interior, although one section of the enclosure ditch (Feature 1288) was excavated (Rawlings et al. 2004: 148).

Data from both the enclosure ditch segments and the internal pits will be discussed here although, due to the small amount of data from the one ditch segment, the analysis will mainly focus on the evidence from within the enclosure, which consisted of nine trenches which follow the direction of the pipeline.



**Figure 5.13 Location of Whitesheet Hill causewayed enclosure
(after Corney and McOmish 2004: fig. 2)**

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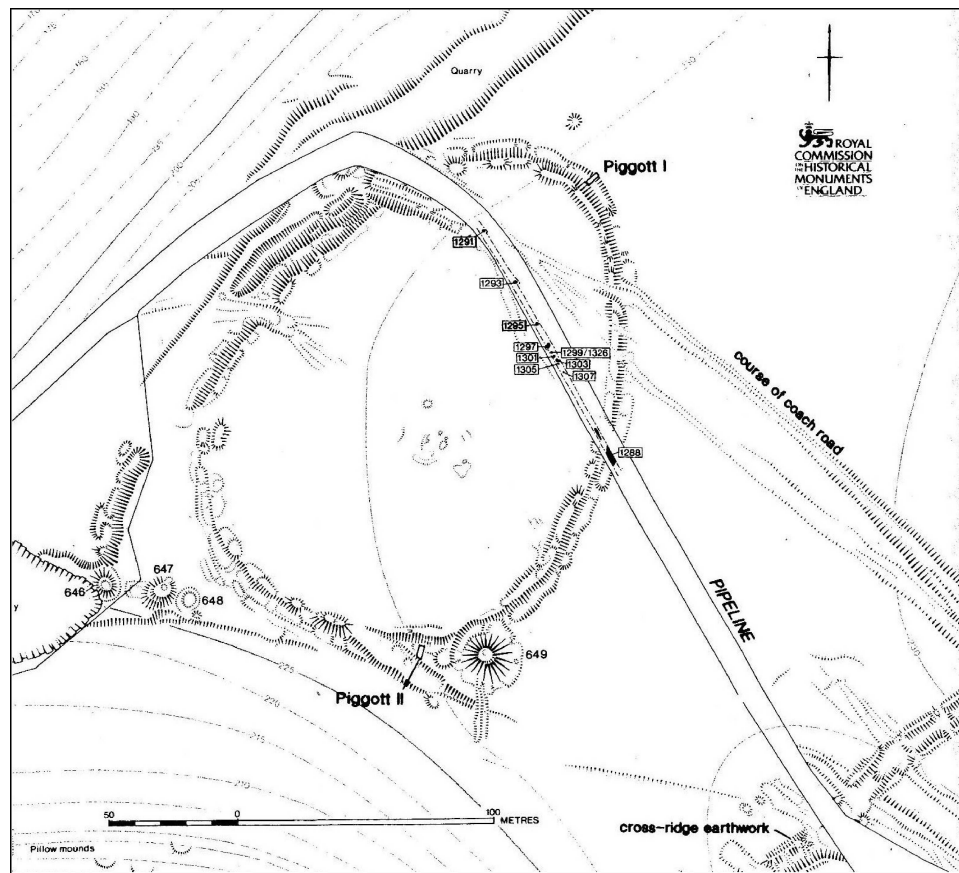


Figure 5.14 Whitesheet Hill Piggott and 1989-90 excavations (Rawlings et al. 2004: fig. 3)

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5.10.2 *Previous interpretations*

The excavations by Piggott (1952) and Rawlings et al. (2004) have demonstrated that Whitesheet Hill may have played a considerable role during the Neolithic in the Wiltshire area. Cultural material within the two trenches excavated by Piggott (Piggott I and Piggott II, (Fig. 5.15)), consisted of the 'typical' remains of animal bone, flint, and pottery. One further trench, Feature 1288, excavated by Rawlings et al. (2004) suggests that perhaps the Piggott trenches were not fully excavated, as Feature 1288 was very deep and steep-sided, measuring 2.8m deep, 1m wide and 1m deep vertical sided 'slot' in the base (Rawlings et al. 2004: 150, 184). This made this trench atypical of other causewayed enclosure ditches which tend to be u-shaped at the base, perhaps indicating a defensive function (Rawlings et al. 2004: 184). Cultural material located within interior features indicated that the animal assemblage

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was dominated by pig remains, but other animal bone, including cattle and sheep/goat were located. This often occurred after the bone was burnt elsewhere; as the ground the remains were deposited within indicated no signs of burning, suggesting that the material may have been relocated, possibly from the enclosure ditch (Rawlings et al. 2004: 185). A small amount of sarsen and ground stone was found. The enclosure ditch segment indicated a recut during a second phase of activity. Mortlake-style Peterborough ware were located, as were residual amounts of animal bone from the bottom of the recut (Rawlings et al. 2004: 186).

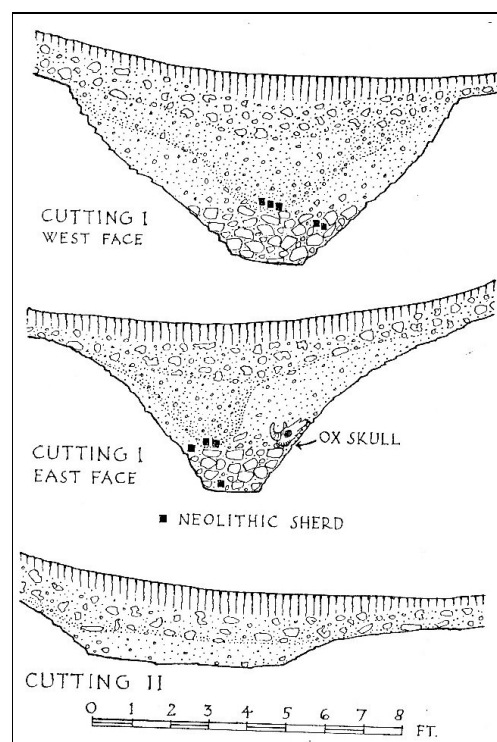


Figure 5.15 Cuttings I and II from the Piggott investigations at Whitesheet Hill (Piggott 1952)

5.10.3 *Chronology and dating*

Seventeen radiocarbon dates from the excavations in 1989-90 (Figs. 5.16 and 5.17) were used for the radiocarbon determination programme. (Whittle et al.: in prep). The results of the dates and the contexts from which they derived from are shown in Tables 5.5 and 5.6. The results of the samples suggest that Whitesheet Hill “enclosure was built in 3655–3630 *cal BC* (11% probability) or 3610–3540 *cal BC*

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(84% probability), or 3595-3550 cal BC (68% probability). The circuit seems to have been used for a relatively brief period, for 1-120 years (95% probability), or 1-55 years (68% probability). It is plausible that the main phase of activity lasted for only a few generations or less" (Whittle et al.: in prep).

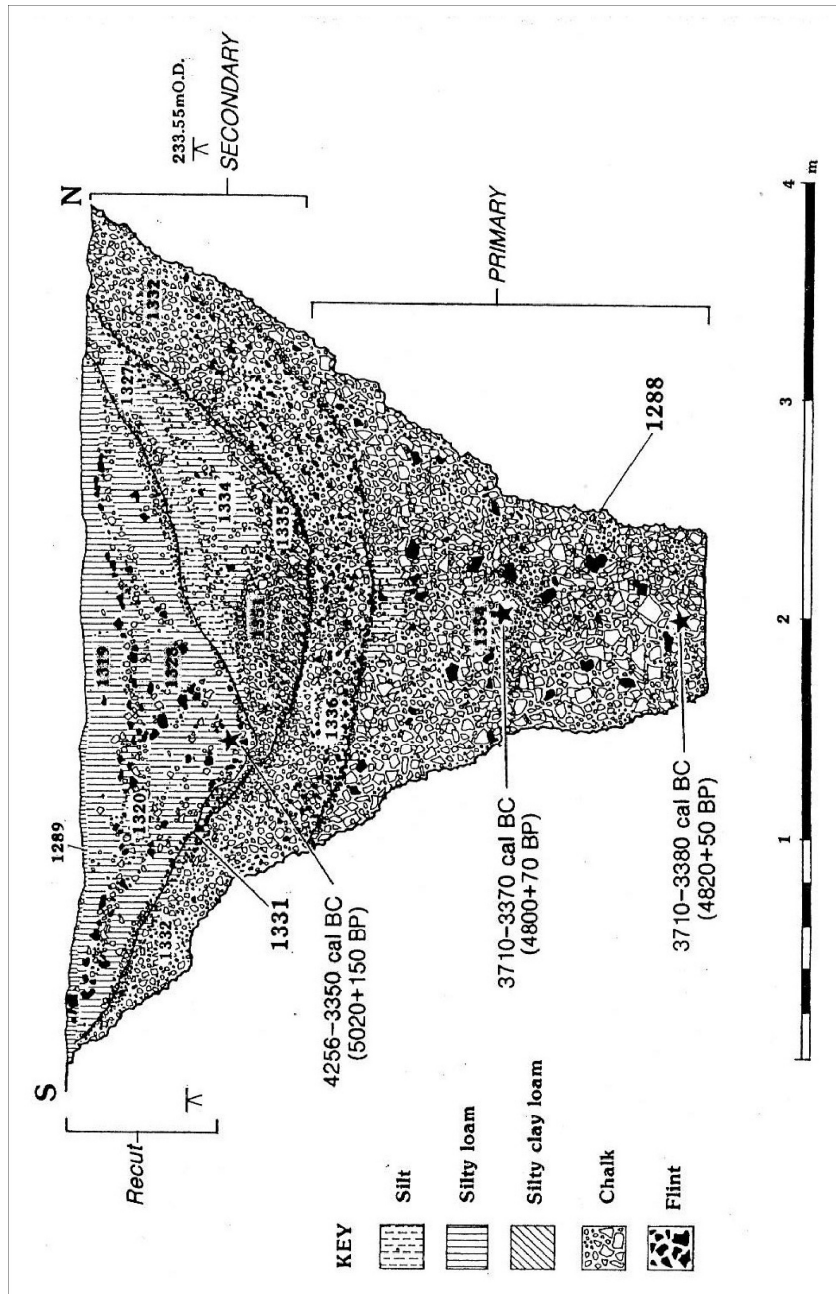


Figure 5.16 Whitesheet Hill enclosure ditch segment cutting (Rawlings et al 2004: fig. 5)

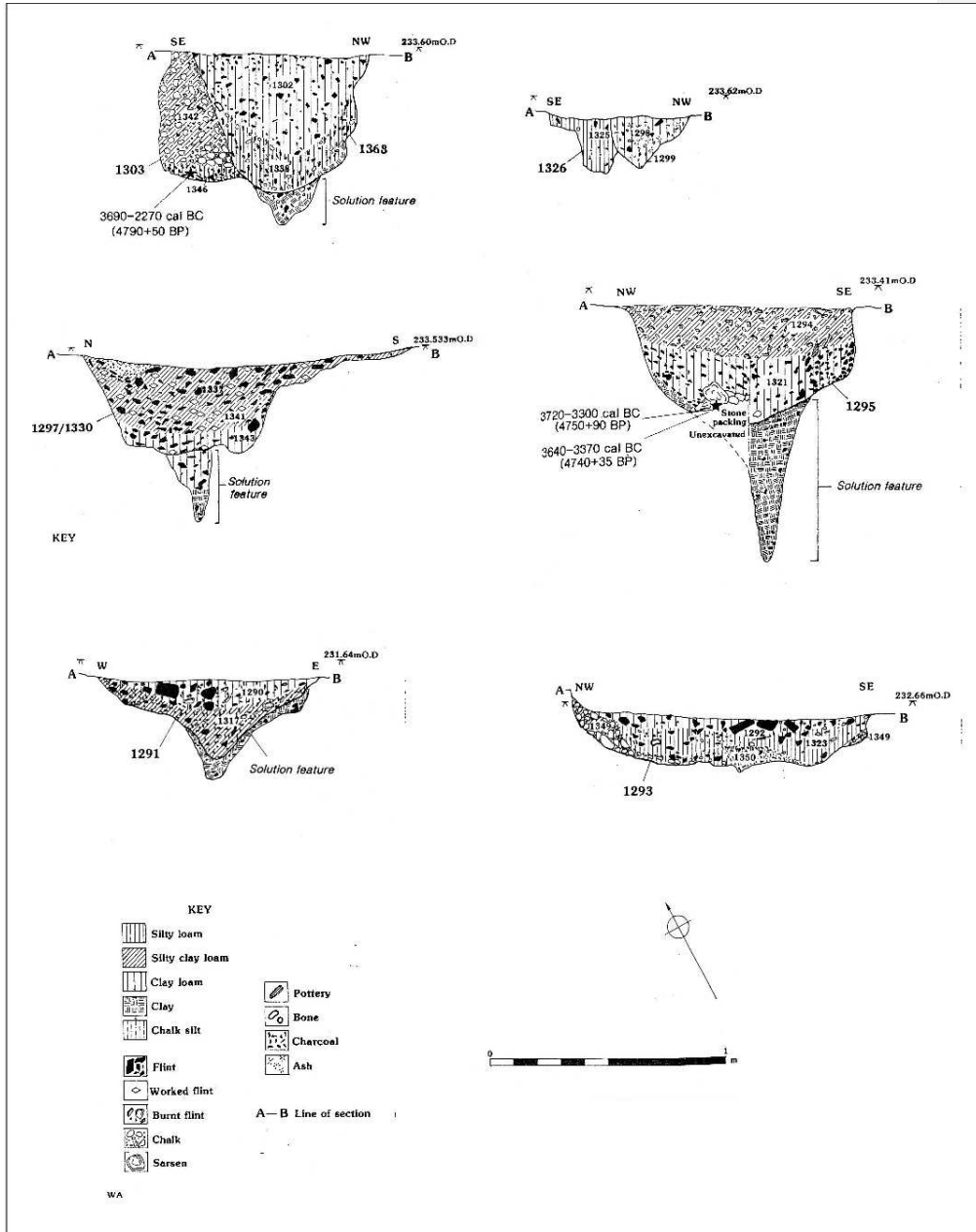
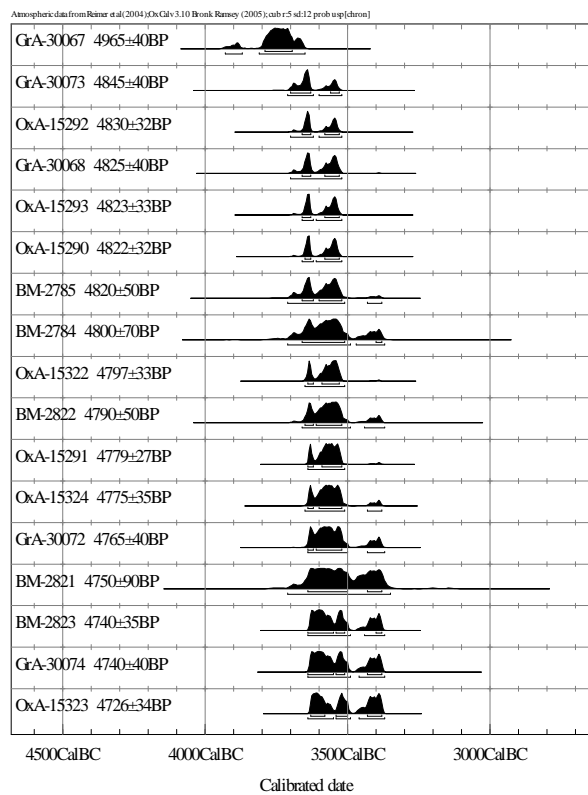


Figure 5.17 Whitesheet Hill interior feature sections (after Rawlings et al 2004: figs. 6 and 7)

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Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (95%)
GrA-30067	3790-3695	3930-3650
GrA-30073	3700-3530	3710-3520
OxA-15292	3660-3530	3700-3520
GrA-30068	3660-3530	3700-3520
OxA-15293	3660-3530	3660-3520
OxA-15290	3650-3530	3660-3520
BM-2785	3660-3520	3710-3380
BM-2784	3660-3380	3710-3370
OxA-15322	3640-3530	3650-3510
BM-2822	3650-3520	3660-3370
OxA-15291	3640-3520	3640-3510
OxA-15324	3640-3520	3650-3380
GrA-30072	3640-3520	3640-3370
BM-2821	3640-3380	3710-3350
BM-2823	3640-3380	3640-3370
GrA-30074	3640-3380	3640-3370
OxA-15323	3630-3380	3640-3370

Table 5.5 Whitesheet Hill calibrated radiocarbon dates to sigma 1 and 2

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GrA-30067	Red deer. Antler beam with base of recently broken-off tine, found with many antler fragments. Almost certainly the remains of an antler pick	From the same context as BM-2785. Antler found at 232.12 m OD, at a similar level to sf 1584 (Rawlings <i>et al.</i> 2004, fig. 5)
GrA-30073	Charred hazelnut shell fragment	From the same context as OxA-15293
OxA-15292	Pig. R radius with both fitting unfused epiphyses. 'Most of the pig bones in these fills [of feature 1303] could have belonged to two immature animals' (Mark Maltby, original report in archive, detail missing from published version)	Pit 1303, context 1342. Upper fill of the first of two successive pits, stratified above 1346 (Rawlings <i>et al.</i> 2004, fig. 6)
GrA-30068	Red deer. Antler beam with one tine, and recent breaks. Found with many small antler fragments. Almost certainly the remains of an antler pick	From the same layer as BM-2785. Sample found at 231.97 m OD, above middle of layer (Rawlings <i>et al.</i> 2004, fig. 5). Part of same small find as sample for BM-2784
OxA-15293	Cattle. 1 of 2 consecutive thoracic vertebrae from same immature individual, a third probably consecutive vertebra coming from the same context	Pit 1303, context 1346. Basal fill of the first of two successive pits, stratified below 1342 (Rawlings <i>et al.</i> 2004, fig. 6). No sign of <i>in situ</i> burning, probably dumped burnt material
OxA-15290	Sheep. 3 rib fragments from the skeleton of an animal between 6 and 10 months old, represented by 49 bones. 'There is no evidence of butchery and it is assumed that this skeleton was dumped in an articulated state. Most of the skeleton was recovered except the carpals, tarsals and phalanges. The absence of these small bones may result from recovery bias or poor preservation and it is possible that the sheep was originally dumped as a complete carcass' (Maltby 2004)	From the same layer as BM-2785. There is no record of the depth at which the skeleton was found
BM-2785	Animal bone. Bulk sample, mainly of cattle. Maltby's archive (in the Salisbury and South Wilts Museum) records 14 identifiable elements in sf 1595, all but one of them from cattle, among which mature and immature individuals were represented. The submission form reads 'Includes tarsals, metatarsals, carpals, metacarpals, phalanges, atlas, vertebra, thoracic vertebra'. Since only the mineral residue remains of the sample it is clear that all of the bones were dated	Feature 1288, context 1354. Loose, unsorted chalk rubble with a few chalk nodules lying directly on base of ditch and up to 1.75 m deep. Sample found at 231.32 m OD, near base of layer (Rawlings <i>et al.</i> 2004, fig. 5). All the bones in the sample formed part of a single measured-in find (sf 1595), so that they would have been deposited together, perhaps in the immediate aftermath of consumption.
BM-2784	Pig. Bulk sample. Maltby notes that it is feasible that the bones belonged mainly to 1 or 2 animals (2004, 167). The submission form reads 'Includes jaw, radius, femur, frontal skull, 1st phalanx, metapodials, rib'. Since only the mineral residue remains of the sample it is clear that all of the bones were dated	From the same layer as BM-2785. Sample found at 231.97 m OD, above middle of layer (Rawlings <i>et al.</i> 2004, fig. 5). Like sf 1595, this was a single measured-in find, so that its components would have been deposited together, perhaps in the immediate aftermath of consumption.
OxA-15322	Charred hazelnut shell fragment	From the same context as GrA-30072
BM-2822	Charred hazelnut shells	From the same context as OxA-15293
OxA-15291	Cattle. Proximal phalanx, articulating with medial and distal phalanges. Replicate of GrA-30071	From the same layer as BM-2785. The bones were extracted from a bulk find and their precise position is unknown.
OxA-15324	Charred hazelnut shell fragment	From the same context as GrA-30074
GrA-30072	Charred hazelnut shell fragment	Pit 1295, context 1322. Extracted from basal fill of pit (Rawlings <i>et al.</i> 2004, fig. 7)
BM-2821	Pig. Bulk sample. The submission form reads 'Jaw, long bones, etc.', the published list reads 'pig long bones' (Rawlings <i>et al.</i> 2004, table 1). Some long bone fragments and teeth survive from the sample	From the same context as GrA-30072. Described on submission form as 'bulked <i>in situ</i> spot find of associated bone'
BM-2823	Charred hazelnut shells	From the same context as GrA-30072
GrA-30074	Charred hazelnut shell fragment	Pit 1293, context 1350. Deposit of charcoal and charred plant remains up to 0.10 m thick on pit base in lower part of some areas of 1323 (Rawlings <i>et al.</i> 2004, fig. 70)
OxA-15323	Charred hazelnut shell fragment	From the same context as OxA-15293

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Table 5.6 Radiocarbon samples and contexts from Whitesheet Hill (Whittle *et al.*: in prep.)

5.11 Deposition at Whitesheet Hill

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A majority of the material culture located within the excavation of Whitesheet Hill derives from the internal features, along with a small amount from the enclosure ditch segment trench. Animal remains consisting of cattle, sheep/goat, and pig were located, along with pottery, flint and other stone objects.

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5.11.1 *Animal bone*

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As noted at the start, the data is heavily influenced by the greater exploration of the interior which may give a greater insight to activity at Whitesheet Hill compared to Knap Hill and Windmill Hill, from which the material located, is almost entirely from the enclosure ditch segments. In the enclosure ditch segments, Piggott located a cattle skull within the northern trench (Piggott 1952). A further indication of animal skulls came from the enclosure ditch segment where "parts of a skull with the pedicle of an unshed antler and the tip of an antler of red deer" was located (Maltby 2004: 167). The total amount of animal bone located within the excavations is shown in Figure 5.18.

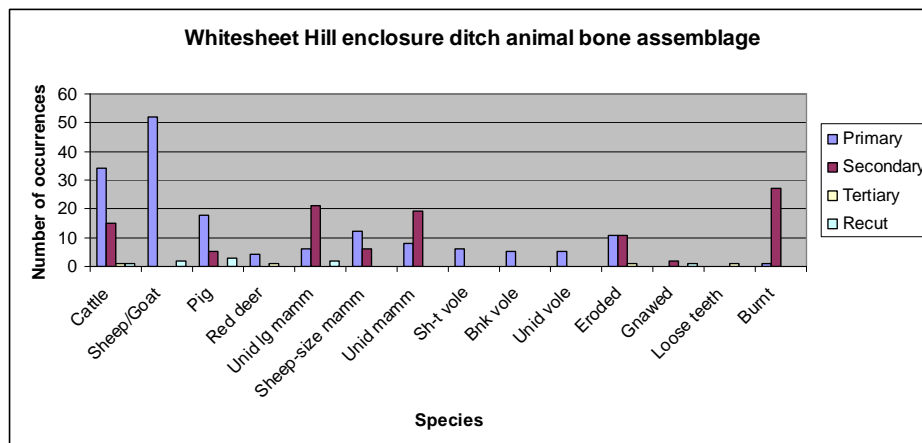


Figure 5.18 Whitesheet Hill enclosure ditch animal bone assemblage (after Maltby 2004: table 5)

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A majority of the animal bone appears to have come from younger animals, as 49 of the bones of sheep from the enclosure ditch segment were "of an immature sheep between six and ten months old", 34 cattle bones were from the lower levels of the enclosure ditch "including 20 phalanges" "with unfused proximal epiphyses and probably belong to cattle about 18 months old" (Maltby 2004: 167), suggesting the culling of animals, possibly on site as the flakes and serrated flakes indicate.

Within the internal features (Figs. 5.19-5.25), it is apparent that F1303 (pit) contains the highest occurrence numbering 362 or 38.71% of the entire animal bone assemblage (Fig. 5.20). Within F1297 only one large unidentified mammal and one eroded animal part was located and thus this small will not be shown statistically below. The radiocarbon evidence suggests that the interior pits are broadly contemporary with the enclosure ditch segments, but may also have been dug prior to the construction of the segments. Unusually (compared to the other causewayed enclosures in the study), pig is the most common animal species, especially in F1303 where 136 finds of pig were recorded together with 82 finds of sheep-sized mammal (Maltby 2004: 168). Sheep and/or goat also seem to have played a large role as seen in the primary level of the enclosure ditch where 52 finds occurred (Maltby 2004: 168).

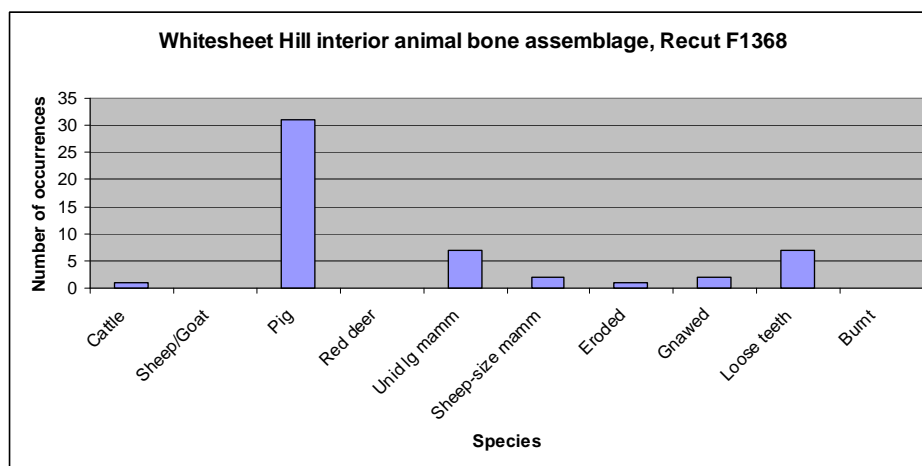


Figure 5.19 Animal bone assemblage from the interior of Whitesheet Hill, F1368 (after Maltby 2004: table 5)

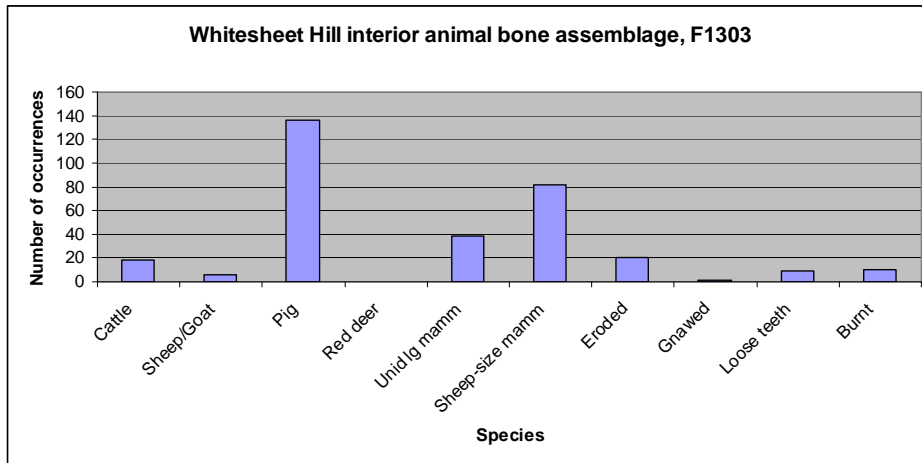


Figure 5.20 Animal bone assemblage from the interior of Whitesheet Hill, F1303 (after Maltby 2004: table 5)

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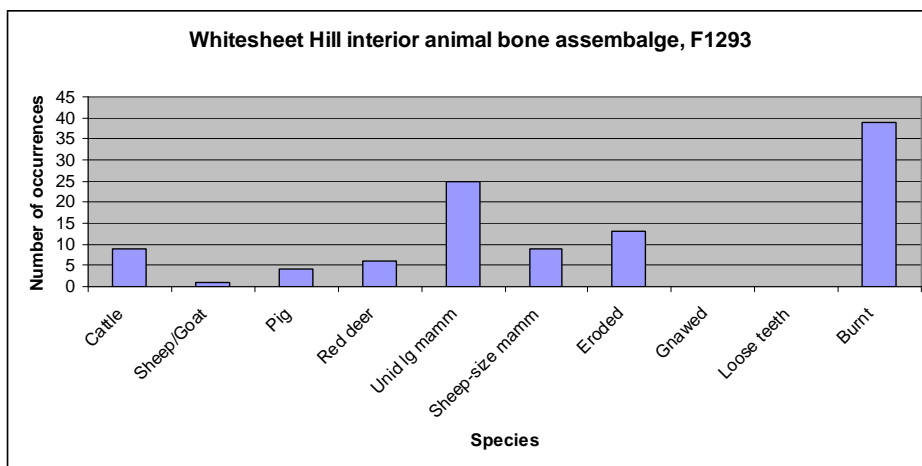


Figure 5.21 Animal bone assemblage from the interior of Whitesheet Hill, F1293 (after Maltby 2004: table 5)

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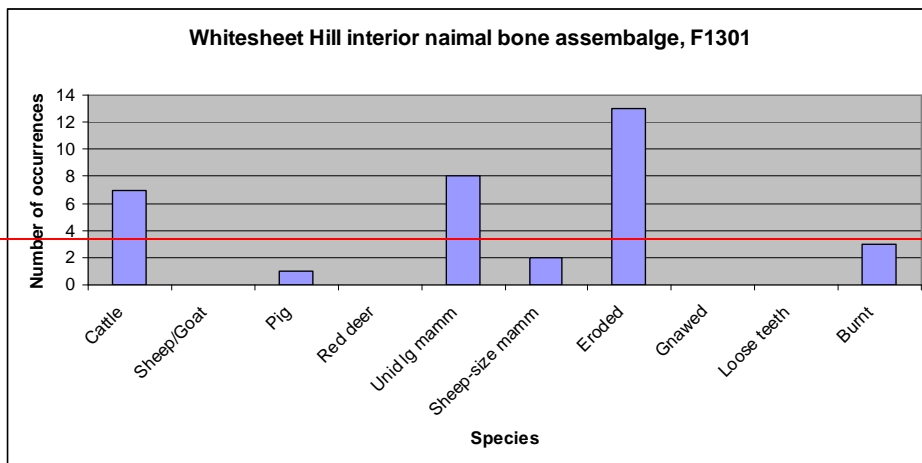
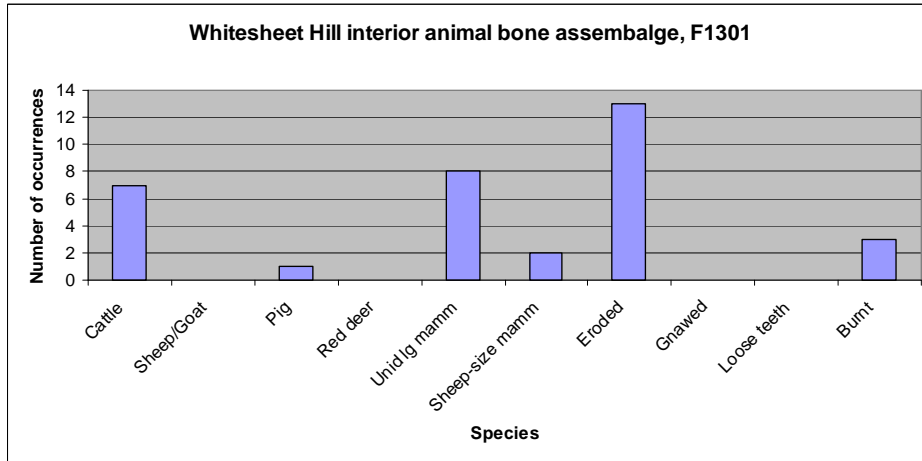


Figure 5.22 Animal bone assemblage from the interior of Whitesheet Hill, F1301 (after Maltby 2004: table 5)

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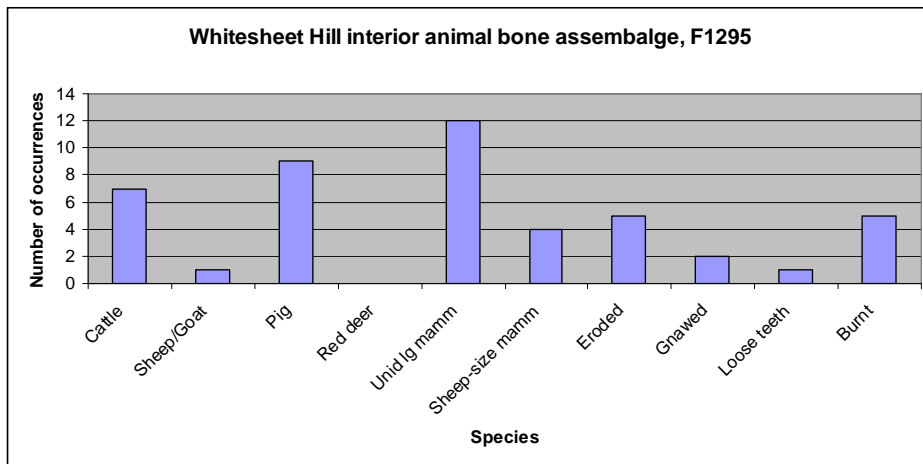


Figure 5.243 Animal bone assemblage from the interior of Whitesheet Hill, F1295 (after Maltby 2004: table 5)

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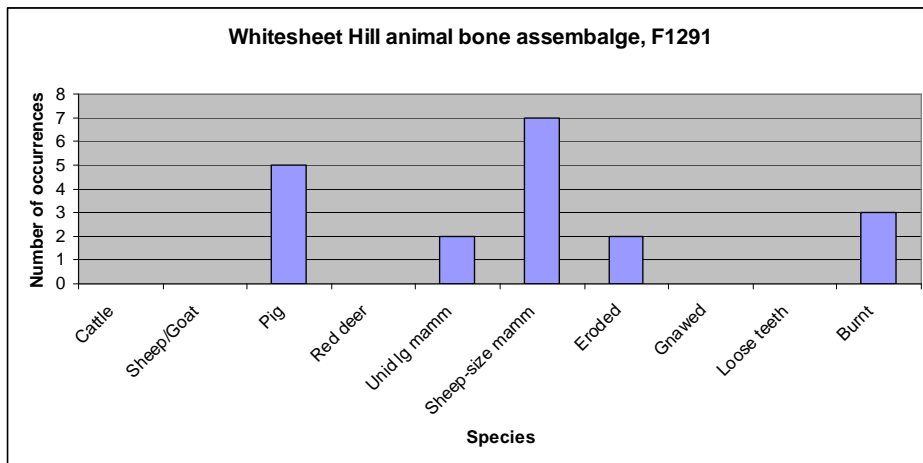


Figure 5.254 Animal bone assemblage from the interior of Whitesheet Hill, F1291 (after Maltby 2004: table 5)

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5.11.2 *Flint*

Although the exact location of the flint assemblage is not detailed within the report, it is clear that a majority of the flint finds are flakes numbering 13824 or 39.09% of the total flint assemblage (Fig. 5.265). Implements (Fig. 5.276) were mainly serrated pieces (88 items or 59.86% of assemblage), flake scrapers (26 items or 17.68% of the assemblage), and miscellaneous retouched pieces (17 instances or 11.56% of the assemblage). The number of flakes located indicates a large amount of reduction was occurring during the creation of tools. The large number of serrated pieces of flint may be an indication of activities requiring a finer implement, for example the latter stages of butchery.

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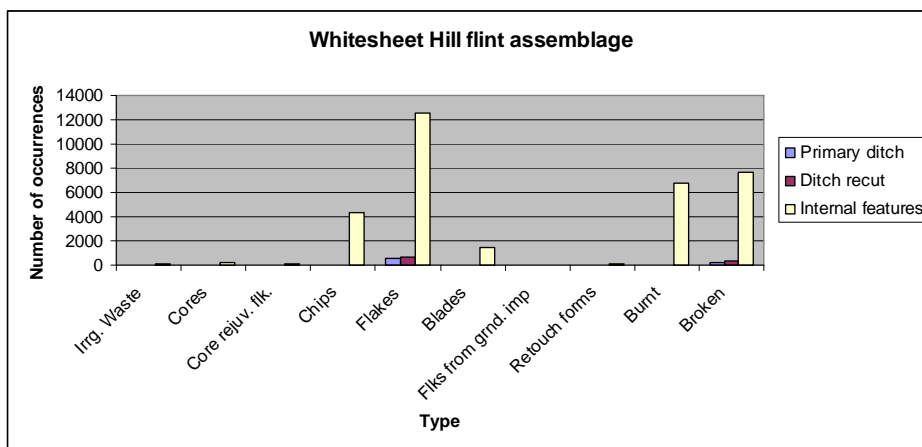


Figure 5.265 By-product assemblage from Whitesheet Hill (after Healy 2004: table 3).

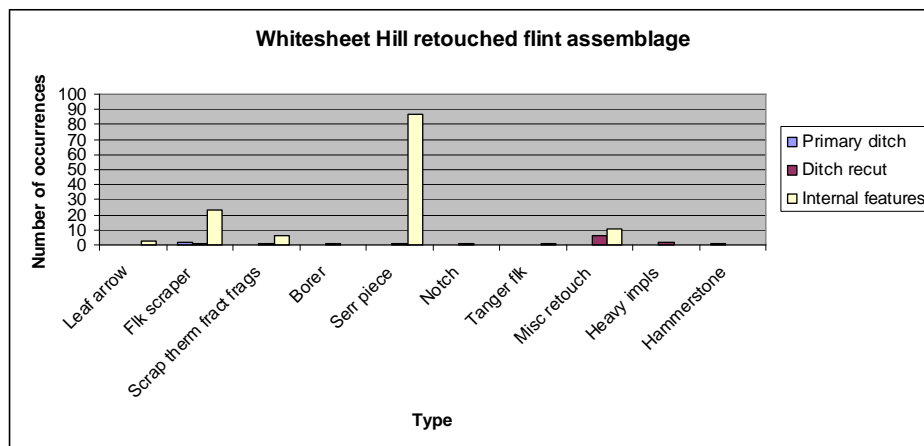


Figure 5.276 Retouched flint from Whitesheet Hill (after Healey 2004: table 4)

5.11.3 Pottery

A total of 625 sherds (1540g) of Neolithic pottery, suggesting at least 16 vessels, were recovered from Whitesheet Hill (Cleal 2004: 155). Figure 5.287 indicates the total number of sherds compared to total weight located within the enclosure ditch and the internal features. The larger number of sherds compared to weight may be an indication of whether size and fragmentation of the sherds deposited in a higher number is significant. Within the enclosure ditch, F1303, and F1293 larger sherds may have been deposited, while from F1295 the highest amount of sherds were recovered but weighed much less, perhaps indicating pottery was broken up prior to deposition.

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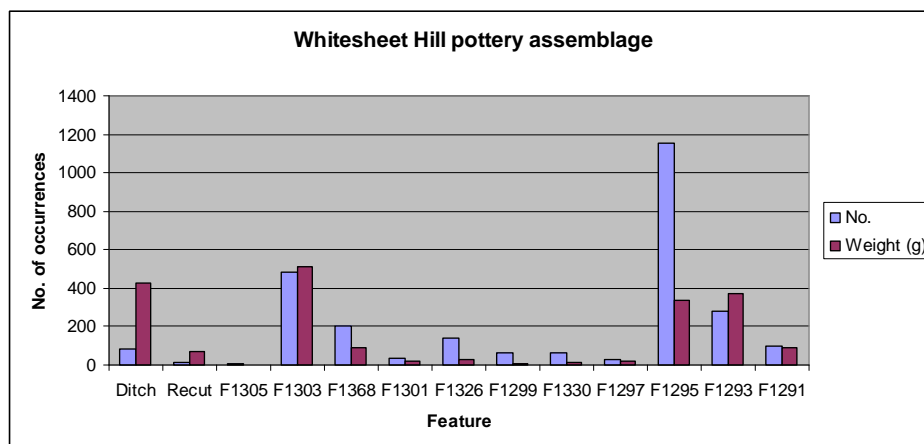


Figure 5.287 Pottery assemblage from Whitesheet Hill (after Cleal 2004: table 2)

5.11.4 *Stone*

A small number of stone objects (7) were located within the interior features at Whitesheet Hill. Two pieces of sandstone rubber and two quern fragments were located in F1291, one fragment each from in F1368 and the basal fill of F1330, and a sarsen pounder was located from F1293 (Healy 2004: 166). Although small, this does demonstrate that the groups who occupied Whitesheet Hill possibly participated in the processing of foodstuffs.

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5.12 Material and associated activity areas

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5.12.1 *Enclosure ditch*

The small assemblage from the enclosure ditch predicts a fuller picture of activity. The cattle skull located by Piggott may be more common within the deposits of Whitesheet Hill than is suggested from the information available, as other causewayed enclosures have numerous deposits of animals in terminal ends of segments. A majority of the animal bone was deposited in the primary levels of the enclosure ditch, with cattle the most common species. The lack of flint within the enclosure ditch may indicate that it was either 'cleared up' from the enclosure ditch to the internal features where a large amount is located, or that for symbolic reasons, such as avoidance, it was planned that the flint should not rest within the outer portions of the site.

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5.12.2 *Feature 1295*

It is evident that a large amount of pottery was deposited within the pit F 1295 of the interior. The number to weight ratio favours the number of sherds, perhaps indicating that pottery located within this feature forms a different type of deposit, where smaller sherds were selected for deposition. Systematic clearing of pottery to be placed in a prescribed location away from other objects could be one reason. Alternatively, perhaps the majority of pottery in F1295 was placed within this feature because it was in an area used for practices where pottery played a role alongside the large amount of animal bone, such as feasting, exemplified by the large amount of burnt animal bone recovered from this area.

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5.12.3 *Feature 1303*

Feature 1303 contained a large amount of pig and sheep-sized mammal bones, perhaps indicating a prescribed place where a majority of these bones were located. About 500 sherds of pottery totalling almost the same number in weight in grammes were located within this feature, indicating that perhaps these sherds were not broken up as in Feature 1295, suggesting a difference in the ways pottery was deposited in features situated close to one another.

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5.12.4 *Feature 1293*

A large amount of burnt animal bone and unworked flint were found within this feature, along with about 300 sherds of pottery and a sarsen pounder. As suggested below, these may have been used in activities such as cooking, which could have taken place close by, and then placed in this feature.

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5.13 Summary

The large amounts of burnt flint and animal bone appear in the highest quantities within Features 1293 and 1303, which may constitute activity areas where the cooking of food (mainly pig) and the fire-hardening of flints took place. As the "seat of the fire" (Healy 2004: 166) may have been close to F1293, this may indicate a specific area in which cooking took place. The amounts of loose teeth located within Feature 1303, seven in the recut Feature and one in F1295, may also have had a relationship to the activity occurring close to "the seat of the fire" linked to cooking, but alternatively animal teeth could have had a separate meaning from bone.

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Specialised activity may have been carried out within the enclosure ditch segment, as indicated by the remains of a disarticulated sheep skeleton with no butchery marks, in opposition to the feet of cattle which may indicate hide preparation or butchery (Maltby 2004: 169). The radiocarbon dates suggest they are broadly contemporary with the enclosure ditch segment and the internal features (pits) (Rawlings et al. 2004: 154-5). Thus, as noted above, it may be that certain activities took place as a part of a chain of operations. Pigs can reproduce at a much faster rate than cattle and cannot be taken over such long distances; they may thus have played a greater role in the food

consumed. The smaller numbers of cattle may indicate that they were used primarily in symbolic activities: killing a cow may have had a greater economic cost as these animals produce much more than meat, but also milk and skins used for clothing. Only through further excavation of the enclosure ditch segments and other portions of the interior may there be a possibility of defining more sharply areas in which further activities of the same or differing types took place. No articulated remains of either humans or animals were recovered from these small-scale excavations. A tentative interpretation based on the size of the area excavated suggests that the placements within Whitesheet Hill focused on representing everyday activities, especially those associated with food.

5.14 Windmill Hill

5.14.1 *Location and background*

The Windmill Hill causewayed enclosure (Fig. 5.298) (SU 086714) is situated in north Wiltshire to the west of the River Kennet, in an area which contains numerous other monuments including many long barrows, causewayed enclosures and stone circles (David *et al.* 1999: 7). These include -Horslip and Millbarrow long barrows, the large henge at Avebury, and numerous other early and later Neolithic monuments, all of which would have had an impact on the ways in which the Wiltshire landscape developed through time. Windmill Hill consists of three interrupted ditch circuits (Fig. 5.3029).-The. The outer circuit encompasses 8.45ha in area and is 360m on its north-east/southwest axis. The middle circuit covers 3.32ha and is 220m in diameter, while the inner circuit measures 0.52ha (David *et al.* 1999: 14).

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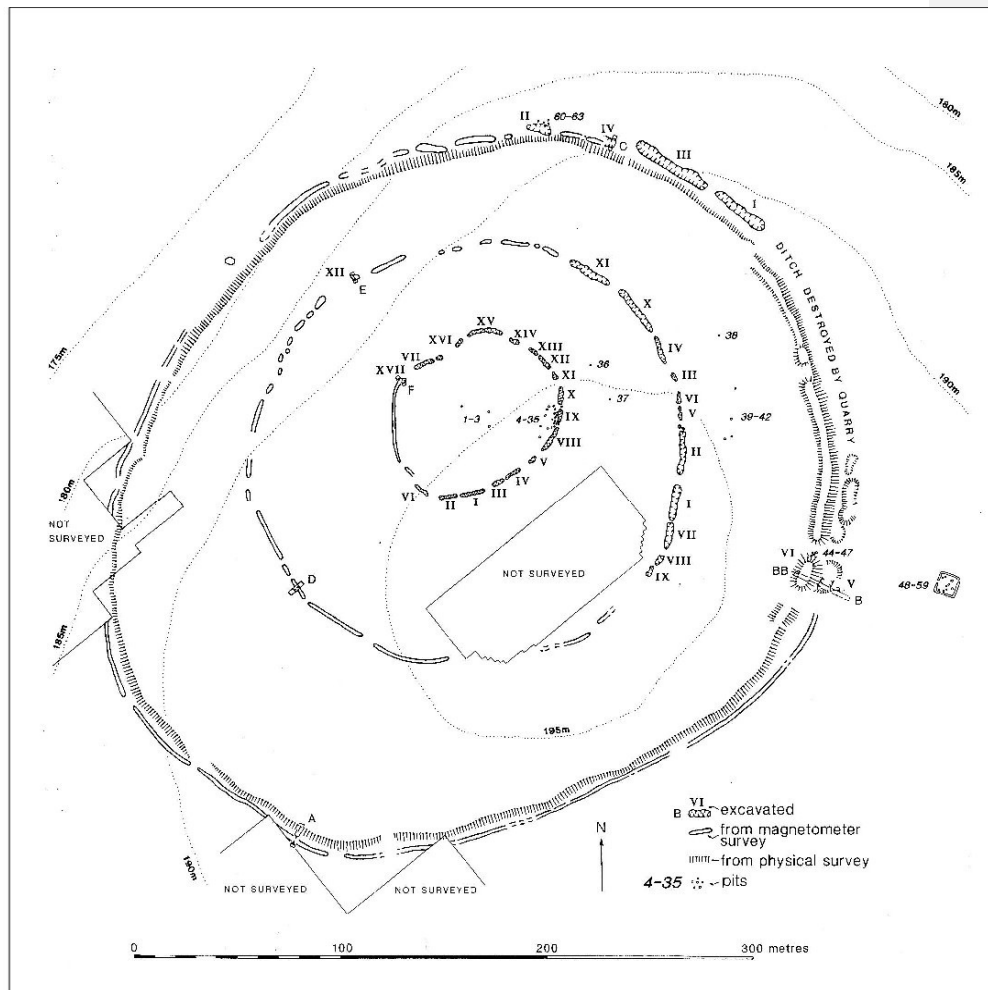


Figure 5.3029 Windmill Hill site plan and excavated segments (Whittle et al. 1999: fig. 14)

5.14.2 *Previous interpretations*

One of the first publications about Windmill Hill was by Crawford (1924, 1928), who set out the work which was to be completed by Alexander Keiller in a series of seasonal excavations beginning in 1925 and ending in 1929. During this five year period, 145m of inner, 144m of middle and 85m of outer circuit were excavated (Pollard 1999a: 25). Keiller himself would later (1934) comment upon the layout of the enclosure and the findings which were made during excavation. In this small report on the excavations, Keiller commented upon the large numbers of finds within the enclosure ditch segments, including different types of pottery encountered on the

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floor of the ditch and those within the upper fills, and compared them to the earlier excavations at Abingdon undertaken by Thurlow Leeds (Keiller 1934: 136). The large amounts of animal bone, flint, sarsen, broken axes and human bone, particularly of children, were also commented on (Keiller 1934: 136). A smaller excavation within OD IV and V, MD XII, ID XVIII, and OB IV, V, and VI was conducted by Isobel Smith in 1957-8 (1958, 1959). These excavations were later included in a full publication by Smith (1965) of Keiller's excavations at Windmill Hill and Avebury.

In the 1965 report, Smith began to move away from the descriptive analysis of finds and turned towards an interpretation of Windmill Hill where the finds helped to define the people who used and deposited them. For example, she dispels the ideas of the ditches having a defensive nature, and indicates that perhaps the enclosure was used seasonally, based on the large amounts of animal bone, particularly younger animals representing large-scale feasting. Different types of imported pottery and flint may indicate that people came from places some distance away, perhaps specifically to visit Windmill Hill, and the "careful disposal" of these objects "may reflect a tradition of orderliness and the practice of an elementary form of hygiene" (Smith 1965: 20). A further interpretation of Windmill Hill was also published by Smith (1966: 469), who focused on the 'function' of causewayed enclosures and Windmill Hill "as a founder of traditions". A large amount of the interpretation in this paper focused on the role pottery played within the enclosure and the relationship it had with the surrounding landscape in defining stylistic origins.

The latest work to be done at Windmill Hill was by Alasdair Whittle in the late 1980s where a series of six trenches was excavated, three on the outer circuit, two in the middle circuit, and one on the inner circuit (Anon 1990: 218). The finds from the ditch deposits were numerous, and included major groupings of cattle bone associated with a variety of other deposits including sheep/goat remains, pottery, flint, sarsen, chalk and stone objects. In addition, an adult male skeleton was discovered under the bank of the outer circuit (Whittle 1990). Further interpretation of Windmill Hill and implications for the use of the enclosure and the materials within it were discussed (Whittle and Pollard 1998), prior to the full publication and incorporation of the Keiller and Smith excavations (Whittle et al. 1999). Work would continue on the

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outside of the enclosure, where geophysical studies, combined with small-scale excavation of a concentration of Neolithic pits, yielded a variety of cultural material with similar characteristics to the material excavated from the pits and enclosure ditch segments close by (Whittle et al. 2000: 131).

As with Etton, only specific areas within the site, which may give an indication of the ways in which specific activities were carried out, will be discussed in order to demonstrate the differences in activity between enclosure ditch circuits and their respective segments. The assemblage as a whole will be discussed in separate categories of material culture, within a broader perspective in order to demonstrate the wide range of the placement of finds. This will be followed by indicating specific areas at Windmill Hill where activities may have taken place. The separate enclosure circuits have been interpreted thus far as having these defining characteristics (Whittle et al. 1999: table 197):

Outer Ditch (OD)

Articulated animal bone groups (including entire burials of pig and goat), human bone including infant burials; decorated pottery vessels with carinations and plain with heavy rims; flint tools more frequent by percentage; scrapers and axe fragments more common here than elsewhere; unworked antler more frequent.

Middle Ditch (MD)

Articulated groups of cattle bone; dog bone groups; pottery includes large percentage of uncarinated decorated vessels; high densities of pottery generally; worked sarsen, worked bone and antler, and carved chalk more frequent here than elsewhere.

Inner Ditch (ID)

Large scale deposition of groups of fully processed bone in dark soil; articulated bone groups rare; high density of flint; denticulated flakes and knives proportionately more frequent. Middening in the interior?

The ways in which cultural material was placed in the enclosure ditches may equate to how Neolithic groups who came to the enclosure viewed their world, and thus visually showed those connections through specific objects located within the enclosure ditches. These include the suggestion that the enclosure may have been used as a 'map' (Whittle and Pollard 1999: 387), where 'central concepts' such as "inclusion, transition, transformation, sociality, domesticity or domesticness, relationships with the natural world especially with animals, the life cycle and its renewal through time" were expressed (Whittle and Pollard 1999: 386). All of these

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concepts would no doubt have been present during the use of the enclosure in varying ways and places and at different times.

The intention here, as in the previous analysis on the above causewayed enclosures, is to seek out the specific areas of Windmill Hill in order to indicate places where particular kinds of activity took place. In so doing I intend to try and challenge the assumption of Windmill Hill as not just being a site ‘where a multitude of activities took place’, but a place where specific activities took place within specific parts of the enclosure, where people indicated their place in the world through the placement of objects which were important to them in spiritual and economic spheres.

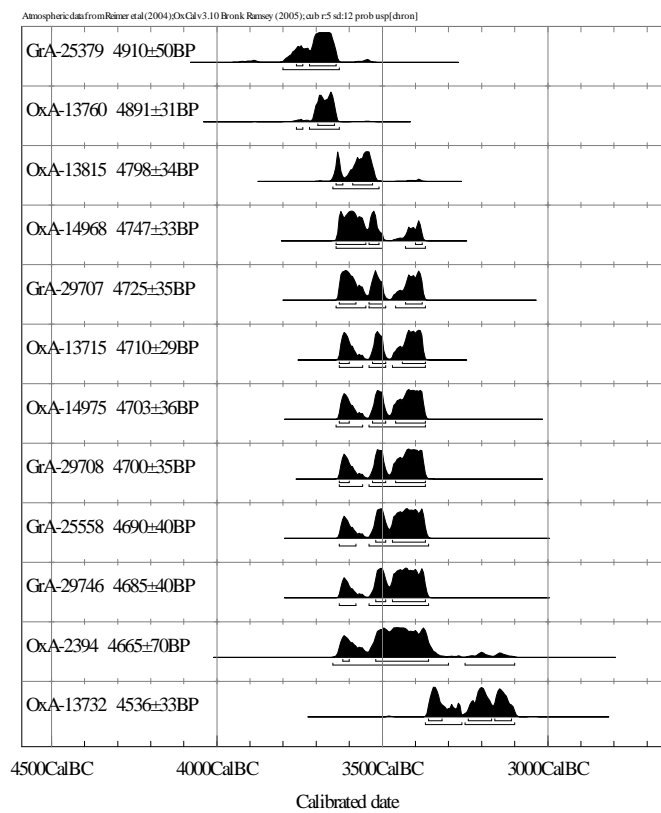
5.14.3 *Chronology and dating*

The 18 radiocarbon dates and their context within the main report of Windmill Hill suggest that there are three or four chronological phases which can be seen as indicators of intermittent human presence on the site (Ambers and Housley 1999: 118-9). Evidence for the first of these phases occurs around samples OxA-2406 and BM-73 and suggests that activity was occurring before the construction of the site in the first half of the fourth millennium (Ambers and Housley 1999: 119). The second phase is suggested by OxA-2394 from the inner ditch, OxA-2395 to OxA-2398 and BM-2670 from the middle circuit, and OxA-2399, OxA-2401, OxA-2402 and BM-2669 from the inner circuit; they indicate that the enclosure ditches were constructed during the middle of the fourth millennium (Ambers and Housley 1999: 119). About the same time the skeleton located within Trench BB (OxA-2403 and OxA-2404) may have been interred (Ambers and Housley 1999: 119). Overall the radiocarbon dates are taken by Ambers and Housley to suggest that “the enclosure was laid out as one, or at least that the three ditch layout developed very quickly” (Ambers and Housley 1999: 120). The third and fourth phases may be ‘nebulous’ and may suggest a post-constructional phase as indicated by OxA-2405 and BM-2671, although the stratigraphy within Trench BB seems to refute this (Ambers and Housley 1999: 120). The fourth phase, similarity to the third phase, is suggested by BM-2672 and BM-2673, both from a secondary context, but may also be associated or overlap with the third phase (Ambers and Housley 1999: 120). Whittle et al. (1999) seem not to be in agreement with the interpretations and/or these radiocarbon results. Based upon their observation of Trench BB as noted above, they suggest that the sequence of

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constructional events: “might be that a primary enclosure was laid out consisting of the inner and middle ditches, which were added to after a short interval by the rather different outer circuit; a miniature primary bank may have been laid out whilst activity continues in its area, which was later replaced by the substantial earthwork of the outer circuit” (Whittle and Pollard 1999: 352).

The new radiocarbon determination programme seems to have made significant inroads to the complex sequence of construction and usage of Windmill Hill (Whittle et al.: in prep.). The following figures and tables derive from the radiocarbon programme dates and are separated into inner (13 dates) (Tables 5.7 and 5.8), middle (25 dates) (Tables 5.9 and 5.10) and outer (22 dates) (Tables 5.11 and 5.12) enclosure ditch circuits. They suggest that “the first circuit at Windmill Hill was excavated in 3700–3640 *cal BC* (95% probability). The inner ditch was constructed in 3685–3635 *cal BC* (95% probability). The outer circuit was constructed in 3685–3610 *cal BC* (95% probability). The middle circuit was constructed in 3655–3605 *cal BC* (95% probability). It is 69% probable that the inner ditch was dug first, and it is 88% probable that the middle ditch was dug last”. It is also suggested that “the main use of the Windmill Hill enclosure as represented by this selection of non-residual and short-life samples from the primary and lower secondary ditch fills continued for 290–390 years (94% probability). It appears that this phase of deposition ended in 3365–3295 *cal BC* (94% probability). The model estimates that this main phase of deposition ended in all three ditches in the middle decades of the 34th century *cal BC*. This ending seems to represent a change in the use of the enclosure, rather than a complete cessation of activity” (Whittle et al.: in prep.).



<u>Lab No.</u>	<u>Date Cal BC Sigma 1 (68%)</u>	<u>Date Cal BC Sigma 2 (95%)</u>
GrA-25379	3760-3640	3800-3630
OxA-13760	3695-3645	3760-3630
OxA-13815	3640-3530	3650-3510
OxA-14968	3640-3380	3640-3370
GrA-29707	3630-3380	3640-3370
OxA-13715	3630-3370	3630-3370
OxA-14975	3630-3370	3640-3370
GrA-29708	3630-3370	3630-3370
GrA-25558	3520-3370	3630-3360
GrA-29746	3520-3370	3630-3360
OxA-2394	3620-3360	3650-3100
OxA-13732	3360-3110	3370-3100
GrA-25560	3340-3100	3360-3030

Table 5.7 Windmill Hill Inner Ditch calibrated radiocarbon dates

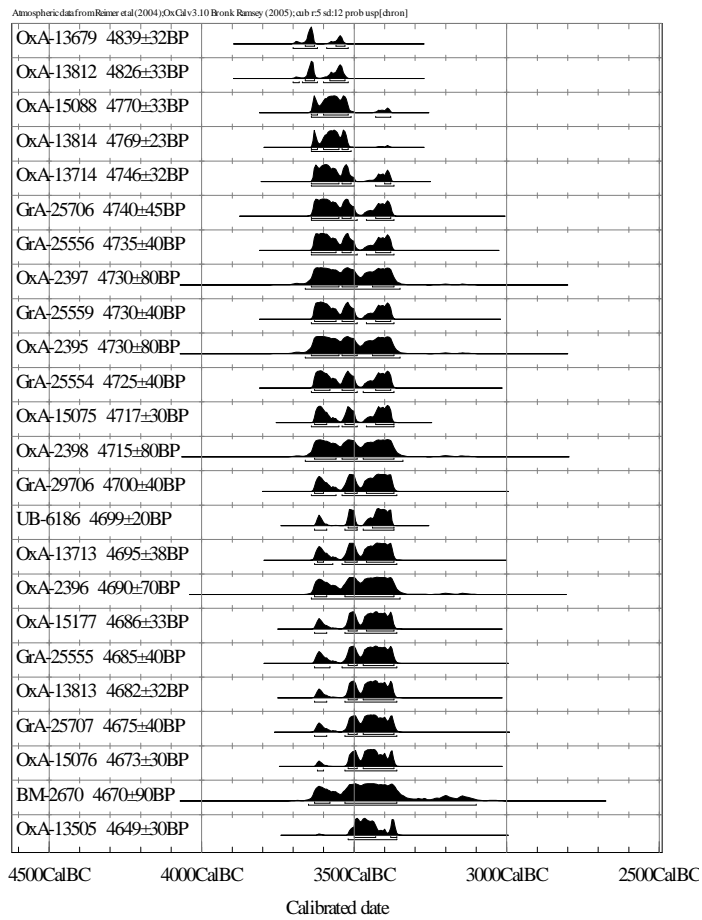
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GrA-25379	Single fragment of <i>Corylus avellana</i> charcoal	From same find as OxA-13760
OxA-13760	Single fragment of <i>Corylus avellana</i> charcoal	Inner Ditch VII, ditch bottom. From a sample of comminuted chalk with charcoal collected from bottom of ditch, beneath spit 5. The segment is described by Pollard (1999, 53–56). From same find as GrA-25379
OxA-13815	Red deer antler beam with trez tine	Inner Ditch VII, spit 5, at 4.5 ft (1.37 m). The relevant entry in the Keiller catalogue is annotated 'in chalk rubble at foot of ditch'. Spit 5 (4 ft to base) was the lowest and the antler at this depth would have been close to the base (Pollard 1999, 53–56, figs 50–52). Stratified above GrA-25379 and OxA-13760, from same spit as 'fine deerhorn pick' (B24; not found 2003–5), GrA-29746, GrA-29708
OxA-14968	Pig. One of two fitting R metatarsals	Inner ditch XII, spit 2b. Spit 2 was 1ft–2 ft below the surface and was the middle spit of three in a shallow segment. There is no record of the fills, although there were five distinct and substantial bone groups in spits 2 and 3 (Smith 1965a pl. Va; Pollard 1999, 61– 63, figs 49, 53, 59–60). The pottery from spit 2 was mainly Bowl, with one sherd of Peterborough Ware (Zienkiewicz and Hamilton 1999, table 166)
GrA-29707	Cattle. Complete R femur, articulating with R tibia (B340), also complete and in identical condition	Inner ditch XVI, spit 3a. Spit 3 lay at 2 ft – 3 ft and was the antepenultimate one (Pollard 1999, 53–56, figs 49, 53, 54). The pottery from the spit was mainly Bowl with 5 sherds of Peterborough Ware and four of indeterminate ?Late Neolithic/early Bronze Age (Zienkiewicz and Hamilton 1999, table 166). Close to the SW butt, a cattle pelvis, femur, tibia and astragalus, all complete, lay close together in this layer (Pollard 1999, 56; Smith 1965a, pl. Vb). The present sample almost certainly equates to the femur from this group
OxA-13715	Sheep/goat. L humerus, articulating with radius (WH26 B22.b)	From same spit as OxA-13732, found with dog skull B22.a.
OxA-14975	Single fragment of <i>Corylus avellana</i>	From the same spit as OxA-13815 and same sample as GrA-29746, extracted from sample of chalk with charcoal fragments
GrA-29708	Red deer antler tine with worn, battered tip, charred towards junction with beam	From the same spit as OxA-13815
GrA-25558	Dog mandible, found with skull fragments	Inner Ditch VII, spit 4 (0.70–1.00 m). From same spit as OxA-13732, found with sheep/goat longbones B22.b, 22.c.
GrA-29746	Single fragment of <i>Corylus avellana</i>	From the same spit as OxA-13815 and same sample as OxA-14975
OxA-2394	Cattle. Sixth cervical vertebra	Inner Ditch XVII, Trench F. The only bone in silt lens 613, within primary chalk rubble 612, closes to base of ditch. Stratified below contexts 629 and 630 (Whittle <i>et al.</i> 1999, fig. 95)
OxA-13732	One of several large, well-preserved joining Neolithic Bowl sherds with internal residue. Replicate of GrA-25391	Inner Ditch VII, spit 4 (0.70–1.00 m; joining sherds recorded at depths between 2.3 and 3 ft (0.30–0.90 m). Spit 4 was the penultimate one, and probably included parts of the primary and secondary fills (Pollard 1999, 53–56). 1 sherd Beaker and 2 sherds EBA present in spit, as well as much Bowl
GrA-25560	Cattle. R proximal metatarsal fragment found in articulation with R navicular and posterior cuneiform (WH88 6420/ B1342, B1343; Whittle <i>et al.</i> 1999, fig. 97: 9, 26)	Inner Ditch XVII, Trench F, bone heap 630 on surface of context 610 (the topmost layer of primary chalk rubble fill). Stratified above context 613, in uncertain relation to context 629 (Whittle <i>et al.</i> 1999, figs 95, 96)

Table 5.8 Radiocarbon samples and context from Windmill Hill Inner Ditch (ID) (Whittle *et al.*: in prep)

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Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (98%)
OxA-13679	3660-3550	3700-3520
OxA-13812	3660-3530	3700-3520
OxA-15088	3640-3520	3640-3380
OxA-13814	3640-3520	3640-3510
OxA-13714	3640-3380	3640-3370
GrA-25706	3640-3380	3640-3370
GrA-25556	3640-3380	3640-3370
OxA-2397	3640-3370	3660-3350
GrA-25559	3630-3380	3640-3370
OxA-2395	3640-3370	3660-3350
GrA-25554	3630-3380	3640-3370
OxA-15075	3630-3370	3640-3370
OxA-2398	3630-3370	3660-3340
GrA-29706	3630-3370	3640-3360
UB-6186	3520-3370	3630-3370
OxA-13713	3620-3370	3630-3360
OxA-2396	3630-3370	3640-3350
OxA-15177	3520-3370	3630-3360
GrA-25555	3520-3370	3630-3360

OxA-13813	3520-3370	3630-3360
GrA-25707	3520-3370	3630-3360
OxA-15076	3520-3370	3620-3360
BM-2670	3630-3360	3650-3100
OxA-13505	3500-3360	3520-3360

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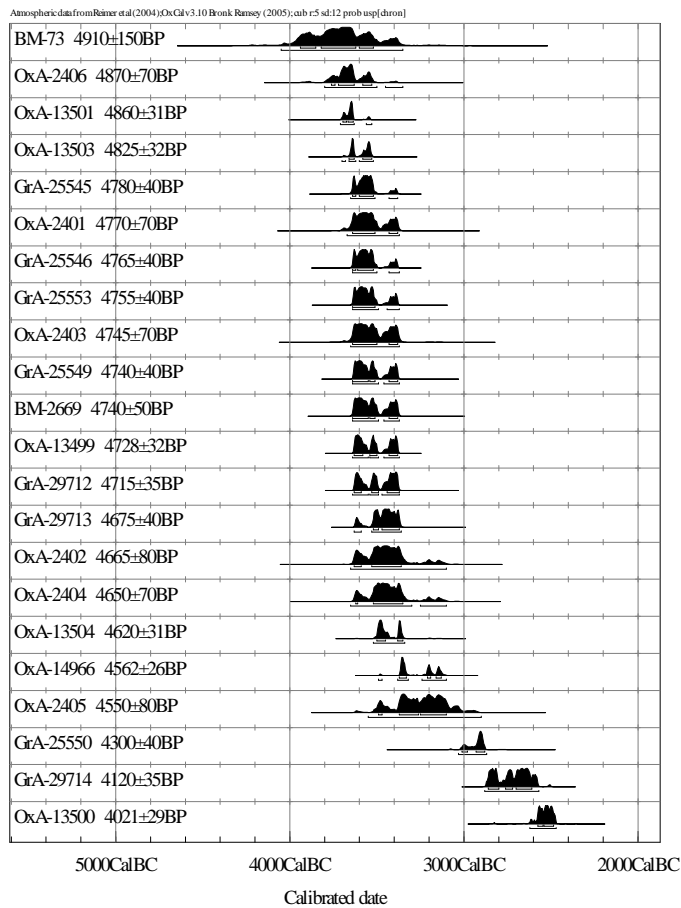
Table 5.9 Windmill Hill Middle Ditch calibrated radiocarbon dates

OxA-13679	Cattle. R scaphoid, articulating with R magnum (also B372)	Middle Ditch IB, spit 3 (0.60–0.90 m). This was the antepenultimate spit and would probably have been mainly in the secondary fills (Pollard 1999, 47–50, fig. 42 bottom left). At a higher level than spit 4
OxA-13812	Vertebrae and long bones from one toad (extracted from larger collection from all parts of body — no duplicates present)	From same spit as GrA-25559. At this depth, the toad would probably have been near the top of the primary fills, an unlikely depth for a hibernation death
OxA-15088	Replicate of UB-6186, OxA-15075, -15076, GrA-29706	From same context as BM-2670
OxA-13814	Cattle. R radius articulating with ulna (WH88 4329/B1761). Mistakenly entered as such on submission form. Replicate of OxA-14967	Middle Ditch, Trench D, context 416 (Whittle <i>et al.</i> 1999, fig. 86). Overlying initial silt 417 in angle of ditch base and wall, overlying ditch bottom elsewhere, incorporating bone deposit 418. Stratified below context 414
OxA-13714	Medium mammal. Rib section, from different L rib to GrA-25556	From same context as OxA-2397. One of several interleaved rib fragments composed of WH88 4241 (B1442), 4225 (B1441), 4234 (B1459–64), 4235 (B1446), 4236 (B1456–7), 4241 (B1442), 4242 (B1449), 4243 (B1447), 4244 (B1444), 4245 (B1445), 4247 (B1448), 4238 (B1435), 4251 (B1452), 4255 (B1458), 4256 (B1454–5) (Whittle <i>et al.</i> 1999, figs 86, 87)
GrA-25706	Cattle, R radius, articulating with R ulna (WH88 4331/B1733)	From same context as OxA-13814.
GrA-25556	Medium mammal rib section, from different L rib to sample for OxA-13714	From same context as OxA-2397, -13714
OxA-2397	Cattle. Scapula	Middle Ditch, Trench D, bone deposit 414 in layer 411 (Whittle <i>et al.</i> 1999, figs 86, 87). Stratified above context 416 and below context 413
GrA-25559	Cattle. R magnum, articulating with R scaphoid (also B374).	Middle Ditch IB, spit 4 (3 ft–4 ft (0.90–1.20 m)). This was the penultimate spit and would probably have been mainly in the upper part of the primary fill (Pollard 1999, 47–50, fig. 42 bottom left). At a higher level than spit 5 and a lower level than spit 3. Sample may have come from same deposit as R cattle carpals from spit 3 in same segment, which immediately overlay spit 4
OxA-2395	Pig. Humerus	From same context as GrA-25368
GrA-25554	Red deer antler beam with trez tine, cut below tine, very smooth.	Middle Ditch IB, spit 5A (4 ft – 5 ft (1.20 m–1.50 m)). This was the lowest spit and would have been within the primary fills (Pollard 1999, 47 – 51, fig. 41). At a lower level than spit 4
OxA-15075	Replicate of UB-6186, OxA-15076, -1508, GrA-29706	From same context as BM-2670
OxA-2398	Cattle (?aurochs). Calcaneum	Middle Ditch, Trench D, bone deposit 413 in layer 411 (Whittle <i>et al.</i> 1999, figs 86, 88). Stratified above context 414
GrA-29706	Replicate of UB-6186, OxA-15075, -15076, 15088	From same context as BM-2670
UB-6186	Red deer antler base with brow tine, pick	From same context as BM-2670
OxA-13713	Cattle. Lunate from same forelimb as anterior cuneiform, hamatum (both I2291/B43, B44), and pisiform (I2310/B55)	Middle Ditch XII, trench E, lower part of bone deposit 525 in lower part of context 508 at top of primary fills (Whittle <i>et al.</i> 1999, 99–101, figs 89, 93). Hamatum and cuneiform close together, in same find. Lunate c. 0.10 m away. Stratified above context 527, stratigraphically equivalent to contexts 523, 510
OxA-2396	Pig. Scapula	From same context as GrA-25368

OxA-15177	Cattle. L humerus articulating with scapula from partial cattle skeleton (Murray 1999, fig. 44)	Middle ditch, IVB, spits 4 (2.3–3.5 ft) and 5 (3.5 ft – base). Mentioned in letter from Keiller to Childe 6/3/28: 'a skeleton, which has taken nearly eight months to reconstruct, of an almost complete ox including head, on the forehead of which are curious markings, apparently artificial, from the bottom two layers of cutting IV of the Middle Ditch of Windmill Hill'. No further surviving record (Pollard 1999, 42). 'Curious markings' on forehead are faint horizontal line crossed by several parallel oblique lines. The occurrence of the skeleton in two successive spits means that it extended from the lower spit into the upper
GrA-25555	Cattle. R magnum from complete set of 5 R carpals, articulating	From same spit as GrA-25559. Sample may have come from same deposit as R cattle carpals from spit 3 in same segment, which immediately overlay spit 4. At a higher level than spit 5 and a lower level than spit 3
OxA-13813	Cattle. Part of one of 4 fragmentary dorsal vertebrae (the others are find 4188 (B1593–8)	From same context as OxA-2398 (Whittle <i>et al.</i> 1999, fig 88: 11, 12)
GrA-25707	Cattle. 6th lumbar vertebra found together with 5th lumbar vertebra and sacrum from same animal	From same context as OxA-13713
OxA-15076	Replicate of UB-6186, Ox-15075, -15088, GrA-29706	From same context as BM-2670
BM-2670	Cattle. Tibia	Middle Ditch, Trench D, bone deposit 418 within layer 416, between a cattle skull, which overlay it, and the ditch base (Whittle <i>et al.</i> 1999, fig. 86).
OxA-13505	Dog. 4 articulating R metacarpals from a substantial part of an articulated skeleton, if not a complete one. There are, for example, numerous articulating vertebrae	From same spit as OxA-13679

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Table 5.10 Radiocarbon samples and context from Windmill Hill Middle Ditch (MD) (Whittle *et al.*: in prep.)



Lab No.	Date Cal BC Sigma 1 (68%)	Date Cal BC Sigma 2 (95%)
BM-73	3940-3520	4050-3350
OxA-2406	3760-3530	3800-3350
OxA-13501	3695-3635	3710-3530
OxA-13503	3660-3530	3700-3520
GrA-25545	3640-3520	3650-3380
OxA-2401	3640-3380	3670-3370
GrA-25546	3640-3520	3640-3370
GrA-25553	3640-3510	3640-3370
OxA-2403	3640-3380	3650-3370
GrA-25549	3640-3380	3640-3370
BM-2669	3640-3380	3640-3370
OxA-13499	3630-3380	3640-3370
GrA-29712	3630-3370	3640-3370
GrA-29713	3520-3370	3630-3360
OxA-2402	3630-3360	3650-3100
OxA-2404	3620-3350	3650-3100

OxA-13504	3500-3350	3520-3340
OxA-14966	3370-3130	3490-3100
OxA-2405	3490-3100	3550-2900
GrA-25550	3010-2880	3030-2870
GrA-29714	2860-2610	2880-2570
OxA-13500	2575-2485	2620-2470

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Table 5.11 Windmill Hill Outer Ditch calibrated radiocarbon dates

BM-73	Bulk sample of unidentified charcoal	Outer Bank V, old land surface under (Smith 1965a, 28). Denis Grant King's original section drawing (Alexander Keiller Museum 78510392) shows location of 'sample charcoal' under W, clearly-bedded, part of bank in S face of cutting
OxA-2406	Cattle. Vertebra	Outer Bank V, Trench BB, surface of soil (747) under 'setting out bank' (750), (Whittle <i>et al.</i> 1999, figs 69–71).
OxA-13501	Cattle, 1 of several caudal vertebrae, with unfused epiphyses	Outer Ditch IB, spit 7 (6 ft–7 ft (1.80–2.10 m). This was the penultimate spit and would have been within the primary fills (Pollard 1999, fig. 26: top left)
OxA-13503	Cattle. Proximal metatarsal fragment (B18), articulating with complete navicular (B19) and complete cuneiform (B20)	From same context as OxA-2399, lying c. 0.35 m from a cattle frontlet, approx. 1 m above ditch base (Whittle <i>et al.</i> 1999, fig. 81, fig. 82: 8)
GrA-25545	Cattle. R magnum articulating with hamatum (both B370) and with metacarpal B441 from spit 6	From same spit as OxA-13501
OxA-2401	Cattle. Astragalus.	Outer Ditch IV, Trench C, bone deposit 321 within layer 320. Compact group almost entirely of cattle bones, many of them conjoining or articulating. In secondary silts silt overlying primary rubble and silt fills (Whittle <i>et al.</i> 1999, figs 83, 84). Stratified below context 317.
GrA-25546	Large mammal. Part of 1 of 3 interleaved proximal rib fragments (WH88 1688 (B5330), 1686 (B5337), 1687 (B5338))	Outer Ditch, Trench A, bone group 115 in top of layer 111 (Whittle <i>et al.</i> 1999, 90). Stratified above context 117
GrA-25553	Cattle. Proximal phalanx from same foot as another from same context (WH88 23201/B4613)	From same context as BM-2669. This sample and the other proximal phalanx from the same foot were not found in articulation, but c. 0.25 m apart, lying one at either end of cattle tibia shaft WH88 23200 (Whittle <i>et al.</i> 1999, fig. 78: 2, 5, 6)
OxA-2403	Human. Rib of adult male	Outer Bank V, Trench BB, from articulated skeleton lying on minimal amount of chalk silt on base of grave cut through pre-bank soil. Some parts of the skeleton were displaced. This, numerous amphibian bones, and some rodent bones suggest that the grave was left open before backfilling. The near-vertical sides of feature, which show possible slight weathering-back only at the very top, suggest that this was not for long. Stratified below sample for OxA-2404 (Whittle <i>et al.</i> 1999, figs 70, 73, 76). Sections published by both Whittle <i>et al.</i> (1999, fig. 70) and Smith (1965, fig. 4) both suggest that the grave was grave at the tail of the clearly-bedded W part of the bank, not necessarily covered by it
GrA-25549	Plain shell-tempered Neolithic Bowl body sherd with internal residue under chalky deposit. In fresh condition, including the ancient breaks, which are covered by the same skin of chalky deposit as the faces. No sign of weathering	From same context as OxA-13499 and beside it
BM-2669	Cattle. Tibia shaft	Outer Ditch V, Trench B, bone deposit 229, between layers 228 and 210, within a few cm of ditch base (Whittle <i>et al.</i> 1999, fig. 78: 6). Stratified above samples on ditch base and below context 210

OxA-13499	Plain shell-tempered Neolithic Bowl body sherd with internal residue under chalky deposit. In fresh condition, including the ancient breaks, which are covered by the same skin of chalky deposit as the faces. No sign of weathering	Outer Ditch V, bottom of ditch, beside sample for GrA-25549. Stratigraphically earlier than context 229
GrA-29712	Cattle. L metatarsal shaft with fitting unfused epiphyses (10454), articulating with navicular (10464), which articulates with posterior cuneiform (10477) (Whittle <i>et al.</i> 1999, 12, 18, 19)	From same context as OxA-2401
GrA-29713	Cattle, 1 of 3 articulating dorsal vertebrae, 2 with fitting unfused epiphyses (Whittle <i>et al.</i> 1999, fig. 84: 7)	From same context as OxA-2401
OxA-2402	Cattle. Humerus	From same context as OxA-2401
OxA-2404	Pig. Scapula	Outer Bank V, Trench BB, layer 733, topmost fill of grave 707, in base of which was sample for OxA-2403. It is unclear whether 733 was backfill or soil accumulated in a hollow formed by the subsiding fill. Overlain by chalk rubble of bank. Stratified above sample for OxA-2403 (Whittle <i>et al.</i> 1999, fig. 73)
OxA-13504	Large mammal. Part of 1 of 3 interleaved proximal rib fragments	From same rib bundle and same context as GrA-25546
OxA-14966	Human. Sample from L ilium of articulated skeleton of child of 2–3 years (Smith 1965a, pl. VIIIa). Replicate of GrA-29711	Outer ditch IIIB, spit 5 (4 ft–5 ft). IIIB was the central part of the segment, which encompassed two subsegments and a higher ridge between them. The skeleton lay on the base of the ditch in its shallowest part, against the inner side (Smith 1965a, 9; Pollard 1999, 30–34)
OxA-2405	Cattle. Humerus	Outer Bank V, Trench BB, on surface of soil 705 sealed by tail of outer bank, beyond limits of possible original bank (Whittle <i>et al.</i> 1999, figs 69–71).
GrA-25550	Pig. L ilium from new-born piglet, many of whose bones were found together (hind legs, pelvis, some vertebrae, some ribs); finds 23059 (B3783), 23067 (B3817), ?23063 (B3792)	Outer Ditch V, Trench B, bone deposit in context 210 (Whittle <i>et al.</i> 1999, 86; Grigson 1999, 189). Stratified above context 229 and below context 227
GrA-29714	Single fragment of <i>Corylus</i> charcoal	Outer Ditch IV, Trench C, context 305? This was a compact grey chalky silt with scattered chalk, derived from the interior, containing (Whittle <i>et al.</i> 1999, fig. 83). Stratified below context 321 The find is recorded as from 308, but good agreement with OxA-14965 and the fact that this date is later than those of overlying articulated samples in bone deposit 321 suggests that there may have been an error in transcribing the final digit of the context and that the sample may in fact have come from 305
OxA-13500	Dog. Metatarsal articulating with proximal phalanx 23107 (B560)	Outer Ditch V, Trench B, bone deposit 227 on surface of 210 (Whittle <i>et al.</i> 1999, 82–85, fig. 79: 36; Grigson 1999, 189, 231). There are 3 further dog proximal phalanges and 1 further metatarsal from same context (WH88 23078 (B478), 23103 (B468), 23157 (B470), 23159 (B443)), including an articulating metatarsal (23103) and phalanx (23078), probably from same foot as this sample (Whittle <i>et al.</i> 1999, 82–85, fig. 79: 30, 36, 46, 48; Grigson 1999, 189, 231). These were not articulated but lay in an area approx. 0.40 m across. The deposit included 1 sherd of Ebbsfleet Ware and 1 of Neolithic Bowl (Zienkiewicz 1999, 272, table 156). Stratified above layer 210 and below the interface of Smith's layers 3 and 4

Table 5.12 Radiocarbon samples and context from Windmill Hill Outer Ditch (OD) (Whittle *et al.*: in prep)

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5.15 Deposition at Windmill Hill

Windmill Hill is known for the large and wide range of objects from its enclosure ditch segments. Domestic and wild animal bone, human bone, pottery, flint, sarsen, and chalk objects were all found during each of the excavation seasons (1925-9, 1957-8, and 1988). In addition to the finds above, what made Windmill Hill so 'unique' are the numerous placements of articulated animals and humans within the enclosure ditch segments, rarely seen on such a scale at other contemporary sites. The information presented below on each type of object located within Windmill Hill is not meant to replicate what has already been said (Whittle et al. 1999), but instead is intended to give a brief overview of the quantity and placement of objects in the enclosure, before presenting areas at the site which may define specific types of activity. The smaller areas where specific types of activity took place can then be put into a wider context of the full range of objects deposited spatially and temporally (Figs. 5.3+0 to 5.7+0) at Windmill Hill.

The analysis of the cultural material has some limitations which are evident from the earlier excavations carried out from the early 20th century. Finds such as animal bone are not stated numerically, as are the other types of objects, within the main finds layer tables (Pollard 1999a: tables 1-51). The pottery is listed, but for some of the excavated enclosure ditch segments only a known number of combined sherds are given for some layers as an indication of the amount of pottery present (see Appendix 3). Thus, the animal bone for the Keiller excavations will be presented here in briefer form, as a sample of the early Neolithic assemblage, but the exact number and location where they were found is uncertain. Because of the differences in recording during the excavations in the 1920s it is unclear as to which layers correspond to a primary context, although it could be surmised that layers 4-6, or 3-5 in some segments, indicate a primary context where 'chalk rubble' denoted the 'floor' or bottom of a ditch as the main period of site usage during the early to middle Neolithic.

What follows below are areas within each circuit where specific activity may be shown to have occurred in order to indicate which circuits or enclosure ditch segments may have been used for different activities. These potential activities such

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as hideworking, butchery, flint knapping, and mortuary practice will be considered. Particular attention will be given to the ways in which the placement of material may have been used in order to better examine the ways in which activity was carried out within the enclosure ditch segments. Past interpretations of Windmill Hill have attempted to understand the site through the placement of objects within the enclosure ditches, mainly in order to interpret the site through structured deposition. This will be an attempt to understand Windmill Hill from the point of view of not only how structured deposition is important, but also to understand how changes in deposition over time and within specific areas of the site indicate who people were and what they did on the outside of the enclosure, which in the end contributed to the economics of activity within the enclosure.

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ID Layer 1

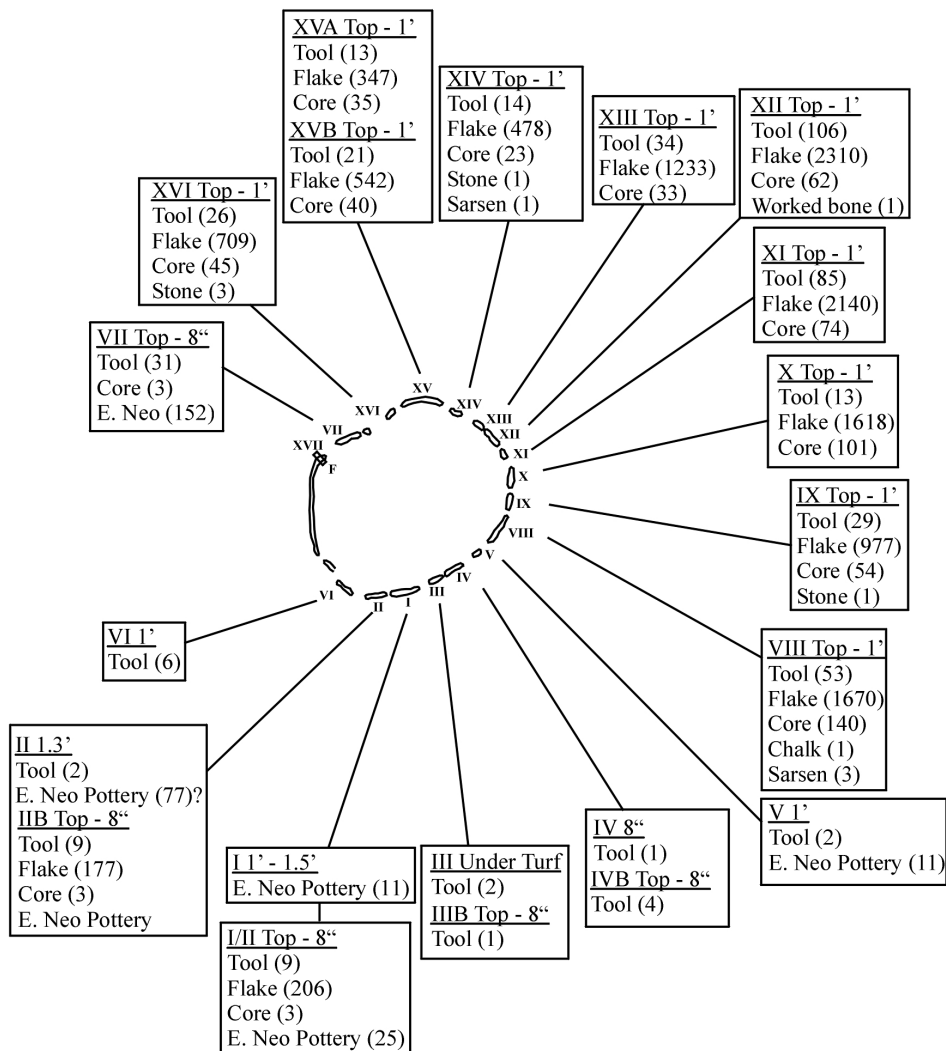


Figure 5.310 Windmill Hill, Inner Ditch, Layer 1 (after David et al 1999: fig. 14)

ID Layer 2

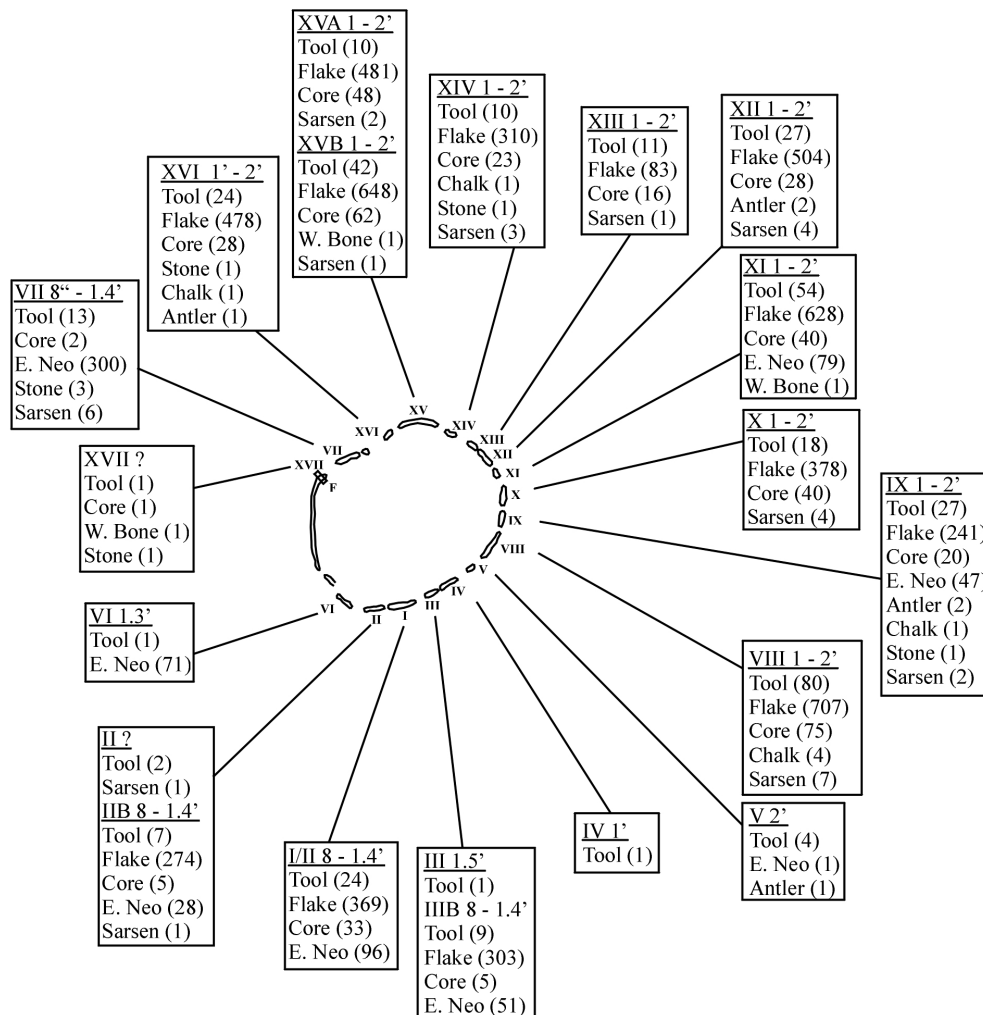


Figure 5.321 Windmill Hill, Inner Ditch, Layer 2 (after David et al 1999: fig. 14)

ID Layer 3

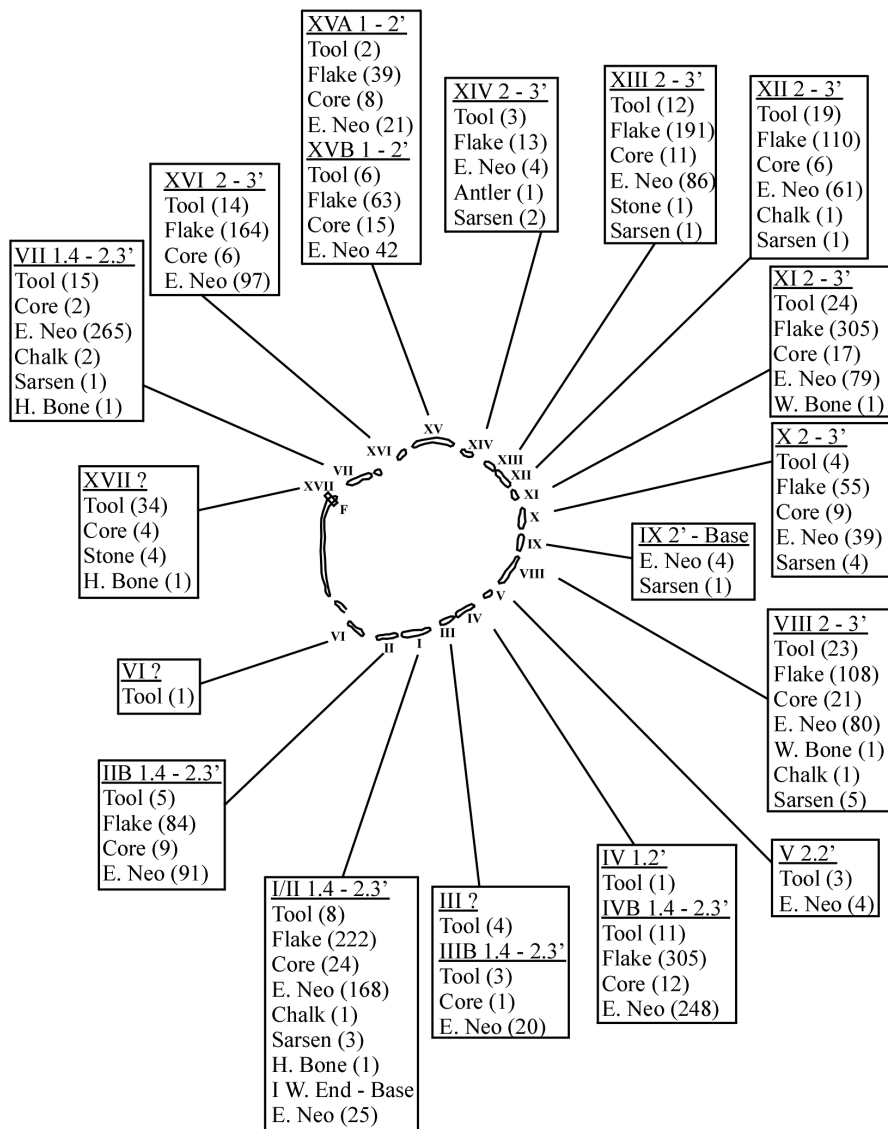


Figure 5.332 Windmill Hill, Inner Ditch, Layer 3 (after David et al 1999: fig. 14)

ID Layer 4

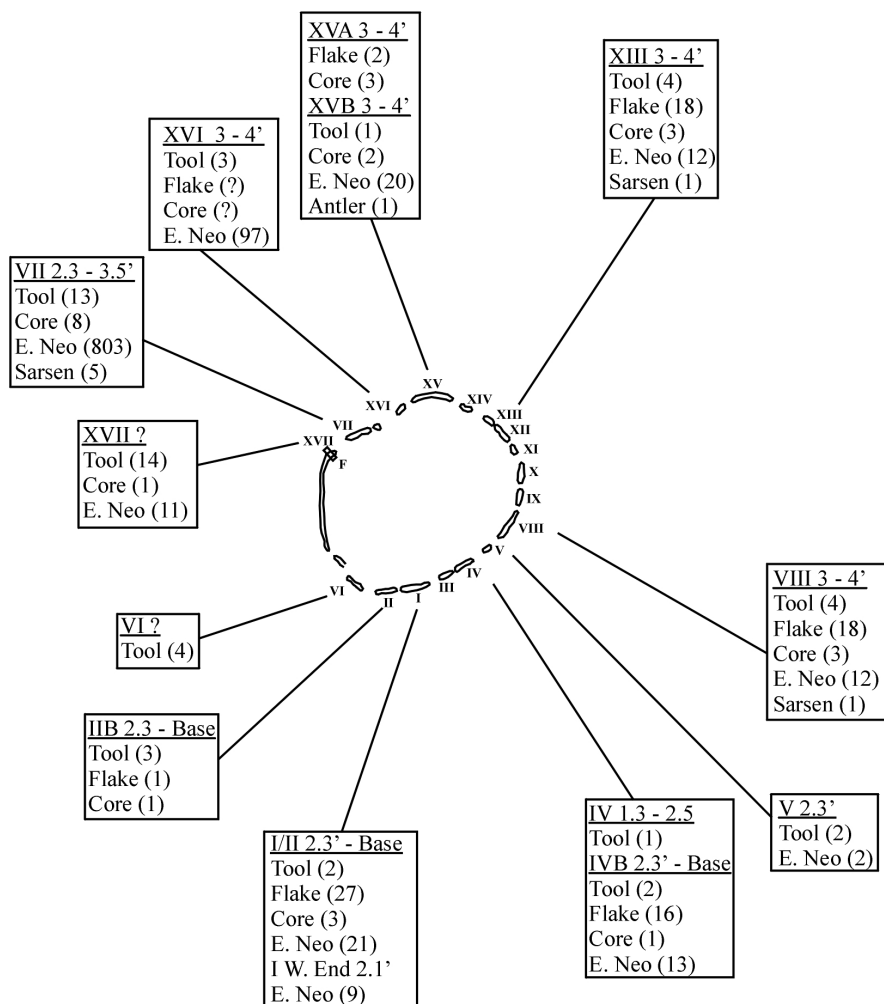


Figure 5.343 Windmill Hill, Inner Ditch, Layer 4 (after David et al 1999: fig. 14)

ID Layer 5

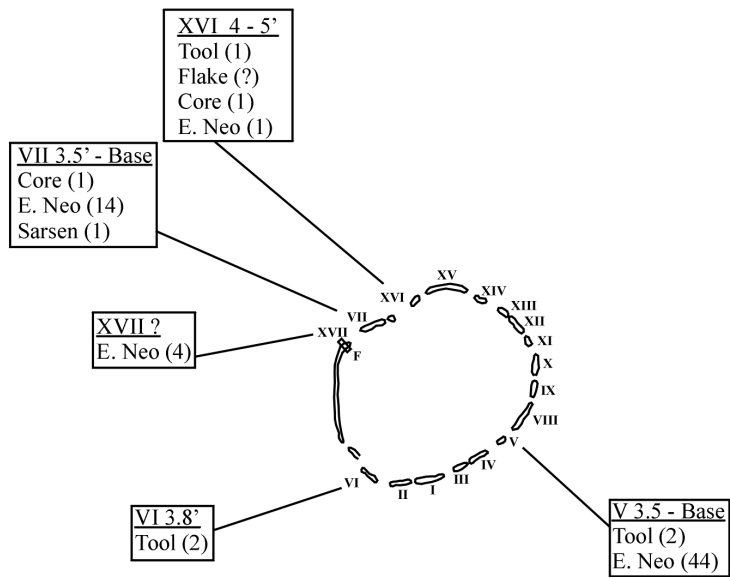


Figure 5.354 Windmill Hill, Inner Ditch, Layer 5 (after David et al 1999: fig. 14)

ID Layer 6

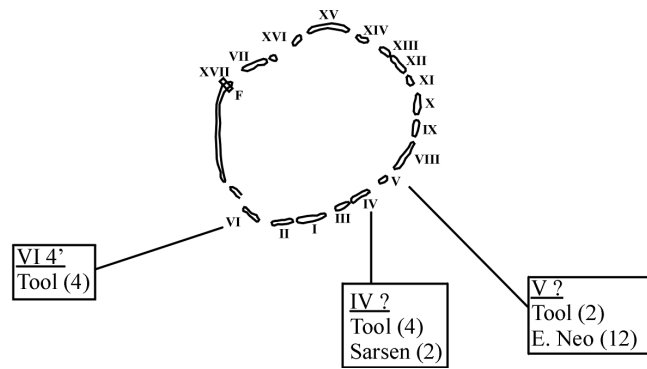


Figure 5.365 Windmill Hill, Inner Ditch, Layer 6 (after David et al 1999: fig. 14)

ID Re-fill/Re-excavate

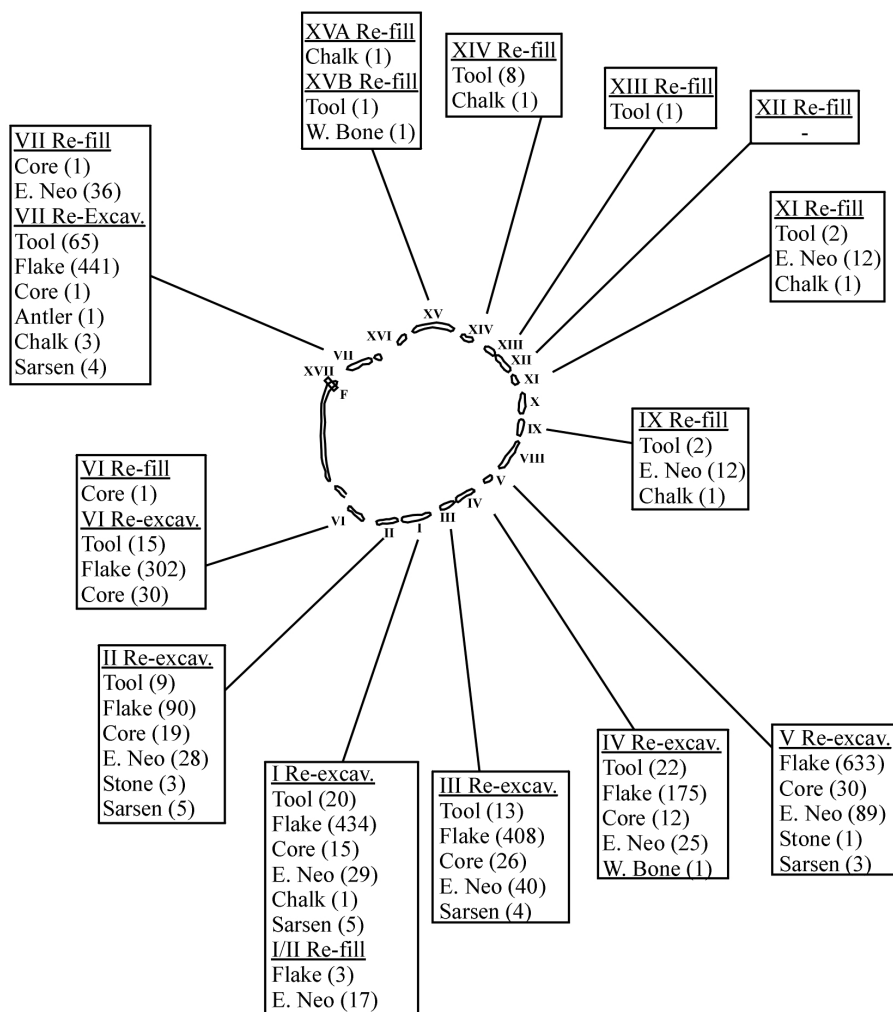


Figure 5.376 Windmill Hill, Inner Ditch, re-fill/re-excavate (after David et al 1999: fig. 14)

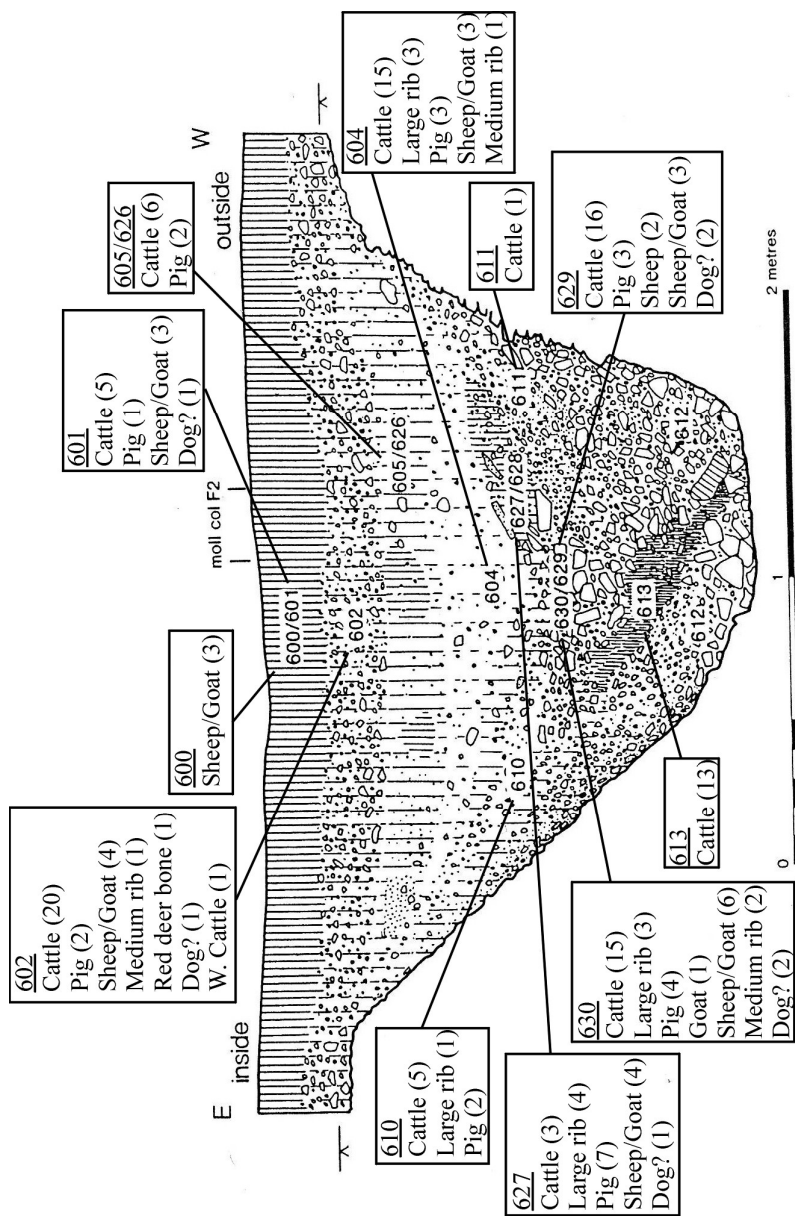


Figure 5.387 Windmill Hill, Inner Ditch, Trench F animal bone (after Whittle et al. 1999: fig. 95)

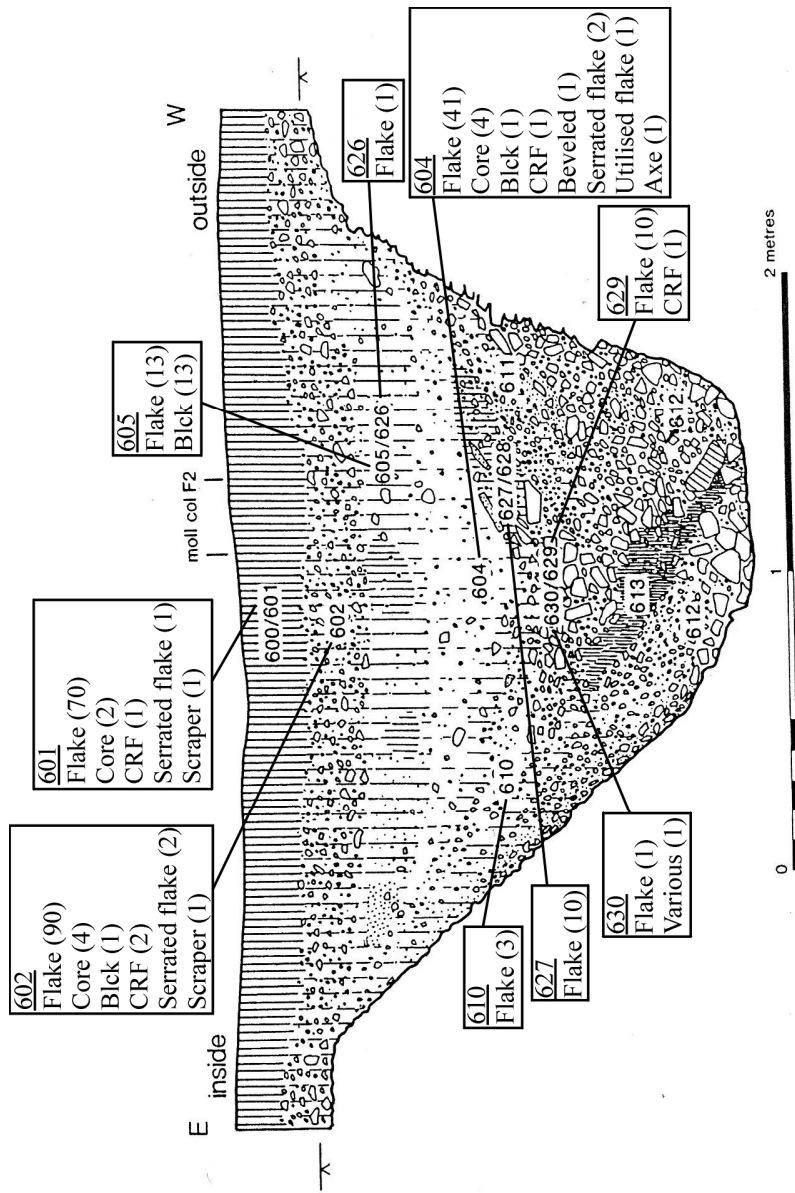


Figure 5.398 Windmill Hill, Inner Ditch, Trench F flint and stone (after Whittle et al. 1999: fig. 95)

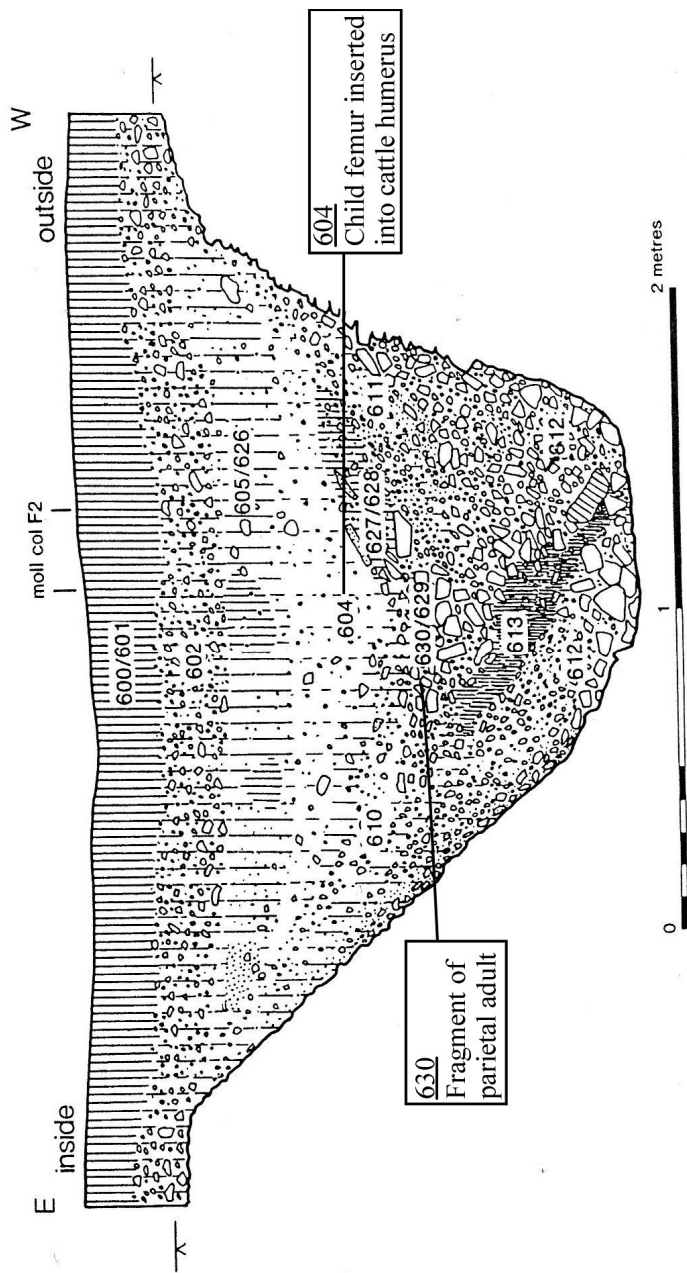


Figure 5.4039 Windmill Hill, Inner Ditch, Trench F human bone (after Whittle et al. 1999: fig. 95)

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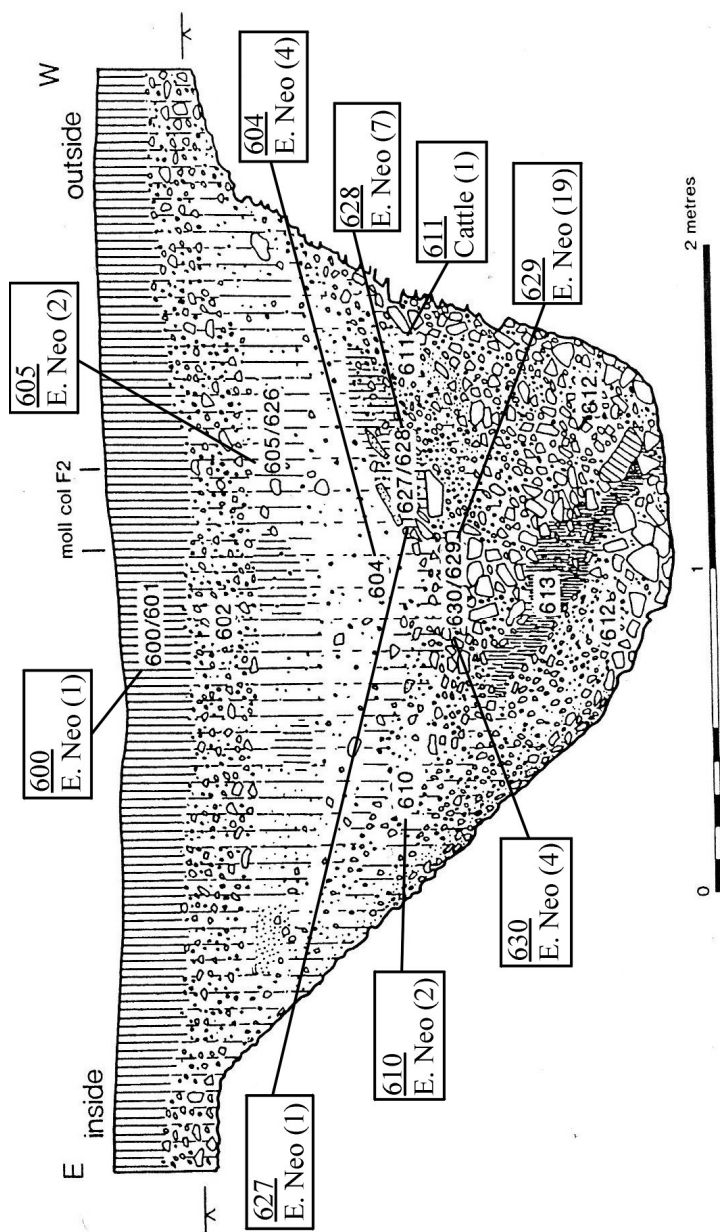


Figure 5.410 Windmill Hill, Inner Ditch, Trench F
Early Neolithic pottery (after Whittle et al. 1999: fig. 95)

MD Layer 1

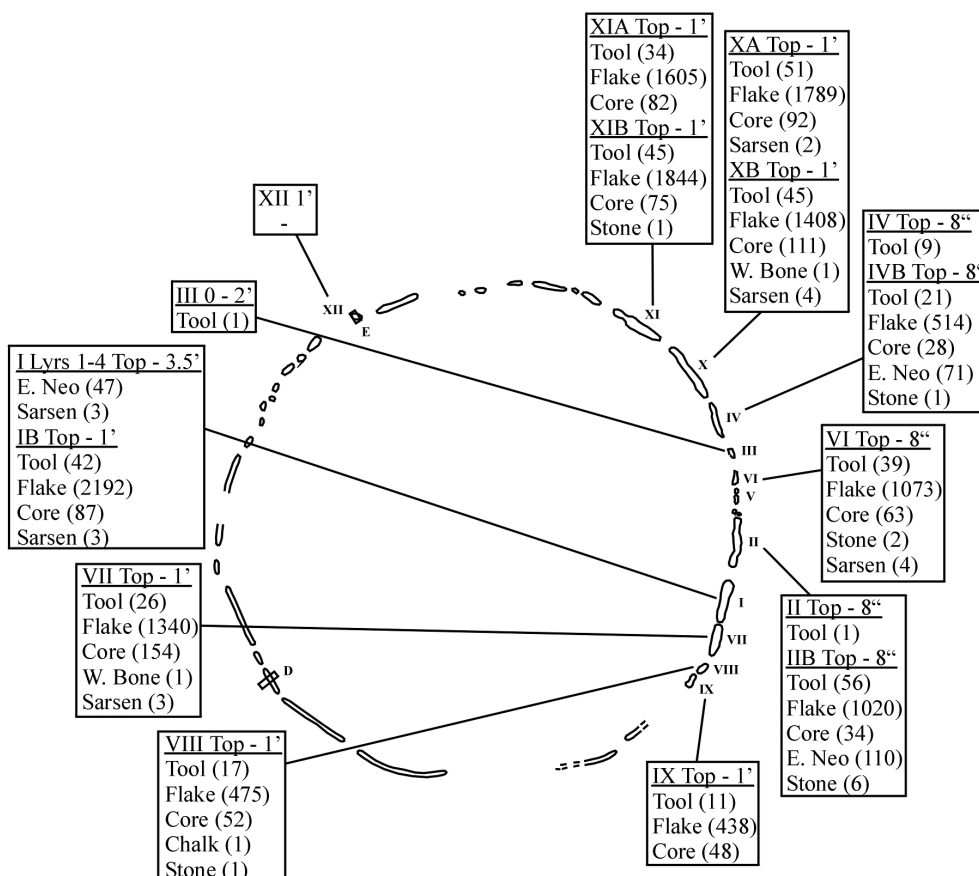


Figure 5.421 Windmill Hill, Middle Ditch, Layer 1 (after David et al 1999: fig. 14)

MD Layer 2

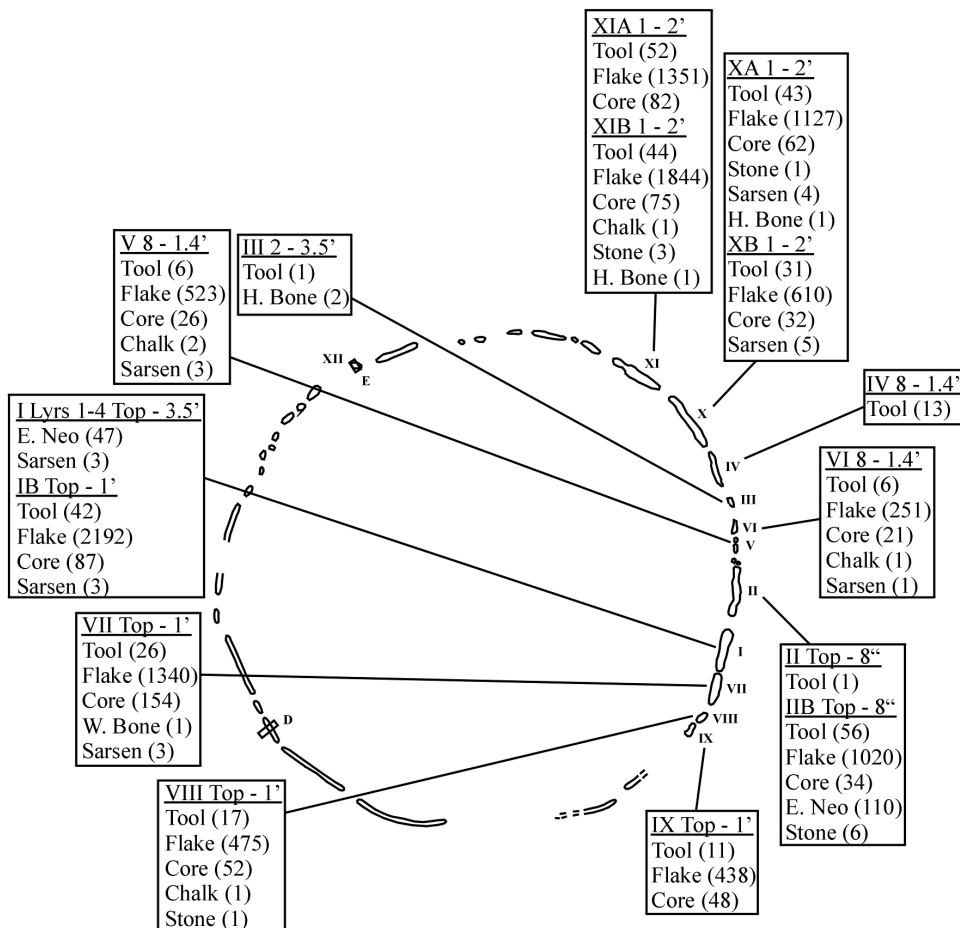


Figure 5.432 Windmill Hill, Middle Ditch, Layer 2 (after David et al 1999: fig. 14)

MD Layer 3

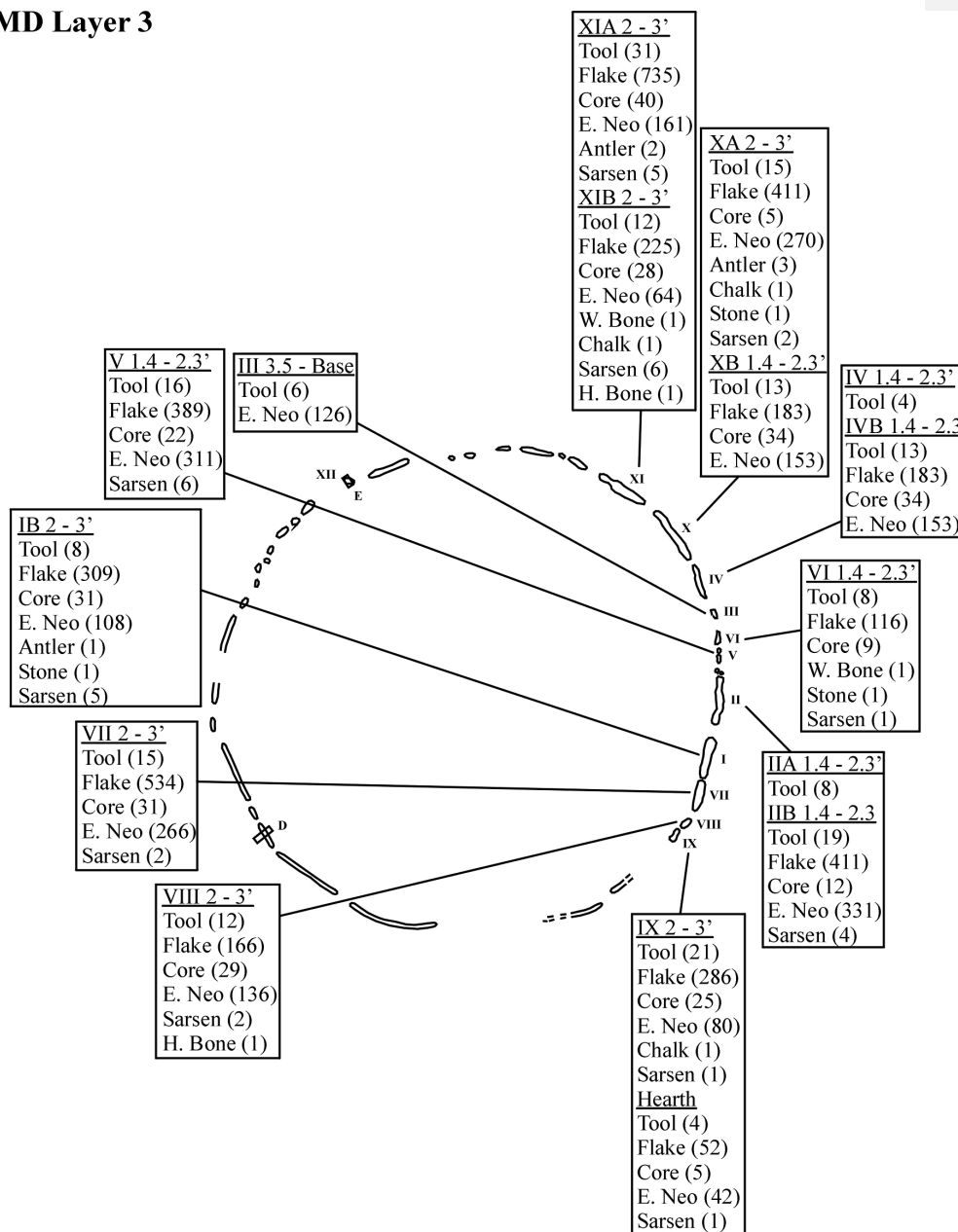


Figure 5.443 Windmill Hill, Middle Ditch, Layer 3 (after David et al 1999: fig. 14)

MD Layer 4

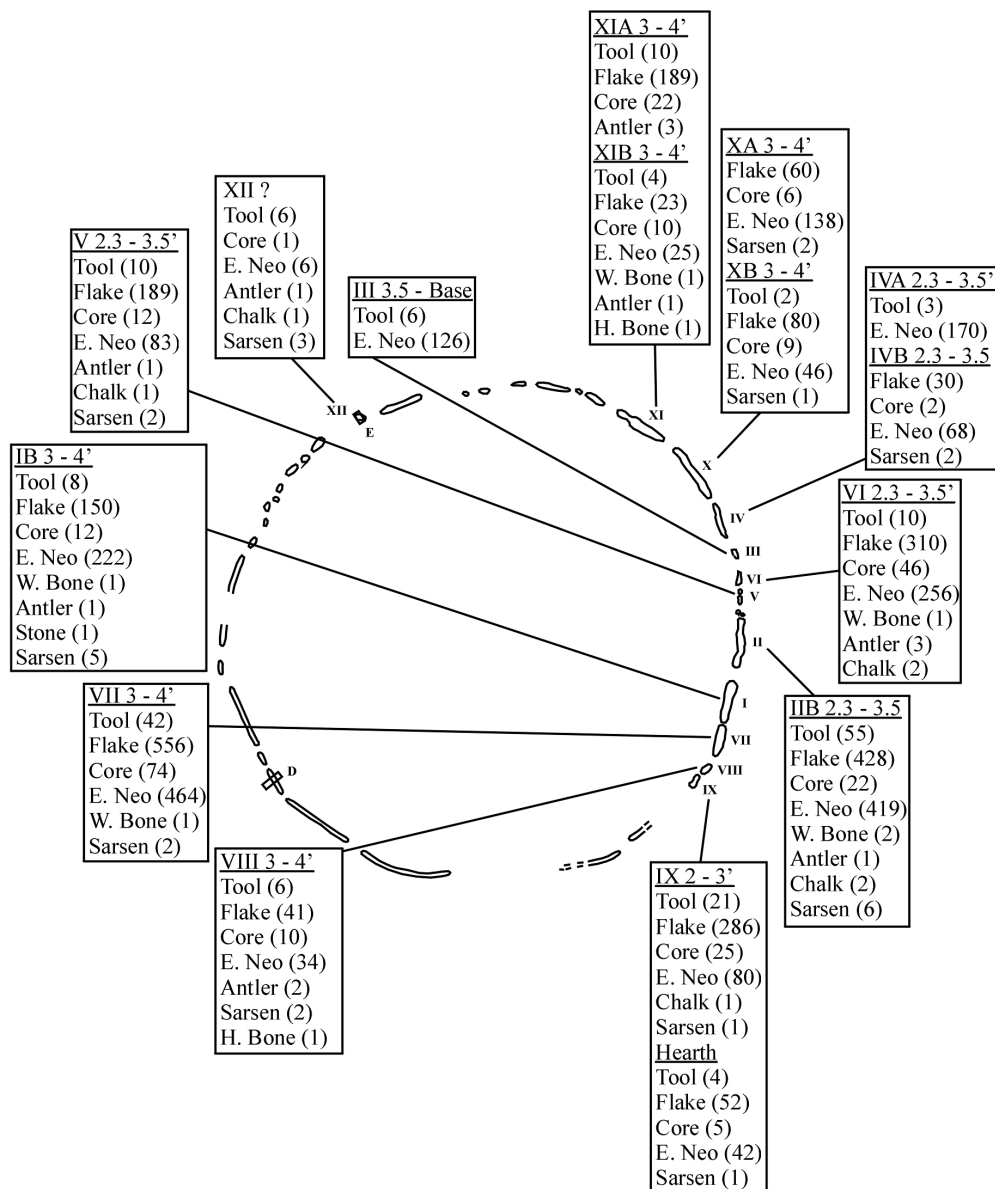


Figure 5.454 Windmill Hill, Middle Ditch, Layer 4 (after David et al 1999: fig. 14)

MD Layer 5

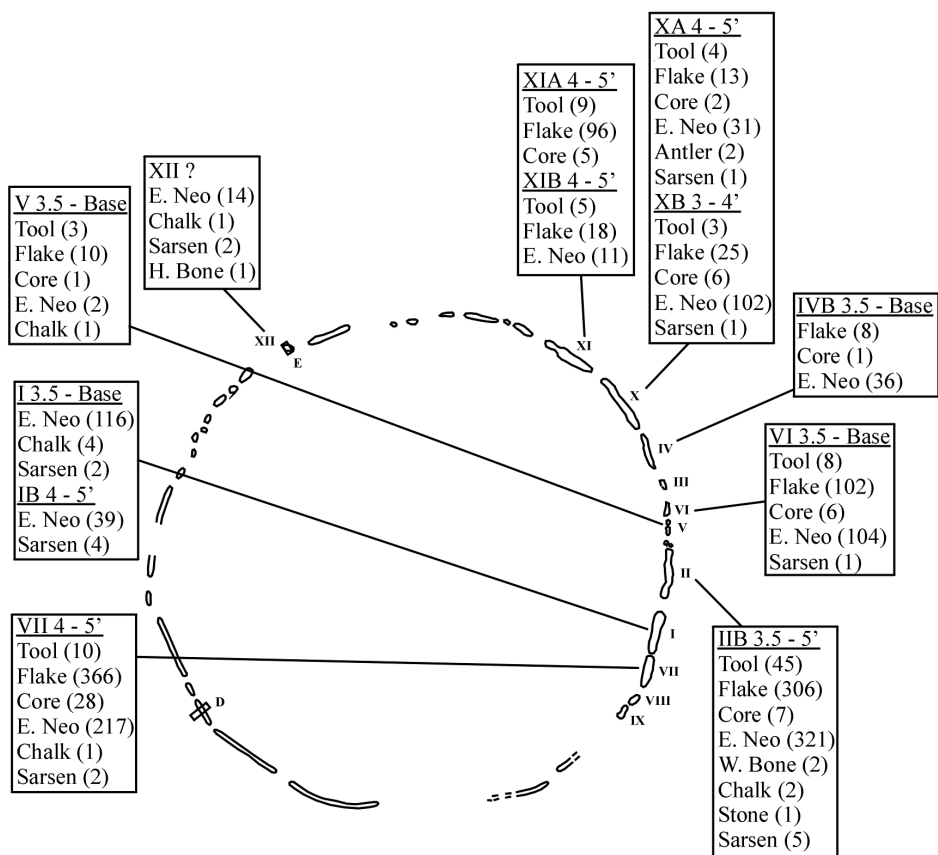


Figure 5.465 Windmill Hill, Middle Ditch, Layer 5 (after David et al 1999: fig. 14)

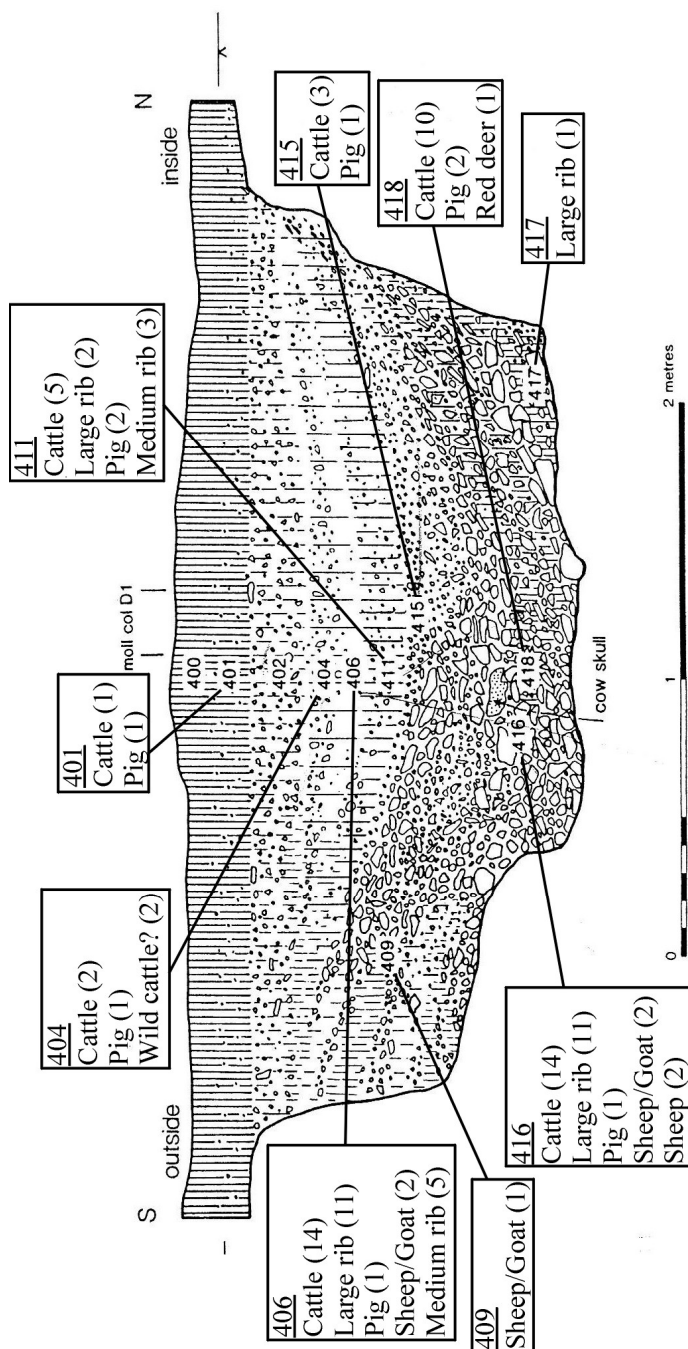


Figure 5.476 Windmill Hill, Middle Ditch, Trench D animal bone (after Whittle et al. 1999: fig. 86)

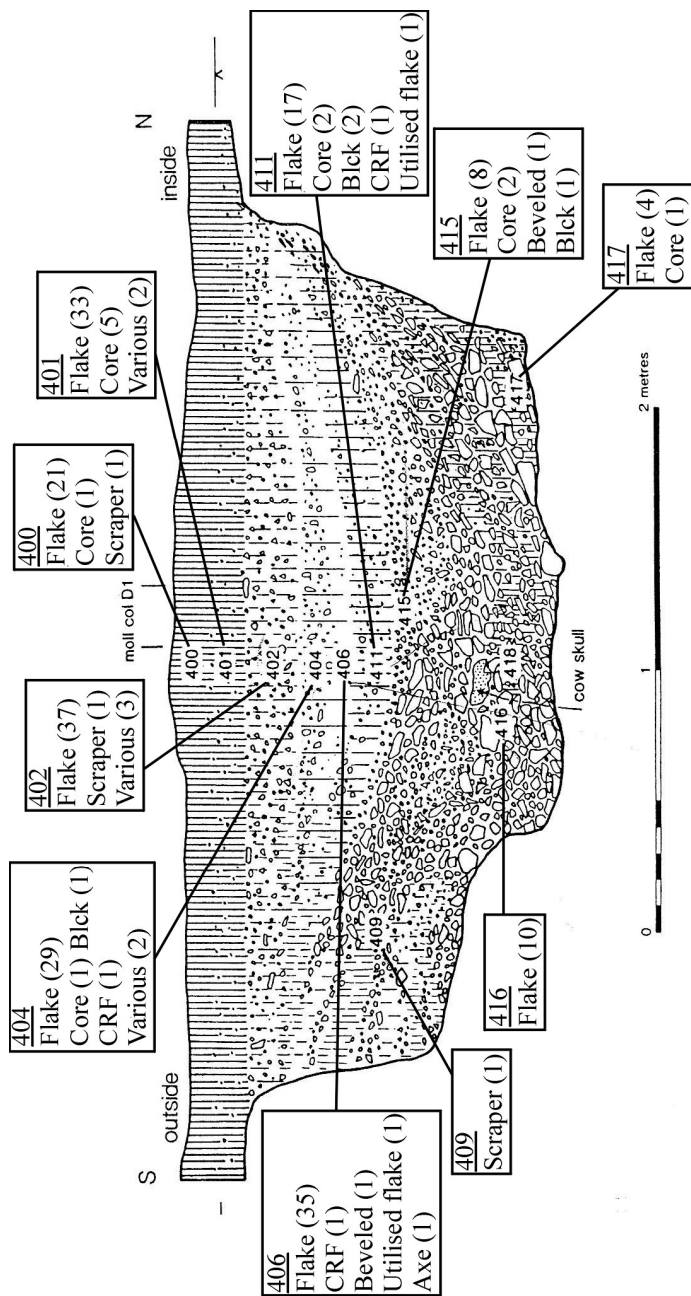


Figure 5.487 Windmill Hill, Middle Ditch, Trench D

flint and stone (after Whittle et al. 1999: fig. 86)

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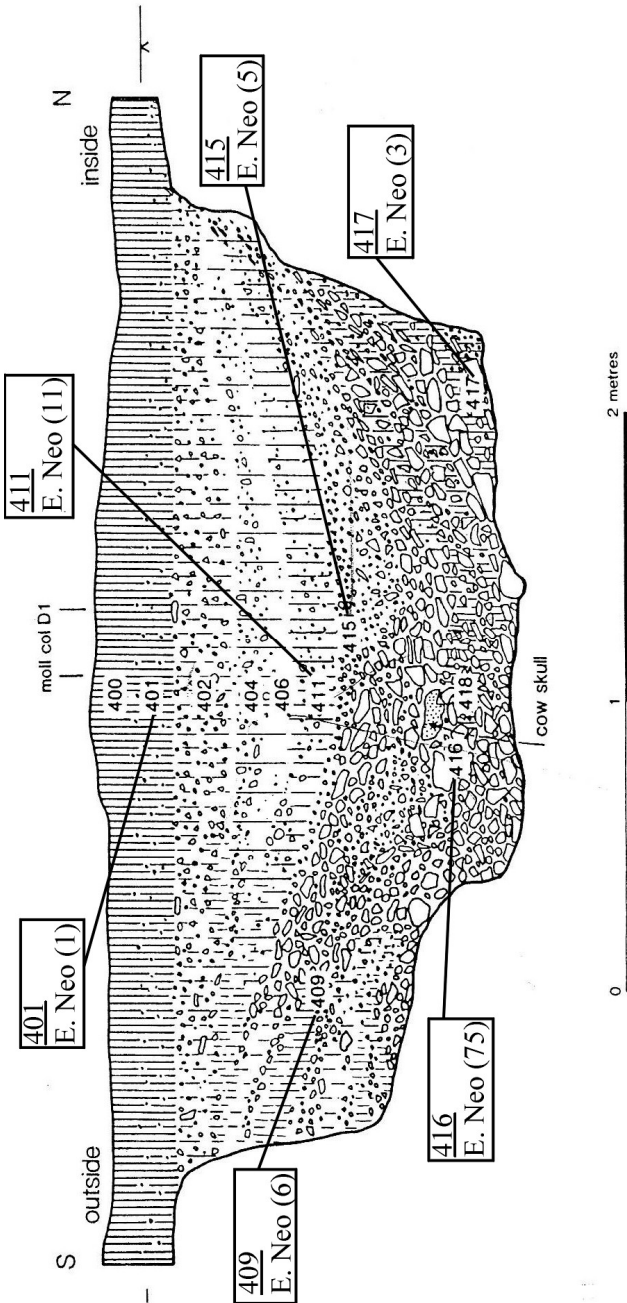


Figure 5.5049 Windmill Hill, Middle Ditch, Trench E
animal bone (after Whittle et al. 1999: fig. 89)

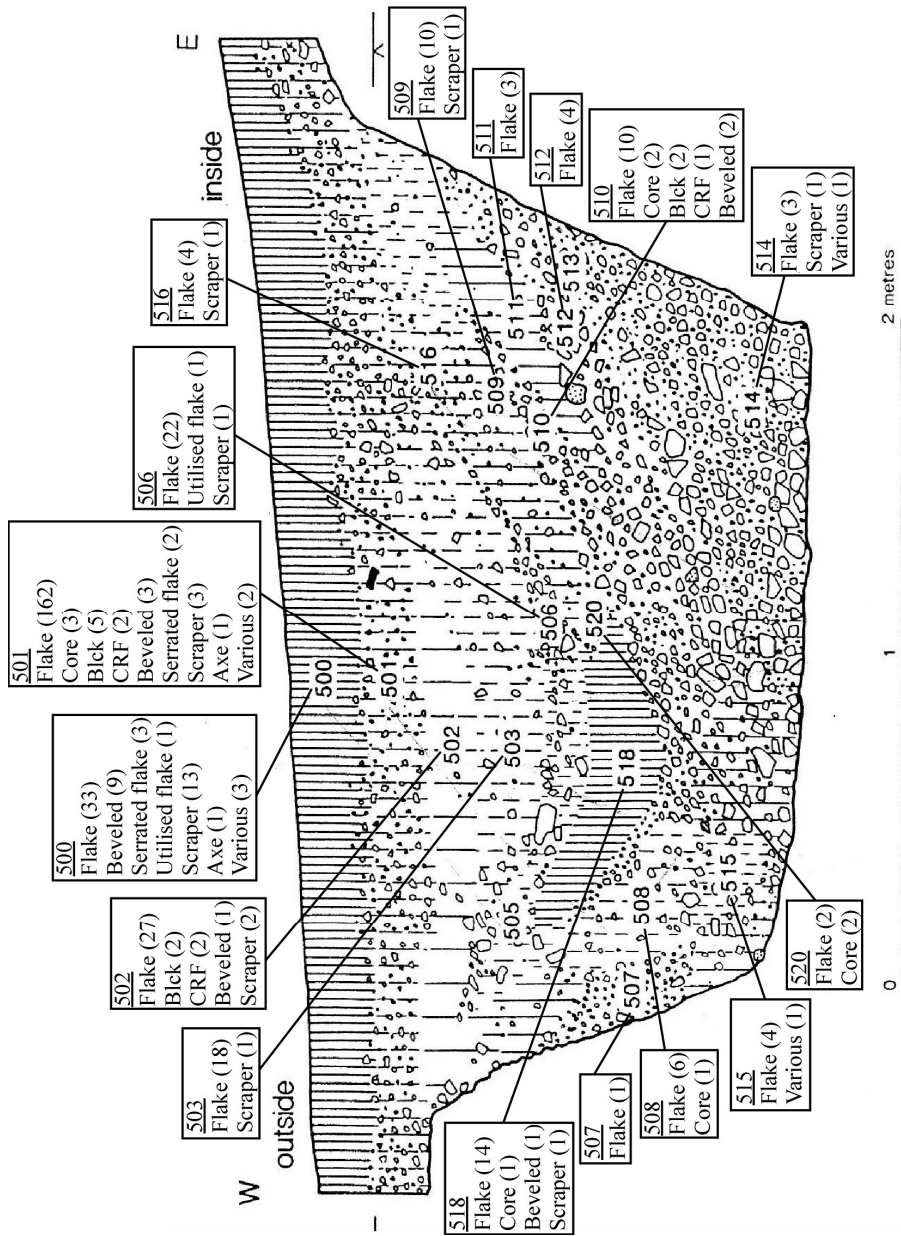


Figure 5.510 Windmill Hill, Middle Ditch, Trench E
flint and stone (after Whittle et al. 1999: fig. 89)

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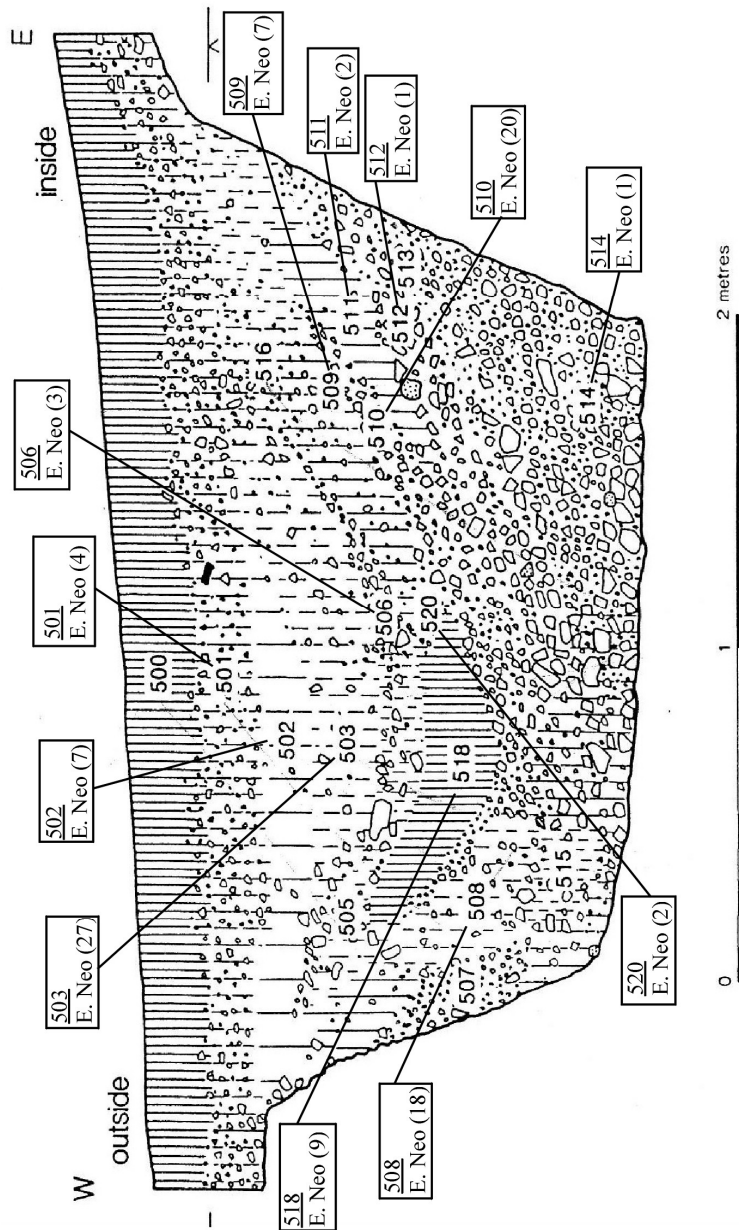


Figure 5.521 Windmill Hill, Middle Ditch, Trench E
Early Neolithic pottery (after Whittle et al. 1999: fig. 89)

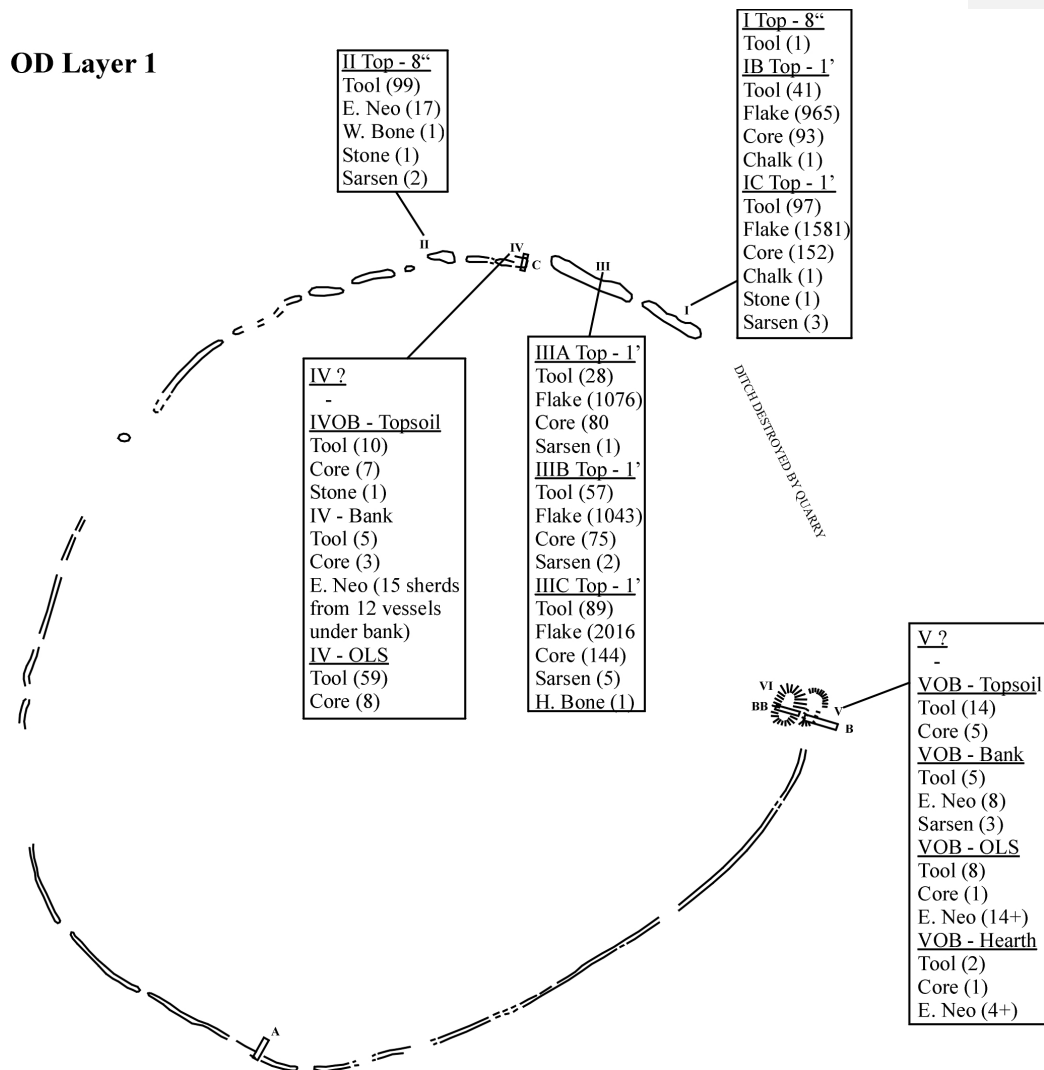


Figure 5.532 Windmill Hill, Outer Ditch, Layer 1 (after David et al 1999: fig. 14)

OD Layer 2

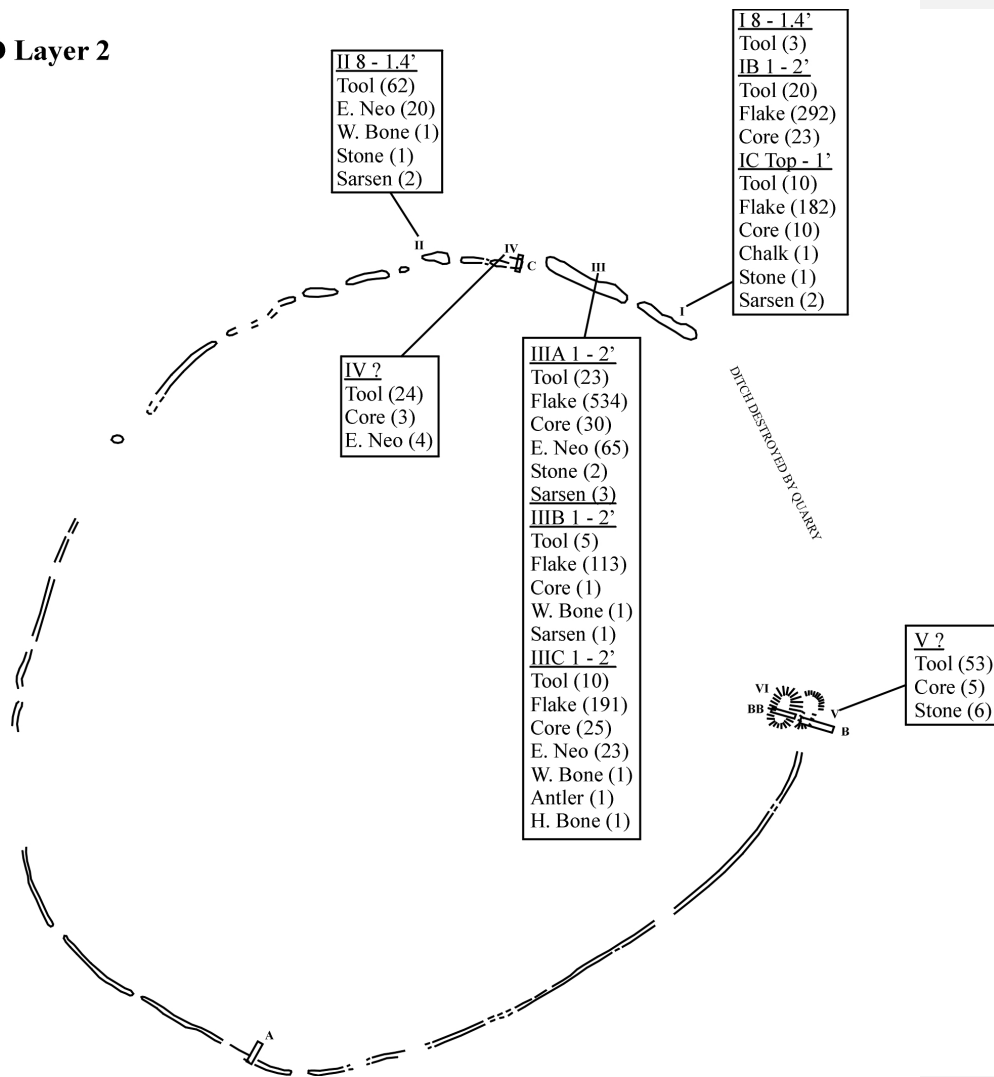


Figure 5.543 Windmill Hill, Outer Ditch, Layer 2 (after David et al 1999: fig. 14)

OD Layer 3

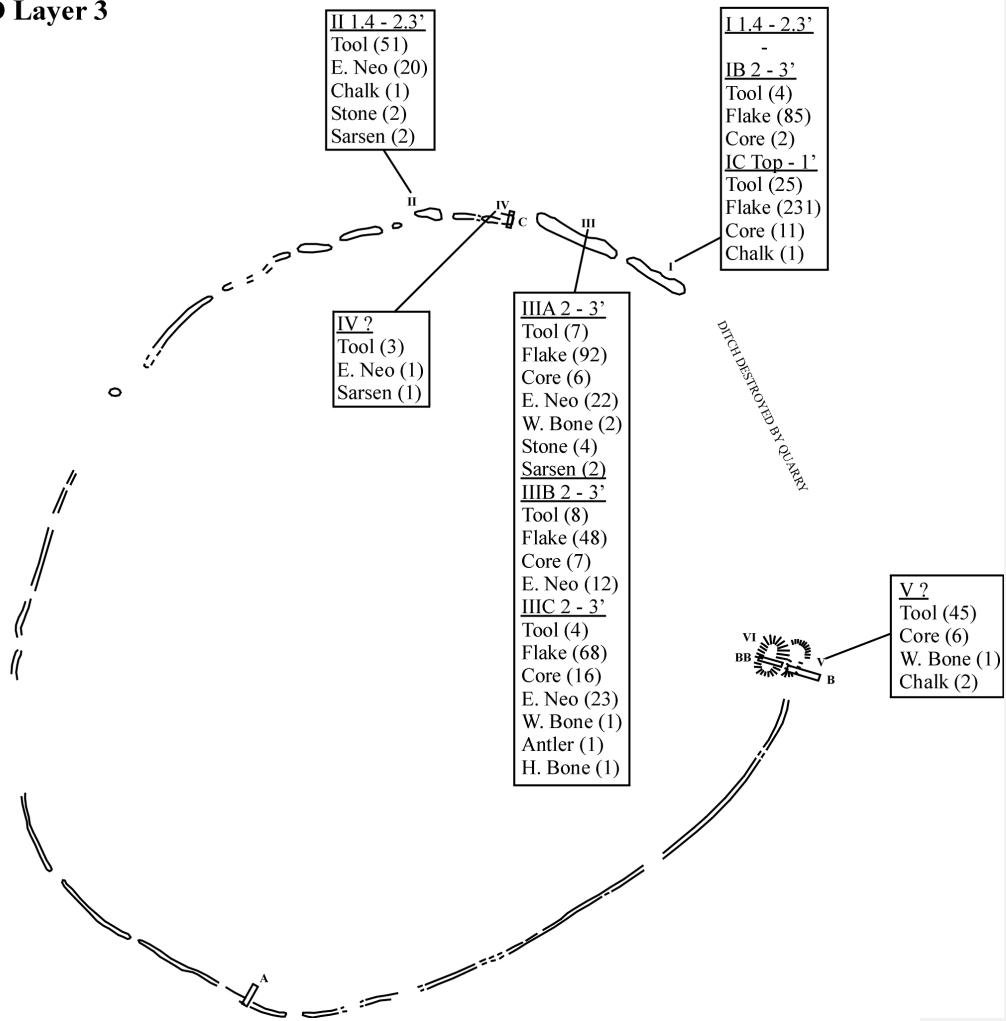


Figure 5.554 Windmill Hill, Outer Ditch, Layer 3 (after David et al 1999: fig. 14)

OD Layer 4

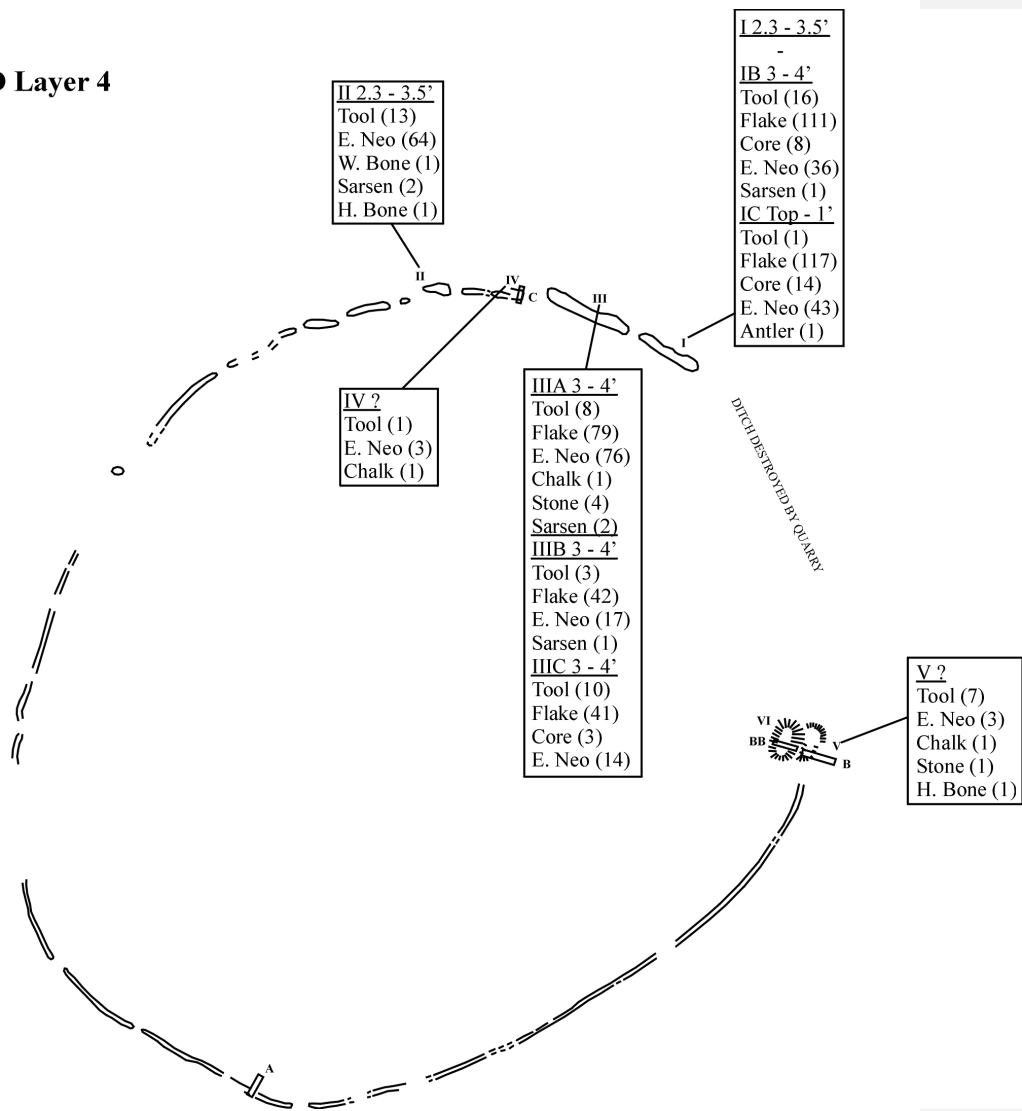


Figure 5.565 Windmill Hill, Outer Ditch, Layer 4 (after David et al 1999: fig. 14)

OD Layer 5

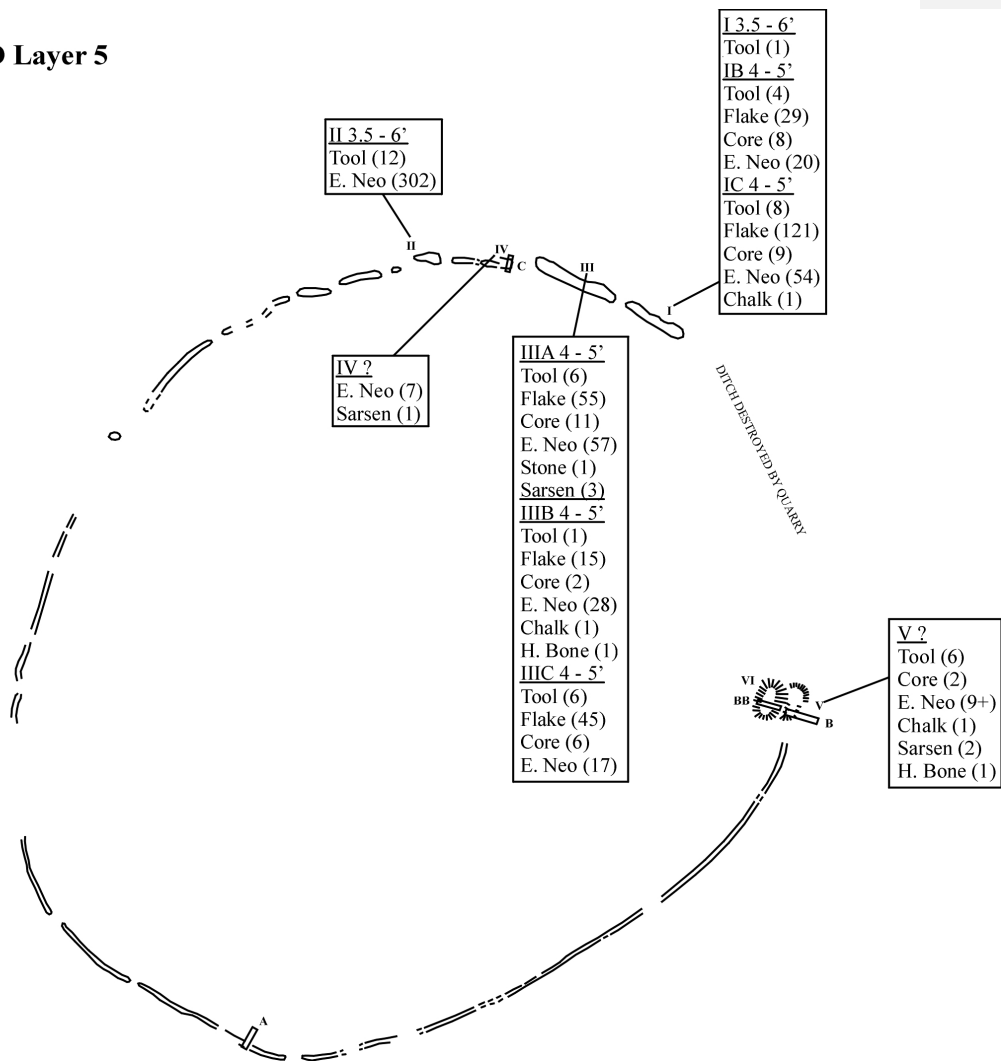


Figure 5.576 Windmill Hill, Outer Ditch, Layer 5 (after David et al 1999: fig. 14)

OD Layer 6

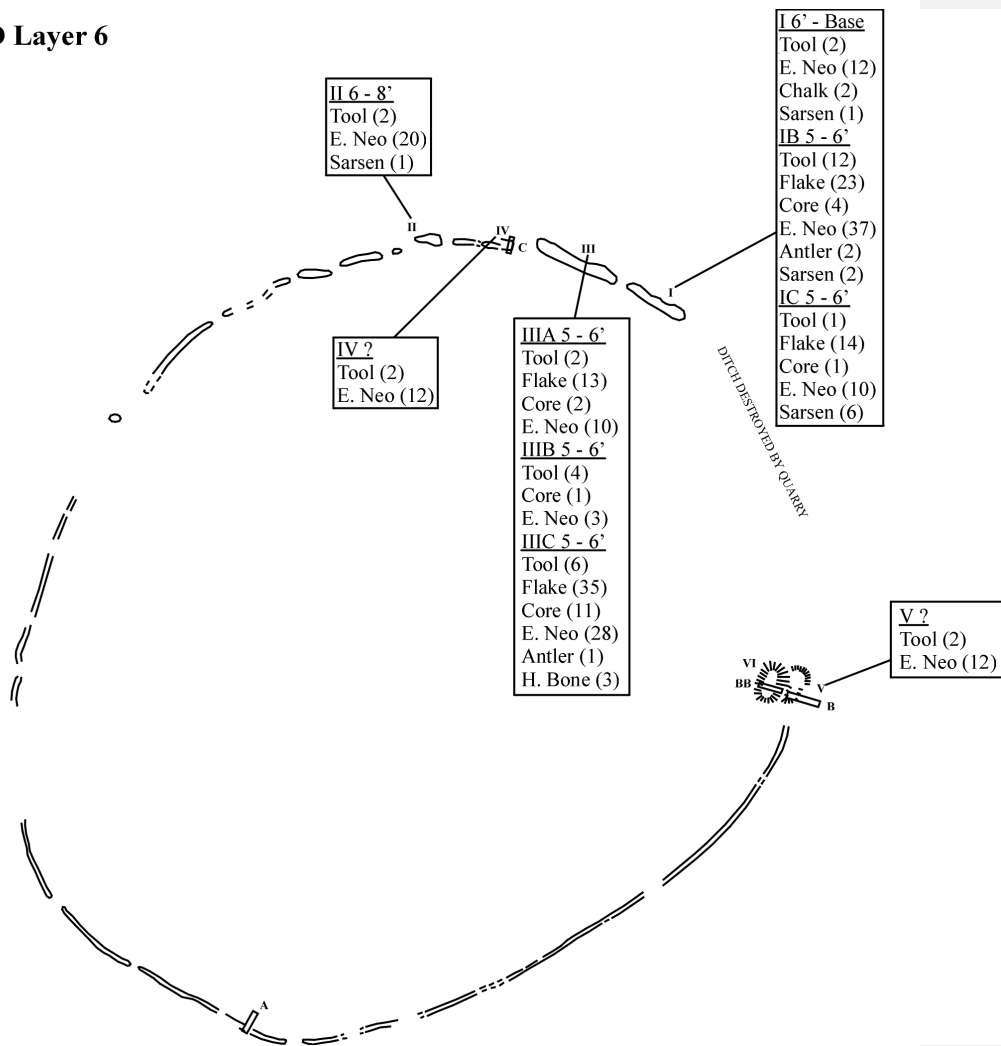


Figure 5.587 Windmill Hill, Outer Ditch, Layer 6 (after David et al 1999: fig. 14)

OD Layer 7

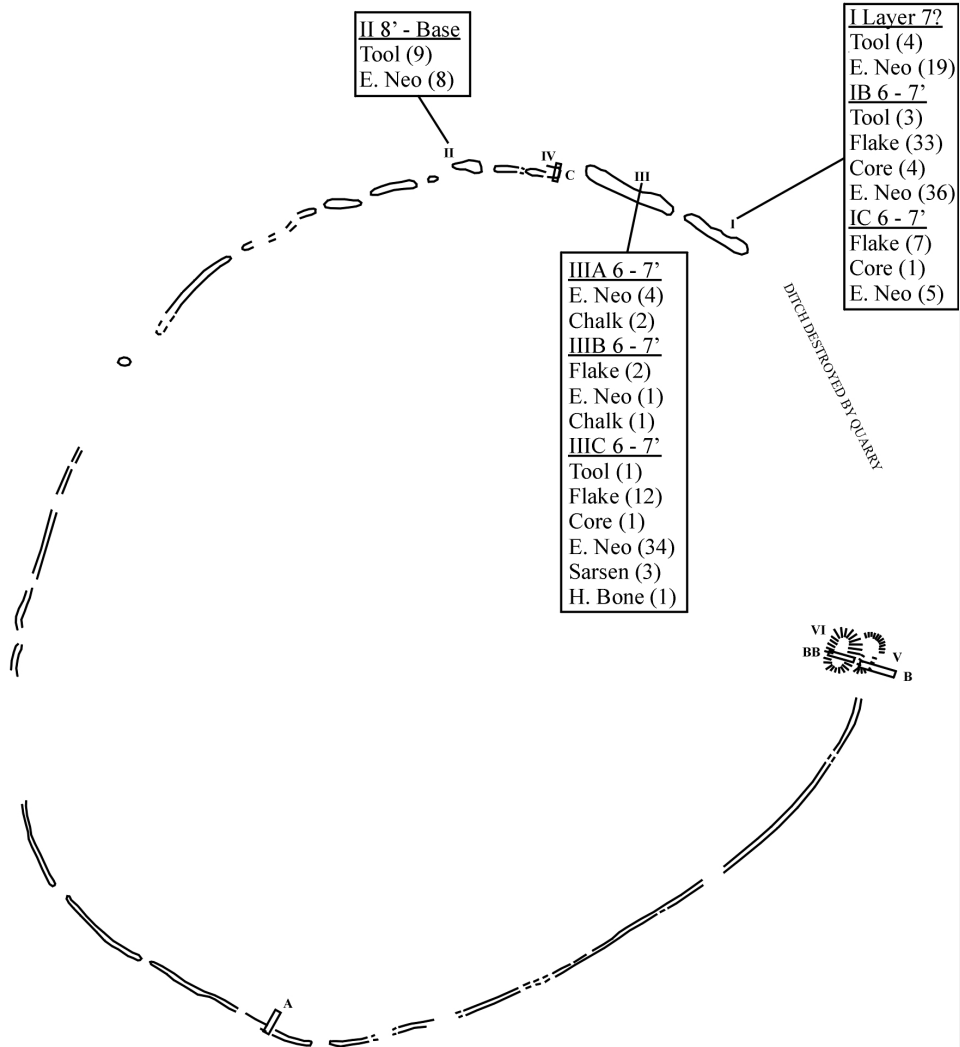


Figure 5.598 Windmill Hill, Outer Ditch, Layer 7 (after David et al 1999: fig. 14)

OD Layer 8

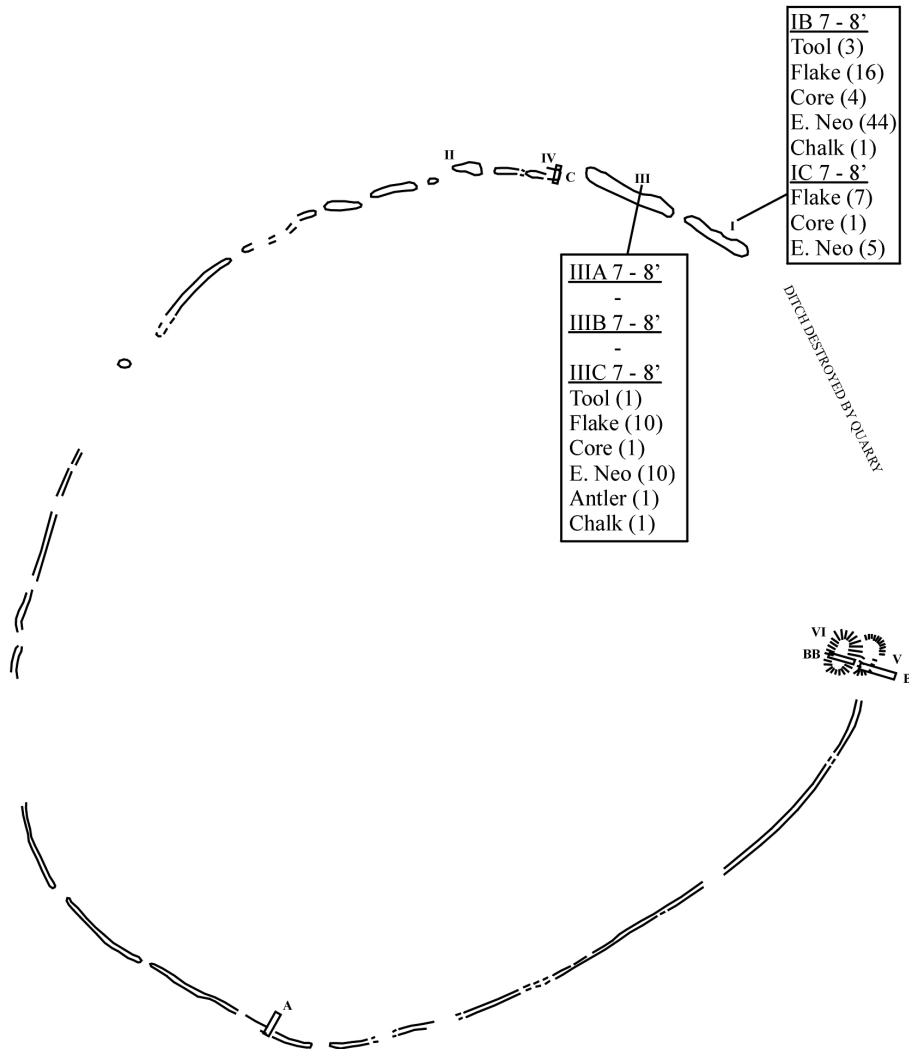


Figure 5.6059 Windmill Hill, Outer Ditch, Layer 8 (after David et al 1999: fig. 14)

OD Re-fill/re-excavate

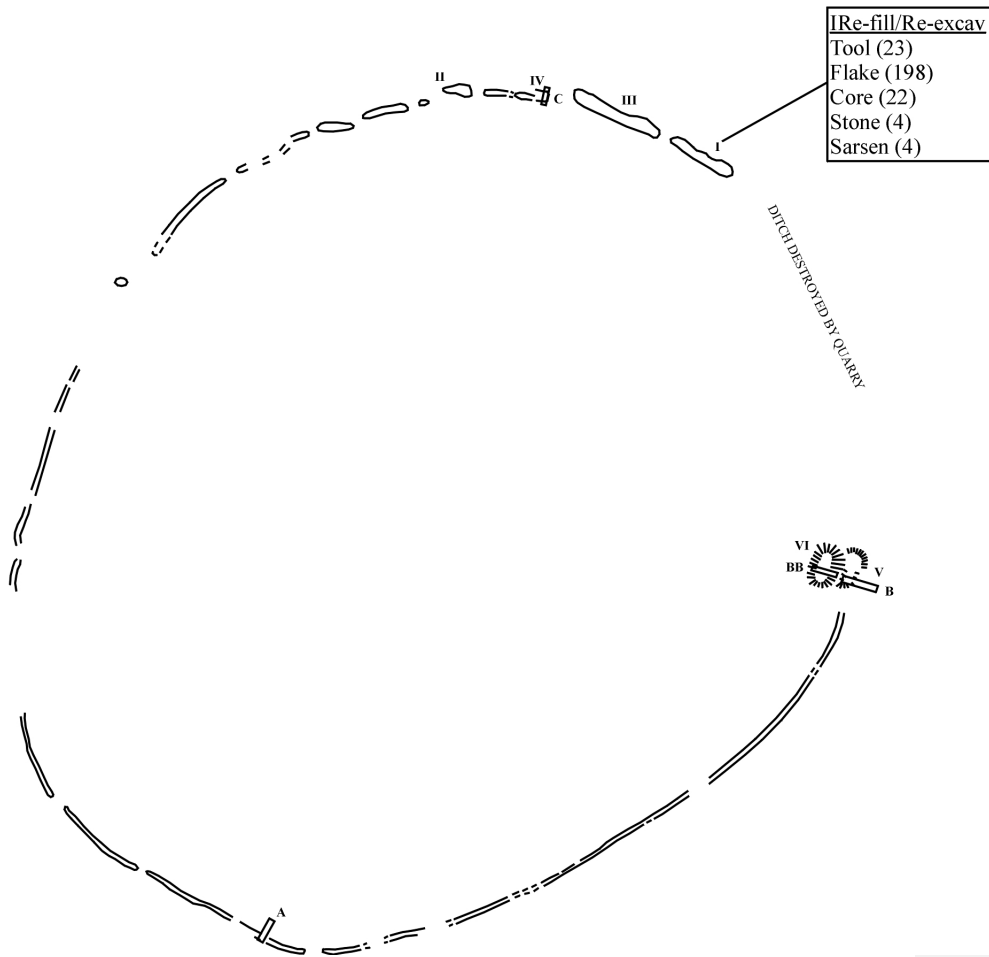


Figure 5.64 Windmill Hill, Outer Ditch, Re-fill/Re-excavate (after David et al 1999: fig. 14)

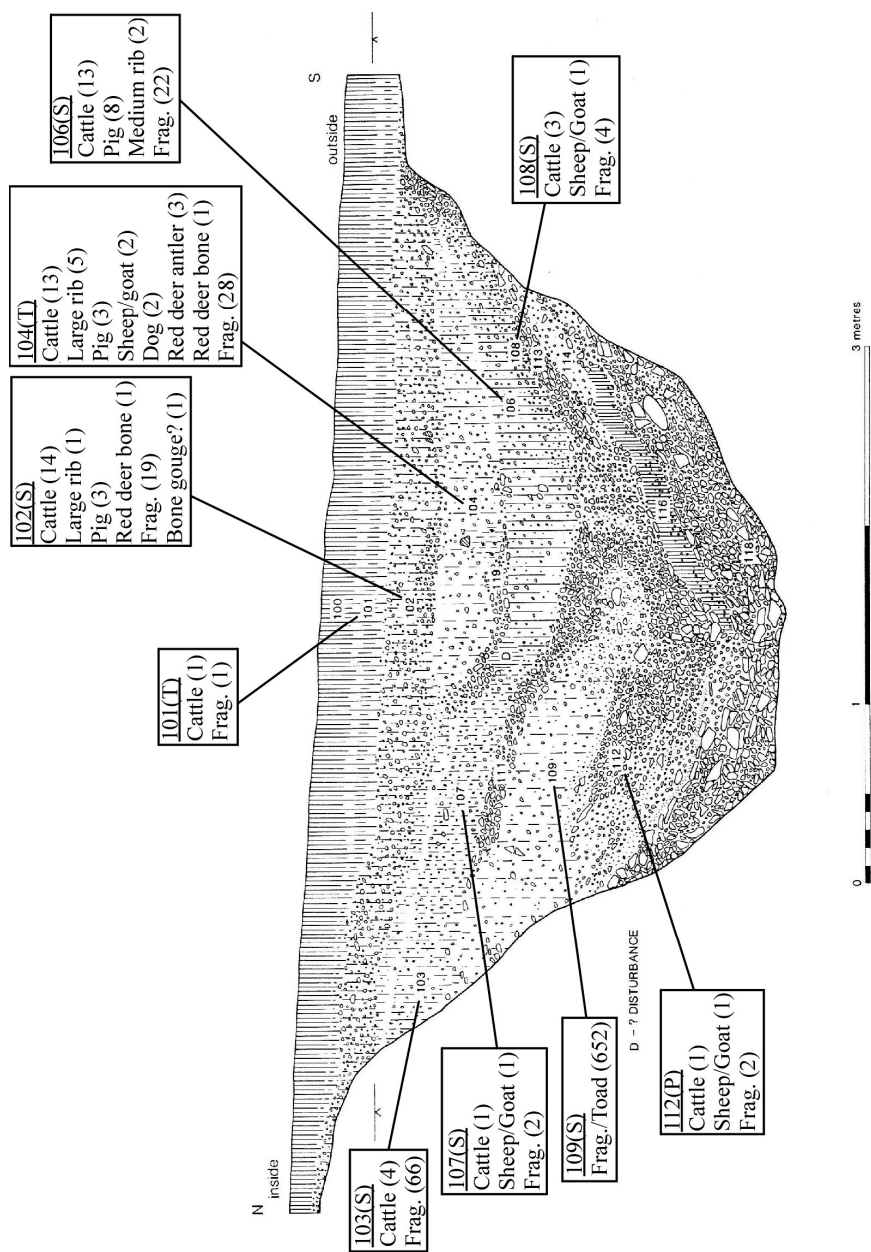


Figure 5.621 Windmill Hill, Outer Ditch, Trench A animal bone (after Whittle et al. 1999: fig. 81)

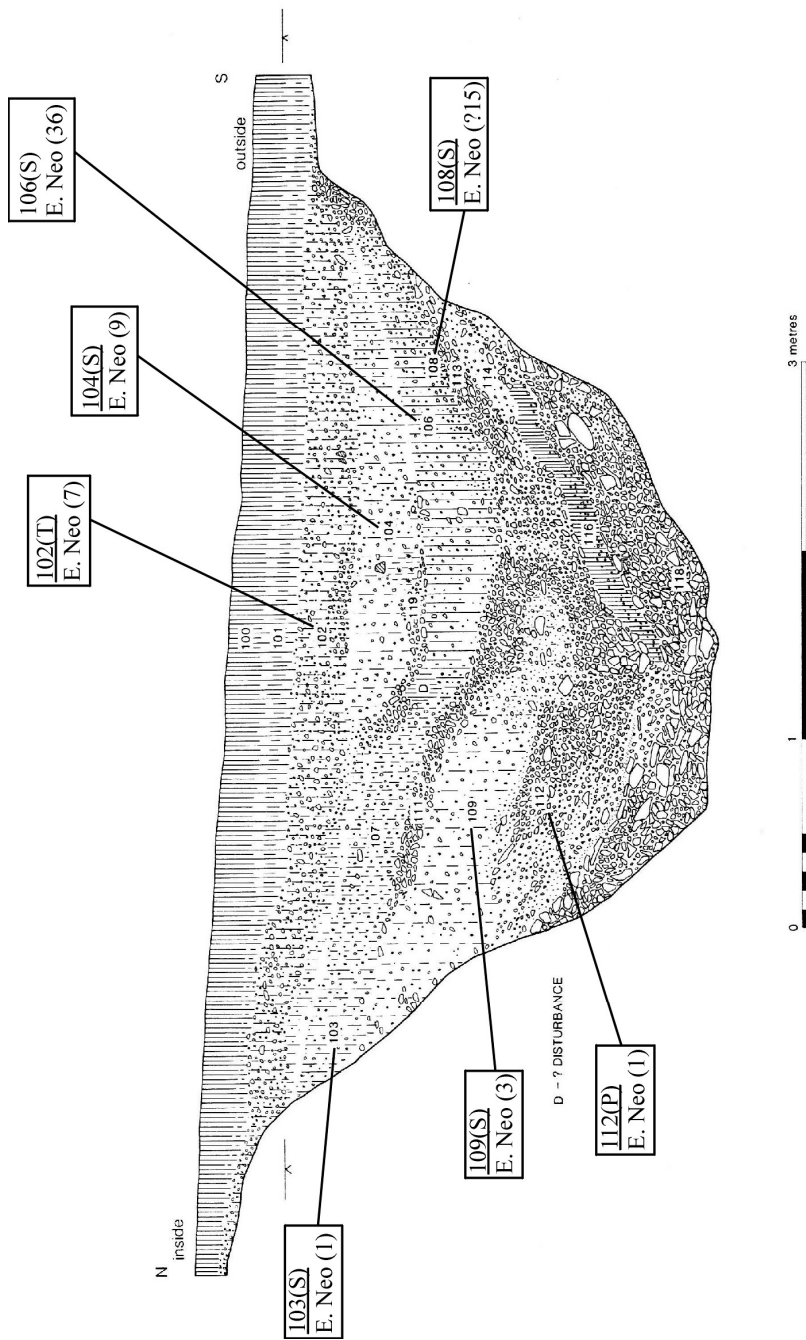


Figure 5.632 Windmill Hill, Outer Ditch, Trench A pottery (after Whittle et al. 1999: fig. 81)

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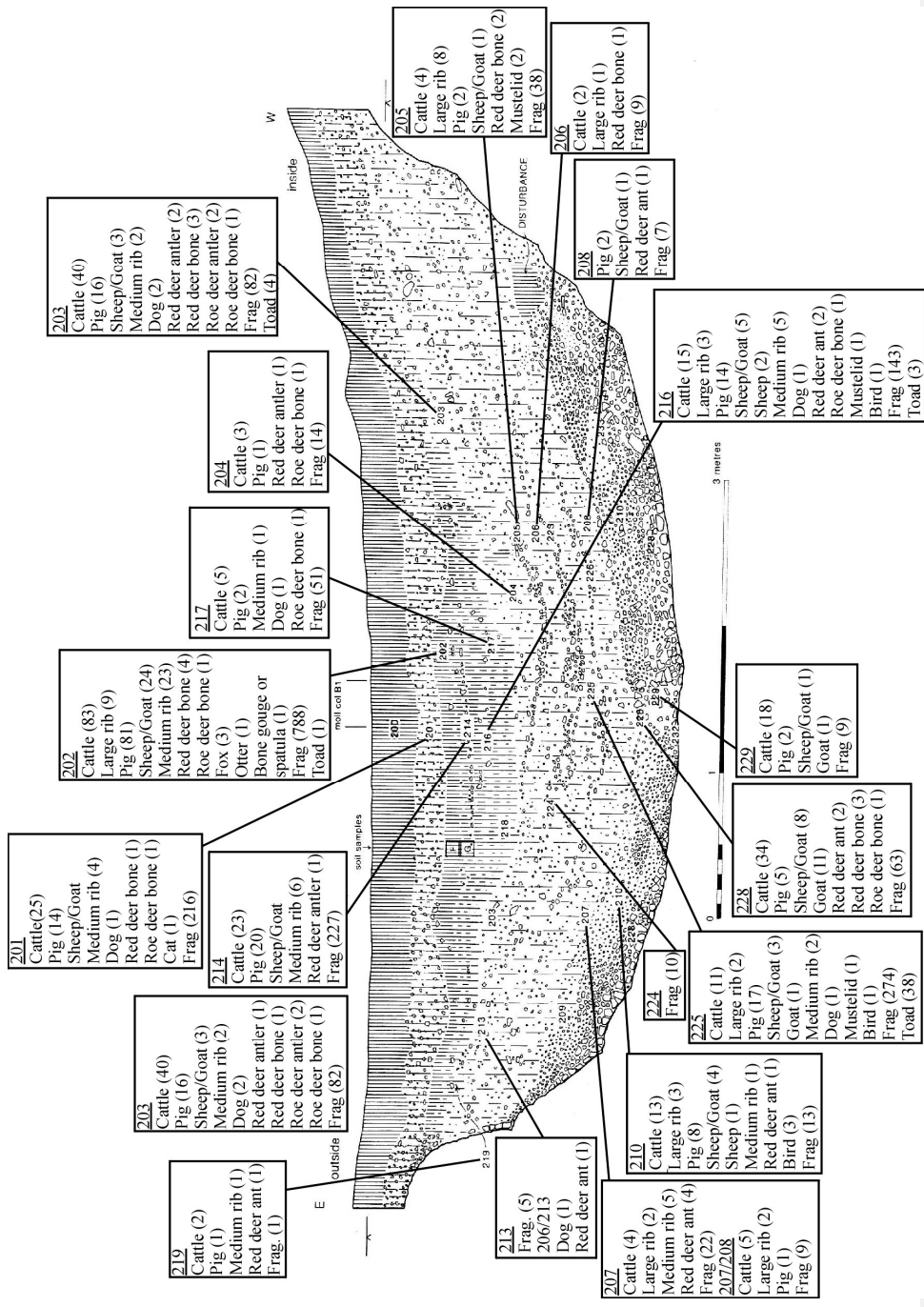


Figure 5.643 Windmill Hill, Outer Ditch, Trench B animal bone (after Whittle et al. 1999: fig. 77)

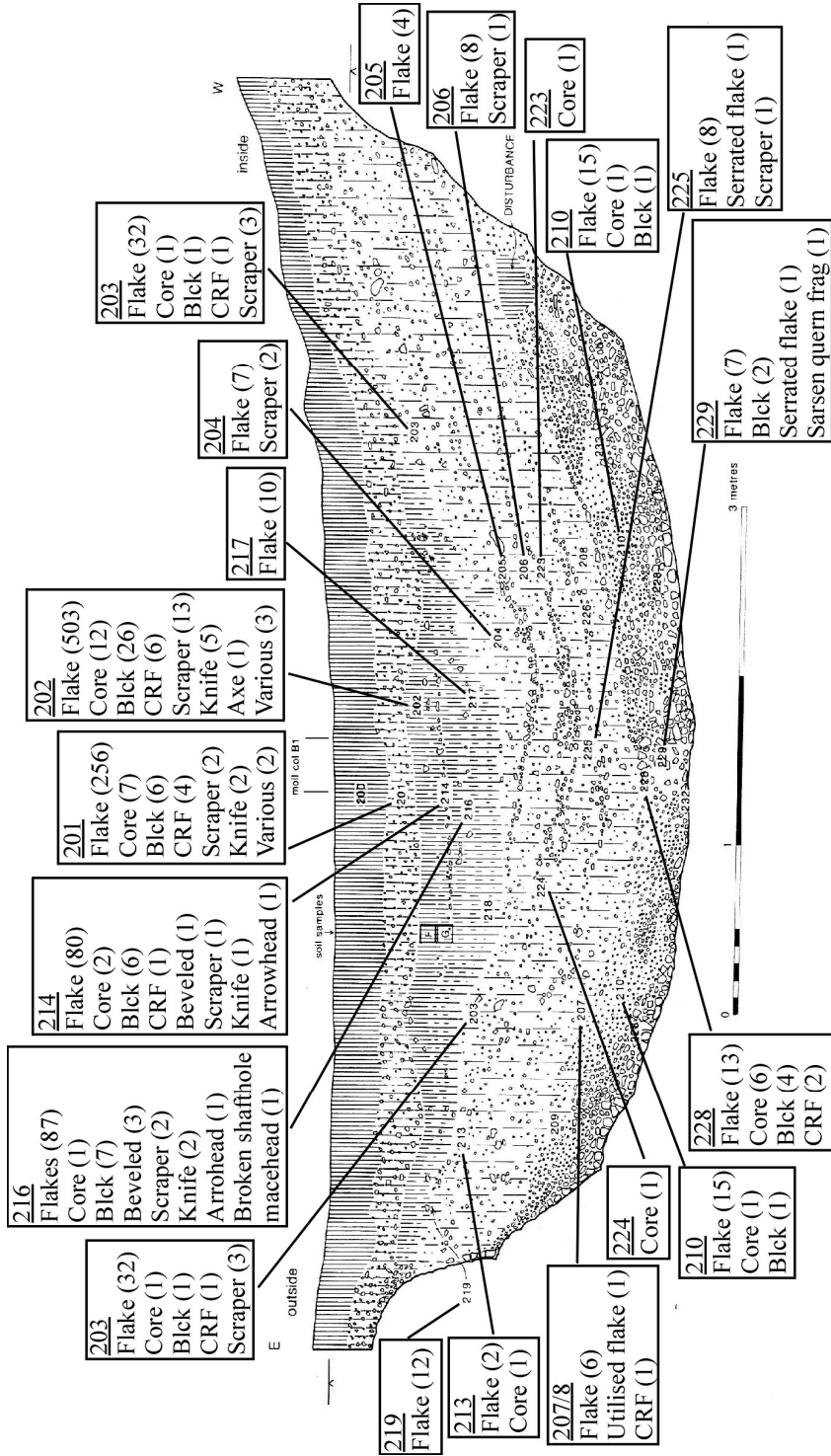


Figure 5.654 Windmill Hill, Outer Ditch, Trench B
flint and stone (after Whittle et al. 1999: fig. 77)

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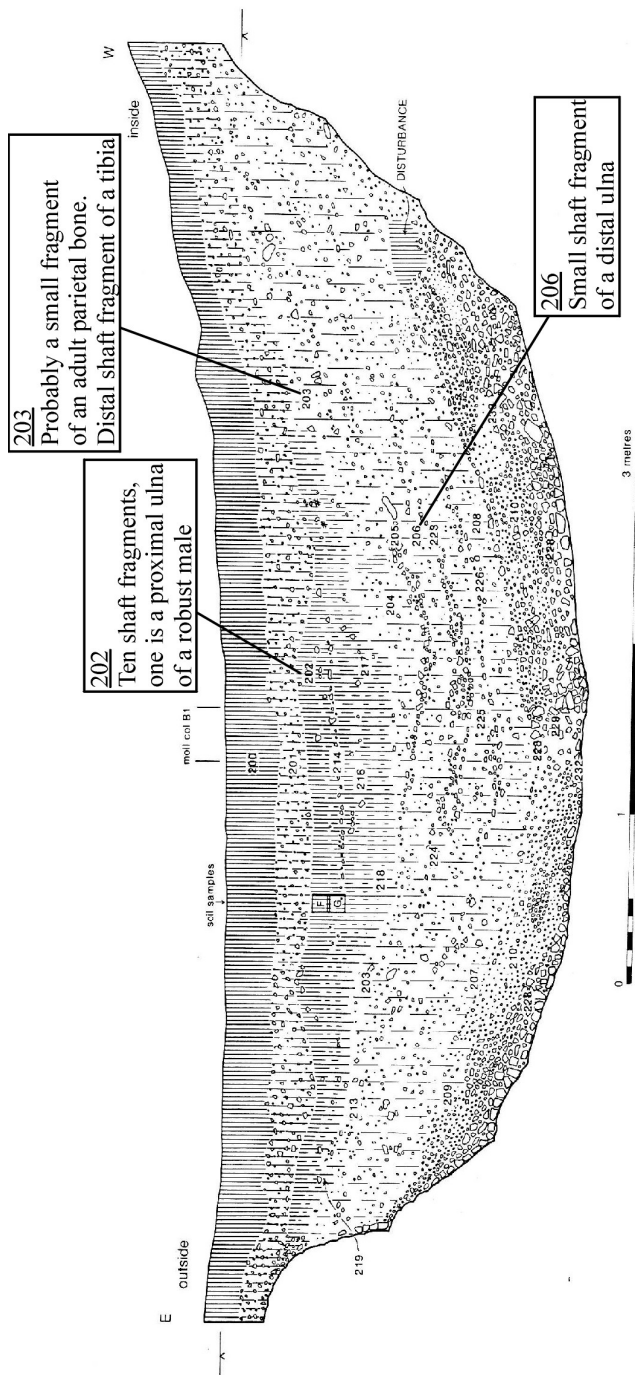


Figure 5.665 Windmill Hill, Outer Ditch, Trench B

human bone (after Whittle et al. 1999: fig. 77)

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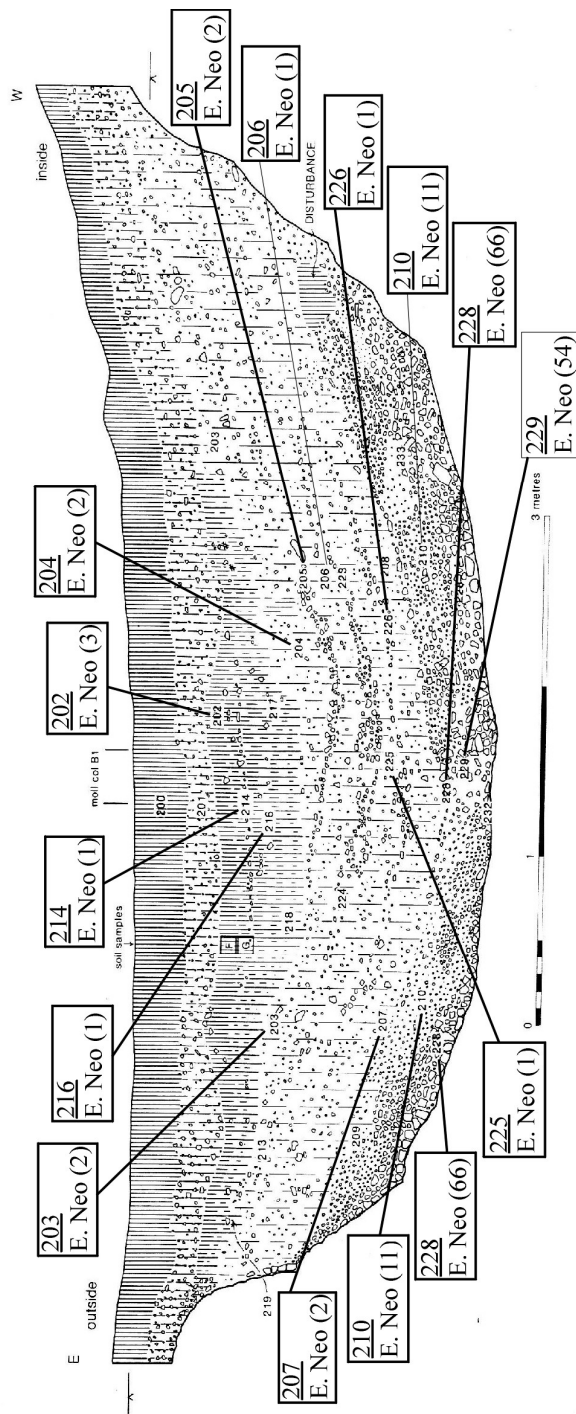


Figure 5.676 Windmill Hill, Outer Ditch, Trench B Early Neolithic pottery (after Whittle et al. 1999: fig. 77)

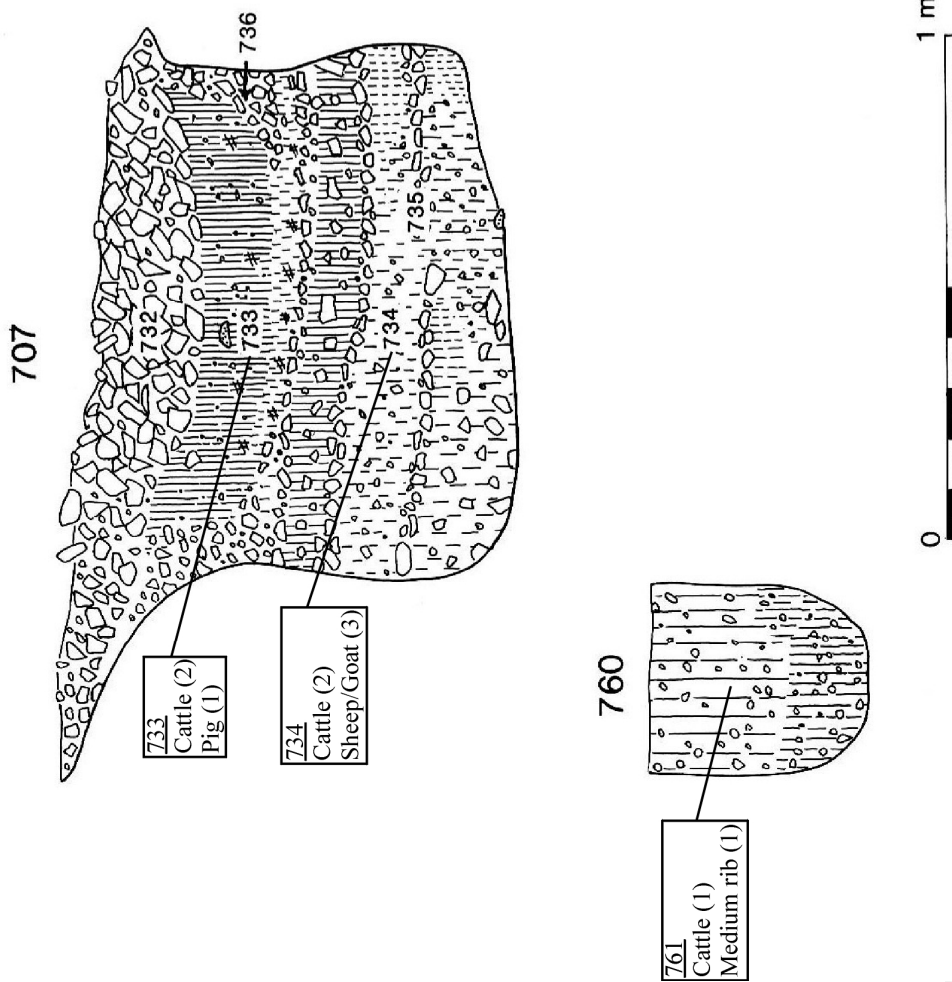


Figure 5.687 Windmill Hill, Outer Ditch, Trench BB
animal bone (after Whittle et al. 1999: fig. 73)

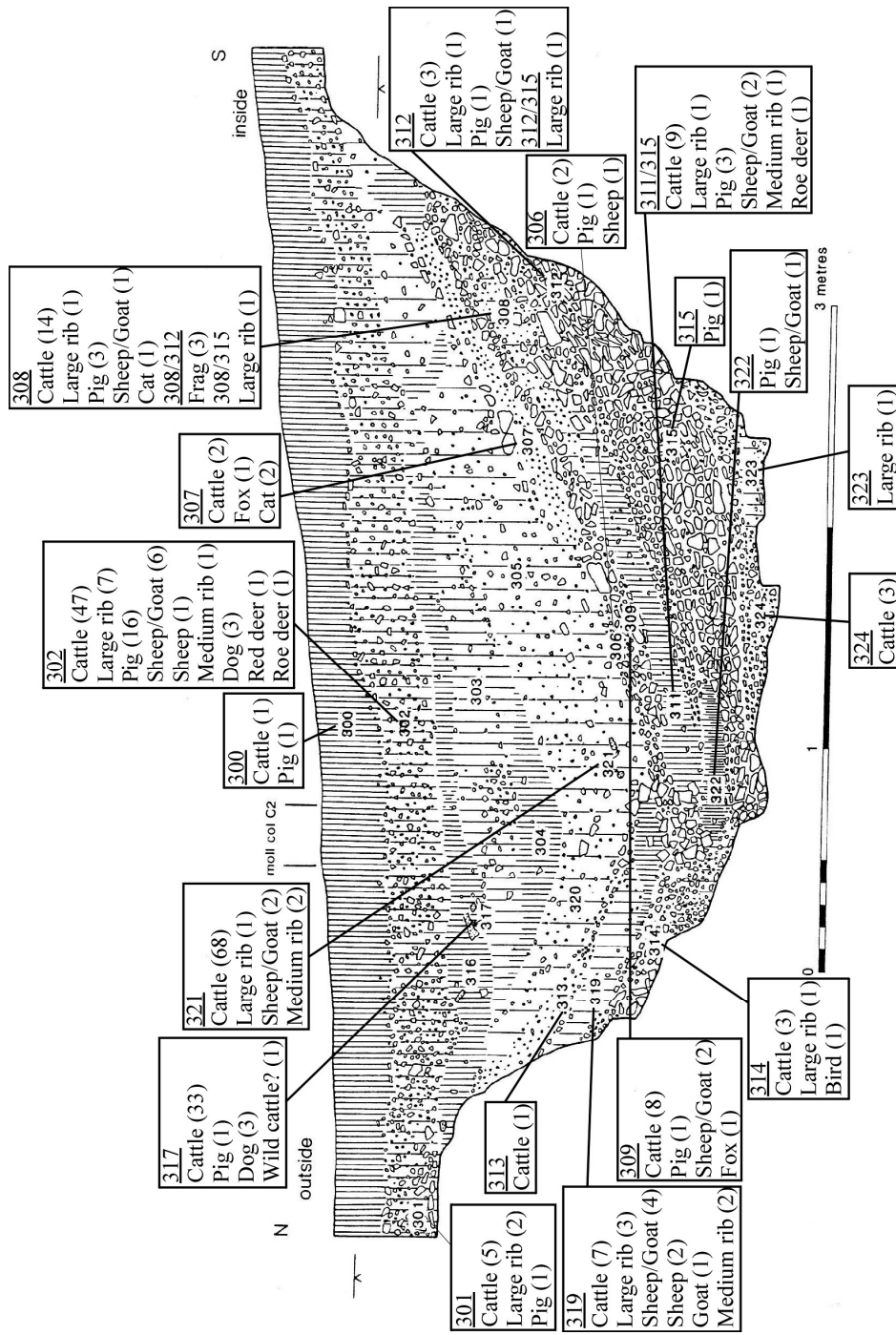


Figure 5.698 Windmill Hill, Outer Ditch, Trench C animal bone (after Whittle et al. 1999: fig. 83)

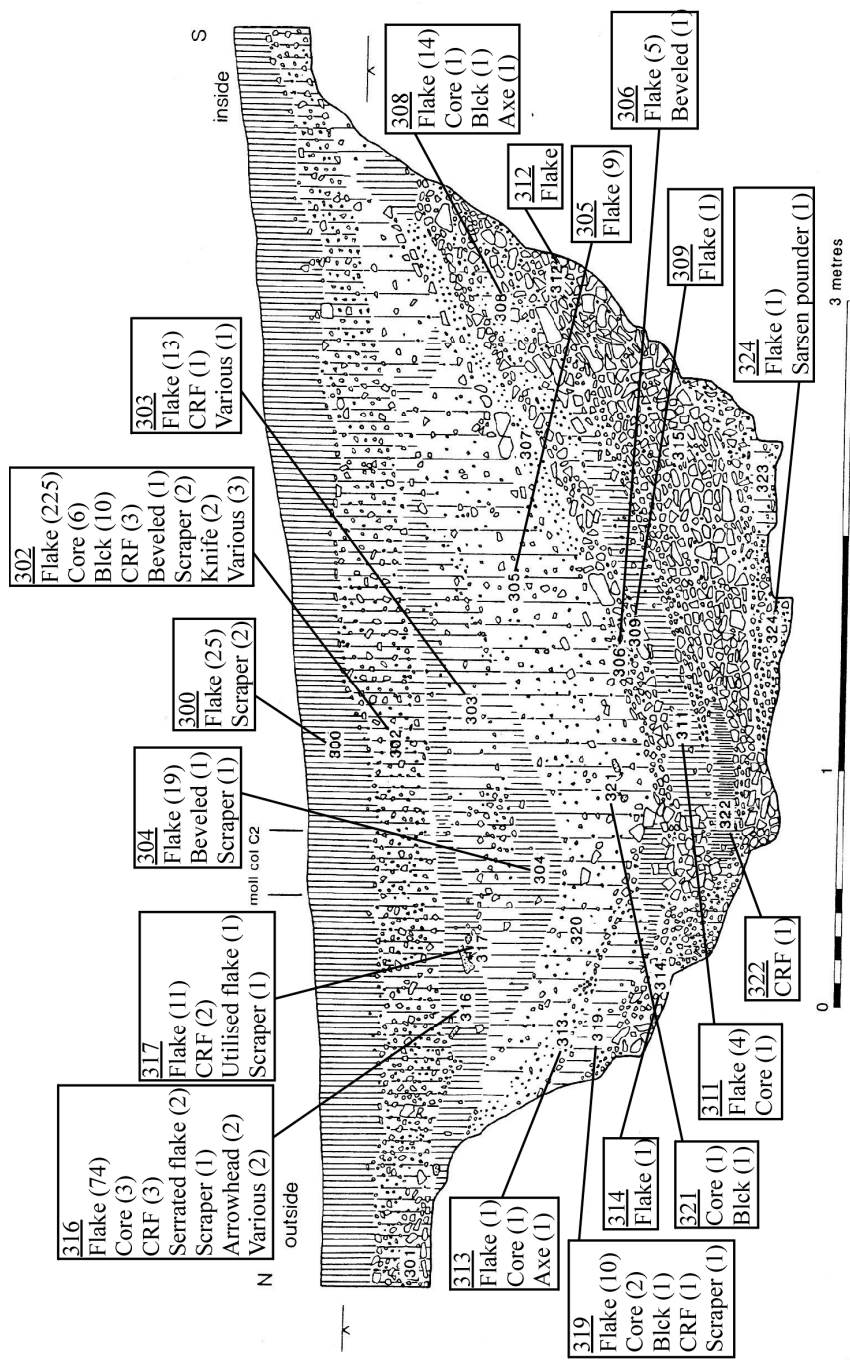


Figure 5.7069 Windmill Hill, Outer Ditch, Trench C flint and stone (after Whittle et al. 1999: fig. 83)

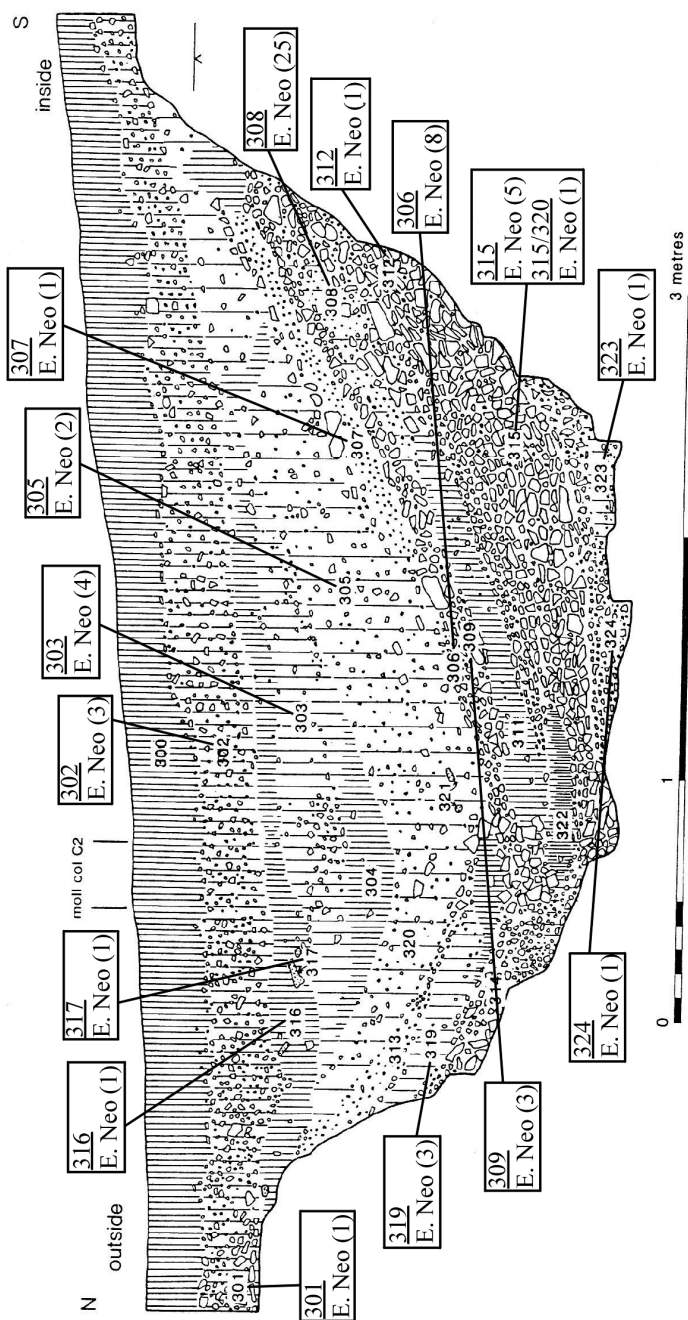


Figure 5.740 Windmill Hill, Outer Ditch, Trench C
Early Neolithic pottery (after Whittle et al. 1999: fig. 83)

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5.15.1 *Animal bone*

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Large amounts of animal bone were located within the Keiller, Smith and Whittle excavations. Unfortunately, only the animal bone from the Whittle excavations can be statistically utilised. The Keiller excavations, though, did show that the articulated remains of younger animals, including a complete pig from OD IIIC, a sheep from OD IIIB, and a complete dog from MD IX, suggest the placement of animals in a context which is indicative of a symbolic rather than a utilitarian or economic representation, such as feasting. Joshua Pollard has been able to place the animal bone from the Keiller excavations into phases 2 and 3, which are broadly contemporary with Isobel Smith's 'Primary' Early Neolithic (Grigson 1999: 208). A sample of the animal bone from the 1957-8 excavations (Fig. 5.721) indicates a large amount of cattle (40.2%) were deposited along with smaller amounts of pig (10.2%), and sheep/goat (16.6%). Interestingly, a large amount of dog bone (21.9%) was also recovered, perhaps indicating the importance placed upon this species in a predominantly pastoral society.

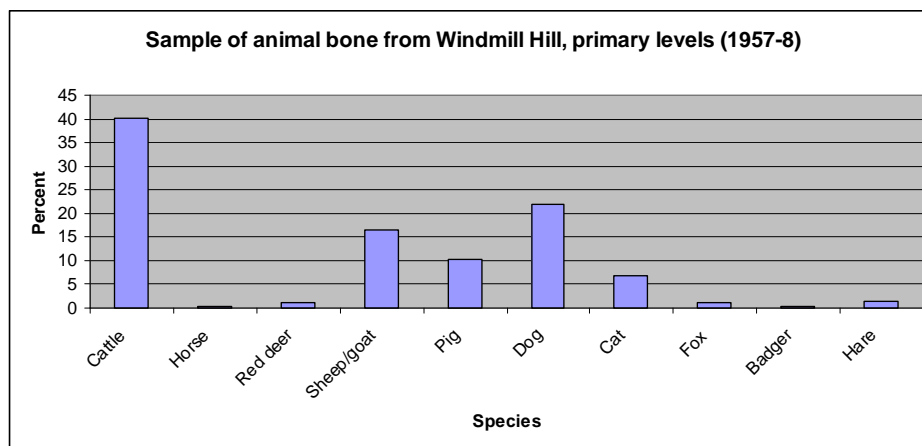


Figure 5.721 Animal bone from the 1957-8 excavations (after Smith 1965: table V)

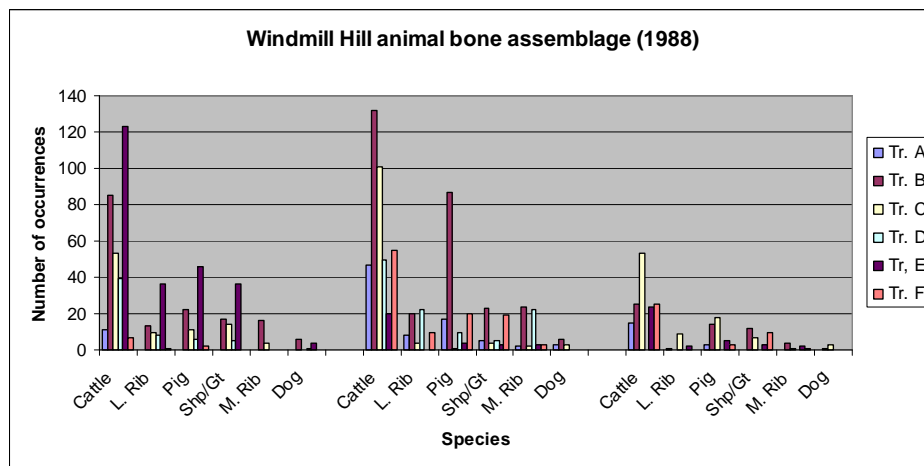


Figure 5.7.32 Animal bone assemblage (not including Trench BB) from Windmill Hill (1988) primary (left), secondary/upper secondary (middle), tertiary (right) (After Grigson 1999: tables 82-8)

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The animal bone for the 1988 excavations (Fig. 5.7.32) indicates that cattle dominated all levels, particularly within trenches B and E.

5.15.2 *Human bone*

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The human bone assemblage (Fig. 5.7.43) at Windmill Hill is quite remarkable both in its quantity and the variety of individuals in articulated and disarticulated states. A majority of these remains were located in OD III. Within this enclosure ditch segment in section B, an articulated child skeleton was located within layer 5 on the bottom of the ditch; in section C, spread fairly evenly through the layers, adult teeth and long bones, a cervical vertebra, and fragments of occipitals were located (Pollard 1999: 30-1). During the Smith excavations, within OD V, an infant skeleton was located in layer 4 and a frontal bone in layer 5.

The remains located in the middle ditch segments were spread more evenly from segment to segment. Isolated adult long bones and teeth were found within segments, along with an adult parietal bone from MD IIB and a 'large' amount of bone fragments from the skulls of children within MD XIA and XIB. Fragments of a lower skull were also located within MD XII, layer 5. The human remains deposited in the

Inner enclosure ditch segments included a tooth in layer 3 of segment VII, a fibula in layer 3 of segment XI, fragments of a child's skull and temporal bone and two finds of adult long bones within ID I/II, and a fragment of frontal bone within ID XVII, layer 3 (Pollard 1999a).

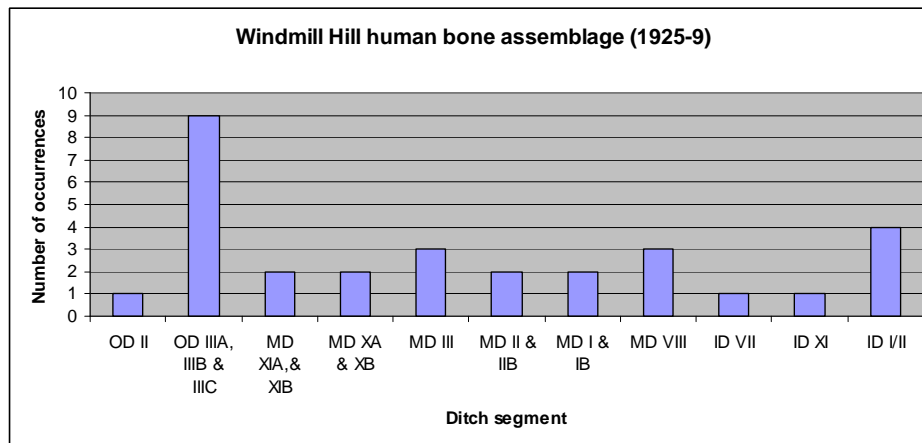


Figure 5.743 Human bone assemblage from Windmill Hill (after Pollard 1999a: tables 1-44)

5.15.3 *Flint*

Although a large amount of flint was found within the enclosure ditch segments during the Keiller excavations, Pollard (1999b: 333) points out that not all of the flint was recorded or collected, particularly the by-products, which may give a misleading interpretation to the evidence. The total amount of flint recorded was around 95,000 pieces from the Keiller excavations, the Smith excavations contributing approximately 1500 further pieces of flint. The true amount of flint from all of the excavations, suggests an assemblage in excess of 100,000 pieces, in addition to about 200 worked nodules (1999b: 333).

Large amounts of flakes were located within all of the cuttings numbering 73,274 from the available data (Pollard 1999b). Within the OD (Fig. 5.754), the least excavated of the three circuits, 11,474 flakes were located, most of which were found within each of the three sections of segment III, and within OD IB and IC (5206). In the MD segments (Fig. 5.765) the number of flints increases (36,225), particularly within MD XI (7655), X (6434), II (4254), I (3788) and V (2601). In the ID (Fig. 5.776), the largest numbers of flint were located within XI (3370), ID XII (3172), VIII

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(2902), and X (2236). The information available from the 1957-8 excavations indicates a large number of tools (395) and cores (58) were located in trenches in the OD, MD, ID and OB (Outer Bank) (Fig. 5.787). A majority of the tools and cores were located within OD V (126, 27.81%), ID XVII (79, 18.76%), and OB IV (92, 20.3%) The 1988 excavations (Figs. 5.79 and 5.80) also located a large amount of flint, particularly within Trench B, where about 1100 flakes and 30 tools were found.

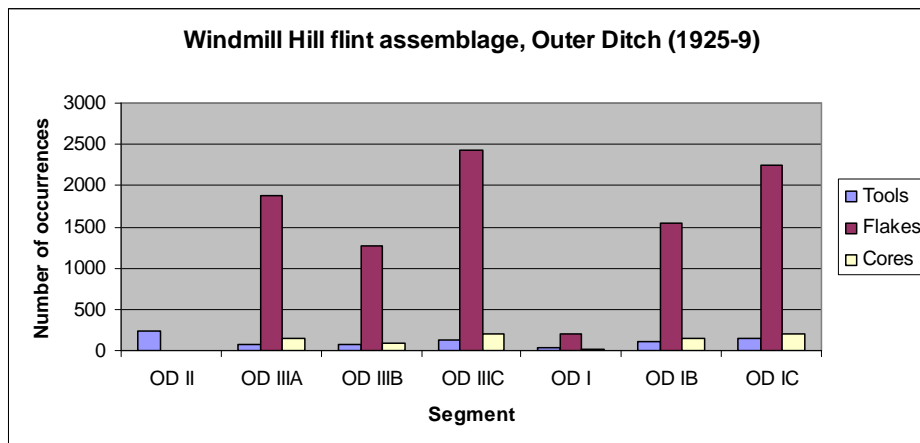


Figure 5.754 Flint assemblage from Windmill Hill OD (1925-9) (after Pollard 1999b: tables 1-7)

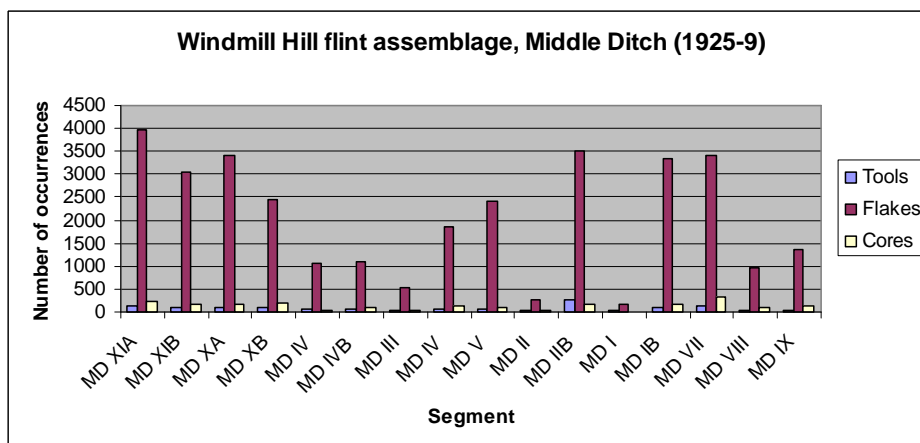


Figure 5.765 Windmill Hill flint assemblage, Middle Ditch (after Pollard 1999b: tables 8-23)

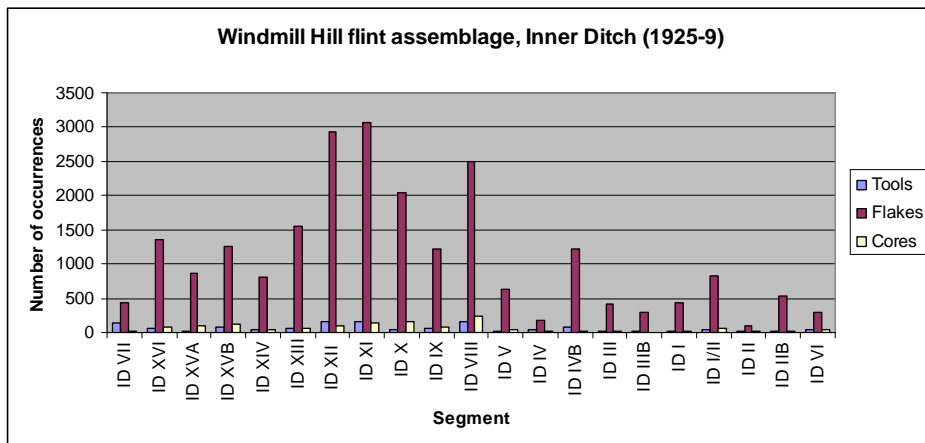


Figure 5.776 Windmill Hill flint assemblage, Inner Ditch (after Pollard 1999b: tables 24-44)

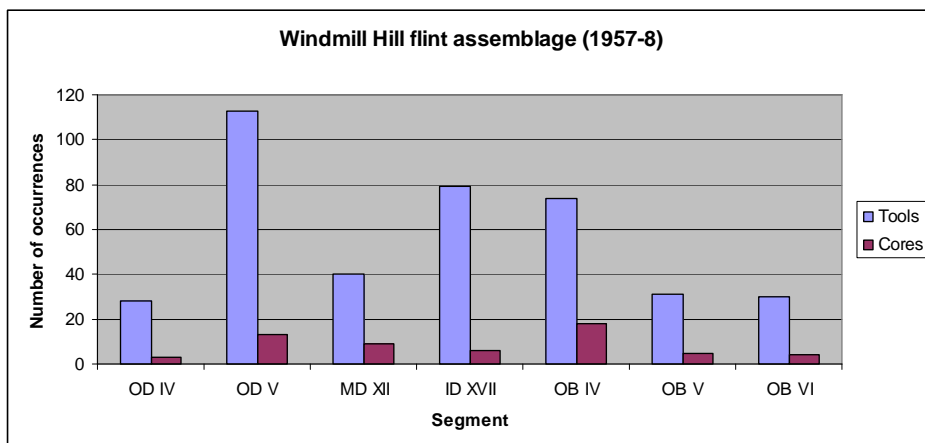


Figure 5.787 Windmill Hill flint assemblage from the OD, MD, and OB, 1957-8 (after Pollard 1999b: tables 45-51)

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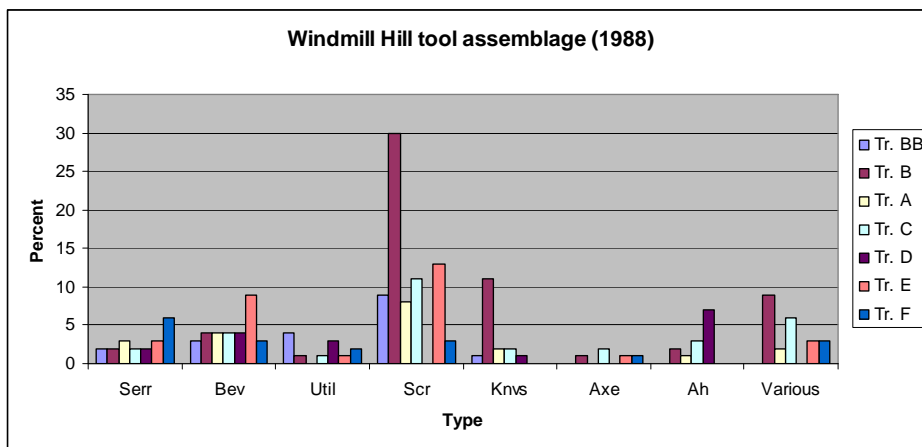


Figure 5.798 Tool assemblage from the 1988 Windmill Hill excavation (after Pollard 1999b: table 172)

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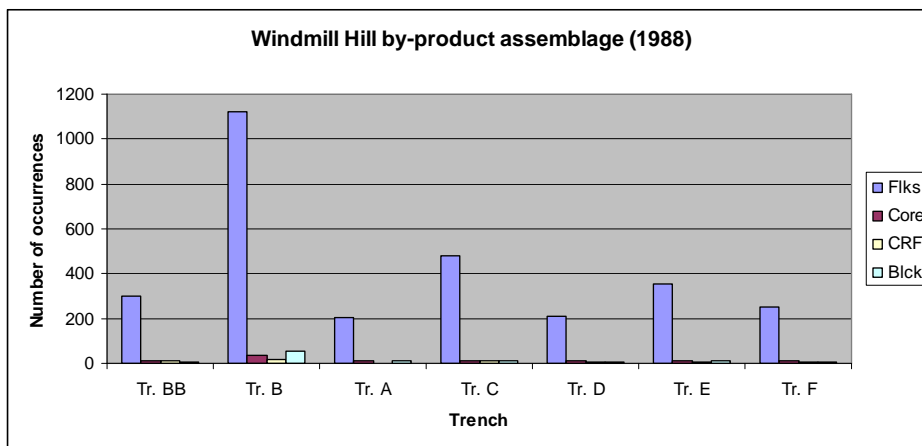


Figure 5.8079 By-product assemblage from the 1988 Windmill Hill excavation (after Pollard 1999b: table 172)

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5.15.4 Pottery

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Pottery was also located within all enclosure ditch segments at Windmill Hill. A total of 12,572 Early Neolithic sherds could be identified in the main report (Pollard 1999a). A majority of the pottery consisted of a flint fabric, although sand and shell were represented. About 19% of the pottery assemblage was decorated; of these most sherds were simple plain ware vessels, though some vessels located did have expanded rims, some of which were decorated (Zienkiewicz and Hamilton 1999: 270-1). Within the OD 1280 sherds were located (Fig. 5.810), 456 of those in OD II. Within the MD, 7204 sherds were located in MD II (1675), particularly in section B which contained 1548 sherds (Fig. 5.821). A total of 4088 sherds was located within the ID (Fig. 5.832), and seem to have been spread fairly evenly with the exception of segment VII, which contained 1570 sherds. The 1988 excavations produced a total of 807 Neolithic sherds (Fig. 5.843). A majority of these came from Trenches E (220, 27.26%) and B (156, 19.33%). Included within the general Neolithic category, 21 sherds of Ebbsfleet ware were located within Trench BB and 3 in Trench B, along with 20 sherds identified only as Neolithic within Trench A.

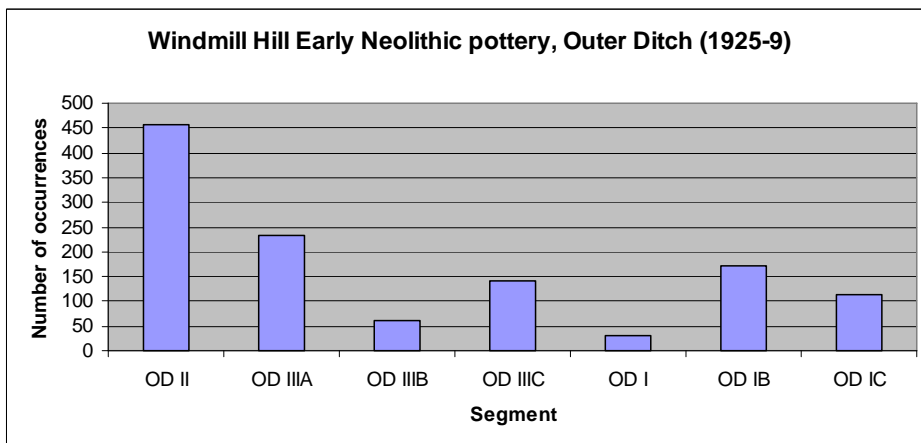


Figure 5.810 Windmill Hill Early Neolithic pottery, Outer Ditch (after Pollard 1999a: tables 1-7)

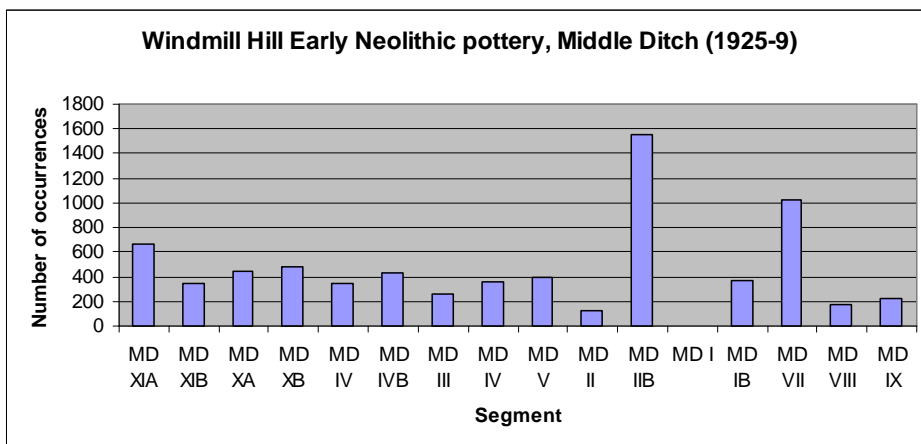


Figure 5.821 Windmill Hill Early Neolithic pottery, Middle Ditch (after Pollard 1999a: tables 8-23)

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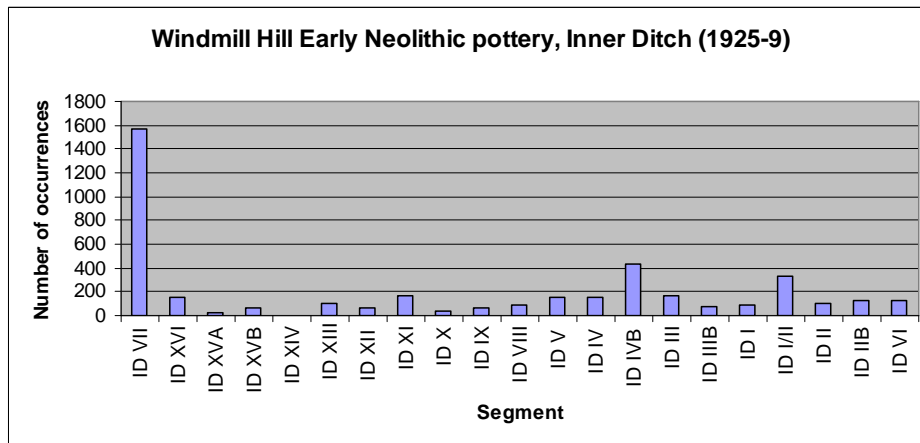


Figure 5.832 Windmill Hill Early Neolithic pottery, Inner Ditch (after Pollard 1999a: tables 24-44)

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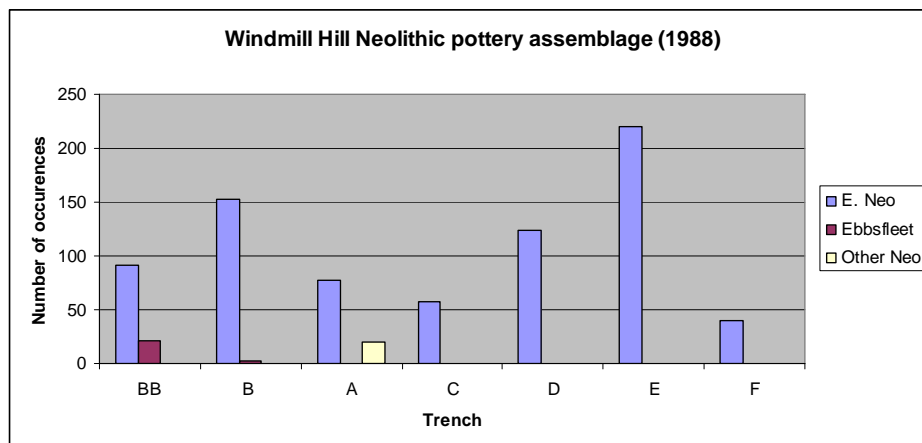


Figure 5.843 Neolithic pottery from Windmill Hill 1988 excavations (after Zienkiewicz and Hamilton 1999: tables 155-61)

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5.15.5 *Sarsen and stone*

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A total of 293 pieces of modified stone was recovered from the enclosure ditch segments within the 1925-9 excavations (Figs. 5.854 and 5.865). Of these, 92 (31.39%) were pounders, 80 (27.30%) were rubbing stones, 55 (18.07%) were querns, and the remaining 66 (21.82%) pieces of stone are classified as miscellaneous fragments and pieces. The MD contained the largest number of finds totalling 153,

the ID 91, and the OD, 49 respectively. Within the OD, 29 pieces were located from the three sections of segment III, 13 of which were pounders. Of the 293 pieces, 113 were located in MD I (39), MD X (23), MD II (22), MD VII (16), and MDV (13), perhaps indicating places within the enclosure where food may have been processed. Large amounts of Neolithic pottery were also recovered from these segments; the importance of their connection to the sarsen assemblage will be discussed below. Fragments or portions of stone occur within each segment in the ID. Segments VII and VIII contained the most evidence for the deposition of these objects, numbering 17 and 16 respectively. Of the stone located within the ID, 31 are fragments or other unknown pieces, perhaps an indication of a greater use of sarsen within the ID. Only seven objects were recovered from the 1988 excavations: one macehead, quern and rubber from Trench B, one poulder from Trench C and Trench A, and 1 rubber within Trench BB (Pollard and Whittle 1999: 338).

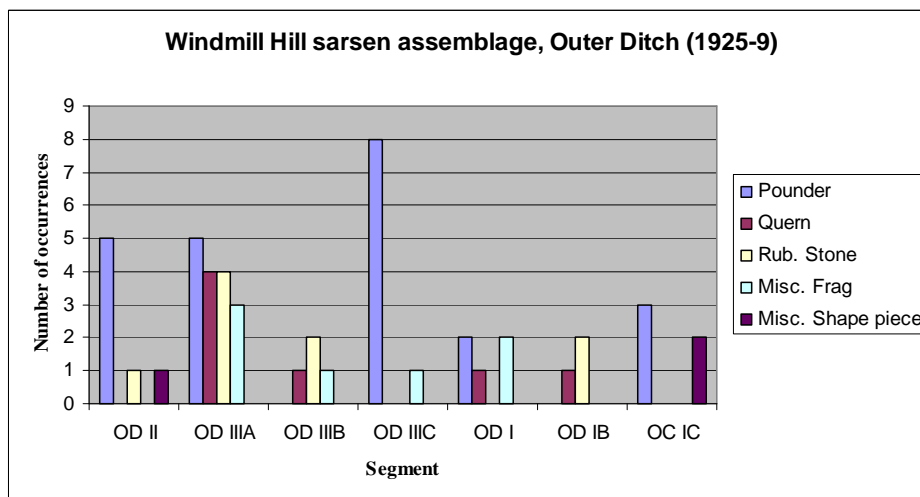


Figure 5.854 Sarsen Assemblage from Windmill Hill, Outer Ditch (after Pollard 1999a: tables 1-7)

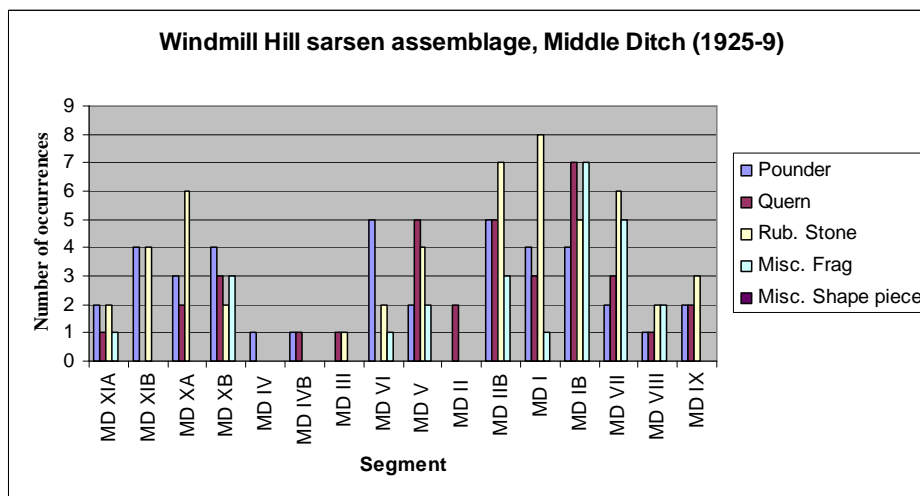


Figure 5.865 Sarsen assemblage from Windmill Hill, Middle Ditch (after Pollard 1999a: tables 8-23)

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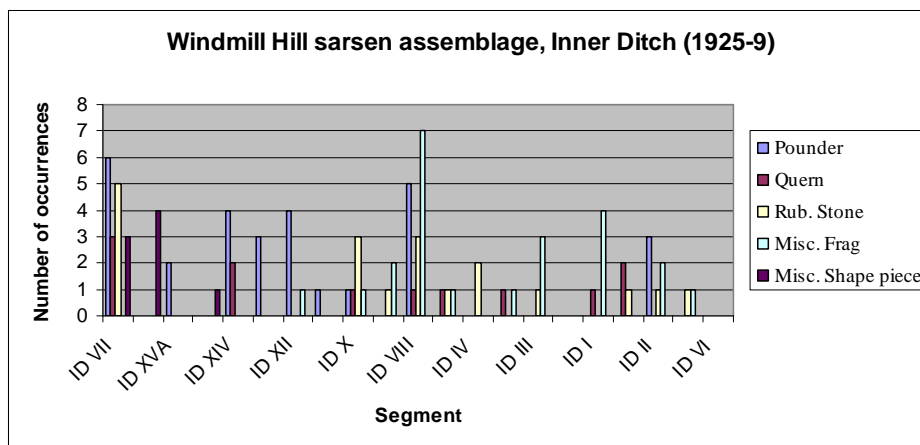


Figure 5.876 Sarsen assemblage from Windmill Hill, Inner Ditch (after Pollard 1999a: tables 8-23)

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5.15.6 *Antler and worked bone*

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Antler and worked bone would have been important in the manufacturing process of flint tools and hide-working, among other possible uses. Smith identified some of these objects located within the enclosure ditch segments, but it is unclear as to the context from which they originated. Of the modified bone implements located, there were three complete picks, while another was in a fragmentary state. Sixteen of the

24 pieces found were from primary contexts, but not located on the bottom of the ditch (Smith 1965: 125). Three 'rakes' or antler crowns from primary levels and 'twelve or thirteen' combs in various stages of completion, were located within primary levels; eight of these were finished, three unfinished and the remainder were from upper levels (Smith 1965: 127). In addition there were four bone 'gouges' and four bone 'pins', two of which come from primary levels. A total of 17 awls, eight of which were located from primary levels intact and nine from upper levels were made from sheep bone (Smith 1965: 128-9). Using this evidence, a better picture of the deposition of the antler and worked bone industries within Windmill Hill will now be presented below.

During the Keiller excavations (Pollard 1999a: tables 1-44) (Figs. 5.887-9089), the MD contained the largest number of finds totalling 56, the ID, 36, and the OD 26. Within the OD, only segments II and IIIA contained worked bone and chalk together, while of all sections within segment only one contained antler and chalk, which may indicate the separation of objects within each 'side' of the ditch. The placement of antler and worked bone occurs most within segments X and VI, and II, although the absence of any finds from segment IV could have important implications about the placement of these objects within the MD. The ID contained only eight finds of antler and five of worked bone. Interestingly, the placement of the objects occurs mostly within the eastern segments of this circuit, perhaps indicating an area where the viewing of the objects deposited or the ways in which they were used before deposition were considered appropriate. Within the MD, segment X contained six finds of antler. The 1988 excavations located two fragments of antler from Trench F, a bone pin from Trench BB, a small gouge or spatula from Trench B and two possible gouges from Trenches F and A (Pollard and Whittle 1999: 342-3).

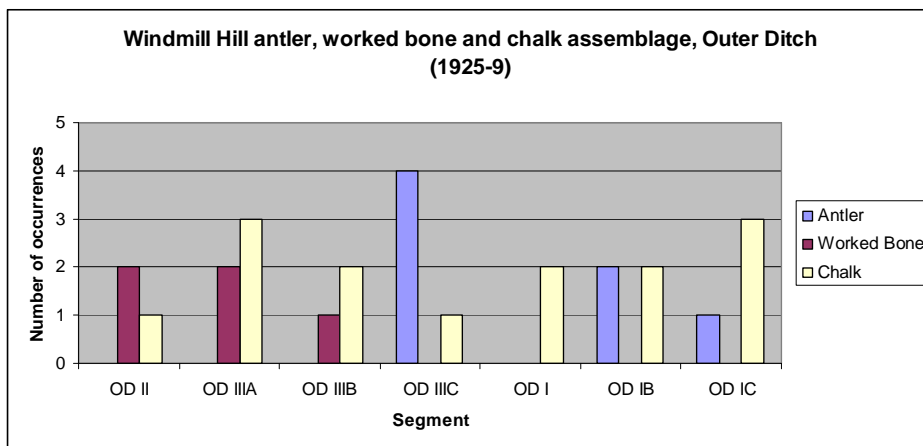


Figure 5.887 Windmill Hill antler, worked bone and chalk, Outer Ditch (after Pollard 1999a: tables 1-7)

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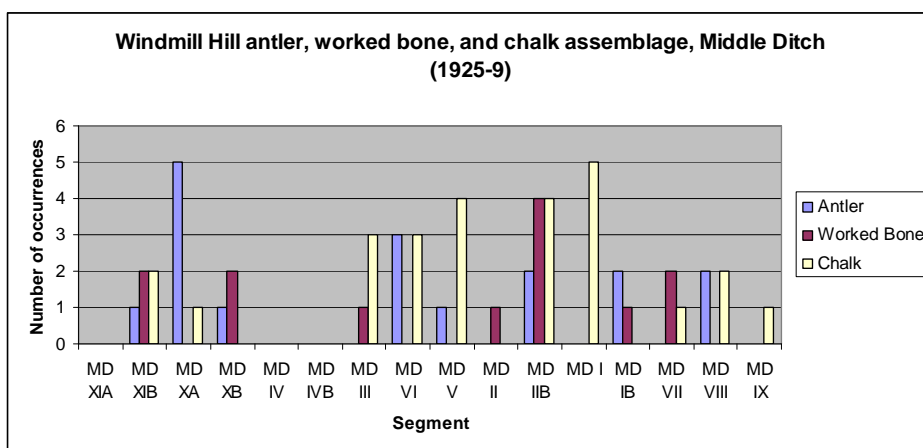


Figure 5.898 Windmill Hill antler, worked bone and chalk, Middle Ditch (after Pollard 1999a: tables 8-23)

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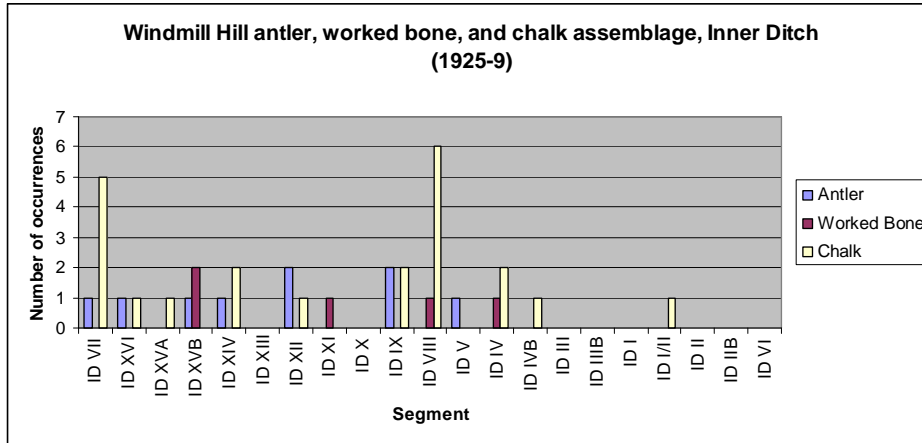


Figure 5.9089 Windmill Hill antler, worked bone and chalk, Inner Ditch
(after Pollard 1999a: tables 24-44)

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5.15.7 *Chalk*

Sixty chalk objects can be assigned to an enclosure ditch segment within Windmill Hill (Figs. 5.887-9089). The OD contained 14, MD 24 and the ID 22. Chalk occurred within all segments excavated within OD I, II, and III. It was found in the MD segments VI, V, and I. Segments VII and VIII of the ID contained 5 and 6 finds respectively. The chalk located within Windmill Hill consisted of cups (3 from primary levels, 3 unstratified), perforated pieces (2 large irregular blocks and 1 smaller piece from primary levels, 2 small unstratified pieces), balls (12 from primary levels, 2 from Pit 36, 1 from Pit 37, 15 from upper levels), figurines (2 from primary levels), phalli (4, one each coming from the primary, upper, pre-enclosure, and unstratified contexts) and incised pieces (10 from primary levels, 4 from upper levels, 3 unstratified) (Smith 1965: 130-4). These finds indicate a wide range of social and ritual activities in which they could have been used. Some of these may have acted as personal ornaments, such as jewellery.

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5.16 Material and associated activity areas

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The groups who constructed and used Windmill Hill employed a wide range of objects to carry out activities within the enclosure ditch segment and, most likely, between the circuits once constructed, as well as on the outside of the enclosure (Whittle et al. 2000). This section will not be an exhaustive account of the whole of Windmill Hill, but will focus only on those specific areas which may be re-interpreted as focal points for either a specific activity involving a small number of objects, or an activity where a wider range of objects may indicate the participation of a larger group of people.

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5.16.1 *Mortuary practice and related activities*

As at other causewayed enclosures, the placements of human remains were found in articulated and disarticulated states; the majority of them were located in OD III. Most of the bone located was deposited in a disarticulated state within the OD, MD and ID, and contained a large number of adult long bones, teeth, and portions of skulls, particularly of children or young adults. In addition to human finds, finds of fully articulated animal skeletons were located, suggesting similar treatment to humans placed within the enclosure ditch segments. The treatment of these deposits could suggest that animals and younger individuals were seen as being the same or at least similar in how they both fitted into the world.

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5.16.1.1 *OD III*

The most prominent example of mortuary practice for both human and animals can be seen in OD III (Fig. 5.9+0). Located within this ditch was the complete skeleton of a young child aged 2-3 years, associated with a fox and dog skull in section B, layer 5, a complete pig skeleton in section C, layer 5, and a complete goat skeleton in section B, layer 3. These may all relate to the child within a mortuary ceremony, where the young pig and goat may have accompanied this young child into the afterlife; alternatively they were placed as symbolic of living things which had died in the early stages of life. Fragments of human bone were also located within the primary fill of OD III, both above and below the child and pig skeletons. Within OD III the minimum number of early Neolithic sherds was 413, and consisted of plain vessels (1), decorated, simple-rimmed and plain expanded-rimmed vessels (3), lugs (4),

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decorated vessels carinated (4) and uncarinated (1), cup (1), and a large bowl (1). Ebbsfleet (2-5 vessels) and Morlake (1 vessel) pottery styles were also present within OD III. In addition to the pottery, a small amount of flint (1 tool, 15 flakes, and 2 cores) came from OD IIIB, layer 5 where the child was located. A miscellaneous shaped piece of chalk was also found in layer 5, perhaps indicating a personal or kin group signifier.

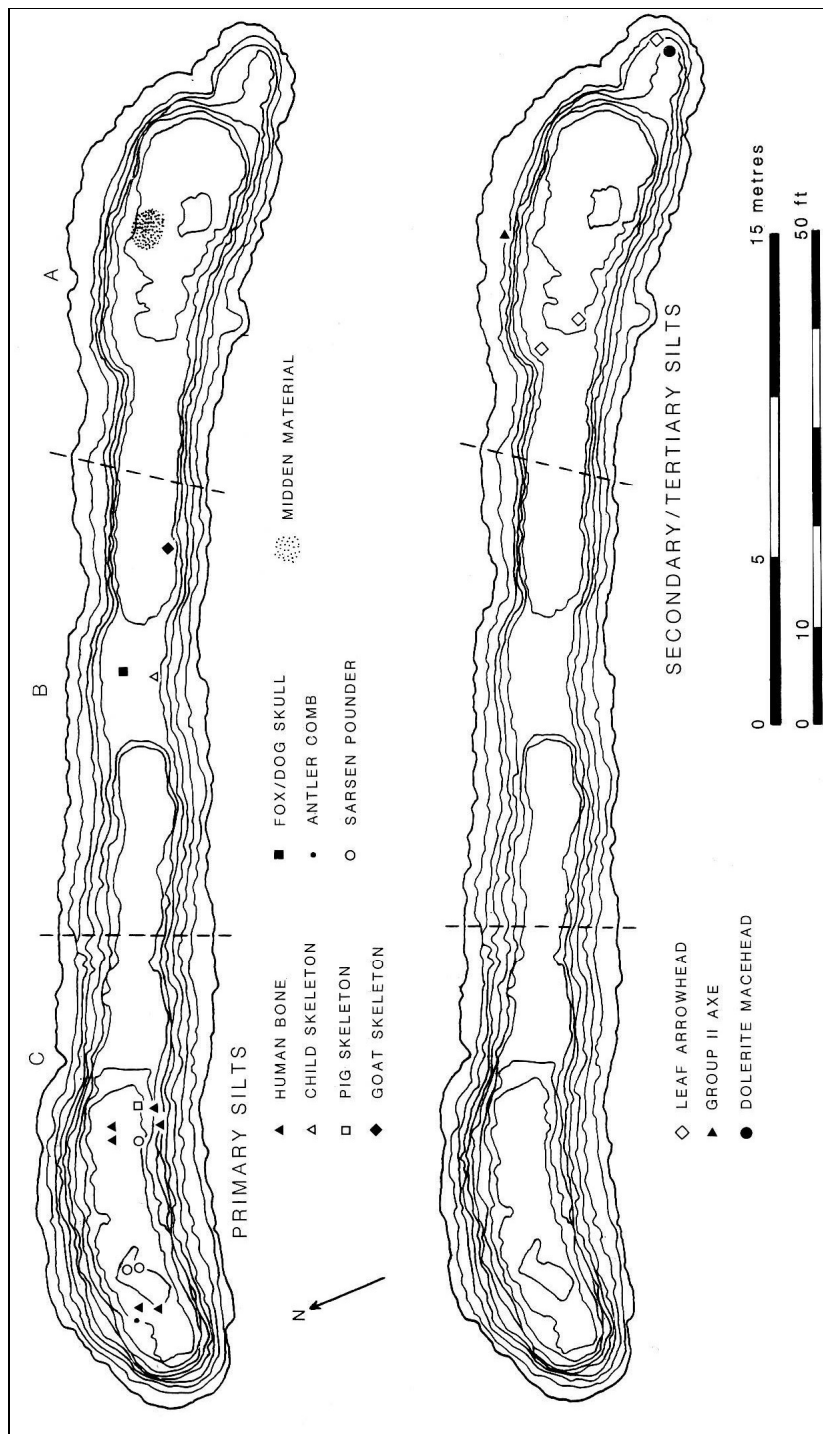


Figure 5.940 Spatial distribution of finds within Windmill Hill, OD III (Pollard 1999a: fig. 25)

5.16.1.2 *MD X*

Flint and animal bone were deposited in large quantities in both sections of MD X (Fig. 5.921). Although this segment suggests activity involving mortuary practice, it also suggests the display of objects, possibly relating to mortuary practice, indicated through the objects in the lower layers. Located within the primary fills of MD X were a large amount of animal bone in a semi-articulated state, a significant quantity of flint (5849 flakes, 359 cores, and 226 tools), at least 926 Early Neolithic pottery sherds, worked bone, antler, sarsen and two human bones. One of the human bones, an adult right maxilla, came from section A and the other, a possible adult left femur, from section B (Pollard 1999: 41).

Quantities of disarticulated animal bone, some of which was charred, may indicate the use of this segment for dismemberment and cooking. In section A, semi-articulated cattle remains, including the skull, and a sheep/goat skull were located. Within section B were found semi-articulated cattle bone and skulls, three of which were in association with two horn cores (Pollard 1999a: 40-1). In layer 3a of the same segment another large cattle horncore and an antler were located. Above this deposit, in layer 2b, a cattle mandible, sherds, a quern fragment, a rubbing stone and what is described as "a substantial spread of material" containing animal bone, sherds, sarsen, quern fragments, charcoal and burnt earth were located (Pollard 1999a: 41). Above this deposit within the same section, layer 2a, a leaf arrowhead was found next to a decomposing horn core (Pollard 1999a: 41). All of these could have been used in display where animals were cooked and the remains of them, particularly the skulls, were left in order to symbolise the activity which was occurring or had occurred.

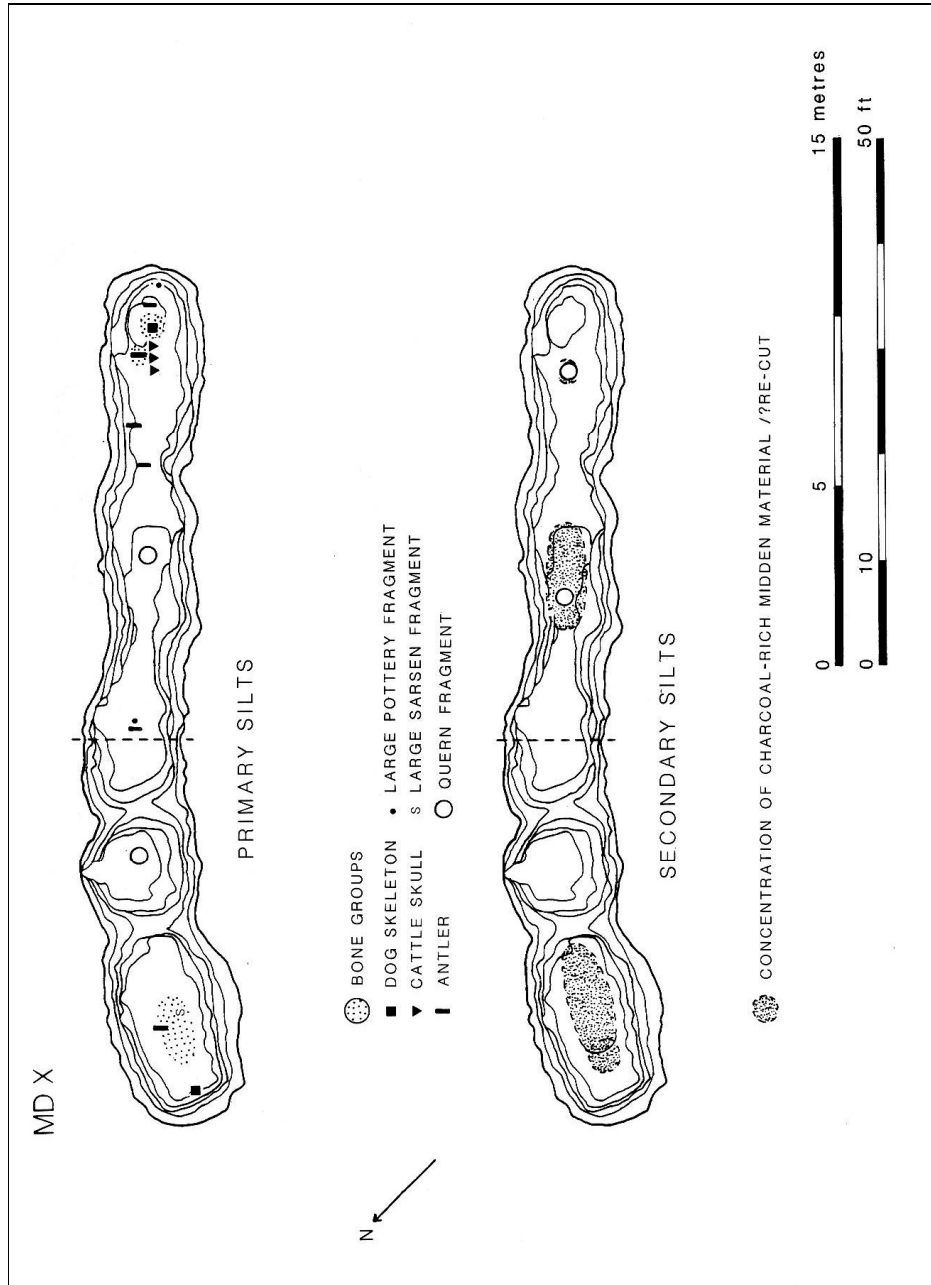


Figure 5.921 Primary and secondary deposits from MD X, Windmill Hill (Pollard 1999a: fig. 34)

The two dog skeletons which flank either terminal end could indicate an area defined by the deposition of animals. Similarly placed deposits of animal skull, particularly cattle, may have signified to the individual walking through a causeway the meaning behind the use of an enclosure ditch segment. The three cattle skulls from section B, and the accompanying antler (five in section A, and one in section B) also indicate the important part which animals played within this enclosure ditch segment. The way in which two quern fragments divide the segment into thirds appears to be significant. They may represent the separation of 'zones', or areas of the segment where only specific objects are meant to be associated with one another, or one object is isolated from the rest, in this case the antler associated with a large pottery fragment in the 'middle' of this zone.

Two finds of human bone could also be relevant indicators of mortuary practice and are noted in the finds tables within layer 2 of A, and layer 3 of B, although no descriptions or associations are mentioned in the text. The large amount of flakes, cores, tools and pottery are noted within the finds tables, but just as the human bone, it is only mentioned as "flint waste" or "flint flakes" within the "substantial spread of material" (Pollard 1999a: 41). The amount of flint and pottery must have had a large part to play within this enclosure ditch segment as the flint suggests an area primarily used for cooking. This is evident by the fact that this segment had been partially backfilled and then, later on, was re-cut, perhaps acknowledging the deposit lower in the fill of the ditch. Overall, what this segment clearly indicated is that activities were changing over time within layers 2 and 3: the lower deposits indicate a larger emphasis on mortuary practice, which then changes to activities which resemble cooking and the display of associated objects, possibly indicating what had come before within the lower deposits.

5.16.1.3 *Trench BB*

Located in the 1988 excavations, within a pre-bank grave of Trench BB (Grave 707), was an adult male in a crouched position (Whittle et. al 1999: 79). A pig bone was found above the skeleton, while in association with this man were one flint flake and numerous bones of toad and frog. These may indicate that this grave was left open for

some time (Whittle et al. 1999: 80). Near to Grave 707, at the rear of the bank, chalk blocks measuring about 60 by 50cm were located with no associated material culture (Whittle et. al 1999: 80-2). The placement of the chalk blocks in close proximity to the skeleton could be an indication of how an articulated skeleton was treated during the mortuary process. As already shown at The Trundle and Whitehawk, the ways in which chalk was used was very specific to the ways in which the human body was treated at the time of death. The man placed within Grave 707 of Trench BB may have been a flint miner or associated with the digging of some of the enclosure ditch segments in the enclosure, perhaps the Outer Ditch segments, and was thus given a place among them.

5.16.2 *Food processing*

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5.16.2.1 *MD I*

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Based on the evidence from the excavations in the early 1920s, large amounts of ~~ss~~arsen and stone in the form of pounders, querns, and rubbers were located within the enclosure ditch segments at Windmill Hill (Figs. 5.9~~32~~ and 5.9~~43~~). A total of 153 finds of stone was located, from MD X, (23), MD II (22), and MD I (39). The assemblage

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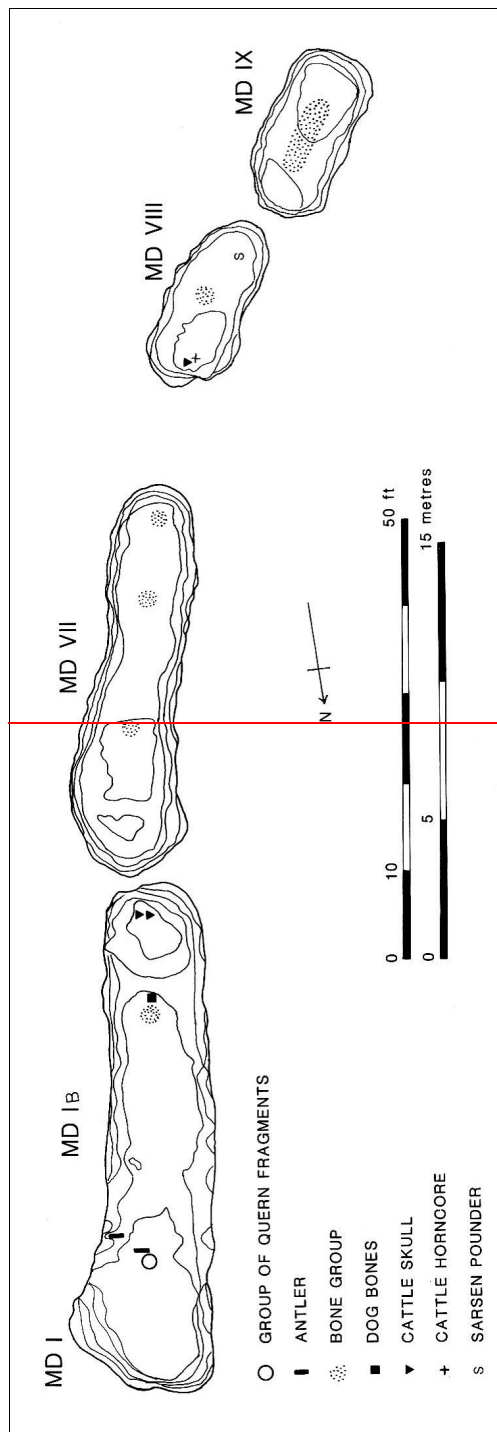


Figure 5.93 Deposits within MD I, VII, VIII, and IX at Windmill Hill (Pollard 1999a: fig. 34)

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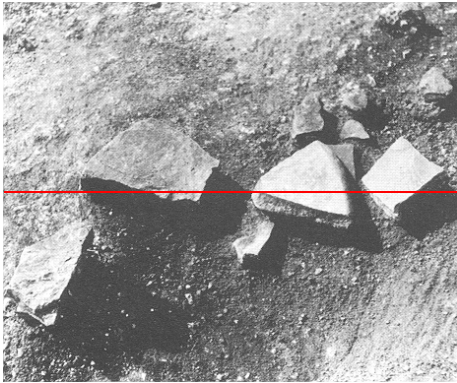


Figure 5.94 Quern fragments from Middle Ditch IB (Pollard 1999a: fig. 44)

within MD I in particular suggest the importance which this location took on in the processing and cooking of animals. Although there is no evidence for cut marks on the bone within this segment (Grigson 1999: 252), the large amount of animal bone may also indicate that meat was being cooked as there were charcoal-rich bone deposits in MD IB. Alternatively, animal bone could have arrived here after consumption. In layer 3, three other charcoal-rich deposits were located and consisted of dog, cattle, burnt sarsen, antler, small pottery sherds, one core and 10 flakes (Pollard 1999a: 47).

At the south terminal end of this segment, near the base, two cattle skulls in association with other animal bones, and flints, were located; from the north end of MD IB, near the base, three sarsen quern fragments were found (Pollard 1999a: 47). The large amount of quern fragments, the 'charcoal-rich' deposits, and the animal bone together make a good case for the cooking and display (of the cattle skulls at least) within this segment. It has been suggested that meat was taken off animals and boiled in pots or in skin bags (Grigson 1999: 227). The evidence from the segment to the south of MD I and MD VII could suggest it was used to butcher animals, the meat then being taken elsewhere, such as MD I, to be cooked.

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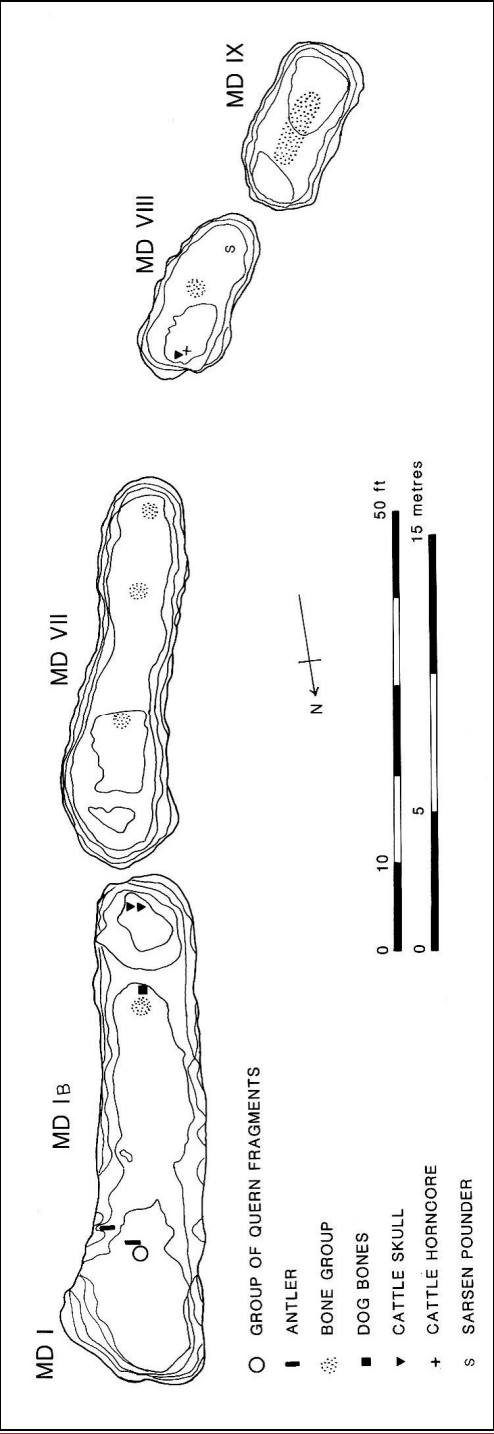


Figure 5.92 Deposits within MD I, VII, VIII, and IX at Windmill Hill (Pollard 1999a: fig. 34)

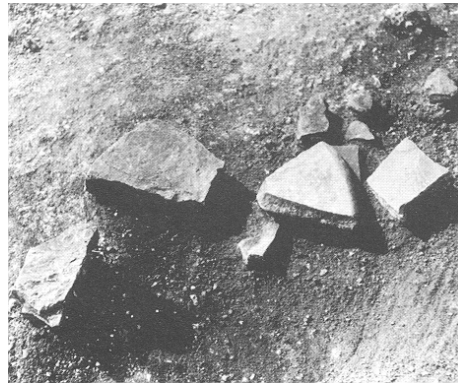


Figure 5.93 Quern fragments from Middle Ditch IB (Pollard 1999a: fig. 44)

5.16.2.2 *MD VII*

In segment VII of the Middle Ditch, layer 4, a large number of animal bones were located including articulated limb bones in association with a large sherd (Pollard 1999a: 51). Also in this layer, in the south terminal, was a group of bones and flint including "conjoined flakes, a core, two knives, two retouched flakes, and a serrated flake" (Pollard 1999a: 51). Within layer 3, another bone deposit included a knife and a scraper. Other articulated bones of cattle were located in this segment, and include a deposit of animal bone where the head had been removed and placed at the base of the spinal column, while another cow was similarly located with articulated vertebrae and the skull located towards the rear of the cow (Pollard 1999a: 51). Partial dismemberment of these cattle, and tools including a knife and a scraper, suggest that this enclosure ditch segment represents animal hide production.

5.16.2.3 *ID VII*

The processing of food may also have occurred within ID VII (Fig. 5.954), a relatively short segment (11.3m, the eastern segment 4.0m long). The ID circuit contained the largest concentrations of pottery from a variety of styles, including a large amount of Early Neolithic pottery, totalling at least 1570 sherds, from all layers within these enclosure ditch segments. Cattle bone was located in large amounts in the east terminal of the western segment, including, large quantities located in a 'black mould' (Pollard 1999a: 53). Based on the amount of pottery, and the low number of finds of flint from all layers, it is suggested that ID VII served as an area in which cooking or at least the boiling of bone was taking place. A horncore from this

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segment has been shown to have cut marks on it (Grigson 1999: 252), which may indicate that at least dehorning was being done. As Grigson (1999: 225) points out, dehorning involves boiling or heating the horn in order to remove the hornsheath. The cups and large vessels (Zienkiewicz and Hamilton 1999: fig. 195) in this enclosure ditch segment, based on the quantities of pottery and the evidence for burning in association with the cut marks located upon the horncore found within the segment, indicate that a large number of cattle were being processed for food and the removal of skins. The large pottery vessels were used as containers and cups, perhaps for eating.

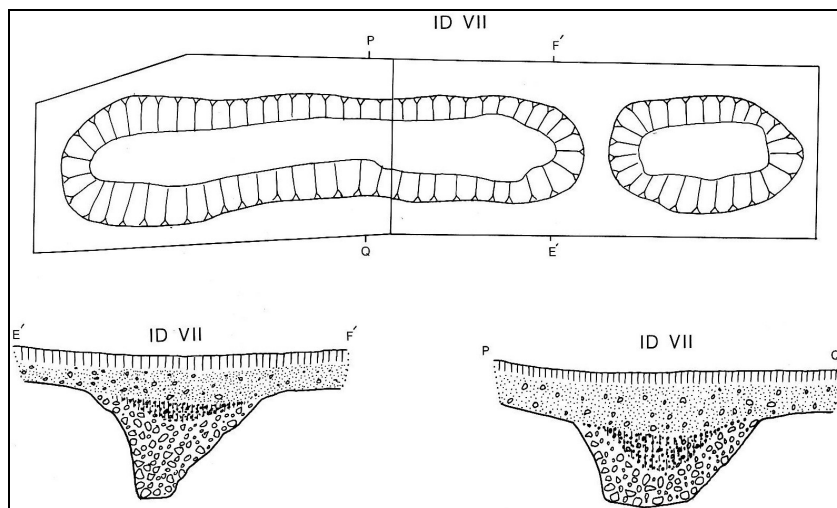


Figure 5.954 Plan and section of Inner Ditch VII (Pollard 1999a: fig. 50)

5.16.3 *Flint working*

The large amount of flint located during the Keiller excavations provides an opportunity to re-evaluate three areas which may have served as places where flint was deposited during or after the creation of implements.

5.16.3.1 *MD XI*

The first area is within MD XI (Fig. 5.965) and, as will be suggested below, this segment may symbolize the activity of hunting, tool manufacture, or a combination of both. Excavated from two sections (A and B), a large amount of flint (Fig. 5.765) was recovered totalling 7020 flakes, 385 cores and 250 tools, and at least 1014 Early Neolithic pottery sherds (Fig. 5.821). Their relationship with human remains may be

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important for in section A an adult human femur was located within a primary context, while in section B, two fragments of human jaw were in a north terminal pit associated with a flint axe fragment and two groups of dog bone, one of which was associated with the feet and tail bones of a cat (Pollard 1999a: 40). In section B an infant's skull was found in association with fox and pig bones (Pollard 1999a: 36-7). Above the skull, an overturned pot was found, along with three cattle horn cores, limb bone and large pieces of antler (Pollard 1999a: 40). These —suggest that the individuals who had been placed here were linked with hunting and hide working, as it is suggested that the cat was used for its pelt (Grigson 1999: 234) and the fragment of stone axe indicated a symbolic token to the importance of cooking and eating.

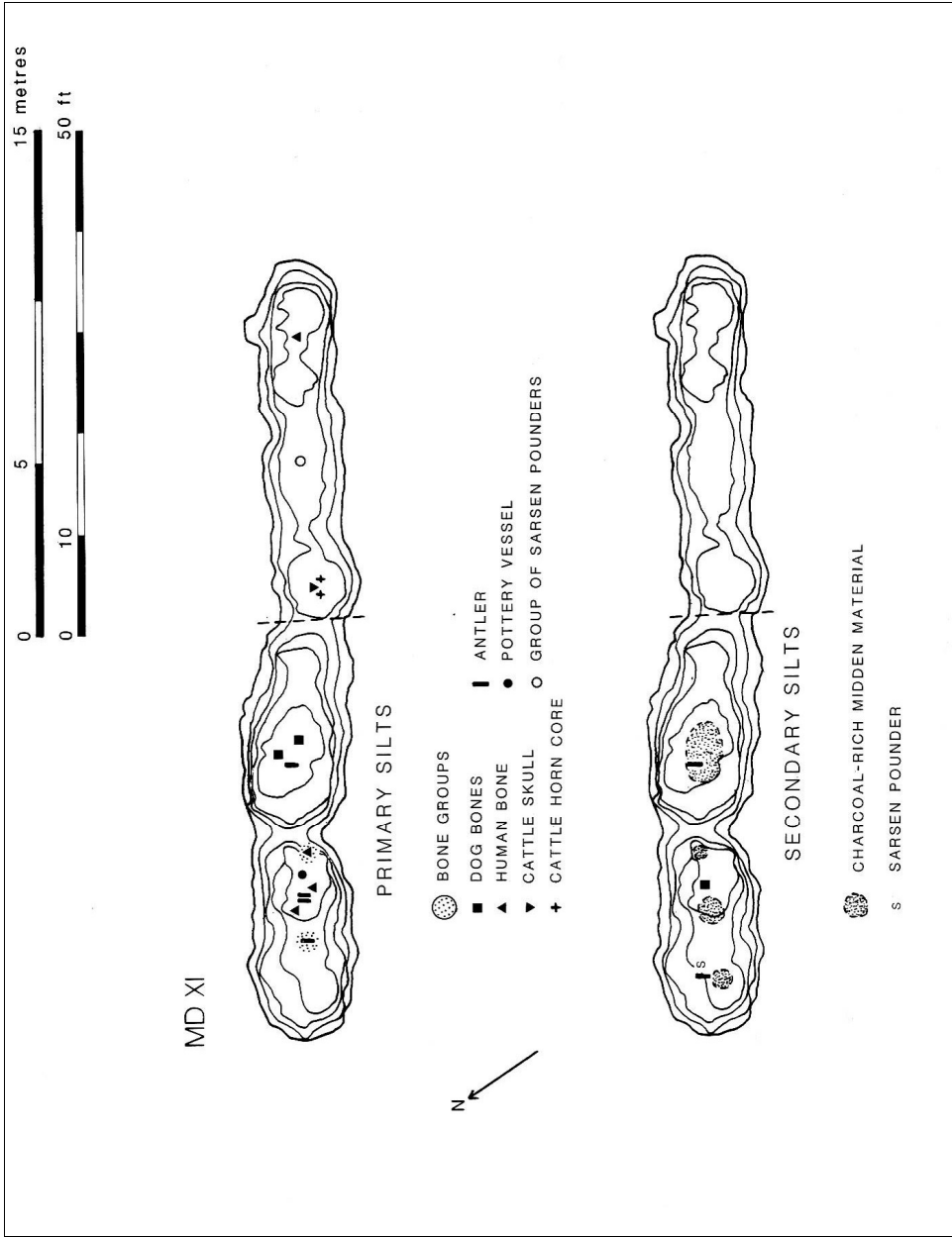


Figure 5.965 Windmill Hill primary and secondary deposits within MD XI (Pollard 1999a: fig. 34)

5.16.3.2 *ID XII*

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Within the Inner enclosure ditch segments, particularly segments XII and XI, a large quantity of flint (Fig. 5.775) and bone was also recorded. In ID XII 2924 flakes, 96 cores, 152, and at least 61 sherds of Early Neolithic pottery were located. Pollard (1999a: 62) notes that the surviving records make this segment unique in what we know in detail about its contents. A large amount of animal bone was found in five separate groups each containing a large number of limb and feet bones, horncores, vertebrae, mandibles and fragments of other skeletal elements. A total of 380 bones was identified from ID XII in which cattle was the dominant species (over 70%), found along with pig (14.2%), sheep/goat (2.6%) and other medium-sized animals (11.60%) (Pollard 1999a: 62). No cut marks are noted for any of the bone within this segment, but in Group 3a was a diverse set of animal bone, including 21 limb and feet bones some of which had been gnawed on by a dog (Pollard 1999a: 63).

Within these groups of animal bone in MD XII were also found dog faeces, a chalk ball and two groups of sarsen. Although this segment contains a large amount of animal bone in groups, the large amount of flint which accompanies the material is not reflected in the finds tables. It could be suggested that this segment was used for butchering, but if there are no indications of cut marks on any of the bone (Grigson 1999: 252) it makes this suggestion problematic. That some of the bone had tooth marks left by dogs suggests that this ditch was left open to probably silt naturally or was partially backfilled (Whittle et al. 1999: fig. 221).

One explanation may be that ID XII was first dug out and used primarily for the deposition of animal bones which were arranged by individuals back into their articulated state in such a way as to make them seem alive. In the enclosure ditch segment they were with other associated objects which were relational to that specific animal in life, such as pottery. Later the segment was used primarily for flint working as 2310 flakes, 106 tools and 62 cores were located within layer 1; lesser quantities were deposited later with 504 flakes, 28 cores and 27 tools in layer 2, and 110 flakes, 6 cores, and 19 tools in layer 3 (Pollard 1999a: table 30). Only 270 sherds were

located, 61 of which could be identified as being early Neolithic. This suggests that either this segment was not intensively used for an activity in which large amounts of pottery were needed, such as in butchering, to hold liquid or meat, or that the pottery was taken away and placed elsewhere in another enclosure ditch segment or perhaps taken off-site completely. This change in deposition strategy, and the different types of material deposited through time in the different layers, indicates how this enclosure ditch segment changed from being one used for animals to being used for activities surrounding flint.

5.16.3.3 *Trenches B and E*

Evidence from the 1988 excavations may also indicate that a high level of flint activity was taking place in association with butchery and hide preparation, especially within Trenches B and E, where 43 of the 71 scrapers from the 1988 excavations were located (Fig. 5.798). Large quantities of flakes (1124) were also located within Trench B, making up 38.55% of the total by-product assemblage (Fig. 5.8079). A pig rib from bone deposit 229 of Trench B had cut marks, cattle bones from deposit 227 of the same trench had been chopped and cut marks were located on a large mammal rib (Whittle et al. 1999: 84). Cut marks have been located on cattle and pig within bone deposits 524, 523, 525, 518, and 522 in the primary fills of Trench E, which suggest activities such as dismemberment, defleshing and skinning (Whittle et al. 1999: 101-4).

The large amount of scrapers and knives within possibly all of the excavated trenches, but especially B and E, would indicate that a large number of animals were processed in these enclosure ditch segments. If the fragments of animal bone are taken together with the evidence for identified animal bone, Trench B suggests that as time went on a higher rate of animal activity occurred in a secondary context. In Trench E, the animal bone located within a primary context indicates that a large amount of deposition from the start of this area revolved around animal bone. The large number of scrapers in addition to the animal bone within Trench B (30) and Trench E (12) (Fig. 5.79) may be one indication that this area was used for butchering activities similar to one another.

5.16.4 *Other activity areas*

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5.16.4.1 *MD II*

One other area which is notable for its finds is section B in MD II. Three major groups of material culture were located, two within layer 4, the other within layer 5. In layer 4, animal bone including cattle, pig, and sheep/goat jaws were located, along with pottery sherds, a portion of polished flint axe, flint flakes, a worked antler shaft, a bone awl, serrated flakes and other flakes which were burnt. Layer 5 produced 17 sherds of pottery, a scraper, a core, worked flakes and other flakes, along with "a notable quantity of bone pins" (Pollard 1999a: 47). Based on this evidence, of all the enclosure ditch segments excavated at Windmill Hill, MD II suggest a heightened emphasis on the deposition, not only of modified bone, but also antler and chalk (Fig. 5.89). The fact that bone and flint continued to be deposited in succession within layers 4 and 5, possibly indicates that MD II was an area where flint was used to modify bone and chalk objects, the animal bone and portion of polished flint axe adding further importance to this area.

5.17 Summary

The evidence at Windmill Hill suggests a causewayed enclosure which was used over the whole of the Neolithic, as demonstrated through deposits of Later Neolithic pottery. A large amount of flint, animal and human bone, pottery, stone and chalk attest to the diverse people and objects created imported to the site, be it pottery or polished stone axes located within placed and structured deposits. The areas defined above as activity areas, demonstrate the multitude of activities which involve different types of objects. They thus cross-cut objects as being isolated through statistical analysis, but instead demonstrate the ways in which those objects were used at different parts of the site. Hide-working, pottery usage (production?), mortuary practice of humans and animals, and the creation and placement of flint objects attest to the importance and multi-purpose use of this site through time by pastoralist groups who centred their world around the use of animals to express themselves.

5.18 Conclusion

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All four of the enclosures within the Wiltshire area can be compared and contrasted to a variety of degrees. Although there are quite clearly differing amounts of material excavated from each site, it does indicate that each enclosure may have had a specific group of people who used it for the deposition and/or use and deposition of material culture which was central to their lives.

At Knap Hill the majority of evidence indicates that flint was of central importance. The large amount of flakes and cores suggests that groups of people who came to the enclosure did so in order to create tools. The fact that within the excavated areas almost 80% of the flint was either primary flakes or knapping waste adds weight to this interpretation. Small amounts of human and animal bone and pottery indicate that other activities were probably occurring, but are difficult to define due to the small-scale excavation which took place.

The excavated portion of the site at Robin Hood's Ball indicates that activities involving a large amount of pottery were taking place, particularly within the outer bank of layers Q and N, and suggests that the association of pottery with other activities such as hideworking and butchery- was on a much smaller scale, as the evidence for animal bone is comparatively low. The seemingly specific distribution of material such as large quantities of pottery within the outer bank and the inner ditch in layers, G, H, K, L, and M (Figs. 5.11, 5.12), and the large amount of flint within layer F (Fig. 5.10) of the outer ditch, may add further weight to this suggestion for specific areas of activity where pottery was specifically brought to the site to be 'killed', the sherds deposited in this area of the site. The material located within the outer ditch seems to represent activities which involved the use of flint, while the inner circuit may represent activities such as butchering and cooking which were directly associated with animal bone and flint.

The Whitesheet Hill assemblage, based primarily on the internal features prior to construction work, indicates the use of pig, as the unusually high numbers located dominated the animal bone assemblage. Pottery seems to have been used or deposited primarily within F1295, while the large amount of flint flakes, some of which were burnt and/or broken, and the large amount of retouch on the implements suggest their

reuse and importance involving activities within each feature in a 'chain of operation' such as butchery and skinning, at least within the interior.

The large-scale excavations at Windmill Hill revealed a wide range of activities including mortuary practice, food processing, and the butchering, skinning and consumption of animals within specific areas of all three circuits. Large amounts of structured deposits including the articulated remains of both human and animal (pig, goat, and dog) were located within the OD III and Trench BB, while partial skeletons of cattle were also located within areas such as MD X. Activities involving pottery took place as evidenced by the large amounts deposited in areas such as OD II, MD II, and ID VII. Flint working occurred in every enclosure ditch segment, but seemed to concentrate within MD X, MD XI and ID X, ID XII, and Trench B, suggesting activities in conjunction with the processing of animal bone. Windmill Hill in one sense displays all the features of the 'classic' causewayed enclosure.

When taken in comparison to the other enclosures within this region a different approach may be taken. Any size of enclosure may limit the number of people who were able to visit the monument at any one point during the year. Knap Hill may have only been used as a place where specific groups came to carry out knapping. The constructional sequences may have depended on the population density of the local environs and what a specific enclosure was 'meant' for. A large and organised population would have been required to construct Windmill Hill, The Trundle, and Whitehawk, and possibly Robin Hood's Ball. The smaller enclosure of Knap Hill would have taken less time to construct, and served a different purpose within the local landscape as a place where smaller groups would visit. As circuits may have been added over time, it is plausible that more material would be located within not only the segments already constructed but in the newly constructed segments, perhaps indicating deposits within a middle ditch circuit, which referred back to the earlier-constructed inner circuit. Whatever the reasons for the decisions for the construction of these four sites, it seems that each had its own part to play in one of the most active areas of the British Isles during the Neolithic and beyond.

Chapter 6

The Distinctive Roles of Causewayed Enclosures

6.1 Introduction

Chapter 1 of this thesis looked at the ways in which causewayed enclosures have been assessed in the past, from the early 20th century to the present. Predominantly from the 1960s, these ideas ultimately relied on ritual and the complexities of structured deposition in order to explain the ‘function’ of causewayed enclosures. In chapter 2, I suggested that perhaps causewayed enclosures could be looked at through a detailed re-examination of the material deposited within the linear ditch segments and small-filled pits. By doing this the focus would shift away from an interpretation of causewayed enclosures through structured deposition and instead interpret them through the role activity played in their distribution, construction and chronology. What do the differences in construction method and location indicate about different groups within upland or lowland environments? One answer is that each causewayed enclosure constructed within the landscape was used by smaller groups who, living in localised environs, reflected that local environment through deposition, incorporating those materials and their beliefs into the use of each site. These actions need not be primarily associated with ritual, cosmology or conceptions of ancestors, but a reflection of who people were and what they were achieving (butchery, flint knapping, etc.) through the creation, use and modification of objects. The numbers of ditches and pits could reflect the number of people within the local environment where the enclosure was used, or in some cases as demonstrated at Windmill Hill and Whitehawk circuits were added over time, an indication of either a rise in population within the area or an increase in the importance of these sites through time.

The activities at causewayed enclosures were possibly located within predetermined areas where deposition took place, including the ‘continuous’ construction of new ditches and, ultimately, circuits, each expressing an identity of the groups who

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communally dug and deposited objects in them (Startin and Bradley 1981). The 'highly' structured deposition which took place within these sites may have been infrequent, while everyday activities such as butchery, flint manufacturing and food processing included in ditch segments, seemingly unstructured and often noted as 'sweepings', are just as important. These objects still had great symbolic value to those who placed them within the ditches. If they were 'rubbish' or 'sweepings', then why place them within a ditch segment at all? The answer may be that these objects represented the way people lived and the importance objects such as wood and stone had within their communities. This form of representation does not mean that an enclosure represents something but that, through activity and deposition, people are representing themselves and what is important to them.

This chapter will firstly suggest a broad chronological framework in relation to the dominant types of activities occurring within each enclosure. I will then indicate the numerous types of activity or activities, such as woodworking, mortuary practice, flint working and butchery from chapters 3, 4, and 5, which demonstrate how differing types of material culture (flint, wood, human and animal bone, etc.) were possibly used within each causewayed enclosure. Within each enclosure differing amounts of material culture is present. As I have shown in chapters 3-5, the material located within the enclosure ditch segments indicates that specific materials could relate to a site being primarily used for one type of activity rather than another. Next, I will determine if causewayed enclosures were created in order to carry out special tasks, or were places where a variety of pragmatic tasks were done. After this, I will take into consideration the wider issues of economy and society during the early Neolithic, such as dairy herds, growing and using cereals, and hunting, which suggest that the types of activities which were occurring outside causewayed enclosures and the social relations developed from the interaction between people and objects (Pollard 2008), are of fundamental importance in any attempt to understand the complex nature of Neolithic society. Finally, I will offer some brief concluding thoughts and suggestions for future research regarding causewayed enclosures indicating the importance for future examination, particularly excavation of causewayed enclosures within the British Isles.

6.2 Chronology and regional patterns

The dates of construction of the causewayed enclosures in East Anglia, the South Downs and Wiltshire indicate a high probability of contemporary overlapping usage between sites. Although the material culture represented appears similar, the materials located within the enclosure ditch segments suggest that each enclosure was being used in a slightly different way. The three regions in this study on their own indicate that perhaps each of the enclosures was either acting independently within a specific region, or that each enclosure may have been primarily used for a specific activity (Fig. 6.1). The table below (Table 6.1) suggests the main types of activity that may have been occurring at the sites within this study. This does not mean that human remains should always be taken to indicate mortuary practice. It is possible that within some depositional contexts, particularly incorporating specific skeletal elements that some groups may have been attempting to “imprint the monument with specific social label or identity” (Russell 2002: 92). Other Neolithic monuments such as some of the flint mines discussed within this study, long barrows and pits could also represent the practice of defining a person through the inclusion of body parts to a group. This may be one reason why there are no articulated burials within some enclosures.

<u>Site</u>	<u>Start of construction/activity</u>	<u>Other areas of dateable activity</u>	<u>Use period</u>	<u>Main activities represented</u>
Etton	3775-3650 Cal BC	Segment 1 ditch cut 3710-3645 Cal BC	350-630 years	Woodworking, feasting?
Haddenham	3820-3930 Cal BC	Ditches infilled 3100-2460 Cal BC	1-1090 years	Human mortuary practice
Offham Hill	OD 3635-3555 Cal BC (66%)	ID infilling 3645-3490 Cal BC (73%)	500 years?	Quarrying/ implement production, mortuary practice
The Trundle	Inner Ditch may date to after 3900-3370 Cal BC Ditch 2 dug after 3650-3520 Cal BC Spiral Ditch after 3940-3370 Cal BC		?	Quarrying/flint production, feasting?
Whitehawk	Ditch I, 3635-3560 Cal BC Ditch II, 3675-3630 Cal BC (72%) Ditch III, 3660-3560 Cal BC Ditch IV, 3650-3505 Cal BC		75-260 years	Quarrying/flint production, Human and animal mortuary practice, feasting?
Knap Hill	3530-3375 Cal BC (91%)	Primary fill of ditch accumulated 3525-3220 Cal BC (92%)	1-460 years	Flint production
Robin Hood's Ball	3640-3550 Cal BC (81%)		?	Butchering and feasting (pottery)
Whitesheet Hill	3610-3540 Cal BC (84%)		1-120 years	Animal mortuary practice, feasting
Windmill Hill	First circuit 3700-3640 Cal BC ID, 3685-6335 Cal BC OD, 3685-3610 Cal BC MD, 3665-3605 Cal BC	69% probable ID first constructed 88% probable MD constructed last	Main use for 290-390 years Deposition ended 3365-3295 Cal BC (94%) Main phase of deposition ended middle of 34 th century Cal BC	Hide working, Human and animal mortuary practice, feasting, cereal production, flint working, pottery production?

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Table 6.1 Possible construction and other activities at causewayed enclosures (after Whittle et al.: in prep)

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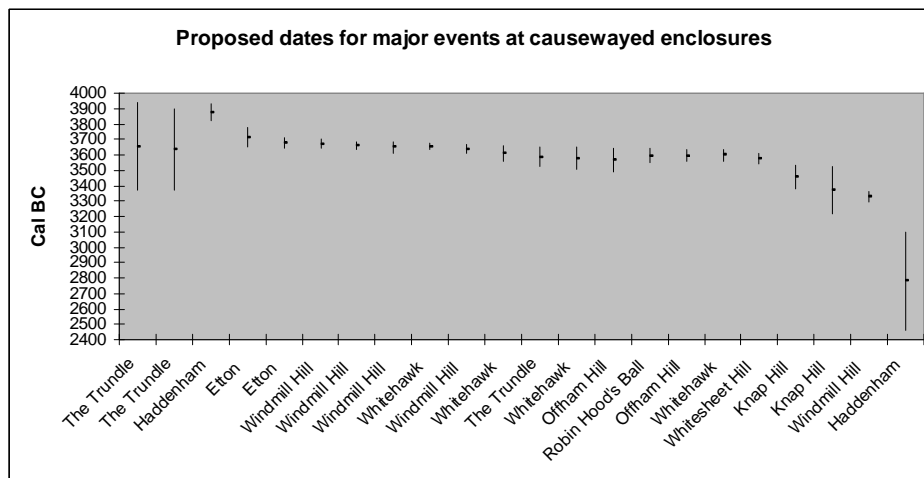


Figure 6.1 Dates of major periods of site modification at causewayed enclosures (after Whittle et al.: in prep.) See Table 6.2 for location and date correlations

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Site	Activity/location	Date (Cal BC)
The Trundle	Start SD after	3940-3370
The Trundle	ID date after	3900-3370
Haddenham	Start	3820-3930
Etton	Start	3775-3650
Etton	Seg 1 cut	3710-3645
Windmill Hill	First circuit	3700-3640
Windmill Hill	Start ID	3685-6335
Windmill Hill	Start OD	3685-3610
Whitehawk	Start DII	3675-3630 (72%)
Windmill Hill	Start MD	3665-3605
Whitehawk	Start DIII	3660-3560
The Trundle	D2 after	3650-3520
Whitehawk	Start DIV	3650-3505
Offham Hill	ID infilling	3645-3490 (73%)
Robin Hood's Ball	Start	3640-3550 (81%)
Offham Hill	Start OD	3635-3555 (66%)
Whitehawk	Start DI	3635-3560
Whitesheet Hill	Start	3610-3540 (84%)
Knap Hill	Start	3530-3375 (91%)
Knap Hill	Primary fill accumulated	3525-3220 (92%)
Windmill Hill	Deposition ended	3365-3295 (94%)
Haddenham	Ditches infilled	3100-2460

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Table 6.2 Site, location and dates of major periods of site modification at causewayed enclosures. All dates are at 95% confidence unless stated (after Whittle et al.: in prep.)

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The enclosures of Etton and Haddenham are, perhaps, two of the earliest enclosures so far dated. The construction of Etton is estimated to have occurred around 3775-3650 Cal BC, with the ditches infilled about 3100-2460 Cal BC, giving Etton an estimated life use of 350-630 years. The dates for the first digging at Haddenham are less precise, around 3635-3555 Cal BC with a life use of 1-1090 years. Both of these enclosures shown in chapter 3 demonstrate the differences two sites within the same region can have. It should be remembered that the lack of evidence for woodworking at other sites within the study does not mean that it was not occurring. As shown in chapter 4, the sites of the South Downs have evidence for some postholes which could suggest that other types of wooden objects may have been created and used, but due to the poor preservation on the chalklands, it is not possible to interpret possible overarching use of wood within these sites. The overwhelming evidence for woodworking at Etton is indicated by the 'fence line' within the western portion of the site and the possible wooden structure near causeway B between segments 1 and 2 at Etton may have had an influence on other projects within the local environment, including the construction of a palisade at Haddenham.

The enclosures in the Wiltshire area may exemplify this point. The site of Windmill Hill is suggested to have been constructed and mainly used over a period of 290-390 years, with all of the circuits completed between 5-75 years. This suggests that Windmill Hill could have been constructed within one to four generations, and used intensively. During that time the Inner Ditch was constructed, followed by the Outer and Middle circuits. It is an interesting observation the people who constructed Windmill chose to begin with the Inner circuit and end with the Middle circuit. One reason may be that the activities occurring within the Inner circuit were seen as distinct from those of the Outer circuit, which at this time would have been some way in the distance, but still visible from the Inner circuit. The Outer circuit was a place where a majority of the human and animal mortuary practice took place, within segment III, and may have been kept separate from the activities of flint working and pottery usage in the interior. As the Middle circuit was constructed, the evidence indicates that larger amounts of flint production, animal butchery, feasting, and pottery usage took place within this area of the site. Feasting or at least the preparation of large quantities of food are evident by the numerous animal bone, some burnt which is often accompanied by charcoal or other evidence of burning. It is

difficult to indicate any significant changes in the Inner or Outer segments compared with the Middle circuit. It could be that the material located within the Middle circuit does suggest that by the time this circuit was added the site was being used either more frequently or by larger groups. This would take into account the addition of a circuit which was primarily used for food preparation, cooking and the material deposited within the segments. Perhaps the construction of the Middle circuit would have obstructed the view from the Inner circuit, so that the activities occurring within the Outer circuit were not meant to be seen, thus creating a physical and social divide between these two areas of the site. The sites of Whitehawk and possibly The Trundle, Offham Hill and possibly Robin Hood's Ball may also have been subject to this as the inner circuits do not include an abundant amount of human remains. The modification and or further extension of enclosures could indicate that over time ideological values were changing particularly towards the end of the use of causewayed enclosures. However the circuits were constructed and used, Windmill Hill and other multi-circuited enclosures may indicate that as different circuits were constructed any differences in deposition between them could suggest changes in use over time and not just changes in different activities practiced at sites at the same time.

During the time Windmill Hill was in use, the construction of Robin Hood's Ball took place, around 3640-3550 Cal BC. This enclosure was constructed of two circuits and the evidence suggests pottery was used in association with animal bone, perhaps for feasting. The site of Knap Hill may have been in use after the decline of activity at Windmill Hill. Estimates suggest that Knap Hill was in use for around 1-460 years, indicating a further two generations of Neolithic people who could have continued using Knap Hill after deposition ended at Windmill Hill. The material located within Knap Hill indicates a larger amount of flint being knapped, which contrasts with the larger amount of pottery from Robin Hood's Ball and a far greater range of differing activities at Windmill Hill using flint, pottery and human and animal bone along with some small chalk objects. The primary infilling of the ditches occurred around 3525-3220 Cal BC, possibly containing some of the last depositions which focused on smaller-scale activities involving flint production. It is probable that Whitesheet Hill was constructed about the same time as the first digging of Windmill Hill, around 3610-3540 Cal BC, and was in use for about 120 years. Comprised of a large single

circuit, Whitesheet Hill may have been only the beginning of an enclosure of similar size to Windmill Hill, but its short life span and other social and political factors within the local landscape at the time may have prevented Whitesheet Hill from becoming a larger focus for local gatherings. The main evidence for feasting indicates that this site, too, was being used in the same ways as Windmill Hill.

For the Wiltshire area at least, the evidence suggests that Knap Hill, Whitesheet Hill, and Windmill Hill were 'in use' together at some point, but that Windmill Hill was constructed and used more intensively, and then some time around 3365-3295 Cal BC deposition ended, while the use of Knap Hill may have continued for around another 100 years after deposition ended at Windmill Hill, before the primary fill of the ditch was completed around 3525-3220 Cal BC. Whitesheet Hill and, possibly, Robin Hood's Ball were constructed around the same time as Windmill Hill, but perhaps failed to make a large enough social impact upon the local area, and were disused within about 100 years. All of these enclosures are located quite close together and there is no reason why some people should not have used one or all of them at some point with the year.

The differences in construction technique and the differences in object deposition suggest that each enclosure could have been used for primarily one type of activity. Larger amounts of flint were located from Knap Hill, while at Robin Hood's Ball a majority of the material indicates the use of pottery. This does not suggest that other activities could not have taken place here, for they certainly did, as indicated though some quantities of animal bone. Each enclosure may have been used for the a specific activity by particular groups of people acting independently, or perhaps these sites were places where specific activities were seen as being acceptable before gathering at a site such as Windmill Hill where the practice and knowledge of activities were conducted on a larger scale.

Similarly, in Sussex, the radiocarbon dates at Whitehawk, like Windmill Hill, suggest a short, sporadic and intensive use, estimated to have been about 75-260 years. All of the estimated dates for the construction or digging of ditches I-IV are within about 30 years of each other which may add further weight to this suggestion. The four circuits at Whitehawk would have required a sizable amount of labour to construct, and must

have been a focus for the gathering of large groups. From the enclosure ditch segments excavated, the main focus for activity centred on flint tool production, and mortuary ritual involving humans and animals as shown through the placement of each within the enclosure. The two-circuit enclosure at The Trundle may date from slightly earlier, with the Spiral ditch possibly constructed first, and followed by the Inner Ditch.

The dates at Offham Hill are the least secure in estimation, but the excavations of the enclosure ditch segments within the Inner and Outer circuits indicate a similarity in the use of flint, in 'clusters', and the human mortuary practice including human bone within a terminal end of a ditch and the inhumation. These indicate a connection of shared ideas between these three enclosures which involved the placement of human remains, as shown through the complete human burials linked with the local quarrying of flint, the creation of tools and the display of that flint in clusters in prescribed locations within the enclosure ditch segments. As shown in Table 6.1, the radiocarbon dates are not as reliable as those for the Wiltshire enclosures. If Offham Hill was constructed and used around the same time as both Whitehawk and The Trundle, its primary focus based on the small amount of pottery may have been as an enclosure which was visited less often, but during those visits intensive tool making occurred. The tools were then taken away from the site as Drewett (1977: 217) hypothesised. If the ditches at Offham Hill were infilled around 3645-3490 Cal BC (73% confidence), and the assumption is that for Whitehawk at least the site was in use for about 250 years less than Offham Hill, a shift may have been occurring where Whitehawk and possibly The Trundle were going out of use, and Offham Hill became a place which continued in use and where the creation and refining of known flint technologies flourished.

These dates suggest that all of these enclosures were constructed and 'in use' during a large part of the Neolithic, but were probably only intensively used during the earlier Neolithic. The overall use of the sites, or the social concept behind them underpinned this consistency during the Neolithic. It is therefore suggested that chronological changes or any 'waves' as suggested in chapter 2 may not be a contributing factor to changes in activity. The differences in site activity as shown at Etton, for example, demonstrate the importance activity played on a micro scale. The changing nature of

these activities on a macro scale was demonstrated through the illustrations of each site and how objects were deposited within the enclosure ditch segments in 'layers'. This does not mean that there were not any changes within sites, but that those changes or similarities in activity were associated with local social changes within the communities who constructed causewayed enclosures.

6.3 Comparing and contextualising activities

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In each of the following sections I will set out patterns which compare and contrast sites in order to demonstrate the way each enclosure in the study can offer a perspective which suggests that each site is united in a Neolithic way of life, but the patterns of everyday activities involved a highly sensitive socio-symbolic structure for activities and the objects which were transformed and produced from them. This will be done through the indication of the importance of activities involving landscape and wood, mining and flint, feasting and foods, dealing with the dead. All of these activities have been brought to attention in the preceding chapters, but I would now like to attempt to thread those activities together in order demonstrate a wider picture of early Neolithic practices, and how those practices reflect the ways in which causewayed enclosures were used. This will aid in demonstrating the uniqueness of the ways each site was constructed, the material used within them and the activities which helped define the people who lived within the Early Neolithic.

6.3.1 *Choosing a location*

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It is hard to define why people chose a particular location within the landscape to build not only causewayed enclosures but other monuments also. Some long barrows would have been constructed by the time enclosures were conceived and built. Enclosures located on hilltops may have been placed there so as to be closer to the sky or to have an extended view of a valley, for example. Other enclosures along low-lying areas near streams and rivers may have taken advantage of them for transportation or food. Living in the Neolithic would have required an intimate knowledge of all types of landscape, passed down from generation to generation from as early as the Mesolithic (Cummings 2000: 93). The forest would have been a place where movement and the past became one, as "concerns, myths, classifications and values of earlier Neolithic communities" (Pollard 2000: 367, 2005) became central to

linking the past to the present, and perhaps the future. Neolithic groups may have travelled through the landscape in relation to "a network of related places" (Thomas 2001: 173; Chapman 1988: 22-4), which have been studied as journeys (Cummings 2007: 504; Cummings and Johnson 2007: 3-4; Garrow 2007b: 48-9; Harding 1999: 36-7; Johnson 1999; Roberts 2007; Tilley 1994: 26-34), migrations and pilgrimages (Anthony 1997: 25-6; Chapman and Hamerow 1997: 3-4), and settlement mobility patterns (Budd et al. 2003: 75-6; Ellison and Harriss 1972: 923, 931; Montgomery et al. 2000: 379-81; Peterson 1975: 236; Pollard 1999c: 79-80; Spence 1974: 353), or where place and architecture do not define the landscape, but rather different points of the landscape are incorporated into it creating "points of departure and dispersal" instead of a fixed place (McFadyen 2008: 130-1). All these have demonstrated the importance of how we conceptualise prehistoric landscape movement and all the complex interrelationships contained within it (Hind 2004: 46-7; Thomas 2000a: 79).

In addition to travelling by foot, it should be remembered that most of the causewayed enclosures, later henges and other mortuary enclosures were located close to water, which may have been a source of transportation for people, animals and other cultural material (Bradley 1997: 320-2; Last 2005: 344-6; Richards 1996: 316-20; Sherratt 1996: 220-1). These natural routes through the landscape may have been one factor in the choice of locations for causewayed enclosures, and why some enclosures were visited more often than others. Specific enclosures may have been constructed and used by a specific group of people within cleared areas of woodland (Thomas 1982: 163-6), but visited by others from outside the 'local area' less often. Mobility around the landscape is thought to have been centred on the cycles of the seasons, or finding appropriate areas for grazing cattle (Whittle 1997b: 20-2), and perhaps for the collection of flint to be processed at sites such as Windmill Hill (Healy 1998: 25).

Monuments, particularly long barrows during the early Neolithic, may have been the first attempt by humans to replicate the natural environment around them (Austin 2000: 75; Cummings 2002b: 108-13). The familiarity with the dense wooded landscape and the natural places within it may have led to the construction of long barrows built with earth and wood-framed interiors, the latter often replaced with stone (Ashbee 1984: Ch. 6; Evans and Hodder 2006: Ch. 3; Field 2006: Ch. 4; McFadyen 2007: 28-9), a technique in which humans mimicked natural places such as

caves (Barnatt and Edmonds 2002: 125) and the sounds (Devereux and Jahn 1996: 665; Lawson et al. 1998: 115-6; Watson 2001: 306-8, 2004: 81-3; Watson and Keating 1999: 326-7) associated with the activities within them. Just as sound created by humans within enclosed monuments and other places within the landscape may have been important, the acoustic properties of animals, domesticated and wild may have been equally important in defining status or wealth (Mills 2005: 86-8).

The dating of five long barrows in Southern England have shown that these monuments were out of primary use by around 3500 Cal BC (Whittle et al. 2007: fig. 2), which indicates that all but the earliest causewayed enclosure of Etton and possibly Haddenham were being constructed at the same time these sites were going out of use. A shift in socio-political ideals may have been occurring at this time which led to the creation of causewayed enclosures on a wider scale from around 3700 Cal BC. These earlier long barrows may also have taken into consideration special places within the landscape, which would have had a great influence on the modes of deposition where specific types of objects were already considered socially suitable for deposition in the 4th millennium BC (Whittle and Bayliss 2007, 2008). At Ascott-under-Wychwood, a cattle skull used to indicate the layout of the cairn is thought to have been placed around the 38th century Cal BC (Whittle et al. 2007: 138). The second phase of the primary structure at Fussell's Lodge indicated a date in the 3650s to 3640s Cal BC, and it is suggested by the authors that this may have an important connection to the emergence of causewayed enclosures (Whittle et al. 2007: 138). The date of 3670-3635 Cal BC from the primary mortuary deposits at West Kennet (Bayliss et al. 2007) would seem to agree with these dates. The overlapping nature of the dates also suggests that some enclosures may have been in use during the primary phases of some long barrows and may have still been significant places. The fact that only a select amount of human bone was placed within barrows is reminiscent of the later selection of human remains to be included in enclosure ditch segments. The act of digging a linear ditch could have come into greater focus as groups placed important objects within the flanking ditches of long barrows, and sometimes in the terminal ends such as Thickthorn Down, Dorset (Thomas 1999a:78). Causewayed enclosures in this study were constructed close to long barrows, for example at Windmill Hill (Horslip), Knap Hill (Adam's Graves) and Haddenham (Haddenham), indicating a continuity in specific locales within the landscape which

continued to be prominent places important to the ways in which Neolithic people viewed their world. Other enclosures may have been influenced by the earlier flint mines, particularly in the South Downs where the sites of Whitehawk and The Trundle in particular indicate a close relationship between mortuary practice and the treatment and use of flint. The role of flint procurement and mortuary practice in relation to causewayed enclosures will be discussed below.

Living in a forested environment, Neolithic groups may have used landmarks, enabling one to be 'guided' through the landscape. The idea of having a natural 'marker' in the landscape may have originated in earlier periods of prehistory, and spawned the idea of deposition in the natural environment in order to reinforce a sense of place (Pollard: 2004c; Thomas 2008: 65-6). One example of this is the material located within tree-throws and the impact of the association wood had in relation to other types of material culture and monuments (Evans et al.: 1999), which challenge our formalised views of Neolithic architecture where natural places such as tree-throws and other important places in the landscape become as important as "built monuments" (Pollard 2006b: 47).

6.3.2 Use and experience of location

Particular enclosures constructed either in upland or lowland locations may have impacted on the ways in which ideas such as visibility were taken into consideration by groups exiting from the 'periphery' of a forested environment into a clearing at a causewayed enclosure (Holgate 1988: 110). Although constructed within an open environment, the studies of the levels of visibility from Silbury Hill indicate the potential importance of what could be seen by people from and to them (Devereux 1991). At The Trundle and Whitehawk, both located on hilltops, enclosures may have been constructed in naturally occurring smaller clearings before extensions through human means were conducted (Oswald et al. 2001: 104).

The seasons may have also had an effect on the ways in which monuments were constructed and experienced. In the spring, monuments may have been 'hidden' within denser woodland, while in the autumn and winter, trees and other foliage would lose their leaves, thus creating a totally different experience in approaching the same sites (Austin 2000: 69; Cummings and Whittle 2003: 262-3). A change in

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seasons may also have impacted on ways in which specific activities were carried out (Boriç 2002: 30-1), and also may have changed the way objects and places felt, literally and figuratively (Cummings 2002a; Cummings 2002 et al.: 68). The evidence from wood, cereals and animals may go some way to suggesting that seasons had an impact on activity. The reports from the 20th century show this most notably at Etton where the coppicing of wood within the enclosure ditch segments would have been conducted during specific months of the year. People would gather at a specific time in order to coppice the wood from segment 5. This activity may have been just as important as 'structured activities' on the eastern side of the enclosure. This is the only place where something is actually grown, possibly for specific uses associated with other objects and located on its own in linear spreads within the western segments. The cleared areas inside the boundaries of enclosures may have been used for grazing cattle or as temporary corrals during months when growth of grass was suitable. It is also possible that other activities such as the collection and processing of wheat-based foods may have taken place in the spring or summer when 'crops' were at their peak growth stage. Complete or nearly complete querns, rubbers and pounders used in these processes and placed within the ditches at Etton and Windmill Hill may indicate a period in the year when the climate was much dryer.

Other indicators may point to the age of animals at the time of death as a means by which seasonality may be shown to have had an effect on the times at which people used an enclosure (Davis 1987: 76). Although preservational issues may skew the amount of bone recovered, younger, immature or juvenile animals which were placed within the enclosure were vulnerable during the first stages of their lives and subsequently died. Most animals are born in the early spring, which may give an indication of the times when people gathered at enclosures. If groups who tended cattle and sheep came to enclosures during this time and set their animals out to graze on nearby grassland, the death of animal could have been considered a great event prompting a reason for its placement within an enclosure ditch segment. The complete goat and pig within OD III at Windmill Hill, and a portion of a child's femur inserted into a cattle humerus may exemplify this point. Immature teeth and neonatal bone at Robin Hood's Ball (Thomas 1964: 22; Maltby 1990: 65), Whitesheet Hill (Maltby 2004: 170) and Windmill Hill (Grigson 1999: 217-24) could also suggest

premature death and subsequent deposition. Seasonal occupation of a site is difficult to establish, as the evidence for occupation during one part of the year does not indicate that people were not at a site during other times of the year. What this can suggest is that the death of animals during the first months of their lives may show that larger gatherings were occurring where pigs, not known for their pastoral suitability, were present and played a substantial role in activities involving mortuary practices and food.

6.3.3 *Clearing woodland*

Causewayed enclosures were constructed in a wooded environment, often interpreted as being on the edges of settlement areas, thus separating these sites from the routines of everyday life (Barrett 1989; Hodder 1990; Holgate: 1988). Living in a woodland environment, wood itself would have been an integral aspect of Neolithic life (Field 2004: 155-7). Land which was cleared may have had multiple meanings for both mortuary and domestic patterns of use, as suggested by the evidence for ard marks at the South Street long barrow (Smith 1984: 115), and its use for the growing of wheat and other cereals, and the collecting of nuts (Edwards 1989; Entwistle and Grant 1989; Fisher 1982; Jones 2000; Robinson 2000a). The debate about the elm decline and the selective use of specific types of wood has been discussed in relation to the life-ways of Neolithic groups (Edwards and Hiron 1984; Smith 1970: 90-3; Robinson 2000b: 30-5). Tree species such as elm, oak, ash, lime, birch, pine, and hazel have been located at causewayed enclosures, with pine and birch comprising approximately five percent of the total species, while elm and lime specimens account for about 73 percent of the species located through pollen analysis at causewayed enclosures in higher locations (Oswald et al. 2001: 106).

The activity of clearing the landscape would have been just as important as any object modified from felled trees, but just as with the construction of many types prehistoric of monument, forest clearance or deforestation would have required cooperation and perhaps specific duties assigned to individuals, and may have been just as important as activities such as using cleared areas for grazing animals (Fleming 1972a). As Brown (1997: 143) notes: "we must also recognise that purposive deforestation is just as sociologically conditioned as burial or exchange and that its causes and nature

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changed as social structure changed at different rates in different ways in different places”.

Noble (2007: 18-20) suggests that when a tree is felled (killed) and then placed within a hole, it is reborn as part of a monumental construction and then is left to decay, completing a life-cycle which is taken as relational to that of a human life. Recently, Fowler (2003) has shown that the modes of tempo involving decay and re-growth as a cycle among long barrows, timber mortuary structures and causewayed enclosures, may have been just as important as the decay or change in the objects placed within them. This is a central theme in understanding the ways in which not only forest clearance occurred in the different regions of this study, but the differences in how those acts of clearance came about, and how subsequent actions were conducted which in turn have left an archaeological signature in the form of material culture. The coppicing and woodworking at Etton, and the evidence for timber uprights at Haddenham, Whitehawk, and Windmill Hill may have all been seen not just as a functional project, but as a way in which wood was given a second life when moved into a symbolic location within a causewayed enclosure. The differing rates of decay of the wood may give an indication as to the age of the site and if activity involving wood was continuous or episodic.

In addition to forest clearance by axe, fire may have been used in the process of land clearance. In the context of causewayed enclosures fire tends to be focused in relation to cooking food and feasting as exemplified by charcoal deposits within ditch segments and small-filled pits. The control of fire may have been an important activity. Lighting fires at appropriate places within an enclosure could have been just as important as deposition. At Haddenham fire was shown to have been an important component of the re-cut of segment 6 where human remains may have been the focus for a feast. At Etton, burnt material was placed into pits within the interior and a large number of high temperature fires occurred for the cremation process which resulted in the material in the interior pits. The activity of gathering wood, lighting a fire, placing the remains within it, digging pits and placing the material into them may have been an activity which only involved a very small number of people. Small pits such as these may not have been communal in the sense of a larger linear ditch, where placements were in wider ‘public view’. The activity may have been more personal

based on the smaller pits where these deposits were located. Postholes at other causewayed enclosures may also suggest that fire was central to social organisation. At Orsett, behind the second ditch, posts were discovered to have been burned while still in the ground (Russell 2000: 81). Although no burning was suggested for the areas within The Trundle or Whitehawk some of the postholes did contain Neolithic pottery, which could suggest a close relationship between wood and pottery.

Fire could have been used for other activities such as for firing pottery or clearing large portions of land, and for other activities of a more 'practical' nature. Moore (1997: 38) has noted that the Native Americans of Montana indicated that fire was used for, among other things, "clearing travel routes through dense timber", "improvement of hunting", and "communication, by setting large fires". These actions undertaken by this group of Native Americans were made with "clear objectives and within specific boundaries, such as frequency and season" (Moore 1997: 38), and draws similarities with circumstances in which fire was used in burning woodland to increase hunting effectiveness and small-scale horticulture production (Mellars 1976: 35-42). Although beyond this study, it should be noted that the use of fire may have been controlled by a specific set of individuals, thus treating it as an object (Moore 2000).

6.3.4 *Mining and quarrying*

Recently, the use of flint mines during the Neolithic has been reconsidered in light of potential relationships they may have had with other earlier Neolithic monuments, particularly long barrows and causewayed enclosures in East Anglia during the later Neolithic at Grimes Graves (Mercer 1981b; Sieveking, G. de G. 1979), and to a larger extent within the South Downs (Barber et al. 1999; Barber 2001; Field 1997; Holgate 1991, 1995; Edmonds 1995: 59-67; Gardiner 1990; Russell 2000, 2002: 97-112; 2004: 171-2; Shepherd 1980: Chapter 3; Topping 2004, 2005) in the earlier and middle Neolithic. The artefact assemblages from the mines of the South Downs compare closely to the assemblages at causewayed enclosures. For example, at Cissbury three skeletons have been located, some with accompanying material including cattle, pig, goat, deer, sheep and fox (Russell 2000: 107). Also present are single finds of human and animal bone, flint knapping debris, antler and modified chalk objects. Russell (2000: 143) has suggested that enclosures and mines were both

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places that defined social boundaries, and where 'settlement waste' in association with other materials helped in creating social identity. Topping (2004, 2005) has argued for flint mining from an ethnographic point of view where rituals surround the extraction and creation of tools.

Both of these points of view are useful when considering the use of Neolithic flint mines. In this study, I have argued that the similarities in the objects located within causewayed enclosures and flint mines, particularly in the South Downs indicates a similarity in how people used and associated themselves with these seemingly different sites. There are similarities in the use of chalk in mortuary practice and small objects such as 'pendants', the incorporation of deer at Whitehawk and the finds of antler within both enclosures and mines. The dates of flint mines in Table 4.7 indicate that they are perhaps somewhat earlier than the construction dates and possibly overlapped in use with the enclosures in this study. This suggests that the material located within enclosures and mines was the result of either both sites being 'in use' at the same time or that groups, at least within the South Downs, had some knowledge of the practices at flint mines and incorporated them into the activities at causewayed enclosures.

Implements and by-products alike originated from the local landscape outside an enclosure or, at sites such as Offham Hill, came directly from the ditches (Drewett 1977). Other objects such as stone axes may have been completed at the source site, and then transported across the landscape with the intention of inclusion within the ditches at causewayed enclosures, such as the stone axe in a small-filled pit in the interior at Etton (Pryor 1998). The majority of evidence for flint mining is found within the South Downs area, although a prehistoric shaft utilised from possibly the Mesolithic to Bronze Age in the Cranborne Chase landscape may also be associated with flint mining (Green and Allen 1997), as may shafts located near Norwich (Wainwright and Donaldson 1972).

Causewayed enclosures in the South Downs may have served as areas in which the physical activity of flint extraction was controlled. The mystery surrounding its origin was part of everyday life. This was shown through the similarities in how objects and the natural environment were integrated within community social systems

at causewayed enclosures through mortuary practice and the representation of the importance of wild animals, particularly red deer. Radiocarbon dates from the causewayed enclosure programme indicate that the flint mines in West Sussex date from the early 4th millennium BC (Whittle et al.: in prep). Two dates from Blackpatch and Church Hill (BM-290, BM-181) from red deer antler picks indicated dates of 4240-3630 and 4460-3790 Cal BC. At Harrow Hill dates from eight samples of red deer antler and charcoal indicate an earliest date of 4040-3360 to 3955-3635 Cal BC. Four dates from Cissbury range from 4040-3710 (BM-3082) to 3640-3360 (BM-3086) Cal BC, and four dates from Long Down range from 4050-3640 (OxA-1152, cattle scapula) to 1520-1260? (OxA-1088, charcoal). These dates suggest that most flint mines were out of use by the time causewayed enclosures became prominent. Although the small number of dates make it hard to suggest just how long mining continued beyond 3500BC (Barber 2005: 96, Russell 2000: 56), communities which used flint mines may have overlapped with the construction of causewayed enclosures. The treatment of objects within causewayed enclosures in the South Downs, particularly Whitehawk, suggests this is true. As a result stories and knowledge of the use of mines may have been passed down in folklore among groups, these confirming the importance mines had in the past and present.

Although some causewayed enclosures were being constructed and used during the same period as flint mines, within the early to middle Neolithic, the radiocarbon dates suggest they were actively being used before some causewayed enclosures, and may have impacted on the ways in which sites such as Whitehawk and The Trundle were constructed and used. Objects such as cattle scapulae, used as 'scoops', or 'spades' if attached to digging sticks, and antler picks have been used for both the digging and extraction of flint and the construction of ditches within enclosures. This is an important connection between animals, people and the construction of monuments, as the deposition of the both types of material culture have been located within the bottom portions of flint mine shafts and at the bottom or 'floor' of causewayed enclosure ditches (Fig. 6.2).

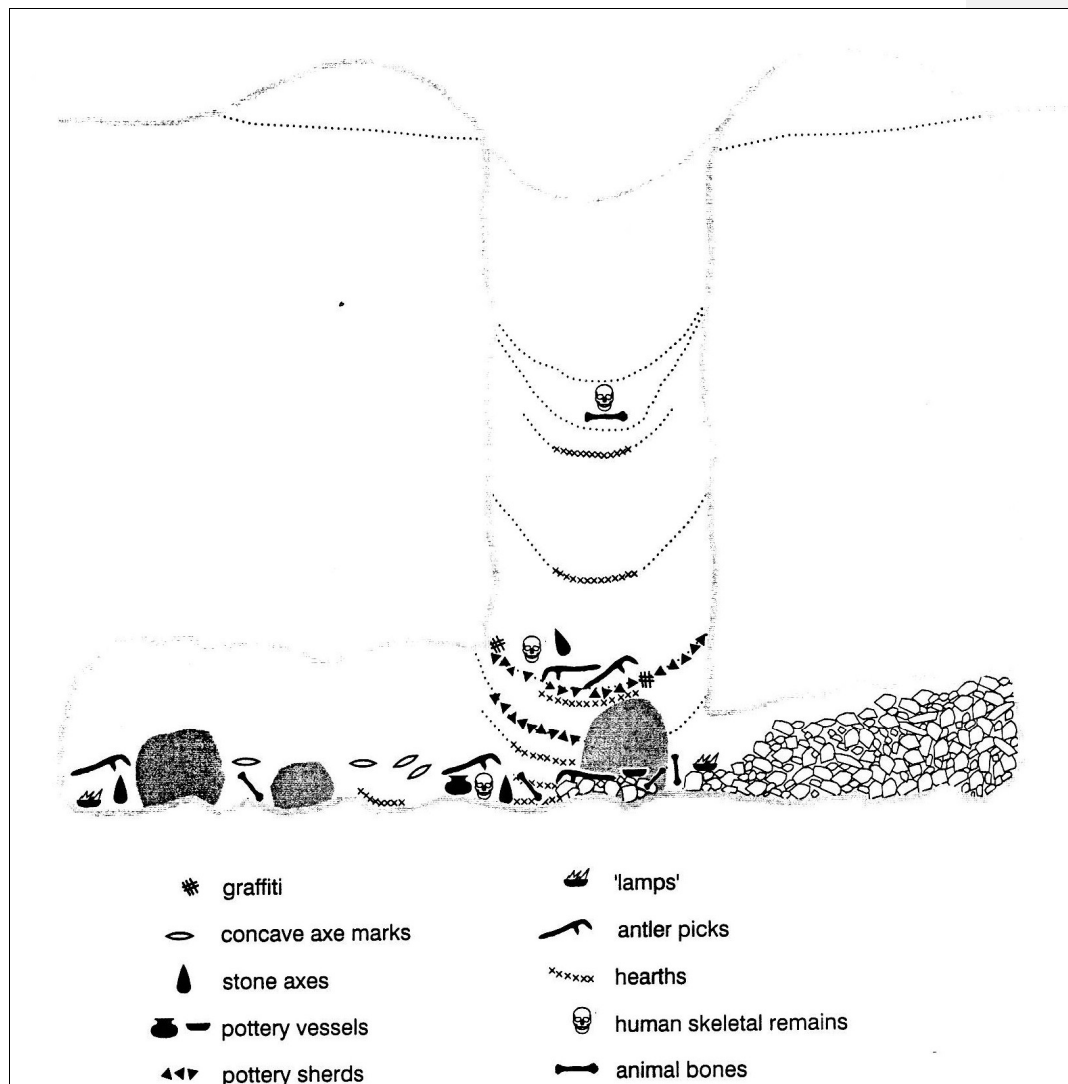


Figure 6.2 A representation of the range of possible deposits encountered in flint mines (Barber et al. 1999: fig. 5.7)

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The placement of the complete deer skeleton in Hole 5 at Whitehawk further strengthens the argument for a strong inter-relationship between causewayed enclosures and flint mines, as does the similarities between mortuary practices (see below). I have shown in that there are similarities in the ways mortuary practice was carried out on both humans and animals at The Trundle and particularly at Whitehawk, which indicate a strong connection between the roles earlier flint mines played within the local environment and the ways in which those concepts were carried over, in a slightly different way, within causewayed enclosures.

In addition to the implements used in the creation of causewayed enclosures and flint mining, chalk blocks extracted from within both monuments were placed around the bodies of the dead deposited at these sites. Small incised or perforated pieces have been located with some of these individuals. These objects tend to be small and portable, often interpreted as cups. From Windmill Hill a small number of figurines (2), phalli (4), balls (12 from primary levels), perforated pieces (2 large irregular blocks) and incised pieces (17) with lines on one or both sides have been found (Smith 1965: 133-4).

These objects and those from Whitehawk, consist of 21 finds, including 'pendants', blocks and small pieces with incised lines (Williamson 1930, Curwen 1934, 1936). At The Trundle, 17 pieces of chalk were located consisting of small objects with incised lines, blocks and weights similar to those located at Whitehawk (Curwen 1929, 1931; Bedwin and Aldsworth 1981). Within Shaft 21 in Harrow Hill, other incised lines were located on a small piece of chalk 'forming an irregular chess-board design, and may indicate the maintenance or continuation of inscribed lines used for communication within flint mines (Russell 2001: 105). These examples point to similarities with causewayed enclosure within the South Downs and the nearby flint mines at Cissbury and Harrow Hill (Fig. 6.3) (Barber et al. 1999).



Figure 6.3 Incised lines from Harrow Hill (Russell 2000: fig. 75)

Incised lines scraped on chalk 'plaques' may have been used as messages about who a group of people were at causewayed enclosures, linking them to flint mining, either locally or further afield (Russell 2004: 172; Topping 2004: 182). Some of the more prominent examples come from Whitehawk, where a chalk 'chessboard' was located, and another 'lump' of chalk deposited above Skeleton IV "bearing a few coarse parallel and intersecting incised lines" (Curwen 1936: 87). Small modified chalk objects were also located in excavations at The Trundle. Here, a small piece of chalk seems to have been perforated and small lines in a circular pattern 'scratched' on one side. Other smaller perforated pieces have been located within Whitehawk, The Trundle, and Windmill Hill, which may have been 'spindle whorls', weights, or perhaps used as some type of necklace. These objects could have identified specific groups or individuals within the population who were in some way connected to mining or may have been important in the creation, digging, and maintenance of enclosure ditch segments. Although both enclosures and flint mines were constructed through a chalkland base, it is the connections between the smaller portable objects which defined them at both of these types of site. The small portable nature of these chalk objects would make them ideal for transportation, or alternatively may have been inscribed on chalk on site, but within a known context which would provide the 'reader' with the information for the object to be 'read' correctly. Alternatively, the lines inscribed on the chalk may have been an indicator of a personal or group boundary established within mines or enclosures that defined specific group working areas, a reflection of the similarities in mortuary practice.

Located within the Cissbury flint mine was a burial surrounded by chalk blocks and accompanied by a flint axe at the knees (Barber et al. 1999: fig. Fig. 5.8; Russell 2000: fig. 90). Similarly, in an example from the Whitehawk causewayed enclosure, an articulated skeleton was also surrounded by chalk blocks associated with a putative unborn infant with two small pieces of perforated chalk interpreted as a possible pendant, two small fossils, and part of a cattle radius was located from the third ditch, cutting V, near causeway II (Curwen 1934: 110). It is tempting to establish a link between the articulated skeletons at Whitehawk, The Trundle, and possibly to a lesser degree Offham Hill, and the actions of flint mining in which human remains and deer

antler are represented in a similar way. Alternatively, it could be suggested that the individual at Cissbury was used within mortuary practice primarily associated with causewayed enclosures. Either way, the people who used enclosures and mines seem to be reflecting one another through a similarity in social practices. Beyond the use of causewayed enclosures, the tradition of inscribing chalk with incised lines continued into the later portions of the Neolithic within the Stonehenge environs (Harding 1988; Vatcher 1969).

Although perhaps a forgery, the Cissbury 'deer' inscribed on the wall of Shaft 27 (Russell 2000: 51; 2001: 187) may have distinct connection between the activities at flint mines and causewayed enclosures. As is well known, the digging of both flint mines and causewayed enclosures was done with, among other objects, deer antler. The cache of Grimes Graves may be one example of the importance deer had (Barber et al.: 1999: 67). The deposition of deer antler has been recorded from many causewayed enclosures and must have been an important part of the digging process. At Whitehawk, within the fourth ditch of cutting V, Hole 5, the skeleton of a roe deer was discovered (Curwen 1934: 102), perhaps indicating a link between the treatment of human and animal remains and the symbolism the people of Whitehawk had with wild animals, particularly deer.

The connections between causewayed enclosures and flint mining most likely go way beyond the specific types of objects which were located within these two types of sites. Most flint mines are represented in the early 4th millennium, with the exception of Grimes Graves, which as of present is considered to be focused within the late Neolithic. If flint mining in the South Downs area did precede or exist alongside the construction of causewayed enclosures, the act of being underground and bringing from the earth substances which would then be modified into objects and used in a utilitarian sense (Thomas 1999b: 75), but also in a way which could represent where it had come from and the groups who were responsible for its 'birth' may have been significant. The actual physicality of construction or digging at causewayed enclosures may have been reminiscent of the ways in which flint mines were used, and perhaps reflect an approach to an 'underworld' where "the above world and underworlds interact" (Davies and Robb 2004: 149).

Because not all of the people who used Whitehawk, for example, would have also participated in the extraction of flint from local mines, only some portions of the site such as the burial surrounded by chalk blocks in the Cissbury flint mine may be representative of this type of action. At Offham Hill, Drewett (1977) has proposed that a majority of the flint objects located within this site may have come from the construction of the ditches, thus the idea of digging into the earth, extracting nodules for implements, and the construction of linear ditches for a causewayed enclosure became one and the same. The by-products located within the enclosure ditch segments could also be the result of places where a flint knapper was sheltered from the elements and perhaps 'out of view' from others. The use of flint mines, like that of causewayed enclosures, may have been on a seasonal basis in which only a few shafts were open at any time from as early as the Mesolithic (Barber 2001: 22-3). The continued use of deposition within 'layers' of shafts at flint mines may also have connected sites with the continual deposition of objects at causewayed enclosure ditches (Fig. 6.2) (Barber et al. 1999: 61).

6.3.5 *Knapping flint*

As examined in chapters 3-5, flint was an important activity at each site. Flakes and other by-products from the enclosure ditch segments number in the thousands, and may be seen as the waste products from the creation of implements. The implements located within the enclosure ditch segments give an indication of the types of activities which may have been carried out during specific visits to sites. The main types of implement found were varying classes of scrapers. Scrapers would have been used in hide and woodworking, and at sites such as Etton for the shaping of wooden bowls (Pryor 1998) and other smaller objects. Recently, Saville (2002: 102) has argued for the ways in which excavators, particularly in the Etton and Windmill Hill reports have concluded that objects were primarily used within a structured depositional context of a non-utilitarian character, and that the interpretations seemed to be based on conclusions which neatly fit previous excavations of causewayed enclosures. The point I have demonstrated throughout this thesis is that flint was used in a variety of activities each associated with the people who used and built an enclosure. Flint was used in order to carry out everyday activities such as butchery and the modification of wooden, chalk and bone objects. With the exception of polished stone axes, and 'clusters' of flint as shown at Offham Hill, it would be

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difficult to see that flint was primarily a socio-symbolic object considering the large numbers of tools created for everyday use.

At some sites, by-products may have been knapped directly into enclosure ditch segments or interior pits where by-products and implements have been located. The depth of enclosure ditch segments may have played a role in implement creation as the knapper may have been sitting directly within an enclosure segment in order to obscure themselves from view during the manufacturing process, or to mimic the environment of a flint mine. Alternatively, the depth of the ditch may have been for a purely functional use such as shelter from the environment, for example from wind and rain. However flint implements were created; they were used in a variety of ways at all enclosure sites, including skinning, butchery, and possibly small-scale cereal cutting. As I indicated in chapter 2, each report included differing amounts of detailed information, but almost all of the sites do contain tools described as serrated flakes and scrapers. These would have been the primary implements created and used within causewayed enclosures. Table 6.3 indicates the number of flakes, cores, scrapers and serrated flakes from each enclosure in this study and the main activities may have been represented from a flint perspective. More often, larger excavations will indicate a greater number of objects, but differences in numbers such as the by-product to implement ratio can impact interpretations. The sites of Offham Hill, Whitehawk and Knap Hill, indicate clear differences in the choices groups made to either take away objects or include them in deposition. An example of this may be the Inner Ditch at Windmill Hill (Fig. 6.5). Here, a majority of the implements were located within ditch segments IX-XIII, perhaps indicating a conscious choice to implement deposition with this portion of the site.

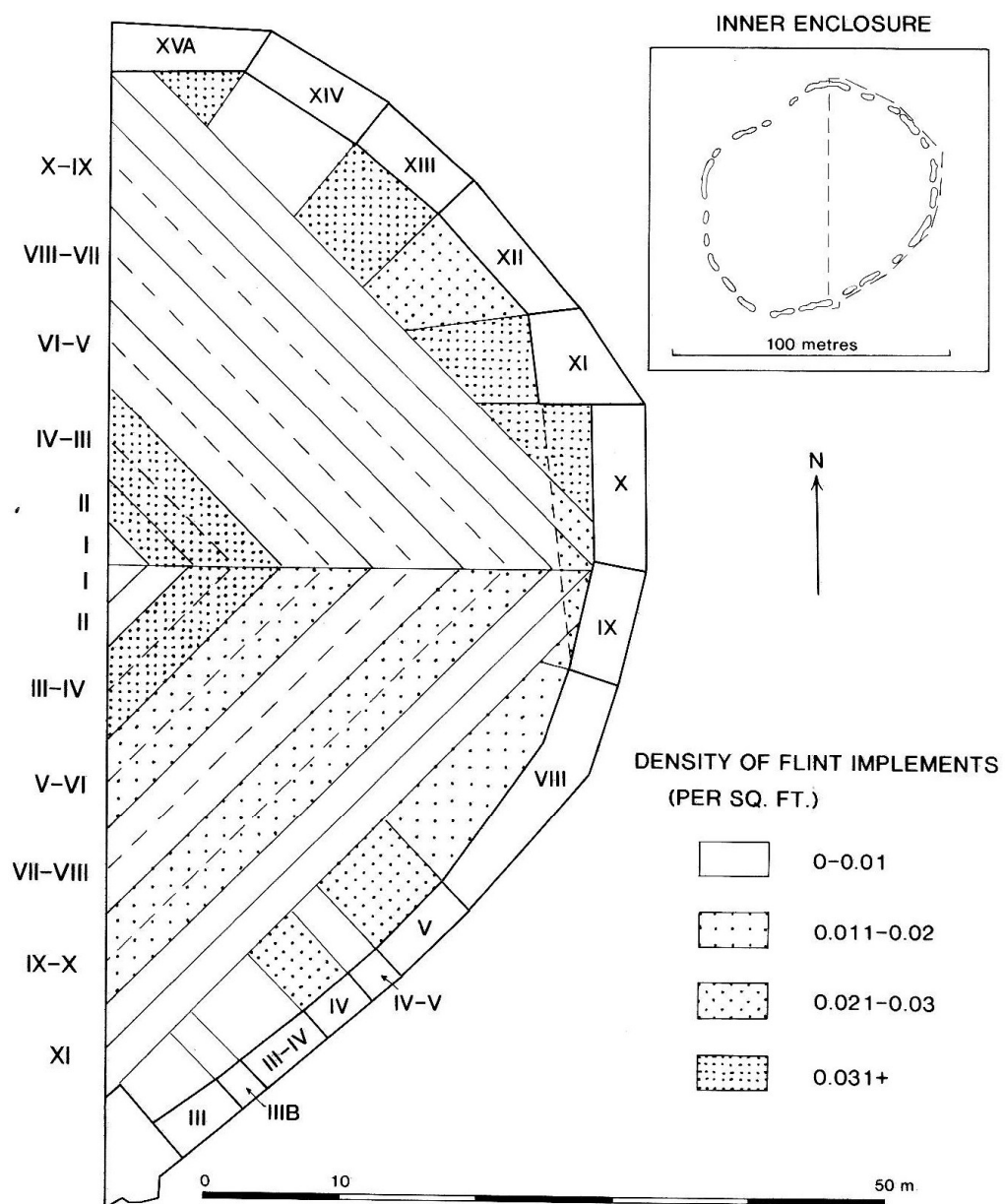


Figure 6.4 Relative density of flint implements within the

Inner Ditch at Windmill Hill (Pollard 1999a: fig. 65)

Site	Flakes	Cores	Scrapers	Serrated flks	Activity
Etton	5278	247	253	219	Woodworking/feasting
Haddenham	1379	75	9	19	Human mortuary practice
Offham Hill	3517	69	2	7	Quarrying/implement production
The Trundle	2866	94	13	57	Quarrying/flint production/feasting?
Whitehawk	1087+	32+	36	258	Quarrying/flint production/human and animal mortuary practice/feasting?
Knap Hill	1563?	69	12	5	Flint production
Robin Hood's Ball	?	?	2	1	Butchering and feasting/pottery?
Whitesheet Hill	13824	251	33	88	Animal mortuary practice/feasting/flint working
Windmill Hill	70428+	4512	1673	734	Hideworking/human and animal mortuary practice/feasting/cereal production/flint working/pottery production?

Table 6.3 By-products and main tools relating to activity from enclosures

Flint tools may also have been created in order to carry out activities in a chain of operations. Based on the findings in the preceding chapters, it is argued that flint tools were often used on site within the causewayed enclosures, or in the immediate vicinity. At Etton, the primary use of flint tools was for coppicing trees in the enclosure ditch and for butchery, as shown through cut marks on sheep bone; flint was taken directly from the enclosure ditch segments, perhaps representing a flint mine. At Offham Hill, flint was knapped, and then the by-products were grouped into clusters within the enclosure ditch segments. By grouping flint in this way the people who constructed and used Offham Hill were indicating the importance of the creation and use of flint tools. Other objects such as animal bone were also located within enclosure ditch segments, but in linear spreads. The 'display' of flint in small groupings may have been interpreted in similar ways where it was socially acceptable to present flint in this way, differently from an object which was at one time living. The few implements which were located within the excavation indicate that either implements were not socially acceptable for deposition within Offham Hill or they were taken away to be used elsewhere. At the sites of The Trundle and Whitehawk, flint tools were created and used through the relationship between humans and

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animals, and hunting, the production of implements and chalk. Cattle scapulae and deer antler were both integral objects taken from the natural world and placed in a humanly created world in order carry out flint extraction and the digging of enclosure ditch segments. The placement of human bodies within the contexts of these activities, such as the placement of human remains surrounded by chalk blocks and/or with flint objects, strengthened the link between each site and the activities they both represented.

6.3.6 *Working wood*

We know that wood during the Neolithic was used as a central medium within early Neolithic monuments as described above. It is important to state that wood was not specific to causewayed enclosures, but also at earlier long barrows and within other early Neolithic contexts, such as the extensive works at Sweet Track and the later trackway of Walton (Coles and Coles 1986). Wooden trackway sites have also been located in Bronze Age contexts along the River Thames (Meddens 1996), and point to a continuation of the use of trackways as an important aspect of travel over the boggy or marshy landscape. The use of timber would have been important in flint mines, where a scaffolding of timber may have been constructed in order to support walls and to help in supporting ropes in order to haul up flint nodules and debris. Another use for wood within the context of flint mines is for the construction of ladders (Fig. 6.4), to make the entry and exit of a shaft much easier.

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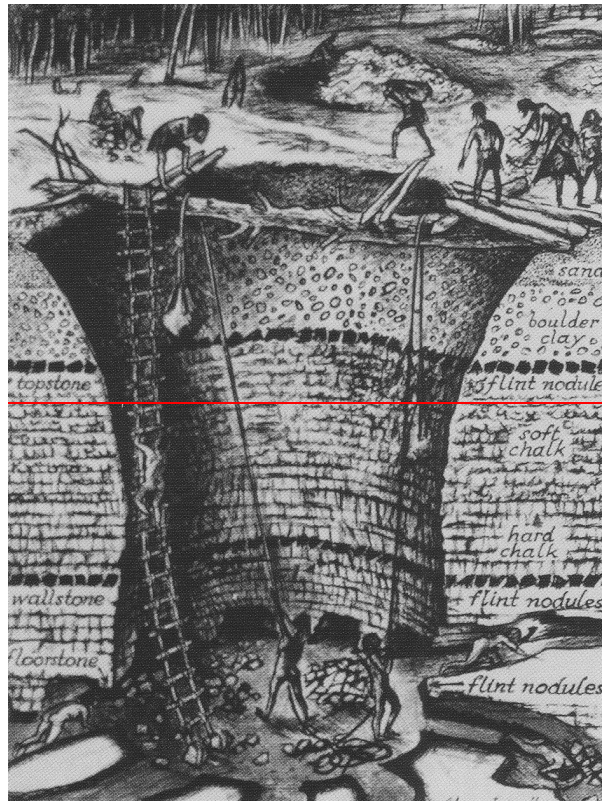


Figure 6.5 The importance of wooden objects in flint mining activities (Russell 2000: colour pl. 15)

The roles of modified wooden objects in both functional and secular contexts define ways in which this important natural resource can be interpreted. Even today we still see wood and trees as an important part of human existence. Trees are used to make a variety of furniture and are used for the construction of buildings, both public and private. Native American groups have used trees for making canoes, and for carving and erecting elaborate totem poles which indicate a variety of messages through a specific set of animal representations. Sabril ceremonial axes and Wala canoes also indicate similarities between the body and the creation of meaning through the creation of an object (Tilley 1999: 72-3, Chapter 4). Woodcarving is still done today with incredible artistic skill, indicating its continuing importance within society.

Symbolically, trees are used during the religious festival of Christmas (Philpot 1897: Chapter IX), when a tree is placed in a sitting room and decorated with lights and

various objects of personal meaning. Family trees are also used in order to trace lines of ancestors. Branching out from a first known relative, the 'tree' generally becomes



Figure 6.5 The importance of wooden objects in flint mining activities (Russell 2000: colour pl. 15)

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larger as more family members are added, creating a sense of personal history and a place within time. Different types of trees can also have different values. For example, Giambelli (1998: 136) has shown that there are differences between how the coconut palm and a forest tree are treated differently in Balinese culture. Because coconut palms bear fruit, they have an advantage in the process of distribution for subsistence, but they are also used for a variety of 'ritual' actions, including 'life-crisis rituals' in which "a coconut becomes the vessel for parts of the human body", and during 'death rituals' in which a two-part cremation ritual takes place over a two day period (Giambelli 1994: 146-7).

Wooden bowls, bark sheets, and the 'fencing' within Etton may have indicated that similar symbolic meanings between humans and the natural environment were

communicated through a 'cycle' of felling a tree, modifying it into a container, and then using that container within a socio-religious context in order to create further meaning between the actions taking place and relationship these actions had with that object. Postholes located within The Trundle and Whitehawk may also indicate a need to block off certain portions from view, or to give specific ditch segments a 'special status'. The second ditch, cuttings I-IV (three enclosure ditch segments) suggested by Curwen (1931: pl. 1) as 'roofed dwelling pits' may in fact have been one such area where the defining boundaries of wood and the associated deposits within the enclosure ditch segments, including the antler pick marks within cutting III, had special status. Within this segment few Neolithic sherds or bones were located but a large number of flakes, particularly at depths between 27 and 48", suggest that flint knapping, deer, and wood were singled out in this portion of the site.

In addition to wooden bowls, other Neolithic wooden objects have been located within a variety of contexts. From the Drove site at Sweet Track, a 'tomahawk' was located (Coles and Coles 1986: fig. 16). Another curious wooden object described as a Neolithic 'mallet' which was made from yew was also discovered within the Sweet Track site (Coles and Coles 1986: Fig. 38), and the 'Chelsea Club', found along the banks of the Thames in London (Webber 2004), may suggest the attempt to produce a weapon. Wooden figurines have also been located in the Somerset Levels, indicating a possible significance to the selection of specific tree types and Neolithic views on gender and fertility (Coles 1998). Other wooden objects such as bowls and boxes have come from Neolithic contexts in Britain and Ireland, including an object from a Neolithic ring ditch at Manor Farm in Berkshire described as a small box constructed from thin sheets of bentwood or bark, associated with a possible lid (Earwood 1993: 42).

The birch bark sheet located at Etton may have been used in a similar way, but degraded over time, or was broken and deposited within the enclosure ditch segment as suggested for other objects such as pottery. Containers made from bark such as ones used by native people in Patagonia (Borrero 1997: 67, fig. 40) may have been used in similar ways, and served to carry water or perhaps to dewater enclosure ditch segments upon returning to Etton after a period of absence. The small thin 'blade-like' woodchips found at Etton may have been used as 'pins' to spread out material to dry,

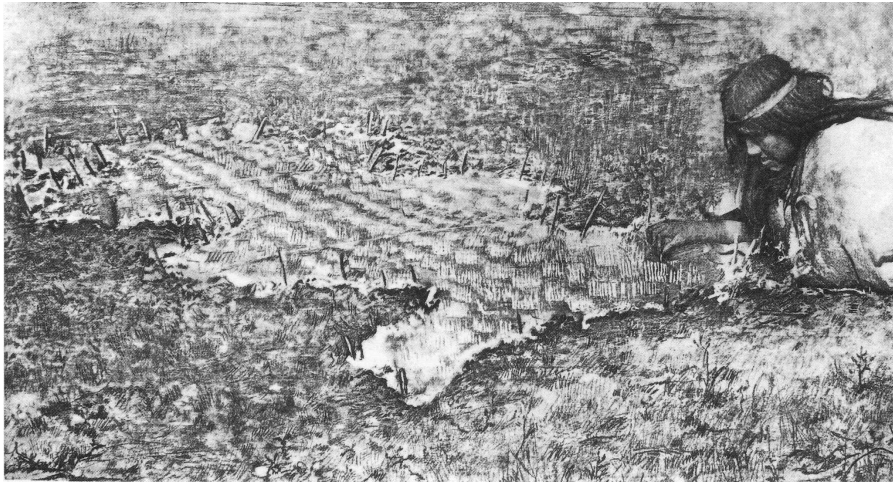


Figure 6.6 Painted cloaks from Patagonia (Prieto 1997: fig. 109)

such as skins to be turned into clothing (Fig. 6.6) which was being produced in different ways throughout Neolithic Europe (Barber 1991: 133-44). Another example of this comes from Patagonia, where small wooden pins are used to spread out material which is to be painted and sewn together in order to make a cloak (Prieto 1997: 177).

By viewing the small wooden debris as part of a larger process, it could be suggested that the wooden debris may have played an important role of the lives of the groups using Etton, and was thus given special treatment by being deposited in the enclosure ditch segments. It is perhaps noteworthy to also point out that the linear spreads of wood within Etton are very similar to the ways in which disarticulated bone was being spread in the enclosure ditches, for example at Windmill Hill, which suggests a different type of material being used to represent a similar concept. The large amounts of cattle bone recovered from causewayed enclosure sites and the associated materials deposited with it are often the focus for discussion. At Etton, however, the importance seems to have been placed on the deposition of sheep which may have been 'highly prized'; one sheep was deposited in an almost articulated state within the proposed entrance at causeway F, between segments 5 and 6. The importance was that the western segments, particularly segment 5, were being used in coppicing and woodworking. The deposition of linear spreads of wood, like that of cattle at other sites, in association with other objects such as pottery or disarticulated human bone,

may have been a way of indicating its importance to the lives of the groups who used Etton.

In addition to the wooden bowls and linear spreads of wood located at Etton, a single timber, a birch bark sheet, the remains of a possible wooden box and some twine were found. It has also been proposed that a 'fence line' was constructed so as to separate the western half of the site from the eastern half. Coppicing may have been done directly within the ditches in the western portion of the segment, and thus added to the 'feel' of the enclosure where, perhaps, the groups who used Etton were trying to replicate the forest within human-controlled boundaries. The forest may have been seen as a place where nature could not be controlled as easily as within the boundaries of an enclosure where ditches could be dug and backfilled when necessary. The replication of a forested environment within the enclosure itself may have been a way of demonstrating a control where visibility into or out of segment 5 was obscured. It acted as a natural palisade which could be removed through coppicing, but at the same time renewed itself through seasonal re-growth, creating another within the cyclical world. These objects, and others recovered from a Neolithic context, give an indication of the richness and ingenuity to which Neolithic groups used the tree within daily life, and its central importance within place and activity.

6.3.7 *Building barriers*

Where there is no direct evidence at causewayed enclosures often the only evidence left behind of woodworking is postholes, often at measured intervals, which would have contained timber uprights forming a palisade. The purpose of these posts was perhaps to restrict vision and sound into (and out of) the monument, and to formalise ways in which people entered and exited the site where special deposits along the terminal ends between causeways would have been highly visible. At Whitehawk postholes of a presumable Neolithic date have been located (Curwen 1934: 105, pl. XIV) immediately within the enclosure at causeway I, as identified by Neolithic sherds within holes 1 and 10. Within the inner ditch, another small line of post-holes was located, which seems to follow the line of the ditch, and may be further evidence of a palisade (Curwen 1936: 63). A further four postholes were located within the outer ditch from the causeway, and may continue under modern houses near the site or were destroyed when the water main trenches were put in (Curwen 1936: 74).

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Postholes have been located at The Trundle, within Pit 2 (Curwen 1929: 43, 109), and five others were located around the second ditch, cuttings III and IV, but may be Iron Age in origin, as is the East Gate (Curwen 1929: 106, pl. II; 118, pl. V).

The evidence for wood in the form of postholes is slim elsewhere as well. Within the interior of Offham Hill only two postholes were located, both of which are tentatively thought to be Neolithic (Drewett 1977: 204, fig. 3; 211). At Windmill Hill, three postholes (A, B, and C) were found under the Outer Bank IV, with two other possible postholes to the north (Smith 1965: 25-7, fig. 8), and within Trench BB nine postholes were located (Whittle et al. 1999: 78-9, fig. 73). A single post-hole was found at Robin Hood's Ball in Trench 2 around layers M and N (Thomas 1964: 10), and it is suggested that it may be part of a larger set of 'wooden structures' from the pre-enclosure phase (Thomas 1964: 12). In the interior of Whitesheet Hill, possible postholes have been located within Feature 1291, but are associated with later prehistoric and Romano-British pottery, and so may not be part of the Neolithic occupation (Rawlings et al. 2004: 154). Specific areas on one side or another of a palisade would have closed off sight to some areas, particularly from the outside, but the individuals who would be able to see the activity occurring such as butchery or flint knapping may not have been tightly regulated as for other types of activity, for example, for mortuary practice at Haddenham where the palisade acted as much an integral part of deposition as the objects that were deposited were.

6.3.8 *Preparing hides*

Hide-working is usually seen in the archaeological record by bones from the head and limb/foot bones, an idea brought forward by Piggott (1962) in relation to the remains of cattle within various burial rites in north-western Europe. The use of flint and possibly bone implements would have played a key role in processing any animal (Fig. 6.7). Studies of polish left behind on flint implements such as endscrapers has indicated that they may have been used for hide and woodworking activities (Jenson 1988: 68-71). Unfortunately, there is a lack of flint polish examination from causewayed enclosures to make a comparative interpretation. Scrapers, serrated flakes, and possibly modified bone tools were used in the butchering and skinning process.

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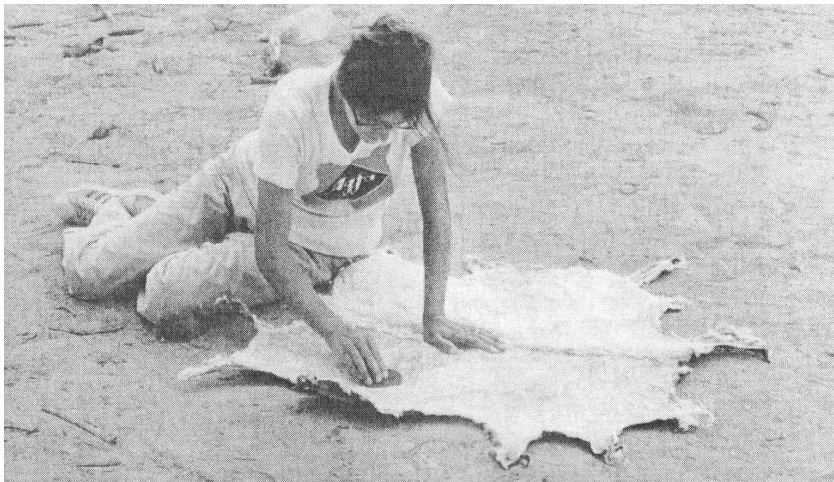


Figure 6.6 Smoothing animal hide with the use of a scraper (Schick and Toth 1993: 161)

While some of the animal finds above do show cut marks, it is often difficult to separate hide-working from butchery as they may have been concurrent. The largest amount of evidence for butchery comes from Windmill Hill. At Windmill Hill a total of nine occurrences of articulated animal remains (mostly cattle), were located during the Keiller excavations. There were two occurrences within the Inner Ditch which include paired vertebrae from ID IX, layer 2 and ID XII within layer 3. These groupings of bone suggest a similarity of skeletal elements from the front and rear of an animal that would remain after butchery took place, as exemplified by the feet and tail bones of the cattle. Other studies of hide-working have successfully indicated that the clothing worn by the Iceman suggest a technique of smoking (Groenman-van Waateringe et al. 1999: 889). If, in the future, skin can be located from a good preservational context, perhaps a method similar to this one will bring new light to the ways in which prehistoric skins and hides were preserved for use.

6.3.9 Storing and processing foods

Studies have also focused intensively on the inside of pottery in light of the potential of surviving residues from cattle being exploited for dairy products (Legge 1981). Pre-causewayed enclosure activity of lipid analysis of pottery from the Ascot-under-Wychwood long barrow indicated that of the small assemblage of 32 sherds, 11 showed the presence of lipids from dairy fat (Copley and Evershed 2007: 287). Of the sherds analysed, half of the medium and large bowls contained fats, while the

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smaller bowls or cups were used for a different purpose (Barclay and Case 2007: 269). At the later site of Barnhouse in Orkney, Grooved ware pots also contained evidence for milk, meat, and barley/wheat. Medium vessels suggest a predominant use for containing milk, meat, and plants, while the smaller vessels indicate that they were used for a 'barley product' (Jones et al. 2007: 290-1), which hints at the possibility of the brewing of beer (Dineley 2004, 2006; Dineley and Dineley 2000, Koch 2003), and the associated use of other substances within a ritual setting (Sheratt 1991). These examples demonstrate the differences in the range of vessels and what they may have been created to contain.

Within the last few years, laboratory analysis of pot sherds from a variety of prehistoric contexts, including Hambledon Hill, Abingdon, and Windmill Hill causewayed enclosures, have been subjected to lipid analysis (Copley et al. 2003, 2005; Craig 2003). These studies show that of the 108 Neolithic sherds, 25% 'contained predominantly dairy fats', which suggests the importance of a dairying economy (Copley et al. 2005: 898). Within the excavated areas of Windmill Hill older female cattle account for about 50% of the total cattle bone by species, and suggest that older female cattle were not slaughtered for meat but used primarily for milk (Copley et al. 2005: 902), while younger males may have been kept to maturity and butchered for meat (Legge et al. 1998: 90). These residues left behind indicate that pottery may have been used for storing foods such as dried meats. When milk or meat was boiled some of the pottery used may contain surviving lipids which can be valuable evidence in suggesting food consumption patterns at sites. For example, the majority of large vessels and cups were located within the middle circuit at Windmill Hill, suggesting that pottery was being used for serving or cooking and smaller cups for drinking (Zienkiewicz and Hamilton 1999: 285). The wide range of vessels and their possible contents suggest that Windmill Hill did in fact serve a wider variety of activities, and that those activities involved a much larger number of people either over time or in larger groups during longer time intervals.

The assemblages, as noted within chapter 2, have their limitations but nonetheless some interpretation can be suggested. Many of the sherds located within Etton were either rim or decorated, and compared to the plain ware this suggests that these may have been chosen for deposition (Pryor 1998: 363). If this is true, Etton may have

been an enclosure where plain ware was subjected to separation from decorated ware. The limited information within the Etton report suggests that the wide variety of decoration and the smaller amount of plain ware indicates that perhaps group affiliation was based on decoration and that pottery was treated quite differently from other objects. This may be why Pryor (1998: 363) suggests that within later phases the pottery style started to change, but the way the pottery was deposited and the general use of the site remained consistent with ideals in the past.

In opposition to Etton, at Haddenham there is overwhelming evidence for larger amounts of plain ware, much of which is abraded and must have been incorporated into the enclosure ditch segments at a later date or the ditches were left open and the sherds allowed to weather. A small amount of the assemblage was decorated. The assemblage at Robin Hood's Ball indicated a lack of carinated vessels and resembles the assemblages at Windmill Hill and Maiden Castle. Traces of soot were also found on some of the sherds indicating that they could have been used for cooking or during the food consumption process (Thomas 1964: 16). Likewise, the small pottery assemblage at Offham Hill suffered from poor preservation conditions. Of the sherds analysed, a majority were plain ware and had affinities with those which have been recovered from Whitehawk, Combe Hill and Barkhale causewayed enclosures (Drewett 1977: 221).

Although not much can be said about which activities were related to pottery, the distribution of Neolithic sherds suggests at Offham Hill that deposition within segments 1 and 2 of the Outer Ditch remained constant from the primary to secondary phases of the site's usage. This indicates a continuation or remembrance of where pottery was to be placed. The assemblage at Whitesheet Hill has more affinities with Cornish ware than other enclosures in Wiltshire, including Windmill Hill. Sixteen of the sherds indicate that either vessels were hung over a fire for cooking or were placed directly within hot coals (Cleal 2006: 158-60). If differing groups did use Whitesheet Hill and Windmill Hill, the difference in assemblages could relate to the differences in enclosure usage between groups.

The early Neolithic sherds at Knap Hill only numbered about 60 from the Cunnington excavations of 1908-9 and the Connah excavation of 1961. Sherds under the bank

could have been subject to rapid backfilling as they were found in a fresh condition, while the sherds from higher up in the enclosure ditch segments are weathered. Function is difficult to ascertain from this small assemblage, but small rim sherd from Cutting II a may be similar to vessels with lugs, and as such could have been used in the cooking process.

The pottery assemblages from Whitehawk and The Trundle both contained similar styles of pottery. Forms consisted of carinated vessels with handles and perforations, possibly to hang above a fire. As no distribution patterns could be associated with the enclosure ditch segments at Whitehawk (Figs. 4.20-6), the main evidence for the use of pottery can be found in the Third Ditch, Cutting IV. Within this section of the ditch was a hearth and associated sherds, some of which were perforated and decorated. Inhumation occurred within this segment and it is possible that this hearth, and “the bulk of the pottery” which was “overlying the grave” (Curwen 191934: 108), some of which was decorated, could have all have been interrelated in use. The larger shaped vessels interpreted though the sherds located at The Trundle within 2D, Cutting 2 (Figs. 4.14-5) and the large amount of animal bone suggest that this enclosure ditch segment was central to food processing.

The evidence of pottery decoration and possible function is tenuous at best. Millett (1979) attempted to use the size of vessels to suggest function. The assemblage from Windmill Hill, though, indicates that decorated and carinated bowls located within the outer circuit may have been based around display and handling (Zienkiewicz and Hamilton 1999: 285). Pottery decoration on Mildenhall ware from phase 1 contexts was fresh when located, suggesting that specific pottery may have been selected for inclusion within the site (Pryor 1998: 211-12, 363). The importance of decoration may involve “cosmological action that underpins social action” (David et al. 1988: 378). If some vessels were meant for display (Gosden 2001, 2004: 41; Jones 2001; Marangou 1996; Pluciennik 2002), decoration would have an immediate impact on the viewer as he or she moved through the ditches of a causewayed enclosure into a ‘deeper’ portion of the site with a message conveyed by the vessel. Although no patterns in vessel decoration and their placement can be suggested at all sites, the distribution within the ID VII, at the proposed entrance into the centre of Windmill Hill, contained a large number of vessels and could suggest that the pottery deposited

there served more than just a utilitarian requirement. At Etton, the major deposits of decorated pottery occur at causeways L, M, and N, which are away from the supposed main entrance at causeway F, but are within the main areas of structured deposition. This suggests that this pottery may have taken on an importance not primarily related to crossing between the inner and out portion of the site, but related to other activities such as feasting.

6.3.10 *Eating meals and feasting*

The foodstuffs consumed during the British Neolithic consisted of a variety of animals, domesticated and wild. Isotope evidence suggests that during the early stages of the Neolithic, a move was made away from a coastal diet of the Mesolithic to an almost entirely terrestrial food base (Richards and Hedges 1999: 894-6). The domestication of animals and the increasing herd sizes in relation to food consumption are indicated by the remains located at long barrows, causewayed enclosures, and henge monuments. The large amount of bone, particularly of cattle, has led a majority of excavators to interpret causewayed enclosures as places where feasting occurred associated with a multitude of rites (Pollard 2004b, 2008; Ray and Thomas 2003). Feasting is an important component in re-negotiating and maintaining social relations (Cross 2001; Dietler 1996; Hayden 1996; Jones 1996, 1998, 1999a; Russell 1999: 162-5). Feasts may have taken place as specific times of the year when it was appropriate, such as the Winter or Summer solstice, as a rite of passage (van Gennep 1996), or during other celebrations such as 'weddings' and plentiful harvests. A majority of these interpretations are based on ethnographic studies where food and animals are of central importance (Parker Pearson 1999: 36-40, 2000; Parry 1985).

Feasts would have included cattle, pig, sheep or goat, and possibly wild animals such as deer. The consumption of cattle may have taken place more often as this species may have been more widely available than other animals, particularly pig. Pigs cannot be grazed as cattle or sheep, and must have been reared within the local area of an enclosure for a particular event. Although cattle dominate numerically, perhaps sheep and pig were consumed only during particular events reaffirming their special status within the groups which used an enclosure. The large amounts of cattle bone could indicate that 'general' feasting took place. By this I mean that cattle were butchered and consumed during events where large groups came together. The large

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amounts of cattle at most enclosures, depending on how many were used, may indicate that competition within feasting took place (Cross 2001).

This can be seen most clearly at Windmill Hill where, after consumption, the bone was arranged by groups into linear spreads in order to define their wealth or status within the social structure of the surrounding communities. If, as suggested by Whittle *et al.* (1999), the middle circuit at Windmill Hill was constructed last, it could be interpreted that as Windmill Hill became a large focus for gatherings, competition through feasting on cattle rose and the need for groups to display their consumption may be one result of this addition of ditches.

At Etton, Pryor (1998) has suggested that the two sides of the enclosure were used for different social activities, with the eastern arc utilised for display and structured deposition of objects. The western enclosure ditch segments contained the largest amount of disarticulated cattle bone, particularly in segment 1 within all phases. Here the remains of consumption were deposited and displayed, the bundle of cattle ribs at causeway B an indicator of the limit of or representation of feasting. Sheep were also thought of as 'highly prized', demonstrated through the placement of articulated remains within the terminal ends of some enclosure ditch segments (Pryor 1998). Ethnographically, the Mongols of Soviet Mongolia use sheep as an important component of their diet and revere sheep tibia. The tibia of a sheep is present for a variety of ceremonies including birth, adulthood, marriage, and death (Szykiewicz 1990). The relationship between eating sheep and the bone from the animal as a symbol suggests that both are of equal importance within a complex social structure.

Although the enclosures in the South Downs have a similarity in the type of animals used for deposition, there are indications to the differences in usage from those at Etton or Windmill Hill. As shown in appendix II, within almost all layers and enclosure ditch segments at The Trundle and Whitehawk, pig and sheep or goat bones were located. Although cattle may dominate the animal assemblage as a whole, there is no evidence for the large scale accumulation of one species over another, indicating that there may have been no distinction between the selections of one species over another. The excavation at Offham Hill suggests that sheep or goat may have been utilised more often as 39 occurrences were located compared to cattle (32) and pig

(4). This may indicate that Offham Hill was not used primarily for feasting, but for small groups who came to the enclosure in order to carry out activities which were of a more personal nature, such as mortuary practice, which were not subject to the same social rules and regulations as a setting for feasting. This may be one reason why sheep/goat and pig are located more often in an articulated or semi-articulated state close to articulated human deposits, exemplified by the terminal end sheep deposits at Etton and the complete goat and pig near the child within OD III at Windmill Hill.

At Whitesheet Hill, a bias caused by sieving may account for the high numbers of pig, as 93 occurrences of cattle were located compared with pig (212) and sheep or goat (64). However, as I discussed in chapter 5, the potential overlap in usage of these two sites may have had an effect on the ways on which the deposition of or feasting on animals took place. Groups could have come together at Whitesheet Hill in order to carry out smaller-scale consumption, and if Windmill Hill did become more prominent within the Wiltshire area, the people of Whitesheet Hill may have travelled there in order to participate in larger-scale feasting and deposition involving cattle. Further excavation of the enclosure ditch segments may in the future provide additional information about the scale and difference of species consumed. Numerically, the small-scale excavations at Knap Hill and Robin Hood's Ball indicate that cattle were deposited more often than pig and sheep or goat. The small size of the assemblage, though, makes it difficult to indicate whether feasting was occurring at these sites at all. As indicated in chapter 5, a large number of pot sherds were recovered from the inner ditch along with a majority of the cattle and sheep or goat bone from trench 1, and could possibly indicate smaller scale consumption, or possibly that the pottery was itself the focus of the deposit and was brought to the enclosure to be used and/or broken before inclusion within the site.

6.3.11 *Dealing with the dead*

Death and burial of human remains during the Neolithic has always been a difficult topic in the archaeological literature with a wide range of arguments stemming mostly from the interment of human remains within long barrows and chambered tombs (Atkinson 1968; Barrett 1988b; Binford 1971; Chapman 1981; Fleming 1972b; Kinnes 1971, 1981; Scott 1992; Wysocki and Whittle 2000). Archaeologically, the body has been examined within prehistory through ideas such as personhood (Brück

2001; Fowler 2001, 2002, 2003, 2004a, 2004b; Jones 2002, 2005; Thomas 2000b, 2002; Kirk 2006) and fragmentation (Chapman 2000; Pollard 2004a), where individuals are consciously engaging and changing their material worlds during prehistory. Whether bodies were left exposed to de-flesh before being placed into enclosure ditch segments or not, the choice of which portion(s) of the body were chosen for deposition may signal differences between groups who used particular causewayed enclosures. Prehistoric human bodies have also been interpreted through aspects such as violence, which may be an indicator for major upheaval or change at specific locales (Chapman 1999; Dolukhanov 1999; Mercer 1999; Shulting 2006; Shulting and Wysocki 2005; Thorpe 2003; Wakely 1997).

Within long barrows, not all human remains could have been interred in a socially symbolic space. This may indicate a 'special' status attached to the articulated individuals within long barrows and a 'memorial status' attached to single finds, which could have been circulated through the landscape and eventually brought to an enclosure with the intention of placement within an area of a site. A majority of mortuary practices involved numerous ways of depositing the dead, within varying contexts at sites, including excarnation (Smith 2006) during the earlier Neolithic followed by the placement of fully articulated individuals within 'collective tombs', and cremation during the later Neolithic (Beckett and Robb 2006: 69). Often the argument turns to that of skulls, as the skull is the part of a human (or animal) which represents the part of the body by which we interact with each other the most. Facial expressions and movement of other parts of the head such as the ears and nose all communicate to us what a person is saying or thinking in non-verbal communications, and may one reason why skulls have been located where the body is absent (Bradley and Gordon 1988).

As shown in the preceding chapters, human bone differs dramatically in the ways in which it has been placed within the enclosure ditch segments. This offers suggestions regarding the complex ways in which Neolithic groups dealt with memory (Cummings 2003; Fowler 2003; Meskell 2003), death and the dead, reflected in Fleming's (1973) suggestion of 'tombs for the living'. It is said that 'a funeral is not for the dead, but for the living'. As human beings we try to make sense of the world around us and to come to terms with inevitable change. During these times, re-

negotiation and re-affirming of alliances and family structures, especially within elites, maintains important social structure and stability (Oestigaard and Goldahn 2006).

The conception of time is also an important element in the interpretation of archaeology (Gosden 1994; Gosdon and Lock 1998; Harding 2005). Time is particularly relevant, in mortuary practice, to the placement of human remains within causewayed enclosures. Mizoguchi (1993: 224) has focused on time during prehistory by investigating the "interconnections between human practices and time". Similarly, Chapman (1994) has investigated changes in mortuary practice in Eastern Europe through time, concluding that changes in social structure have a direct impact on changes in the treatment of the dead. The same may be true of causewayed enclosures, as the knowledge of putting individuals (or part of them) into the ground stayed the same, but the way(s) that this took place changed.

Although preservation conditions and lack of total excavation may be two factors for the lack of articulated human remains, the near total excavation of Etton and the excellent preservation suggest that perhaps this enclosure was seen as a place where mortuary practice was not the primary concern. Weathered and gnawed bones indicate that either the ditches were left open for a period of time, or that the bone came from elsewhere in the landscape, including nearby long barrows. As only skull parts and other long bones came from these enclosures, it could be that people using Etton and Haddenham were less concerned with the display of human bone.

Instead, I propose that the use of wood within the enclosure ditch segments at Etton was intended to represent the remains of both human and animal bone through linear deposition. The laying out of cattle bone clearly shown at Windmill Hill in distinct groupings mirrors the ways in which wood was deposited in a linear pattern within the enclosure ditch segments at Etton. One reading of the evidence may be that human articulated burials were replaced through the positioning of wood in order to mimic the articulated form of a human body.

The mortuary structure at Foulmire Fen dating to around 3900-3600 Cal BC (Evans and Hodder 2006: 177) fits in well with the construction and use dates of both Etton

and Haddenham, and may have facilitated the socio-symbolic needs of the surrounding groups to remember the dead. The extensive use of wood in the construction of the mortuary enclosure, the palisade at Haddenham and the 'fence line' and other wooden objects indicates that perhaps for these three sites at least, the ways in which wood was used and treated in a variety of contexts was central to their identity. Windmill Hill, The Trundle and Whitehawk all show indications of the use of wood through postholes, but not of large scale palisade construction.

It is perhaps worth noting that the clusters of flint located within the ditch segments at Offham Hill (Chapter 4, Fig 4.13) could be communicating the same symbolic ideal with the placement of disarticulated human remains close by. Although the flint is not in a linear spread along the length of the enclosure ditch segments, perhaps the groups who used Offham Hill chose to deposit flint in this way in order to demonstrate the same concept as a linear spread of animal bone or wood, but using their own representation of working flint and the importance that had in their lives.

The enclosures within the South Downs in this study all have shown at least one articulated human body, while the only other enclosure, Windmill Hill contained two complete human burials; the other three remaining enclosures contained some human remains, but no complete inhumations. Close by Windmill Hill, the Horslip long barrow (Ashbee et al. 1979) has produced a date of 4335-3700 Cal BC (Field 2006: 174) and may have had a similar role to play in the use and construction of the enclosure as those in East Anglia. Similarly, Adam's Grave long barrow, clearly seen from Knap Hill, may have played an important role in the activities which took place. If the view between these two sites was clear, and they overlapped in use, the implication of being able to see someone go into a long barrow while at Knap Hill would have been quite powerful.

6.4 The economics of activity

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6.4.1 *Growing and using cereals*

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Population mobility and settlement are only two of the many issues of the groups which used and constructed causewayed enclosures. But what can we say about economy and society from the way in which material was deposited at these sites? The scale of cultivation of cereals during the Neolithic has long been under debate, stemming from economic and ritual interpretations (Moffett et al. 1989, Entwistle and Grant 1989, Jones 2000, Robinson 2000b, Fairbairn 2000, Richards 2000, Bogaard and Jones 2007).

The querns and rubbers located at many causewayed enclosures and other early Neolithic monuments indicate the importance of growing and processing cereals (Roe 2009). At Etton a majority of the querns were placed within structured deposits, some slightly used, others indicating extensive use. This shows that some querns which were used may have been brought to the enclosure in order to represent food processing, which was done either at the enclosure or within the landscape where the used querns were deposited. No cereals or grain were located, indicating that the querns were probably symbolic of what they represented (Pryor 1998: 369). In contrast, burnt cereal was deposited within Windmill Hill, indicating that, at least for the earlier Neolithic, the deposition of cereals may have been just as important in a symbolic context as the materials (querns etc.) through which the cereal is processed or transformed into food fit for consumption. Of the 315 querns, rubbers and pounders, 98 were classed as unbroken (Smith 1965: 121), an indication of the massive amounts of food that were most likely processed during the use of the enclosure. This also indicates, as the animal bone does, that the enclosure could have supported large groups during its use.

Nearby Whitesheet Hill may also have had some food processing, or at least the representation of it as two of the seven fragments of quernstone located conjoined (Healy 2006: 166), possibly indicating that they were broken prior to deposition. The sarsen used to create these objects most likely came from the local landscape, about one mile away to the east. Although no querns or other cereal processing stone was located, a large deposit of charred barley grain was found within feature 11 at Haddenham, and may have been brought to the enclosure from the local environs (Jones 2006: 312-6). This suggests that, unlike Windmill Hill, the importance of the grain itself and not the means by which it was transformed into food was of primary

importance, indicating a sharp contrast between not only Windmill Hill but also the enclosure at Etton.

As no caches of grain or other material were located at Etton, I would suggest that the symbolic importance of the ways in which the sarsen was chosen and carefully deposited outweighed the impact it had on an economic basis as a main source of food processing at the enclosure. The evidence for cereal production at The Trundle and Whitehawk, both suggest that querns were deposited if not used. Larger pieces (7) were located at both sites, but a majority were fragments. Although a larger scale excavation may indicate otherwise, it is suggested that the use and deposition by groups at Whitehawk may have been more significant than those at The Trundle as the excavations were conducted across a larger area giving, perhaps, an indication that sarsen was not deposited within specific areas of the site.

6.4.2 *Dairying and culling*

Animals in Neolithic Britain are often thought of mainly within a ritual context at a variety of sites (Pollard 2006a; Ray and Thomas 2003). This study have taken some of those ideas of the ways in which animals were treated after death and incorporated them into the deposits of causewayed enclosures, which were of importance to the people who placed them there. Animals, though, did have a life before death. It was only through death that the importance of the roles of animals in the Neolithic social structure was confirmed. The economic role of animals at causewayed enclosures defined how they were treated in death. It is the potential variability of the economic importance of animals prior to deposition I would now like to turn to.

Domesticated animals during the Neolithic would have been extremely important. As indicated above, the primary function of animals, particularly cattle, would have been for food. Skins, bone tools and horn cores would also have been regarded as economically important material obtained from one animal. Animals would need to be controlled and watched carefully in order to prevent interbreeding with the wild population when they were grazing in clearings, within semi-forested environments as might be the case for pigs, either on higher ground in the winter or lower ground during the summer months (Grigson 1999: 230). The evidence at Windmill Hill, Whitesheet Hill, Etton and, to a lesser degree, Robin Hood's Ball suggests that cattle,

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pigs and sheep lived to a maximum of 4 years. Younger animals may have been culled, while old animals were kept in order to reproduce. This may be one reason why there are many younger animals within enclosure ditch segments. A majority of the animals, particularly cattle, located within the enclosures in this study were of a relatively young age. This indicates that perhaps younger animals were used as food and in socio-symbolic events, while older animals were kept for breeding.

The activities of feasting, breeding or trade would all have depended on the lifespan of an animal. This may have dictated when people came together at enclosures in order to 'conduct business' with other groups who tended animals. In addition to animals being consumed for meat, milk would also have been consumed as part of the Neolithic diet. Much of the evidence has come from the study of lipids (Copley et al. 2003; Craig 2003) particularly from Hambledon Hill, Abingdon, Windmill Hill, (Copley et al. 2005) and the Ascott-Under-Wychwood long barrow (Copley and Evershed 2007). Of the 108 sherds submitted for analysis, 25% 'contained predominantly dairy fats' (Copley et al. 2005: 898). Taken together with the faunal evidence of cattle at Windmill Hill, where more adult female cattle were located than adult male cattle, a good argument can be made for dairy products having a part in activities (Copley et al. 2005: 902). Legge (1981: 179; Legg et al. 1998: 90) also indicates that female cattle were killed more often and that they represent a surplus of animals, an indication of a dairying economy.

6.4.3 *Hunting and the representation of wild animals*

Wild animals which lived on the margins of causewayed enclosures may have been regarded very differently from those which were domesticated. Deer bones from red and roe species and their antler in the form of crowns and picks have been located within enclosure ditch segments. As shown previously, antler would have been used to help construct the enclosure ditches and was used to obtain flint from mines and other smaller seams within the landscape. Indications of hunting at causewayed enclosures are limited, but arrowheads may be one form of evidence. Antlers, particularly ones which had been shed, could have been collected or kept until needed do not necessarily represent the remains of hunting. Other implements such as bone points hafted to a long stick creating a spear-like weapon could also have been used for hunting.

The representations of larger more powerful animals had meanings attached to them. The killing of large wild prey such as deer, wild boar and cattle, was carried out, and the status of killing a wild animal, and the representation of it within an enclosure ditch segment would have given an individual an elite status. There are remains of wild animals which were probably used for food as well as for secondary products, as smaller numbers of bones from these animals suggest. The small number of bones could indicate that wild animals were eaten only on very special occasions, or that perhaps they were taboo, and were not consumed by groups who saw wild animals as existing within a different social boundary from which they lived. Many domestic animals in this study were deposited either in a semi or fully articulated state, including sheep, pigs, cattle and dogs. The only wild animal deposited in this state was the complete skeleton of a roe deer within Hole 5 at Whitehawk. This animal could have been purposively selected to be deposited within the site, but was still kept separate by not including it in an enclosure ditch segment with other material. One reason why this deer was deposited in this manner is that perhaps it was a sign of the status of a hunter or hunting group which had successfully killed an animal which was illusive, and possessed great strength and speed, all of which would enhance its status to a hunter. The meat which was eaten from deer, the skins used, and the antler to make flint tools and construct enclosure ditches, pits and mines could have been perceived as transferring attributes through the parts of the animal to the person possessing it, enabling them to carry out a particular activity. The strong link humans and animals had with each other may be one reason why they may have been treated in similar ways in death.

6.4.4 Gender, age and other forms of social relations

The representation of the dead, male or female, is of interest and differences in the ways people at the different enclosures saw human remains and perhaps gender in general can be suggested (Hurcombe 2000; Olsen 1998; Skeates 1991; Moore and Scott 1997). At Etton and Haddenham, there were no articulated human remains recovered, while at the smaller excavations at Robin Hood's Ball and Whitesheet Hill no remains were recovered at all. At Knap Hill and Offham Hill, the skeletons seem to have been deposited 'on their own' with few associated deposits. There may have been some preferential treatment of one gender over another as males and females,

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adults and children are represented within the respective assemblages at each of the enclosures. Four of the eight skeletons recovered from the causewayed enclosures in this study were female, two were children and two male. Three of these individuals, two from Whitehawk, and one from The Trundle were female. Three skeletons were also located within the nearby Cissbury flint mine, two female, and one male (Barber et al.: 1999: 62-3). The male at Whitehawk was surrounded by chalk blocks, as was one of the females, which may indicate a common group identity between two different people or, perhaps, a closer relationship within the same family or kin group. The disarticulated body parts often recovered included large amounts of skull/skull parts of children or juveniles and may suggest that this part of the body was more important but, equally, smaller bones of the hands and feet may have been lost, or were not preserved as long bones were.

Often deposited with human remains are small portable chalk objects. Chalk objects in this study were located mainly within The Trundle, Whitehawk, and Windmill Hill, and consisted of cups, pendants, phalli and other small scored objects. Whether these were religious or not, they do prove that perhaps a form of personal or group identity was being indicated. The incised chalk objects may have been used as necklaces in order to display kin identity, which may have been particularly relevant at larger enclosures where many different people came together, some of whom may not have met before. The supposed phalli and figure at Windmill Hill suggest fertility and perhaps representation of a figure from the past or the present. Although these smaller objects are harder to classify in terms of their usage, from a social perspective they were probably just as important as other objects which can be interpreted with much greater confidence.

6.5 Conclusion

This thesis has attempted to push the boundaries of what is commonly interpreted about causewayed enclosures within the British Isles. It has not meant to be a defining statement on causewayed enclosures within the British Isles, but to pose a new set of questions which can be suggested through the re-interpretation of existing data. Although some of the data used in this thesis is of a limited extent, it is hoped that the locations where causewayed enclosures were constructed and the

interpretation of their assemblages were used in a way that singles out potential identities through the acts of activity in order to identify different questions about the use of these complex monuments. Although an important component of the use of causewayed enclosures, we need not rely on the same interpretations of 'enclosures used for a multitude of reasons...', and then discuss structured deposition, which may have been rarely done, but rather take an approach which challenges us to think about everyday tasks, and the knowledge of the people who put those into practice while coming together at these sites.

At the beginning of the thesis I set out to determine what kinds of activities (butchery, flint knapping, food processing, etc.) could be shown through the re-analysis of material within a specific set of causewayed enclosures in East Anglia (Etton, Haddenham), the South Downs (Offham Hill, The Trundle, Whitehawk) and Wiltshire (Knap Hill, Robin Hood's Ball, Whitesheet Hill, Windmill Hill). The aim was also to indicate if any of the activities changed over time (temporal) and if certain activities could be indicated in specific areas of each site (spatial). By doing this I suggested that our conceptions of causewayed enclosures need not be based on the idea that all enclosures were used alike and that structured deposition does not always need to be categorised under 'ritual' or other cosmological rules, but could be result of everyday activities. By placing objects within the bounds of a causewayed enclosure, groups in the environs in which enclosures are located were indicating who they were and what was important to them within their world view. This does not mean that some objects (including people) were not 'ritualised', but that for a majority of the deposits it indicates the remains of activity *preceding* deposition. In chapters 3-5 I have indicated this change through the visual representation of flint, pottery, human and animal bone, chalk and wood in stratigraphic layers. These layers should not be taken as an indication of time itself, but of a series of changing events relating to one or more areas of a site.

The activities which were conducted at causewayed enclosures suggest that the people who constructed and used these sites must have been predominately pastoral. The large amounts of cattle bone are suggestive of this way of life. I believe that these places were where smaller groups gathered in order to undertake activities which were reflected within the enclosure ditch segments. Some of these sites, such as Windmill

Hill and Whitehawk, may have grown as time passed reflecting a growth in site usage. Despite this, deposition may still have only taken place during certain times of the year. In this study, I have also shown that there are far more examples of objects which seem to be the result of specific kinds of activity. The most common of these activities include flint and wood by-products and animal bone with cut marks associated with butchery. Groups of objects which have been shown to be placed within the enclosure ditch segments, such as bone groups at Windmill Hill, flint clusters from Offham Hill or wood spreads from Etton, may indicate a larger amount of participation in their creation based on segment size. Deposits which may be termed structured consist of one or more objects arranged in such a way as to suggest a 'higher form' of symbolic meaning. These deposits include those such as the cattle skull on a 'box' at Etton, the placement of cattle bone within a child's grave at Windmill Hill, and the placement of a woman with a presumably unborn child at Whitehawk surrounded by chalk blocks. These actions were structurally deposited, and were central to the reaffirmation of people and the world. At the same time mixed groups of objects located within enclosure ditch segments indicate the importance other activities were creating in a supporting role in acknowledging the everyday activities and patterns of life which were central to living during the Neolithic.

Chronologically, all of the causewayed enclosures suggest that either they were in use at the same time, or that they overlapped in use. Saying this, the use of some sites suggests that activity was changing through time, while at others the data suggests that some enclosures were becoming a large focal point for groups who participated in activities at a given site.

These were places which facilitated much more than merely coming together, they were places where groups from the surrounding environs expressed themselves through the objects they created and used, and the landscapes in which they lived. In the previous three chapters I have set out the possible roles that causewayed enclosures may have played within a given area of the landscape; I would now like to turn to some of the issues regarding what this might indicate for the people who lived during the early Neolithic.

The population of Neolithic communities in the British Isles is generally thought of as being a mobile population which followed a cyclical pattern based upon the changing of the seasons, breeding patterns of animals and the availability of food at any one given time in particular places within the landscape. No two causewayed enclosures were built exactly the same, so there is no reason why we should think of them as having the same 'functions'. Each enclosure was constructed with a similar pattern in mind but, because there were no plans or written instructions, communities created their enclosures to facilitate their needs and the expressions of how they lived and viewed their world. The mobility/settlement or sedentary argument in regards to causewayed enclosures may have been linked to other areas in the Neolithic of north-western Europe, such as the segmented enclosures at Darion in Belgium and Menneville and Les Réaudins in France which contained long houses in the central portions of the site (Bradley 1998c: 73-7). From the small amount of fieldwork which has been conducted in the environs of causewayed enclosures evidence for at least short periods of occupation has been located. At Windmill Hill (Whittle et al. 2000), an earlier Neolithic pit cluster was found containing animal bone, flint, sarsen and pottery, all reminiscent of the assemblage contained within the enclosure itself. A smaller examination of two areas to the north-east of Robin Hood's Ball (Richards 1990: 61-5) has indicated a small amount of flint, including 26 cores, and a small amount of animal bone was placed within the five pits excavated. The similarity to the material from these areas and the enclosure ditch segments indicates a similarity in the material culture associated with deposition, but a difference in that, if the enclosure was constructed and 'in use', the material may not have been deposited due to it being not being within a prescribed time, or the deposits represent individuals who were not allowed inside the enclosure and so placed their material in small pits in close proximity to the enclosure.

Although no signs of what might be called 'settlement' exists, it does demonstrate that activities were occurring at about the same time during the early Neolithic, and that the smaller placements of material could indicate that indeed groups did stay within a short distance from the enclosure. Arguments have been on-going about the location of Neolithic houses in Britain (Darvill 1997, Thomas 1997), and if those structures were constructed in the image of earthen long barrows and timber mortuary structures (Madsen 1979) (such as the one located near Haddenham), or of a semi-permanent or

sedentary construction such as the long houses located on the main European continent (Marshall 1981, Milisauskas 1972, Modderman 1975, Musson 1970, Topping 1997, Whittle 1996a, 1996b).

The point here is that people in the Neolithic ‘lived’ somewhere and did things outside causewayed enclosures which were part of their lives and were then brought back to the enclosure to be confirmed by deposition. At certain times of the year they had to graze animals in particular fields, collect wild cereals, berries and nuts. Depending on where in the landscape they did these things, some communities would have more or different recourses from others. These differences were played out in different ways at different causewayed enclosures. Whittle (1997b: 21-2) suggests ‘spectrums of movement’ involving both short and long term occupations in an effort to overcome the generic term of ‘relative mobility’. What might be better applied is Fowler’s (2003) concept of a tempo. In a causewayed enclosure context, different groups may have had different tempos depending on whether they were herders, flint gatherers, pig rearers, or cereal collectors. This may help in explaining the differences in how one type of material was deposited over another or how one enclosure may have been conceptualised and used differently by the people who created, used and maintained it within this study.

6.6 Future research

Causewayed enclosures will always hold a fascination for the archaeologist as well as the more casual observer who appreciates the Neolithic monuments of the British Isles. The complexity of human action and behaviour during prehistory will always create much-needed debate in order to push new ideas and interpretation forward. I hope that this contribution has gone some way towards adding to existing ideas and stimulating future debate. Although not always possible due to modern day archaeological logistics, further excavation at enclosures only previously excavated on a small scale, such as Knap Hill, may prove fruitful and will perhaps one day dispel a ‘Windmill Hill ‘type site’ model - which has been too readily applied to all causewayed enclosures - in order to change the way we think about individual sites, and how they fit into the larger picture of Neolithic Britain. Detailed examination of causewayed enclosures beyond southern England, such as Green How in Cumbria and

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other possible causewayed enclosures in Scotland, may also change the ways in which we interpret how and what groups did at differing causewayed enclosures within differing landscapes.

Appendix 1: The causewayed enclosures of East Anglia

1.1 Etton

1.1.1 Etton animal bone totals for all phases within the enclosure ditch segments

Phase	Cattle	Pig	Sheep	Goat	Red Deer	Roe Deer	Dog	Fox	Auroch	Wild Boar	Large Ungulate	Small Ungulate	Totals	%
1A	328	159	159	5	1	1	-	5	-	-	179	37	874	22.72
1B	462	126	144	1	-	-	-	-	1	-	379	137	1250	32.5
1C	620	110	43	-	2	3	-	4	2	1	528	110	1423	36.99
2	125	25	2	-	-	-	1	-	5	-	127	14	299	7.77
Totals	1535	420	348	6	3	4	1	9	8	1	1213	298	3846	
%	39.91	10.92	9.04	0.15	0.07	0.1	0.02	0.23	0.2	0.02	31.53	7.74		

1.1.2 Etton Phase 1A animal bone by enclosure ditch segment

Ditch Segment	Cattle	Pig	Sheep	Goat	Red Deer	Roe Deer	Fox	Large Ungulate	Small Ungulate	Total	%
1	166	21	63	4	-	-	-	28	2	284	32.56
2	7	2	1	-	-	-	-	-	-	10	1.14
3	12	2	30	-	-	-	-	-	-	44	5.04
4	2	53	48	1	1	-	-	4	21	130	14.9
5	23	1	-	-	-	-	-	7	-	31	3.55
6	3	-	4	-	-	-	5	7	2	21	2.4
7	5	-	-	-	-	-	-	5	-	10	1.14
8	-	-	-	-	-	1	-	-	2	3	0.34
9	4	10	-	-	-	-	-	1	6	21	2.4
10	43	66	5	-	-	-	-	86	1	201	23.05
11	10	1	-	-	-	-	-	3	3	17	1.94
12	47	3	8	-	-	-	-	36	-	94	10.77
13	-	-	-	-	-	-	-	-	-	-	-
14	6	-	-	-	-	-	-	-	-	6	0.68
Total	328	159	159	5	1	1	5	179	37	872	
%	37.61	18.23	18.23	0.57	0.11	0.11	0.57	20.52	4.24		

1.1.3 Etton Phase 1B animal bone by enclosure ditch segment

Ditch Segment	Cattle	Pig	Sheep	Goat	Aurochs	Large Ungulate	Small Ungulate	Total	%
1	212	33	14	1	1	231	77	569	45.52
2	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-
6	6	-	-	-	-	8	2	16	1.28
7	13	2	-	-	-	2	-	17	1.36
8	7	4	1	-	-	7	-	19	1.52
9	4	1	3	-	-	-	6	14	1.12
10	25	9	2	-	-	16	5	57	4.56
11	4	1	-	-	-	2	-	7	0.56
12	91	10	3	-	-	45	4	153	12.24
13	95	66	121	-	-	66	43	391	31.28
14	5	-	-	-	-	2	-	7	0.56
Total	462	126	144	1	1	379	137	1250	
%	36.96	10.08	11.52	0.08	0.08	30.32	10.96		

1.1.4 Etton Phase 1C animal bone by enclosure ditch segment

Ditch Segment	Cattle	Sheep	Pig	Roe Deer	Red Deer	Aurochs	Wild Boar	Fox	Large Ungulate	Small Ungulate	Total	%
1	317	27	63	2	2	1	1	4	278	79	774	54.39
2	42	3	9	-	-	-	-	-	16	7	77	5.41
3	13	2	-	-	-	-	-	-	-	1	16	1.12
4	-	-	-	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-	-	-	-
6	13	-	-	-	-	-	-	-	7	1	21	1.47
7	8	2	1	-	-	-	-	-	7	2	20	1.4
8	7	1	4	-	-	-	-	-	7	-	19	1.33
9	35	1	3	1	-	-	-	-	28	3	70	4.91
10	87	4	21	-	-	1	-	-	76	6	195	13.7
11	47	2	5	-	-	-	-	-	81	8	143	10.04
12	33	-	3	-	-	-	-	-	23	3	63	4.42
13	18	1	1	-	-	-	-	-	5	-	25	1.75
14	-	-	-	-	-	-	-	-	-	-	-	-
Total	620	43	110	3	2	2	1	4	528	110	1423	
%	43.56	3.02	7.73	0.21	0.14	0.14	0.07	0.28	37.1	7.73	100	

1.1.5 Etton Phase 2 animal bone by enclosure ditch segment

Ditch Segment	Cattle	Sheep	Pig	Dog	Aurochs	Large Ungulate	Small Ungulate	Total	%
1	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	14	-	1	-	-	17	-	35	11.7
6	3	-	-	-	1	-	-	4	1.33
7	60	2	6	-	-	66	1	135	45.15
8	-	-	-	-	-	-	-	-	-
9	5	-	1	-	-	5	-	11	3.67
10	-	-	-	-	-	-	-	-	-
11	10	-	5	-	1	23	1	40	13.37
12	13	-	3	-	3	12	8	39	13.04
13	20	-	9	1	-	4	1	35	11.7
14	-	-	-	-	-	-	-	-	-
Total	125	2	25	1	5	127	14	299	
%	41.8	0.66	8.36	0.33	1.67	42.47	4.68		

1.1.6 Etton human bone totals from the enclosure ditch segments in all phases by element

Ditch Segment	Tibia	Femur	Humerus	Scapula	Skull/part	Total	%
1	-	2	1	2	-	5	33.33
2	-	-	-	-	-	-	-
3	-	3	-	-	-	3	20
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	1	1	6.66
7	-	-	-	-	-	-	-
8	-	-	-	-	1	1	6.66
9	-	-	-	-	1	1	6.66
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	1	-	-	-	-	1	6.66
13	-	1	-	-	2	3	-
14	-	-	-	-	1	1	6.66
Total	1	6	1	2	5	15	
%	6.66	40	6.66	13.33	33.33		

1.1.1.7 Etton Phase 1A by-product and implement totals by enclosure ditch segment

Phase 1A Ditch Segment	Implements	By-products	Total	%
1	6	11	17	19.54
2	-	2	2	2.29
3	2	4	6	6.89
4	-	3	3	3.44
5	9	9	18	20.68
6	11	11	22	25.28
7	-	2	2	2.29
8	-	-	-	-
9	-	-	-	-
10	-	5	5	5.74
11	-	-	-	-
12	2	-	2	2.29
13	2	3	5	5.74
14	-	5	5	5.74
Total	32	55	87	
%	36.78	63.21		

1.1.8 Etton Phase 1C by-product and implement totals by enclosure ditch segment

Phase 1C Ditch Segment	Implements	By-products	Total	%
1	-	-	-	-
2	-	-	-	-
3	1	9	10	3.44
4	-	-	-	-
5	-	-	-	-
6	16	17	33	11.37
7	3	2	5	1.72
8	2	17	19	6.55
9	1	14	15	5.17
10	3	19	22	7.58
11	-	3	3	1.03
12	6	30	36	12.41
13	1	4	5	1.72
14	7	135	142	48.96
Total	40	250	290	
%	13.79	86.2		

1.1.9 Etton phase 2 by-product and implement totals by enclosure ditch segment

Phase 2 Ditch Segment	Implements	By-products	Total	%
1	84	278	362	28.57
2	3	1	4	0.31
3	2	10	12	0.94
4	-	-	-	-
5	146	212	358	28.25
6	1	34	35	2.76
7	-	3	3	0.23
8	6	24	30	2.36
9	2	20	22	1.73
10	10	114	124	9.78
11	17	94	111	8.76
12	34	111	145	11.44
13	2	21	23	1.81
14	6	32	38	2.99
Total	313	954	1267	
%				

1.1.1.10 Etton Phase 1 Pottery totals by enclosure ditch segment

Phase 1 Ditch Segment	Mildenhall	Fengate	Ebbsfleet	Peterborough	Beaker	Grooved	EBA	Total	%
1	71	-	-	-	-	-	-	71	15.4
2	1	-	-	-	-	-	-	1	0.38
3	1	-	-	-	-	-	-	1	0.38
4	-	-	-	-	-	-	-	-	-
5	33	-	-	-	-	-	-	33	7.15
6	82	-	-	-	-	-	-	82	17.78
7	28	-	-	-	-	-	-	28	6.07
8	18	-	-	-	-	-	-	18	3.9
9	3	-	-	-	-	-	-	3	0.65
10	41	2	-	-	-	-	-	43	9.32
11	4	-	-	-	-	-	-	4	0.86
12	48	-	-	-	-	-	-	48	10.41
13	31	-	-	-	-	-	-	31	6.72
14	87	-	10	1	-	-	-	98	21.25
Total	448	2	10	1	-	-	-	461	
%	97.18	0.43	2.16	0.38	-	-	-		

1.1.1.11 Etton Phase 2 pottery totals by enclosure ditch segment

Phase 2 Ditch Segment	Mildenhall	Fengate	Ebbsfleet	Peterborough	Beaker	Grooved	EBA	Total	%
1	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-	-	-
6	-	-	14	-	-	-	-	14	9.39
7	-	1	-	-	-	-	-	1	0.67
8	-	1	-	-	-	-	-	1	0.67
9	6	-	-	-	-	-	-	6	4.02
10	3	3	-	1	-	10	-	17	11.4
11	15	18	-	-	-	4	-	37	24.83
12	13	13	1	5	-	3	-	35	23.48
13	1	1	-	-	-	-	-	2	1.34
14	5	12	2	-	-	17	-	36	24.16
Total	43	49	17	6	-	34	-	149	
%	28.85	32.88	11.4	4.02	-	22.81	-		

1.1.1.12 Etton Unsecure context pottery totals by enclosure ditch segment

Unsecure Ditch Segment	Mildenhall	Fengate	Ebbsfleet	Peterborough	Beaker	Grooved	EBA	Total	%
1	8	1	-	-	4	7	-	20	22.72
2	1	-	-	-	-	-	-	1	1.13
3	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-
5	29	-	-	-	1	1	-	31	35.22
6	-	1	-	1	-	-	-	2	2.27
7	1	-	-	-	-	-	-	1	1.13
8	4	-	-	-	-	-	-	4	4.54
9	-	-	-	-	-	-	-	-	-
10	1	-	1	-	-	-	-	2	2.27
11	-	-	-	-	-	-	-	-	-
12	16	1	-	-	-	-	-	17	19.31
13	7	1	-	-	-	1	-	9	10.22
14	-	-	-	-	-	1	-	1	1.13
Total	67	4	1	1	5	10	-	88	
%	76.13	4.54	1.13	1.13	5.68	11.36	-		

1.2 Haddenham

1.2.1 Haddenham animal bone totals from primary contexts of the enclosure ditch segments

Primary Ditch Segment	Cattle	Red deer	Fox	Pig	Caprine	Total	%
C	1	-	-	-	-	1	1.4
D	7	2	-	-	-	9	12.67
F	1	-	-	-	-	1	1.4
G	7	-	-	-	-	7	9.85
H	1	-	-	-	-	1	1.4
I	18	-	-	-	-	18	25.35
J	1	-	-	-	-	1	1.4
K	6	-	-	-	1	7	9.85
L	4	1	-	-	-	5	7.04
M	6	-	-	-	1	7	9.85
N	4	-	1	1	1	7	9.85
O	2	3	-	2	-	7	9.85
Total	58	6	1	3	3	71	
%	81.69	8.45	1.4	4.22	4.22		

1.2.2 Haddenham animal bone totals from secondary contexts of the enclosure ditch segments

Secondary Ditch Segment	Cattle	Red deer	Fox	Pig	Caprine	Total	%
C	-	-	-	-	-	-	-
D	13	2	-	-	-	15	25.86
F	4	-	-	-	-	4	6.89
G	-	-	-	-	-	-	-
H	4	-	1	1	-	6	10.34
I	-	-	-	-	-	-	-
J	1	-	-	-	-	1	1.72
K	2	-	-	-	-	2	3.44
L	4	1	-	-	-	5	8.62
M	8	-	-	-	1	9	15.51
N	10	-	-	-	2	12	20.68
O	2	-	-	1	1	4	6.89
Total	48	3	1	2	4	58	
%	82.75	5.17	1.72	3.44	6.89		

1.2.3 Haddenham primary by-products from the enclosure ditch segments

Ditch Segment	Unretouched Flakes	Dressing Chips	Trimming Flakes	Preparation Flakes	Thinning Flakes	Core-rejuvenation Flakes	Total	%
F/G	-	-	-	-	-	-	-	-
H	-	-	-	-	-	-	-	-
I	7	-	-	1	-	1	9	14.28
J	-	-	-	-	-	-	-	-
Pal	37	1	-	-	-	1	39	61.9
K	4	-	-	-	-	-	4	-
L	-	-	-	-	-	-	-	-
M	1	-	-	-	-	-	1	1.58
N	-	-	-	-	-	-	-	-
O	-	-	-	-	-	-	-	-
P	-	-	-	-	-	-	-	-
Pal	1	-	-	-	-	-	1	1.58
A	1	-	-	-	1	-	2	3.17
B	-	-	-	-	-	-	-	-
C	-	-	-	-	-	-	-	-
D	-	-	-	-	-	-	-	-
E	-	-	-	1	-	-	1	1.58
Pal	4	-	-	1	-	1	6	9.52
Total	55	1	-	3	1	3	63	
%	87.3	1.58	-	4.76	1.58	4.76		

1.2.4 Haddenham primary implements from the enclosure ditch segments

Ditch Segment	Utilised Flakes	Retouched Flakes	Serrated Flakes	Scrapers	Piercers	Burins	Knives	Notched	Leaf Arrow	Axe Fragment	Total	%
F/G	-	1	-	-	-	-	-	-	-	-	1	6.66
H	-	-	-	-	-	-	-	-	-	-	-	-
I	-	-	4	1	-	-	-	-	-	1	6	6.66
J	-	-	-	-	-	-	-	-	-	-	-	-
Pal	2	1	-	-	1	-	-	-	-	1	5	33.33
K	-	-	-	-	-	-	-	-	-	-	-	-
L	-	-	-	-	-	-	-	-	-	-	-	-
M	1	-	2	-	-	-	-	-	-	-	3	20
N	-	-	-	-	-	-	-	-	-	-	-	-
O	-	-	-	-	-	-	-	-	-	-	-	-
P	-	-	-	-	-	-	-	-	-	-	-	-
Pal	-	-	-	-	-	-	-	-	-	-	-	-
A	-	-	-	-	-	-	-	-	-	-	-	-
B	-	-	-	-	-	-	-	-	-	-	-	-
C	-	-	-	-	-	-	-	-	-	-	-	-
D	-	-	-	-	-	-	-	-	-	-	-	-
E	-	-	-	-	-	-	-	-	-	-	-	-
Pal	-	-	-	-	-	-	-	-	-	-	-	-
Total	3	2	6	1	1	-	-	-	-	2	15	
%	20	13.33	40	6.66	6.66	-	-	-	-	13.33		

1.2.5 Haddenham secondary by-products from the enclosure ditch segments

Ditch Segment	Unretouched Flakes	Dressing Chips	Trimming Flakes	Preparation Flakes	Thinning Flakes	Core-rejuvenation Flakes	Cores	Irregular Workshop Waste	Total	%
F/G	24	2	-	-	1	3	1	-	31	8.07
H	-	-	-	-	-	-	-	-	-	-
I	38	3	-	2	2	4	5	1	55	14.32
J	13	2	-	4	1	3	-	-	23	5.98
K	24	3	-	2	-	3	-	-	32	8.33
L	2	-	-	-	-	-	2	-	4	1.04
M	2	-	-	-	-	-	-	-	2	0.52
N	20	2	-	3	-	1	2	-	28	7.29
O	1	-	-	-	-	-	1	-	2	0.52
P	-	-	-	-	-	-	-	-	-	-
A	122	27	2	21	8	3	3	2	188	48.95
B	-	-	-	-	-	-	-	-	-	-
C	5	-	-	-	-	-	3	-	8	2.08
D	5	1	-	-	-	-	-	-	6	1.56
E	3	-	-	2	-	-	-	-	5	1.3
Total	259	40	2	34	12	17	17	3	384	
%	67.44	10.41	0.52	8.85	3.12	4.42	4.42	0.78		

1.2.6 Haddenham secondary implements from the enclosure ditch segments

Ditch segment	Utili. Flakes	Retouch. Flakes	Serr. Flakes	Scrapers	Piercers	Burins	Knives	Notched	Leaf Arrow	Axe Frag.	Total	%
F/G	2	2	2	1	-	1	1	-	-	-	9	15
H	1	-	-	-	-	-	-	-	-	-	1	1.66
I	6	-	3	2	-	1	1	-	-	-	13	21.66
J	1	-	3	-	-	-	-	-	-	-	4	6.66
K	4	1	-	1	2	-	1	-	-	-	9	15
L	1	-	-	1	-	1	-	-	-	-	3	5
M	-	-	-	1	-	-	-	-	-	-	1	1.66
N	1	1	5	-	-	-	-	-	-	-	7	11.66
O	-	-	-	-	-	-	-	-	-	-	-	-
P	-	-	-	-	-	-	-	-	-	-	-	-
A	2	-	-	1	1	-	-	1	-	-	5	8.33
B	-	-	-	-	-	-	-	-	-	-	-	-
C	1	-	-	1	1	-	-	-	-	-	3	5
D	-	1	-	-	-	-	-	-	1	-	2	3.33
E	2	-	-	-	-	-	1	-	-	-	3	5
Total	21	5	13	8	4	3	4	1	1	-	60	
%	35	8.33	21.66	13.33	6.66	5	6.66	1.66	1.66	-		

1.2.7 Haddenham palisade flint assemblage from all contexts

Palisade	Serrated Fik	Util Fik	Retouch Fik	Knives	Scraper	Fabricator	Notch Fik	Piercer	Burin	Axe Frag	Arrowhead	Total	%
HAD '81	3	16	18	11	18	1	6	9	3	2	4	91	16.02
HAD '82	8	12	28	12	20	4	4	12	-	-	-	100	17.6
HAD '84	22	39	11	11	-	-	6	6	-	5	-	100	17.6
HAD '87	50	-	13	-	19	-	-	-	-	-	6	88	15.49
HAD VIII	-	47	24	-	12	-	6	-	-	-	-	89	15.66
Pit F.534	29	50	14	-	-	-	-	-	7	-	-	100	17.6
Total	112	164	108	34	69	5	22	27	10	7	10	568	
%	19.71	28.87	19.01	5.98	12.14	0.88	3.87	4.75	1.76	1.23	1.76		

1.2.8 Haddenham pottery assemblage from all contexts within the enclosure ditch

Ditch segment	Primary	Secondary	Tertiary	Unknown	Total	%
C	1	4	5	-	10	2.41
D	3	24	2	-	29	7
E	-	3	-	-	3	0.72
F	1	15	-	-	16	3.86
G	-	-	2	-	2	0.48
H	1	-	2	-	3	0.72
I	5	-	83	-	88	21.25
J	-	32	22	2	56	13.52
K	4	32	3	3	42	10.14
L	17	-	8	-	25	6.03
M	1	4	4	1	10	2.41
N	8	30	55	28	121	29.22
O	2	4	3	-	9	2.17
P	-	-	-	-	-	-
Total	43	148	189	34	414	
%	10.38	35.74	45.65	8.21		

Appendix 2: The causewayed enclosures of the South Downs

2.1 Offham Hill

2.1.1 Offham Hill Primary animal bone from the Outer Ditch (Group A)

Outer Ditch (Group A)	Cattle	Cattle teeth	Pig	Pig Teeth	Sheep	Stag	Stag teeth	Horse	Horse teeth	Dog	Rabbit	Beaver	Wild cattle	sp. Indet	Totals	%
Segment 1, layer 4	1	-	1	4	-	-	-	-	-	-	-	-	-	-	6	66.66
Segment 2, layer 4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	11.11
Segment 3, layer 4	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	11.11
Segment 4, layer 4	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	11.11
Total	3	-	1	4	1	-	-	-	-	-	-	-	-	-	9	
%	3.33	-	11.11	44.44	11.11	-	-	-	-	-	-	-	-	-		

2.1.2 Offham Hill secondary animal bone from the Outer Ditch (Group B)

Outer Ditch (Group B)	Cattle	Cattle teeth	Pig	Pig Teeth	Sheep	Stag	Stag teeth	Horse	Horse teeth	Dog	Rabbit	Beaver	Wild cattle	sp. Indet	Totals	%
Segment 1, layer 3	4	-	1	-	1	-	-	-	-	-	-	-	-	-	6	8.95
Segment 2, layer 2	11	-	1	-	7	3	2	2	-	1	2	-	-	-	29	43.28
Segment 2, layer 3	5	-	-	-	2	-	3	1	-	-	-	1	2	-	14	20.89
Segment 3, layer 2	1	-	-	-	1	-	-	3/1?	3	-	3	-	-	-	11	16.41
Segment 3, layer 3	-	-	-	-	2	-	-	2	-	-	-	-	-	2	6	8.95
Segment 4, layer 3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.49
Total	21	-	2	-	13	3	5	8	3	1	5	1	2	3	67	
%	31.34	-	2.98		19.40	4.47	7.46	11.94	4.47	1.49	7.46	1.49	2.98	4.47		

2.1.3 Offham Hill Primary animal bone from the Inner Ditch (Group A)

Inner Ditch (Group A)	Cattle teeth	Cattle teeth	Pig Teeth	Pig Teeth	Sheep	Stag teeth	Stag teeth	Horse teeth	Horse teeth	Dog	Rabbit	Beaver	Wild cattle	sp. Indet	Totals	%
Segment 2, layer 4	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	100
Total	2	-	-	-	-	-	-	-	-	-	-	-	-	-	2	100
%	100	-	-	-	-	-	-	-	-	-	-	-	-	-		

2.1.4 Offham Hill secondary animal bone from the Outer Ditch (Group B)

Outer Ditch (Group B)	Cattle teeth	Cattle teeth	Pig Teeth	Pig Teeth	Sheep	Stag teeth	Stag teeth	Horse teeth	Horse teeth	Dog	Rabbit	Beaver	Wild cattle	sp. Indet	Totals	%
Segment 1, layer 3	4	-	1	-	1	-	-	-	-	-	-	-	-	-	6	8.95
Segment 2, layer 2	11	-	1	-	7	3	2	2	-	1	2	-	-	-	29	43.28
Segment 2, layer 3	5	-	-	-	2	-	3	1	-	-	-	1	2	-	14	20.89
Segment 3, layer 2	1	-	-	-	1	-	-	3(1?)	3	-	3	-	-	-	11	16.41
Segment 3, layer 3	-	-	-	-	2	-	-	2	-	-	-	-	-	2	6	8.95
Segment 4, layer 3	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.49
Total	21	-	2	-	13	3	5	8	3	1	5	1	2	3	67	
%	31.34	-	2.98	-	19.40	4.47	7.46	11.94	4.47	1.49	7.46	1.49	2.98	4.47		

2.1.5 Offham Hill animal bone from pits (Group C)

Pits (Group C)	Cattle teeth	Cattle teeth	Pig Teeth	Pig Teeth	Sheep	Stag teeth	Stag teeth	Horse teeth	Horse teeth	Dog	Rabbit	Beaver	Wild cattle	sp. Indet	Totals	%
Pit 1	2	1	-	-	-	3	6	3	4	-	-	-	-	-	19	90.47
Pit 2	1	-	-	-	-	-	-	-	-	-	-	1	-	-	2	9.52
Total	3	1	-	-	-	3	6	3	4	-	-	1	-	-	21	
%	14.28	4.76	-	-	-	14.28	28.57	14.28	19.04	-	-	4.76	-	-		

2.1.1.6 Offham Hill primary pottery from all contexts

Primary	OD Seg 1	OD Seg 2	OD Seg 3	OD Seg 4	ID Seg 1	ID Seg 2	ID Seg 3	ID Seg 4	Total	%
Neolithic	-	1	-	-	-	-	-	-	1	50
Beaker	-	-	-	-	-	-	-	-	-	-
LIA	-	1	-	-	-	-	-	-	1	50
R-B	-	-	-	-	-	-	-	-	-	-
Total	-	2	-	-	-	-	-	-	2	-
%	-	100	-	-	-	-	-	-	-	-

2.1.1.7 Offham Hill secondary pottery from all contexts

Secondary	OD Seg 1	OD Seg 2	OD Seg 3	OD Seg 4	ID Seg 1	ID Seg 2	ID Seg 3	ID Seg 4	Total	%
Neolithic	15	61	1	6	-	5	8	5	101	50.24
Beaker	-	-	-	-	-	-	48	-	48	23.88
LIA	-	43	1	-	-	3	2	-	49	24.37
R-B	-	2	-	-	-	1	-	-	3	1.49
Total	15	106	2	6	-	9	58	5	201	-
%	7.46	52.73	0.99	2.98	-	4.47	28.85	2.48	-	-

2.1.1.8 Offham Hill human bone from the Outer Ditch

Outer Ditch	Human bone
Segment 2, layer 2	Femur
Segment 2, layer 3	Part of a mandible and a few teeth
Segment 3, layer 4	Fibula
Segment 4	A single crouched burial in a shallow pit of a man aged 20-25 years old
Segment 4, Layer 2	Second phalanx, rib fragment

2.1.1.9 Offham Hill human bone from the Inner Ditch

Inner Ditch	Human bone
Two concentrations in segment 4 as shown in Fig. 4, but no details of what they consist of are in the report	

2.1.1.10 Offham Hill by-product assemblage

By-products	Flake	Core	Total	%
Primary	2356	52	2408	70.69
Secondary	981	15	996	29.24
Surface	-	2	2	0.05
Total	3337	69	3406	
%	97.97	2.02		

2.1.1.11 Offham Hill implement assemblage

Implements	Arrowhead	Serrated flake	Retouched flake	Scraper	Polished axe	Total
No distinction was made between primary and secondary contexts	8	7	5	2	1	23

2.2 The Trundle

2.2.1 The Trundle flint and stone, Inner Ditch, Cutting I (1929)

Inner Ditch Cutting I (1929)	Pot-boilers	Flakes	Cores	Serrated flakes	Scrapers	Chopper	Quern Frags.
Spit 1, 0-9"	245+	32	-	-	-	-	56
Spit 2, 9-18"	-	43	1	-	-	1	-
Spit 3, 18-27"	-	161	2	-	1	-	-
Spit 4, 27-36"	6	135	4	3	-	-	-
Spit 5, 36-45"	30	90	1	3	-	-	-
Spit 6, 45-54"	3	++	-	8	-	-	-
Spit 7, 54-57"	-	-	-	-	-	-	-
A. 0-13"	2	2	-	-	-	-	3
B. 13-27"	5	1	-	-	-	-	4
C. 27-57"	-	5	-	-	-	-	-

2.2.2 The Trundle flint and stone, Inner Ditch, Cutting II (1931)

Inner Ditch Cutting II (1931)	Pot-boilers	Flakes	Cores	Trim. Flake	Worked flint	Plane	Serrated flakes	Scrapers	Borer	Quern Frags	Total	%
Spit a, 0-12"	300	28	1	-	-	-	-	-	-	29	358	42.21
Spit b, 12-27"	-	187	12	-	-	-	-	-	1	-	200	23.58
Spit c1, 27-34"	1	52	-	-	-	-	-	-	-	-	53	6.25
Spit c2, 34-41"	1	92	-	1	1	-	-	-	-	-	95	11.2
Spit c3, 41-48"	2	132	4	-	-	1	1	2	-	-	142	16.74
Total	304	491	17	1	1	1	1	2	1	29	848	
%	35.84	57.9	2	0.11	0.11	0.11	0.11	0.23	0.11	3.41		

2.2.3 The Trundle Flint and stone, Inner Ditch, Cutting III (1931)

Inner Ditch Cutting III (1931)	Pot-boilers	Flakes	Cores	Trim. Flake	Serrated flakes	Scrapers	Arrowhead	Quern Frags	Total	%
Spit a, 0-10"	200	337	18	-	-	2	-	24	581	48.99
Spit b, 10-21"	-	64	-	-	-	1	-	1	66	5.53
Spit c1, 21-32	-	267	4	1	7	-	1	-	280	23.48
Spit c2, 32-43"	8	215	8	-	7	1	1	-	240	20.13
Spit c3, 43-56"	-	23	1	-	1	-	-	-	25	2.09
Total	208	906	31	1	15	4	2	25	1192	
%	17.44	76	2.6	0.08	1.25	0.33	0.16	2.09		

2.2.4 The Trundle flint and stone, Second Ditch, Cutting I (1929)

Second Ditch Cutting I (1929)	Pot-boilers	Flakes	Serrated flakes	Borer	Quern Frags	Total	%
Spit 1, 0-8"	20	26	-	-	-	46	17.03
Spit 2, 8-16"	2	13	-	-	-	15	5.55
Spit 3, 16-24"	4	16	2	-	-	22	8.14
Spit 4, 24-36"	1	151	12	1	4	169	62.59
Spit 5, 36-54"	-	18	-	-	-	18	6.66
Totals	27	224	14	1	4	270	
%	10	82.96	5.18	0.37	1.48		

2.2.5 The Trundle flint and stone, Second Ditch, Cutting II (1929)

Second Ditch Cutting II (1929)	Pot-boilers	Flakes	Cores	Serrated flakes	Scrapers	Quern Frags	Total	%
Spit 1, 0-9"	60	127	-	1?	1	5	193	71.48
Spit 2, 9-18"	30	152	-	12	-	6	200	38.98
Spit 3, 18-27"	-	105	1	14	-	-	120	23.39
Spit 4, 27-42"	-	-	-	-	-	-	-	-
Totals	90	384	1	26	1	11	513	
%	17.54	74.85	0.19	5.06	0.19	4.07		

2.2.6 The Trundle flint and stone, Second Ditch, Cutting III (1931)

Second Ditch Cutting III (1931)	Pot-boilers	Flakes	Cores	Hammer-stone	Trim. Flake	Serrated flakes	Scrapers	Quern Frags	Total	%
Spit 1, 0-9"	211	41	2	-	-	-	-	11	265	39.78
Spit 2, 9-18"	10	-	-	-	2	-	-	-	12	1.8
Spit 3, 18-27"	-	58	7	-	-	2	-	-	67	10.06
Spit 4, 27-36"	-	168	12	-	3	2	2	-	187	28.07
Spit 5, 36-48"	-	95	6	1	1	3	-	1	107	16.06
Spit 4 & 5, Hearth	-	26	2	-	-	-	-	-	28	4.2
Total	221	388	29	1	6	7	2	12	666	
%	33.18	58.25	4.35	0.15	0.9	1.05	0.3	1.8		

2.2.7 The Trundle flint and stone, Second Ditch Cutting IV (1931)

Second Ditch Cutting IV (1931)	Pot-boilers	Flakes	Cores	Trim. Flake	Serrated flakes	Scrapers	Quern Frags	Total	%
Spit 1, 0-9"	344	70	1	-	-	3	20	438	71.1
Spit 2, 9-18"	-	16	-	1	-	-	-	17	2.75
Spit 3, 18-27"	-	87	2	1	3	1	-	94	15.25
Spit 4, 27-48"	1	63	3	-	-	-	-	67	10.87
Total	345	236	6	2	3	4	20	616	
%	56	38.31	0.97	0.32	0.48	0.64	3.24		

2.2.8 The Trundle flint and stone, Spiral Ditch, Cutting I (1929)

Spiral Ditch Cutting I (1929)	Pot-boilers	Flakes	Cores	Serrated flakes	Total	%
Spit 1, 0-18"	15	47	1	-	63	54.78
Spit 2, 18-24"	2	42	1	3	48	41.73
Spit 3, 24-30"	-	4	-	-	4	3.47
Total	17	93	2	3	115	
%	14.78	80.86	1.73	2.6		

2.2.9 The Trundle flint and stone, Third Ditch (1981)

Third Ditch (1981)	Flakes	Cores	Total	%
Layer 1	4	-	4	6.25
Layer 2	8	-	8	12.5
Layer 3	9	-	9	14.06
Layer 3A	-	-	-	-
Layer 4	42	1	43	67.18
Total	63	1	64	
%	98.43	1.56		

2.2.10 The Trundle – all other material culture, Inner Ditch, Cutting I (1929)

Inner Ditch Cutting I (1929)	Pottery	Animal bone	Other/Remarks
Spit 1, 0-9"	(+++) HT1., w/few La Tene II	(+++), sheep ++; ox ++; pig; dog	Celtic latch-lifter, iron ring, pt. of iron spear-head, chalk spindle whorl, all at 6ft. 1 echinococcus; 2 semi-perforated natural beads
Spit 2, 9-18"	HT1. +	(+) ox; pig; sheep	
Spit 3, 18-27"	12 shards HTene1. and ?Neo	Few: ox; pig; sheep	1 1/2 natural perforated beads, 1 flint wedge
Spit 4, 27-36"	Few shards Neo.	Few: ox; pig; sheep;	rough-out axe (flint), 1 carved bone (? phallus), 1 echinococcus, 3 rough flint wedges
Spit 5, 36-45"	6 shards Neo.	Few	
Spit 6, 45-54"	Few Neo.	(+) ox +; pig 3; sheep 1	1 pointed bone implement
Spit 7, 54-57"	5 shards Neo.	Few	
A. 0-13"	(+) (gritty indet, prob. Early La Tene)	(+) ox; pig; sheep	
B. 13-27"	(+) (prob. Early La Tene)	Few: ox; sheep	
C. 27-57"	1 shard	1	Ovate hand-axe?

2.2.11 The Trundle – all other material culture, Inner Ditch, cutting II (1931)

Inner Ditch Cutting II (1931)	Pottery	Bones	Bone Awl	Perf. Bone	Other/Remarks
Spit a, 0-12"	HT1 & T2 +++	++			Handle of Medieval vessel (green glaze), 1 oyster
Spit b, 12-27"	HT1 +	+	1	1	4 flakes abraded by use, 1 perforated bone
Spit c1, 27-34"	6 Neo.	3	-	-	-
Spit c2, 34-41"	4 Neo.	v. few	-	-	1 trimmed flake, 1 worked flint
Spit c3, 41-48"	Neo. +	++	-	-	-

2.2.12 The Trundle – all material culture, Inner Ditch, Cutting III (1931)

Inner Ditch Cutting III (1931)	Pottery	Bones	Chalk	Other/Remarks
Spit a, 0-10"	HT1 & T2 ++	++	-	1 sawn bone, part of (?) haft of iron adze?
Spit b, 10-21"	-	+	1	1 fragment of chalk loom-weight
Spit c1, 21-32"	Neo. +	v. few	-	1 trimmed flake, flake with notch at butt, 1 fragment of arrowhead
Spit c2, 32-43"	Neo. +	+	-	1 notched flake
Spit c3, 43-56"	v. little Neo.	v. few	3	1 chalk cup, 1 semicircular carved chalk object, 1 large perforated block of chalk

2.2.13 The Trundle – all material culture, Second Ditch, Cutting I (1929)

Second Ditch Cutting I (1929)	Pottery	Animal bone	Antler	Other/Remarks
Spit 1, 0-8"	Few sherds E/A	(+) ox; pig; sheep or goat	-	1 small piece of iron, 1 small "cone" among the pot-boilers, 1 large round flint pebble, 1 echinococcus
Spit 2, 8-16"	Few sherds indt. poss. Neo.	Few: ox; pig; sheep or goat	-	1 echinococcus, 1 pointed bone implement, 2 small pieces of iron, 2 perforated and 1 semi-perforated natural beads, fragments of antler of roe deer
Spit 3, 16-24"	Few sherds prob. Neo, resembles spit 4	(+) Ox +; pig; sheep or goat	-	1/2 chalk spindle-whorl?, 1 perforated bead, 1 small polished bone (? pin), 1 iron rod, 1 naturally perforated beach-pebble
Spit 4, 24-36"	Neolithic ++	(++) ox ++++; pig ++; sheep or goat	3	1 echinococcus, 3 broken antler tines, bone gouge-shaped tool, lacking point,
Spit 5, 36-54"	2 shards coarse gritty, presum. Neo.	(+) ox ++; sheep or goat; pig?	-	1/2 saddle quern -

2.2.14 The Trundle – all material culture, Second Ditch Cutting I (1929)

Second Ditch Cutting I (1929)	Pottery	Animal bone	Antler	Other/Remarks
Spit 1, 0-8"	Few sherds EIA	(+) ox; pig; sheep or goat	-	1 small piece of iron, 1 small "cone" among the pot-boilers, 1 large round flint pebble, 1 echinococcus
Spit 2, 8-16"	Few sherds indt. poss. Neo.	Few: ox; pig; sheep or goat	-	1 echinococcus, 1 pointed bone implement, 2 small pieces of iron, 2 perforated and 1 semi-perforated natural beads, fragments of antler of roe deer
Spit 3, 16-24"	Few sherds prob. Neo, resembles spit 4	(+) Ox +; pig; sheep or goat	-	1/2 chalk spindle-whorl?, 1 perforated bead, 1 small polished bone (? pin), 1 iron rod, 1 naturally perforated beach-pebble
Spit 4, 24-36"	Neolithic ++ 2 shards coarse gritty, presum. Neo.	(++) ox +++; pig ++; sheep or goat	3	1 echinococcus, 3 broken antler tines, bone gouge-shaped tool, lacking point, 1/2 saddle quern
Spit 5, 36-54"		(+) ox ++; sheep or goat; pig?	-	-

2.2.15 The Trundle – all material culture, Second Ditch, Cutting II (1929)

Second Ditch Cutting II (1929)	Pottery	Animal bone	Antler	Other/Remarks
Spit 1, 0-9"	E/A and Neo. +	(+) sheep or goat +; ox; pig; ?horse	-	Small iron loop and 3 other fragments of iron, 1 modern tile (frag.), part of chalk cup, 2 polishing pebbles (?), 1 oyster
Spit 2, 9-18"	Neolithic ++	(++) ox + sheep or goat; pig	-	1 worked flint
Spit 3, 18-27"	Neolithic +++	(+++) ox +++; sheep or goat; pig; roe-deer (shed antler and lower jaw)	1	Pair of horns of ox, antler of roe deer, pointed bone tool
Spit 4, 27-42"	-	-	-	-

2.2.16 The Trundle – all material culture, Second Ditch, Cutting III (1931)

Second Ditch Cutting III (1931)	Pottery	Bones	Chalk	Antler	Other/Remarks
Spit 1, 0-9"	HT1 & T2 +	+	-	-	2 flakes abraded by use, 1 small bent iron rod, iron slag
Spit 2, 9-18"	HT1 & (T2)	+	-	-	-
Spit 3, 18-27"	v. few Neo.	Few	-	1	roe-deer's antler
Spit 4, 27-36"	Few Neo.	+	-	-	-
Spit 5, 36-48"	Few. Neo.	Few	1	-	1 perforated chalk object
Spit 4 & 5, Hearth	-	-	-	-	-

2.2.17 The Trundle – all material culture, Second Ditch, Cutting IV (1931)

Second Ditch Cutting IV (1931)	Pottery	Bones	Chalk	Other/Remarks
Spit 1, 0-9"	HT1 & T2 +	+	-	Iron slag, 1 curved iron tool?, 1 small piece of amorphous bronze
Spit 2, 9-18"	v. few HT1	Few	-	-
Spit 3, 18-27"	v. few Neo.	Few	-	-
Spit 4, 27-48"	v. few Neo.	Few	1	Hearths and clutter of chalk blocks in centre of ditch contained all the finds. Lateral rubble was sterile, 1 perforated and carved chalk object

2.2.18 The Trundle – all material culture, Spiral Ditch, Cutting I (1929)

Spiral Ditch Cutting I (1929)	Pottery	Animal bone	Chalk	Other/Remarks
Spit 1, 0-18"	Few shards coarse gritty, indt.; 3 T2 rims	Few: ox; sheep; Pig	-	-
Spit 2, 18-24"	Few shards Neo.	(+) ox; sheep; pig; roe-deer	-	2 roughly worked flints
Spit 3, 24-30"	v. few shards: Neo.	v. few ox	1	1 piece of chalk with parrallel grooves

2.2.19 The Trundle – all material culture, Third Ditch (1981)

Third Ditch (1981)	Pottery	Animal bone	Chalk	Other/Remarks
Layer 1	2 sherds Iron Age	-	-	-
Layer 2	4 Iron Age sherds, 14 Neolithic sherds	2 ox (cattle); 1 pig; 1 sheep/goat	-	2 ox rib fragments, 1 pig mandible fragment, 1 sheep/goat upper molar
Layer 3	2 Neolithic sherds	-	-	-
Layer 3A	-	3 ox (cattle); 1 pig; 1 sheep/goat	-	-
Layer 4	16 Neolithic sherds	-	3	-

2.3 Whitehawk

2.3.1 Whitehawk – First Ditch, Cutting I

First Ditch Cutting I (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Hammer-stones	Cores	Animal bone	Human bone	Remarks
Spit 1, 0-9"	2	-	-	-	2	-	-	ox, pig, sheep, bird	-	-
Spit 2, 9-18"	2	2	4	-	-	-	-	ox, sheep/goat	-	1 scraper
Spit 3, 18-27"	1	4	2	-	1	-	-	ox, pig	2	Child's ulna; portion of vertebra
Spit 4, 27-36"	2	6	4	1	3	-	-	ox, pig	-	-
Spit 5, 36-45"	-	4	1	-	-	-	-	ox, pig	-	-
Spit 6, 45-54"	3	2	-	-	-	1	1	ox	-	1 rough scraper
Spit 7, partial spit	5	-	-	-	1	-	-	-	-	wedge or chopper with convex cutting edge
Total	15	18	11	1	7	1	1	-	2	-

2.3.2 Whitehawk – First Ditch, Cutting II

First Ditch Cutting II (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Animal bone	Human bone	Remarks
Spit 1, 0-9"	-	2	1	-	-	-	-	-
Spit 2, 9-18"	-	2	1	-	-	ox, pig, sheep	-	-
Spit 3, 18-27"	-	2	-	-	-	ox, pig, sheep	-	-
Spit 4, 27-36"	-	3	-	-	4	ox, pig, sheep	1	Human humerus
Spit 5, 36-45"	1	1	-	-	-	ox, sheep/goat	-	1 scraper
Spit 6, 45-54" (approx.)	1	1	-	-	-	ox, pig, red deer (tine)	-	Small piece of roughly-trimmed chalk with incomplete perforations
Total	2	11	2	-	4	-	1	-

2.3.3 Whitehawk – First Ditch, Cutting III

First Ditch Cutting III (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Hammer-stones	Cores	Animal bone	Remarks
Spit 1, 0-9"	-	-	-	1	1	-	-	ox (recent?)	-
Spit 2, 9-18"	1	3	1	-	-	-	-	ox, pig	-
Spit 3, 18-27"	1	4	-	1	-	-	-	ox, pig	Petit tranchet arrowhead
Spit 4, 27-36"	-	4	-	-	-	1	-	ox, pig, sheep/goat	-
Spit 5, 36-45"	2	3	2	-	-	-	2	ox, pig, goat	1 piece of gravel
Spit 6, 45-54" (approx.)	-	-	-	-	-	-	-	ox (little)	-
Total	4	14	3	2	1	1	2	-	-

2.3.4 Whitehawk – Trial Trench, Ditch I, Cutting IV

Trial Trench (DI. CIV) (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Hammer-stones	Cores	Animal bone	Remarks
Spit 1	-	-	-	-	-	1	-	ox, pig	-
Total	-	-	-	-	-	1	-	-	-

2.3.5 Whitehawk – First Ditch, Cutting V

First Ditch Cutting V (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Animal bone	Remarks
Spit 1, 0-9"	1	4	3	4	1	ox, sheep/goat (recent?)	3 implements and 1 core (unclassified); flake with faceted butt; flat pebble of foreign material (unclassified); 1 scraper (unclassified)
Spit 2, 9-18"	-	2	1	-	1	pig	1 piece of gravel
Total	1	6	4	4	2	-	-

2.3.6 Whitehawk – First Ditch, Cutting IV

First Ditch Cutting VI (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Quern frags.	Cores	Animal bone	Human bone	Remarks
Spit 1, 0-10"	1	13	7	4	1	-	ox, pig	-	Scraper with 2 hollows separated by spur
Spit 2, 10-20"	5	53	21	10	-	-	ox, pig, sheep/goat	-	2 hollow scrapers; 1 scraper; 1 small Long scraper
Spit 3, 20-30"	7	33	41	34	8	-	ox, pig, sheep/goat, red deer	2	Child's femur; human ulna; large smooth chalk block with perforations (32lbs.); 1 hollow scraper; 1 polished and r echipped celt; 1 rough scraper
Spit 4, 30-40"	3	14	7	5		2	ox, pig, sheep		2 pieces of gravel; fragment of rough-out celt; 1 scraper
Total	16	113	76	53	9	2	-	2	

2.3.7 Whitehawk – Site A, Inner Ditch (A-D I)

Site A	Description	Layer	Number
Inner Ditch (A-D I)			
Flint	Axe hinder	2	2
Flint	Scraper	1 and 2 ('Black Triangle')	4
Flint	Serrated flake	2 ('Black Triangle')	17
Flint	Worked flake	2 ('Black Triangle')	22
Flint	Used flake	-	9
Flint	Pointed implement with trimmed edges	-	1
Flint	Chopper	2	1
Flint	Push-plane	2 ('Black Triangle')	1
Stone	Grain rubber, small piece of upper stone	2	1
Chalk	Cup fragment	2	1
Pottery	Carniated bowl	2	-
Pottery	Miniature cup	2	-
Pottery	Simple vessel	2	-
Pottery	Shallow saucer	2	-
Pottery	Rim	2	-
Pottery	Lug	2	-
Pottery	Decoration	2	-
Animal bone	some bones of animals'	3	-
Animal bone	large quantities	2 ('Black Triangle')	-
Animal bone	bones, including a large collection of broken ox bones'	1	-

2.3.8 Whitehawk – Site B, Inner Ditch (B-D I)

Site B	Description	Layer	Number
Inner Ditch (B-D I)			
Human bone	Skeleton III, located between the line of the inner ditch and the edge of the second ditch	-	-

2.3.9 Whitehawk – Second Ditch, Cutting I

Second Ditch Cutting I (1929)	Implements	Pot-boilers	Serrated flakes	Worked flakes	Quern frags.	Hammer-stones	Cores	Animal bone	Remarks
Spit 1, 0-9"	1	-	2	-	1	-	-	ox, pig, sheep	2 fragments of quartzite pebbles; 1 small neatly-worked flint
Spit 2, 9-18"	3	1	2	1	6	-	-	ox, pig	Large blocks of chalk W. bay; 2 scrapers
Spit 3, 18-27"	3	2	6	-	5	1	-	ox, pig	Fragments of well-smoothed lump of chalk, perforated with "hour-glass" borings; 2 bone points; 1 long scraper; 1 roughly-worked crescentic blade; 1 polished celt, re-chipped; 1 rough celt; 1 flake of polished celt; large blocks of chalk at W. bay
Spit 4, 27-36"	-	-	-	-	-	-	-	-	-
Total	7	3	10	1	12	1	-	-	-

2.3.10 Whitehawk – Second Ditch, Cutting II

Second Ditch Cutting II (1929)	Implements	Serrated flakes	Worked flakes	Quern frags.	Cores	Animal bone	Remarks
Spit 1, 0-9"	-	-	-	1	2	ox	-
Spit 2, 9-18"	3	-	1	-	1	pig, ox, sheep	Leaf-shaped arrowhead
Spit 3, 18-27"	-	1	-	-	-	ox, pig	-
Spit 4, 27-36" (approx.)	-	1	-	-	-	-	Chalk cup; bone point
Total	3	2	1	1	3	-	-

2.3.11 Whitehawk – Second Ditch, Cutting III

Second Ditch Cutting III (1929)	Implements	Serrated flakes	Worked flakes	Used flakes	Cores	Animal bone	Remarks
Spit 1, 0-9"	-	3	-	-	-	ox, deer (sp. Roe deer)	-
Spit 2, 9-18"	1	1	1	1	1	ox, pig, sheep	-
Spit 3, 18-27"	3	5	10	-	-	ox, pig, sheep	3 small hollow scrapers
Spit 4, 27-36"	3	-	-	-	-	ox, pig, sheep	-
Total	7	9	11	1	1		-

2.3.12 Whitehawk – Second Ditch, Cutting IV

Second Ditch Cutting IV (1929)	Implements	Serrated flakes	Worked flakes	Quern frags.	Cores	Animal bone	Remarks
Spit 1, 0-9"	-	1	-	-	-	ox, pig	-
Spit 2, 9-18"	1	9	1	-	1	ox, pig	Rough leaf-shaped arrowhead; 1 bone point
Spit 3, 18-27"	-	1	-	1	-	ox, pig, sheep	1 bone point
Spit 4, 27-36"	-	-	1	1	-	ox, pig, sheep/goat	Flake removed from edge of implement
Spit 5	1	-	-	-	1	ox, pig	Irregular discoidal flint
Total	2	11	2	2	2		

2.3.13 Whitehawk – Second Ditch, Cutting V

Second Ditch Cutting V (1929)	Implements	Serrated flakes	Quern frags.	Hammer-stones	Animal bone
Spit 1, 0-9"	-	-	1	-	-
Spit 2, 9-18"	-	2	-	-	ox, pig, red deer
Spit 3, 18-27"	3	2	-	1	ox, pig, sheep
Spit 4, 27-36"	-	-	1	-	ox, pig, goat
Total	3	4	2	1	

2.3.14 Whitehawk – Second Ditch, Cutting VI

Second Ditch Cutting VI (1929)	Implements	Pot-boilers	Serrated flakes	Worked flakes	Quern frags.	Hammer-stones	Cores	Animal bone	Human bone	Remarks
Spit 1, 0-9"	-	-	-	-	1	-	-	ox, pig	-	-
Spit 2, 9-18"	-	1	1	3	-	1	-	ox	-	1 long scraper
Spit 3, 18-27"	3	10	3	-	-	-	4	ox, pig, sheep/goat	2	Human pelvis (part of); fine pointed oval arrowhead; human portion of right tibia
Spit 4, 27-36"	1	-	3	-	-	-	3	ox, pig, sheep	-	-
Total	4	11	7	3	1	1	7	-	2	

2.3.15 Whitehawk – Site A, Second Ditch (A-D II)

Site A	Description	Layer	Number
Second Ditch (A-D II)			
Flint	Scraper	1 and 5	3
Flint	Serrated flake	1, 2, and 5	5
Pottery	Simple vessel	6	-
Pottery	Small cup	2	-
Pottery	Shoulder	6	-
Pottery	Decoration	5	-
Bone	Awl	2	1
Animal bone	Bones in the southern part of the ditch'	(Black Triangle')	-
Animal bone	Bones'	1	-

2.3.16 Whitehawk – Site B, Second Ditch (B-D II)

Site B	Description	Layer	Number
Second Ditch (B-D II)			
Flint	Serrated flake	3	7
Flint	Worked flake	3	1
Stone	Grain rubber, complete lower stone	2	1
Pottery	Shell gritted ware	2	-
Pottery	Simple vessels	2	-
Pottery	Shallow saucer	2	-
Pottery	Shoulder	3	-
Pottery	Decoration	6	-
Pottery	Hybrid ware	2	-

2.3.17 Whitehawk – Third Ditch, Cutting I

Third Ditch Cutting I (1929)	Implements	Pot-boilers	Worked flakes	Used flakes	Quern frags.	Hammerstones	Cores	Animal bone	Human bone	Remarks
Spit 1, 0-10"	-	-	-	-	1	1	-	-	-	Small roughly-trimmed chalk fragment; well bored "hour-glass" perforation
Spit 2, 10-20"	1	10	-	-	-	-	-	ox	-	a small hearth (?) in centre of ditch produced very black earth and 10 pot-boilers
Spit 3, 20-30"	1	1	2	-	-	6	1	ox, pig, sheep	-	Seam of loose nodule flints in centre of section
Spit 4, 30-40"	-	1	-	-	-	-	-	ox, pig, sheep	-	Large quantity of flints in centre of section
Spit 5, 40-50"	-	-	-	-	5	-	-	ox, goat	1	Child's humerus; flake removed from edge of implement; not caused by a sharpening blow
Spit 6, 50-60"	1	-	-	-	3	-	-	ox, goat ++	1	Human humerus; roughly worked flint having point or spur
Spit 7, 60-70"	-	-	-	-	-	-	-	-	-	Small piece of chalk scored as though with flint
Total	3	12	2	0	9	7	1		2	

2.3.18 Whitehawk – Third Ditch, Cutting II

Third Ditch, Cutting II (1932-3)	Description	Layer	Number
Pottery		2, 3, 5, and 6	-
Chalk	Cup fragment	7	-
Animal bone	Red deer antler base	4, 5, 7 (mixed group)	-
Animal bone	Roe deer complete metacarpal bone	5, 6, and 7 (mixed group)	-
Animal bone	Pig canine	7	-
Human bone	Skeleton I	within occupation layer	-

2.3.19 Whitehawk – Third Ditch, Cutting III

Third Ditch, Cutting III (1932-3)	Description	Layer	Number
Flint	Scraper	6	-

2.3.20 Whitehawk – Third Ditch, Cutting IV

Third Ditch, Cutting IV (1932-3)	Description	Layer	Number
Flint	pot-boilers (calcinated flints)	In close relation to the hearth	-
Flint	Pot-bolier fragments in association with finds above	In close relation to the hearth	-
Flint	Chopper	5	-
Pottery	-	3, 4, and 5	-
Pottery	Neolithic sherds 'a quantity'	In close relation to the hearth	-
Stone	Grain rubber, one small fragment	In close relation to the hearth	-
Shells	one mussel and two cockles'	In close relation to the hearth	-
Animal bone	Red deer antler base	3 and 4 (mixed group)	-
Animal bone	Pig (wild boar?) canine	3 and 4 (mixed group)	-
Animal bone	'A few bones and an antler of roe deer'	In close relation to the hearth	-
Human bone	Parts of two brain pans and three small charred fragments of skull	In close relation to the hearth	-

2.3.21 Whitehawk – Third Ditch, Cutting V

Third Ditch, Cutting V (1932-3)	Description	Layer	Number
Flint	Arrowhead	2	-
Flint	Serrated flake	3	-
Flint	Used flake	2 and 3	-
Stone	Grain rubber large piece of a lower stone	3	-
Chalk	Perforated, probably a weight	6 and 7	-
Chalk	Large and heavy	5	-
Human bone	Skeleton II	Within lower part of occupation layer	-
Human bone	Skeleton of infant in association with Skeleton II	Within lower part of occupation layer	-

2.3.22 Whitehawk – Third Ditch, Cutting VI

Third Ditch, Cutting VI (1932-3)	Description	Layer	Number
Flint	Scraper	3	-
Animal bone	Roe deer complete metacarpal bone	3 and 4	-
Animal bone	Goat horn-core	3	-
Animal bone	Goat horn-core fragments	4	-

2.3.23 Whitehawk – Third Ditch, Cutting VII

Third Ditch, Cutting VII (1932-3)	Description	Layer	Number
Pottery	-	2/3, 3, and 5	-
Flint	Edge trimmed flake	2	-
Flint	Used flake	6	-
Flint	Scraper	2 and 4	-
Animal bone	Red deer antler fragment	5 and 7	-
Animal bone	Dog, small fragment of lower jaw with teeth	3	-

2.3.24 Whitehawk – Third Ditch, Cutting VIII

Third Ditch, Cutting VIII (1932-3)	Description	Layer	Number
Pottery	-	3 and 5	-
Bone	Antler comb fragments	6	-
Animal bone	Red deer antler fragment	6	-
Animal bone	Cattle, metacarpal bone	7	-
Animal bone	Cattle, frontlet with damaged horn-core	6	-
Animal bone	Pig, two very large canines	3	-

2.3.25 Whitehawk – Site A, Third Ditch, (A-D III)

Site A	Description	Layer	Number
Third Ditch (A-D III)			
Flint	Worked flake	(Black Triangle)	7
Flint	Used flake	(Black Triangle)	4
Stone	Pestle or muller	1	1
Chalk	Perforated	4	1
Chalk	'Chessboard'	4	1
Stone	Grain rubber, broken lower stone	3	1
Pottery	Carniated bowl	4	-
Pottery	Simple vessel	1/3 and 4	-
Pottery	Rim	4	-
Pottery	Lug	2	-
Pottery	Decoration	1 and 4	-
Pottery	Hybrid ware	1	2
Bone	Antler comb	3	1
Bone implement	Made from cattle tibia'	3	1
Animal bone	bones of animals'	4	-
Animal bone	animal bones'	3	-
Animal bone	ox bones'	1	-

2.3.26 Whitehawk – Site B, Third Ditch (B-D III)

Site B	Description	Layer	Number
Third Ditch (B-D III)			
Flint	Scraper	3	-
Flint	Worked flake	1	-

2.3.27 Whitehawk – Fourth Ditch, Cutting III

Fourth Ditch, Cutting III (1932-3)	Description	Layer	Number
Flint	Used flake	3	-
Animal bone	Goat, broken metacarpal	6	-

2.3.28 Whitehawk – Fourth Ditch, Cutting IV

Fourth Ditch, Cutting IV (1932-3)	Description	Layer	Number
Flint	Axe fragment	5	-
Flint	Unexplained flint object	4	-
Pottery	Neolithic sherds	6	10
Animal bone	Red deer antler fragment	6	-
Animal bone	'articulated vertebra and ribs from an ox'	4 and 5	-

2.3.29 Whitehawk – Fourth Ditch, Cutting V

Fourth Ditch, Cutting V (1932-3)	Description	Layer	Number
Flint	Axe fragment	9	-
Pottery	-	4 and 8	3
Pottery	-	6	-
Animal bone	Roe deer complete skeleton	Hole 5	-
Animal bone	Red deer antler fragments	'at low levels'	-

2.3.30 Whitehawk – Fourth Ditch, Cutting VI

Fourth Ditch, Cutting VI (1932-3)	Description	Layer	Number
Flint	Six flints and several flakes within a patch of gray soil and woodash	'at the bottom'	6
Flint	Polished axe fragment	5	-
Animal bone	Red deer antler fragments	at low levels'	-

2.3.31 Whitehawk – Site A, Outer Ditch, (A-D IV)

Site A	Description	Layer	Number
Outer Ditch (A-D IV)			
Flint	Hammerstone	3	1
Flint	'flakes'	1	-
Animal bone	animal bones'	4	-
Animal bone	some animal bones'	3	-
Animal bone	bones'	1	-

2.3.32 Whitehawk – Site B, Outer Ditch (B-D IV)

Site B	Description	Layer	Number
Outer Ditch (B-D IV)			
Human bone	Skeleton IV, located in Hole 51 between third and fourth ditches, closer to third ditch	-	-

2.3.33 Whitehawk – Site A, pits and holes

Site A	Description	Layer	Number
Group of pits and holes			
Pit 3			
Flint	Arrowhead	-	1
Flint	Scraper	-	3
Flint	Serrated flake	-	1
Animal bone	'occasional bone'	-	-
Flint	Used flake	-	1

2.3.34 Whitehawk – Site A, Hole 7

Site A	Description	Layer	Number
Hole 7			
Flint	Push-plane	-	1

2.3.35 Whitehawk – Site B, Neolithic Pit 2

Site B	Description	Layer	Number
Neolithic Pit			
Pit 2			
Flint	Serrated flake	-	16
Flint	Worked flake	-	5
Flint	Used flake	-	3
Pottery	Carnated bowl	-	-

2.3.36 Whitehawk – Neolithic pit 4

Site B	Description	Layer	Number
Neolithic Pit			
Pit 4			-
Flint	Worked flake	-	2
Pottery	Small group of purplish-red sandy sherds	-	-

2.3.37 Whitehawk – Site B, surface soil

Site B	Description	Layer	Number
Surface soil			
Flint	Scraper	-	5
Flint	Worked flake	-	2

2.3.38 Whitehawk – Site B, Other/'various places'

Site B	Description	Layer	Number
Other/'Various places'			
Flint	Serrated flake	-	6
Flint	Used flake	-	4

Appendix 3: The causewayed enclosures of Wiltshire

3.1 Knap Hill

3.1.1 Knap Hill animal bone, Cutting I

Cutting/ Layer	Cattle Bone	Cattle Teeth	Pig Bone	Pig Teeth	Sheep/Goat Bone	Sheep/Goat Teeth	Red Deer Bone	Red Deer Antler	Total	%
Cut I/Lyr 1	-	-	-	-	-	-	-	-	-	-
Cut I/Lyr 2	-	-	-	-	-	-	-	-	-	-
Cut I/Lyr 3	-	-	-	-	-	-	-	-	-	-
Cut I/Lyr 4	1	2	-	-	-	1	-	-	4	22.2
Cut I/Lyr 5	1	-	-	-	2	-	-	-	3	16.66
Cut I/Lyr 6	1	-	-	-	2	-	-	1	4	22.22
Cut I/Lyr 7	1	1	-	-	-	-	-	3	5	27.77
Cut I/Lyr 8	2	-	-	-	-	-	-	-	2	11.11
Feature 1	-	-	-	-	-	-	-	-	-	-
Non-Strat	-	-	-	-	-	-	-	-	-	-
Total	6	3	-	-	4	1	-	4	18	14.87
%	33.33	16.66	-	-	22.22	5.55	-	22.22	-	-

3.1.1.2 Knap Hill animal bone, Cutting II

Cutting/ Layer	Cattle Bone	Cattle Teeth	Pig Bone	Pig Teeth	Sheep/Goat Bone	Sheep/Goat Teeth	Red Deer Bone	Red Deer Antler	Total	%
Cut II/Lyr 1	-	-	-	-	-	-	-	-	-	-
Cut II/Lyr 2	-	-	-	-	-	-	-	-	-	-
Cut II/Lyr 3	1	-	-	-	-	1	-	-	2	2.89
Cut II /Lyr 4	2	4	3	4	1	7	-	-	21	30.43
Cut II/Lyr 5	3	-	2	1	-	-	-	9	15	21.73
Cut II/Lyr 6	-	-	-	-	-	-	-	-	0	0
Cut II/Lyr 7	13	4	-	-	-	-	-	-	17	24.63
Cut II/Lyr 8	14	-	-	-	-	-	-	-	14	20.28
Non-Strat	-	-	-	-	-	-	-	-	-	-
Total	33	8	5	5	1	8	-	9	69	57.02
%	47.82	11.59	7.24	7.24	1.44	11.59	-	13.04	-	-

3.1.1.3 Knap Hill animal bone, Cutting III

Cutting/ Layer	Cattle Bone	Cattle Teeth	Pig Bone	Pig Teeth	Sheep/Goat Bone	Sheep/Goat Teeth	Red Deer Bone	Red Deer Antler	Total	%
Cut III/Lyr 1	-	1	-	-	-	-	-	-	1	4.54
Cut III/Lyr 2	-	-	-	-	-	-	-	-	-	-
Cut III/Lyr 3	2	-	-	1	-	1	-	-	4	18.18
Cut III/Lyr 4	-	-	-	-	-	-	-	1	1	4.54
Cut III/Lyr 5	1	-	-	-	-	-	-	-	1	4.54
Cut III/Lyr 6	1	-	-	-	-	-	-	1	2	9.09
Cut III/Lyr 7	3	-	-	-	-	-	-	-	3	13.63
Cut III/Lyr 8	5	-	-	-	-	-	-	-	5	22.72
Non-Strat	-	-	-	-	1	4	-	-	5	22.72
Total	12	1	-	1	1	5	-	2	22	18.18
%	54.54	4.54	-	4.54	4.54	22.72	-	9.09	-	-

3.1.4 Knap Hill animal bone, Cutting IV

Cutting/ Layer	Cattle Bone	Cattle Teeth	Pig Bone	Pig Teeth	Sheep/Goat Bone	Sheep/Goat Teeth	Red Deer Bone	Red Deer Antler	Total	%
Cut IV/Lyr 1	-	1	-	-	-	-	-	-	1	8.33
Cut IV/Lyr 2	-	-	-	-	-	-	-	-	-	-
Cut IV/Lyr 3	-	-	-	-	-	-	-	-	-	-
Cut IV/Lyr 4	1	-	-	-	-	-	-	-	1	8.33
Cut IV/Lyr 5	-	-	-	-	-	-	-	-	-	-
Cut IV/Lyr 6	-	-	-	-	-	-	-	-	-	-
Cut IV/Lyr 7	2	-	-	-	-	-	-	-	2	16.66
Cut IV/Lyr 8	-	-	-	-	-	-	-	-	2	16.66
Feature 1	1	1	-	-	-	6	-	-	8	66.66
Non-Strat	-	-	-	-	-	-	-	-	-	-
Totals	4	2	-	-	-	6	-	-	12	9.91
%	33.33	16.66	-	-	-	50	-	-	-	-

3.1.1.5 Knap Hill flint assemblage, Cutting I

Cutting/ Layer	Scraper	Serrated Flake	Core	Core Trimming Flake	Primary Flake	Secondary Workage	Utilised Flake	Utilised Knapping Waste	Knapping Waste	Burnt Flint	Natural Lustre	Hammer- stone	Total	%
Cut I/Lyr 1	-	1	4	-	38	3	-	-	2	-	1	-	49	5.49
Cut I/Lyr 2	-	-	1	1	28	1	3	-	3	-	-	-	37	4.15
Cut I/Lyr 3	-	-	3	-	14	2	1	-	1	-	1	-	22	2.46
Cut I/Lyr 4	-	-	13	1	74	3	1	-	16	-	-	-	108	12.12
Cut I/Lyr 5	-	-	1	2	54	2	1	-	18	-	-	-	78	8.75
Cut I/Lyr 6	0/1 (1)	-	2/4 (6)	-	99/25 (126)	-	-	-	405/15 (420)	-	-	0/1	554	62.17
Cut I/Lyr 7	-	-	-	-	3	-	-	-	-	-	-	-	3	0.33
Cut I/Lyr 8	-	-	1	-	1	-	-	-	1	-	-	-	3	0.33
Feature 1	1	-	4	-	16	-	2	-	9	-	-	-	32	3.59
Non-Strat	-	-	-	-	5	-	-	-	-	-	-	-	5	0.56
Total	2	1	33	4	359	11	8	-	470	-	2	1	891	
%	0.22	0.11	3.7	0.45	40.29	1.23	0.9	-	52.75	-	0.22	0.11	32.13	

3.1.6 Knap Hill flint assemblage, Cutting II

Cutting/ Layer	Scrape r	Serrate d Flake	Core	Core Trimming Flake	Primary Flake	Secondary Workage	Utilised Flake	Utilised Knapping Waste	Knapping Waste	Burnt Flint	Natural Lustre	Hammer stone	Total	%
Cut II/Lyr 1	-	-	1	1	42	-	2	1	5	-	-	-	52	6.21
Cut II/Lyr 2	1	-	3	-	135	2	5	1	36	2	-	-	185	22.1
Cut II/Lyr 3	1	-	-	-	50	1	2	-	5	-	-	-	59	7.04
Cut II /Lyr 4	3	-	1	2	159	3	4	-	37	-	-	-	209	24.9
Cut II/Lyr 5	-	2	2	3	89	7	8	-	71	-	-	-	182	21.7 4
Cut II/Lyr 6	-	-	1	1	28	-	1	-	9	-	-	-	40	4.77
Cut II/Lyr 7	1	1	1	1	55	2	3	-	35	1	-	-	100	11.9 4
Cut II/Lyr 8	-	-	-	1	6	2	-	-	1	-	-	-	10	1.19
Non-Strat	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	6	3	9	9	564	17	25	2	199	3	-	-	837	
%	0.72	0.36	1.08	1.08	67.38	2.03	2.99	0.24	23.8	0.36	-	-	30.1	

3.1.7 Knap Hill flint assemblage, Cutting III

Cutting/ Layer	Scrape r	Serrate d Flake	Core	Trimming Flake	Primary Flake	Secondary Workage	Utilise d Flake	Utilised Knapping Waste	Knapping Waste	Burn t Flint	Natura l Lustre	Hammer - stone	Tota l	%
Cut III/Lyr 1	1	-	-	-	22	-	1	-	2	-	-	-	26	4.11
Cut III/Lyr 2	-	-	1	1	80	3	12	-	57	2	5	-	164	25.94
Cut III/Lyr 3	-	-	-	-	15	-	-	-	6	-	-	-	22	3.48
Cut III/Lyr 4	-	-	-	-	53	1	1	-	1	-	-	-	56	8.86
Cut III/Lyr 5	-	-	2	2	69	3	4	-	30	2	-	-	112	17.72
Cut III/Lyr 6	-	-	3	-	75	-	1	-	31	-	-	-	110	17.4
Cut III/Lyr 7	-	1	8	-	54	1	4	-	42	3	-	-	113	17.87
Cut III/Lyr 8	-	-	-	-	8	-	2	-	3	-	-	-	13	2.05
Non-Strat	-	-	1	-	10	1	1	-	3	-	-	-	16	2.53
Total	1	1	19	3	386	9	26	-	175	7	5	-	632	
%	0.16	0.16	3	0.47	61.1	1.42	4.11	-	27.69	1.11	0.79	-	22.79	

3.1.8 Knap Hill flint assemblage, Cutting IV

Cutting/ Layer	Scrape r	Serrate d Flake	Core	Trimmin g Flake	Primar y Flake	Secondar y Workage	Utilise d Flake	Utilised Knappin g Waste	Knappin g Waste	Burn t Flint	Natura l Lustre	Hammer s stone	Tota l	%
Cut IV/Lyr 1	3	-	5	1	206	11	15	-	75	-	-	-	316	76.5 1
Cut IV/Lyr 2	-	-	-	-	1	-	1	-	2	-	-	-	4	0.96
Cut IV/Lyr 3	-	-	-	-	5	-	-	-	5	-	-	-	10	2.42
Cut IV/Lyr 4	-	-	1	1	20	1	1	-	10	1	-	-	35	8.47
Cut IV/Lyr 5	-	-	-	-	5	-	-	-	1	-	-	-	6	1.45
Cut IV/Lyr 6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cut IV/Lyr 7	-	-	-	-	2	-	-	-	2	-	-	-	4	0.96
Cut IV/Lyr 8	-	-	-	-	2	-	-	-	-	-	-	-	2	0.48

Feature 1	-	-	-	-	7	2	-	-	18	-	-	27	6.53
Non-Strat	-	-	2	-	6	-	1	-	-	-	-	9	2.17
Total	3	-	8	2	254	14	18	113	1	-	-	413	
%	0.72	-	1.93	0.48	61.5	3.39	4.36	27.36	0.24	-	-	14.8	

3.1.9 Knap Hill pottery assemblage, Cutting I

Cutting/Layer	Windmill Hill	Beaker	Romano-British	Medieval	Total	%
Cut I/Lyr 1	-	-	-	-	0	-
Cut I/Lyr 2	-	-	3	-	3	60
Cut I/Lyr 3	-	-	-	-	0	-
Cut I/Lyr 4	1	-	-	-	1	20
Cut I/Lyr 5	-	-	-	-	0	-
Cut I/Lyr 6	-	-	-	-	0	-
Cut I/Lyr 7	1	-	-	-	1	20
Cut I/Lyr 8	-	-	-	-	0	-

Feature 1	-	-	-	-	-	0	-
Non-Strat	-	-	-	-	-	0	-
Total	2	-	3	-	-	5	-
%	40	-	60	-	-	4.67	-

3.1.10 Knap Hill pottery assemblage, Cutting II

Cutting/Layer	Windmill Hill	Beaker	Romano-British	Medieval	Total	%
Cut II/Lyr 1	-	2	-	-	2	7.4
Cut II/Lyr 2	2	4	1	-	7	25.92
Cut II/Lyr 3	-	-	-	-	-	-
Cut II /Lyr 4	2	14	-	-	16	59.25
Cut II/Lyr 5	-	-	-	-	-	-
Cut II/Lyr 6	-	-	-	-	-	-
Cut II/Lyr 7	1	-	-	-	1	3.7
Cut II/Lyr 8	1	-	-	-	1	3.7
Feature 1	-	-	-	-	-	-
Non-Strat	-	-	-	-	-	-
Total	6	20	1	-	27	-
%	22.22	74.07	3.7	-	25.23	-

3.1.11 Knap Hill pottery assemblage, Cutting III

Cutting/Layer	Windmill Hill	Beaker	Romano-British	Medieval	Total	%
Cut III/Lyr 1	-	-	2	-	2	6.89
Cut III/Lyr 2	-	-	6	5	11	37.93
Cut III/Lyr 3	-	-	5	-	5	17.24
Cut III/Lyr 4	-	-	4	-	4	13.79
Cut III/Lyr 5	-	-	-	-	-	-
Cut III/Lyr 6	2	-	-	-	2	6.89
Cut III/Lyr 7	-	-	-	-	-	-
Cut III/Lyr 8	-	-	-	-	-	-

Feature 1	-	-	-	-	-	-	-	-	-
Non-Strat	-	-	-	5	-	-	-	5	17.24
Total	2	-	-	22	5	-	-	29	
%	6.89	-	-	75.86	17.24	-	-	27.1	

3.1.12 Knap Hill pottery assemblage, Cutting IV

Cutting/Layer	Windmill Hill	Beaker	Romano-British	Medieval	Total	%
Cut IV/Lyr 1	-	1	2	3	6	12.76
Cut IV/Lyr 2	-	1	4	-	5	10.63
Cut IV/Lyr 3	1	-	7	-	8	17.02
Cut IV/Lyr 4	-	-	7	-	7	14.89
Cut IV/Lyr 5	-	-	-	-	-	-
Cut IV/Lyr 6	-	-	-	-	-	-
Cut IV/Lyr 7	-	-	-	-	-	-
Cut IV/Lyr 8	1	-	-	-	1	2.12
Feature 1	2	-	16	-	18	38.29
Non-Strat	1	-	1	-	2	4.25
Total	5	2	37	3	47	
%	10.63	4.25	78.72	6.38	43.92	

3.1.13 Knap Hill stone assemblage, Cutting I

Cutting/Layer	Sarsen Flakes/Cores	Sarsen Lumps	"Foreign Stone"	Total	%
Cut I/Lyr 1	-	2	1	3	25
Cut I/Lyr 2	-	3	3	6	50
Cut I/Lyr 3	-	-	-	-	-
Cut I/Lyr 4	-	-	-	-	-
Cut I/Lyr 5	-	-	-	-	-
Cut I/Lyr 6	-	1	-	1	8.33
Cut I/Lyr 7	-	-	-	-	0
Cut I/Lyr 8	-	-	2	2	16.6

Feature 1	-	-	-	-	-	-	-
Non-Strat	-	-	-	-	-	-	-
Total	-	6	6	6	12	12	-
%	-	50	50	50	22.22	22.22	-

3.1.14 Knap Hill stone assemblage, Cutting II

Cutting/Layer	Sarsen Flakes/Cores	Sarsen Lumps	"Foreign Stone"	Total	%
Cut II/Lyr 1	-	-	-	-	-
Cut II/Lyr 2	-	2	-	2	22.2
Cut II/Lyr 3	-	2	-	2	22.2
Cut II /Lyr 4	-	-	-	-	-
Cut II/Lyr 5	-	-	-	-	-
Cut II/Lyr 6	-	-	-	-	-
Cut II/Lyr 7	-	1	-	1	11.11
Cut II/Lyr 8	-	-	-	-	0
Non-Strat	1/0	3	-	4	44.44
Total	1	8	-	9	
%	11.1	88.88	-	16.6	

3.1.15 Knap Hill stone assemblage, Cutting III

Cutting/Layer	Sarsen Flakes/Cores	Sarsen Lumps	"Foreign Stone"	Total	%
Cut III/Lyr 1	-	-	-	-	-
Cut III/Lyr 2	0/3	9	1	13	76.47
Cut III/Lyr 3	-	1	-	1	5.88
Cut III/Lyr 4	-	-	-	-	-
Cut III/Lyr 5	-	1	-	1	5.88
Cut III/Lyr 6	-	-	-	-	-
Cut III/Lyr 7	-	-	-	-	-
Cut III/Lyr 8	-	1	1	2	11.76

Non-Strat	-	-	-	-	-	-
Total	3	12	2	17		
%	17.64	70.58	11.76	9.18		

3.1.16 Knap Hill stone assemblage, Cutting IV

Cutting/Layer	Sarsen Flakes/Cores	Sarsen Lumps	"Foreign Stone"	Total	%
Cut IV/Lyr 1	4/0	9	2	15	93.75
Cut IV/Lyr 2	-	-	-	-	-
Cut IV/Lyr 3	-	-	-	-	-
Cut IV/Lyr 4	-	-	-	-	-
Cut IV/Lyr 5	-	-	-	-	-
Cut IV/Lyr 6	-	-	-	-	-
Cut IV/Lyr 7	-	-	-	-	-
Cut IV/Lyr 8	-	-	-	-	-
Feature 1	-	1	-	1	6.25
Non-Strat	-	-	-	-	-
Total	4	10	2	16	
%	25	62.5	12.5	29.62	

3.2 Robin Hood's Ball

3.2.1 Robin Hood's Ball animal bone assemblage, Inner Ditch, Trench 1

Inner Ditch, Trench 1	Cattle	Sheep/Goat	Red Deer	Pig	Totals	%
Layer B	-	-	1	-	1	1.96
Layer D	-	-	1	-	1	1.96
Layer F	2	-	-	-	2	3.92
Layer G	2	2	-	-	4	7.84
Layer H	3	1	-	-	4	7.84

Layer K	1	-	-	-	1	1	1.96
Layer L	7	4	-	1	12	23.52	
Layer M	18	4	2	2	26	50.98	
Totals	33	11	4	3	51		
%	64.7	21.56	7.84	5.88			

3.2.2 Robin Hood's Ball animal bone assemblage, Outer Ditch, Trench 2

Outer Ditch, Trench 2	Cattle	Sheep/Goat	Red Deer	Pig	Totals	%
Layer A	5	-	-	-	5	23.8
Layer B	1	-	-	-	1	4.76
Layer D	2	-	2	-	4	19.04
Layer F	1	-	-	-	1	4.76
Layer J	1	-	-	1	2	9.52
Layer M	-	-	1	2	3	14.28
Layer N	4	1	-	-	5	23.8
Totals	14	1	3	3	21	
%	66.66	4.76	14.28	14.28		

3.2.3 Robin Hood's Ball pottery assemblage Inner Ditch and Outer Bank (based on Thomas 1964: Table 1)

Inner Ditch	Total	Outer Bank	Total
A	1	L	6
B	2	M	4
C	3	Q	44
D	1	P	2
E	-	N	52
F	1	Total	108
G	15		

H	20
K	35
L	3
M	41
Total	122

3.2.4 Robin Hood's Ball flint and stone assemblage

Inner Ditch	Total	Outer Ditch	Total	Outer Bank	Total
D	2	E	3	P	8
K	5	F	28	Total	8
M	4	H	3		
Total	11	J	6		
		Total	40		

3.2.5 Additional information from Robin Hood's Ball

Outer Ditch (Trench 2)	Finds	Outer Bank	Finds
A	Flints along base, contained Romano-British and one piece of Neolithic pottery	K	-
B	A general scatter of Neolithic pottery with some Romano-British sherds	L	High concentration of Neolithic pots/sherds at base, with charcoal
C	-	M	-
D	-	N	Much charcoal with pots/sherds to south of post-hole at base of N, within weathered

			natural chalk a concentration of Neolithic potsherds
E	Neolithic potsherd at lowest point	P	Much charcoal on top of, and in P, together with potsherds
F	-	Q/R	-
G	-		
H	-		
J	Scatter of flint flakes and a Neolithic flint flakes and a Neolithic potsherd on floor of ditch, outer side. Neolithic sherds and flint flake in J on bank side		

3.3 Whitesheet Hill

3.3.1 Whitesheet Hill animal bone assemblage from the enclosure ditch

Enclosure Ditch	F1354	F1336	F1332	F1335	F1351	F1333	F1334	F1328	F1320	Total	%
Cattle	34	-	-	-	3	12	1	-	1	51	18.14
Sheep/Goat	52	-	-	-	-	-	-	-	2	54	19.21
Pig	18	-	-	-	1	4	-	3	-	26	9.25
Red deer	2	-	2	-	-	-	1	-	-	5	1.77
Unid lg mamm	6	-	-	-	11	10	-	1	1	29	10.32
Sheep-size mamm	12	-	-	1	-	5	-	-	-	18	6.4

Unid mammal	8	-	-	-	-	19	-	-	-	-	-	-	-	-	27	9.6
Short-tail vole	-	6	-	-	-	-	-	-	-	-	-	-	-	-	6	2.13
Bank vole	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	1.77
Inid vole	-	5	-	-	-	-	-	-	-	-	-	-	-	-	5	1.77
Eroded	10	-	1	-	-	-	11	1	-	-	-	-	-	-	23	8.18
Gnawed	-	-	-	-	-	-	2	-	-	1	-	-	-	-	3	1.06
Loose teeth	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	0.35
Burnt	1	-	-	-	-	26	1	-	-	-	-	-	-	-	28	9.96
Total	143	16	3	1	1	60	45	4	4	5	4	4	4	281		
%	50.88	5.69	1.06	0.35	0.35	21.35	16.01	1.42	1.42	1.77	1.42	1.42	1.42			

3.3.2 Whitesheet Hill animal bone assemblage from Features 1303/1368 and 1293

Features 1303/1368 and 1293	F1302	F1338	F1342	F1346	F1329	F1292	F1323	F1350	F1360	F1324	Total	%
Cattle	1	-	9	9	-	-	5	1	2	1	28	5.11
Sheep/Goat	-	-	4	2	-	-	1	-	2	-	9	1.64
Pig	9	22	68	68	-	-	4	-	-	-	171	31.26
Red deer	-	-	25	-	-	-	3	2	1	-	6	1.09
Unid lg mamm	3	4	47	14	-	3	20	-	2	-	71	12.97
Sheep-size mamm	2	-	26	35	-	-	8	1	-	-	93	17
Unid mammal	3	1	6	14	1	4	12	-	4	-	65	11.88
Eroded	1	2	1	14	-	4	7	-	1	1	36	6.58

Gnawed	-	-	6	1	-	-	1	-	-	-	-	3	0.54
Loose teeth	4	3	4	3	-	-	-	-	-	-	-	16	2.92
Burnt	-	-	-	6	1	-	27	4	7	-	-	49	8.95
Total	23	32	196	166	2	11	88	8	19	2	547		
%	4.2	5.85	35.83	30.34	0.36	2.01	16.08	1.46	3.47	0.36			

3.3.3 Whitesheet Hill animal bone assemblage from other interior features

Other Interior Features	F1300	F1296	F1294	F1321	F1322	F1359	F1290	F1317	F1318	Total	%
Cattle	7	-	1	2	1	3	-	-	-	14	13.08
Sheep/Goat	-	-	-	1	-	-	-	-	-	1	0.93
Pig	1	-	-	4	4	1	-	5	-	15	14.01
Unid lg mamm	8	1	-	8	4	-	-	2	-	23	21.49
Sheep-size mamm	2	-	-	1	1	2	2	1	4	13	12.14
Unid mammal	3	-	-	-	2	-	1	-	-	6	5.6
Eroded	13	1	-	4	1	-	1	1	-	21	19.62
Gnawed	-	-	1	-	-	1	-	-	-	2	1.86

F1330	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	63	63	2.37
F1297	-	-	10	1	-	-	-	1	-	-	-	-	-	-	-	-	-	16	28	1.05
F1295	-	3	19	3	-	22	34	10	-	1	1	-	-	-	-	-	1063	1156	43.65	
F1293	9	-	26	4	-	44	4	12	4	-	3	-	-	-	-	-	171	277	10.46	
F1291	-	-	-	-	-	-	5	1	-	94	-	-	-	-	-	-	-	100	3.77	
Totals	58	3	203	67	2	136	43	23	6	102	79	6	1	1919	0.03	0.22	72.46	2648		
%	2.19	0.11	7.66	2.53	0.07	5.13	1.62	0.86	0.22	3.85	2.98	0.22	0.03	72.46						

3.4 Windmill Hill

3.4.1 Windmill Hill – Outer Ditch assemblage (1925-29)

Ditch Segment	Tools	Flakes	Cores	E. Neo	Antler	Worked Bone	Chalk	Stone	Sarsen	Human Bone	Unknown Pot	Total	%
OD II	248	-	-	456	-	2	1	8	8	1	-	724	5.27
OD IIIA	74	1885	151	234	-	2	3	8	16	-	151	2524	18.39
OD IIIB	74	1267	86	61	-	1	2	-	4	1	187	1683	12.26
OD IIIC	128	2423	208	141	4	-	1	1	9	8	335	3258	23.74
OD I	34	198	22	31	-	-	2	4	5	-	30	326	2.37

OD IB	103	1554	146	173	2	-	2	-	3	-	170	2153	15.69
OD IC	152	2253	198	112	1	-	3	2	11	-	321	3053	22.25
Total	813	9580	811	1208	7	5	14	23	56	10	1194	13721	-
%	5.92	69.81	5.91	8.8	0.05	0.03	0.10	0.16	0.4	0.07	8.7	-	-

3.4.2 Windmill Hill – Outer Ditch IV assemblage (1957-58)

OD IV	Tools	Cores	WH	LN	Beaker/EBA	Chalk	Sarsen
1	-	-	-	-	-	-	-
2	24	3	4	2	-	-	-
3	3	-	1	3	2	-	R
4	1	-	3	-	-	B	-
5	-	-	7	-	-	-	Q
Total	28	3	15	5	2	1	2

3.4.3 Windmill Hill – Outer Bank IV assemblage (1957-58)

OB IV	Tools	Cores	WH	Stone	Sarsen	Total
Topsoil	10	7	-	1	2Q,3F	23
Bank	5	3	15	1	-	24
OLS	59	8	-	-	-	67
Total	74	18	15	2	5	114

3.4.4 Windmill Hill – Outer Bank V assemblage (1957-58)

OB V	Tools	Cores	WH	Total

Topsoil	14	5	-	19
Bank	3	-	2	5
OLS	14	-	16+	30+
Total	31	5	18+	54+

3.4.5 Windmill Hill – Outer Bank VI assemblage (1957-58)

OB VI	Tools	Cores	WH	Stone	Sarsen	Total
Topsoil	15	2	-	2	3P	22
Bank	5	-	8	-	-	13
OLS	8	1	14+	-	-	23+
Hearth	2	1	4+	-	7+	14+
Total	30	4	26+	2	10+	72+

3.4.6 Windmill Hill – Middle Ditch assemblage (1925-29)

Ditch Segment	Tools	Flakes	Cores	E. Neo	Antler	Worked Bone	Chalk	Stone	Sarsen	Human Bone	Unknown Pot	Total	%
MD XIA	136	3976	221	668	-	-	-	-	-	-	332	5333	11.67
MD XIB	114	3044	164	346	1	2	2	4	8	2	16	3703	8.1
MD XA	113	3400	167	448	5	-	1	2	11	1	365	4513	9.88
MD XB	113	2449	192	478	1	2	-	1	12	1	199	3448	7.54
MD IV	50	1045	41	351	-	-	-	-	-	-	-	1487	3.25
MD IVB	50	1085	92	434	-	-	-	1	2	-	-	1664	3.64
MD III	45	517	20	258	-	1	3	-	2	3	-	849	1.85
MD VI	71	1852	145	360	3	-	3	5	8	-	215	2662	5.82

MD V	79	2411	111	396	1	-	4	2	13	-	122	3139	6.87
MD II	33	260	18	127	-	1	-	-	2	1	-	442	0.96
MD IIB	281	3512	150	1548	2	4	4	8	22	1	-	5532	12.11
MD I	22	163			-	-	5	1	16	1	-	208	0.45
MD IB	89	3336	178	369	2	1	-	1	23	1	262	4262	9.33
MD VII	126	3398	346	1026	-	2	1	-	19	-	130	5048	11.05
MD VIII	45	958	99	170	2	-	2	1	6	3	273	1559	3.41
MD IX	46	1342	120	225	-	-	1	-	9	-	83	1826	3.99
Total	1413	32748	2064	7204	17	13	26	26	153	14	1997	45675	
%	3.09	71.69	4.51	15.77	0.03	0.02	0.05	0.05	0.33	0.03	4.37		

3.4.7 Windmill Hill – Middle Ditch XII assemblage (1957-58)

MD XII	Tools	Cores	WH	LN	Beaker/EBA	Antler	Chalk	Stone	Sarsen	Human bone	Total
1	-	-	-	-	-	-	-	-	-	-	-
2	26	7		90	Total	-	-	2	-	-	125
3	8	1	1	-	-	-	-	-	P	-	11
4	6	1	6	-	-	W	1	-	2P,Q	-	18
5	-	-	14	-	-	-	1	-	2R	1	18
Total	40	9	21	90	-	1	2	2	6	1	172

3.4.8 Windmill Hill – Inner Ditch assemblage (1925-29)

Ditch Segment	Tools	Flakes	Cores	E. Neo	Antler	Worked Bone	Chalk	Stone	Sarsen	Human Bone	Unknown Pot	Total	%
ID VII	137	441	18	1570	1	-	5	3	17	1	216	2409	7.54
ID XVI	68	1351	80	149	1	-	1	1	-	-	156	1807	5.66
ID XVA	25	869	94	21	-	-	1	-	2	-	99	1111	3.48
ID XVB	71	1253	119	62	1	2	-	-	1	-	221	1730	5.42
ID XIV	35	801	46	4	1	-	2	2	6	-	111	1008	3.15
ID XIII	64	1554	64	103	-	-	-	1	3	-	86	1875	5.87
ID XII	152	2924	96	61	2	-	1	-	5	-	209	3450	10.81
ID XI	166	3073	131	169	-	1	-	2	1	1	98	3642	11.41

ID X	35	2051	150	39	-	-	-	-	-	6	-	201	2482	7.77
ID IX	58	1218	74	63	2	-	2	2	2	3	-	109	1531	4.79
ID VIII	160	2503	239	92	-	1	6	-	-	16	-	519	3536	11.07
ID V	13	633	30	151	1	-	-	1	1	3	-	-	832	2.6
ID IV	31	175	12	156	-	1	2	-	-	2	-	-	379	1.18
ID IVB	71	1222	29	433	-	-	1	-	-	2	-	-	1758	5.5
ID III	20	408	26	172	-	-	-	-	-	4	-	-	630	1.97
ID IIIB	13	303	6	71	-	-	-	-	-	-	-	-	393	1.23
ID I	20	434	15	89	-	-	-	-	-	-	-	-	558	1.74
ID I/II	41	827	63	327	-	-	1	-	-	3	4	-	1266	3.84
ID II	13	90	19	105	-	-	-	3	3	6	-	-	236	0.73
ID IIB	24	536	18	122	-	-	-	-	-	2	-	-	702	2.19
ID VI	30	302	31	129	-	-	-	-	-	-	-	87	579	1.81
Total	1247	22968	1360	4088	9	5	22	15	0.04	82	6	2112	31914	
%	3.9	71.96	4.26	12.8	0.02	0.01	0.06	0.04	0.25	0.01	0.01	6.61		

3.4.9 Windmill Hill – Inner Ditch XVII assemblage (1957-58)

ID XVII	Tools	Cores	WH	LN	Beaker/EBA	Worked bone	Stone	Human bone	Total
1	-	-	-	-	-	-	-	-	0
2	31	1		21+	Total	W	1	-	55+
3	34	4	11	-	-	-	1	1	51
4	14	1	4	-	-	-	-	-	19
5	-	-	-	-	-	-	-	-	0
Total	79	6	15	21+	-	1	2	1	125+

3.4.10 Windmill Hill – Outer Ditch IV assemblage (1957-58)

OD IV	Tools	Cores	WH	LN	Beaker/EBA	Chalk	Sarsen	Total
1	-	-	-	-	-	-	-	-
2	24	3	4	2	-	-	-	33
3	3	-	1	3	2	-	R	10
4	1	-	3	-	-	B	-	5
5	-	-	7	-	-	-	Q	8
Total	28	3	15	5	2	1	2	56

3.4.11 Windmill Hill – Outer Ditch V (1957-58)

OD V	Tools	Cores	WH	LN	Beaker/EBA	Worked bone	Chalk	Stone	Sarsen	Human bone	Total
1	-	-	-	-	-	-	-	-	-	-	-
2	53	5	-	-	1	-	-	6	-	-	65
3	45	6	37		Total	P	2M	-	-	-	91
4	7		3	-	-	-	M	1	-	1	13
5	6	2	9+	-	-	-	M	-	Q,R	1	21
6	2		12	-	-	-	-	-	-	-	14
Total	113	13	24+	37	1	1	4	7	2	2	204

3.4.12 Windmill Hill – Primary animal bone (1988)

Primary	Cattle	L. Rib	Pig	Shp/Gt	M. Rib	Dog	Frag.	Total	%
Tr. A	11	-	-	-	-	-	8	19	1.63
Tr. B	85	13	22	17	16	6	181	340	29.31
Tr. C	53	10	11	14	4	-	146	238	20.51
Tr. D	39	8	6	5	-	1	32	91	7.84
Tr. E	123	36	46	36	-	4	200	445	38.36
Tr. F	7	1	2	-	-	-	17	27	2.32
Total	318	68	87	72	20	11	584	1160	
%	27.41	5.86	7.5	6.2	1.72	0.94	50.34		

3.4.13 Windmill Hill – Primary flint (1988)

Primary	Core	CRF	Blck	Flks	Serr	Bev	Util	Scr	Knvs	Axe	Ah	Various	Total	%
Tr. B	7	2	7	47	1	-	-	2	-	-	-	2	68	19.88
Tr. A	1	-	-	2	-	-	-	-	-	-	-	-	3	0.87
Tr. C	5	2	2	54	-	1	-	1	-	2	-	-	67	19.59
Tr. D	3	-	1	22	-	1	-	1	-	-	-	-	28	8.18
Tr. E	10	3	4	130	-	5	1	7	-	-	-	-	160	46.78
Tr. F	-	1	-	14	-	-	-	-	-	-	-	1	16	4.67
Total	26	8	14	269	1	7	1	11	-	2	-	3	342	
%	7.6	2.33	4.09	78.65	0.29	2.04	0.29	3.21	-	0.58	-	0.87		

3.4.14 Windmill Hill – Secondary/Tertiary animal bone (1988)

S/T.	Cattle	L. Rib	Pig	Shp /Gt.	M. Rib	Dog	Red D. Ant	Red D. B.	Roe D. Ant.	Roe D. B.	W. cattle ?	W. pig?	Must-elid	Bird	Frag.	Total	%
Tr. A	47	8	17	5	2	3	3	1	3	1	1	1	-	-	295	387	14.73
Tr. B	132	20	87	23	24	6	10	9	4	6	1	-	4	3	1090	1419	54.01
Tr. C	101	4	1	4	2	3	-	-	-	-	-	-	-	-	50	165	6.28
Tr. D	50	22	10	5	22	-	-	-	-	-	4	-	-	266	379	14.42	
Tr. E	20	-	4	3	3	-	-	1	-	-	-	-	-	43	74	2.81	
Tr. F	55	10	20	19	3	-	-	-	-	-	-	-	-	96	203	7.72	
Total	405	64	139	59	56	12	13	11	7	7	6	1	4	1840	2627		
%	15.41	2.43	5.29	2.24	2.13	0.45	0.49	0.41	0.26	0.26	0.22	0.03	0.15	0.11			

3.4.15 Windmill Hill – Secondary flint (1988)

Sec.	Core	CRF	Blick	Fiks	Serr	Bev	Util	Scr	Knvs	Axe	Ah	Various	Total	%
Tr. B	4	2	1	67	1	-	1	7	-	-	-	-	83	15.51
Tr. A	8	1	10	125	3	-	-	5	2	-	1	1	156	29.15
Tr. C	1	1	1	41	-	1	-	1	-	-	-	1	47	8.78
Tr. D	6	4	4	96	-	1	3	-	-	1	-	2	117	21.86
Tr. E	-	2	2	28	-	1	-	2	-	-	-	-	35	6.54
Tr. F	4	1	3	77	3	3	2	1	-	1	-	2	97	18.13
Total	23	11	21	434	7	6	6	16	2	2	1	6	535	
%	4.29	2.05	3.92	81.12	1.3	1.12	1.12	2.99	0.37	0.37	0.18	1.12		

3.4.16 Windmill Hill – Tertiary animal bone (1988)

Tert.	Cattle	L. Rib	Pig	Shp/ Gt	M. Rib	Dog	Red D. Ant	Red D. B	Roe D. Ant	Roe D. B.	W. Cattle?	Fox	Cat	Frag.	Total	%
Tr. A	15	1	3	-	-	-	-	1	-	-	-	-	-	60	80	7.02
Tr. B	25	-	14	12	4	1	-	1	-	1	1	1	1	216	277	24.34
Tr. C	53	9	18	7	1	3	-	1	-	1	-	-	-	253	346	30.4
Tr. D	-	-	-	-	-	-	-	-	-	-	-	-	-	3	3	0.26
Tr. E	24	2	5	3	2	-	1	1	-	1	-	-	-	164	203	17.83
Tr. F	25	-	3	10	1	-	-	1	-	-	1	-	-	188	229	20.12
Total	142	12	43	32	8	4	1	5	-	3	2	1	1	884	1138	
%	12.47	1.05	3.77	2.81	0.7	0.35	0.08	0.43	-	0.26	0.17	0.08	0.08	77.68		

3.4.17 Windmill Hill – Upper Secondary/Tertiary flint (1988)

Up Sec/Ter	Core	CRF	Blck	Fiks	Serr	Bev	Util	Scr	Knvs	Axe	Ah	Various	Total	%
Tr. B	7	4	6	256	-	-	-	2	2	-	-	2	279	21.49
Tr. A	3	-	-	78	-	3	-	3	-	-	-	1	88	6.77
Tr. C	9	8	11	385	2	1	1	8	2	-	3	5	435	33.51
Tr. D	6	-	-	91	-	-	-	1	-	-	-	5	103	7.93
Tr. E	3	2	5	195	3	3	-	4	-	1	-	2	218	9.91
Tr. F	6	3	1	160	3	-	-	2	-	-	-	-	175	13.48
Total	34	17	23	1165	8	7	1	20	4	1	3	15	1298	
%	2.61	1.3	1.77	89.75	0.61	0.53	0.07	1.54	0.3	0.07	0.23	1.15		

3.4.18 Windmill Hill – Primary and Secondary/Tertiary pottery (1988)

Pottery	Primary	Sec/Tert	Total	%
Tr. B	132	18	150	22.42
Tr. A	1	77	78	11.65
Tr. C	46	11	57	8.52
Tr. D	89	35	124	18.53
Tr. E	182	38	220	32.88
Tr. F	2	38	40	5.97
Total	452	217	669	
%	67.56	32.43		

3.4.19 Windmill Hill – Combined flint assemblage including Trench BB (1988)

Trench	Core	CRF	Blick	Fliks	Serr	Bev	Util	Scr	Knvs	Axe	Ah	Various	Total	%
BB	11	14	5	300	2	3	4	9	1	-	-	-	349	10.29
B	38	16	56	1124	2	4	1	30	11	1	2	9	1294	38.15
A	12	1	10	205	3	3		8	2	-	1	2	247	7.28
C	15	11	15	481	2	3	1	11	2	2	3	6	552	16.27
D	13	4	5	209	2	3	3	-	1	-	7	-	247	7.28
E	13	7	11	353	3	9	1	13	-	1	-	3	414	12.2
F	10	5	4	251	6	3	2	3	-	1	-	3	288	8.49
Total	112	58	106	2923	20	28	12	74	17	5	13	23	3391	

%	33.02	1.71	3.12	86.19	0.58	0.82	0.35	2.18	0.5	0.14	0.38	0.67	
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Appendix 4: Causewayed enclosures for further study

The causewayed enclosures below indicate sites which have been used within this thesis and others within the British Isles and Ireland which are ‘very probable’ and ‘certain’ (Oswald et al. 2001). A large number of these enclosures have not been excavated and/or investigated except by air from which we know they exist, and demonstrates the need for further investigation into these important sites.

Site	Reference
England	
Maiden Bower, Bedfordshire	Smith 1915; Dyer 1955
Eton Wick, Berkshire	Ford 1986, 1991-3
Etton, Cambridgeshire	Pryor 1983, 1986, 1988, 1998; Pryor and Kinnes 1982; Pryor et al. 1985
Great Wilbrahm, Cambridgeshire	Anon 1977; Evans et al. 2006
Haddenham, Cambridgeshire	Evans 1988; Evans and Hodder 2006; Hodder 1992
Northborough, Cambridgeshire	None
Upton, Cambridgeshire	None
Green How, Cumbria	Horne and Oswald 2000; Horne et al. 2001; Horne et al. 2002
Hembury, Devon	Liddell 1930, 1931, 1932, 1935; Todd 1984; Brown 1989; Griffith 2001: 67
Membury, Devon	Tingle 1995, 2006
Raddon Hill, Devon	Gent and Quinnell 1999
Hambledon Hill, Dorset	Mercer 1980, 1981c, 1987, 1988; Healy 2004; Mercer and Healy (2008)
Maiden Castle, Dorset	Wheeler 1943, 1951; Edmonds and Bellamy 1989; Evans et al. 1988; Grimes 1945; Wainwright and Cunliffe 1985; Lawson 1990: 272-7; Sharples 1991a, 1991b
Orsett, Essex	Hedges and Buckley 1978
Birdlip, Gloucestershire	Darvill 1981, 1982, 1987
Crickley Hill, Gloucestershire	Dixon 1988
Down Ampney, Gloucestershire	Leach 1977
Eastleach, Gloucestershire	Palmer 1976: pl. 17 (3)
Icomb Hill, Gloucestershire	Savile 1978
Southmore Grove, Gloucestershire	Trow 1995

Beacon Hill, Hampshire	Eagles 1991
Sawbridgeworth, Hertfordshire	Palmer 1976: pl. 19 (11)
Chalk Hill, Kent	Shand 1998
Kingsborough, Kent	Allen et al. 2008
Husbands Bosworth, Leicestershire	Clay 1999a, 1999b; Butler et al. 2002
Barholm, Lincolnshire	St Joseph 1970; Palmer 1976: 180, 184
Roughton, Norfolk	Edwards 1978
Briar Hill, Northamptonshire	Bamford 1976, 1979, 1985
Dallington, Northamptonshire	Keevill 1992
Southwick, Northamptonshire	Hadman 1973; Palmer 1976: pl. 19 (9)
Abingdon, Oxfordshire	Leeds 1927, 1928; Curwen 1930: 28; Case 1956; Avery 1982; Bradley 1986
Aston Cote Shifford and Chimney, Oxfordshire	Benson and Miles 1974; Plamer 1976: pl.18 (6)
Broadwell, Oxfordshire	Benson and Miles 1974
Buckland, Oxfordshire	None
Burford, Oxfordshire	None
Eynsham, Oxfordshire	Harding and Lee 1987; Palmer 1976: 180, 184
Langford, Oxfordshire	Palmer 1976: pl. 18 (4)
Alrewas, Staffordshire	Palmer 1976: pl.17 (2)
Mavesyn Ridware, Staffordshire	Palmer 1976: 180, 184
Fornham All Saints, Suffolk	St Joseph 1964; Palmer 1976: 183, 186
Freston, Suffolk	Palmer 1976: 181, 184
Kedington, Suffolk	Charge 1982
Staines, Surrey	Healey and Robertson-Mackay 1983; Robertson- McKay 1987
Combe Hill, East Sussex	Curwen 1930: 35-7; Musson 1950; Drewett 1994
Offham Hill, East Sussex	Drewett 1977
Whitehawk, East Sussex	Curwen 1930: 28- 32, 1934, 1936, 1954: 71-84; Williamson 1930
Barkhale, West Sussex	Curwen 1930: 41; Leach 1979, 1983
The Trundle, West Sussex	Curwen 1929, 1930: 32-5, 1931; Bedwin and Aldsworth 1981
Crofton, Wiltshire	Palmer 1975-6; Lobb 1995
Knap Hill, Wiltshire	Cunnington 1909, 1912; Curwen 1930: 22-3; Connah 1965, 1969
Robin Hood's Ball, Wiltshire	Thomas 1964; Richards 1990: 61-5

Rybury, Wiltshire	Curwen 1930: 38-40; Bonney 1964; Palmer 1976: 181, 184
Whitesheet Hill, Wiltshire	Piggott 1952; Rawlings et al 2004
Windmill Hill, Wiltshire	Curwen 1930: 24-8; Smith 1958, 1959, 1965; 1966, 1971; Whittle 1990; Whittle and Pollard 1998; Whittle et al. 1999, 2000
West Kington, Wiltshire	None
Wales	
Bryn Celli, Anglesey	Edmonds and Thomas 1991a, 1991b, 1992, 1993
Norton, Glamorgan	Driver 1997; Burrow et al. 2001: 93-5
Isle of Man	
Billowon, Rushden	Darvill 1996, 2000, 2001, 2002b
Ireland	
Donegore Hill, Antrim	Mallory and Heartwell 1984; Mallory 1993; Sheridan 2001; Cooney 2002

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