Windows into the past: an investigation into prior activity at Neolithic monuments in Britain

JANICE CAROL GRAF

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Thesis Submitted for the Degree of PhD

Department of Archaeology
University of Durham

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Abstract

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This thesis investigates the nature of the buried ground surfaces beneath Neolithic long barrows and chambered tombs in Britain. Excavations at sites across the country have revealed the presence of pre-mound pits, postholes and artefact scatters on the preserved ground surfaces below the monuments, suggesting episodes of earlier human activity. These features offer tantalizing glimpses into Neolithic land-use, settlement, and burial practices, but until now, no systematic examination of this evidence has been undertaken. This study fills that gap by bringing together all of the available information on pre-monument Neolithic land surfaces for the first time, enabling a better understanding of the nature of the features, the frequency with which they occur, and their potential significance in terms of the importance of place and the persistence of significant landscapes in Neolithic Britain.

Situated within the broader themes of landscape, memory and the significance of place, this thesis draws upon an extensive body of excavation reports and related literature to identify and record the extent and nature of the pre-monument evidence across the country. Two case studies place the evidence in a regional framework and ground it within the local Neolithic context.

The analysis demonstrated that features or deposits on the buried ground surfaces are relatively common – more than half of the sites in this study reported at least one feature. Patterns of variation were identified in the use of pits and other features, suggesting regional preferences and acts of individual agency. Although many of the pre-mound features are likely the work of the builders and users of the monuments, some can certainly be attributed to earlier occupants, suggesting that significant places in the landscape may have been remembered, re-visited and re-worked over decades and centuries.

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I am grateful to the University of Durham for financial support through the Overseas Research Student Awards Scheme and to Ustinov College for their award of a three-year accommodation scholarship.

Above all, I thank my husband, Robert, my son Jeffrey, my mum Stephanie and all my family and friends for their support, love and willingness to share me with this thesis for the past four years.

Preface

Unless otherwise stated, all photographs used in this thesis were taken by the author.

The maps were created by the author using ArcMap 9.3 and Ordnance Survey data from Edina Digimap Collections.

National Monument Records were accessed through three online databases: Pastscape (English Heritage), Canmore (Royal Commission on the Ancient and Historical Monuments of Scotland) and Coflein (Royal Commission on the Ancient and Historical Monuments of Wales).

The photograph on the front cover shows the Wayland's Smithy long barrow in Oxfordshire. The photograph was taken by Craig Alexander and is reproduced here with his kind permission.

1. Introduction

The study of the Neolithic period in Britain has always been primarily concerned with monuments. This is because, outside of Orkney, the Neolithic footprint on the land is slight. Ephemeral settlements have left few traces and most of what was 'Neolithic' has been obscured or destroyed by natural and anthropogenic activity over thousands of years. The artefact scatters, pits and postholes that constitute the remnants of Neolithic life in Britain are scattered across the landscape, most often discovered only by chance through surface survey, aerial photography, and, more recently, developer-funded fieldwork. The monuments remain, however, as visible traces of a distant past, and their size, structure and relentless durability have attracted wonder and curiosity for hundreds of years.

Long barrows and chambered cairns were some of the earliest monuments to appear in the Neolithic landscape. These massive mounds of earth, chalk, rubble or stone were carefully and purposefully created for reasons that are lost to us today, but it is likely that they were designed for ceremonies and rituals, for funerary activities and perhaps to honour a deity, a person or an event. Their great size and careful landscape placement suggests that they were also intended to mark the land in a very particular way, and to instil awe and perhaps fear in all who ventured near. Once seen, they would not soon be forgotten, particularly in a landscape that was otherwise devoid of permanent built architecture. The monuments may have been built to commemorate a place, a person or an event, but they were also built to be remembered.

This study is not focused on the monuments themselves, however, but on the ground surfaces sealed beneath them. The large earth and stone mounds protected the material remains deposited within them and by extension, they also sealed and protected the ground surfaces upon which they lie. These protected land surfaces contain a record of the actions and activities of the people who occupied the land, and can provide insights into the practices of those who built the mounds and in some

cases, of those who came before. The purpose of this study is to examine that record to determine how the buried land surfaces beneath the mounds can add to our current understanding of social practices and land use in Neolithic Britain. The research questions are discussed in more detail in Chapter 2.

1.1 Buried Neolithic Land Surfaces

A variety of buried features and deposits are found on the preserved land surfaces beneath Neolithic monuments in Britain, and they reflect a wide range of practices and activities. Pits, postholes and artefact scatters beneath monuments may indicate earlier occupation sites or the use of timber mortuary structures to house the dead. Ard marks and cultivation ridges suggest that farming may have taken place prior to monument construction, or perhaps that acts of 'ritual ploughing' were part of the ground surface preparation prior to monument construction (Rowley-Conwy 1987). Mesolithic pits and middens located beneath the monuments hint at the power of place in the Neolithic landscape and the re-use of specific areas of the land over time. All of these features lie protected and preserved by the overlying monuments until they are revealed during excavation, and they provide us with a 'snapshot' of the Neolithic landscape and the range of activities that were carried out by its inhabitants.

Until now, it has only been possible to discuss the evidence from buried land surfaces anecdotally, or in the context of a single site or group of sites. This study brings together all of the available information on pre-monument Neolithic land surfaces for the first time, in order to determine how frequently features and deposits are actually found beneath the monuments, and to place the anecdotal and site-specific evidence for relationships between monuments and earlier activity into a broader regional context. Excavations at Neolithic monuments across Britain over the past 150 years have given rise to hundreds of excavation reports and related publications - this study draws upon that body of literature to determine the extent and nature of the evidence, and to compare the data from different geographic regions in order to determine whether identifiable trends and patterns exist.

1.2 Chronology and Terminology

This thesis is primarily concerned with the Earlier Neolithic period in Britain, defined as the centuries between 4000-3300 cal. BC. When the Later Neolithic period is referenced in the text, it can be taken to mean the centuries between 3300-2500 cal. BC.

The term 'pre-monument' is used here to describe features or deposits that can be linked to activity that occurred sometime prior to the start of mound construction. Of course, most features and material that are found beneath a monument necessarily came before it (excepting those that arrived through intrusive later actions) but in this study an attempt is made to distinguish between features and deposits that are linked to the construction and use of the mound, and those that pre-date the mound. In many cases it is difficult to make that distinction – a caveat that will be repeated many times in this thesis.

1.3 The Format of the Thesis

The research aims and methodologies of this study are set out in Chapter 2 and include a review of the data sources used in the research.

Chapter 3 explores various theoretical perspectives on landscape archaeology and the relationship between monuments and memory. Monuments were not constructed in empty landscapes – they were placed within land marked by social histories and imbued with cultural significance. The placement of monuments reflects this engagement with the landscape and the consequent commitment to place.

Chapters 4 and 5 present two regional case studies – the first one looks at England's West Country and the second focuses on southwest Scotland. Approaches to Neolithic studies have in recent years moved away from broad generalised narratives and toward interpretations that seek to recognise and understand regional variability and distinctive patterns of practice and material culture (Brophy & Barclay 2009; Jones &

Kirkham 2011). This regional perspective is applied to the investigation of buried Neolithic land surfaces in the two case study regions, thus permitting a closer examination of the available data and a comparison of the findings both between regions and against the national data. Each case study chapter includes a brief overview of archaeological research in the area, and a summary of the nature of the regional Mesolithic and Neolithic periods. The evidence from the buried land surfaces beneath the monuments in the regions is then presented and contextualised by reference to other (non-monumental) sites in the region.

In Chapter 6, the scale of analysis widens to take in the pre-monument features and deposits at Neolithic sites across all of mainland Britain. A description of the features and deposits found on the pre-mound surfaces is presented first, followed by a discussion of the potential significance of the pre-monument evidence. In this chapter, the sites have been divided into eight geographical regions for ease of reference and to investigate broad regional patterns.

Chapter 7 concludes the study by reviewing the interpretations and evidence that have been presented in the previous chapters, and drawing conclusions about the nature of pre-monument activity and land use in Neolithic Britain.

Three appendices provide additional reference material. Appendix A contains a detailed description of the Site Database and information on accessing the database, which is provided on a compact disc with this thesis. Appendix B presents a brief listing of each of the sites under study, divided by region. Appendix C contains a list of sites where possible or probable pre-monument features or deposits are found (as distinct from features and deposits that are likely to relate to monument construction and use).

Throughout the thesis, the focus is on the links between people and place, between communities and their landscapes, with the aim of offering new insights into land use and the significance of place in Neolithic Britain. In the next chapter, these research aims will be discussed in detail, and the methodology and resources used to achieve them will also be described.

2. Methodology

2.1 Introduction

This chapter sets out a discussion of the research aims of this study and the methods used to collect the relevant data. It includes a discussion of the data sources and the inherent limitations of the data, but also emphasises the value in utilizing the existing (and extensive) literature on excavated Neolithic monuments to examine a specific aspect of Neolithic practice.

2.2 Research Aims

The primary research aim of this study is to determine what the buried features and deposits on the ground surfaces beneath the monuments can reveal about land use and the significance of place in Neolithic Britain.

A number of secondary research questions are shown in Fig. 2.1. It is hoped that the answers to these questions will shed new light on Neolithic land use practices and the possible re-use or commemoration of sacred places in prehistory.

As noted in Chapter 1, the evidence from buried land surfaces is often discussed anecdotally, or in relation to one or two sites, and it is sometimes cited as evidence that monuments were deliberately situated in landscape locations already imbued with special significance (Bradley 1993; Tilley 1994; Cummings 2003). However, the data have never been systematically analysed to determine how frequently this evidence actually occurs, whether geographic or temporal patterns can be identified in the record, or whether the evidence from the excavated sites can be extrapolated and applied to similar sites and monuments. This study fills that gap and places site-specific evidence for potential relationships between monument construction and earlier activity into broader regional and temporal contexts.

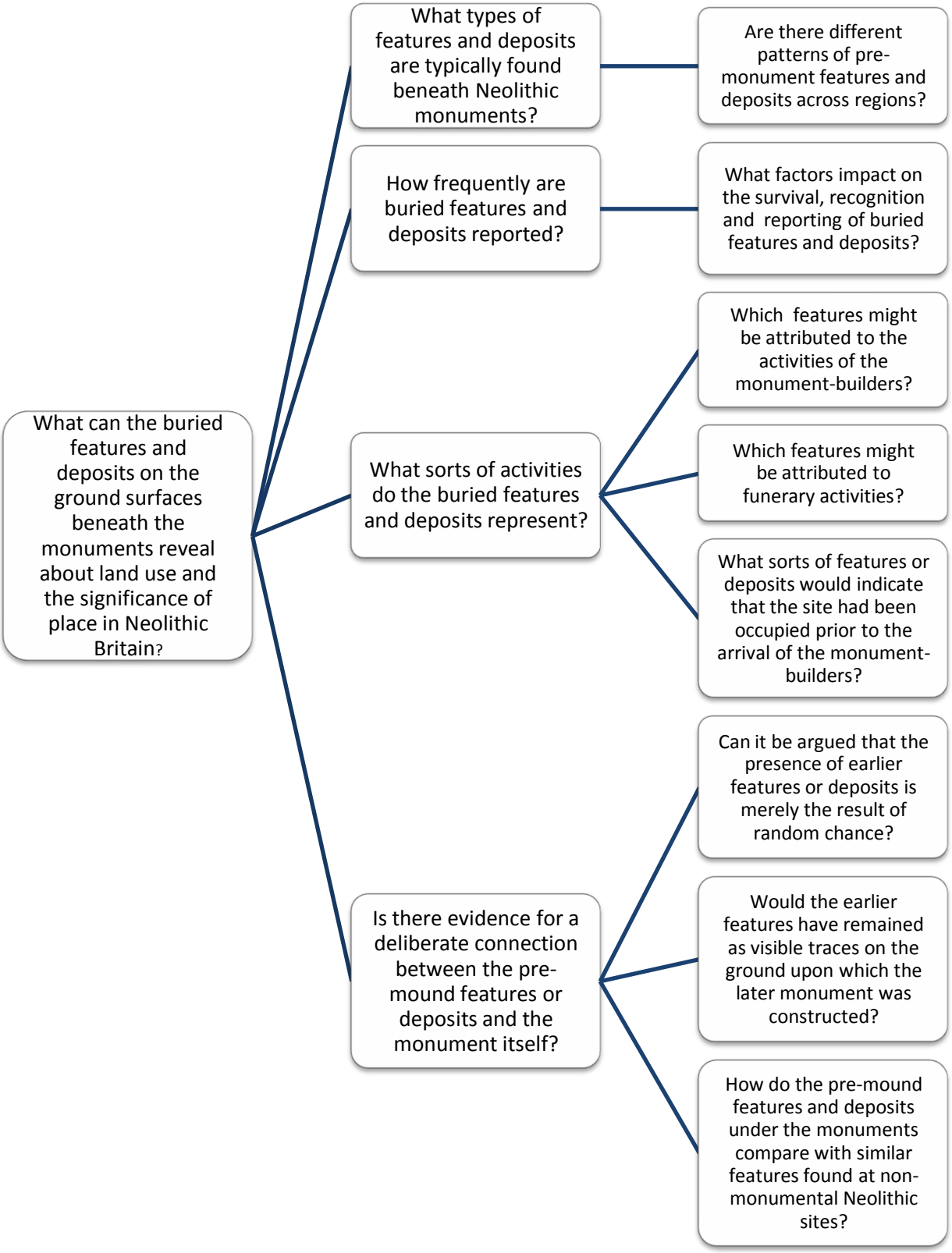

Fig. 2.1 Research questions

2.3 Research Design

In order to adequately address the research questions, I decided to investigate the buried land surfaces beneath all of the excavated Neolithic barrows and chambered tombs in Britain. Although this initially appears to constitute a vast dataset, the reported incidence of buried features and deposits beneath monuments is relatively low. Although there are many hundreds of Neolithic long barrows, chambered cairns and round barrows in Britain, the number that have been excavated is much smaller (approximately 600), and the number with adequate information on the nature of their buried land surfaces is smaller yet (approximately 300). It was necessary therefore to begin with a large number of sites in order to obtain the most representative sample possible and to ensure that there was sufficient data to enable the identification of broad patterns and trends across the country.

This broad-brush approach is complemented by a more detailed contextual analysis centring on two discrete regions in Britain – southwest Scotland and the West Country region in England. These case studies examine the Neolithic in each region in detail, including aspects of settlement, environment, and monument construction. The evidence for buried features and deposits beneath the monuments is then presented and analyzed within its local context.

2.4 Data Sources

It was clear from the outset that a range of data sources would have to be accessed in order to collect the information required for this study. Archaeological site records would have to be consulted, and published excavation reports and related literature would have to be located and reviewed. Each of these data sources is briefly described below and evaluated in terms of its contribution to this study.

2.4.1 Archaeological Site Records

One of the first steps in this project was to identify and catalogue the sites that would form the basis for the research. As no inventory of excavated Neolithic sites currently exists, the monument records for all Neolithic chambered cairns, long barrows and round barrows were consulted and the relevant data extracted for inclusion in the database.

Archaeological site records in Britain are maintained at both the national and local levels and have been described as a 'complex set of overlapping collections of information gathered by different individuals and organizations at different times for different purposes' (Fraser & Newman 2006:23). While both sets of records contain extensive and valuable information, it was necessary to determine which of them would be most accessible – and sufficiently comprehensive – for this project. A pilot study was therefore carried out in advance of full data collection and is briefly described below.

2.4.1.1 National Monuments Records

National monument records (NMRs) are maintained by three separate authorities in Britain, and all are accessible in online, searchable databases. The Welsh NMRs are maintained by the Royal Commission on the Ancient and Historical Monuments of Wales (RCAHMW) and are available online through the Coflein website (http://www.coflein.gov.uk/). In England, NMRs are the responsibility of English Heritage, and the online database is called PastScape (http://www.PastScape.org/). The Pastscape database is updated on an ongoing basis, with new information uploaded every eight weeks. In Scotland, the Royal Commission on the Ancient and Historical Monuments of Scotland (RCAHMS) manages the NMRs. Access to the online database is through Canmore (http://canmore.rcahms.gov.uk/), which is updated daily.

The information contained in the NMRs includes site classification and description, site location, excavation history and bibliographic references. Information on the

availability of archival photographs, drawings and maps is also provided, and in some cases, drawings and photographs are available online. All three NMR websites have been recently updated, and improvements in organization, presentation, and ease of access have made these online databases very useful, accessible and valuable resources.

2.4.1.2 Local Authority Monument Records (SMRs/HERs)

Local archaeological site records are referred to as either Sites and Monuments Records (SMRs) or, more recently, Historic Environment Records (HERs). These records consist of the original Ordnance Survey mapping data supplemented with documentary evidence and the ongoing addition of new information. HERs are designed primarily for planning, development and land management purposes, but are also used in education, research and public outreach.

In England, HERs are maintained in 84 separate local authority offices (Heritage Gateway 2006). Each HER office represents a discrete area, usually a county or former county (e.g. Somerset) and occasionally a National Park area (e.g. North York Moors) or metropolitan area (e.g. Greater London). In Scotland, 16 local offices maintain the Scottish HERs, while in Wales four local authorities are responsible for the records.

Although the provision of online access is growing rapidly, as of late 2007 when the pilot study was undertaken, only 22 of the English HER databases and seven of the Scottish datasets were available on-line.[1] In Wales, the HERs of all four local authorities can be accessed on a single database called Archwilio (www.archwilio.org.uk/).

2.4.1.3 Data Source Pilot Study

In order to determine which set of records would be most useful for this project, a pilot study was carried out in advance of data collection. Site information for two regions (Somerset in England and the Highland region in Scotland) was collected from

[1] By early 2011, the number of online HER databases in England had grown to 46.

both the national and the local authority databases and then compared to determine whether the results differed substantially from one another, and whether either of the sources was superior in terms of accessibility and comprehensiveness of data.

The Highland region of Scotland includes the old counties of Inverness, Caithness, Ross-shire, Nairn, Skye and Sutherland. The national records for this region were accessed on Canmore while the local HERs were searched on the Highland Council Archaeology Unit's website called Am Baile. For Somerset, the national records were accessed on PastScape and the local records were found on the Somerset County council online HER database.

Although both the national and local databases were well organised and relatively easy to use, correlation of the data between them in each region was difficult and time-consuming, mainly due to variations in naming conventions. In Highland, Canmore and Am Baile occasionally used different names for the same site, while in Somerset, the HER identified sites by name, but PastScape sometimes used only a numeric 'Monument Number'. The sites were eventually matched using the Ordinance Survey grid references or the NMR number,[2] but the process was somewhat laborious.

There were also variations in typological classification between the national and local records. For example, the site of Loch Dubh is classified by *Am Baile* as a chambered cairn and by *Canmore* as a burnt mound. *Am Baile* also tended to classify some site types in broader categories, so that the required site types for this project were more difficult to isolate. Clyde cairns were classified simply as 'cairns' on the *Am Baile* system, which placed them in a category containing 2300 other sites. It is not that *Am Baile* is classifying the sites incorrectly – only that the classifications are more general and therefore it is difficult to isolate specific site types.[3]

As noted above, the paramount considerations in deciding which data sources to use for this project were the comprehensiveness of the data and the accessibility of the

[2] The National Monuments Record number is a unique identifying number assigned to each archaeological site.
[3] The search functions have been improved since the pilot study was carried out in 2007 and more specific site categories are now readily identifiable on *Am Baile.*

databases. In both the Highland region and Somerset, the national monument databases almost always contained more extensive site information and excavation data and more complete bibliographic references than the local records. The national databases are also accessible online, whereas the majority of the local HERs are not. It is not feasible in a project of this nature to undertake visits to dozens of offices around the country, and since the national databases contain all of the necessary information it was decided to rely on *Pastscape, Canmore and Coflein* for site identification.

2.4.2 Published Excavation Reports and Related Literature

The necessary sources of information for this project are, of course, the descriptions, drawings and interpretations of the buried land surfaces beneath the monuments, most often contained in excavation reports and related publications. There is, however, significant variability in the quality, thoroughness and accessibility of the literature depending largely (but not exclusively) on the date of excavation. Techniques and methods of archaeological excavation, analysis and recording have changed significantly over the last two centuries, so it is not surprising that the information on the buried land surfaces varies considerably in both quality and quantity.

It is worth pointing out however, that for the purposes of this project, the term 'excavation report' was taken to include any type of report, and these range from a single paragraph in an antiquarian publication to an entire book devoted to a single site. A small number of reports are unpublished and held in museums or libraries, but the majority are published and accessible in academic libraries.

2.4.2.1 Antiquarian and Early Archaeological Reports

Antiquarian and early archaeological reports account for a large share of the published literature consulted for this project – nearly 50 percent of the excavations took place prior to 1900, and a further 23 percent were excavated between 1900 and 1949 (Fig. 2.2).

Although antiquarian excavations and written reports are not generally rated very highly, for the purposes of this study many such reports provided at least a measure of useful information. There were a total of 347 pre-1900 excavations, and of those, 166 reports contained some information on the buried ground surfaces. There were no published reports for 42 of the sites and the remaining 139 were published, but did not provide any information on the buried surfaces.

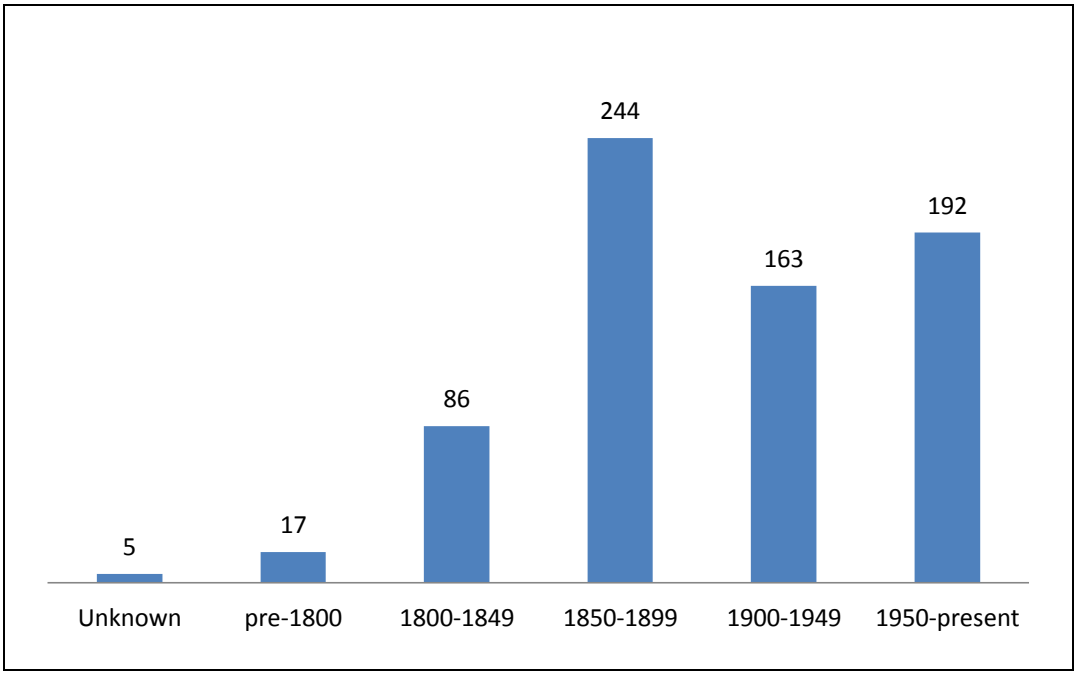

Fig. 2.2 Excavations by time period of Neolithic chambered cairns and barrows in Britain[4]

Often, early 'excavations' amounted to nothing more than a rough trench being driven through the mound in search of burial chambers, human remains and curiosities. Many antiquarians recorded their investigations poorly or not at all. There are some notable exceptions, however, and fortunately they include those antiquarians who excavated most frequently, including Sir Richard Colt Hoare, William Cunnington, William Greenwell, and John Mortimer.

Sir Richard Colt Hoare and William Cunnington excavated hundreds of sites in the early 19th century and those investigations are recorded in the two-volume *Ancient History of Wiltshire* (1812). Their work will be discussed in more detail in Chapter 4.

[4] The total number of excavations (707) in this chart is higher than the total number of sites in this study (582) because some of the sites have been excavated more than once.

William Greenwell opened 295 Neolithic and Bronze Age barrows in the last half of the 19th century, and published his work in the 750-page *British Barrows* (1877). This extensive work is somewhat ponderous and contains no maps, plans or sections – indeed, Barry Marsden (1999:132) reports that it has been described as 'the dullest book ever written'!

John R. Mortimer, who investigated hundreds of tombs in Yorkshire in the last half of the 19th century, was capable of writing detailed site reports (although he did not always do so) and published *Forty Years' Researches in British and Saxon Burial Mounds of East Yorkshire* describing and illustrating his excavations (Fig. 2.3) (Mortimer 1905). Mortimer was responsible for the excavation of 26 sites in this project, and, in all but two cases, he provided sufficient information on the buried land surface to enable at least a minimal analysis. Mortimer's work was not entirely above reproach – inconsistencies in his text and a 'blurring' of archaeological facts were noted by Ian Kinnes in his review of Mortimer's Duggleby Howe excavation (Kinnes *et al.* 1983:107).

In general, however, the excavation and reporting standards of the 19th and early 20th centuries were not particularly high – measurements were often not taken or recorded, no detailed field notes were kept, and many reports were compiled after the fact from memory or a few cursory notes. Site plans and drawings were the exception rather than the rule, and photographs were, of course, rare. This is not to say that all antiquarian reports are worthless, but only that caution must be exercised in relying too heavily upon the details contained within them.

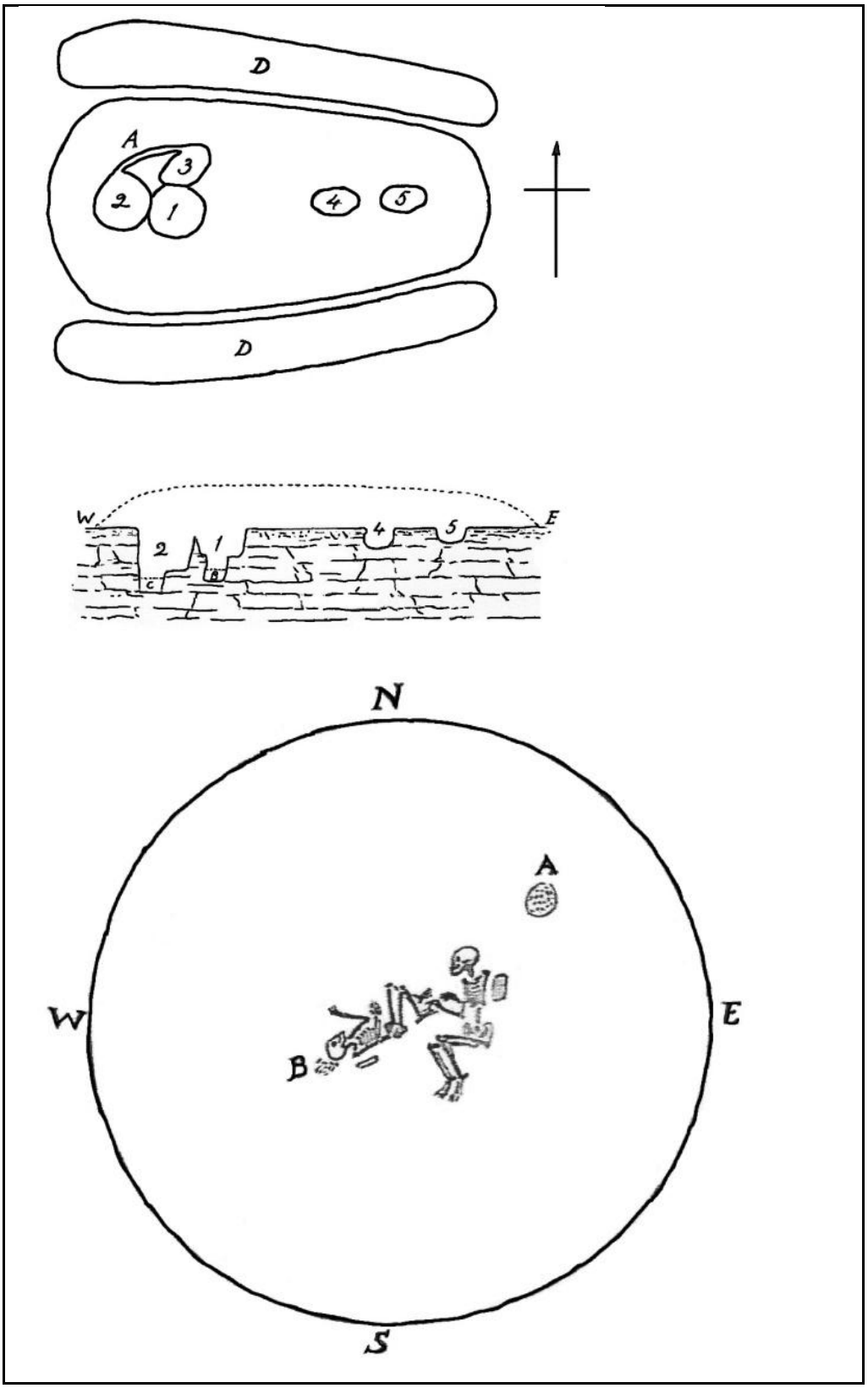

Fig. 2.3 Plan and section of Helperthorpe (top) and plan of Aldro 175 (bottom) both after Mortimer (1905).

2.4.2.2 Post-1950 Excavation Reports

While more recent excavation reports are often detailed and extremely thorough (e.g. Richards 2005; Benson & Whittle 2006; Evans & Hodder 2006), this is not universal. Sixteen chambered cairns or long barrows excavated after 1950 remain entirely unpublished, while another 15 modern excavations have only been published in short interim reports. On the whole, however, modern excavations are well-reported and the publications are accessible, comprehensive and useful and have made a significant contribution to this research project.

2.4.2.3 Site Gazetteers & Regional Inventories

Site gazetteers and regional inventories are available for many (but not all) regions of Britain. These were consulted as an auxiliary source of information, both to ensure that all appropriate sites had been identified, and that all available information sources had been reviewed. Although many were published some decades ago, most remain useful, and in some cases, indispensable resources. Audrey Henshall's comprehensive catalogues of Scottish chambered tombs (and subsequent updated regional editions), for example, provided an essential resource in the identification and recording of the Scottish sites included in this study (Henshall 1963; 1972; Davidson & Henshall 1989; 1991; Henshall & Ritchie 1995; 2001). Leslie Grinsell's numerous catalogues of barrows in many English counties were considerably less detailed, and tended to focus more on Bronze Age barrows, but were nonetheless helpful in providing site identification and excavation information (e.g. Grinsell 1932; 1959; 1987; 1993).

2.4.2.4 Grey Literature

The archaeological 'grey literature' (the unpublished reports of contract archaeologists and volunteer groups) has grown by leaps and bounds in recent decades. An online index called *OASIS* (http://www.oasis.ac.uk/) has been developed to record this literature and many of the reports are now available online on the Archaeology Data Service website (http://ads.ahds.ac.uk/catalogue/library/greylit/).

As standing monuments are rarely threatened by development, there are few modern developer-funded excavations of barrows or chambered cairns. *OASIS* and the ADS website were consulted when searching for information on unpublished sites, but in general the grey literature was not widely consulted for this project.

2.5 Data Quality

In this section, consideration will be given to factors that impact on the quality of the data used on this study, and on the survival, recognition, and reporting of pre-mound features on buried land surfaces.

2.5.1 The Fallibility (and Inherent Value) of Archaeological Literature

All of the information on buried land surfaces used in this study has been taken directly from written excavation reports and related literature, and is therefore subject to the deficiencies of all written work. The drawbacks of antiquarian reports were discussed above, but modern reports are not immune to errors and omissions. The limitations of language, publishing restrictions, unintentional omissions of data, and even misprints can negatively impact on the quality of information being conveyed. In archaeology particularly, the task of accurately transferring the visual and tactile experiences of excavation into one-dimensional written form will inevitably result in the loss of some information and detail.

Having said that, the written records of excavation are often all that remain of archaeological sites, and we must, therefore, work within their inherent limitations. Indeed, the body of archaeological literature stands as an invaluable and permanent resource that can be drawn upon again and again, as new scientific methods are developed, new theoretical perspectives developed and new ideas investigated. The destructive process of archaeological excavation is mitigated somewhat by a well-

written excavation report that can stand as proxy for the original site, providing a resource for future research.

2.5.2 Pre-Excavation Disturbance and Damage

Few Neolithic monuments in Britain have escaped some form of pre-excavation disturbance or damage. Whether caused by the inquisitive spades of curious locals, the acquisitive attentions of tomb robbers, or the ubiquitous plough, barrows have been damaged and denuded and cairns flattened and reduced across the country. This damage can in some cases leave the buried Neolithic ground surfaces open to contamination.

Chambers are particularly susceptible to disturbance and damage, as they were often the targets of tomb robbers who would gain access to the chambers either by removing the capstone or entering through passages or other openings. The old ground surfaces in these chambers are thus no longer protected and are open to damage, alteration and interference.

Although pre-excavation damage cannot be overlooked in terms of its potential impact on buried features or deposits, there are several mitigating factors to consider. In many cases only parts of the cairn are damaged, leaving other areas relatively unscathed. Often the basal layer of cairn stones will survive stone robbing events, thus continuing to protect the ground below. Chambers sometimes contain pavements or layers of imported sand or gravel, which seal the underlying ground surface, and this is often intact even where access to chambers has occurred. Some chambers were infilled with stones and earth as part of the final blocking of the tomb, and this material protects the ground surfaces as well.

2.6 Data Collection

The data collection phase began with a search of each of the online NMR databases described above: *PastScape*, *Canmore*, and *Coflein*. As it is not possible to restrict any of the NMR database searches to only those sites that have been excavated, each of the databases were searched, county by county, for each site type, and then individual site records in the resulting datasets were reviewed to determine whether or not the site had been excavated. During this phase of the project, Neolithic monuments of all types were included and upon completion of the database searches, basic site data for approximately 1,000 excavated sites had been compiled. This large number of sites was likely to be unwieldy for a project of this kind, so the scope of analysis was limited to chambered cairns, long barrows and round barrows. These site types were chosen because they generally include covering mounds or cairns which would have sealed and protected the Neolithic ground surface and preserved any underlying features. There are relatively large numbers of these monuments types and they have a wide geographic range which allows regional comparisons to be drawn.

The selection of sites was not limited to modern excavations. As noted above, many early excavations were reported poorly or not at all, but there were enough exceptions to this rule to make the exercise worthwhile. Sir Richard Colt Hoare, for example, occasionally included reports of sub-mound features and deposits in his accounts of the excavations of long barrows in southwest England (Colt Hoare 1812). At both Heytesbury and Warminster 6 in Wiltshire, he identified a central pit beneath the earthen mounds, and at Winterbourne Stoke 53, he reported two pits filled with wood ash found beneath the east end of the mound (Colt Hoare 1812: 66, 71-2, 117). The limitations of these early reports were discussed above, but despite their drawbacks it is often possible to extract useful information from them.

After the suitable sites had been identified from the NMR databases, site gazetteers and inventories were consulted to ensure that no excavated sites had been omitted. (While it was not considered essential to the research outcomes of this project to include all excavated sites in the country, every effort was nonetheless made to ensure that the Site Database was as comprehensive as possible.)

Excavation reports and related literature for each site were identified from the NMR records and the published gazetteers, and each site was also searched on the British and Irish Archaeological Bibliography (http://www.biab.ac.uk/) to identify all relevant publications. The excavation reports and related literature for each site were then located and consulted for information on the buried ground surfaces. The relevant data was entered in the Site Database (see below) for review and analysis.

2.7 Project Database

A Site Database was constructed in Microsoft Access 2007, and all relevant data contained in the NMRs, the excavation reports and the related literature was entered (Fig 2.4). The database was designed to capture as much of the information on the buried land surface as possible, in order to permit a wide-ranging analysis, and ensure that, as the project developed, analysis and interpretation were not limited by narrow data collection. (As it happened, some of the fields were not used in the analysis, but they were nonetheless retained in the database).

The Site Database contains basic site, excavation and publication information for all excavated chambered cairns, long barrows and Neolithic round barrows in Britain and is therefore a valuable tool for future research. This information is not collated anywhere else, and it is hoped that the availability of this Site Database will provide a useful resource for future researchers.

2.7.1 Summary of Database Fields

A detailed description of each database field is provided in Appendix A. The database sections can be summarised as follows:

a) Site Identification & Location

In these fields, information to identify and locate the site geographically is recorded, including site name(s), county, parish, NMR number, and the Ordnance Survey grid reference.

b) Site Description

These fields record basic descriptive and typological information including the site type, alternate site type, dimensions, orientation, elevation, and previous disturbance.

c) Excavation and Publication

These fields record the details of site excavation, including excavation date, publication(s), extent of excavation, quality of available information on buried land surface, and the availability of post-excavation analyses such as pollen analysis, soil analysis, and radiocarbon dates.

d) Ground Surface Features

These fields record information on the types of features found on the buried land surface including pits, postholes, stakeholes, hearths, and timber structures.

e) Ground Surface Treatment

In this section, various treatments of the buried ground surface are recorded, including the use of fire, evidence for cultivation, dark soil deposits, and turf clearance.

f) Human Remains and Finds

Information on the types of finds found on the buried ground surface are recorded here, including inhumations, cremations, fragmentary human remains, plant remains, animal remains, pottery, flaked stone, polished stone, quartz, marine shell, charcoal and dark soil.

Site Identification and Location

Site Name	**Nutbane**
Alt. Name	**none**
County	**Hampshire**
District	**Test Valley**
Parish	**Penton Grafton**
Island-Region	**none**
Study Region	**SW England**
Grid Ref	**SU 3310 4952**
NMR #	**SU 34 NW 6**

Site Description

Site Type	**long barrow**
Site Sub Type	**earthen long barrow**
Alt. Site Type	**none**
Orientation	**ENE-WSW**
Width (M)	**26**
Length (M)	**60**
Diam (M)	**n/a**
Elevation (M)	**110**
Disturbance/Re-use	**yes**
Status	**1**

Landscape setting:

on the contour of a gentle slope above a small dry valley

Excavation and Publication

Excav.#	Excav. Date	Excavation Report	Excav. Extent	Site Report	Info on BLS
1 of 1	1957	Morgan 1959	Extensive	published	**adequate**

Reference 1: Morgan, F. d. M. 1959 The excavation of a long barrow at Nutbane, Hampshire. Proceedings of the Prehistoric Society, 25, 15-51

Reference 2: Vatcher, F. d. M. 1959 The Radio-Carbon Dating of the Nutbane Long Barrow. Antiquity, 33, 289

Reference 3: Morgan, F. d. M. & Ashbee, P. 1958 The excavation of two long barrows in Wessex. Antiquity, 32, 104-11

ference 4: RCHME 1979 Long Barrows in Hampshire and the Isle of Wight, London, HMSO

Gazetteer Numb SU 56 — Gazetteer Reference: Kinnes, I. 1992 Non-Megalithic Long Barrows and Allied Structures in the British Neolithic, London, British Museum

Post-Excavation Analysis

Soil Analysis	**yes**
Radiocarbon dates	**yes**
Environmental Analysis	**no**

Geology: **Upper Chalk**

Ground Surface Treatment

Fire	**yes**	Location	**forecourt**
Turf clearance	**no**	Location	**x**
Cultivation evidence	**no**	Location	**x**
Pavement/ Floor 1	**no**	Location	**x**
Pavement / Floor 2	**no**	Location	**x**
Dark soil	**no**	Location	**x**

Ground Surface Features

Postholes	40+	Location	**forecourt**
Stakeholes	0	Location	**x**
Pits	1	Location	**forecourt**
Hearths	1	Location	**forecourt**
Timber Structure	**mortuary enclosures (2)**	Location	**forecourt**
Other Features	**hearth pre-barrow; timber post ? (se**	Location	**forecourt**

Pre-monument Evidence: **pit; fire; hearth; mortuary enclosure;**

Human Remans and Finds

Inhumations	4	Plant Remains	no	Quartz	no
Cremations	0	Animal Remains	yes	Marine shell,/sand,etc	no
HR -burnt - fragmentary	no	Pottery	yes	Charcoal/ash	yes
HR -unburnt -fragmentary	no	Flaked Stone	no	Other finds	**antler pick fragments**
		Polished Stone	no		

Notes

Morgan p 20: 'The Neolithic ground surface under the mound was a clearly marked layer of dark-brown densely textured soil... Beneath this surface were several pre-Neolithic tree holes filled with red clay. The structures at the E end of the barrow consisted of the foundation trenches of a forecourt enclosure 40 x 20 feet, in front and to the E of a mort. encl. of post & log construction, 20 x 18 feet, containing 4 crouched burials. P 24 'Under [the 3 original burials] was a layer of decayed wood....All the skeletons were covered by a thick layer of soil...Fragments of a Windmill Hill bowl and cup were lying on the old ground surface." P 24 [The Forecourt Encl.] 'As soon as the modern plough layer was removed from the forecourt large patches of blue and red burnt chalk were revealed. There were patches of charcoal on the surface, and one hole, which was 10 inches in diameter, filled with powdered chalk and easily probed to 6 feet. P 25 "There was a great deal of charcoal in the central [post] hole.... Over the central area of the forecourt... was a scatter of charcoal to a depth of several inches on the old ground surface. P 29 "On the buried surface S of the mort. encl. was a small hearth, likely of pre-barrow date, contained fragments of hazel charcoal.....The structures at the E end were built or altered in 5 separate phases [sequence described p. 29].

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Inhumations	4	Plant Remains	no	Quartz	no
Cremations	0	Animal Remains	yes	Marine shell,/sand,etc	no
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HR - unburnt - fragmentary	no	Flaked Stone	no	Other finds	antler pick fragments
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Pit and Grave Description and Contents

Pit #	Lengt	Width	Depth	Diam	HR -UB	HR- B	Crem	Inhum	Plant	Animal	Stone	Pottery	Charcoal	Rubble	Empty	Details	Location
1	x	x	1.8	0.25	no	no	0	0	no	no	no	no	no	no	yes	filled with powdered chalk	forecourt

Worked Stone

Animal Bone

#	Animal Species
1	cow
2	sheep / goat
3	pig
4	red deer
5	roe deer

Pottery

#	Pottery Type
1	Windmill Hill

Radiocarbon Dates

#	Lab Ref #	C14 Det. (BP)	Sample Type	Sample Context
1	BM-49	4680 ± 150	burnt wood	2nd forecourt building

Fig. 2.4 Sample data entry form

2.8 Data Analysis

The data analysis phase consisted of a systematic examination and analysis of all the information on pre-monument land surfaces recorded in the Site Database. The aim of the data analysis was to identify general trends and patterns in the data for each of the study areas as well as for the country as a whole. This was achieved through the use of the Query function in the Microsoft Access 2007 database, which allows the user to collate data, apply filters based on specific attributes and to calculate summaries and totals of selected data fields. In some cases, the Queries were exported to Microsoft Excel 2007 in order to create tables and other visual data representations.

2.8.1 National Analysis

A total of 582 chambered cairns, long barrows and round barrows were identified for inclusion in this study. A complete list of all sites by region is provided in Appendix B.

The analysis includes assessments of the general nature of the buried land surfaces, the types of features found on or in these surfaces, the frequency with which pre-mound features such as pits and hearths are found and whether broad geographic patterns can be identified in the record. A key element of this research is the evaluation of excavation records from the present day back to the 19th century. Sub-monument features have been only patchily recorded and it has been crucial to devise a methodology which can accommodate partial, imprecise or ambiguous data.

2.8.2 Regional Case Studies

Two regional case studies complement this broad-brush national analysis by investigating the buried land surface evidence in more depth. In each region, the evidence from the buried ground surfaces was placed within the broader regional archaeological sequence. The smaller dataset permits an in-depth contextual analysis

of the ways in which the evidence from the buried land surfaces might contribute to current archaeological debate on such themes as landscape, place and memory.

The first case study area is the West Country region of England, comprising the modern counties of Dorset, Somerset and Wiltshire (Fig. 2.5). The second study area is southwest Scotland, including the modern counties of Argyll and Bute, North Ayrshire, East Ayrshire, South Ayrshire, Inverclyde and Dumfries and Galloway (Fig. 2.5).[5] It hardly needs to be said that the modern political boundaries referenced here had no relevance in prehistory – they are used as a geographical convenience and are not intended to reflect a Neolithic reality.

Fig. 2.5 Map of case study regions

The selection of the case study regions was ultimately determined largely by the number of excavated sites in each area, and the frequency with which buried features or deposits were reported (see Fig. 6.2). Both case study areas are relatively large because, as noted above, the reported incidence of features and deposits on sub-

[5] The southwest Scotland case study region corresponds with the southwest Scotland region used in the national analysis (Chapter 6), while the West Country case study region comprises a portion of the southwest England region used in the national analysis.

mound surfaces is not high, therefore the regions had to be large enough to provide sufficient data for a meaningful analysis. In the West Country region, 106 sites were identified, and 52 of those sites had some evidence for buried features or deposits. In southwest Scotland, 65 sites were identified, of which 35 sites had some information on the ground surfaces. The high ratio of reported sub-mound features in the Northern England region suggests that it may also have been a suitable area for a case study, however many of the buried features in this region are related to funerary activity likely contemporary with the monument itself, so the region was not selected for in-depth study.

2.9 Radiocarbon Dates

In order to maintain consistency, all radiocarbon dates mentioned in the text have been calibrated by the author using OxCal v 4.1 (Bronk Ramsey 2009) and the INTCAL09 calibration curve created by Reimer *et al.* (2009). All ranges cited in the text are those for 95% HPD (highest posterior density) unless otherwise specified.

3. Landscape Archaeology: A Review

3.1 Introduction

The monuments of Neolithic Britain, sculpted over centuries by wind and rain, have long invited wonder and curiosity, superstition and myth. In the early years of archaeological (and antiquarian) inquiry, a great deal of energy was expended on excavating monuments and on describing, drawing, analyzing and classifying the structures and their contents. Thousands of careful measurements of capstones and orthostats were recorded and published, and inventories of flint and pottery finds were compiled and used as the basis for typologies to help order and understand the sequence over time. This work resulted in the collection and recording of much useful information and provided a solid foundation upon which future archaeologists could build. However, pottery typologies and monument morphologies could not reveal a great deal about daily life in the Neolithic. They couldn't tell us, for example, what a monument meant to its builders, how the monuments tied in with other parts of the Neolithic world, and what, if any, significance was attached to the land upon which they were built.

By the 1970s, a new type of archaeology was emerging – one that moved away from the culture historical approach to an archaeology that sought to explain and understand the past, rather than simply describe it. It was in this theoretical climate that the first explicitly 'landscape' approach to Neolithic studies emerged.

Mick Aston and Trevor Rowley (1974) are generally credited with coining the phrase 'landscape archaeology' with the publication of their book of that name (Fleming 2006:267; Darvill 2008). Prior to the 1970's, the term 'landscape' was generally synonymous with 'environment' – a static physical background against which human actions were carried out or a determinant of human activity, both enabling and constraining human actions. As the landscape approach evolved during the post-processual climate of the 1980s and 1990s, the focus of archaeological research shifted

from the description of individual monuments and sites to a full examination of the wider physical and cultural context in which they were constructed. In Neolithic studies, monumental landscapes began to be emphasised over monumental morphologies and the impetus for monument construction was sought in ideological and symbolic terms, rather than only in economic terms. Archaeologists began to view the Neolithic landscape not as a passive backdrop to human activity, but as a lived environment, one that was imbued with significance through embedded experiences and collective memory.

3.2 Defining Landscape

The concept of landscape as a socially constructed entity is one that has engaged the disciplines of geography, anthropology and history, as well as archaeology. In an essay published in 1925, Carl Sauer, an American geographer, was the first to propose the idea of a 'cultural landscape' – one created by human actions and distinct from the physical landscape. In describing his concept of the cultural landscape, Sauer writes: 'The cultural landscape is fashioned out of a natural landscape by a culture group. Culture is the agent, the natural area is the medium, the cultural landscape the result' (Sauer 1925:46). Sauer's 'cultural landscape' referred primarily to built structures and other human alterations to the land. From this early beginning, however, the study of cultural landscapes evolved to recognise and incorporate the social and symbolic dimensions that characterise cultural landscapes everywhere.

Despite Gosden and Head's assertion that the concept of landscape 'defies definition' (1994:113), many attempts have been made to classify and define this 'usefully ambiguous' term. Julian Thomas, for example, emphasises the importance of connections between people, things and places and suggests that 'a landscape is a network of related places' (2001:173). Thomas argues that the meanings people ascribe to landscape are not random, but are the direct result of their relationships with things and places. These relationships are forged by the engagement of

individuals with their surroundings and therefore 'the same landscape might be experienced and understood differently by different people' (*ibid*).

The anthropologist Howard Morphy writes of the Australian Aborigine perspective on their land, and describes their landscape as a 'sign system for mythological events' (1995:186). This definition accords very well with his extensive body of work on the Aborigine Dreamtime, a mythical time when ancestral beings populated the earth and gave meaning and significance to every feature of the landscape. These ideas will be discussed further below.

Chris Tilley's definition highlights the relational and encompassing nature of landscape:

> A landscape is a series of named locales, a set of relational places linked by paths, movements and narratives…. It is cultural code for living, an anonymous 'text' to be read and interpreted, a writing pad for inscription, a scape of and for human praxis, a mode of dwelling and a mode of experience. It is invested with powers, capable of being organized and choreographed in relation to sectional interests, and is always sedimented with human significances. It is story and telling, temporality and remembrance. (Tilley 1994:34)

What these definitions have in common is the notion that landscapes are socially constructed entities which are created and maintained through cultural engagement with the land. Landscapes are the location of mythical and historical activities of the present and the past; they are the repositories of cultural and individual memories and the venues for daily living and for ritual expression.

Landscape can also be described as a personal perspective on place. Landscapes are culturally defined, and topographical features are often named and associated with people, events or myth. In traditional societies, these associations are passed on through story-telling and oral histories, so that an intimate knowledge of a landscape becomes a kind of secret code, known only to those who are members of the group who occupy the land. An outsider will have no knowledge of the significance of specific trees or rivers, will not know the names and stories associated with the pathways and tracks that run through the land and will not comprehend the spiritual connection between local people and their landscape. The landscape may appear empty, untamed, or even frightening to the outsider, but to its inhabitants, it is filled

with meaning, with history and tradition, with rules, taboos and order, all of which are linked with memory.

For modern archaeologists, the spiritual, mythical or ancestral basis for the significance of landscape locales to Neolithic people is unknowable; however we can be sure that 'all societies in the past would have recognised, as do all societies in the present, some features of their landscapes (if not all the earth) as special' (Ucko 1994:xviii).

3.3 Approaches to Landscape

Landscape archaeology is more than a single method of archaeological inquiry – it has become the accepted and expected basis for the analysis of prehistoric sites in general. As Barrett wrote, 'landscape archaeology is not a sub-specialism of the discipline, nor is it a particular method....rather it is central to the archaeological programme as a whole because the history of human life is about ways of inhabiting the world' (1999:30). Archaeologists have developed a range of perspectives on landscapes however, and some of these are described here.

3.3.1 Natural and Cultural Landscapes

The conceptual dichotomy between 'natural' and 'cultural' features and landscapes is very much a modern cultural construct; prehistoric people almost certainly did not make the same distinction (Tilley 1996; Bradley 1998; Bradley 2000; Tilley *et al.* 2000; Cummings 2002b). In a wide-ranging survey, Richard Bradley (2000) demonstrates that certain natural places in the landscape – rivers, caves and mountains – were likely to have been considered as sacred placed by prehistoric people. By examining the evidence of human activity at natural places, including rock art, votive deposits and stone quarries, Bradley explores the possibilities for archaeological research in such 'unaltered places', and suggests that 'natural places have an archaeology because they acquired a significance in the minds of people in the past' (2000:35).

The recognition that natural places in the prehistoric world would have been imbued with spiritual significance allows for the possibility that such places may eventually have been commemorated with monuments. Vicky Cummings notes that Din Dryfol in north Wales, Cairnholy II in southwest Scotland and Carn Wnda in southwest Wales were all built on natural rocky outcrops and suggests that 'these distinctive natural places may already have had a place in local mythology' prior to the construction of the monuments (2003:35).

3.3.2 Ethnography and Landscape

Many researchers have turned to ethnographic accounts to gain insight into how landscapes and natural landscape features might have been perceived by past people. Mythology connected with such topographic features as rivers, mountains, islands and the sea is virtually universal across cultures, and is certain to have influenced the activities and decisions of prehistoric people. This approach is one way in which archaeologists have attempted to look beyond their own *habitus* to seek insight into the ways in which landscape might have been experienced and understood in the past. Ethnographic analogy is frequently drawn upon in archaeological analysis – the following examples will demonstrate the application of this approach to landscape studies.

Chris Tilley devotes a chapter in *A Phenomenology of Landscape* (1994) to an examination of the relationships between people living in small-scale societies and their landscapes. Examples from hunter-gatherer groups and subsistence cultivators in Papua New Guinea, Amazonia, central Africa, Australia, and North America demonstrate the intimate relationships between people and the land. These examples are widely separated in time and space; nonetheless they emphasise the 'symbolic, ancestral and temporal significance of the landscape' for both hunter-gatherers and subsistence-cultivators (Tilley 1994:67).

Alasdair Whittle (2004:86) references ethnographic data from the Lugbara people of East Africa in a discussion about the possible significance of outcrops, hills and

mountains in the placement of portal dolmens in the Welsh landscape. In Mary Ann Owoc's (2002) investigation of the use of colour in prehistoric funerary practices, she draws upon examples of colour significance among a number of traditional societies, including the Nuba people of central Sudan and the Baktaman people of New Guinea, to demonstrate the important role of colour symbolism in ritual activities.

The Dreamtime of the Australian Aborigines (Morphy 1995) is often called upon to demonstrate the inseparability of landscape and cultural memory. In the cosmology of the Aborigines, the physical earth itself is thought to have been brought into existence by the actions of ancestral beings and those actions are marked in the landscape by topographical features. The presence of the ancestral beings in the landscape is timeless – indeed, for some groups, such as the Yolngu of eastern Arnhem Land, the ancestors are believed to have *become* the places they visited (Morphy 1995). This embodied view of landscape is often cited by archaeologists working in British prehistory as an example of the way in which the British prehistoric landscape might have been viewed by its early inhabitants (Thomas 2001; Cummings & Whittle 2003).

Ethnographic analogies are useful tools to assist archaeologists to think about familiar things in new ways. An intimate relationship between people and their landscape has largely been lost in modern western societies (and is therefore also absent from the mindsets of modern archaeologists) and so the potential symbolic significance of landscape to prehistoric people can be overlooked in archaeological analyses. There are however some obvious drawbacks to relying too heavily upon ethnographies in interpreting prehistoric landscapes in northwest Europe. Australia in the 20th century AD is a long way from Wiltshire in the 4th millennium BC. There is no sound basis to support a direct extrapolation from a modern, but traditional, culture to another that is entirely unrelated in time and space. Human cultural development takes a unique trajectory in specific times and places, and there is no reason to assume that the experience, cosmology and belief systems of one culture will be shared by another.

One of the great benefits of the ethnographic approach however, regardless of how closely specific parallels can be drawn, is the clear demonstration from traditional and historical cultures worldwide that virtually all people have a deep and culturally

specific understanding of their landscape. The relationship with the land is passed down though time and generations and it links past, present, and future with the landscape and specific features within it. A greater understanding of the perspectives of people of traditional societies has helped to broaden the analytical framework of western archaeologists. Perceptions of landscape from a range of peoples separated in time and space can provide a conceptual framework within which we can think anew about possible landscape interpretations.

3.3.3 Phenomenological Approach

One of the goals of landscape archaeology is to develop methods to better understand and appreciate the significance of prehistoric landscapes. Perhaps the most influential example of such methods is Chris Tilley's (1994) innovative and controversial *A Phenomenology of Landscape,* (mentioned above) in which he advanced a phenomenological approach to examining prehistoric landscapes. Phenomenology involves 'the understanding and description of things as they are experienced by a subject', and in this approach, the researcher's bodily and sensory experience of the landscape is the primary medium of enquiry (Tilley 1994:12). A physical engagement with the landscape – moving around and experiencing it with the body and the senses – is necessary in order to achieve an understanding of the material world. Tilley argues that, while we cannot know the specific significance attached to topographic features by prehistoric people, our physical experience of landscapes today would not be dissimilar to theirs, and such experiences provide 'tools with which to think and to work' (Tilley 1994:74).

Using three cases studies, Tilley takes his readers on a journey through the monumental landscapes of Wales and southern England. He describes in words and photographs his encounters with Mesolithic sites and Neolithic monuments and the ways in which the sites are ordered in the landscape. He also reflects on the views from various monuments and on the visibility and proximity of significant landscape features such as mountains and rocky outcrops. These experiences lead him to

conclude that Neolithic monuments were deliberately placed to reference and draw attention to meaningful landscape features and markers.

Tilley's work has provoked considerable interest, controversy and debate within the archaeological community. On the one hand, it has stimulated new research into Neolithic landscapes in other regions (Bender *et al.* 1997; Cummings 2001; Watson 2001; Cummings 2002c; Cummings & Whittle 2004). On the other, it has drawn considerable criticism, which will be discussed in more detail below.

Vicky Cummings examined the landscape locations of Neolithic monuments in Wales and southwest Scotland from a phenomenological perspective, and concluded that 'their setting in the landscape was of crucial importance to their meaning within Neolithic society' (Cummings 2004:29). In particular, views of mountains or the sea were important factors in the landscape placement of monuments, as were more local topographic features such as rocky outcrops. These conclusions were reached through a visual inspection of the monuments and the same experiential approach used by Tilley. Cummings also argues that similar landscape locations are shared by monuments of similar type. For example, in Dumfries and Galloway and south Ayrshire, Clyde tombs are placed at lower elevations on fertile land with views of mountains and the sea, while Bargrennan tombs are located at higher elevations on marginal land and without views of the sea (Cummings 2009a). These observations are useful and provide an important perspective on the potential significance of landscape features and settings in the placement of chambered tombs. However, like Tilley's work, some of Cummings' conclusions have garnered considerable criticism.

3.3.3.1 A Critique of the Phenomenological Approach

As noted above, the phenomenological approach to landscape archaeology is not without its critics. Prominent among them is Andrew Fleming, who has published detailed critiques of the methods and conclusions reached by Tilley, Cummings and Alasdair Whittle (Fleming 1999; 2005; 2006).

Fleming (1999:124) argues that a range of plausible alternative hypotheses exist for the placement of monuments in the landscape, and these must be considered before concluding that specific orientations or viewsheds were the impetus for monument construction. For example, monuments may have been centrally located in relation to settlement areas or territories, or they might have been positioned to overlook a routeway. Alternatively, tombs may have been located as far as possible from settlement sites out of fear of the potentially malevolent power of the ancestors buried inside. There is also the very real possibility that factors invisible to us today were significant factors in monument placement. For example, natural features that are no longer present, such as sacred trees, clearings or groves, may have been important, or 'in the worst case, from an archaeologist's perspective, a tomb might be in a particular place because some irrecoverable but significant event took place there, or was said to have done' (Fleming 1999:124). This is an important point for this study, as it is investigating whether there is evidence to suggest that monument locations were chosen on the basis of earlier activity, rather than on the presence of particular landscape features. The two are not mutually exclusive, of course – it is entirely possible that pre-monument activity occurred near significant topographic features, or on coastlines, and thus the later monument marks both the landscape features and the earlier activity.

Joanna Brück (2005) has also taken issue with some aspects of the phenomenological approach, arguing that the suggested relationships between particular elements in the landscape are not adequately supported, and that the individual sensory experiences of the researcher are not always replicable. She also questions the usefulness of subjective and highly personal accounts, suggesting that a description of 'our own embodied encounters with landscapes, monuments and objects tells us more about contemporary perceptions and preoccupations than it does about the past' (Brück 2005:57).

In a recent publication, John Barrett and Ilhong Ko (2009) offer a critical review of the application of a phenomenological approach to landscape study. They note that one of the basic assumptions of the phenomenological approach (as it is practiced by Tilley

and Cummings) is that the locations for monument construction were chosen on the basis of landscape perspective and viewsheds, as opposed to a myriad of other possible reasons. As Barrett and Ko (2009:283) succinctly ask: 'How does anyone know?' The simple fact that a particular view or orientation exists is not evidence that the original builders recognised it or thought it significant (Brück 2005).

The phenomenological approach has generally been employed in coastal or highland areas where views of mountains, hilltops, rugged coastlines, and sweeping sea vistas are almost unavoidable. Less work has been done is inland and lowland areas where there are few mountains, seascapes or rocky outcrops on which monuments might be oriented. It is not clear how much this approach could reveal about monument placement in a more featureless landscape.

The various critiques of the phenomenological approach to landscape are valid, and there is no doubt that its contribution to Neolithic research must be assessed in light of those considerations. Nonetheless, the application of this method has injected new life into the study of Neolithic landscapes and encouraged a more experiential approach to the study of monuments, settlements and other types of sites. Researchers began to notice that many Neolithic monuments are indeed set in visually arresting locations or close to distinctive landscape features, and that when visiting and experiencing the monuments, one does get the impression that the landscape setting was important to those who chose the site for the monument. Tilley's pioneering approach (referred to as 'daring' by Stoddart and Zubrow (1999:687)) has reminded researchers to take into account a range of factors that might have been meaningful to Neolithic people and to look at landscape features and topography in new ways.

This rather lengthy review of the phenomenological approach reflects its profound impact on Neolithic studies in Britain, and on the theoretical perspective of this writer. It has raised our awareness of the significance of the lived landscape and helped us to consider how the people of the Neolithic might have viewed and experienced their world. It has helped us to think differently about the past and that is a worthy contribution.

3.4 The Notion of 'Place'

One of the key concepts to come out of landscape studies in archaeology and other disciplines such as geography and anthropology is the notion of 'place'. A sense of place develops through an engagement with, and attachment to, the landscape, and through experiences and events that become inscribed upon the land, giving it lasting significance. Geographer Yi-Fu Tuan wrote an influential work on the subject of place in which he distinguishes between space and place, and links the concept of place with human experience and movement (Tuan 1977). Thus space, which is uninscribed, unfettered and free-flowing, becomes place through the medium of actions and experience.

Maintaining a sense of place within a community and over time relies on the preservation of memories of the social history of the landscape. As Ruth Van Dyke points out:

> Places, meanings and memories are intertwined to create a "sense of place" that rests on, and reconstructs, a history of social engagement with the landscape and is thus inextricably bound up with remembrance and with time [Basso 1996, Field and Basso 1996]. Place might be defined as the intersection of memory and landscape. (Van Dyke 2008:278)

One of the ways in which social memories, and thus a sense of place, can be maintained is through their materialization in the form of built architecture. The monuments of the Neolithic likely represented and commemorated important social, personal, political or religious events or people, and their presence in the landscape would have created an important sense of place for the monument-building communities and their descendants.

The links between memory, landscape and the concept of 'place' are important for this study, because it examines the connections between communities and their landscapes over time, and seeks evidence for continuity in the use and significance of place.

3.5 Space and Time: Monuments and Memory in the Landscape

It follows therefore, that one of the most important aspects of landscape archaeology for this study is the link between landscape and memory and how such links might be recognisable in the archaeological record.

Landscapes are repositories of cultural history – events, actual and mythical, are inscribed onto its topography and the memory of those events cemented through the telling and re-telling of the stories associated with each feature and locale. While the stories are now lost to us, archaeologists have sought evidence for memory – for signs of the commemoration of the past in the past – in the archaeological traces remaining today.

Gosden & Lock (1998) suggest that in non-literate societies, the main way to recount history is by genealogy and the most important memory prompt is the landscape – the landscape *is* history. Trees, groves and hills are named and important stories repeated in order to maintain the memories of past events and mythology; the cultural landscape thus operates as a mnemonic device to assist in remembering. The association of events or spiritual beings or mythology with specific points in the landscape causes the memory to become fixed in space and it is maintained through repeated visits to significant sites and repeated telling of important stories.

Built architecture also provides a medium for remembering the past – a monument marking a burial in the landscape is itself a focus of history and a link to the ancestors and the spirit world. Megalithic monuments recorded personal histories and social memories and the enduring nature of monuments ensured access for future generations to the memories they represent – the memories were literally set in stone (Cummings 2003:38). Theorist John Ruskin applied similar ideas to more modern architecture in his 1849 essay, *The Seven Lamps of Architecture*. He characterised memory as the 'sixth lamp', and says of architecture: 'we may live without her, and worship without her, but we cannot remember without her' (Ruskin 1849:147).

Cornelius Holtorf has considered the role of monuments in the creation and maintenance of what he terms 'cultural memory' , defined as 'collective understandings of the past which are held by people in a given social and historical context' (Holtorf 1996:125). Holtorf suggests that the clue to understanding monumentality is memory (Holtorf 1997:46). He argues however, that the crucial function of monuments was not to preserve cultural memories for contemporary generations, although they did that very well. Rather, the enormous effort involved in constructing prehistoric monuments, as well as their size, visibility and durability, suggest that they were built to last through the ages – they were built to transmit cultural memories to a future audience. Holtorf (1996:121) suggests that a monument 'is an erected sign which encodes a message in a permanent way in order to communicate with people that are (possibly) millennia away'. He uses the term 'prospective memory' to describe the message the monuments are meant to preserve for the future.

Andrew Jones suggests that memory is embedded in monuments through the visible traces of repeated cycles of construction, use, and alteration:

> Monuments embody cycles of past events as they are built of components of previous monuments and altered over the course of their use and their eventual abandonment. ...Memory is embodied in the material *traces* of cycles of architectural alteration and repair. (Jones 2007:22; emphasis in original)

Megaliths are an eminently suitable method of embedding significant cultural events in the landscape in a permanent form. Indeed, structures resembling megaliths , such as war memorials and gravestones, are still erected today to commemorate and to remember the past and to transmit those memories to the future (Holtorf 1996:141).

3.6 Micro-Landscapes: Buried Land Surfaces Beneath Neolithic Mounds

The landscape studies referred to above, and indeed most Neolithic landscape studies tend to look at monuments and sites within the broader cultural and physical landscape. This study, however, looks at the landscape writ small – its focus is on the

land surfaces directly beneath the mounds and monuments of the Neolithic. These small fragments of landscape will be examined to discover what they can reveal about the broader landscape and about the re-use of place and the role of memory and commemoration in constructing monumental sites.

Social practices and human actions carried out prior to the construction of a monument often leave a mark on the landscape – a burnt-out hearth, a posthole or a pit, scatters of flint flakes and potsherds. Such relatively slight, ephemeral features tend to be less likely to survive and more difficult to locate than more substantial structures. However, once a monument has been constructed above these features, the buried landscape is protected and much more likely than an unprotected surface to retain the records of human activity.

Despite their potential to reveal important information about land use and social practices, Neolithic land surfaces in Britain have not received a great deal of attention to date. A number of writers have certainly recognised that Neolithic monuments are often constructed on sites that had already gained cultural significance (e.g.Henshall 1972; Bradley 1993; Barrett 1994) but there are only a very few examples of more thorough examinations of pre-monument evidence, and they will be reviewed here.

David Field (2006) provides a brief description of features such as pits and postholes found under several earthen long barrows, and Ann Woodward (2000:51) discusses the deposits of domestic material often found beneath Early Bronze Age barrows. Woodward suggests that the practice of depositing specially selected material such as flints, potsherds, and animal bones may have originated in the Neolithic, as similar material was used to fill and seal chambers at many chambered cairn sites.

Allen and Gardiner (2002) review a range of sites across Britain where evidence for a Mesolithic presence has been found on or near pre-monument ground surfaces. The most prominent of these is a pit cluster discovered during excavations at the Stonehenge car park (discussed further in Section 4.4.1). A total of five pits were discovered, each containing evidence that they had once contained a large timber post. Radiocarbon dates on pine charcoal found within the pits confirmed an Early

Mesolithic date, suggesting that these features were more than 4000 years older than the first construction at Stonehenge. Allen and Gardiner go on to discuss the presence of Mesolithic features and material at other Neolithic monumental sites in Britain. A Mesolithic pit was found at the Hambledon Hill causewayed enclosure in Dorset, and at least three were found at the Stanwell Cursus in Middlesex. Further afield, an Early Mesolithic flint assemblage was found at the Billown Neolithic enclosure site on the Isle of Man.

In these cases, the lengthy time periods separating the Mesolithic activity from the later monuments appear to preclude any possibility that the significance of place was maintained through social memory, and instead suggests that the shared landscape locations are the result of coincidence. Allen and Gardiner (2002:149), however, explore the idea that the initial clearance of the land during the Mesolithic may have instigated 'an irrevocable change' in the natural vegetation, thus creating a visible and permanent 'biological' marker that set the land apart from the surrounding area and encouraged its ongoing use. They also speculate that the memory of significant Mesolithic landscape locations may have persisted into the Neolithic – even though the reason for the original erection of the timber posts may have been long forgotten, the memory of the place persisted.

Josh Pollard (2005) examines the Upper Kennet Valley in Wiltshire, where evidence of prior activity was found beneath a number of Neolithic long barrows, including Beckhampton Road, Easton Down, Horslip, Knap Hill, Millbarrow, South Street, West Kennet, and Windmill Hill. Pollard argues that perceptions of the past were central in the Neolithic consciousness and played an important role in choosing appropriate locations for monument construction. Certain places in the Upper Kennet Valley seem to have acquired significance over repeated (although not necessarily continuous) use, ultimately becoming 'special' places with an established and meaningful history. Such places were then commemorated with the construction of a monument, but the addition of the monument did not by any means signify the final use of these significant locales. Pollard's analysis of various pottery types found at the long mounds and enclosures in the valley demonstrates that these sites were the focus of long

sequences of activity, continuing in some cases into the Beaker period and beyond. Thomas (1999:220) suggests that the persistent and repeated use of significant places is a central theme in this region, one that demonstrates 'the enduring significance of place'.

One of the great difficulties in assessing the evidence for pre-monument activity and the significance of monument locations is determining whether the placement of a monument on a previously-occupied land surface was *intentional*. Were the monument builders aware of the previous use of the land and if so, did that previous use hold significance for them? Did the physical evidence of prior use survive as visible traces on the land, or was the significance of place maintained solely through oral histories and social memory? Miles Russell (2002:54) tackles this question directly and concludes that 'there is no certainty that any pre-mound feature relates in any way to later activities enacted on the same site.' In fact, he suggests that buried postholes and pits 'may well represent a structure long abandoned (and forgotten) by the time the first stages of mound construction got underway' (Russell 2002:54). These are important observations and they need to be considered before reaching any conclusions on the intentionality of monument placement in the landscape. This issue will be dealt with at greater length in Chapter 6.

3.7 Neolithic Landscapes in the Present

This study focuses on the landscapes of Neolithic Britain and it is worth taking a moment to reflect on how different our perception of those landscapes might be from the perceptions of the people who lived and died in those early landscapes.

Simply put, the British landscape today is different than it was in prehistory, both in a physical and a cultural sense. While the features that Tilley (1994:73) refers to as the 'bones' of the landscape – mountains, valleys and ridges – have not significantly changed, the ground cover and vegetation almost certainly have, resulting in a much different landscape experience (Brück 2005; Tilley 2007). David Field (2001:57) notes

that the nature of the vegetation in a landscape determines to some extent how that landscape is perceived by its inhabitants and is 'crucial in the search for *place'*. Heavy forest cover, arid grasslands, and open pasture for example, will all create a very different experience of the land and of how that land is occupied, marked, remembered, and experienced. Modern vegetation cover is different from that in prehistory, and our experience of 'place' in the landscape is therefore fundamentally different from the prehistoric experience of the same landscape.

Additionally, over the millennia since the construction of monuments, a wide range of human activities have left their mark on the land and irreversibly altered the landscapes in which the monuments were built. The Gwernvale long barrow in Powys, for example, now sits just a few metres away from a busy motorway (Fig. 3.1). Agricultural practices, water drainage schemes, forestry projects, road works, gravel extraction, and the construction of Roman towns, medieval churches, and modern houses and estates have all permanently transformed the nature of the landscape. As Lane (2008:242) notes 'modern landscapes have their own historicity, which overlies and subsumes...the older landscapes'.

The alterations to the landscape noted above are primarily visual, but our experience of place is also impacted by other sensory inputs. There can be no doubt, for example, that the sounds in the landscape are different today than they were in the Neolithic – the background hum of an industrialised landscape is difficult to escape in modern Britain. So while it is true that some segments of the prehistoric landscape remain, we cannot separate those from the sights, sounds, and smells of the modern landscape and thus our experience of the land will reflect a different reality from that which existed in the Neolithic.

Aside from changes in the physical attributes of the landscape, the cultural imprint on the landscape is obviously much different today than it was in the Neolithic. As discussed above, landscape is a cultural construct and it is defined by memories, relationships and experiences that are inextricably linked to places and topographic features. Our experiences in the landscape are not therefore governed by our physical bodies alone, but by our knowledge of a place, by the stories we have been told about

it, and the experiences that we or others might have had in it. We view the world through a cultural lens, and 'therefore the act of perception is also an act of interpretation' (Brück 2005:56). Clearly, from this perspective, we cannot understand the landscape in the same way that Neolithic people understood it, and, with the best of intentions, the act of simply walking through a landscape cannot hope to authentically replicate the experiences of prehistoric people.

Fig. 3.1 The Gwernvale long barrow in Powys, Wales with the A40 running directly beside it.

Our encounters with Neolithic monuments in the present day will also be fundamentally different from those of prehistoric people because we cannot know the spiritual, symbolic or practical forces that led to their construction, the rules that governed their use, or the power of their symbolic meaning to the people connected with them. Furthermore, almost all of the Neolithic monuments surviving in the landscape today have been significantly eroded, damaged, or robbed and their appearance is drastically altered from the time of their initial use. What we see today are large, often visually arresting structures that clearly took considerable effort, skill and labour to construct, and so must have been of great importance to their builders. We surmise from the contents of the chambers that the monuments were likely used for funerary purposes, and the enigmatic nature of the artefacts and features found in the monuments often leads us to the conclusion that they were used for ceremonies or rituals. We can say no more about their meaning. Our encounters with monuments in the landscape are therefore considerably different than they would have been for those who encountered them in their original condition, and who were intimately acquainted with the mythological associations and symbolic meanings embodied in the monumental architecture.

3.8 Conclusion

This study draws upon and is informed by aspects of each of the above-described perspectives, but in particular, this work is approached with the idea that place was important in Neolithic Britain. Local landscapes were intimately known and imbued with memory and myth. Children learned from their parents the significance of the mountain that could be seen in the distance, and the danger that the river posed when it ran high in the spring. The places where significant events occurred were remembered, and perhaps named or marked. It was within these lived landscapes that monuments were constructed, used and ultimately abandoned. This thesis is investigating whether there is evidence to suggest that one aspect of local landscape knowledge – the memory of prior occupation or activity – may have been instrumental in deciding the location of later monuments.

In the next chapter, the first of two regional case studies will examine the Neolithic landscape of England's West Country, and examine the nature of the buried land surfaces beneath the monuments in that region.

4. Regional Case Study 1: England's West Country

4.1 Introduction

This chapter explores the buried Neolithic land surfaces of England's West Country, defined for these purposes as the administrative counties of Dorset, Somerset and Wiltshire (Fig. 4.1).[6] The region is rich in Neolithic archaeology and is home to some of the most spectacular monuments of the period – Avebury, Stonehenge, the Dorset Cursus, and Silbury Hill, to name but a few. It is also home to hundreds of the more 'typical' British Neolithic monuments, and intensive study of these long barrows, causewayed enclosures and henges has influenced, informed and perhaps biased Neolithic studies in Britain for the best part of the last century.

Fig. 4.1 Location of the West Country study area

The chapter begins with a brief historical overview of archaeological research in the area, followed by a discussion of the nature of the local Mesolithic and Neolithic. The evidence from the buried land surfaces beneath the long barrows in this region will then be presented and contextualised by reference to other, non-monument sites in the region. (The term 'non-monument' is used here in place of 'settlement' or 'occupation', as the enigmatic nature of many Neolithic sites makes classification difficult and sometimes misleading. Further, the use of the more generic term is a deliberate effort to avoid the functional classification of settlement as

[6] This case study region is part of the Southwest England region discussed in Chapter 6 and Appendix B. Due to the large size of the Southwest England dataset, a smaller sub-section was selected for this case study.

'domestic' and monument as 'ritual' that until recent years has dominated archaeological interpretation.)

The buried features at Neolithic long barrows in the West Country will reveal patterns of land use, activities and social practices that in a few cases preceded the barrow by a considerable time period, but were most often directly linked to the construction and use of the monument.

4.2 History of Archaeological Research in England's West Country

The numerous and impressive monuments of England's West Country have been the subject of antiquarian and archaeological interest for centuries. Hundreds of sites have been excavated, to greater and lesser degrees (Fig. 4.2), while countless others have been destroyed through the activities of road-builders, farmers, and building developers. All of these events have shaped the archaeological record of the Neolithic period in Britain, and they provide the canvas upon which the pictures of the past are painted.

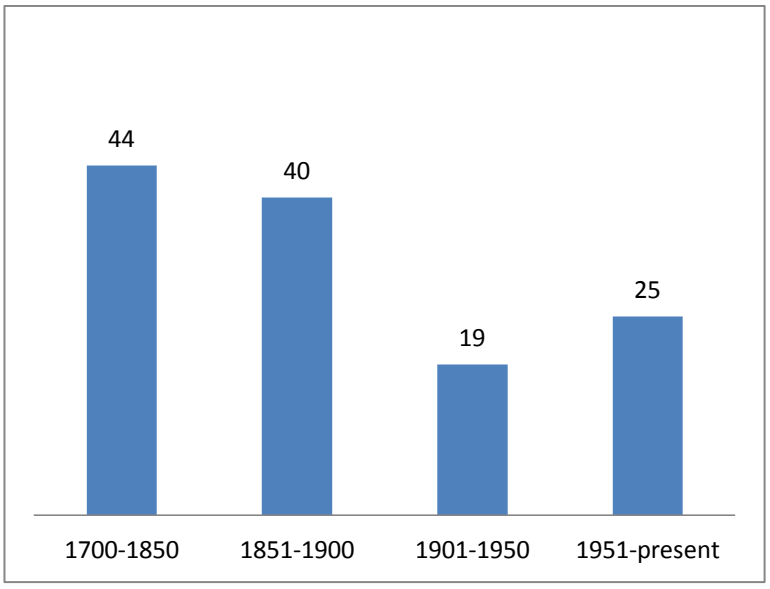


Fig. 4.2 Excavations of Neolithic barrows in the West Country region by time period

In the mid-17th century, John Aubrey (1626-1697), sometimes considered as England's first archaeologist, explored Stonehenge and 'discovered' the stone circle at Avebury (Hill 2008). William Stukeley (1687-1765) measured, sketched and excavated numerous barrows in the West Country region and elsewhere, and his pioneering work at Stonehenge and Avebury brought the monuments into the field of scientific research for the first time (Marsden 1999).

In the early 19th century, the study of archaeology was given an unintentional boost by an anonymous doctor who advised his ailing patient, William Cunnington, to 'ride out or die' (Eagles & Field 2004:47). Cunnington took this advice literally and soon joined forces with Sir Richard Colt Hoare, a wealthy gentleman with a keen interest in antiquities. Together they undertook an intensive campaign of archaeological research which lasted six years and resulted in the opening of more than 450 Neolithic and Bronze Age barrows across southwest England (Marsden 1999:20,36). Their exploration of long barrows was generally restricted to the broader, higher end of the mound which experience had taught them was most likely to conceal the primary interments and deposits. Colt Hoare's assessment of the merits of re-excavating the Arn Hill barrow suggests that they must have grown weary of exploring long barrows after a time: '…the contents of the long barrows have proved in general so very uniform and uninteresting, that we have not been tempted to make any further investigations in [Arn Hill]' (Colt Hoare 1812:65). Boredom notwithstanding, Colt Hoare did consistently notice and record features and deposits on the buried ground surface beneath the barrows. He remarked particularly on the deposits of black soil he so frequently found, even going so far as to have a sample chemically tested to determine its content (Thurnam 1860b:413). The detailed and extensively illustrated *Ancient History of Wiltshire* documents their excavations and explorations, and records observations drawn from their research (Colt Hoare 1812).

Later in the 19th century Dr John Thurnam (1810-1873) undertook investigations of numerous round and long barrows in Wiltshire. He was a medical doctor with a keen interest in craniology, and his primary purpose in excavating the mounds was to recover skeletal material for study (Marsden 1999:86). His excavations were not

therefore particularly focussed on the features of the monument itself and his excavation 'reports' were often cursory, in some cases consisting of nothing more than an entry in a table (e.g. Horton Down, Thurnam 1869a:180). Thurnam excavated 22 long barrows in Wiltshire between 1855 and 1867, but his reports contain little or no useful information on the buried ground surfaces, or indeed on any aspect of the barrows, other than the presence or absence of skeletal remains and accompanying artefacts. He did make a significant contribution to Neolithic studies, however, with the publication of his lengthy monograph *On Ancient British Barrows*, published in *Archaeologia* in two parts, in which he summarises and analyses virtually all the information available at that time on the study of British barrows (Thurnam 1869a; 1871).

The publications of these early antiquarians are at times frustratingly vague and incomplete. Nonetheless, their writings and drawings capture the Neolithic sites and monuments of southwest England in the pre-and early-industrial landscape, thus preserving information about the monument and its landscape that might otherwise have been forever lost (Fig. 4.3).

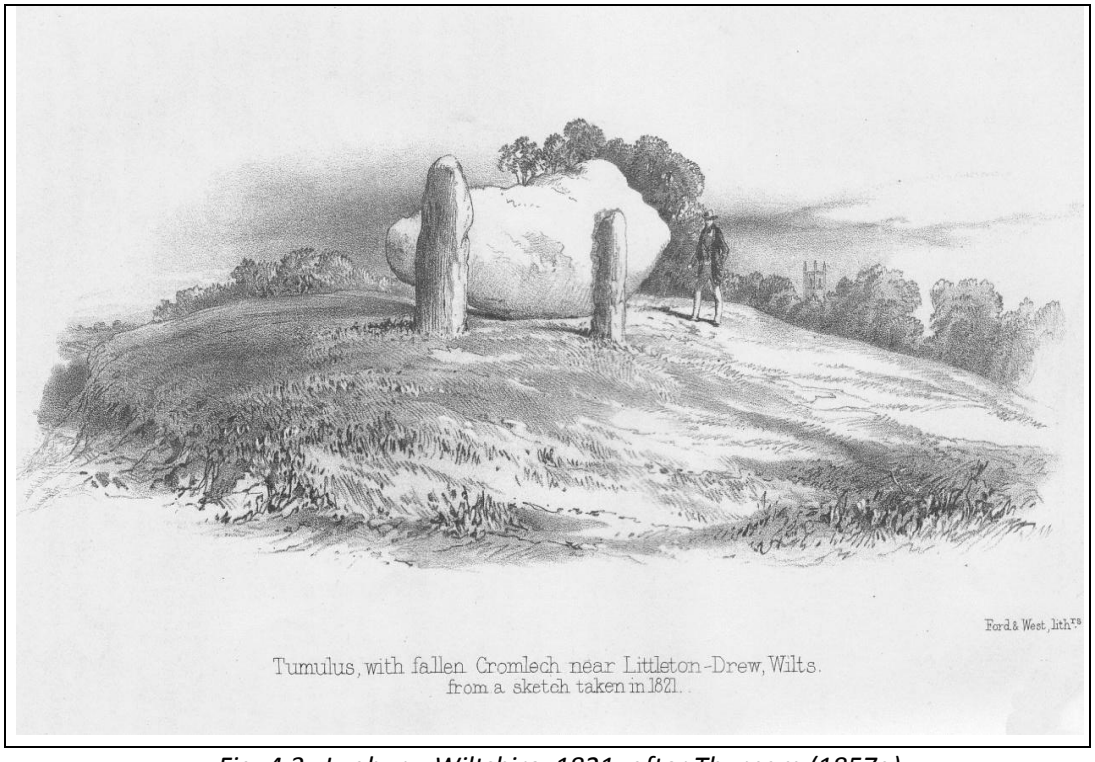


Fig. 4.3 Lugbury, Wiltshire, 1821 after Thurnam (1857a)

In Dorset and Somerset, early excavations were neither as numerous nor as well recorded as those of Wiltshire. In fact, the poor quality of early barrow investigations in Dorset caused Leslie Grinsell to remark that '...in no county in southern England are the records of excavation of barrows more chaotic, through bad excavation, than Dorset' (Grinsell 1959:20). Charles Warne (1802-1887) excavated a number of sites in Dorset in the mid-19th century and despite his own exhortation that excavators were duty-bound to 'most assiduously and accurately record every peculiarity that is presented', his own reports leave much to be desired in terms of detail and accuracy (Warne 1866).

All that changed after 1880, when General Augustus Henry Lane Fox Pitt Rivers (1827-1900) inherited the Rushmore estate on Cranborne Chase and began excavating its numerous archaeological sites. His meticulous attention to detail and military precision in site layout and recording led to his designation as the 'father of scientific archaeology'. His detailed accounts and drawings are still considered today to be fine examples of high quality site recording (e.g. Pitt Rivers 1898).

As the discipline of archaeology developed and then flourished in the 20th century, the rich Neolithic landscapes of southwest England, and Wiltshire in particular, became a focus of archaeological research and interpretation. The abundance of monuments provided the backdrop upon which a picture of life in Neolithic Britain could be drawn, and then re-drawn as theoretical paradigms changed. One of the criticisms of the focus on Wessex monuments is that explanatory models for developments in the Neolithic sequence of all of Britain have tended to rely on the extensive Wessex data, on the assumption that it could be applied elsewhere in Britain. It is only in recent years that the concept of a 'regional Neolithic' has emerged, in which it is recognised that there were many 'Neolithics' in Britain, and that every region, including Wessex, has a unique Neolithic history (Brophy & Barclay 2009).

The research bias toward monumental architecture in Neolithic archaeology in the West Country has not been matched by an equal interest in settlement and other non-monument sites. This is a significant concern, but one that is now being addressed in part because of the introduction in the 1990s of PPG16, a planning policy guidance

note requiring archaeological investigation to be undertaken in advance of road and building development. This has resulted in a significant increase in developer-funded survey and excavation, which has in turn led to the increased identification and recognition of the ephemeral flint scatters and pit clusters so typical of Neolithic non-monument sites in Britain.

The history and pattern of archaeological research in southwest England has shaped both the quality and quantity of available information on the buried ground surfaces beneath the monuments. The record is patchy in places, incomplete and vague in others but taken in its totality it allows for the reconstruction of some of the activities and social practices that took place at monuments before and during their construction and use.

4.3 The West Country Neolithic

4.3.1 The Physical Landscape

At the start of the Neolithic, all of southwest England was primarily a wooded landscape, with a climate slightly warmer than today (Darvill 1987). Alder, oak, elm and hazel were the dominant tree species in this region, but there was considerable local variation in the character and composition of woodlands, depending on soil conditions, micro-climate and other environmental considerations (Woodward 1991). The weather was warm and free from drought – a climate well-suited for the introduction of farming and new ways of living (Darvill 1987).

The physical landscape in this region consists of extensive tracts of rolling chalk downland, cut by river valleys and occasionally interrupted by hills and ridges. The downland and chalk ridges were the preferred locations for many Neolithic monuments, while non-monument sites were often located on valley floors and river gravels. The landscape in general is one of low relief, but the region does include the Mendip and Quantock hills of north Somerset, which rise to an elevation of 300-400 m.

The limestone bedrock of this upland region erodes easily, resulting in the formation of the numerous caves, sinkholes and gullies that dot the hillsides and valleys. Prehistoric occupants of Somerset made use of these sheltered environments for temporary shelter, longer-term habitation, and for burying their dead (Aston & Burrow 1982) .

Coastal areas to the north (Bristol Channel) and the south (English Channel) would have also been occupied in prehistory, but changing sea levels have long since altered much of the prehistoric coastline and with it the coastal landscapes that Mesolithic and Neolithic dwellers would have recognised (Smith 1981).

These varied topographic regions offered different resources and opportunities to prehistoric people, and the Neolithic inhabitants of southwest England would surely have moved between them on a regular basis, perhaps seasonally, travelling from upland to lowland, from the seashore to inland shelters. As they travelled down rivers and coastlines, and along familiar and ancient pathways, they would harvest resources, trade goods and renew contacts with kin groups and trading partners. Along the way, they would recognise and visit significant locations in the landscape, places that were commemorated and remembered through oral histories that had been passed down for generations. In this chapter, we will investigate whether those special places in the landscape were also deliberately chosen for the construction of the large burial mounds that dotted the Neolithic landscapes of this region.

4.3.2 Neolithic Landscapes in a Changing World

Long before the onset of the Neolithic, the landscapes of southwest England had provided a welcoming and productive environment for the hunting, fishing and gathering communities who occupied its gently rolling downlands and limestone hills for millennia. Evidence of Mesolithic occupation in this region can be found in coastal shell midden sites such as Culverwell, Portland, in the upland caves and rockshelters of the Mendip Hills, and on the central downlands of Wiltshire. Most sites consist solely of flint scatters, but in some areas Mesolithic pits have been identified. At Foxbridge Farm in Wiltshire a bowl-shaped pit 1.4 m long by 0.4 m deep contained a mixture of

soil and ash and a single flint microlith (Wymer 1977). Two pits were found at Ulwell, Dorset, each containing large quantities of marine shells and flint artefacts including microliths, microburins and cores (Palmer 1977). Structural evidence from the Mesolithic is rare, but extensive excavations at Culverwell have revealed a floor of large stone slabs on top of the midden, which may have formed the base for several small huts (Palmer 1989).

The Mesolithic way of life persisted in Britain for thousands of years, but beginning around 4000 BC the patterns of movement, the pace of activity and the familiar rhythms of daily life changed in southwest England and elsewhere in Britain. New strategies for food procurement appeared along with technologies that allowed for the development of new skills and ways of working.

The nature of the transition from the Mesolithic to the Neolithic in Britain has been the subject of fierce archaeological debate for decades. A series of theoretical paradigms have emerged and subsequently been discarded in response to new information or to new ways of looking at old data. The first of these paradigms was a colonization model, which proposed that immigrant farmers arrived in Britain from mainland Europe, bringing with them the 'Neolithic package' of tools, technology, and domestic plants and animals (e.g. Childe 1940; Piggott 1954). According to this model, change was rapid and local hunter-gatherer communities were either eliminated or subsumed into new settled, farming communities. In the post-processual climate of the 1980s and 1990s however, the idea of a passive and helpless indigenous population at the mercy of incomers was rejected, and new models emerged which suggested that Neolithic lifeways were not suddenly imposed by marauding invaders, but were gradually adopted by indigenous groups through contact and trade with outside communities (Zvelebil & Rowley-Conwy 1984; Thomas 1999; Bonsall *et al.* 2002). In these models, acculturation was the mechanism by which the Neolithic was spread – ideas, not invaders, were the agents of change. The transition was seen not as an instantaneous 'event' but as a gradual process that occurred at varying rates around Britain.

Today the theoretical pendulum is swinging back as new research emerges to suggest that the transition to domestic crops and animals, along with other hallmarks of a Neolithic lifestyle, were indeed introduced by colonizing farmers, and that the transition from the Mesolithic occurred very quickly. Alison Sheridan (2000; 2010) has made a case for an immigrant agricultural population, based in part on her detailed study of the Achnacreebeag chambered cairn in western Scotland. Sheridan has drawn parallels between the pottery from that site and Late Castellic Ware from Brittany, and also notes similarities in construction features between the Phase 1 tomb at Achnacreebeag and the early closed chamber tombs of the Morbihan region of Brittany. These similarities in material culture suggest a strong connection with Brittany and potentially, the movement of people into western Scotland from Brittany (Sheridan 2000:13). More recently, Sheridan has developed a 'big picture' narrative for the introduction of the Neolithic in Britain, in which she envisages several incursions from the Continent to various regions of Britain and Ireland, based again on similarities in material culture (Sheridan 2010).

Peter Rowley-Conwy (2004) has argued that the transition to agriculture in Britain was rapid, occurring perhaps within a century or two. The notion of a rapid transition is also supported by isotopic analysis of Mesolithic and Neolithic skeletons, which demonstrated an abrupt and total shift from marine to terrestrial food resources coinciding with the onset of the Neolithic (Richards & Hedges 1999; Richards & Schulting 2006). More recently, Collard *et al.* (2010) used an innovative analysis of radiocarbon date densities to examine changes in population size in Britain between 8000 and 4000 cal. BP. Based on the notion that farming can support a higher population density than hunting and gathering, this study demonstrated a rapid increase in population in the early part of the Neolithic, consistent with the sudden and dramatic onset of farming, likely by an influx of migrant populations. These new strands of evidence, when taken together, suggest that the Neolithic transition occurred quickly right across Britain, and that colonizing farmers were the most likely agents of change.

These paradigm shifts have been the result of decades of research and the application of new theoretical models and scientific methods to try to understand this most important human 'revolution'. It has been clear throughout, however, that the arrival of Neolithic technology, material culture, cosmology, and indeed, the migrants themselves, had dramatic and far-reaching social, economic and technological impacts.

4.3.3 Dwelling in the Neolithic

Neolithic settlement evidence has proved to be somewhat elusive in the West Country region, and indeed in much of southern Britain as a whole (Bradley 2007). Domestic sites tend to consist mainly of pit clusters, flint scatters and the occasional hearth – structural evidence is much rarer. Several excavations in advance of development have, however, uncovered examples of possible Neolithic houses. A group of postholes at a multi-period site at Chew Valley, Somerset may have formed the basis for a structure approximately 3 m by 3.5 m, with an entrance at the south (Rahtz & Greenfield 1977). At Southwell, Dorset a group of 33 postholes suggested a square or rectangular building with some internal divisions and an external hearth or pit (Bellamy 2001). The full plan of the structure could not be seen, but it is estimated at approximately 4 m wide and between 4.4 m and 8 m long. Several Earlier Neolithic potsherds were recovered along with flakes of Portland chert and charred plant remains including hazelnut shells and cereal grains.

Evidence for domestic occupation is also found in the caves and rock shelters of the Mendips, which were utilised both as occupation sites – perhaps temporary hunting camps – and as burial places. Excavations at Tom Tivey's Hole rock shelter produced a leaf shaped arrowhead, a bone awl, and sherds of a round-based Abingdon bowl (Barrett 1966). At the Chelm's Combe rock shelter, potsherds, flint scrapers and bone implements were found, along with the partial remains of several individuals (Balch & Palmer 1927).

In general, however, southwest England has not produced evidence for substantial permanent dwellings such as those found in Ireland and parts of Scotland, despite

decades of searching. This has led to suggestions that Neolithic communities must have led a mobile lifestyle much as they did during the Mesolithic, following the same well-trodden paths, occupying similar slight, temporary dwellings and moving with their herds to summer pasture and winter shelter (Whittle 1997; Thomas 1999). However, some researchers are now suggesting that other explanations are possible for the dearth of Neolithic house plans in England as a whole. Buildings may have been constructed in ways that do not leave archaeological traces (Bradley 2007:44), or the remnants of domestic settlements may have been eradicated by centuries of intensive agricultural practices, or perhaps even lie concealed beneath later archaeological features such as medieval ridge and furrow pastures (Gibson 2003).

4.3.4 Building Monuments, Building Memories

In stark contrast to the limited settlement evidence, the numerous Neolithic monuments of southwest England have left lasting traces on the landscape. The often massive structures of earth, chalk, and stone were built throughout the region, sometimes singly or in small groups, and sometimes in dense concentrations (e.g. Avebury, Wiltshire and Cranborne Chase, Dorset).

Among the first monuments to appear in the landscape were the long barrows which are the focus of this analysis. In this region, most of the examples are unchambered, generally consisting of a single mound of earth, chalk or turf, flanked by ditches. A few examples of chambered long barrows are also found in the region, such as the Priddy Long Barrow in Somerset and Millbarrow in Wiltshire. These monuments comprise a stone-built chamber within a rectangular or trapezoidal earthen mound.

Other Earlier Neolithic monuments in the West Country include several cursus monuments and approximately 12 causewayed enclosures. Later in the Neolithic, the massive and enigmatic bank barrow monuments appeared in the landscape. The Maiden Castle Bank Barrow, which measures over 550 m in length, was constructed directly over an earlier causewayed enclosure. The Later Neolithic also saw the

appearance of henge monuments, including the spectacular Avebury Henge in Wiltshire (Fig. 4.4). It is, however, the long barrows which are the focus of this study.

Although the original purpose of the barrows is not entirely understood, in the West Country they were used, at least in part, for funerary purposes. Human remains, both fragmentary and complete, were found beneath at least 40 of the 51 excavated long barrows in the region. As these massive structures are much larger than what would be practically required for burial purposes, the impetus for creating them must have been rooted in belief systems and cosmologies that are now lost to us. We do know that they were purposefully constructed to be visible and permanent features of the landscape, and that that their presence would remind those who visited or passed the monument of the events or people it commemorated. In other words, the monuments were made for memories. They encoded an event or a person, a spirit or a place. They were built to 'survive the present and to enable cultural communication with the distant future' (Holtorf 1997:47).

Fig. 4.4 Avebury, Wiltshire

It seems likely therefore that their landscape locations were not chosen randomly or haphazardly, but rather that monuments were deliberately sited in places of symbolic and mythological importance. In other parts of Britain, much work has recently suggested that this significance was linked to local topographic features, such as mountains, rivers and the sea (Tilley 1994; Cummings 2002c; Cummings & Whittle 2004). Aside from Chris Tilley's work on the Dorset Cursus, this approach has not yet been extensively applied to the West Country, or to the lowland areas of southwest England as a whole (but see Tilley 1996; Bradley 1998 for a discussion of megalithic monuments in the Cornish landscape). It is certain, however, that monuments would have been located in places that held significance for the community, whether or not local topography was an important consideration in this region. As discussed above, the Neolithic people of southwest England would have known their landscape intimately, and over decades and centuries of living within it and learning about it, certain places would have acquired historical, symbolic and practical significance and importance. It is possible that the sites chosen for monuments were such places – perhaps places where important social events occurred, where the hunt was successful, where someone lived, or where they died. The ground surfaces beneath the monuments often contain traces of activity which took place prior to the barrow construction, and in the next section we will begin to examine those traces more closely.

4.4 The Buried Neolithic Land Surfaces of England's West Country

The monuments of England's West Country have been extensively excavated and studied over the past two centuries. Their morphology has been recorded in detail and their contents collected, measured, weighed, drawn and photographed. The focus of this study, however, is not the monuments themselves but the ground upon which they were built. Before moving on to the discussion of the ground surfaces it is worth registering some caveats on the nature of the data.

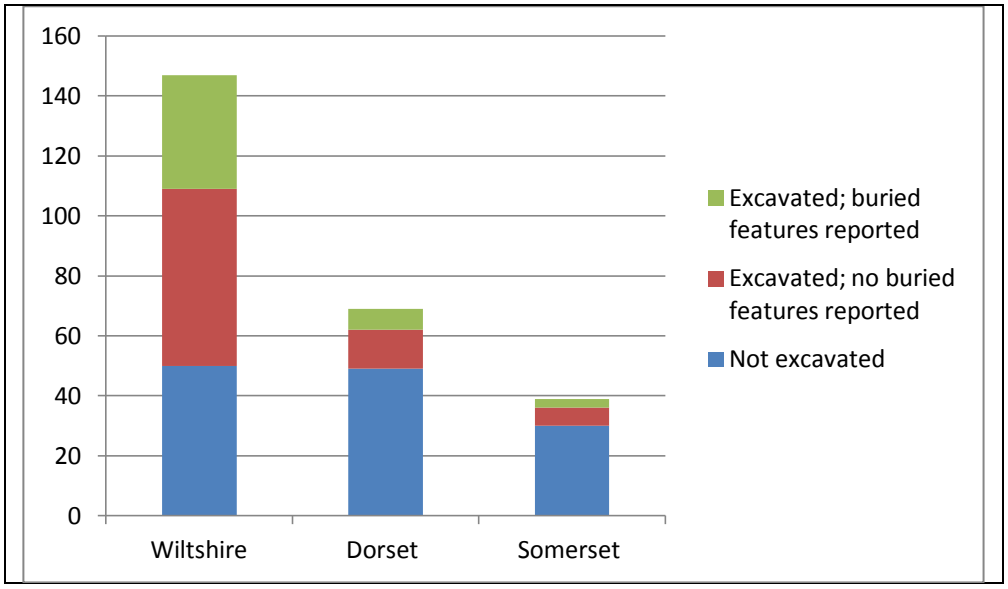


Fig. 4.5 Proportion of West Country long barrows reporting buried features or deposits

First, it is important to remember that the number of sites where buried features or deposits are reported reflects just a small proportion of the total surviving monuments in the region. This disparity is highlighted in Fig. 4.5. Second, the sites have been excavated to greater and lesser degrees both in terms of extent and thoroughness. Many of the Neolithic barrows in this region were excavated in the 19th century and the published reports suffer from the limitations of their time. Several modern excavations are also poorly reported. However, although the information may be patchy in places, sufficient detail is provided for at least 45 sites in a variety of landscape settings to ensure that a useful and broad-based examination of the available evidence is possible.

Finally, it is important to note that few of the mounds were intact at the time of excavation. Most had been dug into by treasure hunters, ploughed down, or otherwise damaged prior to excavation. In many cases, the mounds had been re-used or built upon, starting as early as the Bronze Age. At some sites, this pre-excavation damage is a factor in the amount of information available on the buried surface, and at other sites, it may have introduced disturbance to the ground surface. Every effort has been made to take those factors into account when recording the ground surface data.

Those caveats aside, it is clear that many sites in the region do contain evidence that the land beneath the mounds was used and occupied at some time prior to the

construction of the mound. There is usually little indication, however, of the length or type of earlier land use. Sometimes the 'occupation' may simply reflect the lighting of a small fire, or the knapping of a blade; in others, it may be a more sustained occupation. Nonetheless, the presence of features on the buried ground surface certainly indicates that someone was present on the site, carrying out activities and leaving traces of those activities behind, before the mound was constructed.

It is also often difficult to determine the length of time between the earlier occupation and the later construction of the monument. In most cases, however, the possibility that the occupation activity preceded the monument by a very short interval cannot be ruled out.

The evidence from the buried ground surfaces can, in some cases, provide a vivid 'snapshot' of the activities undertaken by individuals nearly 6000 years ago. For example, William Cunnington describes the scene on the ground surface beneath Bowl's Barrow, near Stonehenge:

> These [flint flakes] mostly occurred, to the number of forty or fifty, on a space on the old turf about two feet square, within a few yards from the edge of the barrow, to the S.E. They were mostly quite small, and were so close together as to suggest that they were struck off on the spot, in the process of making some kind of flint implement or weapon. A very small quantity of wood ashes was found near these, covering a space of about eighteen inches square. (Cunnington 1889:106)

One can readily imagine a person crouched on the ground beside a small fire, making or re-touching a tool before resuming a journey or perhaps returning to work on the construction of the barrow.

A summary of the types of features and deposits found on buried land surfaces in this region is presented in Table 4.1. In the sections that follow, these features and deposits will be examined to try to gain a better understanding of the nature of pre-barrow land use in the West Country region.

Site[7]	Excav. Date[8]	Pit	Structural Feature[9]	Ground Prep.	Dark Soil	Cultivation	Fire / Hearth	Mesolithic Activity	Standing Stone/Post	Artefact Scatter	Other	References
Alington Ave.	1987									●	●	(Davies *et al*. 2002)
Amesbury 14	1867				●							(Colt Hoare 1812; Thurnam 1869a)
Amesbury 42	1983		●		●						●	(Richards 1990)
Arn Hill	1802								●			(Colt Hoare 1812)
Beckhampton	1964		●				●					(Thurnam 1869a); (Ashbee *et al*. 1979)
Blandford Race Down	1840				●							(Warne 1866)
Bowl's Barrow	1886	**1**			●						●	(Colt Hoare 1812); (Cunnington 1889)
Bratton Down	1866						●					(Colt Hoare 1812; Thurnam 1869a)
Cop Heap	1809	**1**										(Colt Hoare 1812)
Corton	1804	**2**										(Lambert 1806)
Easton Down	1991	**1**	●	**?**		**?**						(Thurnam 1860a); (Whittle *et al*. 1993)
Figheldean 31	1864	**1**			●							(Thurnam 1869a)
Fussell's Lodge	1957	**6**	●		●	**?**					●	(Morgan & Ashbee 1958); (Ashbee 1966)
Giant's Caves	1962						●					(Passmore 1934b); (Corcoran 1970)
Giants Grave (Som)	1909	**1**				**?**					●	(Wickham 1912)
Giants Grave S (Dorset)	1977	**1**	●			**?**					●	(Mercer & Healy 2008)
Heytesbury	1800	**1**			●							(Colt Hoare 1812)
Holdenhurst	1936	**1**					●					(Piggott 1937)
Horslip	1959	**9**				●		●		●		(Ashbee *et al*. 1979)
Horton Down	1863		**?**									(Thurnam 1869a)
King Barrow	1810	**1**										(Colt Hoare 1812)
Kings Play Down	1907	**2**	●		●							(Cunnington 1909b)
Kingston Deverill	1964		●									((Vatcher & Vatcher 1965b); (Harding & Gingell 1986)
Knook 5	1801	**1**			●							(Colt Hoare 1812)

[7] This table includes only those sites where buried features or deposits were reported. See Appendix B for a full list of all excavated sites in the Southwest England region.

[8] At sites where multiple excavations have occurred, this is the date of the most recent excavation.

[9] This category Includes postholes, stakeholes and other evidence for structural features.

Site[7]	Excav. Date[8]	Pit	Structural Feature[9]	Ground Prep.	Dark Soil	Cultivation	Fire / Hearth	Mesolithic Activity	Standing Stone/Post	Artefact Scatter	Other	References
Knook Barrow	1866	**1**										(Colt Hoare 1812); (Thurnam 1869a)
Lanhill Barrow	1963	**1**				?				●		(Thurnam 1857b); (Cunnington 1909a); (Keiller & Piggott 1938); (King 1966)
Longbury	1952			●								(Warne 1866); (Farrar 1954)
Lugbury	1855	**1**							●			(Colt Hoare 1822); (Thurnam 1857a)
Millbarrow	1989	**7**	●		●							(Thurnam 1869a); (Whittle 1994)
Oldbury Hill	1864	**2**	?									(Cunnington 1872)
Orchardleigh	1920	**1**					●					(Gray 1921)
Priddy Long	1928	**1**	?	?			●		?			(Dobson 1931); (Lewis 2002)
Shepherd's Shore	1914	**1**			●							(Cunnington 1927)
Sherrington	1856	**1**										(Lambert 1806); (Thurnam 1869a)
South Street	1967	**1**	●			●	●	●		●		(Ashbee *et al*. 1979)
Stockton	1810	**1**										(Colt Hoare 1812)
Thickthorn Down	1933	**3**	●					●	●		●	(Drew & Piggott 1936)
Tilshead 7	1863				●							(Thurnam 1864); (Thurnam 1869a)
Tilshead Lodge	1865				●							(Colt Hoare 1812); (Thurnam 1869a)
Tilshead Old Ditch	1865	**1**			●							(Colt Hoare 1812); (Cunnington 1914b)
Tow Barrow	1914									●		(Crawford 1920)
Warminster 6	1867	**1**										(Colt Hoare 1812)
West Kennet	1956				●					●		(Thurnam 1860b); (Piggott 1962)
West Woods	1880				●							(Passmore 1923)
White Barrow	1810				●							(Colt Hoare 1812)
Winterbourne Stoke 1	1863	**3**			●							(Thurnam 1864)
Winterbourne Stoke 53	1810	**2**					●					(Colt Hoare 1812)
Wor Barrow	1894	**2**	?									(Pitt Rivers 1898)

Table 4.1 Buried features and deposits beneath long barrows in the West Country region

4.4.1 Mesolithic Links?

One of the first recognised examples of pre-monument activity at a Neolithic site in this region is the series of postholes found during construction of the carpark at Stonehenge in 1966 (Vatcher & Vatcher 1973b). The postholes were located in a line east-west, approximately 200 m north of the outer ditch of Stonehenge, and all contained black organic material indicative of timber posts that had rotted *in situ*. They ranged in diameter from 1.3 m to 1.7 m and in depth from 1.3 m to 1.5 m below the chalk surface. A fourth irregularly shaped pit was interpreted as a tree hole. The postholes were too far apart to have been structural features, and it is possible that they once held a series of ceremonial timber posts, similar to the totem poles raised by the First Nations people of the Pacific Northwest Coast (Allen & Gardiner 2002). The pits were initially thought to be Neolithic in date, but samples of pine charcoal taken from the pit fills produced five radiocarbon dates ranging between 8500 and 6500 cal. BC. The pits had actually preceded the construction of the first phase of Stonehenge by a remarkable 4,500 years.

An important question here is whether there is a link between the earlier timber posts and the later construction of the monument. All trace of the posts would have rotted and disappeared within a century or two, and so the memory of the place would have had to be maintained by other means. Through ethnographic analogy, it is known that non-literate societies use oral histories to record past events and pass on cultural information to future generations. However, the time periods contemplated here seem far too long for any reliable cultural memory to be sustained. In fact, Richard Bradley (2003) points out that studies of oral histories have demonstrated that cultural memories become unstable within one hundred to two hundred years. Allen and Gardiner (2002) have considered this question and suggest that the significance of place may be maintained over a very long time period by what they term 'biological' markers. Mesolithic activity, such as the creation and maintenance of a clearing for gatherings linked to the timber posts, may have resulted in permanent and irreversible change to the local vegetation patterns. Therefore, the place would be distinguished by different foliage and groundcover, and would therefore have continued to be noticed and remembered because it was 'different'.

A review of the evidence from long barrow sites in the West Country region reveals that Mesolithic artefacts and features have been identified at three monuments: South Street, Horslip and Thickthorn Down.

The Mesolithic flints at the Horslip long barrow, including a scraper and two microblades, were found in the secondary ditch fill and therefore not in a secure primary context (Ashbee *et al.* 1979). At South Street, two microliths were found in the buried sol beneath the mound, but no further information is available concerning their possible relationship with the later barrow *(ibid)*.

The Thickthorn barrow, excavated by Stuart Piggott and C. D. Drew in the 1930s, is perhaps the most remarkable example of a possible Mesolithic presence on a buried ground surface (Drew & Piggott 1936). Three pits were located near the mid-point of the barrow, sealed beneath an unbroken turf line (Fig 4.6). The pits contained a small amount of burnt flint and charcoal identified as mature pine. A single abraded microlith was found on the ground surface nearby. While this site presents interesting possibilities, it be must be noted that the microlith was very abraded and may be residual, and the irregular outline of the pits raises the possibility that they may be tree-throws (Barrett *et al*. 1991:34).

Pre-monument Mesolithic material has occasionally been found at other types of Neolithic sites in the West Country region. Surface collection along the Dorset Cursus produced a number of Mesolithic flints, and the presence of these flints, along with a small ditch running beside the Cursus, led Chris Tilley (1994) to suggest that the Cursus was constructed along the route of an earlier Mesolithic pathway. In addition to the flints, two late sixth millennium radiocarbon dates were obtained from human bone found in the primary ditch silts (Johnston 1999). However, as with all finds in plough soil and surface layers, it is difficult to say with certainty that the Mesolithic material is linked to the construction or use of the Cursus. The limited excavations on the Cursus itself did not reveal any Mesolithic features or artefacts; indeed few Earlier Neolithic artefacts were recovered.

At Marden henge, Mesolithic flints were recovered from the plough soil in the henge interior – a similarly insecure context (Wainwright 1971; Ashbee *et al.* 1979).

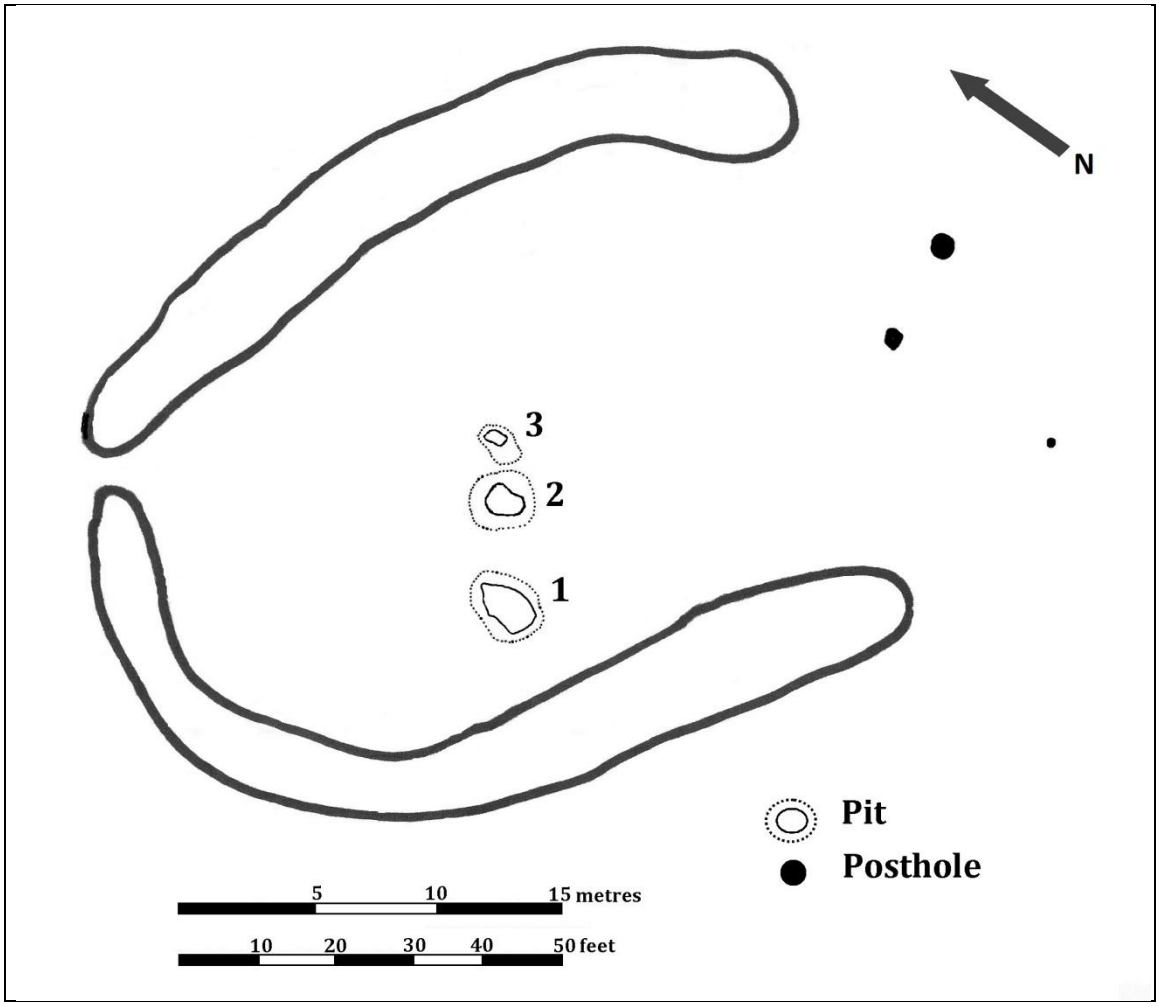


Fig. 4.6 Plan of Thickthorn Down showing location of Mesolithic pits or tree-throws, after Drew and Piggott (1936)

At Hambledon Hill, pine charcoal taken from two pits yielded Early Mesolithic dates, signifying a possible Earlier Mesolithic presence at the causewayed enclosure site (Mercer & Healy 2008). The pits contained no artefactual material, and it is possible that they were tree throws and not humanly-constructed pits, so they cannot be definitely linked with human activity at that unexpectedly early date.

On the whole, there appears to be little unequivocal evidence for a Mesolithic presence beneath the monuments in the West Country region. This contrasts with other regions in Britain where sites such as Ascott-Under-Wychwood (Oxfordshire) and

Hazleton North (Gloucestershire) show clear evidence for Mesolithic activity prior to monument construction.

The dearth of Mesolithic evidence from Neolithic sites in the West Country region may reflect a difference in preferred occupation locations in the Mesolithic and Neolithic. For example, on Cranborne Chase, Mesolithic activity was centred on areas where the underlying geology is clay-with-flints, which provided a good source of raw material for tools, but was not always suitable for crop cultivation (Barrett *et al*. 1991). In contrast, the Neolithic barrows were built on chalk, suggesting a preference for a different type of landscape for monument construction (Barrett *et al*. 1991). Similar landscape preferences may have applied in other parts of the region and would provide at least one possible explanation for the lack of Mesolithic material at barrow sites.

4.4.2 Traces of Cultivation

One of the best known examples of a pre-mound feature beneath a Neolithic long barrow is the pattern of markings discovered on the old ground surface beneath the South Street long barrow (Fig. 4.7). They were interpreted as ard marks and taken as evidence that cultivation had occurred on the site of the long barrow prior to its construction. Considerable debate ensued about the plausibility of this interpretation to explain ard marks under barrows, and Peter Rowley-Conwy suggested that the markings represented ritual activities related to funerary practices, rather than crop cultivation (Rowley-Conwy 1987; Rausing 1988; Kristiansen 1990; Tarlow 1994). This site will be discussed further in Chapter 6.

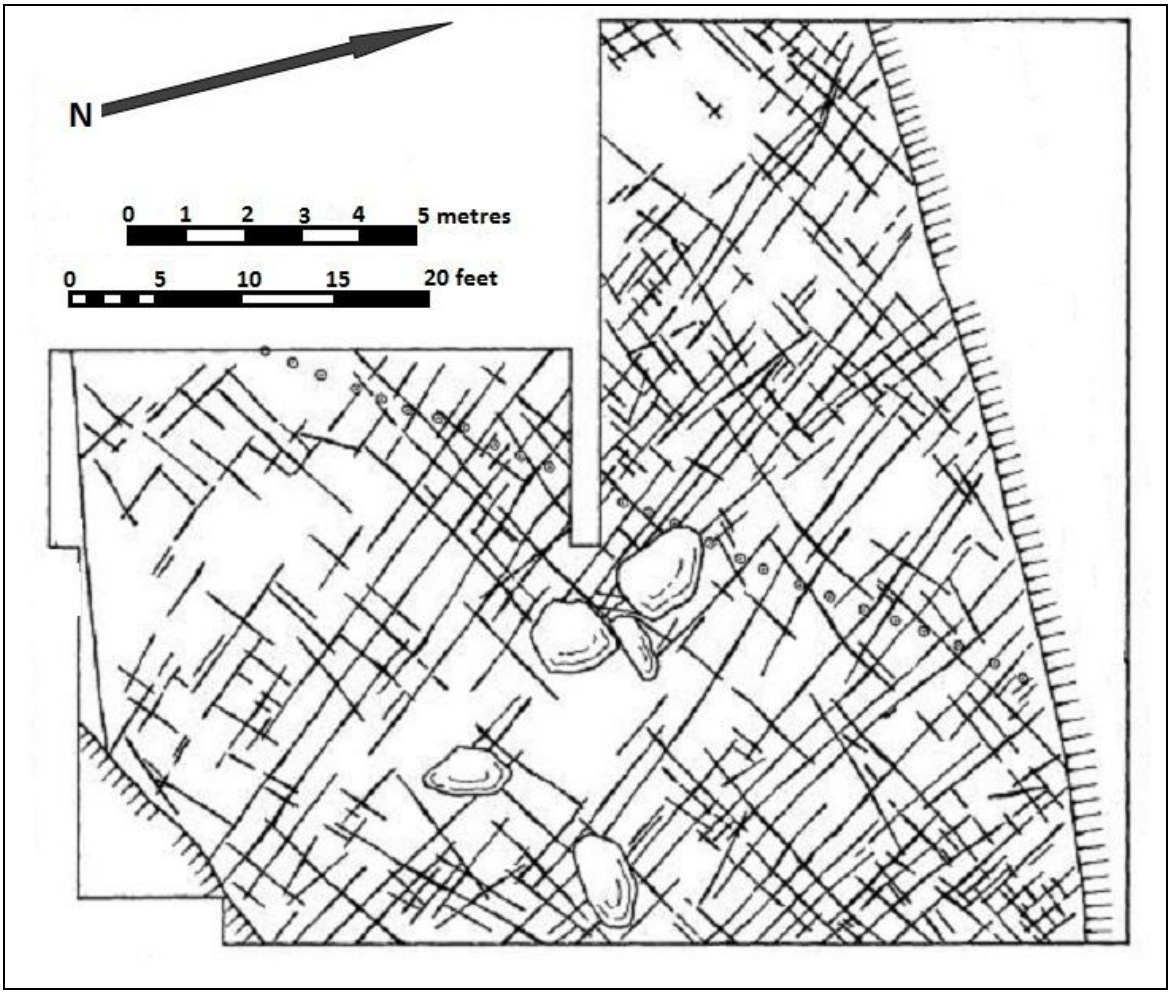


Fig. 4.7 The ground surface beneath the South Street long barrow showing the ard marks and the sarsen boulders, after Fowler and Evans (1967)

Whatever interpretation for these enigmatic markings is preferred, the fact that they have been preserved for millennia under the South Street barrow is remarkable. It is not, however, a commonplace occurrence in this region or elsewhere in Britain. The only other possible example of plough marks under a long barrow in this region is at Fussell's Lodge, where 'parallel ribs of chalky marl [were] showing distinctly against the darker soil and lying diagonally athwart the axis of the barrow' (Morgan & Ashbee 1958:108). It was suggested that the markings may have resulted from hoeing in rows. In a later publication, however, Ashbee suggests that a natural soil phenomenon would be a more likely explanation for the markings (Ashbee 1966:29).

Direct evidence for crop cultivation beneath barrows has not been identified at other sites in the region, but indirect evidence is occasionally found. Single saddle quern fragments were found at three sites – Giant's Grave South barrow at Hambledon Hill

Giant's Grave (Somerset), and Lanhill (Wickham 1912; King 1966; Mercer & Healy 2008). At Easton Down, pollen analysis indicated that the barrow had been situated close to a formerly cultivated area (Whittle *et al.* 1993; Mercer & Healy 2008). Possible pre-barrow cultivation was also indicated in the pollen record at Horslip (Ashbee *et al*. 1979).

The evidence for crop cultivation on pre-barrow ground is not overwhelming, but it must be remembered that many of the techniques that are used to identify such activities were not available when most of the sites were excavated. Nonetheless, the limited available information suggests that crop cultivation was not widely practiced on pre-barrow land surfaces in the West Country region.

4.4.3 Settlement Beneath The Monuments?

The preceding sections have examined a number of discrete cultural features that are found under long barrows in the West Country region. At many sites, however, 'activity layers' or 'occupation layers' containing multiple features or deposits are found, suggesting that the ground beneath the monuments was occupied in some fashion at some time prior to construction of the mound.

At the Priddy long barrow, a central pit, which may once have held a timber post, was bracketed by two hearths on the old ground surface found beneath the mound. Lewis (2002:281) suggests that while these features indicate some form of activity at the site prior to the construction of the barrow, the centrality of the pit and the presence of small pieces of human bone in the hearths indicates that the activity was probably connected with the barrow. Lewis (*ibid*:275) notes that no turf line was visible beneath the mound, and suggests that it may have been stripped prior to barrow construction, either as a result of cultivation or as part of the ground preparation prior to placing the barrow. The absence of the turfline also indicates a close temporal connection between the hearth/ pit activity and barrow construction, as the hearths must have been placed on the ground after the turf was stripped.

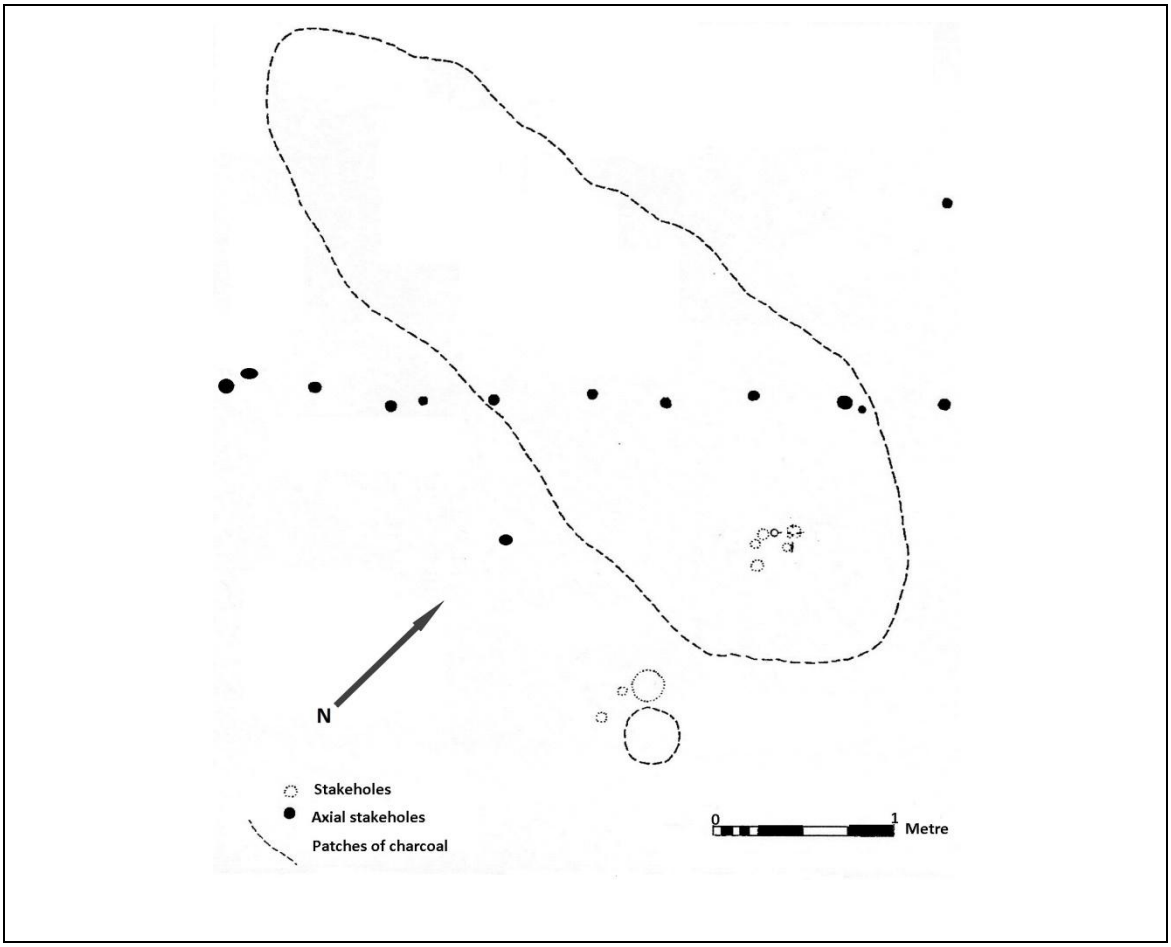


Fig. 4.8 Plan of pre-barrow features at west end of Beckhampton long barrow after Ashbee et al. (1979)

At Beckhampton Road, convincing evidence of pre-barrow activity was found in four large patches of charcoal which were discovered beneath an apparently unbroken turfline (Ashbee *et al*. 1979). A radiocarbon date of 4344-3667 cal. BC (NPL-138; 5200±160 BP) was obtained from the large charcoal patch, which was significantly earlier than the date of 3369-2910 cal. BC (BM-506b; 4467±90 BP) obtained from an antler found on the old ground surface. Beneath the largest charcoal patch a group of five stakeholes were located, and another group of stakeholes was found close to one of the smaller charcoal patches. The stakeholes did not contain charcoal and so must have pre-dated the hearths.

At South Street, the ard marks beneath the barrow (discussed above) are well-known, but other pre-barrow features were also found. These included an arrangement of large sarsen stones, two clusters of flint knapping debris, a line of stakeholes running diagonally under the barrow, and patches of charcoal on the old ground surface

(Ashbee *et al*. 1979). Although the relationship of these features with the barrow is uncertain, the flint knapping debris was found within the turf line, indicating that this activity at least definitely pre-dated the barrow. The charcoal patches were located on top of the old ground surface and may have been the remnants of fires used to heat and split the large sarsen stones used in the barrow construction. The line of stakeholes is enigmatic and its purpose and relationship with the barrow is uncertain.

On the old ground surface beneath the Horslip long barrow, several worked flints, some crumbs of pottery and a few unidentifiable bone fragments suggested to the excavators that activity had occurred on the site prior to barrow construction (Ashbee *et al*. 1979:218). Similarly, a scatter of flints on the old ground surface at Lanhill, together with the presence of a quern fragment in a pit in the forecourt suggested 'the existence of a small occupation of the hillock before the barrow was constructed' (King 1966:82). The pit itself may have been a pre-barrow construction as King notes that the revetment wall (which did not survive in the pit area) may have been constructed on top of the pit. It is also possible, however, that the pit lay outside the area enclosed by the revetment wall.

An extensive pre-monument 'activity area' is found at Millbarrow, where the features and deposits cover an area at least 19 m x 20 m (Whittle 1994:16). The features consisted of four shallow pits, two of which contained fragmentary human remains, and seven or eight postholes, which appear to have enclosed a roughly square area. No artefacts could definitely be assigned to a pre-barrow phase, but Whittle notes that 'scattered features of this kind are compatible with a short-lived occupation…' (*ibid*:18).

While these examples establish the existence of significant pre-barrow features and deposits beneath the barrows, it is often difficult to determine whether they represent the activities of the monument builders, or are residual materials from a much earlier occupation. This will be discussed further in Chapter 6.

4.4.4 Cleansing the Ground – Making Way for Monuments

The sections above describe a range of evidence for prior activity on the old ground surfaces below long barrows. It has often been suggested that locating the barrows on sites of former activity was deliberately designed to mark and commemorate special places, but another class of activity that occurred at some sites prior to barrow construction seems specifically designed to eradicate, rather than to commemorate, all traces of past occupation. Such activities include turf stripping, extensive burning of the ground surface, or the laying down of a 'floor' of imported sand or clay. Perhaps intended to cleanse and purify the ground in advance of construction, these practices would have also ensured that any traces of earlier use were erased in the process.

At many sites in the West Country region, the old turf line was clearly visible beneath the barrows, suggesting that no alteration of the surface was made before the barrow was built. At King's Play Down, for example, Cunnington records that '...the dark seam of the old surface turf was plainly visible under the whole area of the mound' (1909a:312). Similarly, at Wor Barrow Pitt Rivers remarked that '...the old surface line…was marked by a very distinct line of the old mould' (1898:64). At other sites however, no pre-barrow turf line was present beneath the mounds. The absence of a visible turf line beneath both Longbury and Priddy Long Barrow led researchers at both sites to suggest that the underlying turf and topsoil may have been removed prior to barrow construction (Farrar 1951; Lewis 2002).

Removing turf from the ground surface had practical advantages – the ground could be levelled more easily and the turf could then be used as part of the covering mound (e.g. Shepherd's Shore), or to build structures. Turf may therefore have been removed for those reasons, rather than as a deliberate act intended to purify the ground surface. If that is the case, the builders may not have had a conscious intention to remove traces of the past, but neither did they display any desire to preserve them.

Another way in which the ground surfaces were cleaned and renewed was by covering them with a layer of imported material prior to construction of the barrow. At King

Barrow, for example, the floor was lined with a layer of imported yellow clay (Colt Hoare 1812). Similarly, an imported layer of red clay mixed with charcoal had been laid on the barrow floor at Orchardleigh Stones, although Lewis (2005) suggests that it may be a natural layer.

In southwest Scotland, a different approach was taken to cleansing and purifying the ground (See Chapter 5). This approach harnessed the transformative effects of fire to cleanse the ground, and it was practiced at many of the chambered tombs in the region. In the West Country region, however, no evidence for the extensive use of fire was found. Only three long barrows – Bratton Down, Hatfield and Winterbourne Stoke 53 – displayed evidence for intense burning, and in all three cases the burning was related to cremation deposits.

Actions that are designed to cleanse and purify and transform are not necessarily consistent with a desire to honour or commemorate the past. If a monument location was selected on the basis of significant prior activity that had occurred on it, it is unlikely that steps would then be taken to remove all evidence of that activity. These ideas will be discussed again in Chapter 6.

4.4.5 Pit Digging and Deposition at Long Barrow Sites

The practice of pit-digging began in Britain in the Mesolithic and became widespread throughout the country during the Neolithic. Pits are common features at all types of Neolithic sites in Britain – indeed, at many sites, they are the only features. Although pits can certainly be considered an 'ephemeral category of archaeological evidence' (Garrow 2007:1), the frequency with which they are found, and the often undisturbed nature of their contents means that they are an invaluable source of information about the social practices, material culture and economies of the Neolithic people who dug them.

The actions involved in pit-digging and deposition were part of the process of creating place in the Neolithic. Digging pits transformed the land and created connections

between people and events and the land itself (Thomas 1999:87). Mark Edmonds vividly evokes the potential significance of pit-digging practices to the people involved in the process of digging, gathering the material for deposition and witnessing its placement and burial:

> Filled at the conclusion of a local ceremony, a pit tied an event and the relations it involved to the land itself. Here was the place where people had met, where bonds had been forged, and tensions resolved. Here lay the tools that had been used by a mother or a son before their death in early winter. For those who returned and remembered, these features provided reminders of the past that lay behind an old clearing or camp. (Edmonds 1999:29-30)

The function of pits as markers in the land and links to past events and people has been suggested as an explanation for the frequency with which they are found below long barrows and other Neolithic monuments (Thomas 2000). Pits commemorate and maintain social and personal memories, and they may have been marked in some way, and revisited, remembered, and ultimately chosen as the location for a long barrow or other monument.

These enigmatic features also comprise a significant component of non-monument Neolithic sites in Britain. When they are found in domestic contexts, they are variously interpreted as storage units, midden deposits, temporary shelters or dwelling pits. In contrast, pits that are found at monumental sites are often interpreted as ritual features.

In order to understand how the pits found under the long barrows relate to other places and activities in the Neolithic of the West Country region, this section will examine the nature of the pits found at long barrow sites and compare aspects of pit size and contents with those found at a sample of 28 non-monument sites across the region.

4.4.5.1 Number and Position of Pits at Long Barrow Sites

Pits are the most frequently reported feature on the buried ground surfaces beneath long barrows and other monuments. In the West Country region, a total of 57 pits are

reported at 27 long barrow sites, most often found as single features rather than in groups or clusters (Fig. 4.9). They often contain nothing more than earth, charcoal and rubble (Fig. 4.10). Although the question of backfilling is not addressed in most of the excavation reports, it seems likely that most pits were deliberately back-filled. There is little, if any, mention of silting in the pits, and many pits are filled with the same material that was removed to create them, or with the material that was used to construct the covering barrow mound.

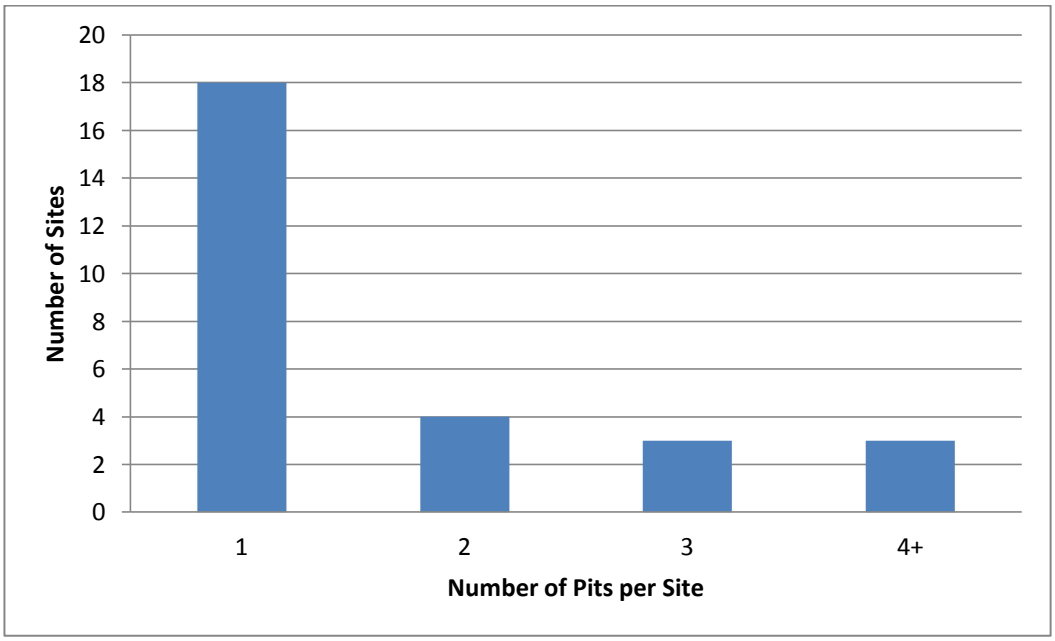


Fig. 4.9 Number of pits-per-site below long barrows in the West Country

At some sites, pits are found in pairs, bracketing deposits of human remains. At the Corton long barrow, two oval pits, 1.2 m long by 0.75 m deep, had been neatly cut into the chalk at each end of a mortuary deposit consisting of eight skeletons 'lying in several directions, as though they had been thrown on a heap without any ceremony' (Lambert 1806:339). Both the pits and the skeletons had then been covered with a 'pyramid' of flint and stone, prior to construction of the earthen long barrow. Similarly at Fussell's Lodge, two pits (A and C), 1.5 m long by 0.6 m and 0.9 m deep, were located on the axial line of the barrow, bracketing a mass of human skulls, stacked long bones and weathered, fragmentary bones (Ashbee 1966). A third pit (B), containing burnt human bones, was found between Pit A and Pit C, concealed by the overlying

deposit of human remains. The burials and all three pits had been covered with a wedge-shaped flint cairn.

Similar arrangements of pits are found at long barrow sites elsewhere in Britain, and have been interpreted as postholes that may once have formed part of the framework of a timber mortuary structure. Ashbee suggests this is likely the case at Fussell's Lodge, as well as at the other barrows in the West Country region where bracketing pits are found: Corton, Wor Barrow, Winterbourne Stoke 53 and King's Play Down (Ashbee 1966)

The link between mortuary deposits and pits can also be seen at sites where only single pits are found. At seven long barrows in the region, single pits had been placed in close proximity to the mortuary area. The only one of these pits to contain any type of deposit was the D-shaped pit to the west of the mortuary area at Knook Barrow, where Cunnington found 'vegetable mould, charred wood and two bits of bone' (Colt Hoare 1812:83). Otherwise, the single pits contained only earth and rubble.

The careful and precise placement and digging of the pits suggests that they were not accidental or casual constructions. Colt Hoare describes the pit found near the mortuary area at Tilshead Old Ditch as 'an oval cist cut with as much exactness in the chalk as if it had been done with a chissel [*sic*]' (Colt Hoare 1812:91). As the pits were dug using only stone or antler tools, a great deal of skill, craftsmanship and time must have been required for their construction. They must, therefore, have been an important and necessary feature, perhaps connected with the funerary practices carried out at the barrow.

The precise purpose of these deliberately placed and carefully crafted pits is not clear, but a number of possibilities suggest themselves. They may have been created for the deposition of material intended as offerings for the deceased. If that is the case, however, the deposits must have consisted only of organic material which has decayed without leaving a trace, as all of the single pits were entirely devoid of artefacts. Thurnam suggested that the empty pits may have been dug to hold food and drink for the deceased, or to receive ritual offerings of blood and libations (1869a:181).

Another possible explanation for the presence of a single pit in association with burials might be found at Arn Hill, where the remains of three individuals had been placed around a single standing stone (Colt Hoare 1812:65). Evidence for standing stones and timber posts is found at other long barrow sites in Britain, although they tend to be chambered megalithic barrows, rather than the earthen barrows more common in the West Country region. It is difficult, however, to see how the standing stones would have been supported, as no packing stones were reported from the pits. Only the pit at Stockton contained rubble, while the rest held only earth or 'mould'. In any case, if the single mortuary pits were created for the purpose of holding a standing stone, that purpose must have been served and the stone and associated packing materials removed before the completion of the covering barrow.

Other pits found in a mortuary context include the pits at Lugbury, Oldbury and Warminster 6, all which contained articulated human skeletons and can be classified as graves. At Winterbourne Stoke 1, one round and two oval pits were found in association with the mortuary deposits (Thurnam 1864:143).

There is little patterning evident in the placement of pits found outside the mortuary areas. At the Priddy Long Barrow, a pit which may have held a timber post was centrally placed within the barrow, in association with two hearths (Lewis 2002). A line of five large intersecting pits was found on the west side of the Horslip barrow, while numerous pits and postholes were found on the east side of the mound at Millbarrow (Ashbee *et al*. 1979; Whittle 1994). The lack of uniformity in the placement of the non-mortuary long barrow pits can be suggested to represent an element of individual choice and agency in response to local needs, that would have been exercised within the overriding social guidelines and norms that governed barrow use and construction in the Neolithic.

4.4.5.2 Pit Contents

Neolithic pits found at non-monument sites in Britain often contain deposits of pottery, flint tools and flakes, animal bone, plant material and occasionally human bone (Table 4.3 In contrast, the pits found under long barrow sites in the West

Country region tend to be either devoid of artefacts altogether or contain only a small amount of deposited material (Table 4.2).

In order to better illustrate the contrast between deposition in monumental pits and non-monument pits, the pit contents from a sample of 28 non-monument sites in the West Country region is here compared with the contents from the pits at the long barrow sites (Fig. 4.10). (Multiple pits are found at some of the non-monument sites, so the total number of non-monument pits is 42). While this provides only a very broad brush analysis, it is a starting point for considering whether pits placed on monumental sites might hold a different significance from those placed elsewhere.

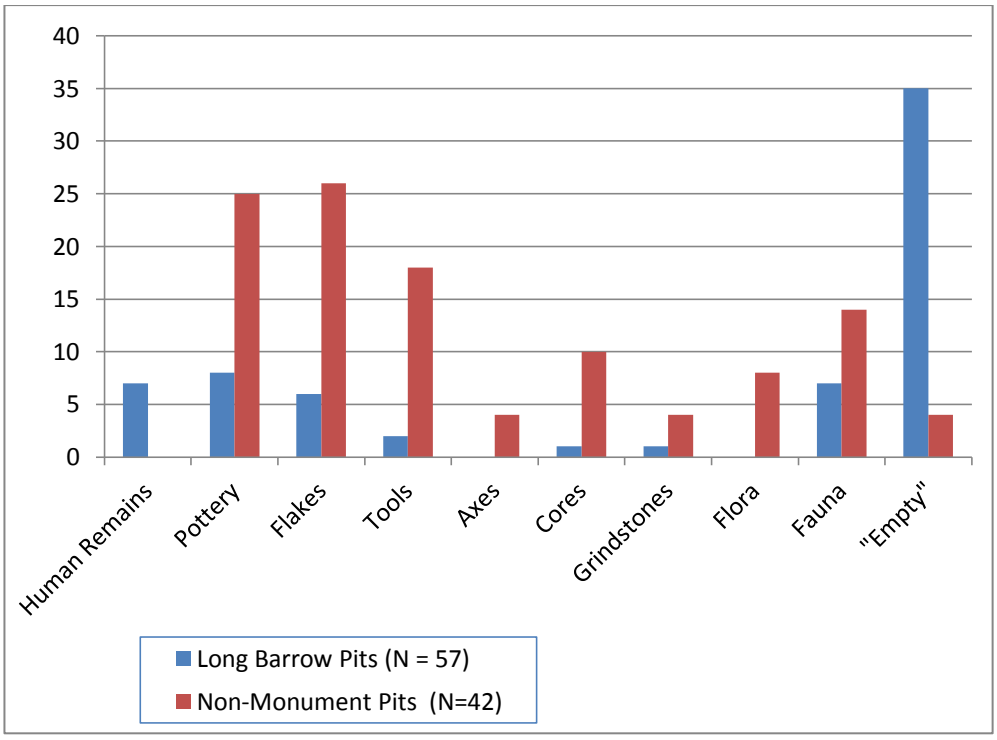


Fig. 4.10 Comparison of pit contents between long barrows and non-monument sites

Human Remains

Human remains, both fragmentary and entire skeletons, were found in six of the long barrow pits. At Lugbury, Oldbury and Warminster 6, the pits can be categorised as graves as they each contained one or more complete skeletons (Colt Hoare 1812:66; Thurnam 1857a; Cunnington 1872). Two pits at the eastern end of the Millbarrow monument contained fragmentary unburnt human bone, while Pit B at Fussell's Lodge contained pieces of burnt human bone.

In contrast, none of the pits at non-monument sites contained human remains. While this undoubtedly reflects the funerary function of the barrows, it also appears to indicate a deliberate exclusion of human remains from pits at non-monument sites in this region. Pits at non-monument sites elsewhere in Britain are known to contain human remains (Thomas 1999:68), and therefore this result may simply reflect the limitations of this small sample. It is also possible, however, that in the West Country region the deposition of human remains was only appropriate in specific contexts and locations and perhaps only at specific times.

Pottery

Potsherds were found in the fills of 25 of the 42 non-monument pits. Although complete pots were not common, one plain, flat-based pot was found with a flint sickle and two polished flint axes in a pit at East Knoyle in Wiltshire (Smallcombe 1937). In general, however, the ceramic finds in each pit consisted of a small collection of sherds, often representing multiple vessels.

At long barrow pits, pottery deposits were considerably less common. They were found in only 8 of the 57 pits, and most deposits were very small. The pit at Lanhill contained only 'crumbs' of Neolithic pottery, while the Wor Barrow pit and Fussell's Lodge Pit III each contained only a single sherd (Pitt Rivers 1898; Ashbee 1966; King 1966:81). Millbarrow Pit 548 contained a more substantial deposit of plain sherds, and the earth fill of the grave pit at Oldbury contained 'an abundance of rude pottery and flint flakes' (Cunnington 1872:103; Whittle 1994).

Site Name	HR	Pot	Flake	Tool	Axe	Core	Grindstone	Plant	Animal	Empty
Bowl's Barrow										●
Corton (#1)										●
Corton (#2)										●
Easton Down										●
Figheldean 31										●
Fussell's Lodge (#1)										●
Fussell's Lodge (#2)		●								
Fussell's Lodge (#3)	●									
Fussell's Lodge (#4)										●
Fussell's Lodge (#5)		●								
Fussell's Lodge (#6)		●	●							
Giant's Grave (Som)			●						●	
Giant's Grave South										●
Heytesbury										●
Holdenhurst										●
Horslip (#1)										●
Horslip (#2)			●	●						
Horslip (#3)										●
Horslip (#4)										●
Horslip (#5)										●
Horslip (#6)										●
Horslip (#7)			●						●	
Horslip (#8)										●
Horslip (#9)										●
King's Play Down (#1)									●	
King's Play Down (#2)										●
King's Play Down (#3)										●
Knook 5										●
Knook Barrow	?								?	
Lanhill		●					●			

Site Name	HR	Pot	Flake	Tool	Axe	Core	Grindstone	Plant	Animal	Empty
Lugbury	●			●						
Millbarrow (#401)	●									
Millbarrow (#482)										●
Millbarrow (#497)									●	
Millbarrow (#536)										●
Millbarrow (#548)	●	●								
Millbarrow (#534)									●	
Millbarrow (#551)		●								
Oldbury Hill (#1)										●
Oldbury Hill (#2)	●	●	●							
Orchardleigh										●
Priddy Long Barrow										●
Shepherd's Shore										●
Sherrington									●	
Stockton Barrow										●
Thickthorn Down (#1)						●				
Thickthorn Down (#2)										●
Thickthorn Down (#3)										●
Tilshead Old Ditch										●
Warminster 6	●									
Winterbourne Stoke 1 (#1)										●
Winterbourne Stoke 1 (#2)										●
Winterbourne Stoke 1 (#3)										●
Winterbourne Stoke 53 (#1)										●
Winterbourne Stoke 53 (#2)										●
Wor Barrow (#1)		●								
Wor Barrow (#2)			●							

Table 4.2 Pit contents at long barrow sites in the West Country
(See Table 4.1 for references)

Site Name	HR	Pot	Flake	Tool	Axe	Core	Grind Stone	Plant	Animal	Empty	References
Acton Turville			●	●				●			(Fowler & Walters 1981)
Amesbury 132		●									(Vatcher 1960 ; Gingell 1988)
Amesbury 133		●							●		(Vatcher 1960 ; Gingell 1988)
Castle Hill (#1)		●									(Musty 1959)
Castle Hill (#3)										●	(Musty 1959)
Castle Hill (#2)		●									(Musty 1959)
Chew Park		●	●				●	●			(Rahtz & Greenfield 1977)
Chippenham		●	●					●			(Anon 1991)
Coneybury Anomaly		●	●	●				●	●		(Richards 1990:40-61)
Corfe Mullen		●	●	●		●					(Field *et al.* 1964)
Cricklade By-Pass			●	●					●		(Anon 1978)
Durrington				●	●				●		http://www.PastScape.org
East Knoyle		●			●	●					(Smallcombe 1937)
Froglands Lane			●								(Russett 1985)
Home Farm		●	●	●							(Phillips 1972)
King Barrow Ridge 1		●	●	●					●		(Richards 1990:65-66)
Lake Farm		●	●	●							(Field *et al.* 1964)
Lodge Farm (#84)			●				●		●		(Addison 1989)
Lodge Farm (#25)		●	●			●			●		(Addison 1989)
Lodge Farm (#28)		●	●			●			●		(Addison 1989)
Lodge Farm (#29)							●				(Addison 1989)
Lodge Farm (#34)		●	●	●	●	●			●		(Addison 1989)
Mampitts Lane		●	●	●							(Farrar 1949; Farrar 1950)
Shrewton										●	(Anon 1990)
Southbourne		●	●	●		●		●			(Calkin 1947)

Site Name	HR	Pot	Flake	Tool	Axe	Core	Grind Stone	Plant	Animal	Empty	References
Summerslade (#423)										●	(Rawlings 1995)
Summerslade (#402)			●								(Rawlings 1995)
Summerslade (#407)			●								(Rawlings 1995)
Summerslade (#409)			●					●			(Rawlings 1995)
Summerslade (#412)			●	●		●		●			(Rawlings 1995)
Summerslade (#421)											(Rawlings 1995)
Summerslade (#425)										●	(Rawlings 1995)
Summerslade (#426)		●	●	●		●	●	●			(Rawlings 1995)
Summerslade (#434)		●	●	●							(Rawlings 1995)
Summerslade (#438)											(Rawlings 1995)
Sutton Poyntz		●	●	●		●					(Farrar 1957)
Tormarton		●	●			●			**?**		(Fowler & Walters 1981)
Tumpy Field		●		●					●		(Grimes 1960)
Vespasian's Ridge					●				●		(Richards 1990:66)
Waden Hill		●	●	●					●		(Cunnington 1914a; Thomas 1956)
West Overton 6a		●	●						●		(Smith & Simpson 1964)
Wilsford Down		●		●							(Richards 1990:158-171)

Table 4.3 Pit contents at non-monument sites in the West Country

Stone Artefacts

The deposition of stone artefacts also varied considerably between long barrow and non-monument pits, with stone tools of all descriptions being much more common in the latter. Worked flakes were found in only six long barrow pits, compared with 26 non-monument pits. Finished tools, including scrapers, blades, and leaf arrowheads were found in 18 non-monument pits, while the tools found in long barrows pits were an unidentified flint 'implement' at Lugbury (Thurnam 1857a) and a flint scraper at Horslip (Ashbee *et al.* 1979). Polished stone axes, or fragments of axes, were not found in any long barrow pits in the West Country region, and only a single pit at Thickthorn Down contained a flint core (Drew & Piggott 1936) . In comparison, four non-monument pits contained polished stone axes or fragments, and 10 contained flint cores. A small number of grinding stones were represented in the pit deposits at non-monument sites. Complete, unbroken saddle querns were found in Pits 84 and 29 at Lodge Farm, and a sarsen muller was found in Pit 426 at Summerslade Down (Addison 1989; Rawlings 1995). A fragment of a saddle quern was found in a pit in the forecourt of the Lanhill chambered long barrow, accompanied by fragments of pottery and rubble (King 1966). No other grinding stones were found in long barrow pits.

Plant and Animal Remains

Plant remains were found in the fills of eight non-monument pits; four contained cereal grains and six contained hazelnut shells. None of the long barrow pits were reported to contain plant remains. It is possible that this is a product of excavation method and reporting – 15 of the long barrow sites (21 pits) were excavated before 1900, and early antiquarians may have thought a hazelnut not worth recording. However, 12 sites (35 pits) were excavated under relatively modern conditions and it is noteworthy that no plant remains were reported from those sites either.

At the six long barrow sites where animal remains were found, they consisted primarily of deer antler. A pig jaw was found in Pit 497 at Millbarrow, along with chalk rubble and several sarsen stones, and the Sherrington long barrow pit contained 'the head of an ox, and one small horn of a deer' (Colt Hoare 1812:100; Whittle 1994). Animal remains were found in 14 non-monument pits and in contrast to the long barrow pits,

these consisted primarily of domestic animals, including cattle, sheep and pig. Deer was the only wild animal represented in any of the non-monument pits, with remains found in 7 pits. With the exception of the Coneybury Anomaly, all of the deer remains from non-monument pits consisted solely of antler.

'Special' and Placed Deposits

The use of pits as repositories for 'special' or deliberately-placed deposits is rare at both non-monument and long barrow pits in the West Country region. Most of the finds from long barrow pits consist of small amounts of fragmentary scattered materials, which in some cases may have arrived there accidentally. The non-monument pits contain artefacts and other finds in much greater numbers, but they tend to be mixed with earth and stones and no structure or deliberate intention in their placement is apparent.

There are several exceptions, however. As noted above, the Sherrington long barrow pit contained an ox head and a small deer horn, and this may represent a deliberately placed pit deposit (Colt Hoare 1812). It is the only deposit of cattle bone in a long barrow pit. Pit III at Fussell's Lodge contained an assortment of material including fragments of smoothed burnt clay, six flint flakes, a single sherd of Mortlake ware and small pellets of marcasite (Ashbee 1966). The variety and quantity of deposits in this pit is unusual among the long barrow pits, so it may also represent a deliberate or 'special' deposit. The quern fragment found in the Lanhill pit may also fall into this category.

Examples of deliberately-placed deposits are also found at non-monument sites. At Lodge Farm, five Neolithic pits were excavated, and four contained an assortment of stone artefacts, potsherds, and animal bone in a matrix of loam, chalk fragments and flints (Addison 1989). In Pit 29, however, the only find was a saddle quern that had been placed on a bed of ashy loam at the base of the circular pit. This form of structured deposition is not unknown in Neolithic Britain (Thomas 1999; Garrow 2006) and it almost certainly represents a deliberately placed deposit.

Another example of a special deposit in a non-monument pit is the material found eroding from a pit in the face of a small quarry at East Knoyle. The artefacts included a flat-based pot, (which crumbled before it could be recovered), a flint sickle, one complete polished stone axe and one complete partly-polished axe (Smallcombe 1937). Little is known of the circumstances of deposition, as the pit was found and the finds extracted by a local farmer, but the nature of the finds indicates that this was a deliberate and purposeful deposit.

Empty Pits

More than half of the pits beneath the long barrows in the West Country region are devoid of artefactual material, human remains, animal or plant remains, or finds of any description (Fig. 4.10). These empty pits have been identified from both antiquarian and modern excavations, so there does not appear to be an excavation bias at work here. The frequent identification of empty pts at long barrows contrasts with the single empty pit from the non-monument category, but unfortunately no useful comparison can be made due to the difficulty of attributing empty pits found in a non-monument context to the Neolithic.

The common occurrence of empty pits at long barrows was remarked upon by the earliest excavators. As noted above, John Thurnam suggested the empty pits may have been designed to hold organic material, such as food or drink for the deceased, and perhaps fulfilled the same function as pottery vessels in later burials (Thurnam 1869a:181). William Greenwell, who excavated mainly in central and northern England in the 19th century, also commented on the frequency with which these features are found, and suggested that they may have 'been made as receptacles of food or some other perishable material' (Greenwell 1877:9). C.W. Phillips reported the presence of an empty pit in his excavation of the Giants Hills barrow in Lincolnshire, and noted the frequency with which these appear in long barrow contexts. He was at a loss to explain them, however, suggesting that they must have had an 'important ritual purpose' (Phillips 1935a:88).

More recently, other hypotheses for the frequent presence of empty pits have been proposed. Manby (1975) proposes that some of the pits under Yorkshire barrows may have been dug to extract natural clay, a possibility also discussed by Mick Rawlings in relation to pits found at the Whitesheet Hill causewayed enclosure (Rawlings *et al*. 2004). Other researchers have suggested that the pits may have been dug for flint extraction. While these very functional explanations may be applicable in some cases, they are unlikely to be widely applicable in this region, as the long barrows in the West Country are not generally constructed on clay formations, or on clay-with-flint deposits. In addition, the consistent placement and careful, precise cutting of the pits associated with mortuary deposits is inconsistent with a pit dug simply for extraction purposes.

An important question is whether the digging and filling of empty pits was a practice carried out only at monument sites, or if it was also practiced at non-monument sites. It is difficult to answer that question satisfactorily however, as empty pits found in a non-monument location can rarely be definitely identified as Neolithic features. Pits are usually attributed to a time period based on their contents, so in the absence of contents they are consigned to the 'uncertain' category.

The importance of pit-digging in the Neolithic is often linked to the deposition of artefactual material. In the case of the empty long barrow pits, however, the significance may instead lie in the selection of a location for the pit, and the acts of shaping, digging, and eventually backfilling the pit.

4.4.5.3 Pit Sizes

Another comparison that can be usefully made between the pits found at long barrows and those at non-monument sites is the size of the pits, based on the measurement of the long axis (Table 4.4). For the purposes of this analysis, the long axis is taken to be either the length of a rectangular, square or oval pit or the diameter of a round pit. In cases where dimensions are not provided in the text, they have been estimated from plans where possible.

PITS AT NON-MONUMENT SITES			PITS BENEATH LONG BARROWS	
Site Name	**Long Axis**		**Site Name**	**Long Axis**
Acton Turville	1.2		Bowl's Barrow	1.8
Amesbury 132	0.9		Corton (#1)	1.2
Amesbury 133	0.6		Corton (#2)	1.2
Castle Hill (#1)	0.6		Easton Down	0.6
Castle Hill (#2)	0.6		Figheldean 31	0.8
Castle Hill (#3)	0.6		Fussell's Lodge (#4)	0.3
Chew Park	1.1		Fussell's Lodge (#5)	0.3
Coneybury Anomaly	1.9		Fussell's Lodge (#6)	0.5
Corfe Mullen	2.1		Fussell's Lodge (#3)	1.1
Home Farm	0.7		Fussell's Lodge (#2)	1.4
Lake Farm	2.7		Fussell's Lodge (#1)	1.5
Lodge Farm (#25)	1.0		Giant's Grave S [Dorset]	1.0
Lodge Farm (#34)	1.2		Heytesbury	1.5
Lodge Farm (#28)	1.2		Holdenhurst	0.6
Lodge Farm (#84)	1.7		Horslip (#9)	0.4
Lodge Farm (#29)	1.0		Horslip (#8)	1.0
Mampitts Lane	2.7		Horslip (#7)	2.0
Southbourne	1.8		Horslip (#6)	2.5
Summerslade Down (#426)	0.5		Horslip (#4)	3.0
Summerslade Down (#434)	1.0		Horslip (#2)	3.0
Summerslade Down (#402)	1.5		Horslip (#5)	4.0
Summerslade Down (#425)	0.5		Horslip (#1)	5.0
Summerslade Down (#423)	0.8		Horslip (#3)	6.0
Summerslade Down (#421)	1.0		King's Play Down (#1)	0.6
Summerslade Down (#407)	1.5		King's Play Down (#2)	0.6
Summerslade Down (#412)	1.7		Millbarrow (#534)	0.5
Summerslade Down (#409)	1.8		Millbarrow (#536)	0.8
Summerslade Down (#438)	2.7		Millbarrow (#482)	1.0
Sutton Poyntz	1.4		Millbarrow (#401)	1.2
Tormarton	1.2		Millbarrow (#551)	1.2
Tumpy Field	1.2		Millbarrow (#497)	3.5
Waden Hill	1.2		Millbarrow (#548)	4.8
West Overton 6a	0.8		Oldbury Hill (#1)	0.9
			Priddy Long Barrow	0.8
			Shepherd's Shore	1.0
			Sherrington	0.6
			Thickthorn Down (#3)	1.8
			Thickthorn Down (#2)	3.0
			Thickthorn Down (#1)	3.6
			Tilshead Old Ditch	0.9
			Warminster 6	2.4
			Winterbourne Stoke 1 (#3)	0.5
			Winterbourne Stoke 1 (#1)	0.5
			Winterbourne Stoke 1 (#2)	0.5
			Wor Barrow (#2)	1.2

Table 4.4 Pit sizes (by long axis measurement) (excluding pits where no sizes are provided)

(See Tables 4.1 and 4.3 for references)

The majority of the long axis measurements at both long barrow and non-monument pits lie between 0 - 2.0 m (Fig. 4.11), but the clustering is clearly more pronounced at the non-monument sites, with 88% of the pits falling into that category, compared to only 75% of long barrow sites. A *Mann-Whitney* test confirms that there is no significant difference in the means of the two samples, (p=0.85), but a box and whisker plot (Fig. 4.12) demonstrates that there is considerably more variation in pit size around the mean, and more outliers, at long barrow sites than at non-monument sites.

The sample size for both categories is small, and pit sizes are not available for a number of sites. However, the results of this comparison indicate that the long barrow pits do apparently show greater variation in size than non-monument pits. This may indicate that the range of potential uses for pits was greater at long barrow sites, with the pit size reflecting the intended purpose of the pit.

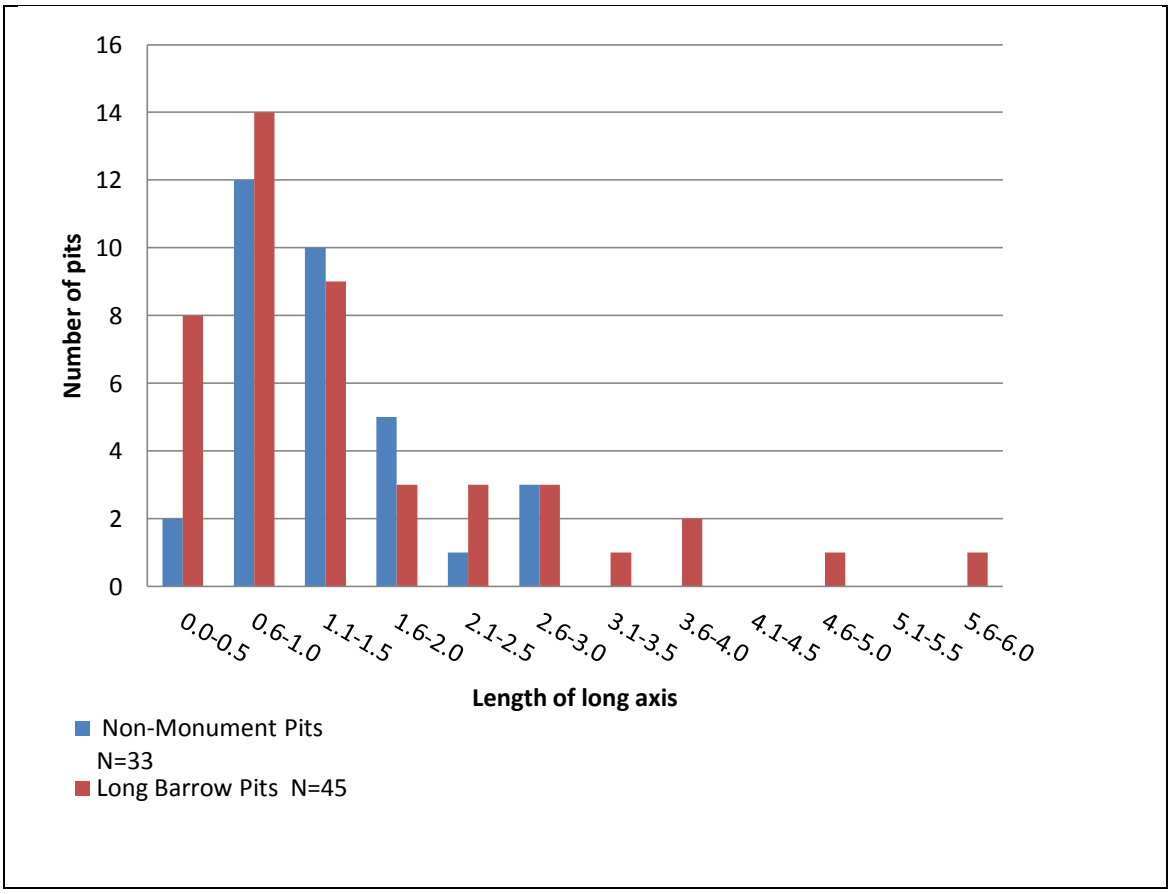


Fig. 4.11 Comparison of pit sizes at long barrow and non-monuments in the West Country

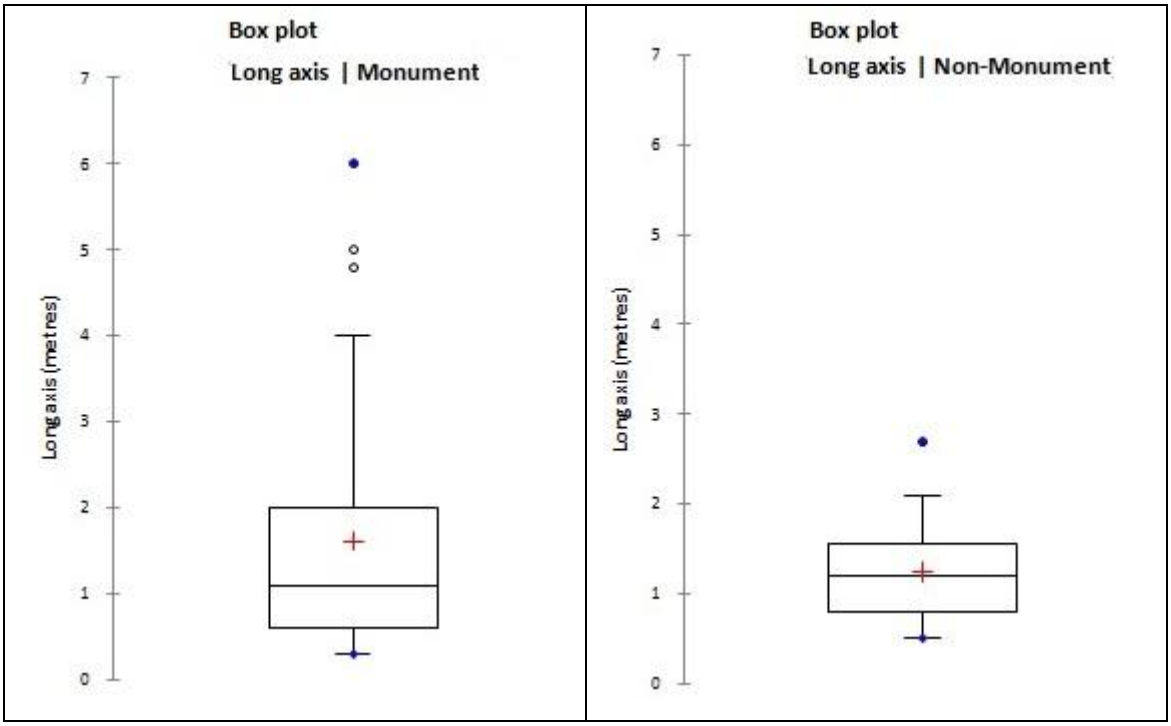


Fig. 4.12 Box and whisker plot demonstrating greater variation in pit sizes at long barrows

4.4.5.4 Summary of Pit Analysis

This analysis of the pits under long barrows in the West Country has enabled a greater understanding of the nature of sub-monument pits, and highlighted some differences between those pits and the pits found at non-monument sites.

First, there are strong indications that many of the pits under long barrows are directly linked to the activities around the construction and use of the long barrow, rather than being earlier features that resulted from pre-monument activities or events. At least 24 pits are clearly associated with mortuary deposits, including the three grave pits, the single pits found in association with human remains, and the paired pits which bracketed deposits of human bone. The paired pits may have supported timber mortuary structures, while the single pits were almost certainly dug for purposes related to funerary activities, but whether their purpose was practical or 'ritual' remains unknown.

Second, many pits are empty of artefacts and have simply been filled with earth, stone or chalk. At a number of sites, including King's Play Down, the excavator has remarked

that the pit fill is the same material as that used to construct the mound (Cunnington 1909b). As Field (2006:84) points out, this links the filling of the pit with the building of the barrow, and therefore implies that the pit and the mound were contemporary.

There are, however, some pits at long barrow sites which likely preceded the barrow by a considerable time. The Lanhill pit, for example, was located in the forecourt area and although the revetment wall did not survive in the vicinity of the pit, if the wall was symmetrical, it would have covered the pit. The finds from the pit comprised a fragment of a saddle quern (the only saddle quern fragment found in a long barrow pit in this region) and a few small potsherds. King (1966:81) suggests that the position of the pit and its contents indicate that it might be described as the vestiges of a 'ritual pit' and its placement beneath the revetment wall suggests that it was no longer in use by the time the barrow was constructed.

Similarly, the three pits at Thickthorn, if indeed they are the result of human activity, would most certainly have preceded barrow construction by a considerable period of time – long enough for a turfline to develop above the pits. This raises questions of whether and how the pits would have been marked. One possible answer to those questions was suggested at the site of two non-monument Neolithic pits found in a garden near Woodhenge. Above one of the pits was a large number of rough flints, and the excavator suggested that the flints may once have formed a small cairn above the pit (Stone & Young 1948:289). If sub-ground Neolithic features were indeed marked in this way, they would likely remain visible in the landscape for a lengthy time period. The Thickthorn excavators, however did not remark on the presence of a quantity of flints at that site, so if the later barrow placement was related to the earlier pits, the memory and significance of them may have been maintained through other means.

The comparative analysis of long barrow and non-monument pits has revealed a number of potentially significant differences between the pits at long barrows and those at non-monument sites. The long barrow pits, for the most part, do not appear to have been created for the deposition of archaeologically durable artefacts. More than half are completely devoid of finds, and only a small number of artefacts are

found in those that do contain deposits. The non-monument pits, in contrast, are much more likely to contain artefacts of various descriptions, but do not contain human remains. At first glance this appears to reflect a considerable contrast between long barrow pits and non-monument pits, but it must be remembered that the lack of identified empty pits at non-monument locations may reflect the difficulty in assigning a time period to an empty pit, rather than a lack of empty pits at non-monument sites.

Another notable difference between long barrow pits and pits found at non-monument sites is their size – pits at non-monument sites are more uniform in size and their long axis does not generally exceed 2 m, while the long barrow pits show more size variation and are sometimes very large.

4.5 Discussion

The buried ground surfaces beneath the long barrows of the West Country region contain a variety of features and deposits that provide considerable scope for assessing their possible significance. Although it is difficult to say with certainty that the barrow builders recognised potential barrow sites as significant and deliberately chose them for barrow construction, there are other conclusions that can be reached more easily.

It is certain, for example, that the pits, hearths, flint scatters and stakeholes found under the barrows were all created by individuals who used the site for some period of time – perhaps an hour, perhaps a week, perhaps longer. It is possible, but less certain, that the site held particular importance or cultural meaning for those individuals. At many sites, the pre-barrow activity was directly connected to the barrow construction and use, while at a few others it was a much earlier occupation, but a causal link between the pre-monument activity and the monument itself cannot be demonstrated.

At a small number of sites, such as Beckhampton Road and South Street, there is clear evidence that substantial activity was taking place prior to the placement of the long

barrows. At South Street this activity involved ploughing, episodes of flint knapping, the placement of considerable numbers of stakes for the construction of a fence or other boundary, and activities related to hearths or bonfires. At Beckhampton Road, the pre-barrow activity included large fires and the use of stakeholes to construct smaller structures. As discussed above, radiocarbon dates from Beckhampton confirm a significant time gap between the earlier activities and the later placement of the barrow and it is one the few Neolithic long barrow sites where such precise dating evidence is available. At South Street, the temporal separation is less precise but the presence of a turf line separating the earlier land use from the later barrow activity indicates that the time gap between the events was substantial. Whether the barrow builders recognised these sites as ones that had been formerly occupied is impossible to know for certain, but as discussed above, Neolithic people would have known their landscapes very well, and stories and memories of people and events in the past may well have persisted and eventually been commemorated in the form of a long barrow.

These types of sites are rare, however, and in most cases the traces of activity found on the ground surface likely took place either just before or in conjunction with the barrow construction and use. Several factors support this conclusion. First, the features and deposits at most sites appear to be found *on* the old ground surface, not buried under a turf line, which implies a short time depth between their creation and subsequent covering by the mound. Second, the placement of the barrows in relation to the pre-barrow features and deposits often suggests the features were visible and known to the monument builders, and their decision to place the barrow above them was deliberate. For example, at the Priddy long barrow the pre-mound pit was central to both axes of the mound – this is unlikely to have been a coincidence and implies that the pit was visible or marked in some way, and its centrality within the mound was intentional (Lewis 2002). Third, the pit analysis demonstrated considerable differences between the pits found at long barrows and those at non-monument sites. These differences suggest that pits dug at long barrows had different functions, meanings and symbology than those dug in non-monument contexts, and therefore pits at long barrow sites were created in response to purposes and motivations linked

directly to the construction and use of the long barrows, and not to earlier, possibly domestic, activities.

Although there was considerable evidence for activity and use of the land under the barrows, there was little structural evidence for houses or other buildings. The possible rectangular structure at Millbarrow is in fact the only example of a potential pre-mound structure beneath the barrows in this region. If Neolithic people were actually dwelling on the pre-barrow land surface, their settlement must have left as faint an archaeological signature as it does elsewhere in the Neolithic landscape of this region. Given that the land surface beneath barrow mounds is a protected, favourable environment for such structural evidence to survive, it is reasonable to conclude that in most cases, no such structures had been constructed under the mounds. This may reflect that fact that most Neolithic structures were ephemeral and did not leave any traces, or it might indicate that it was not appropriate or desirable to build barrows on top of the remains of houses or other structures. It is even possible that the monuments were built away from settlements, on the margins of the domestic landscape.

To summarise, the evidence from the buried ground surfaces demonstrates that prior human activity had taken place on the land on which some barrows were placed. At most sites, the land use and occupation was directly related to construction and use of the monument, and therefore did not influence the choice of its location. At other sites, however there are indications of fairly substantial occupations where light, temporary structures were constructed, tools were made and sharpened, wood was collected and used in fires for warmth and light, and pottery vessels were brought to the site and perhaps used to cook food. At the few sites in the West Country region where this substantial occupation has occurred, there appears to be a relatively lengthy time gap between the occupation and the barrow construction. It is possible, but not demonstrable, that this earlier occupation was a factor in the choice of the location for the later barrow construction.

The next chapter presents a second regional case study in which the buried land surfaces beneath chambered cairns in southwest Scotland will be examined and discussed within the local Neolithic context.

5. Regional Case Study 2: Southwest Scotland

5.1 Introduction

This chapter will explore the buried Neolithic land surfaces of southwest Scotland, defined for the purposes of this study as the administrative counties of Argyll and Bute, North Ayrshire, East Ayrshire, South Ayrshire, Inverclyde and Dumfries and Galloway, a total area of approximately 18,000 square km (Fig. 5.1).

Fig. 5.1 Location of southwest Scotland study area

The chapter begins with a brief history of archaeological research in southwest Scotland, followed by a discussion of the regional Mesolithic and Neolithic. The nature of the buried features and deposits is then presented and discussed in the context of other Neolithic sites in the region. The chapter concludes with comments on the potential significance of the buried land surfaces and the importance of place in the Neolithic landscapes of southwest Scotland.

5.2 Archaeological Research in Southwest Scotland

Southwest Scotland boasts a rich prehistoric archaeology – its Mesolithic shell middens, Neolithic monuments and other remnants of prehistory have long attracted antiquarian and archaeological interest. In the mid-18th century, early scholars including Thomas Pennant and Samuel Johnson visited the area and wrote of its people and antiquities (Johnson 1775; Pennant 1776). Less than a century later, excavations were being undertaken at chambered tombs throughout the region, especially in areas rich in monuments such as Kilmartin Glen and the island of Arran. Canon Greenwell (1866) investigated the Nether Largie and Ballymeanoch tombs in Kilmartin, while J. McArthur (1861) opened the Torlin and Dippen chambered tombs on Arran. In all, more than a dozen excavations of Neolithic monuments in southwest Scotland were recorded during the last half of the 19th century. Three of the Mesolithic shell middens on Oronsay were explored by Symington Grieve in 1879-82 (Ritchie 1997c). While it is true that these early excavations suffered from the methodological limits of their time, it is to the credit of most excavators that written accounts, often detailed and well illustrated, were published as a permanent record of their work.

In the early 1900s, Thomas Hastie Bryce, Professor of Anatomy at the University of Glasgow, opened at least 22 chambered tombs on Arran and Bute (Fig. 5.2). Although his initial intention was to locate human remains in order to 'obtain information as to the physical characteristics of the early inhabitants of the island' (Bryce 1902:75), he soon developed a keen interest in the archaeology of the tombs and he too published detailed accounts of his numerous excavations (Bryce 1902; 1903; 1909; 1910).

In many ways, Bryce's excavations methods were ahead of his time. He carefully measured, drew, photographed and published all of the sites that he excavated, and routinely sieved the spoil so that no small artefacts would be missed. The description of his excavation at Torlin cairn on Arran demonstrates that he was capable of careful techniques when he thought they were warranted:

> I then took the work into my own hands, and with a small trowel dug carefully in the corners and along the sides till [*sic*] a uniform level was reached, and then the process was repeated. (Bryce 1902:88)

Fig. 5.2 Giant's Grave North
One of many chambered cairns on Arran excavated by T.H. Bryce in the early 20th century.

In relation to the buried surfaces beneath the cairns, however, there were limitations to his work. His excavations were focussed on the chambers of the monuments, leaving the entrances, forecourts and the buried surfaces beneath the cairns un-investigated. He excavated the Monamore chambered cairn, for example, and because of the ruinous state of the chambers, declared that it 'merits only a brief description' (Bryce 1903:53) (Fig. 5.3). However, when Euan Mackie re-excavated Monamore in 1961, he discovered a thick layer of grey Neolithic earth in the forecourt containing potsherds, pitchstone fragments and the remnants of at least 21 small fires (Mackie 1964). It is entirely possible, therefore, that sub-mound features and deposits still lie under the cairns and turf around the many other chambered cairns Bryce excavated.

In addition to his failure to excavate outside the chamber areas, Bryce did not seem to recognise or report features such as pits or postholes on the buried surfaces inside the chambers, perhaps because his attention was concentrated on the chamber contents. In fact, he did not identify a single negative feature at any of the monuments he excavated. It is, of course, possible that no features were present, but, pits, postholes and stakeholes are reported in the chambers at other sites in the region (e.g. a small pit and a posthole were reported at Brackley (Scott 1952; 1956)), so the possibility that Bryce missed features on the chamber floors cannot be discounted.

Fig. 5.3 Monamore chambered cairn on Arran

During the early and middle decades of the 20th century, archaeological interest in the region continued unabated with more than 30 excavations of Neolithic monuments between 1920 and 1980. Since 1980, however, only two chambered cairns in the region have been excavated – Cairnderry and Bargrennan in Dumfries and Galloway (Cummings & Fowler 2007).

The prehistoric landscapes and monuments of southwest Scotland have also stimulated a range of important theoretical developments in Neolithic archaeology. Gordon Childe (1934) applied his colonization model for the Mesolithic-Neolithic transition to western Scotland, suggesting that incoming colonisers arrived by sea from the Iberian Peninsula or southern France, bringing sheep, cattle and cereals with them. The opposition they might have faced from the indigenous population was summed up by Childe in one sentence: 'As opponents to a landing they can be neglected' (1934: 19). Childe argued that the presence of chambered tombs could be taken as an indication of Neolithic settlement nearby, and suggested that raised beach terraces with their light, well-drained soils were more amenable to cultivation than the heavier clay soils found elsewhere in southwest Scotland. He proposed a settlement chronology based on aspects of tomb design, suggesting that the primary settlement of the region occurred in coastal regions near suitable landing places, and moved inland over time.

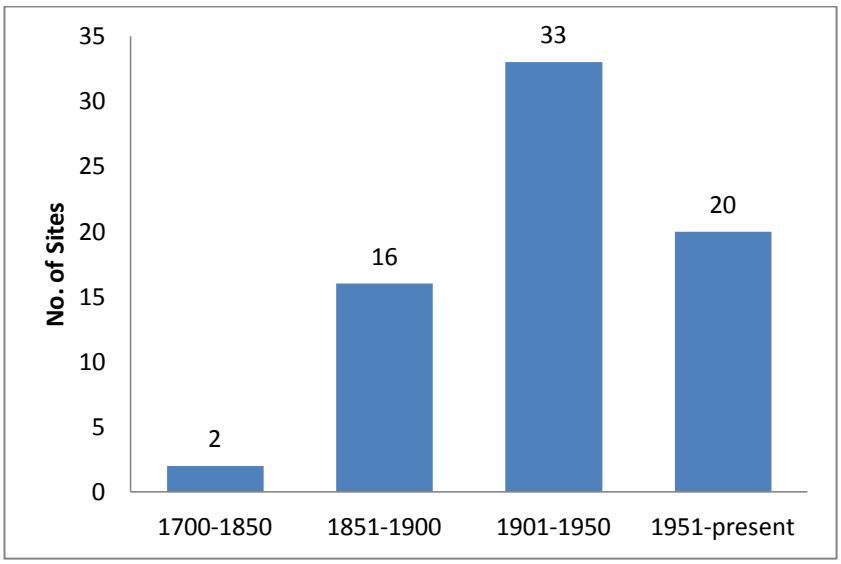


Fig. 5.4 Excavation dates of chambered cairns in southwest Scotland

Following up on Childe's hypothesis on the location of Neolithic tombs in relation to cultivable soils, Colin Renfrew (1973; 1981) published an important work on the distribution of chambered tombs on Arran. Using Thiessen polygons, he demonstrated that the Arran tombs were regularly spaced within discrete areas of productive farmland. Each area, or territory, was occupied by a single family, and the chambered tombs were built not just as ancestral burial places, but as territorial markers that symbolised ownership and long-term occupation of the land. Although this study offered important insights into the distributions

of megalithic tombs, its viability depends on it being transferable to other areas in the Clyde cairn region. The Clyde style of chambered cairns are found along a 140 km stretch of the southwest coast of Scotland, but the distribution of cairns on the mainland, even in prime agricultural areas, is sparse, and it is impossible to delineate the same clearly-defined territories anywhere outside of Arran (Hughes 1988). Further, Renfrew's model assumes that all the tombs are chronologically contemporary and 'equivalent' in fundamental ways, for example in terms of size and function.

As discussed in Chapter 4, evidence from the Achnacreebeag chambered cairn in Argyll and Bute has given rise to a resurgence of the Neolithic colonization theory. Alison Sheridan's study of the tomb and its contents suggest a strong connection with Brittany and potentially, the movement of people into western Scotland from Brittany (Sheridan 2000:13).

Two other strands of archaeological work have made a significant contribution to the store of available information on Neolithic sites and occupation of the region. First, the increased use of aerial photography has resulted in the identification of hundreds of previously unrecognised sites (Cowley & Brophy 2001), enabling a more complete picture of the prehistoric landscape to emerge. Secondly, the surge in developer-funded archaeology in Scotland since 1990 has resulted in numerous field surveys, watching briefs and excavations that have also produced much new information, particularly in relation to Neolithic settlement (Phillips & Bradley 2004).

During the past decade, new theoretical approaches to studying monuments have emerged; approaches that emphasise monumental landscapes over monumental morphologies and that seek the impetus for monument construction in ideological and symbolic terms, as well as economic ones. In southwest Scotland, this paradigm has been enthusiastically adopted, resulting in a number of thoughtful and innovative assessments of the monumental landscapes of this region (e.g. Cummings 2002c; 2003; Fraser 2004; Thomas 2004b; Coles 2005; Thomas 2007; Cummings 2009a). These approaches view the landscape not as a passive backdrop to human activity, but as a lived environment, one that is imbued with significance through embodied experiences, social practices, and collective memories. As

discussed in Chapter 3, it is within this theoretical paradigm that the present project is situated.

5.3 The Neolithic in Southwest Scotland

5.3.1 The Physical Landscape

The physical landscape of southwest Scotland is diverse – the low, gently rolling hills of Ayrshire and Dumfries and Galloway contrast with the more mountainous terrain of Argyll and Bute and the offshore islands. The region is bordered by several thousand kilometres of rough, jagged coastline, punctuated by jutting peninsulas and deep sea lochs, and includes the islands of Bute, Arran, Oronsay, Mull, Islay and Jura. The islands and sea played an important role in prehistory and, unlike other areas of Britain, prehistoric coastlines in this region have not been drowned by rising sea levels. Instead, isostatic uplift following the retreat of the glaciers has caused sea levels in this area to drop, preserving many of the coastal landscapes favoured by its prehistoric inhabitants.

Today much of the land in southwest Scotland is used for farming and pasture, but in prehistory, the landscape looked much different. As the climate began to warm at the end of the Late Glacial Period (10,000 BP), the herbs and shrubs that dominated the landscapes all over Scotland began to be replaced with woodlands, and by 5000 BP, all of Scotland was predominantly wooded (Edwards & Whittington 2003). In most of Argyll and Bute, Arran and the coastal islands the dominant trees were birch, hazel and oak while in the lowlands of Dumphries and Galloway and Ayrshire the dominant species were oak, hazel and elm (Tipping 1994).

Anthropogenic activity may have begun to impact on the woodlands as early as the Mesolithic when clearings were created in the woods, perhaps to encourage animal grazing (Noble 2006). On Arran, pollen cores indicate Mesolithic disturbance in the woodlands by 5770-5320 cal. BC (GU-1425; 6630±130 BP) and possibly earlier (Robinson & Dickson 1988). Woodland clearance became much more widespread in the Neolithic, as land was adapted

for agricultural crops and pasture for domestic animals (Tipping 1994; Edwards & Whittington 2003).

The earliest evidence for agriculture in Scotland comes from the eastern lowlands and Borders and dates to around 4000 cal. BC (Telford 2002: 297). In southwest Scotland it seems to have arrived somewhat later, c 3600-3400 cal. BC. At Ulva Cave, Mull, charred cereal grains of a cultivated variety were found in a pit in the upper levels of a Mesolithic shell midden; charcoal at the base of the pit was dated to 3940-3660 cal. BC (GU-2707; 4990± 60 BP) (Bonsall *et al*. 1994). A rescue excavation at Carradale, Kintyre revealed carbonised cereal grains and seeds in charcoal spreads that dated to 3600-3200 cal. BC (Carter & Tipping 1992: 47), and pollen analysis at Newton, Islay suggests farming was taking place there early in the fourth millennium (McCullagh 1989). Few agricultural features have been found in southwest Scotland, although John Barber identified a possible field system and associated structures at Machrie North on Arran (Barber 1997a).

5.3.2 Looking Back: The Mesolithic in Southwest Scotland

While the focus of this case study is on the Neolithic period in southwest Scotland, there is considerable evidence for overlap between the Mesolithic and Earlier Neolithic periods, so it is important to understand the nature of the pre-Neolithic landscape and people in the region.

Glacial ice had retreated from most of Scotland by 13,000 BP (Morrison & Bonsall 1989:134; Ballantyne 2004:29) and as soils and vegetation re-generated and wildlife became established, small mobile bands of hunter-gatherers arrived in Scotland. Although the timing and direction of their arrival is unclear, much of the early evidence for humans in Scotland is found in the eastern and central regions. Until very recently, the site of Cramond, near Edinburgh, boasted the earliest date for a human presence in Scotland at 8500 -8300 BC (Warren 2005). More recently, however, a late Upper Palaeolithic flint assemblage was found over several seasons of fieldwalking at Howburn Farm, Biggar, South Lanarkshire (Pitts 2009). This 14,000 year-old toolkit has pushed back the date for the first

occupation of Scotland and also represents the most northerly evidence for an Upper Palaeolithic presence in Britain as a whole.

In the southwest Scotland study area, the earliest Mesolithic sites are considerably later, dating to the centuries after 7500 BC. Apart from the midden sites discussed below, Mesolithic sites in this region are not particularly substantial, consisting mainly of lithic scatters, clusters of postholes or pits and stray finds. This is due in part to the ephemeral nature of Mesolithic architecture, but is also a result of local environmental conditions – much of the Mesolithic landscape has been buried under peat or laid to pasture, making sites difficult to locate. In addition, the acid soils of the region ensure exceptionally poor organic preservation (Mithen *et al*. 2007).

5.3.2.1 Shell Middens

There is however, one type of Mesolithic site that has survived very well and has shed considerable light on the Mesolithic occupation of southwest Scotland. These are the shell middens that have survived for millennia in coastal caves and rock shelters and in open air sites sealed by blown sand. The middens were created by the deliberate and repeated deposition of marine shells and other material over an extended period of time, and they often reached a considerable size. The alkaline nature of marine shell creates an excellent preservation environment, and so the middens provide us with a rare glimpse of some of the organic materials utilised by the people of the Scottish Mesolithic. The middens are dominated by limpet shells, but other types of shellfish are also found along with the remains of fish, marine mammals, sea birds and large numbers of hazelnut shells. Small numbers of human bones are also found. Artefacts typically include perforated mattock heads, bone awls, pitted pebble-hammers and the ubiquitous stone 'limpet scoops'. Microliths and retouched tools, however, are curiously absent from the middens (Mellars 1987).

Twelve shell midden sites are known in western Scotland, and five of those are located on the small island of Oronsay (Fig. 5.5). Oronsay measured only four km^2 in the Mesolithic (Mellars 2004: 175), and this cluster of sites on such a small landmass has led to controversy over whether the Oronsay middens are the work of a single group of people who lived

permanently year-round on the island, or the result of sporadic use by a number of different groups who lived on the mainland and visited the island seasonally. Recent stable isotope evidence from human bones from two of the middens (Cnoc Coig and Caisteal nan Gillean II) suggests that it is likely the midden-builders were permanent Oronsay residents (Richards & Mellars 1998; Schulting & Richards 2000). The analysis demonstrated 'a heavy reliance on marine food' indicating that the users of the midden were not leaving the coast to travel to inland sites in a seasonal round, but were exploiting mainly marine resources (Schulting & Richards 2000:59). This raises new and interesting questions about the character of Mesolithic settlement and mobility, and the nature of the homes of the island dwellers. None of the shell midden sites contained evidence of dwelling structures or lengthy habitation, and only Cnoc Coig had any structural evidence - two stake-hole settings associated with hearths and small pits on the former land surface beneath the midden (Bonsall 1997: 31; Ritchie 1997b: 39).

The creation of shell middens was a deliberate process, representing a series of depositional activities repeated time and time again in the same location. Most of the middens on Oronsay appear to have been in use for at least two or three centuries, and some for much longer. A shell midden in a cave on Ulva may have been in use for as long as three thousand years. The base of the Ulva midden yielded a radiocarbon date of 7290-6700 cal. BC (GU-2600; 7660±70 BP) while Early Unstan Ware in the cave entrance area and a radiocarbon date of 3940-3660 cal. BC (GU-2707; 4990±60 BP) confirm that the cave was utilised into the Earlier Neolithic (Bonsall *et al.* 1994).

We have no way today of knowing the factors that prompted Mesolithic people to begin constructing the middens, and to return to them again and again. The middens were visible markers in the landscape, and they acted perhaps as declarations of land ownership and territoriality. They may have served as mnemonic devices for stories, myths and memories of the ancestors who had once visited the middens and were now gone. The web of meaning embedded in their creation and use is demonstrated by the variety of remains found within them – artefacts, animal bones, human remains, hearths and other activity areas. Warren (2005: 124) refers to Mesolithic middens as 'visible histories of actions: a

place in the landscape where people could associate their acts with those of previous generations, or with the activities of those now transformed into spirits'.

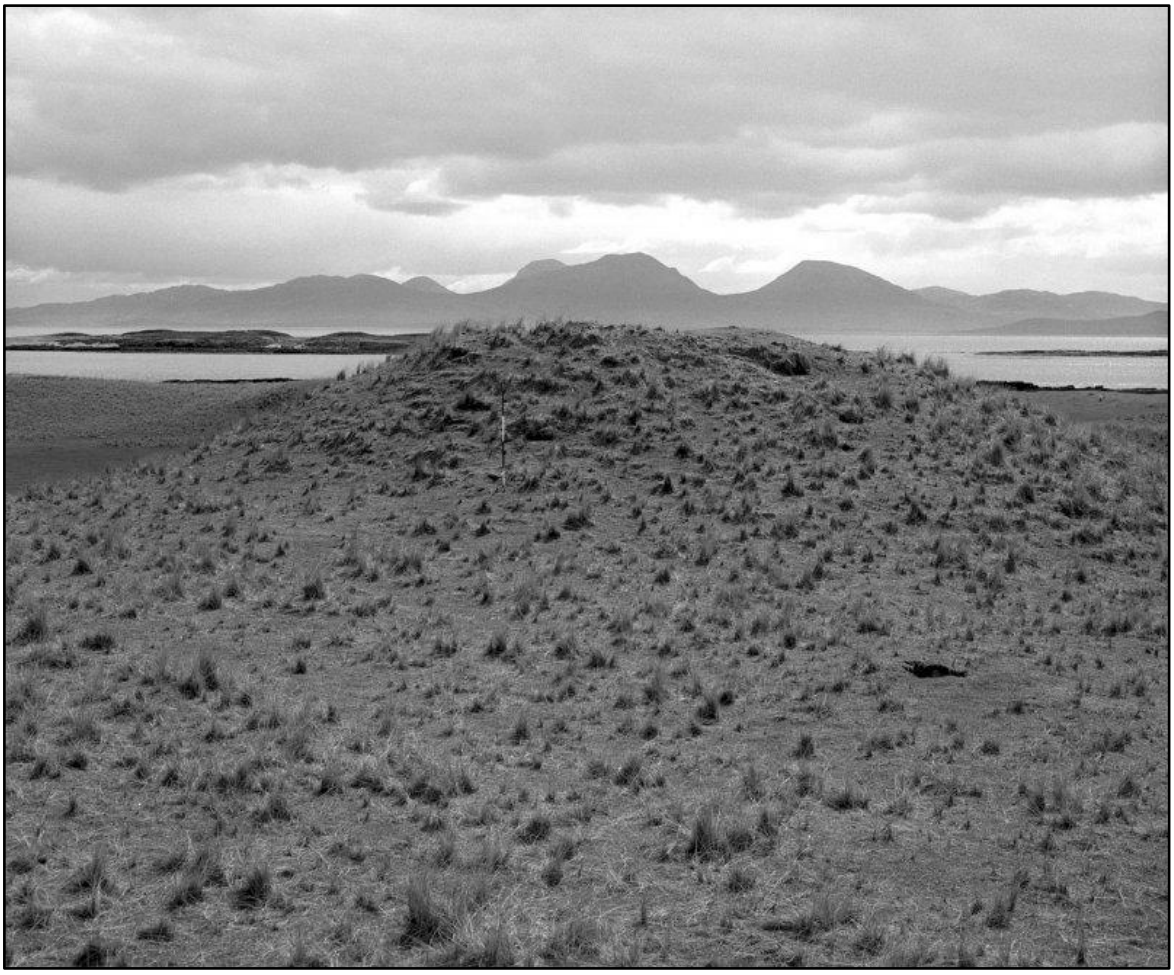


Fig. 5.5 Caisteal nan Gillean shell midden, Oronsay
Image courtesy of RCAHMS (Image # SC575742)

5.3.2.2 Mesolithic Settlement

Although more substantial timber structures have recently been recognised in other parts of Britain (Warren 2005: 128), Mesolithic architecture in southwest Scotland has not survived in any quantity. This dearth of settlement evidence is typical of hunter-gatherer communities, and need not reflect anything more than the expedient use of light temporary structures by a mobile population. The structural evidence that has survived generally consists of clusters of pits, hollows and postholes in association with hearths and stone settings or paving. A recent survey of Mesolithic structural evidence (Wickham-Jones 2004)

revealed that 14 such occupation sites have now been identified in southwest Scotland. It is interesting to note that half of the settlement sites are on the offshore islands and all but one are in coastal locations. The importance of the sea to Mesolithic people will be discussed in greater detail below.

One of the most extensive occupation sites in the region is Lussa Wood on the island of Jura, where excavations carried out by John Mercer from 1966-71 uncovered a structure consisting of three, contiguous, stone-lined hearths along with a collection of over 3,000 microliths (Mercer 1980). The site is located in a desirable valley location, near a salmon river and the shortest crossing to the mainland, and it appears to have been in use for a very long time. Radiocarbon dates from samples of charcoal and carbonised hazel-nut shells put the use of the hearths at 8200-6430 cal. BC (SRR-160; 8194±350 BP) and 7450-6460 cal. BC (SRR-159; 7963±200 BP) (Morrison & Bonsall 1989: 140). A tanged point found at the site, however, hints at an early Mesolithic occupation, and the presence of a leaf-shaped arrowhead and a stone axe fragment extend its use into the Neolithic.

At Lón Mór, near Oban in Argyll, excavation in advance of development in 1992 revealed a lithic scatter, dated to 6400-6100 cal. BC (AA-8793; 7385±60 BP) and an area of stone paving associated with a stone-lined hearth, dated to 4370-4050 cal. BC (AA-17452; 5420±65 BP) (Bonsall *et al.* 1993; Bonsall 1996). Once again, a long duration of site use and occupation is indicated.

A Mesolithic occupation site at Staosnaig, discovered in 1989 by the Southern Hebrides Mesolithic project, has been described as 'the most impressive structural feature so far published from Scotland' (Mellars 2004: 173). It is one of several Mesolithic features located on the raised beach terrace on the island of Colonsay, and consists of a large circular pit, 4.5 m in diameter, with a central posthole (Mithen 2000). Vast quantities of charred plant remains, including hazelnuts and apples, were found in the pit, along with more than 68,000 stone tool fragments. The excavators have interpreted the feature as the base of a hut. Unlike many Mesolithic sites, the creation and use of this feature appears to have occurred over a relatively short period of time, dated to around 6600-6430 cal. BC (AA-21622; 7660±55 BP) (*ibid)*. There is however some evidence that the site was utilised again during the Neolithic and Bronze Age periods.

5.3.2.3 Coasts & Islands

The surviving evidence for Mesolithic settlement in southwest Scotland shows a marked preference for island and coastal locations. The Southern Hebrides Mesolithic Project has found evidence for the occupation of the islands of Islay, Jura, Oronsay and Colonsay from about 7000 BC (Mithen 2000). On Arran, numerous flint scatters, charred hazelnut shells and fire spots attest to a human presence on the island during the Mesolithic period (Affleck *et al.* 1988; Allen & Edwards 1990; Barber 1997a).

Given the wealth of resources available in the coastal zone, the emphasis on coastal and island locations is not surprising. Coastal dwellers have access to the marine resources of the sea, the terrestrial resources of the land, and the shellfish and sea plants of the intertidal zone (Mellars 2004: 172). In addition to its economic advantages, the coastal zone would also have been an important strategic location. Although no contemporary boats have yet been found, the intensive use of offshore islands indicates that sea travel must have been an important part of Mesolithic life in this region of Scotland (Warren 2000: 97). It is also very likely, given the hilly terrain, jagged coastline and deep sea lochs of the region, that sea travel would have been considerably easier and faster than travelling on foot. Locating a dwelling or hunting camp near a decent landing, therefore, would have been convenient and practical.

Aside from these practical considerations, the sea would undoubtedly have carried important symbolic meaning for Mesolithic people and proximity to the sea may have been an important factor in deciding the locations of dwellings and other sites. This concept will be discussed in more detail below.

5.3.3 Settlement in the Southwest Scotland Neolithic

In the centuries around 4000 BC new technologies, architecture and ideologies began to emerge in southwest Scotland. Pottery began to be manufactured and used, domestic plants and animals were introduced, and large monumental stone structures were built. Whether these new practices represent the movement of people or of ideas is a matter of

long-standing debate (see Chapter 4) with preferred explanations going in and out of fashion as theoretical paradigms change. An important recent development is the recognition that there was significant regional variation in the nature and timing of the adoption of Neolithic traits. Universal models cannot adequately address these complexities and examinations at a regional context-specific level are necessary to understand the processes of transition from Mesolithic to Neolithic. In Scotland, a regional approach to the transition has been undertaken by a number of researchers and in all of these the influence of the indigenous Mesolithic populations on the transition is emphasised (e.g. Kinnes 1985; Armit & Finlayson 1992; Murray 2000; Telford 2002; Cummings 2007; but see Sheridan 2010 for an alternate interpretation). Many issues remain unresolved regarding the nature and timing of all of the elements of the Neolithic 'package' but it is clear that in southwest Scotland people were farming, making pottery and placing human remains in megalithic tombs by around 3800-3700 BC (Ashmore 2004: 133-4).

Although new practices and technologies were being introduced and adopted at this time, there are also indications that locales of Mesolithic activity continued to be used into the fourth millennium BC. Charcoal from early deposits at the Carding Mill Bay shell midden produced a surprisingly late radiocarbon date of 3945-3650 cal. BC (GU-2797; 4980±50 BP), which overlaps with dates from Earlier Neolithic chambered tombs such as Port Charlotte and Newton, Islay (Connock *et al*. 1992). At the Risga midden, a leaf-shaped arrowhead of bloodstone was found in excavations outside the midden, suggesting that this Mesolithic site continued to be visited into the Neolithic (Pollard 2000b:145). The persistent use of sites such as these over centuries and perhaps longer is an important theme for this study, and one that will be returned to at the end of this chapter.

For many years, archaeologists considered that one of the defining characteristics of a Neolithic way of life was permanent domestic settlement. Once people began tending crops and animal herds, and making and using fragile pottery, it was thought that they would no longer pack up and move around the landscape living in temporary shelters like their Mesolithic forebears, but instead would live year-round in substantial permanent homes. In recent years, however, a dearth of Neolithic settlement evidence in parts of Britain has led some archaeologists to argue that Neolithic communities did not 'settle down', but rather

maintained a generally mobile lifestyle (Armit & Finlayson 1992; Thomas 1999; Bailey *et al.* 2005). While this makes sense for many regions in Britain where settlement evidence is rare, it does not fit with evidence from other areas, such as Orkney, where there is plenty of evidence for Neolithic houses and structures. Researchers now recognise that there was considerable variation in the ways in which local groups lived and worked in the Neolithic, and, as noted above, it is necessary to take a regional approach to understanding the processes at work, rather than seeking a one-size-fits-all explanation (Noble 2006; Bradley 2007).

Kenneth Brophy quite reasonably points out that despite the controversy over concepts of settlement, mobility and dwelling, 'Neolithic people must have slept, eaten and cooked, nurtured their children and moved their bowels somewhere'(Brophy 2006: 18). In southwest Scotland, it is not yet clear exactly where that 'somewhere' was. The substantial stone settlements of Orkney are not found in southwest Scotland, and until recently no parallels for the large timber halls of eastern Scotland had been identified. However, a recent excavation in advance of development at Lockerbie, Dumfries and Galloway, revealed a probable Neolithic timber hall approximately 8 m by 22 m in size, containing Carinated Bowl pottery and Neolithic flints (Kirby 2006; Sheridan 2007: 470). It is by no means clear, however, that these timber structures are 'houses' in any meaningful sense. A large quantity of charred cereal grain was found at Balbridie, indicating that the building may have been used for grain storage (Fairweather & Ralston 1993). Timber halls may also have been places of communal gathering for feasts or other celebrations (Topping 1996; Barclay 2002).

In general, though, the trend in southwest Scotland was toward lightly-built timber buildings (Brophy 2006: 21; Noble 2006), and their archaeological signature is not dissimilar from those of the earlier Mesolithic structures – clusters of pits, postholes, cobbled areas and hearths. At Fox Plantation, a possible structure is indicated by a circle of postholes, 7.5 m in diameter, with an entrance to the east (MacGregor 1996). A pit containing a polished stone axe, pottery and lithics was found in the interior of the structure. Similarly, an Earlier Neolithic settlement consisting of at least five structures was identified at Ardnadam in Argyll and Bute by a series of postholes, hearths, stone banks, and dated to 3705-3350 cal. BC (GU-1549; 4740±90 BP) (Rennie & al 1984; Ashmore 1997).

Dorothy Marshall (1978) identified a two-phase Neolithic settlement site beneath a Bronze Age cairn and later settlement at Auchategan, Argyll. The first phase of Neolithic occupation was represented by traces of two small huts, along with postholes and several hearths (Fig. 5.6). Numerous substantial hearths, several postholes and patches of cobbling were linked to the second phase, along with two greenstone axes, Carinated Bowl potsherds, flints and pitchstone fragments.

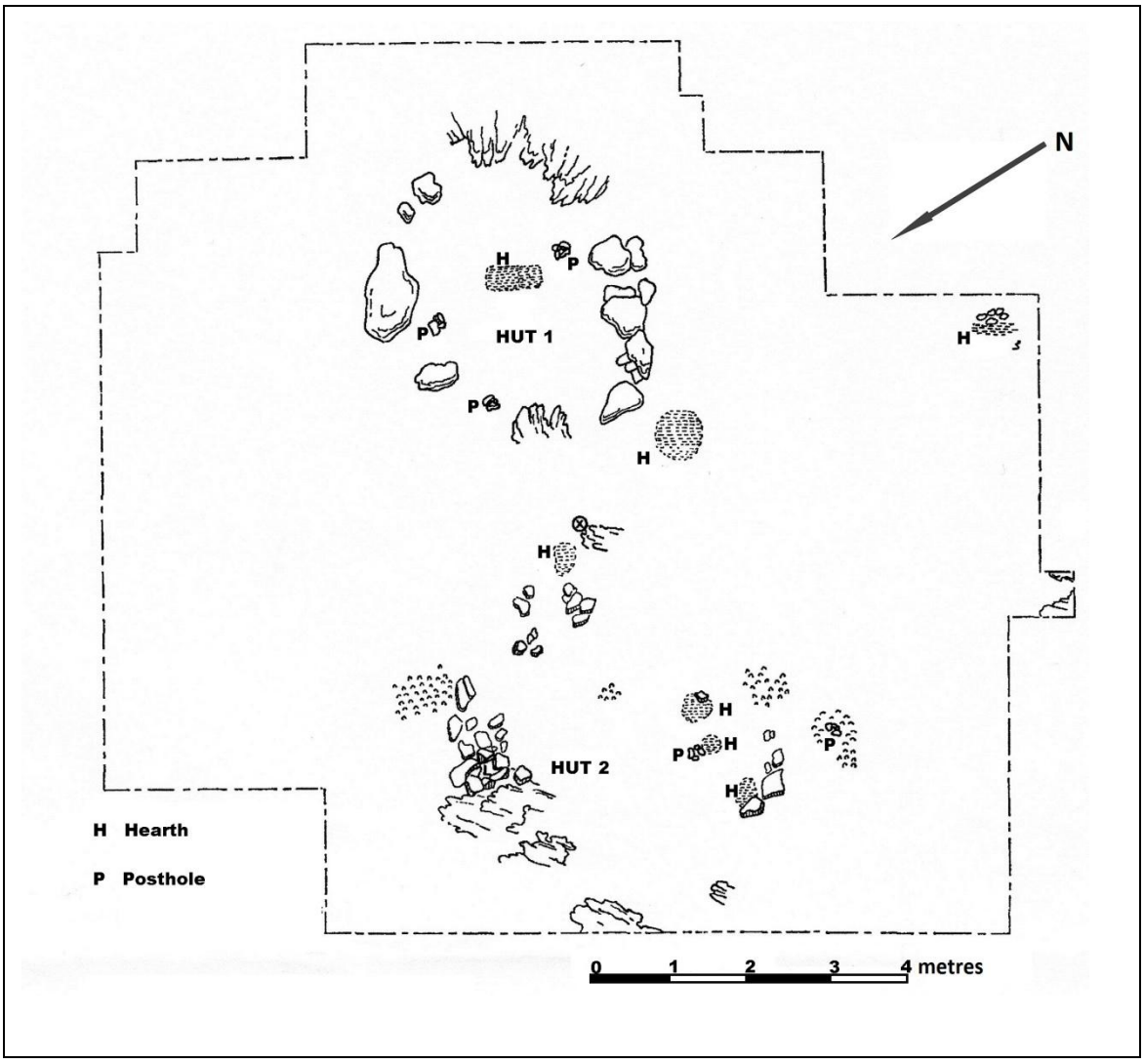


Fig. 5.6 Plan of the Phase 1 Neolithic settlement at Auchategan, Argyll after Marshall (1978)

These examples of Neolithic dwelling places demonstrate that in southwest Scotland, like much of Britain, occupation structures were slight and their archaeological traces are often difficult to locate. Nonetheless, sites such as these provide useful contrasts to the numerous standing monuments which tend to dominate Neolithic interpretation in this region.

5.3.3.1 Neolithic Journeys

Long-distance networks were well-established in southwest Scotland by the Earlier Neolithic and materials and ideas were being traded, bought or otherwise obtained over relatively long distances. The potential for an influx of Neolithic colonists from Europe has already been discussed above, and a recent simulation of possible maritime routes between Brittany, Ireland and Argyll demonstrated that such journeys would have been entirely possible (Callaghan & Scarre 2009).

Connections between southwest Scotland and Ireland during the Neolithic are well-documented. Similarities in the design and construction of chambered tombs in the two areas prompted Childe to classify them as a single group he called 'Clyde-Carlingford' (Childe 1940). Although this classification is no longer used, it is generally accepted that the Irish and Scottish tombs likely had a common origin (Henshall 1972; Scott 1973a; Cooney 2000; Cummings 2009a). In addition to similarities in chambered tomb design, there is considerable evidence for the movement of materials across the Irish Sea. Knives of Irish flint were found at the Giant's Graves and Sliddery Water chambered tombs on Arran and a hoard of Antrim flint axeheads and pre-forms was found at Campbeltown, Kintyre (Saville 1994: 63; Cooney 2000). Materials were moved in the other direction as well, as evidenced by the presence of Arran pitchstone at Irish sites such as Balleygalley and Nappan, Co Antrim (Sheridan 1987; Simpson & Meighan 1999; Preston *et al*. 2002).

Contacts within mainland Britain are also evident. Arran pitchstone has a wide distribution throughout Scotland and has been found as far away as Barnhouse in Orkney – a distance of at least 400 km (Saville 1994:62). A Group IV stone axe fragment was found in a Neolithic pit at Carzield, Dumfries and Galloway, confirming the movement of Cumbrian stone into southwest Scotland across the Solway Firth early in the 4th millennium BC (Maynard 1993). The yew used to make a flatbow found at Rotten Bottom, Dumfries and Galloway and dated to 4040-3640 cal. BC (OxA-3540; 5040±100 BP) was imported from either Cumbria or Ireland (Sheridan 2007:451).

These examples describe the movement of goods and materials across land and sea, but it is important to remember that it was people who moved the goods. People undertook

journeys to trade goods, to meet with extended family, to find food, perhaps to engage in warfare and almost certainly just for the adventure. The act of travelling, whether close to home or over great distance, requires an engagement with the landscape – an intimate knowledge of routeways, markers, and distances – so the traveller can reach his destination and find his way home. Along the way new experiences mark the land, places are named and remembered, and the landscape is inscribed with and forever altered by those experiences and the memories of them.

5.3.4 Monumental Landscapes

5.3.4.1 Chambered Cairns

In contrast to the mostly ephemeral nature of Neolithic settlement, monumental architecture can still be seen in the landscape today, standing as an enduring and visible reminder of the Neolithic past. These monuments are part of a wider tradition of megalithic tombs and passage graves found across Atlantic Europe. In all of these areas, the appearance of monuments coincides with the appearance of other Neolithic traits, suggesting the existence of shared cosmologies among the peoples of the North Atlantic coasts (Scarre 2002b).

More than 120 chambered tombs have been identified in southwest Scotland, and they are found in most parts of the mainland and islands, sometimes in pairs, but more often standing alone (Henshall 1972). Many destructive processes have been visited upon the tombs over the centuries – those that remain visible in the landscape today have survived agricultural improvements, road-building schemes, plough damage and the enthusiastic explorations of antiquarians and archaeologists. It is impossible to know how many did not survive, or what the original tomb distribution might have been.

Today, the distribution of the tombs is uneven, with clusters of monuments in some areas and none at all in others. This may be due in part to differential preservation, but it must also reflect the original distribution to some extent, at least with regard to the placement of dense clusters of monuments. In Argyll and Bute, monuments are clustered on the Kintyre peninsula, but there are only a handful in northern Argyll (Ritchie 1997d). In Ayrshire, much of the mainland is devoid of monuments, while the island of Arran can boast at least 18

chambered tombs. Similarly, in Dumfries and Galloway, monument distribution is restricted in large part to the southwest of Galloway (Cummings 2002c: 125). Some of the islands that were important locales in the Mesolithic do not appear to have been selected for the placement of chambered tombs in the Neolithic. Only one chambered tomb is located on each of Mull and Jura, and there are none at all on Oronsay, Tiree, Coll and Colonsay (Ritchie 1997a).

The human remains that are commonly found in chambered tombs testify to their use as places of burial and funerary ritual. As Cummings (2007: 504) points out however, the monuments are likely to have had other, possibly equally important, roles in Neolithic society. Large forecourts at the entrances to the tombs were likely designed as places of performance, and the signs of activity often found in forecourts hint that the monuments may have been used for a range of activities including feasting and gathering, mourning and healing, or magic and transformation.

In general, the finds from the Neolithic monuments in southwest Scotland are similar to those found at monuments throughout northwest Europe: human bone (both burned and unburned), pottery, stone tools and fragments, and, less frequently, animal bone (Cummings 2007). In some cases, it appears to have been appropriate to deposit domestic debris at the tombs, and in others deposited material took the form of pottery, fine stone axes or flint arrowheads.

Clyde Cairns

Clyde cairns are the most common type of chambered cairn in southwest Scotland, with more than 100 known sites. They are irregularly distributed throughout Ayrshire and Argyll and Bute, with a smaller concentration in Dumfries and Galloway, and a handful of outliers in other parts of Scotland.

Morphologically, the Clyde cairn consists of a trapezoidal mound of stones, often with a semi-circular forecourt at the wider end defined by standing stones (Fig. 5.7). The cairn encloses a slab-built chamber divided into separate compartments by septal slabs. The number of compartments within the chamber varies from one to five. The chamber opens

into the wide end of the cairn, and sometimes there are secondary chambers opening into the narrow end or the sides of the cairn.

Most Clyde tombs are estimated to date to the Earlier Neolithic, based on available radiocarbon dates and the presence of early pottery types such as Carinated Bowl vessels. Jack Scott undertook an important study of Clyde cairns in the mid-20th century with the goals of determining the form of the earliest megalithic structures and identifying a sequence of tomb evolution throughout the Neolithic (Scott 1969a; 1973a). His research indicated that the earliest type of megalith in southwest Scotland, dubbed a *protomegalith*, was probably a simple above-ground rectangular chamber, accessible from the side or from the end (Scott 1973a: 117). Scott was also able to confirm that many tombs had gone through multiple episodes of construction over lengthy time periods. These 'multi-period tombs' exhibited complex sequences of construction, renewal, and expansion, with the additions of chambers, compartments or crescentic facades.

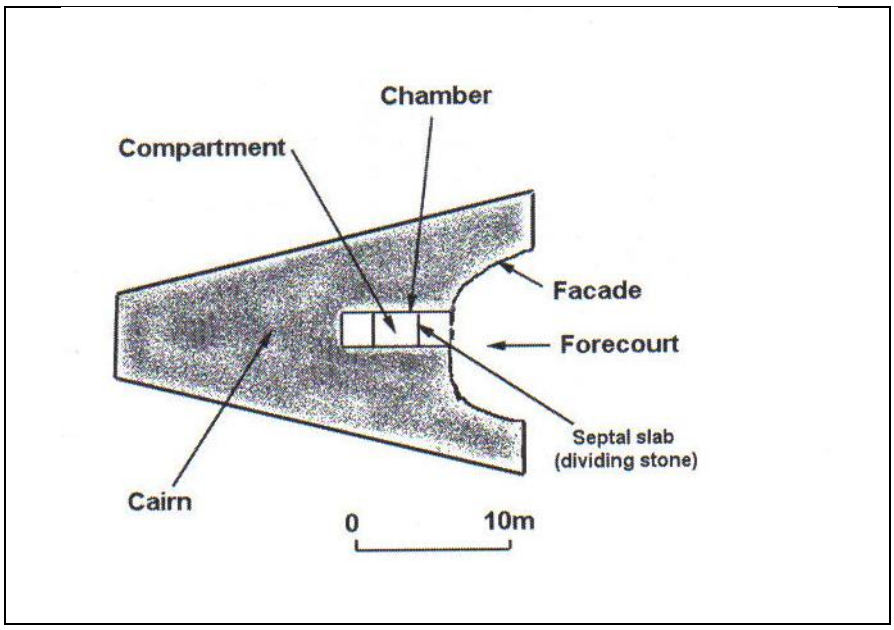


Fig. 5.7 Ground Plan of a Clyde Cairn after Noble (2005)

Bargrennan Tombs

The Bargrennan monuments are much fewer in number than the Clyde type, and have a considerably narrower distribution. Only 13 Bargrennan cairns have been identified and all

are situated in Dumfries and Galloway and Ayrshire. Eight of the thirteen are located within an area only 22.5 by 6.5 km (Henshall 1972: 3) and only four have been excavated.

Most Bargrennan cairns are round (although two are long), and the cairns cover one or more small passages and chambers, without compartments (Henshall 1972:6; Cummings & Fowler 2007). Unlike the Clyde cairns, the Bargrennan sites do not include a forecourt area. The Bargrennan monuments are likely later in date than the Clyde type, although no definitive dating evidence for Bargrennan cairns is available as yet. Several radiocarbon dates were obtained from the recent excavations at Cairnderry and Bargrennan, but do not date the construction of the cairns (Cummings & Fowler 2007).

5.3.4.2. Other Monuments

Chambered cairns were by no means the only monumental constructions of the southwest Scotland Neolithic, although they are by far the most common. Aerial photography has assisted in the identification of a cluster of cursus monuments in southern Dumfries and Galloway (Brophy 2007). Although most of these monuments are known only from crop marks, Julian Thomas's excavations at Holm, Holywood and Dunragit have added greatly to our knowledge of the construction and use of these enigmatic monuments (Thomas 2004a; 2007). Four Later Neolithic henge monuments have also been identified: Pict's Knowe and Broadlee in Dumfries and Galloway, Holms in North Ayrshire and Ballymeanoch in Argyll.

5.3.4.3 Monuments in the Landscape

Much has been, and will be, learned about the prehistoric people of southwest Scotland from the study of the artefacts and structures that survive to the present day. In recent years, however, interest has also focused on the significance of the landscape locations of Mesolithic and Neolithic sites. Research in a number of regions has demonstrated that monuments often appear to be situated in specific locations in the landscape, often in relationship to natural features such as mountains, rivers and coastlines (Tilley 1994; Scarre 2002a; Scarre 2002c; Cummings & Whittle 2004; Whittle 2004). The potential limitations of this approach were outlined in Chapter 3, but working within those limitations, it is reasonable to accept that natural places in the landscape would have been imbued with

symbolic significance for Neolithic people (Tilley 1994; Bradley 2000; Cummings 2002a; Scarre 2002d). It follows therefore, that people may have wished to commemorate that significance by deliberately situating monuments in these already important places.

In southwest Scotland, Vicky Cummings has demonstrated that chambered cairns were often placed with reference to mountains and sea, indicating that perhaps those features were symbolically important to the Neolithic communities of southwest Scotland (Cummings 2002c; 2004; 2009b).

Mountains

Mountains play an important role in the cosmologies of many traditional societies and may have done so for the early inhabitants of southwest Scotland. Mountain peaks have a practical role as navigational landmarks, helping people to move around landscapes and seascapes, and they are also considered by many traditional societies to be sacred places with links to the spirit world. Cummings and Fowler (2004:115) note that 'mountains are often shrouded in cloud and mist, hidden from the everyday world of the living, and blurring the land and sky'.

It is worth noting that virtually all of the megalithic monuments in southwest Scotland have views of mountains, and, in general, the most visually distinctive mountains are the ones most often in view (Cummings 2007). While it is impossible to be certain that specific mountains were revered, feared or worshipped in prehistoric southwest Scotland, there are several mountains in the region that can be identified as potential locales of ideological significance. In the area surrounding the Firth of Clyde, the distinctive peaks of Goatfell and Caisteal Abhail on Arran are known locally as the 'Sleeping Warrior'(Fig. 5.8). These lofty mountains dominate the area, contrasting with the low-lying valleys and gently rolling hills of the mainland and smaller islands. The Arran mountains can be seen from a significant number of tombs in the region, and given the dense concentration of tombs on Arran, it does not seem unreasonable to conclude that the island and its mountains played an important role in local practices and ideologies.

Fig. 5.8 The 'Sleeping Warrior' on Arran, from the Ayrshire Coast

Merrick Mountain in Dumfries and Galloway is the highest peak in Scotland's southern uplands and it may also have been a key point of reference for the builders of chambered tombs (Cummings & Fowler 2004). In particular, it seems to be a significant focal point for the Bargrennan cairns – all but one of the monuments are located near the mountain range and nearly all have a view of the Merrick (Cummings 2002c:134).

Sea

Most of the Clyde cairns in southwest Scotland are situated with reference to the sea (Henshall 1972; Cummings 2002c:132-3). Some tombs, such as Torlin on Arran, are located along the coast, close to the edge of the sea, while many others have a view of the sea and lands beyond. This emphasis on sea views may reflect the importance of the sea as a resource and as a giver and taker of life, as noted above for the Mesolithic sites, and the sea may also represent the arrival of new ideas, new materials and perhaps, new people. More

important than either of these, however, may be the symbolic importance of the sea and the coastal landscape in the prehistoric cosmology.

The coast has been described as a liminal zone, a boundary between worlds, a place constantly altered by tides, winds and weather (Pollard 1996; Scarre 2002a). The sea may have been seen as a connection with the ancestral homeland, and perhaps as the route over which the spirits of the dead returned home.

This emphasis on sea views is not shared with the Bargrennan cairns, which are generally situated inland with no views of the sea (Cummings & Fowler 2007). The builders of these monuments clearly did not share the belief systems and priorities of the builders of the Clyde cairns, and this reinforces the notion that the monuments of the Neolithic are meaningfully situated in the landscape according to specific ideas and beliefs, and that deliberately selected landscape locations were an intrinsic element of the monument itself.

This review of the Neolithic in southwest Scotland lays the groundwork for the following examination of the buried land surfaces beneath the excavated chambered cairns in this region.

5.4 The Buried Neolithic Land Surfaces of Southwest Scotland

The features and deposits reported on the ground surfaces of southwest Scotland's chambered cairns are itemised in Table 5.1.

When considering the results of this case study however, the caveats discussed in Chapter 4 on the nature of the evidence from buried land surfaces apply to southwest Scotland as well. The sample of 36 excavated sites represents only a small proportion (less than 30 percent) of the total number of chambered cairns in this region. Furthermore, more than half of the 36 sites in the sample were excavated before 1949 and the results are consequently limited.

In the following section, a description and analysis of the buried land surfaces is presented, followed by a discussion of the significance of the pre-mound features and deposits.

Site	Excav. Date [10]	Pit	Structural Features[11]	Ground Prep	Dark Soil	Cultivation	Fire / Hearth	Meso Activity	Standing Stone/ Post	Artefact Scatter	Other	References
Achnacreebeag	1970						●					(Ritchie 1970)
Bargrennan	2005	●	●		●		●	●				(Piggott 1949; Cummings & Fowler 2007)
Barmore Wood	1965		?				●					(Scott 1963; 1964a; 1965)
Beacharra	1961				●							(Bryce 1902; Scott 1964b)
Bicker's Houses	1903				●							(Bryce 1904)
Brackley	1953	●							●			(Scott 1956)
Cairnderry	2004									●		(Cummings & Fowler 2007)
Cairnholy I	1949				●		●		?	●		(Piggott & Powell 1949)
Cairnholy II	1949						●					(Piggott & Powell 1949)
Carn Ban	1902				●						●	(Bryce 1903)
Clachaig	1900				●							(Bryce 1902)
Cragabus	1901				●							(Bryce 1902)
Crarae	1957	●								●	●	(Scott 1961)
Cuff Hill	1874				●							(Patrick 1872; Love 1876)
Dalineun	1971	●			●		●					(Ritchie 1972)
Drannandow	1922				●							(Edwards 1923)
Dunan Beag	1909				●							(Bryce 1909)
Dunan Mor	1909				●							(Bryce 1909)
East Bennan	1908				●							(Bryce 1909)
Giant's Graves N	1902				●							(Bryce 1903)

[10] At sites where multiple excavations have occurred, this is the date of the most recent excavation.
[11] This category Includes postholes, stakeholes and other evidence for structural features.

Site	Excav. Date [10]	Pit	Structural Features [11]	Ground Prep	Dark Soil	Cultivation	Fire / Hearth	Meso Activity	Standing Stone/ Post	Artefact Scatter	Other	References
Glecknabae	1903				●			●				(Bryce 1904)
Glenvoidean	1971	●	●		●		●					(Marshall & Taylor 1977)
Haco's Tomb	1954						●					(Aitken & Marshall 1957)
Hilton	1975		●		●	●	●					(Marshall 1976)
Kilchoan	1864						●					(Mapleton 1866)
Lochhill	1971		●				●					(Masters 1973b)
Michaels Grave	1903				●							(Bryce 1904)
Mid Gleniron I	1966	●					●		●		●	(Corcoran 1969)
Mid Gleniron II	1966						●					(Corcoran 1969)
Monamore	1961						●					(Bryce 1903; Mackie 1964)
Nether Largie S	1864				●							(Greenwell 1866)
Oscar's Grave	1901				●							(Bryce 1902)
Port Charlotte	1979	●					●		●	●		(Harrington & Pierpoint 1980)
Slewcairn	1975		●				●		●			(Masters 1973a; 1974; 1975)
Torlin	1900				●							(McArthur 1861; Duncan 1897; Bryce 1902)
Tormore 1	1900				●							(Bryce 1902)

Table 5.1 Buried features and deposits beneath chambered cairns in southwest Scotland

5.4.1 Dark Soil Deposits

The most commonly reported find at chambered cairns in southwest Scotland is a layer or deposit of 'dark soil', often mixed with charcoal and occasionally with artefacts or bone. Dark soil deposits of various descriptions were reported at 22 chambered cairns across the region.

The deposits included here as 'dark soil' are variously referred to in terms such as greasy, unctuous, sticky, loamy, or dry. (The nature of dark soil is discussed below). In some cases there are inclusions within the dark soil layer such as human bone (burnt or unburnt), pot sherds and flints, but more often there are no inclusions other than charcoal. In fact at only two sites did the dark soil contain artefacts, fragmentary or otherwise, and at only seven did it contain human bone (Table 5.2).

Dark soil deposits are almost always found inside chambers – they are reported outside the chambers only at Bargrennan, Crarae, Dalineun, Hilton and Glecknabae. (As dark soil is most commonly reported at sites that were excavated before 1950 this may reflect the excavation bias of early excavators. This idea is discussed in more detail below). At Glenvoidean, however, which was excavated in the 1960s, the dark soil found in two of its three chambers did not appear to extend under the chamber walls (Marshall & Taylor 1977:9), suggesting that it was a deposit introduced into the chamber after it was constructed, rather than a pre-monument deposit.

Although dark soil deposits appear to be concentrated in chambers, they are not always found in every chamber or compartment of a particular site. At Drannandow, for example, dark soil deposits were reported in only two of its five chambers (Edwards 1923). Similarly, at Dunan Beag, which has two chambers, and Dunan Mor, which has three, only one of the chambers at each site contained dark soil (Bryce 1909).

In most cases the dark soil is described as a 'layer' which covers the floor of the chamber. The depth of the layer is rarely reported, but Henshall suggests that it was probably quite thin (Henshall 1972:89). At Cairnholy 1 and Drannandow (chamber C), the dark soil layer on the chamber floor had been covered with a pavement of stones.

SITE NAME	DESCRIPTION OF DARK SOIL DEPOSITS	LOCATION OF DARK SOIL	REFERENCE
Bargrennan	'a mass of black soil' mixed with cremated bones and abundant charcoal	pit in forecourt	(Piggott & Powell 1949:150)
	'black firm sticky silt... containing a high concentration of cremated bone'	pit in forecourt	(Cummings & Fowler 2007:43)
Beacharra	'black loamy earth' with no charcoal or bone inclusions	chambers	(Bryce 1902:104)
Bicker's Houses	'dark soil with portions of charcoal intermingled'	chambers	(Bryce 1904:25)
Cairnholy 1	'dark earth and stones' mixed with cremated bones, potsherds and other artefacts	antechamber	(Piggott & Powell 1949:117)
Carn Ban	'charcoal layer' 5 cm in depth	all compartments of the chamber	(Bryce 1903:41)
Clachaig	'a dry black mould very firmly compressed'; unburnt human bone	both chambers	(Bryce 1902:88)
Cragabus	'dark coloured mould'	all chambers	(Bryce 1902:111)
Crarae	'carbonized layer' of dark gravel containing charcoal and burnt bone	entire cairn	(Scott 1961:16)
Cuff Hill	'a small quantity of dark unctuous matter'	chamber	(Love 1876:278)
	'black calcined earth or matter'	passage floor	(Love 1876:278)
Dalineun	'artificial layer of black soil ...consolidated with stones'	outside chamber at NE end of cairn	(Ritchie 1972:49)
Drannandow	'a pocket of very black soil' with no inclusions	chamber A	(Edwards 1923:57)
	'black soil'	chamber C	(Edwards 1923:61)
Dunan Beag	'a layer of black earth' with numerous charcoal fragments in lower strata	south chamber	(Bryce 1909:344)
Dunan Mor	'usual layer of black soil and charcoal', containing a few fragments of burnt bone	south chamber	(Bryce 1909:353)
East Bennan	'black earth with charcoal'	chamber	(Bryce 1909:341)
Giant's Graves N	'charcoal layer'	chamber	(Bryce 1903)
Glecknabae	'layer of black earth' between cairn and underlying shell midden	entire cairn	(Bryce 1904:43)
	'the usual dark charcoal layer'	chamber	(Bryce 1904:47)
Glenvoidean	'blackened soil with flecks of charcoal'	East and west lateral chambers	(Marshall & Taylor 1977:8)
Hilton	'a considerable deposit of black greasy earth' up to 0.120 m deep.	atop a slab SE of the cairn edge; extends under the cairn	(Marshall 1976:9)
Michael's Grave	' a layer of black earth with charcoal'	chamber	(Bryce 1904:37)
Nether Largie South	'a layer of dark earthy matter, thickly interspersed with burnt bones' also containing quartz pebbles and flint	central chamber	(Greenwell 1866:343)
Oscar's Grave	'a layer of black matter mixed with a considerable amount of charcoal'	all chambers	(Bryce 1902:94)
Torlin	'a blackish mould, compressed into almost stony hardness', in which unburnt human bones were embedded	south chamber	(Bryce 1902:83)
Tormore I	'a layer of black soil' mixed with charcoal	all chambers	(Bryce 1902:99)

Table 5.2 Brief description of dark soil deposits at chambered cairns in southwest Scotland

Dark soil forms a more discrete deposit at Drannandow (chamber A), where a 'pocket of very black soil', 20 cm deep by 18 cm in diameter, was found in a corner of the northern compartment of chamber A (Edwards 1923:57). Although the soil was carefully sieved, no inclusions whatsoever were identified. Similarly, the dark soil at Bargrennan was found in a pit, but in this case the soil was mixed with cremated bones and charcoal (Piggott & Powell 1949; Cummings & Fowler 2007).

	TOTAL NO. EXCAVATED SITES	NO. OF SITES WITH DARK SOIL DEPOSITS	PERCENTAGE OF SITES WITH DARK SOIL DEPOSITS
Northern Scotland	100	23	23%
SE Scotland	18	4	22%
SW Scotland	**65**	**22**	**34%**
Northern England	93	12	13%
Central England	33	3	9%
SE England	30	3	10%
SW England	207	28	13%
Wales	36	6	16%
Total	582	101	17%

Table 5.3 Frequency of dark soil deposits at barrows and chambered cairns in Britain

Dark soil deposits are reported at Neolithic sites across Britain, but are considerably more common in southwest Scotland than in other regions (Table 5.3). It is possible that the dark soil deposits formed part of the regional repertoire of ceremonial or funerary practices that were carried out at southwest Scotland chambered cairns.

5.4.1.1 The Nature of 'Dark Soil'

Dark soil deposits have been found in Neolithic monumental sites across Britain and explanations for the source of the dark soil have been sought since the early years of the 19th century. Colt Hoare had a sample of dark soil examined by two leading chemists of the day who judged it to be derived from decomposed vegetable matter or decayed turf, while William Cunnington compared it to a 'rich garden mould' and conjectured that it was created through habitation of nearby areas (Cunnington 1806:344; Thurnam 1860b:413). Later, John Thurnam drew comparisons with the thatched roof structures erected over the bodies of Scythian kings, suggesting that similar structures may have given rise to the layers of black earth found in so many of the Wiltshire long barrows (Thurnam 1860b:420). Greenwell (1866:341) implied that

the source of dark soil was decayed human remains, while Love (1876:278) suggested that it was adipocere, or grave wax. William Cunnngton, the grandson of the Cunnington mentioned above, tested the black earth from Bole's Barrow in Wiltshire, and found that it contained ammonia, leading him to conclude that the material was blood (Cunnington 1889; Field 2006).

T. H. Bryce took a special interest in the dark soil he found so often in southwest Scotland, and he undertook various tests of the material to try to determine its constituents and origin. He examined dark soil from the Oscar's Grave chambered cairn under a microscope and found that 'it proved to be a mixture of earthy particles and minute fragments of charcoal, most, if not all, of them being wood-charcoal' (Bryce 1902:94). He also placed a sample of the dark soil from the Tormore 1 cairn into water:

> The black colour was due to minute particles of charcoal, which floated on the surface, while the earthy particles were deposited. The deposit, when dried, lost its black colour; and when examined under the microscope was found to consist of earthy particles and minute crystals of various sorts. (Bryce 1902:99)

The idea that the dark soil derives in some way from human occupation, first proposed by Cunnington in 1806, has gained new currency today. Ashbee (1976) notes the proximity of Scillonian entrance graves to field systems and suggests that the monuments may be associated with the fertility of the soil and may have been constructed as repositories for occupation earth, rather than as burial tombs.

There is clearly a great deal of variation in the content and structure of dark soil deposits at Neolithic sites across Britain. Some dark soils contain artefacts, bone and/or charcoal and others do not. Some appear to consist entirely of decayed organic matter, some have been burnt, and others have formed into hard concretions. It is likely therefore that the material referred to in excavation reports and other literature as 'dark soil' or 'dark earth' represents a variety of deposits which share a characteristic dark colour and little else. In southwest Scotland, although the nature of the soil matrix appears to vary from site to site, the presence of charcoal and the absence of artefacts is almost universal. This inter-site similarity implies that the dark

soil deposits are the result of a particular practice carried out, perhaps as part of funerary rites, at chambered cairns across the region.

5.4.1.2 Excavation Bias

One factor that appears to impact the identification and reporting of dark soil is the date at which the site was excavated. Approximately 33 percent of sites in southwest Scotland that were excavated before 1950 reported the presence of dark soil in one form or another, compared with only 21 percent of those excavated after 1950 (Fig. 5.9). One explanation for this disparity might relate to the fact that most of the sites excavated in southwest Scotland prior to 1950 were excavated by the same person. Bryce reported finding dark soil at most of sites he excavated in the region and so accustomed was he to finding the deposit that he sometimes referred to it as 'the usual dark layer' (Bryce 1909:353). On the rare occasion when he did not find it, such as at Ballynaughton, he commented that 'there was none of the black mould met with elsewhere' (Bryce 1902:113). Bryce was not the only early excavator to expect dark soil deposits at chambered tomb sites. Dean Mapleton also remarked on the absence of 'unctuous matter' at Kilchoan (Mapleton 1866:355).

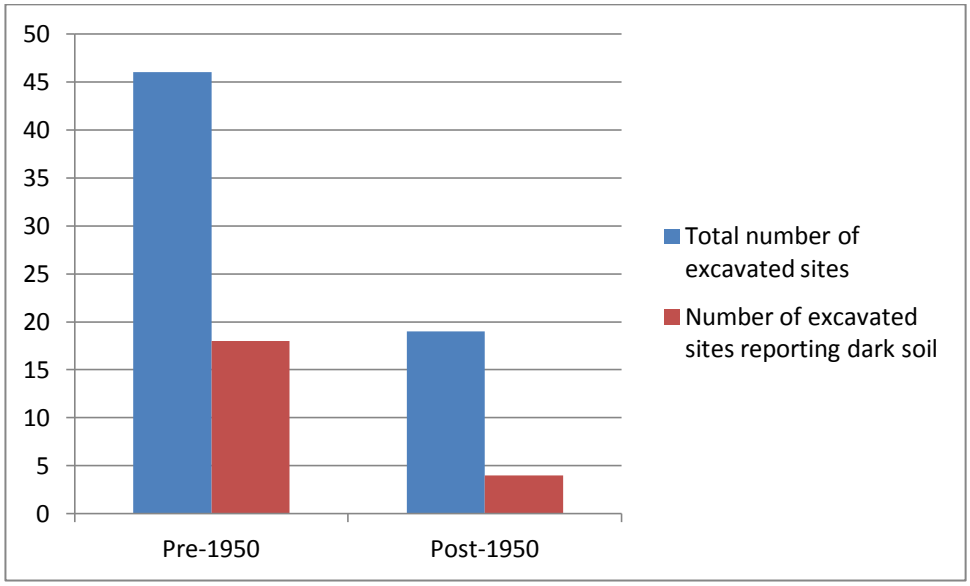


Fig. 5.9 Excavation dates of sites reporting dark soil deposits in southwest Scotland

It is difficult to explain why this material is not generally reported from later excavations. Perhaps it is due to the fact that the chambers in which dark soil deposits

are often found have suffered ongoing damage and many are now roofless, allowing the percolation of rainwater or other natural processes to dilute and erode the deposits.

5.4.1.3 Discussion of Dark Soil Deposits

An important question for this study is whether the dark soil represents a pre-cairn deposit or a deposit that was introduced into the chamber during the period it was in use.

There are only two sites in the region where the dark soil deposits clearly pre-date the monument. At Glecknabae, a stratum of dark soil underlies the entire cairn, and separates the monument from the shell midden below. It is possible that there was sufficient chronological separation between the midden and the placement of the later cairn to allow a turf layer to develop, and the dark layer represents its subsequent decay. At Hilton, pre-cairn occupation was indicated by the presence of postholes, stakeholes and hearth material at the southeast edge of the cairn. The deposit of 'black greasy earth' was associated with the occupation evidence, and extended below the cairn stones at the southeast edge (Marshall 1976:9).

In most other cases the dark soil deposits appear to post-date monument construction, and likely represent activities linked to the use of the chambers. The act of introducing dark soil into the chambers may have played an integral role in ceremonies or rituals involving the deposition of human remains. Fragmentary human remains are occasionally found within the dark soil, and in other cases, human remains were placed upon the dark soil layer. Henshall (1972:96) suggests that the dark soil layers may have been connected with ritual activities, including perhaps the ceremonial delivery of 'glowing charcoal' into the chambers.

Evidence for fires and burning is almost universally found at chambered cairns in this region, and the charcoal often found within the dark soil may have been an important element linking the potent and transformative powers of fire to the chamber and its contents. This idea will be discussed in greater depth in the next section.

5.4.2 Burning the Ground

A recurrent theme in the examination of buried ground surfaces in southwest Scotland relates to the use of fire at the chambered cairns in this region. The transformative power of fire is etched on the ground surfaces and referenced in deposits of charcoal and burnt bone. The nature of the fire residue takes several forms and these will be presented first, followed by a discussion on the potential significance of this elemental force.

5.4.2.1 Hearths and Areas of Burning

The residues of *in situ* fires are found on the buried ground surfaces of 16 of the chambered cairns in southwest Scotland. They are sometimes described as hearths or charcoal spreads, and in other cases as patches of burnt sand or stone. Most are discrete patches of burnt ground indicative of small, short-lived fires, and are found both within and without the chambers.

The chambers at Barmore Wood, Cairnholy II, Haco's Tomb, Kilchoan, and Port Charlotte all contained small hearths or burnt areas. Henshall (1972:97) suggests the Haco's Tomb and Cairnholy II hearths may be secondary features. The charcoal spread at Port Charlotte lay at the base of a stone hole in association with human bone, and is therefore likely related to funerary rites carried out after the monument was constructed (Harrington & Pierpoint 1980). At Barmore Wood, patches of burnt earth were sealed beneath a layer of clay 10 cm thick in the northwest chamber, and were associated with traces of cremated bone and charcoal (Scott 1963; Scott 1964a; Scott 1965) . Limited publication of this site, however, means that the question of whether the burnt patches pre-date the monument or were associated with funerary activities cannot be answered.

Fig. 5.10 Kilchoan Chambered Cairn
Reproduced courtesy of RCAHMS (Image # SC3753589)

At the base of the chamber of the Kilchoan cairn (Fig. 5.10) was a layer of apparently undisturbed 'white concrete, full of charcoal' extending over the whole surface (Mapleton 1866:354). Numerous deposits of burnt human bone were found on the 'concrete', and below it was a layer 7-10 cm thick of imported yellow sand which had also been burnt. A charcoal deposit lay at the base of the sand in all three compartments.

At Mid Gleniron II, a small burnt patch was found in a hollow at the entrance to the chamber (Corcoran 1969). This is reminiscent of Barclodiad y Gawres on the Isle of Anglesey in Wales where two hearths were found in the chamber entrance. George Nash suggests that fire may have been used to illuminate ritual activities in the forecourt and entrance, 'possibly a preparation ceremony where the body or the remains of the deceased were finally paraded before the ensemble' (Nash 2008:151).

The hearths and burning inside chambers is almost certainly linked to activities carried out during the use of the monument, but more extensive evidence for fire is found outside the chambers at several sites, and is likely linked to pre-monument activity.

Considerable evidence for the use of fire was found outside the chambers on the buried ground surface at Cairnholy I. Scatters of carbonised wood and areas of burnt soil beneath the cairn certainly predate the monument and may reflect ground clearance and site preparation activities (Piggott & Powell 1949:109). Beneath the blocking in the forecourt, six patches of intense burning were found. While the purpose and timing of the fires is not certain, there are indications that deliberate and perhaps significant actions were undertaken in relation to their placement. One area of burning was located directly on the central axis of the monument and overlay a large socket for a standing stone. Another had been covered with a thin layer of clean earth; sherds of pottery and a pitchstone flake were found in and near the burnt area.

At Achnacreebeag, a patch of burnt soil and charcoal flecks on the natural subsoil in the Phase 1 chamber appears to be the result of pre-monument ground-clearing activities (Ritchie 1970:34). Further charcoal spreads were located outside of the chamber, at least one of which was clearly lying beneath the basal layer of cairn material. Smears and patches of charcoal were also found in and around the Phase 2 passage grave at this site, and Ritchie suggests that these, too, are likely to be related to preparation of the site in advance of construction (Ritchie 1970:36).

At Monamore on Arran, at least 21 discrete charcoal spreads were found in the excavated areas of the forecourt, protected by a thick layer of earth deposited through hill slope erosion during the monument use-life and immediately thereafter. (Mackie 1964). The degree of protection afforded to the forecourt area by the overlying deposits at Monamore is rare, and the survival of these extensive traces of fire highlights the extent to which fire may have been used at other chambered cairn sites in southwest Scotland.

Four charcoal spreads were located within an artificial layer of black soil and stones on the old ground surface outside the chamber at Dalineun. This soil layer is also likely

related to the construction of the monument, placed there to raise the level of the outside ground surface up to the sill-stone, or perhaps simply to provide a solid surface in front of the chamber (Ritchie 1972:49) . While the soil deposit and associated charcoal spreads definitely pre-date the final blocking of the monument, there is no indication that the fires pre-date the monument itself and may represent activities carried out while the monument was in use.

Extensive evidence for pre-mound burning was found beneath and around the Glenvoidean cairn (Marshall & Taylor 1977). This included traces of burning of varying intensities on the old ground surface beneath the cairn across the entire area of the forecourt and extending beneath the facade stones. Numerous patches of burned ground were also found on the floor of the axial chamber, extending beneath the west walls of the axial chamber, indicating that the burning had taken place prior to the construction of the chamber. A hearth was also identified in an area of 'occupation debris' on the old ground surface to the west of (and outwith) the cairn (Marshall & Taylor 1977:11).

Perhaps the most extensive burning took place at the two unchambered long cairns in this region, Lochhill and Slewcairn, where pre-cairn timber mortuary structures were burned prior to cairn construction. These fires would have been much more extensive and spectacular than those at the chambered cairns, because of the large quantities of wood involved. These sites will be discussed in more detail below (see Section 5.4.4*)*.

5.4.2.2 Charcoal in Dark Soil Deposits

At 12 sites in the region where no *in situ* burning was identified, the residue of fire, and perhaps the memory of it, was brought to the monument in the form of charcoal, sometimes mixed with dark soil. At Bicker's Houses, Carn Ban and Giant's Graves North, the charcoal deposits were extensive (Bryce 1903; Bryce 1904). At each site the chamber floors had been covered with a layer of charcoal (minus the dark soil) – at Carn Ban the charcoal layer was 5 cm thick (Bryce 1903:41).

There is no evidence that the charcoal was created *in situ*, so it must have been created elsewhere, delivered to the site and then incorporated into the chambered cairn, either as a pre-cursor to the rituals and activities carried out there, or as part of those rituals. The amount of effort required to carry out these tasks suggests that the charcoal, and what it symbolised, was an essential component of ceremonial activity at the cairns.

5.4.2.3 Burnt Bone

At Nether Largie South, no charcoal deposits were present, nor was there any hint of *in situ* burning. However, in yet another reference to fire and burning, fragmentary burnt human bone was found. Again, the conclusion that must be drawn is that the human remains were burnt elsewhere, cleaned and separated from the charcoal matrix that would have resulted from the fire, and then transported and deposited at the chambered cairn.

5.4.2.4 Excavation Bias

As with most other categories of evidence in this region, excavation bias cannot be discounted as an explanation for apparent anomalies in the data. One such anomaly is that despite the widespread occurrence of fire at southwest Scotland cairns, Bryce did not record a single instance of *in situ* burning at any of the chambered cairns he excavated, although he recorded dark soil deposits in the chambers of nearly all of them. So virtually all instances of *in situ* burning were identified at post-1950 excavations, which suggests that the number of sites where *in situ* burning occurred might actually been considerably higher.

It is also possible that the practice of burning the ground and the act of introducing dark soil to the chambers were mutually exclusive, or at least, only one was necessary in order to meet the ceremonial requirements of the activities and practices carried out at the monuments.

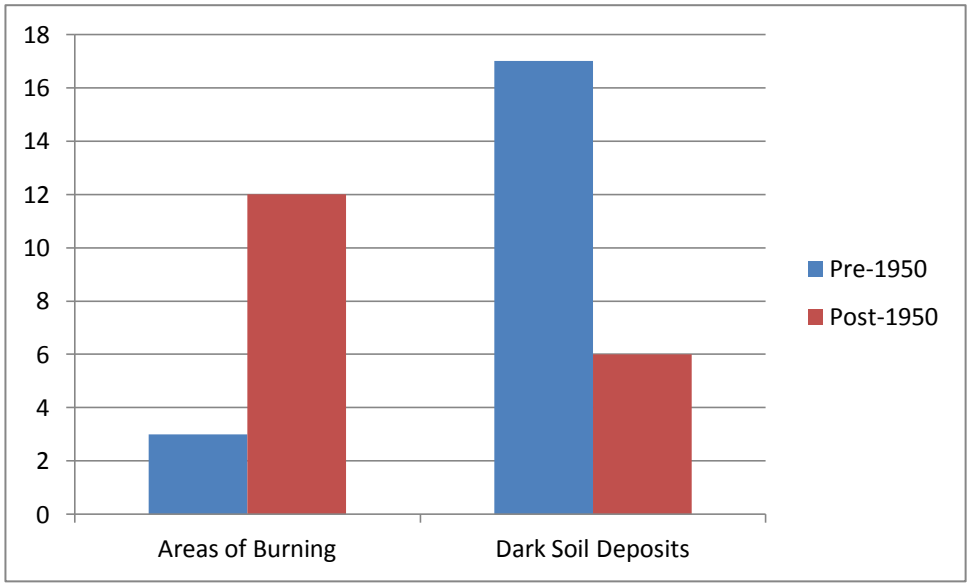


Fig. 5.11 Excavation dates of sites reporting burning and dark soil

5.4.2.5 Discussion of the Use of Fire

Fire serves many purposes and would have been a highly valued and possibly sacred commodity in prehistory. It has various practical uses, including the provision of warmth, light and heat. In the modern age of electricity it is easy to forget how important those functions would have been, especially during dark, cold, northern winters (Sørensen & Bille 2008). Fire can also destroy brush and undergrowth, preparing the land for cultivation, pasture or building. It is a regenerative force in the woodlands, encouraging new growth to attract grazing animals. Fire was a practical, and utterly indispensible, resource for prehistoric communities and we should not be surprised to find some evidence of it anywhere prehistoric people were occupying the land.

The evidence for fire on the buried land surfaces beneath the chambered cairns can be divided into two categories – burning that took place prior to construction of the monument and fires that occurred during monument construction and use. There is evidence for pre-monument burning at Cairnholy I, Achnacreebeag, Dalineun, Hilton and Glenvoidean. Although it was suggested that some of these fires were lit as an expedient way to clear the ground for monument construction, at Glenvoidean and

Hilton there is structural evidence for pre-monument occupation so it is also possible that the fires were linked to occupation activities. There is no indication of the amount of time that might have separated the fires from the monument construction, but one can speculate that the burning of fires was one way in which the land was marked, remembered and subsequently chosen for monument construction.

The use of fire during the life of the monuments, however, likely had more to do with its symbolic properties than its practical uses. Fire is destructive and frightening, but also powerful – it cleanses, purifies and transforms even as it destroys. Fire transforms experience – light is created, air becomes hot and smoky, sparks fly, and flames crackle. Fire engages all the senses, and thus enhances the experience of an event, and so fire may have been used to illuminate, but also to augment the experience of ritual or ceremonial events at the cairns. As Sørensen notes, 'The power of fire is not so much what it *is* but what it *does*' (Sørensen & Bille 2008:254). The frequent deposition of charcoal suggests that even the vestiges of fire had significant symbolic importance.

Fire was an important component at other Neolithic sites in the region and indeed in many parts of Britain. In lowland Scotland, many timber halls, enclosures and cursus monuments were intentionally and thoroughly destroyed by fire (Noble 2006). The post-defined cursus monument at Holm Farm, Dumfries and Galloway was constructed, destroyed by fire and re-constructed no less than eight times (Thomas 2007). As Noble (2006) points out, the burning of a large timber structure would have been a spectacular event, involving large numbers of people and lasting for some time. Thomas suggests that the deliberate act of burning the structures in this way was instrumental in forging memories and thus creating place (Thomas 2000).

There is little evidence that the fires that burned at the chambered cairns were as spectacular as those at timber monuments, yet their frequent occurrence in chambers suggests that in this region, fire played a central role in the ceremonies carried out at the cairns.

5.4.3 Pit Digging and Deposition

In southwest Scotland, like much of mainland Britain, the digging of pits and deposition of material in the pits is a practice that emerged during the Mesolithic and continued into the Neolithic and beyond. Mesolithic pits are found at the shell midden site of Cnoc Coig on Oronsay, where small pits, along with hearths, stakeholes and burnt stones were found on the ground surface beneath the shell midden (Mellars 1987). Pits were also found at a Mesolithic occupation site at Bolsay Farm, Islay, where more than 400,000 flint pieces were recovered from a 20 m by 15 m trench. Numerous stakeholes and pits were identified and charcoal from one of the pits was radiocarbon dated to 6420-5850 cal. BC (Q-3219; 7250±145 BP) (Mithen 2000).

Evidence for Neolithic pit-digging and deposition is found at a wide range of sites in southwest Scotland. Indeed, at most non-monument Neolithic sites in the region, as in Britain as a whole, cut features including pits, postholes and stakeholes are often the only remaining structural evidence of the Neolithic occupation of the site. Numerous pits were identified at the site of two timber circles on Machrie Moor, Arran, along with other features that attested to an Earlier Neolithic presence. Two large pits contained Carinated Bowl potsherds, flakes of Arran pitchstone, flints and hazelnut shells. Mixed charcoal in one of the pits yielded a radiocarbon date range of 3700-3380 cal. BC (GU-2321; 4820±50 BP), and oak charcoal in another pit produced a similar date of 3710-3360 cal. BC (GU-2315; 4770±90 BP) (Haggarty 1991; Ashmore 1997). At the Neolithic settlement site of Beckton Farm, Dumfries and Galloway, several pits contained Grooved Ware potsherds, charcoal, flint waste flakes, hazelnut shells and one pit contained cremated human and animal bone (Pollard 1997).

Pits were also an important component at other monumental sites in southwest Scotland. At the Pict's Knowe henge, a small pit containing a quantity of pottery and lithics was linked to a pre-henge Earlier Neolithic occupation of the site (Thomas 2007). At Holywood South, a series of pits containing pottery were found within the enclosure and likely pre-dated the cursus. Thomas suggests that the pits and other evidence for pre-monument activity at these sites demonstrates that the monuments

commemorated places in the landscape that were already significant in some way (Thomas 2007).

It is clear then that the digging and subsequent use of pits was an important activity in the creation and maintenance of many prehistoric settlement sites. It will be demonstrated below that this was not the case at chambered cairns in this region.

5.4.3.1 Pit Types

A total of 15 pits were found at eight of the 36 excavated chambered cairns in the region, although at two sites the pits were found to be secondary, intrusive features. Pits were found beneath both Bargrennan and Clyde type monuments, and in all areas of the study region. No sites with pits were reported on Arran, but, as will be discussed below, this may reflect excavation techniques more than reality.

For the purposes of discussion, the pits in this sample can be divided into three categories, as shown in Table 5.4.

Primary or Pre-monument Features

The six pits in this category were likely dug either prior to monument construction or as part of the primary use of the monument.

A small pit outside the west lateral chamber at Glenvoidean was found to contain only pebbles on one side and gravelly soil on the other (Marshall & Taylor 1977). There were no diagnostic finds and nothing to indicate the purpose or date of the pit. There was considerable evidence for pre-monument occupation on the west side of the Glenvoidean cairn, so it is possible that the pit may have been linked to this occupation.

SITE NAME	PRIMARY	STONE HOLE	SECONDARY
Bargrennan (Pit 1)			●
Bargrennan (Pit 2)			●
Bargrennan (Pit 3)			●
Brackley (Pit 1)	●		
Brackley (Pit 2)	●		
Cairnholy		●	
Crarae (Pit 1)	●		
Crarae (Pit 2)	●		
Dalineun			●
Glenvoidean	●		
Mid Gleniron I (Pit 1)		●	
Mid Gleniron I (Pit 2)		●	
Mid Gleniron I (Pit 3)		●	
Port Charlotte (Pit 1)		●	
Port Charlotte (Pit 2)	●		

Table 5.4 Types of pits found at southwest Scotland chambered cairns

At Brackley a small pit (0.45 m wide by 0.23 m deep) near the south portal stone contained only clay, soil and charcoal (Scott 1956). It had clearly been dug and filled prior to the construction of the monument, as it was sealed with the yellow clay of the surrounding subsoil, but its purpose is unknown. A second small pit at Brackley (0.10 m in diameter by 0.10 m deep) was found inside the chamber, near a bluish grey stain on the chamber floor which was interpreted as the 'shadow' of a crouched inhumation (Scott 1956:32). It contained no artefactual material, but its proximity to the burial suggests that its use was connected with the funerary ritual carried out in the chamber.

The two pits at Crarae, one in the forecourt and one in the chamber, each held large deposits of marine shells and their purpose was also likely related to activities connected with the monument (Scott 1961). A small shallow pit in the chamber at Port Charlotte contained a few sherds of Neolithic pottery, but it is not clear whether its purpose was connected with funerary or ritual activities, or whether it represents pre-monument activity. It is however the only pit in this region to contain pottery, or indeed any artefactual material at all.

Stone Holes

At three sites, pits dug for the apparent purpose of supporting standing stones were identified. At Mid-Gleniron I three pits distributed across the forecourt appeared likely to have once held the slender stones found lying nearby (Corcoran 1969). At Cairnholy I, a large pit in the forecourt on the central axis of the monument is also likely to have once held a large standing stone (Piggott & Powell 1949). The pit at Port Charlotte was found inside chamber C3 and still held a monolith approximately 1 m high. Human bone and charcoal were buried beneath the stone and yielded radiocarbon dates of 3510-3020 cal. BC (HAR-2084; 4540±70 BP) and 3640-3370 cal. BC (HAR-2406; 4710±70 BP) (Harrington & Pierpoint 1980).

Secondary Features

Three pits located outside the chamber entrance at Bargrennan and one at the chamber entrance at Dalineun were created during secondary use of the monuments (Ritchie 1972; Cummings & Fowler 2007). At Bargrennan, the pit contents were dated to the Early Bronze Age, while at Dalineun the pit was associated with a Beaker burial.

5.4.3.2 Pit Contents

Finds from the pre-monument or contemporary pits in this region were exceptionally meagre (Table 5.5). Only one of the Port Charlotte pits contained artefacts of any description – most of the pits were essentially 'empty', containing only earth and stones. Even the ubiquitous charcoal, so often present in Neolithic pits, is absent, or at least unreported, in all but two of the pits in this sample.

SITE NAME AND PIT NUMBER	POTTERY	LITHICS	HUMAN REMAINS	PLANT	CHARCOAL	ANIMAL
Brackley (#1)					●	
Brackley (#2)						
Cairnholy						
Crarae (#1)						shell
Crarae (#2)						shell
Glenvoidean						
Mid Gleniron I (#1)						
Mid Gleniron I (#2)						
Mid Gleniron I (#3)						
Port Charlotte (#1)					●	
Port Charlotte (#2)	●					

Table 5.5 Finds from pits at chambered cairns in southwest Scotland (excluding secondary pits)

No dug graves were found at any of the chambered cairn sites in southwest Scotland, with the exception of the later pit at Dalineun which contained a cist and the cremated remains of two individuals. This contrasts with many other regions in Britain, where graves are sometimes found at barrow or chambered tomb sites, albeit in relatively small numbers.

5.4.3.3 Excavation Bias

In southwest Scotland, all of the sites with sub-monument pits were excavated after 1949 (Table 5.6), which suggests that earlier excavators may have missed these features. As noted above, Bryce, who conducted all but four of the early excavations in this region, did not record a single pit or negative feature in any of the approximately 25 sites that he excavated at the turn of the 20th century (not all are included in this study). Since many of the sub-mound pits identified here were located outside of the burial chambers, it is not perhaps surprising that none were recorded in those early excavations. It is also, of course, entirely possible that no pits were present at the sites excavated by Bryce or other antiquarians.

SITE NAME	EXCAVATION DATE
Bargrennan	1949, 2004
Brackley	1952
Cairnholy I	1949
Crarae	1955
Dalineun	1970
Glenvoidean	1963
Mid Gleniron I	1963
Port Charlotte	1976

Table 5.6 Excavation dates of sites where pits were identified

5.4.3.4 Discussion of Pits

At the beginning of this section, the idea that pits are a common and significant feature at Neolithic sites was discussed. A review of the evidence for southwest Scotland however, demonstrates that at chambered cairns in this region, pits are actually relatively rare. Four of the 15 identified pits are secondary features, and only the empty pit at Brackley, sealed by a turf layer, is indisputably earlier than the overlying cairn. The presence of earlier pits, then, does not seem to have been a significant factor in the locations of chambered cairns, and neither were pits extensively utilised during the time the monuments were in use. Only Brackley, Port Charlotte and Crarae contained pits that were likely created and used in ritual or funerary activities conducted at the monument.

The paucity of evidence for pits in this region is highlighted when compared to their frequency in other parts of Britain (Table 5.7). Pits were found at only 12 percent of excavated chambered cairns in this region, considerably below the national average of 30 percent. Taken together with the relative frequency of dark soil deposits in southwest Scotland compared to elsewhere in Britain (discussed above), this is further evidence of the regional practices and local customs that governed the construction and use of monuments in this region. Pits are widely found at other types of Neolithic sites in southwest Scotland, so they were clearly appropriate in certain circumstances, but it can be suggested that pit digging was not a significant consideration in either selecting a location for a chambered cairn in this region, or during its construction and use.

REGION	TOTAL NO. EXCAVATED SITES	NO. OF SITES WITH PITS	PERCENTAGE OF SITES WITH PITS
Northern Scotland	100	17	17%
SE Scotland	18	4	22%
SW Scotland	**65**	**8**	**12%**
Northern England	93	51	55%
Central England	33	8	24%
SE England	30	11	37%
SW England	207	60	29%
Wales	36	16	44%
Total	582	175	30%

Table 5.7 Frequency of sub-monument pits by region

5.4.4 Structural Features and Artefact Scatters

At seven sites in southwest Scotland there are a range of structural features and artefact scatters on the buried ground surfaces that can be characterised as pre-monument occupation surfaces. These residues of human activities and practices hint at an earlier use of the land and suggest continuity of place over long periods of time. The evidence however is often vague and ephemeral, and it is difficult to determine when or how it arrived at the site. In addition, in trying to assess what type of occupation these features might represent, it is important to remember that Neolithic occupation/settlement/dwelling sites in southwest Scotland, and indeed much of Britain, are notoriously rare and difficult to recognise, whether or not they are found beneath monuments. In the absence of unambiguous structural evidence for settlement such as that found in the Later Neolithic sites in Orkney, clusters of hearths, pits, isolated stakeholes and flint debris at monumental and non-monument sites are usually interpreted as occupation sites for lack of a different way to characterise them.

At the chambered cairns, there is no doubt that the features and deposits found beneath the monuments do indicate that at least one human being 'occupied' that place for long enough to dig the posthole, knap the flint or light the fire. So in that sense, the occupation surfaces described below do represent some form of human activity before the monument was built. What we cannot usually determine is the length of the occupation, and, unless radiocarbon or other dating evidence is available,

it is not possible to determine the time depth that separated the occupation from the monument construction.

5.4.4.1 Brief Descriptions of Structural Features and Artefact Scatters

Bargrennan

Long before the Bargrennan cairn was constructed on a small knoll on a hillside in southern Galloway, the site was the locale for a Mesolithic occupation, as attested by scatters of Late Mesolithic flints just outside the southern edge of the cairn. Although this evidence is not truly 'sub-monument' as it was not sealed by the cairn, its proximity to the cairn and the clear Mesolithic affinity of the lithics suggests that it can be considered as evidence for an earlier occupation of the site. The length of the occupation is not known, nor the time span between that occupation and the construction of the cairn.

Cairnderry

A scatter of Earlier Neolithic flints and Carinated Bowl sherds was found beneath the cairn at Cairnderry. While it is possible that they are the remains of an earlier occupation of the site, it is equally possible that they were brought from elsewhere and scattered on the ground, or that the occupation was contemporary with monument construction (Cummings & Fowler 2007).

Cairnholy I

Features and deposits in the forecourt at Cairnholy I indicate considerable activity – six hearths, numerous fragments of Carinated Bowl pottery, a flake of Arran pitchstone, a jet bead and a deposit of closely compacted sea-shells were scattered across the area (Fig. 5.12). In other areas of the monument, the ground surface beneath the cairn showed traces of burning, which the excavators attribute to woodland clearance in advance of construction.

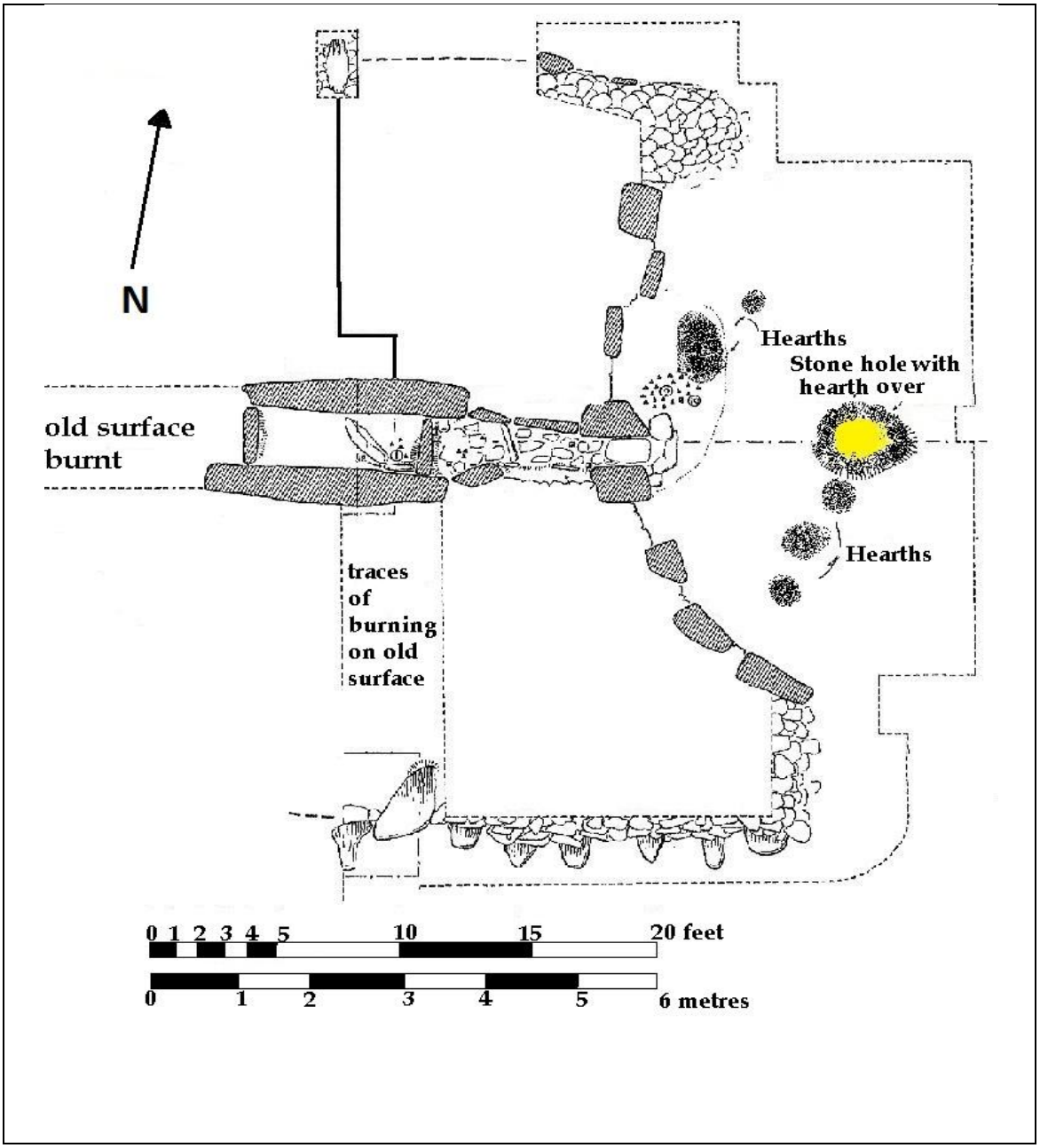


Fig. 5.12 Plan of Cairnholy 1 after Piggott and Powell (1949)

Glecknabae

The cairn at Glecknabae was constructed on top of a shell midden, which was separated from the cairn by a stratum of black soil (Fig. 5.13). The midden contained a variety of shells – whelks, limpets, clams, and oysters – and all were mixed with charcoal, ash and occasional fragments of ox bone. The northwest chamber was situated directly on top of the midden, but it did not extend to the southeast chamber.

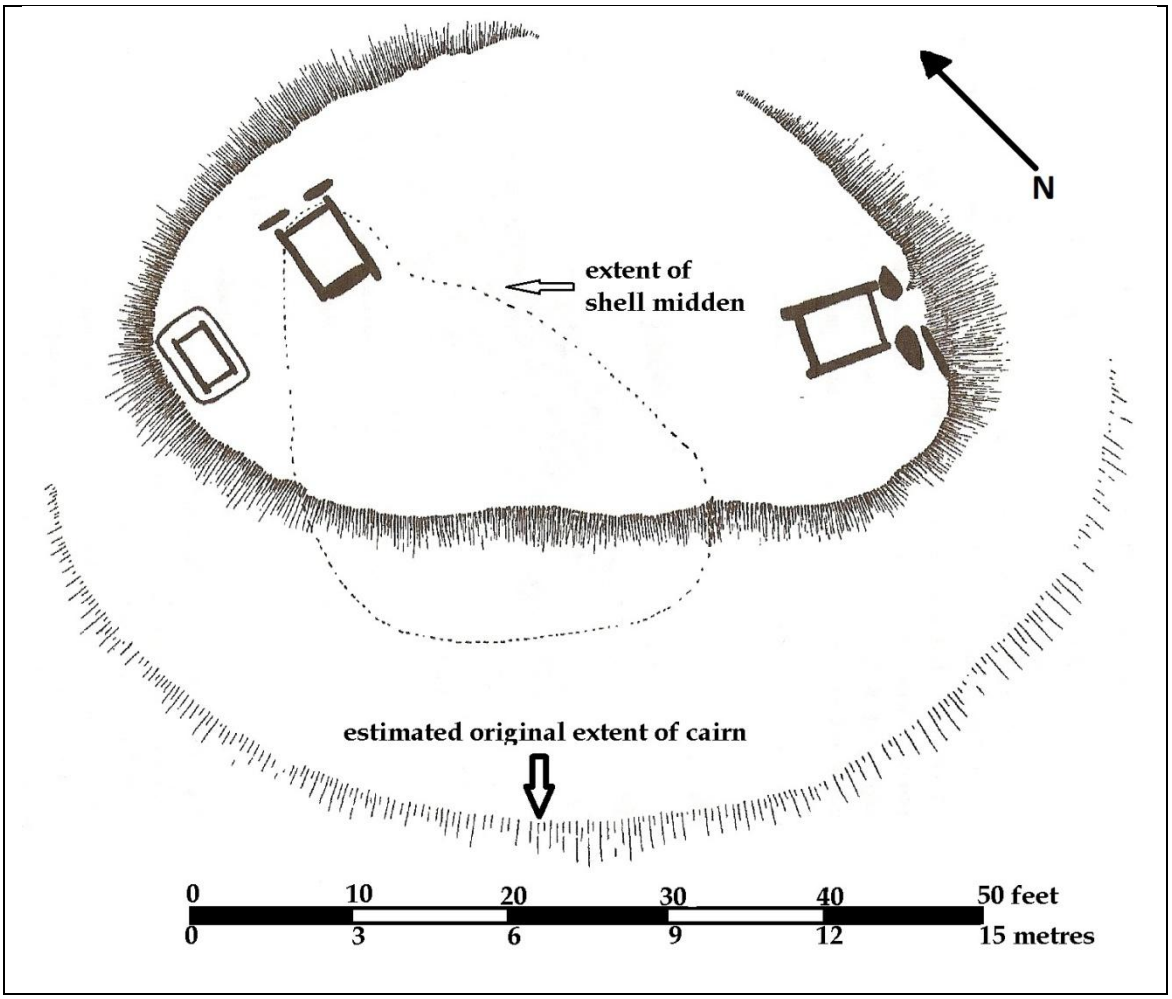


Fig. 5.13 Plan of Glecknabae after Bryce (1904)

Glenvoidean

The Glenvoidean chambered cairn is a complex multi-phase monument, created through a series of construction episodes interspersed with periods of abandonment (Fig. 5.14). On the old ground surface to the west side of the cairn, an area of occupation debris was located. This comprised an area of light cobbling, a hearth containing black greasy soil, and four stakeholes laid out in a curve. The occupation clearly took place prior to the Phase 3 construction of the trapezoidal cairn, as one of the stakeholes lay under a kerb stone. Marshall and Taylor (1977:15) assign the occupation to the Phase 2 construction period, although there is no apparent compelling reason why it could not have been earlier.

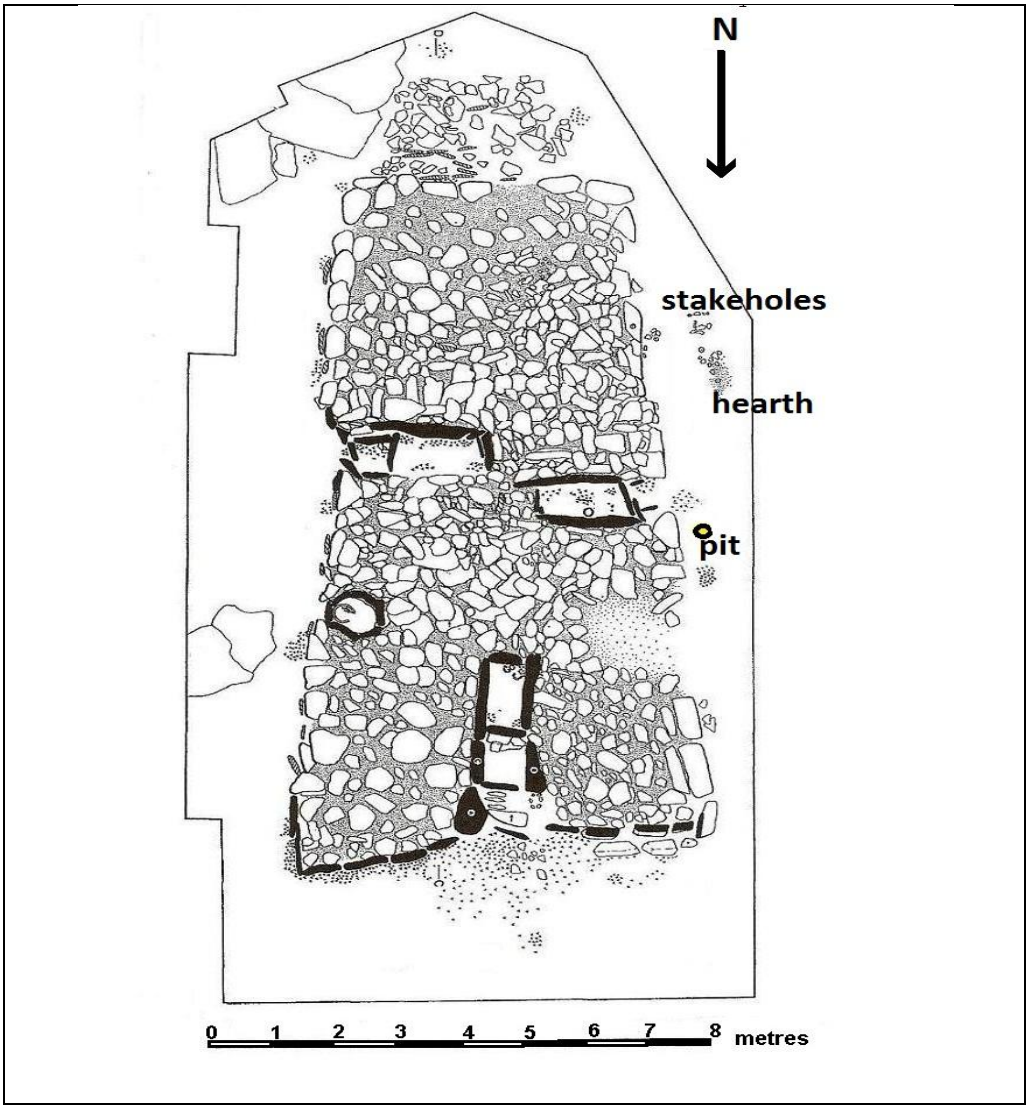


Fig. 5.14 Plan of Glenvoidean after Marshall and Taylor (1977)

Hilton

On the ground surface beneath the Hilton cairn, a 'tramped walkway' marks a path around the Phase 1 inner round cairn. Below the inner cairn were postholes set in a cobbled floor (Fig. 5.15). Additional postholes and stakeholes were found on the ground surface beneath other parts of the cairn, and a deep deposit of black greasy soil extended under the cairn stones. Pollen analysis indicated that the surrounding land had been cultivated prior to monument construction, thus supporting the evidence for a pre-monument occupation of the site.

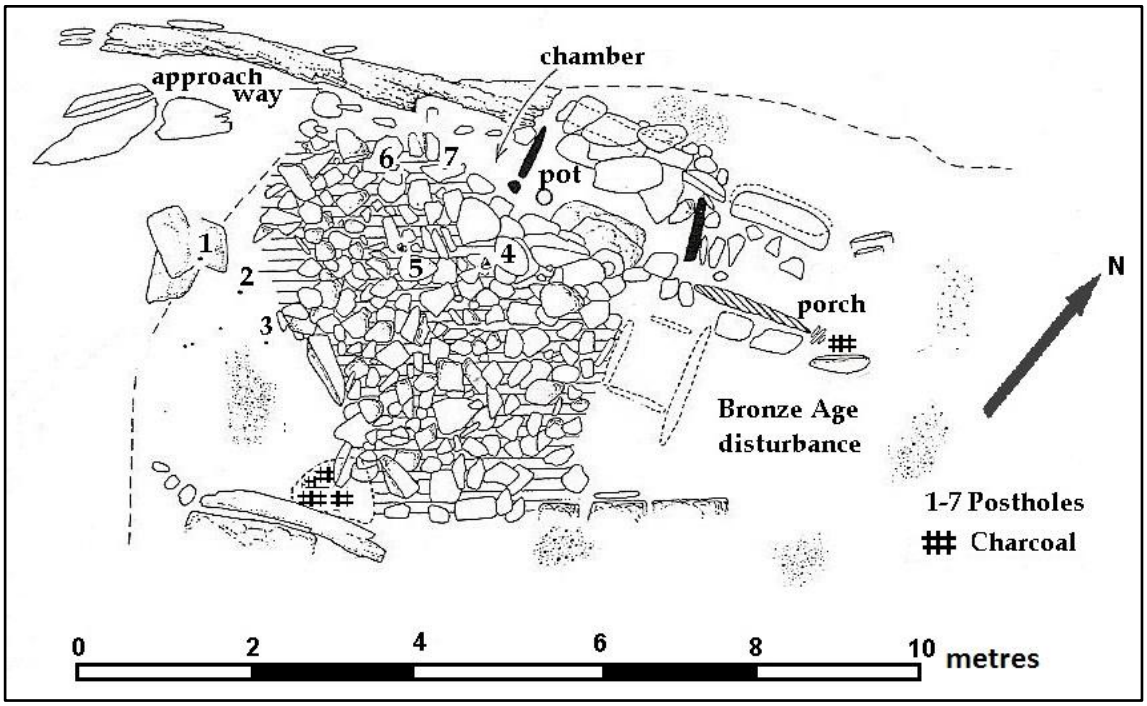


Fig. 5.15 Plan of the inner cairn at Hilton after Marshall (1976)

Port Charlotte

At Port Charlotte, an extensive occupation surface was found below the old ground surface beneath the cairn (Fig. 5.16). Although no features were located, more than 2,000 flints were recovered along with animal bone, hazel nuts and charcoal. The three radiocarbon dates obtained from this occupation surface – 3640-3100 cal. BC (HAR-2836; 4660±90 BP), 3940-3640 cal. BC (HAR-3486; 4940±70 BP) and 3980-3650 cal. BC (HAR-3487; 5020±90 BP) – place the occupation firmly in the Earlier Neolithic (Harrington & Pierpoint 1980).

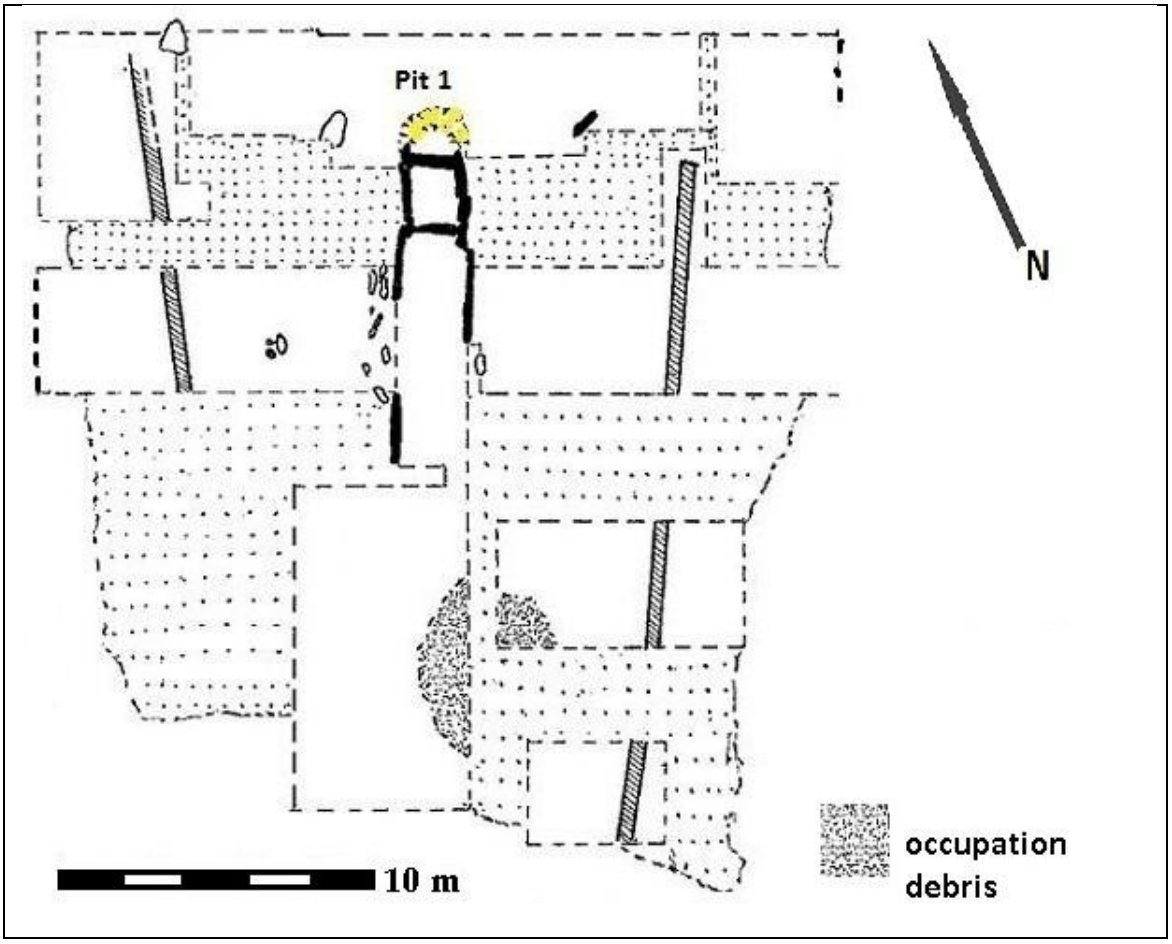


Fig. 5.16 Plan of Port Charlotte after Harrington & Pierpoint (1980)

5.4.4.2 Timber Mortuary Structures

Only two unchambered long cairns are found in southwest Scotland, and although neither has been extensively published, they have both revealed evidence for pre-cairn timber mortuary structures which were burned prior to cairn construction.

Lochhill

The remains of a timber structure, 7.5 m by 1.4 m, were found beneath the Lochhill cairn. In the centre of the structure was a line of three large postholes (Fig. 5.17). Two had once held D-shaped posts, likely split tree trunks, and the third had held two posts.

A burnt oak plank floor was found between the postholes, and a deposit of cremated human bones was found on it. At the northeast end of the structure, a series of pits and a trench had once held the 16 posts that formed the façade. All of the postholes showed signs of having been burnt. The pattern of burning clearly demonstrates that the timber structure was burned down prior to the construction of the cairn (Masters 1973b). A sample from a plank which formed part of the timber structure produced a radiocarbon date of 4220-3640 cal. BC (I-6409; 5070±105 BP).

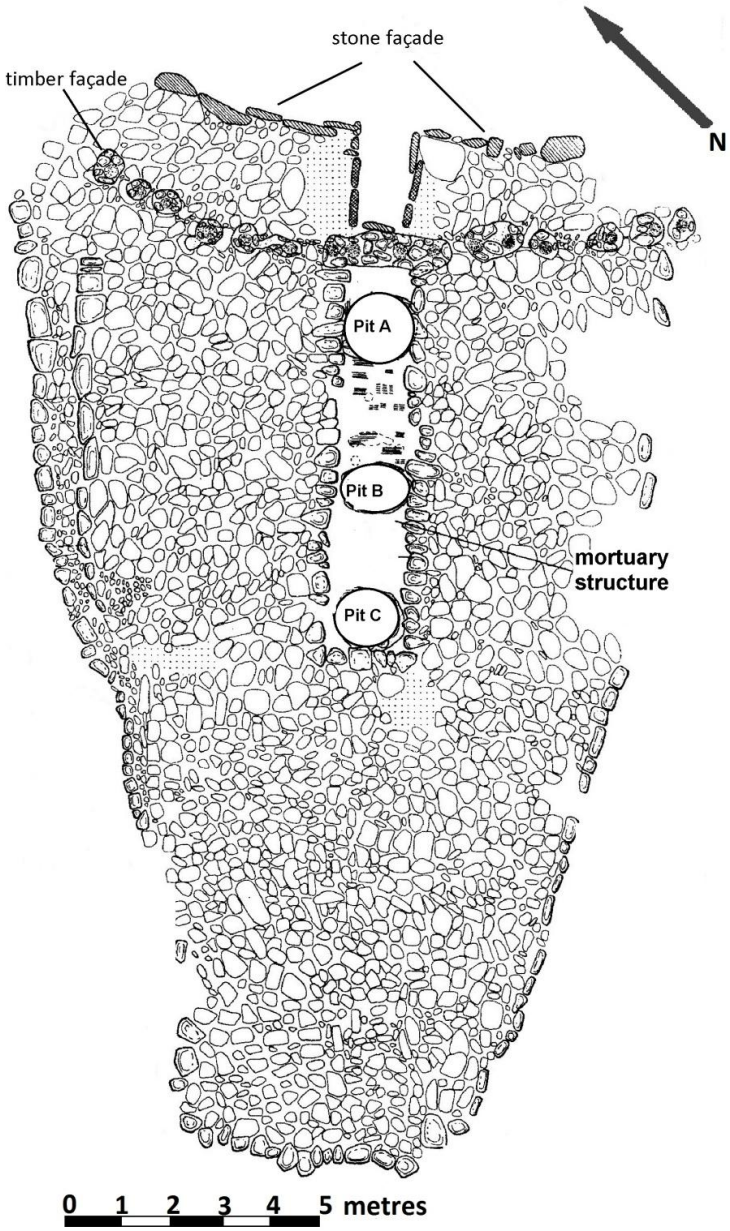


Fig. 5.17 Plan of Lochhill after Masters (1973b)

Slewcairn

Evidence for a timber mortuary structure was identified beneath the north end of Slewcairn (Masters 1973a; Masters 1974; Masters 1975). Burnt human bone was found in the area of the timber structure, in association with quantities of burnt wood and bark, suggesting that this structure, like the one at Lochhill, was burned prior to cairn construction.

5.4.4.3 Discussion of Structural Features

It is in this category that perhaps the most convincing evidence for pre-monument human activity can be found. Features such as postholes and hearths found beneath cairn material clearly indicate that human activity occurred at the site before the cairn was in place, but it can be difficult to determine whether the features represent the activities of the builders of the monument and are therefore contemporary with the monument, or if they truly represent an earlier occupation of the site. For example, the occupation debris found beneath the Cairnderry and Cairnholy I sites are as likely to be contemporary with monument construction as they are to be remnants of an earlier habitation of the site. It is also difficult to say with any certainty that if an earlier occupation occurred, it was recognised or remembered by the monument-builders, or that the presence of the earlier material impacted the choice of location for the monument. These ideas will be discussed further in Chapter 6.

There is no doubt that the shell midden beneath the Glecknabae chambered cairn represents an earlier – perhaps much earlier – use of the site, and the construction of the northwest chamber directly above it appears to be deliberate. However, the possibility that the choice of site for the monument was merely coincidental cannot be overlooked. Bryce (1904) reports that the midden was only 30-60 cm thick, and if it was turf-covered, it may have resembled a small knoll. A number of monuments in southwest Scotland are constructed on similar small rises (e.g. Cairnderry, Bargrennan, Barmore Wood and Bicker's Houses among many others), so it may have been appropriate to choose such landscape features for the placement of monuments. A layer of black soil separated the midden from the cairn, but Bryce does not clarify

whether he believed this to be a natural formation or an introduced deposit. If it was natural, it may represent a decayed turf line, indicating that the midden was indeed turf-covered and perhaps unrecognizable as a humanly-built structure. On the other hand, if the black soil layer was deliberately placed on top of the midden prior to the construction of the chamber, it would be sensible to conclude that the monument-builders were aware of the midden below and had deliberately selected the site as an appropriate and desirable location for the monument.

The Mesolithic flint scatter beneath the Bargrennan cairn clearly indicates that individuals using microlithic tool technology were at one time present on a site later occupied by a monument, but it is not possible to say with any certainty that the two events are linked. In fact, it is more likely that they are not, given the very minimal nature of the pre-monument material, and the likelihood that Mesolithic flints were abundant virtually everywhere in the Neolithic landscapes of southwest Scotland. Mesolithic people had occupied these landscapes for millennia, and during that time would have knapped, utilised, re-worked and ultimately lost or thrown away untold thousands of tools, which would then have lain hidden for perhaps centuries beneath decaying vegetation. This site may provide a good example of an instance where earlier material is simply randomly and fortuitously sealed beneath a later monument.

One of the best candidates for pre-monument occupation is the Port Charlotte site, where extensive evidence for a human presence was securely sealed beneath the overlying monument. It is truly unfortunate that this site has been only minimally published, and no full excavation report is available.

5.5 Monumental Chronologies: Contextualizing the Buried Land Surfaces of Southwest Scotland

The features and deposits on the buried Neolithic land surfaces of southwest Scotland contain a record of some of the events and activities that occurred on the land before, during and after the placement and construction of the monument. Understanding this

chronology on a regional scale will provide greater clarity on the possible re-use of 'special places' in the Neolithic landscape, and the social practices associated with monument construction and use.

5.5.1 A Mesolithic Past?

Evidence for pre-mound Mesolithic activity in this region is exceptionally rare. Only Glecknabae produced unequivocal Mesolithic material from beneath the cairn, but as noted above, it is by no means certain that the location was selected because of the presence of the midden. Instead, the fact that the midden created a small eminence in the landscape might have made it suitable for cairn construction. While this might be considered a somewhat pessimistic view of the evidence, the placement of numerous other Neolithic cairns on similar small rises in the landscape casts doubt on the idea that the shell midden itself was the overriding attraction.

Bargrennan is the only other site in the region to produce evidence of Mesolithic activity, although the flint scatter was found near the cairn rather than beneath it. Again, there is no compelling reason to suggest that the presence of a small scatter of Mesolithic flint was a factor in choosing that location for monument construction. It is possible that the flint marked a significant landscape location that was visited and remembered through oral histories and social memory, but if that was the case, one might expect that centuries of repeated visits would have resulted in a somewhat larger assemblage of material.

This apparent lack of continuity from the Mesolithic to the Neolithic at monumental sites in this region contrasts with considerable evidence for continuity at other, non-monument sites of both Mesolithic and Neolithic age. A recurrent theme in any account of Mesolithic settlement in southwest Scotland is the repeated use of sites over hundreds of years (Pollard 2000a; Warren 2005). Cummings (2000:93) suggests that specific places in the Mesolithic landscape may have been re-used initially because of their strategic location and proximity to resources, but ultimately their importance may have had more to do with the stories, myths and memories about the

place that were told and re-told over generations. The practice of re-using sites in the Scottish Mesolithic is so common that 'sites representing single occupation events are the exception rather than the rule' (Morrison & Bonsall 1989:141).

The re-use of Mesolithic places did not end with the transition to the Neolithic – many shell midden and cave sites continued to be visited at the same time that nearby monumental sites were being constructed and used. Similarly, Neolithic settlement sites were sometimes preceded by Mesolithic activity. The Neolithic settlement at Newton, Islay was preceded by Mesolithic occupation (McCullagh 1989), and Neolithic flints and pottery were found at the Mesolithic settlement site of Kilellen on Islay (Burgess 1976).

It is true, however that most sites displaying both Mesolithic and Neolithic occupation are on the offshore islands and not mainland Scotland. Noble (2006) has pointed out that it is unusual to find Mesolithic and Neolithic material in close proximity on mainland Britain. In any event, the evidence from the buried ground surfaces suggests that on the whole, monuments in southwest Scotland were not located in places previously used by Mesolithic people.

5.5.2 Earlier Neolithic Beginnings

In southwest Scotland, the Clyde cairns were the earliest of the chambered cairns to appear in the landscape, so it is not surprising that there is considerable evidence for Earlier Neolithic activity on the buried ground surface at many sites. Earlier Neolithic Carinated Bowl or Beacharra pottery was found on the ground surface at more than a third of the sites in this sample. There is no way to know, however, whether the pottery was brought to the site by the makers and users of the monument, or by people occupying the site at an earlier time.

The timber structure beneath the mound at Lochhill yielded a very early date of 4220-3640 cal. BC (I-6409; 5070±105 BP) (Masters 1973b), and the earliest date from

charcoal in the forecourt at Monamore was contemporary with Lochhill, at 4230-3660 cal. BC (Q-675; 5110 ± 110 BP) (Mackie 1964).

All of these dates, however, whether based on typology or radiocarbon dating, can provide useful information on the dates of associated material or structures, but they cannot reveal whether the materials or structures were generated by the makers and users of the monument or by people who came before them.

The Port Charlotte and Hilton cairns offer the best evidence for Earlier Neolithic pre-monument occupation. The pre-mound occupation surface at Port Charlotte produced several Earlier Neolithic radiocarbon dates, the earliest from hazelnut shell and charcoal was 3980-3650 cal. BC (HAR-3487; 5020±90 BP) (Harrington & Pierpoint 1980). No radiocarbon dates are available from Hilton, but numerous Carinated Bowl potsherds and three leaf-shaped arrowheads strongly suggest an Earlier Neolithic date.

It is entirely possible that these locations gained significance through their prior use and occupation, and were later commemorated by the construction of a monument. The traces of the earlier occupation were not removed from the ground, but left there as a permanent marker of the past people who had been woven into the history of the place through the repeated telling of story and myth.

5.6 Discussion

This review of the evidence from the buried land surfaces beneath southwest Scotland's Neolithic monuments has provided an opportunity to examine the evidence for a range of cultural practices carried out both before the construction of the monuments and during their use-life. A number of important conclusions are summarised below.

The users of the chambered cairns in this region placed great importance on the placement of dark soil deposits on chamber floors during the construction or use of the monument. This occurs in other regions of Britain as well, but is much more

prevalent in southwest Scotland, indicating the existence of regional preferences and practices at broadly similar monuments around the country.

The digging and filling of pits appears not to have been a routine or appropriate act at most of the sites in this region. This is another regional preference, as pits are much more common at monuments in other parts of Britain than in southwest Scotland.

There is no strong evidence that monuments were preceded by Mesolithic occupation, but two sites, Hilton and Port Charlotte, revealed considerable and convincing evidence for a previous Earlier Neolithic occupation on the buried ground surface. These sites are located on offshore islands, Bute and Islay respectively, and it is tempting to consider that island practices and processes of change from the Mesolithic to Neolithic were distinct from those on the mainland, as Gordon Noble has recently suggested (2006:34). However, it is also possible that earlier inhabitants created the artefact scatters at Cairnderry and Cairnholy I and perhaps the occupation evidence at Glenvoidean.

It is worth mentioning that no pre-monument activity was identified on the ground surfaces of any of the monuments on Arran, despite the fact that it has one of the densest concentrations of Neolithic monuments in Britain. However, given that all the monuments but one were excavated at the turn of the 20th century by T.H. Bryce (and his excavation deficiencies have already been well-rehearsed here) it is perhaps more likely that pre-monument evidence was unrecognised, rather than absent, at the Arran sites.

It may be fruitful for future research to re-examine sites that were excavated in the early 20th century to determine whether the buried ground surfaces outside the chambers are likely to have survived. Excavation of these surfaces, even on a small scale, would likely expand significantly the current data on the buried land surfaces of southwest Scotland.

The narrower regional focus of the last two chapters has permitted a close look at the features and deposits beneath the Neolithic monuments in southwest Scotland and

the West Country. The next chapter takes a step back to a broader scale and examines the nature of the sub-mound ground surfaces at monuments across England, Scotland and Wales.

6. Buried Neolithic Landscapes in Britain

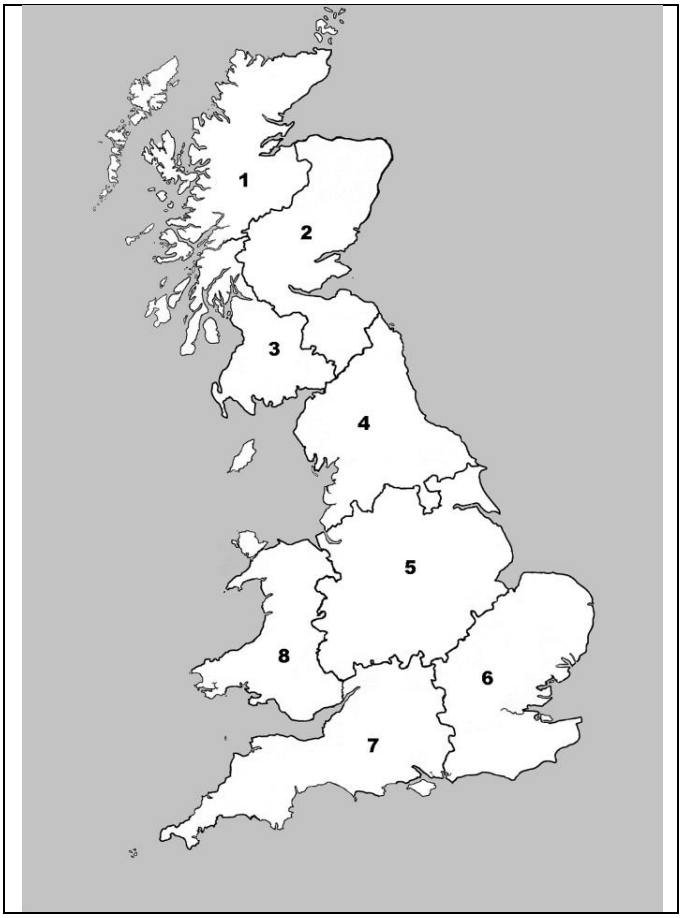
6.1 Introduction

The previous two chapters have presented detailed, contextualised examinations of the buried Neolithic landscapes of England's West Country and southwest Scotland. In this chapter, the scale of analysis broadens to take in the pre-monument features and deposits at Neolithic sites across all of mainland Britain. This broader scale will allow for the identification of patterns in the nature of the evidence and permit a more general discussion on the significance of landscape and the practice of re-using space and place in Neolithic Britain.

At a handful of well-known sites in Britain, such as Gwernvale, Ascott-Under-Wychwood and Hazleton North, extensive pre-mound features and deposits reveal a lengthy sequence of pre-monument activity. Although much discussed in the literature, this type of evidence is rare. Evidence for pre-monument activity more frequently consists of only a few enigmatic features or deposits, and interpretations and inferences are more difficult. Often, the material raises more questions than it answers. What type of activities and practices do the pre-monument features and deposits represent? What is the time depth between the pre-monument activity and the construction of the monument? Is there a connection between the pre-monument features and the later use of the monument? This chapter will attempt to untangle the available evidence and to suggest answers to some of these questions, while perhaps raising others.

For the purposes of this analysis, the country has been divided into eight regions (Fig. 6.1). These are divisions of convenience, based partly on geography and partly on the number of suitable sites in each area. They do not profess to represent actual Neolithic regions (which we have no way of identifying in any case) – they simply provide a convenient unit for analysis and for the identification of potential

patterns of variation across the country. It is important to note that there are significant disparities in the quantity (and in some cases, quality) of the data across the regions and any comparisons between them must be considered in that light. There are simply fewer sites in some regions than in others, the rates of excavation are unequal and the quality of reporting varies as well. Fig. 6.2 illustrates the variation in site numbers across regions. Every effort is made in this analysis to present regional comparisons in the context of the overall numbers.



1. Northern Scotland
2. Southeast Scotland
3. Southwest Scotland
4. Northern England and the Isle of Man
5. Central England
6. Southeast England
7. Southwest England
8. Wales

Fig. 6.1 Regional map of Britain

Fig. 6.2 illustrates quite clearly that buried features or deposits are found at the majority of published excavated sites. This is an important finding and although most cannot be attributed to an earlier, pre-monument phase, these buried features nonetheless provide useful information on the nature of the activities that were carried out at monuments across the country.

In the following section, a description of all of the features and deposits found on the pre-mound surfaces will be presented, along with a discussion of some of the difficulties of interpretation. In the final section, the potential significance of the pre-monument evidence will be discussed, and the issues outlined above will be addressed.

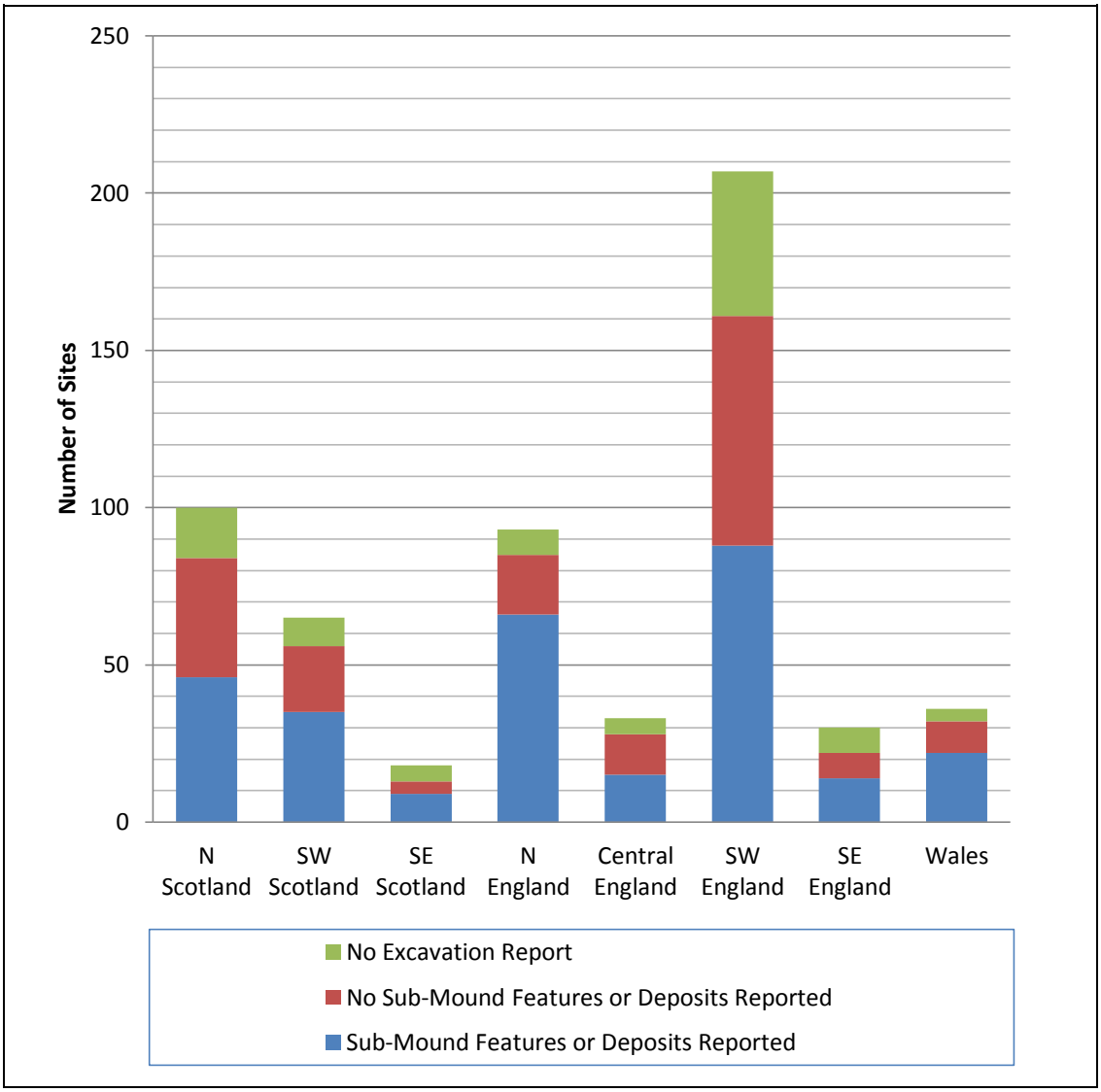


Fig. 6.2 Frequency of reported sub-mound features at excavated Neolithic barrows and chambered cairns

6.2 The Features and Deposits Beneath the Mounds

Each type of buried feature is discussed separately in this section, for ease of comparison and discussion. This is not to imply, however, that the features necessarily occur in isolation or are unrelated to each other. In Section 6.3, the ground surfaces and all buried features and deposits are assessed as a whole. A brief summary of all buried features and deposits at each site can be found in Appendix B.

6.2.1 Pits

The practice of creating and using pits during the Neolithic was widespread - pits are found at all types of Neolithic sites in all regions of Britain. As discussed above, their frequent presence below monuments is often cited as evidence that the ground upon which monuments were built had some prior significance and had been deliberately selected for monument construction. This study has demonstrated that pits are clearly the most common features found on buried surfaces beneath Neolithic barrows and chambered cairns, but closer examination reveals that most pits cannot confidently be related to earlier, pre-monument activity. Many are associated with the construction and use of the mound, others are secondary or intrusive features and a few are natural features such as tree throws. Often there is simply not enough information to determine whether the pits pre-dated or were contemporary with the monument construction and use.

In this study, a total of 397 pits were identified at 172 Neolithic long barrows, chambered cairns and round barrows across the country.[12] A comparison of the frequency of sub-monument pits by region (Fig. 6.3) demonstrates significant variation across regions. Northern England has the highest frequency of pits

[12] At least 78 pits were identified beneath the mound at the Gwernvale long barrow in Powys, Wales, bringing the total number of pits in this sample to 476. As this site alone accounts for nearly one-fifth of all sub-monument pits, it has been excluded from the analysis and discussion in this section and wil be discussed separately below..

relative to total numbers of sites, and southwest Scotland has the lowest relative rate.

While the majority of the pits were sealed beneath the covering mounds, 77 pits are included that were found in forecourts and chambers and 33 pits that were either not covered by the mound or insufficient information was available to determine whether the mound covered them or not. These pits will be identified below, as necessary.

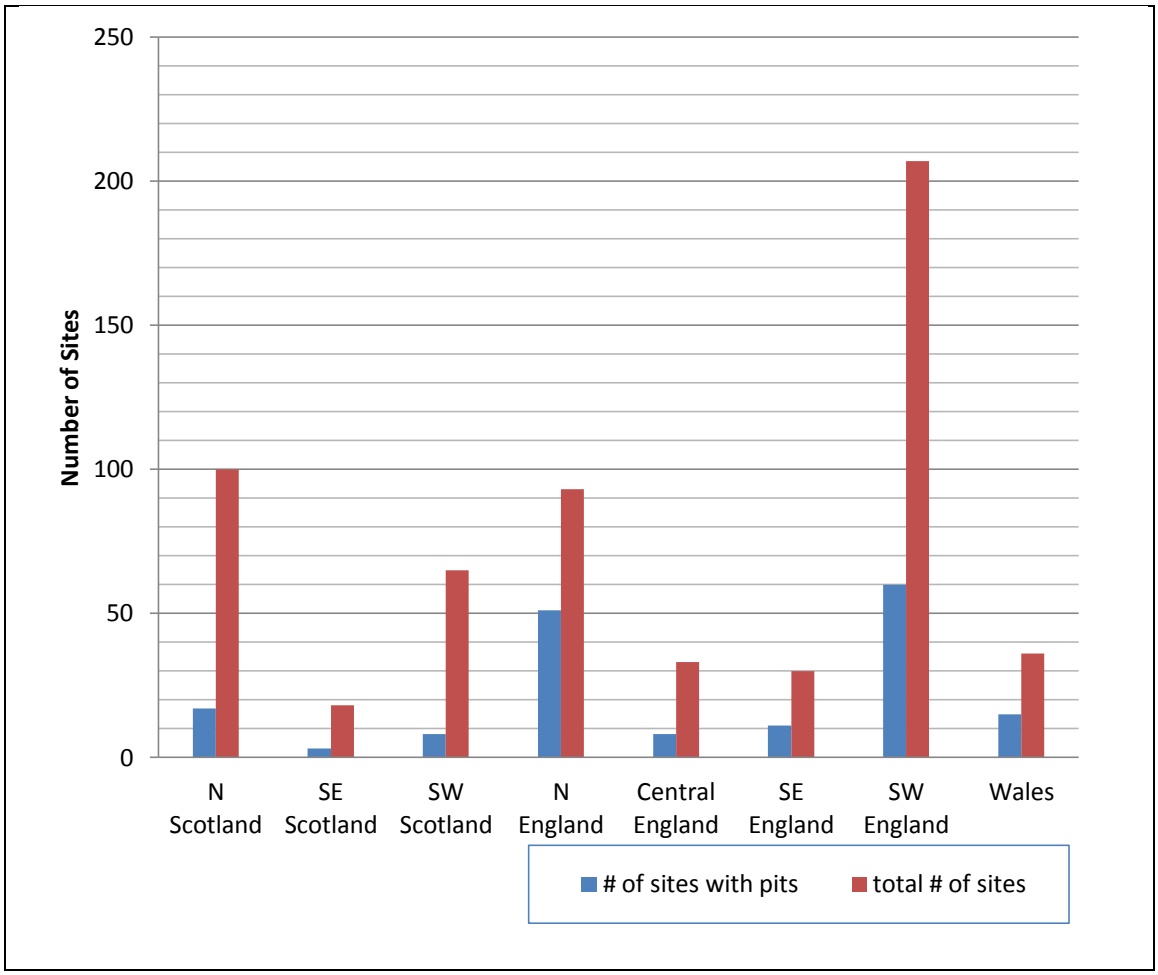


Fig. 6.3 Regional comparison of sub-mound pit frequencies

The available information for each pit (very limited in some cases) was reviewed, and each pit assigned to a chronological category. In most cases, the category suggested in the site reports is adopted here. The pit categories will be briefly explained, followed by a more detailed discussion of the pits in the 'Pre-Monument' category.

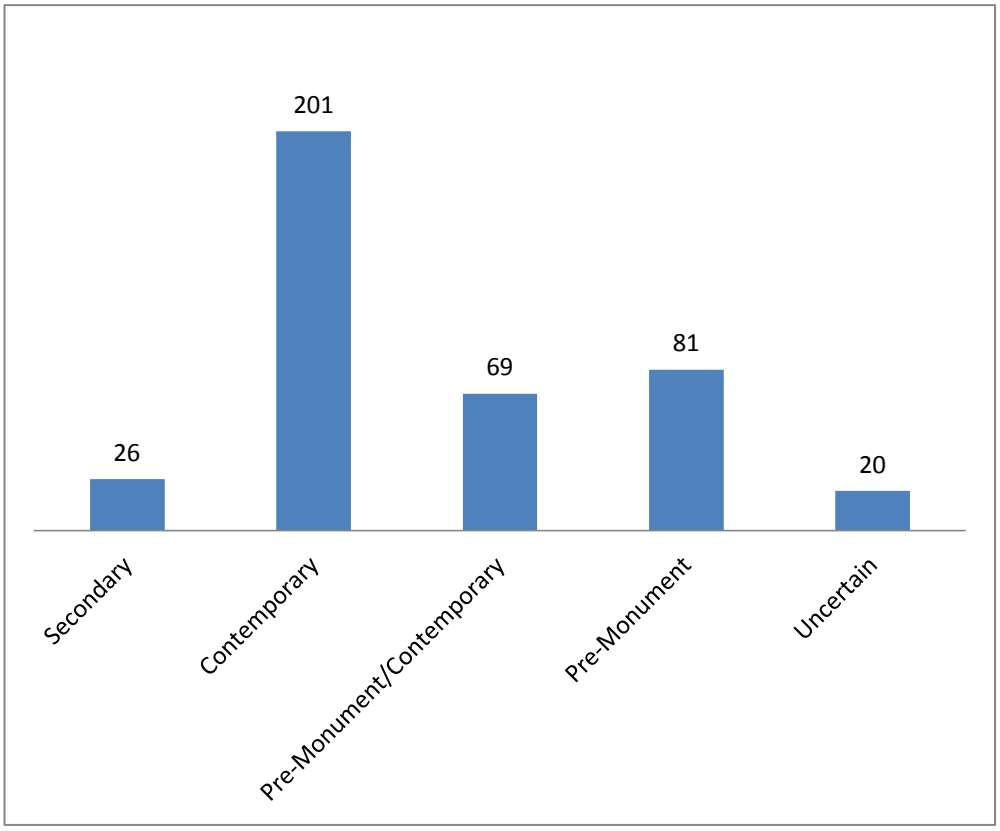


Fig. 6.4 Chronological distribution of sub-monument pits

6.2.1.1 Chronology of Sub-mound Pits

As the focus of this thesis is on the evidence for pre-monument activity, the pits have been categorised by their likely chronology, and are discussed below, with a special focus on the pits in the 'pre-monument' category. (See Appendix D for a complete list of the pits and their chronological classification.)

a) Uncertain Chronology

Limited information for 20 pits in this sample prevents any determination of their function or chronology.

b) Secondary/ Intrusive Features

At least 26 pits at 19 sites can be definitely identified as secondary or intrusive features that were dug sometime after the monument was first constructed and used. Some are the result of the intrusive actions of robbers or early antiquarians, but in other cases, the pits represent a re-use of the monument at a later period.

For example, pits containing Early Bronze Age artefacts were found in the forecourt at Bargrennan (Dumfries and Galloway) (Cummings & Fowler 2007), and pits containing Beaker potsherds were found at Garton Slack 81 (Humberside), Kelleythorpe II (Humberside) and Boghead Mound (Moray) (Mortimer 1905; Burl 1984). In another example of later monument re-use, a large pit located on the north side of Eynesbury long barrow in Cambridgeshire contained an inverted oak tree trunk. The secondary nature of this pit was confirmed when radiocarbon dating determined that the felling of the tree trunk post-dated mound construction by at least 500 years (Ellis 2004).

c) Contemporary with Monument

The largest chronological category includes those pits that can be considered contemporary with monument construction and use – a total of 201 pits at 111 sites fall into this category. Pits classified as graves and those associated with mortuary deposits are considered contemporary for these purposes, although it is not impossible that in some cases they may have preceded monument construction. Pits located in chambers and forecourts are also considered contemporary with the monument for these purposes, unless otherwise indicated by the excavator. The remaining pits in this category are classified as contemporary based on the excavator's assessment of their chronology.

The contemporary pits can be sub-divided into several groups; the regional distributions are shown in Fig. 6.5.

Graves

The first group of contemporary pits includes 66 pits at 53 sites which are identified as graves and usually contain either cremated or unburned human remains. In some cases no human remains had actually survived, but the pits were classified by the excavators as graves based on their dimensions, location or occasionally because of a high phosphate count (e.g. Bellshiel Law, Northumberland (Newbigin 1936)).

More than half of the grave pits are located in northern England and most of the rest are in southwest England. Graves are found at only two sites in Scotland (Quanterness and Quoyness) and one site in Wales (Bryn Celli Ddu).

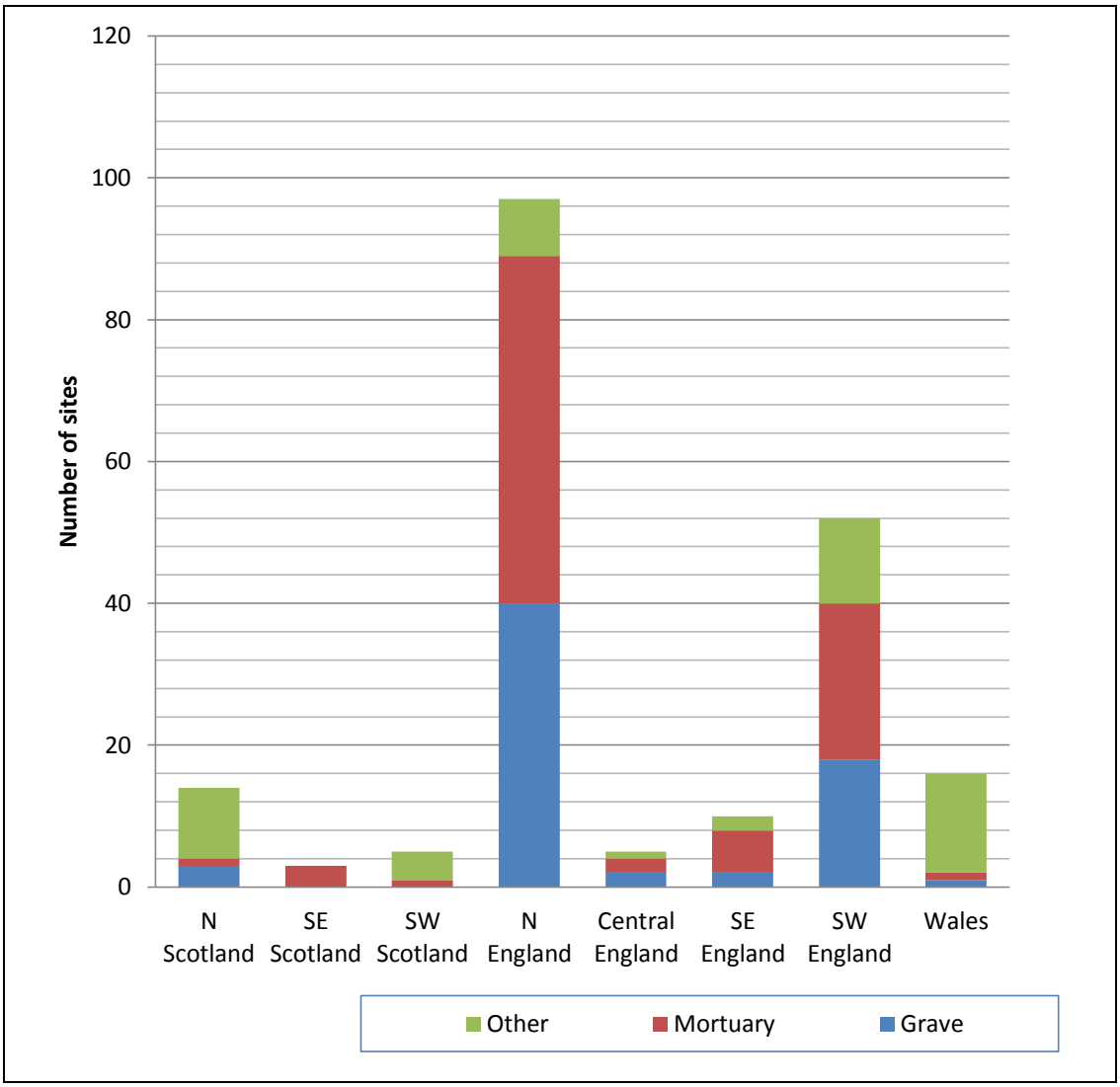


Fig. 6.5 Regional distribution of pits contemporary with the monument

All but nine of the grave pits were located beneath the covering mounds. Five pits were found within chambers and insufficient information was available for two sites to determine whether or not the pits were under the mounds. The two (superimposed) pits at Swale's Tumulus (Suffolk) were found outside both the inner Neolithic cairn with which they are associated, and the larger Bronze Age cairn which covers it (Briscoe 1957). The black soil covering the grave pit contained sherds of the same black pottery that was found in the inner mound material and so could be linked to the Neolithic phase.

Pits located in proximity to mortuary deposits

The second group consists of 85 pits at 43 sites which are found in close proximity to mortuary deposits. They are sometimes found in pairs or groups and in some cases they may represent the postholes of timber mortuary structures. These pits were discussed in more detail in Chapter 4.

The pits in this category only rarely contain any artefactual material. More than half of them are empty, containing only earth and stones (Fig. 6.6).

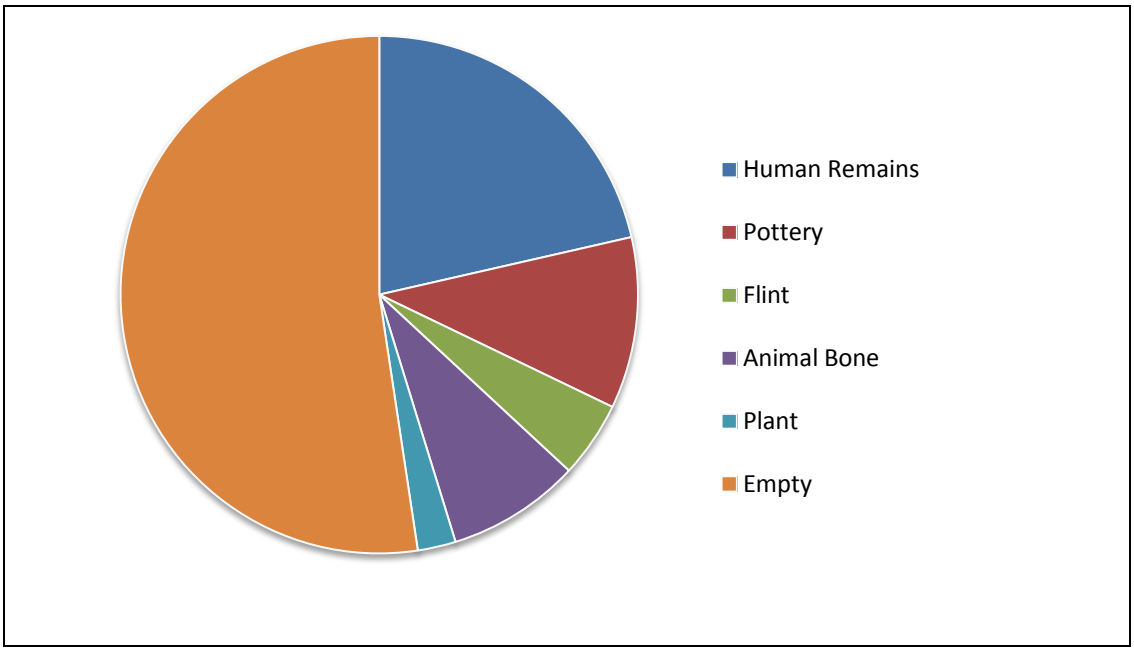


Fig. 6.6 Contents of pits associated with mortuary deposits

Like the grave pits, most of the mortuary pits are found at sites in northern and southwest England, with only one in Wales (Bryn Celli Ddu) and three in Scotland (Brackley, Kinchyle of Dores, Midtown of Pitglassie) (Fig. 6.5).

The vast majority of the mortuary pits were located under the mounds – two were found in chambers, one in a forecourt and one was uncertain due to mound destruction.

Other contemporary pits

The final category of contemporary pits consists of 51 pits at 34 sites with no obvious mortuary or grave affiliation.

This category includes pits that may have been created by the monument-builders as they levelled the ground by removing stones, plant roots and other material. A shallow pit in the chamber at Point of Cott (Orkney) that contained only clean subsoil may have been created in this way (Barber 1997b:22). Similarly, the removal of a boulder may have created the small pit or 'pocket' in the chamber at Capel Garmon (Conwy) (Hemp 1927:25).

This category also includes sites where the entire chamber or megalithic structure is situated in a large pit. This unusual practice is most common in Wales, where it is found at four sites – Carreg Sampson (Pembrokeshire), Lligwy (Anglesey), Pentre Ifan (Pembrokeshire), and Pant Y Saer (Anglesey). It also occurs at Ballaharra in the Isle of Man and at Saltway Barn and West Tump in Gloucestershire.

Pre-Monument/Contemporary

This category includes pits which were dug sometime prior to the placement of the mound, but it is unclear whether they were dug by the builders or users of the monument, or were the result of earlier, pre-monument activity.

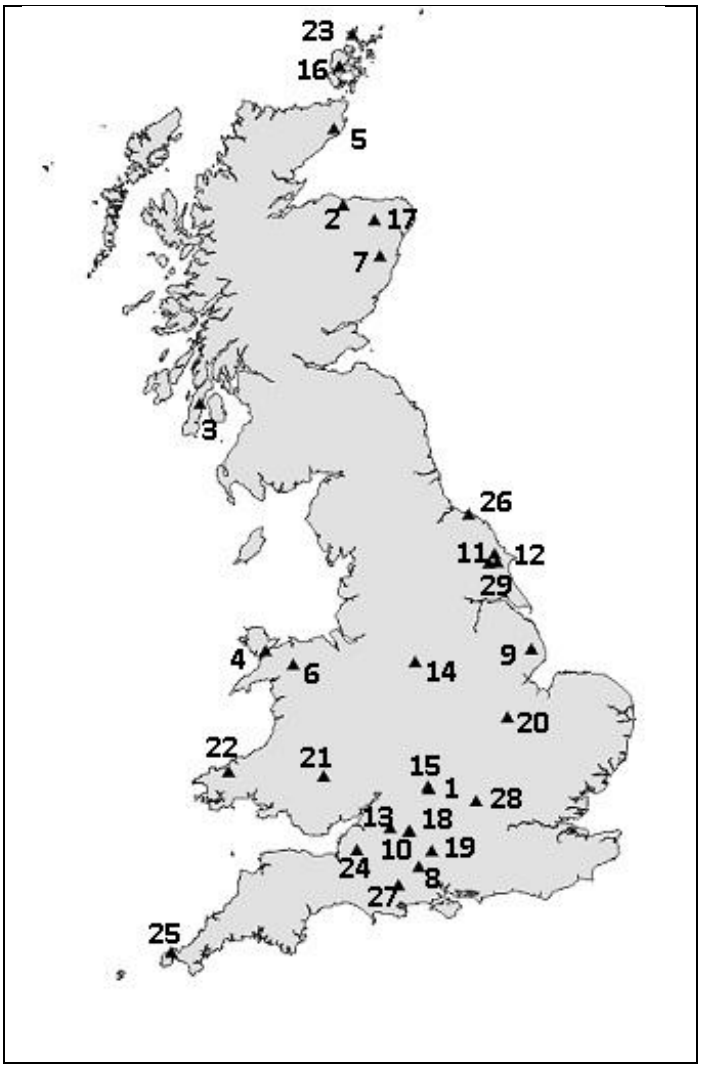
There are 69 pits at 34 sites in this category; 51 were sealed under the mound, so clearly preceded its construction, 5 pits (all at Bryn yr hen Bobl in Anglesey) were sealed under collapsed rubble, a further 5 pits were located in forecourts and 8 were found in other external locations. The pits not covered by the mound have been included as possible pre-monument pits either because they were likely to have once held standing stones, which may have preceded the cairn, or because the excavator suggested they may be earlier.

This category includes at least 12 pits at 5 sites which were probable postholes or stone holes. It also includes four pits that were probable natural features (e.g. tree throws), including Hollow A at Boghead Mound (Moray) and Feature 482 at Millbarrow (Wiltshire) (Burl 1984; Whittle 1994). It is likely that other amorphous, irregular hollows and pits at other sites may represent natural or geological features, but it is difficult to make that assessment in the absence of supporting

evidence. The incorporation of natural features into monument construction will be discussed further below.

Pre-Monument Pits

A total of 81 pits at 29 sites can be identified as certainly or probably dug prior to the construction of the monument. The sites are found in most parts of Britain (Fig. 6.7) with no discernable regional emphasis. These pits are of particular relevance to the present study; therefore they will be examined in greater detail.



1 Ascott-Under-Wychwood
2 Boghead Mound
3 Brackley
4 Bryn Celli Ddu
5 Camster Long
6 Capel Garmon
7 East Finnercy
8 Fussell's Lodge
9 Giants' Hills 1
10 Horslip Long Barrow
11 Kemp Howe
12 Kilham Long Barrow
13 Lanhill Barrow
14 Liff's Low
15 Lyneham Barrow
16 Maeshowe
17 Midtown of Pitglassie
18 Millbarrow
19 Nutbane
20 Orton Longueville Barrow 2
21 Pen y Wyrlod Long Cairn
22 Pentre Ifan
23 Point of Cott
24 Priddy Long Barrow
25 Sperris Quoit
26 Street House Long Cairn
27 Thickthorn Down
28 Whiteleaf Hill
29 Willerby Wold

Fig. 6.7 Distribution of sites with pre-monument pits

Seventy-six of the 81 pre-monument pits were sealed under the overlying mounds. Five pits were located in forecourts but are included here based on other indications that they preceded the monument:

- the Lanhill (Wiltshire) pit was located under a revetment wall;
- at Nutbane (Hampshire) the pit was associated with other pre-mound features;
- two pits at Kilham (Humberside) were associated with a Mesolithic occupation;
- the pit at Camster Long (Highland) was associated with an occupation layer beneath the cairn.

Contents of Pre-monument Pits

The contents of the pre-monument pits do not reveal a great deal about their purpose or the activities with which they may have been associated. Forty-two pits do not contain any artefactual material or bone and are therefore indeed 'just inscrutable pits' (Rowley-Conwy 2003:124). The remaining 39 pits contain varying quantities and combinations of flint, potsherds, animal bone, charcoal and, occasionally, human bone (Table 6.1). In total, 13 pits contained potsherds and 21 pits contained stone artefacts. Deposits of bone were much rarer – only eight pits definitely (and three possibly) contained animal bone, while six definitely (and five possibly) contained human bone.

Special Deposits

There are a few examples of unusual or special pit deposits from the pre-monument pits. One of the Ascott-Under-Wychwood (Oxfordshire) pits contained, along with the more mundane flint tools, flakes, and cores, a fossil belemnite (Benson & Whittle 2006). At Lanhill (Wiltshire), a pit contained 37 sherds of a single Ebbsfleet vessel and a fragment of a saddle quern (King 1966). This is an unusual deposit – most pottery finds in sub-monument pits consist of only a few sherds.

Two red jasper pebbles were found in the central pit at Bryn Celli Ddu (Anglesey) in an arrangement that might be considered structured deposition. In Hemp's (1930)

excavation report, he noted that the base of the pit was scorched by fire and a burnt human ear bone and a piece of unburnt hazel wood were lying on the pit floor. A layer of brown clay had been laid down at the base of the pit and the pit then filled with clay, stones and the two pieces of jasper. A lump of purple clay shaped in an inverted cone had then been placed into the pit fill and a hollow 15 cm in diameter was made in the top of it, but nothing had been placed in the hollow. A schist slab had then been placed on top of the pit (1930). Steve Burrow (2010), however, has recently re-examined this site and suggests that the central pit may have been a posthole which once held a marker post used to lay out the arc of stones which surround the pit.

Mesolithic Pits

Pits with apparent Mesolithic affiliation were found only at Kilham long barrow in Humberside where six pits were identified. All six contained flint flakes, one also contained hazelnut shells, and two contained unidentified animal bone (Manby 1976). The pits were found on the old ground surface beneath the mound, in association with a dense scatter of Mesolithic flints and three hearths.

It is difficult to draw any conclusions about the nature of the activities that led to the creation and filling of the pre-monument pits. They are not dissimilar in size and content to the later pits, and a few broken potsherds and flint flakes do not reveal a great deal about the events that led up to their deposition. However, most of the sites where pre-monument pits were found also revealed other evidence of pre-monument occupation. These will be further discussed in the next section.

Site Name	Region	HR	Pot	Flake/ Core	Tool	Axe	Plant	Animal	Other	Empty
Ascott-Under-Wychwood (F53)	SW England			●						
Ascott-Under-Wychwood F12)	SW England			●				●		
Ascott-Under-Wychwood (F7)	SW England		●		●	●		●		
Ascott-Under-Wychwood (F14)	SW England	?		●	●			?	fossil	
Boghead Mound (Hollow E)	SE Scotland									●
Boghead Mound (Hollow D)	SE Scotland									●
Boghead Mound (Hollow C)	SE Scotland									●
Boghead Mound (Hollow N)	SE Scotland									●
Boghead Mound (Hollow J)	SE Scotland		●							
Boghead Mound (Hollow G)	SE Scotland		●	●						
Boghead Mound (Hollow M)	SE Scotland									●
Boghead Mound (Hollow P)	SE Scotland									●
Boghead Mound (Hollow F)	SE Scotland									●
Boghead Mound (Hollow Q)	SE Scotland									●
Boghead Mound (Hollow L)	SE Scotland									●
Boghead Mound (Hollow H)	SE Scotland									●
Boghead Mound (central)	SE Scotland		●	●						
Boghead Mound (Hollow K)	SE Scotland	?						?		
Brackley (#1)	SW Scotland									●
Bryn Celli Ddu (#5)	Wales								quartz	
Bryn Celli Ddu (#1)	Wales	●					●		red jasper	
Camster Long	N Scotland									●
Capel Garmon (F54)	Wales	●							quartz	
Capel Garmon (F62)	Wales									●
Capel Garmon (F60)	Wales									●
Capel Garmon (Passage #1)	Wales									●
Capel Garmon (Passage #2)	Wales									●
East Finnercy	SE Scotland		●							
Fussell's Lodge (Pit I)	SW England									●
Fussell's Lodge (Pit II)	SW England		●							
Fussell's Lodge (Pit III)	SW England		●	●					marcasite	

Site Name	Region	HR	Pot	Flake/ Core	Tool	Axe	Plant	Animal	Other	Empty
Giants' Hills 1	C England									●
Horslip (distal pit)	SW England									●
Kemp Howe (#1)	N England						●			
Kemp Howe (#2)	N England									●
Kemp Howe (#3)	N England									●
Kilham (Pit 4)	Humberside									●
Kilham (Pit 1)	Humberside									●
Kilham (Pit 5)	Humberside									●
Kilham (Pit 2)	Humberside		●							
Kilham (Pit C)	Humberside			●						
Kilham (Pit E)	Humberside			●						
Kilham (Pit A)	Humberside			●						
Kilham (Pit D)	Humberside			●						
Kilham (Avenue)	Humberside			●						
Kilham (Pit F)	Humberside			●				●		
Kilham (Pit 7)	Humberside			●				●		
Kilham (Pit B)	Humberside			●			●	●		
Kilham (Pit 3)	Humberside	?		●						
Kilham (Pit 6)	Humberside	?						?		
Lanhill Barrow	SW England		●						grindstone	
Liff's Low (Pit 22)	C England									●
Liff's Low (Pit 18)	C England									●
Lyneham Barrow	SW England	●		●						
Maeshowe	N Scotland									●
Midtown of Pitglassie (OF2)	SE Scotland		●							
Midtown of Pitglassie (CP1)	SE Scotland		●							
Midtown of Pitglassie (OF4)	SE Scotland									●
Midtown of Pitglassie (OF5)	SE Scotland									●
Midtown of Pitglassie (OF3)	SE Scotland									●
Midtown of Pitglassie (SE end)	SE Scotland									●
Millbarrow (#536)	SW England									●

Site Name	Region	HR	Pot	Flake/ Core	Tool	Axe	Plant	Animal	Other	Empty
Millbarrow (#551)	SW England		●							
Millbarrow (#534)	SW England							●		
Millbarrow (#497)	SW England							●		
Millbarrow (#401)	SW England	●								
Millbarrow (#548)	SW England	●	●							
Nutbane	SW England									●
Orton Longueville 2 (#1)	SE England							●		
Pen y Wyrlod Long Cairn	Wales									●
Pentre Ifan (foot of Stone X)	Wales									●
Point of Cott (N end of cairn)	N Scotland									●
Priddy Long Barrow	SW England									●
Sperris Quoit	SW England	●		●						
Street House Long Cairn (F125)	N England	**?**		●						
Street House Long Cairn (F123)	N England									●
Thickthorn Down (#1)	SW England			●						
Thickthorn Down (#2)	SW England									●
Thickthorn Down (#3)	SW England									●
Whiteleaf Hill	SE England									●
Willerby Wold (#1)	N England									●

Table 6.1 Contents of Pre-monument Pits

6.2.2 Structural Features

Buried structural features are found at approximately 45 sites across Britain, mostly in the form of postholes and stakeholes on the old ground surface. (This total excludes timber mortuary structures, which are dealt with separately below). Interpretation of the features can be difficult as the evidence is often fragmentary and difficult to detect during excavation. Nonetheless, where it is found, this type of evidence can provide a solid indication of pre-monument activity. A number of the sites in this category were discussed in earlier chapters, but some of the evidence will be reviewed here for the sake of consistency.

One of the difficulties in interpreting potential structural evidence is that often only a portion of the plan is recovered during excavation. This may occur because of the limits of the excavated area, because of disturbance or damage to parts of the site, or because of the difficulties in distinguishing small negative features. They are sometimes not indentified until after the buried soil is removed, showing up more clearly in the subsoil matrix. This often leads to situations where a number of postholes are identified, but others are missed and no clear relationships between them can be recognised. This occurred at Hilton in Argyll and Bute, where below the Phase 1 inner cairn were several postholes and charcoal patches set in a cobbled floor (Marshall 1976) Additional postholes and stakeholes were found on the ground surface beneath other parts of the cairn, but no definitive structure could be recognised (Fig. 5.15).

The postholes at Millbarrow (Wiltshire) proved somewhat more amenable to interpretation. A pre-barrow activity area consisting of postholes and shallow pits covered an area of at least 19 x 20 m at the east end of the monument, and the seven or eight postholes most likely defined a single square structure (Whittle 1994).

At Beckhampton Road (Wiltshire), pre-monument activity was suggested by a number of stakeholes found on and under the old ground surface (Ashbee *et al*. 1979). Several charcoal patches were found below the unbroken turf line at the

west end of the mound. The largest of these, measuring 4.5 m in length and 1.2 m in width, lay obliquely across the long axis of the barrow and beneath it were five stakeholes. Another cluster of stakeholes was found just outside the charcoal spread. The stakeholes were free of charcoal, so they clearly pre-dated the episodes of burning that created the charcoal patches. The stakeholes were arranged in a linear pattern, so no structures were identified. They may be related to the later system of fencing that was constructed in conjunction with the monument.

The Liff's Lowe round barrow in Derbyshire revealed extensive pre-monument structural evidence. Forty-one stakeholes and two small pits were found on the old ground surface in the excavated area at the south end of the barrow (Barnatt 1996). Possible stakeholes and pits were also found at the north end of the barrow, but prior disturbance in that area made identification difficult. The dense distribution of the stakeholes suggested to the excavators a series of temporary structures, but a lack of artefacts makes it unlikely that they represent a settlement. They do appear to represent an earlier use of the site however and one that may have pre-dated the monument by a considerable period of time. Earlier Neolithic radiocarbon dates were obtained from charcoal in one of the pits, while the barrow itself is likely to date to the Later Neolithic (Barnatt 1996:104).

The Gwernvale chambered cairn in Powys revealed some of the most extensive evidence for pre-monument land use in Britain (Fig. 6.8). Very early occupation is indicated by the presence of Late Upper Palaeolithic and Mesolithic flint tools in the buried soil, and charcoal from an oval pit or hearth yielded a radiocarbon date of 5980-5640 cal. BC (CAR-118; 6895 ±80 BP) (Britnell & Savory 1984). Evidence for the earliest pre-monument Neolithic activity takes the form of scatters of potsherds, flints, animal bone, charred cereal grains and quern fragments. It is not known whether this material relates solely to domestic activities, or whether the occupation was continuous or episodic. After a period of time, a trench-built structure was constructed, followed some time later by a six-posted structure. Numerous pits, stakeholes and hollows can be attributed to this pre-monument

period; another 53 features were sealed beneath the cairn but their purpose and date are uncertain.

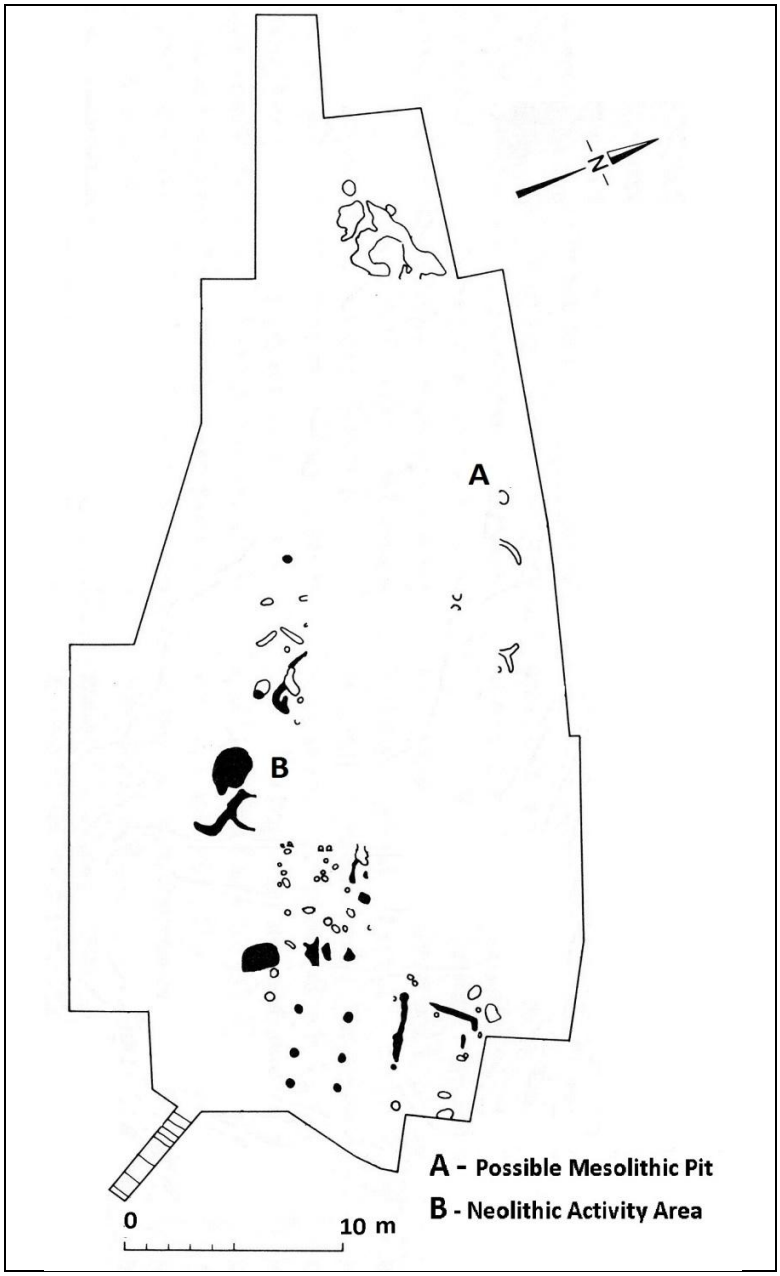


Fig. 6.8 Plan of earliest certain and pre-cairn features at Gwernvale, Powys with Neolithic features show in black after Britnell and Savory (1984)

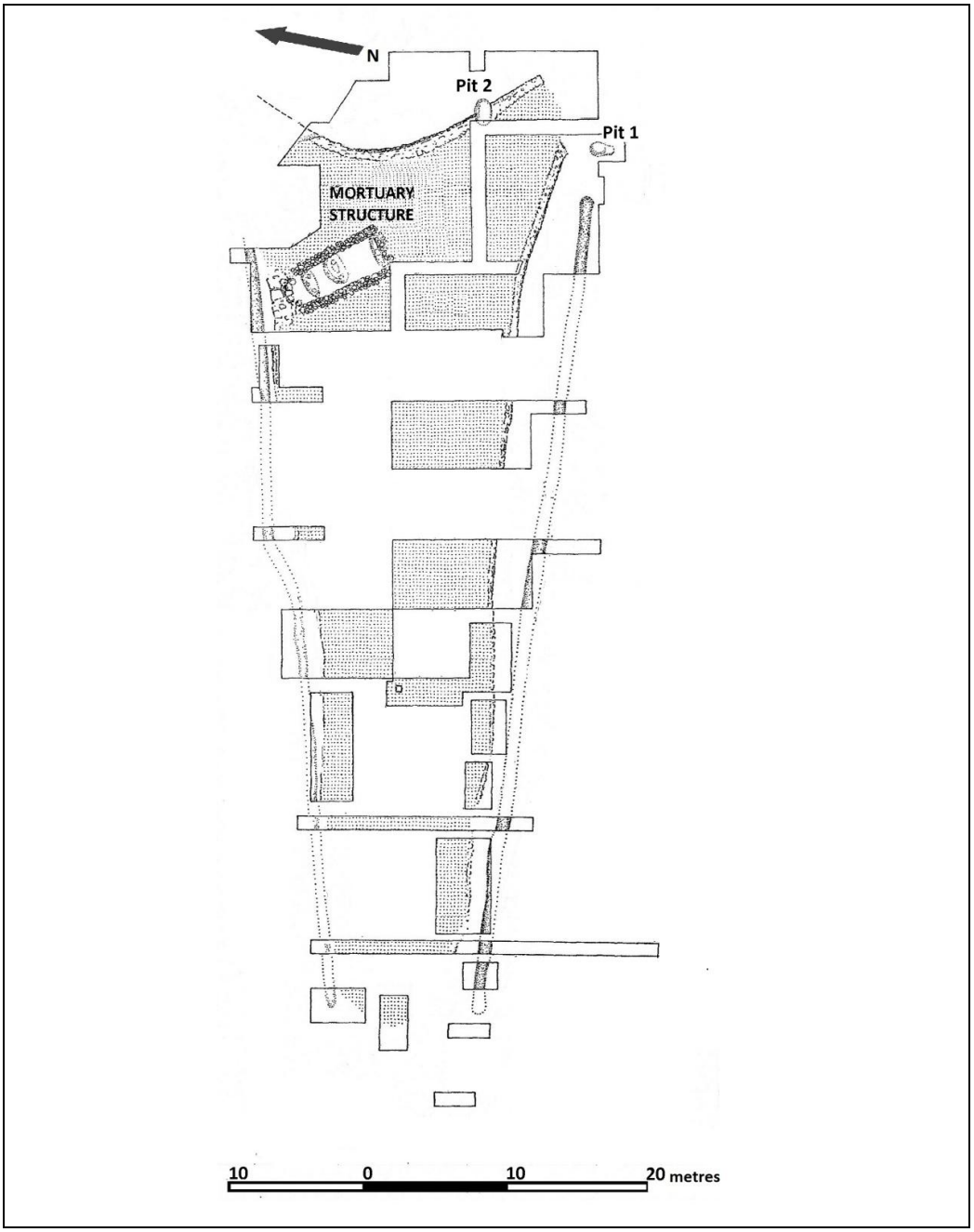


Fig. 6.9 Plan of Dalladies showing earlier mortuary structure, after Piggott (1972)

At the Dalladies chambered cairn in Aberdeenshire, a large timber structure which apparently decayed *in situ* without burning preceded the construction of the monument (Piggott 1972). The cairn appears to have been built either without knowledge of the earlier structure or without interest in it, as the layout and orientation of the later monument was dissimilar to that of the timber structure (Fig. 6.9).

The Howe chambered cairn in Orkney is the only site where potential stone-built structures precede the monument. The remains of two stone structures, each with a stone-lined hearth, were found below the cairn and the later Iron Age structures (Ballin-Smith 1994). Ballin-Smith suggests the first and earliest structure represents a mortuary house and the second a forecourt structure for a stalled cairn. She argues that the lack of occupation debris and the presence of a nearby standing stone indicate that the structures had a ritual rather than domestic function. Other researchers have suggested that the layout of the structures and the presence of the hearths are more closely analogous to houses (Davidson & Henshall 1989:52; Challands *et al.* 2005:247). It is interesting to note that although both of the earlier structures were demolished and the area sealed with a layer of clay prior to construction of the chambered cairn, the hearth from the second stone structure was located precisely at the opening of the entrance passage to the later monument. This certainly suggests that it remained visible or was marked in some way, despite the destruction of the earlier structures.

At several sites, postholes and stakeholes are interpreted as belonging to the monument construction or use phase, rather than as pre-monument features. At Nutbane (Hampshire) an arc comprised of five small postholes (10 cm in diameter and 30-60 cm deep), with four braceholes behind the arc, was interpreted as a small, temporary shelter used before or during construction of the long barrow (Morgan 1959). At Glenvoidean (Argyll and Bute), a possible occupation floor of light cobbling associated with four stakeholes and a hearth consisting of black, greasy soil was assigned to the Phase 2 occupation of the monument, rather than a pre-monument phase (Marshall & Taylor 1977:15) (Fig. 5.14).

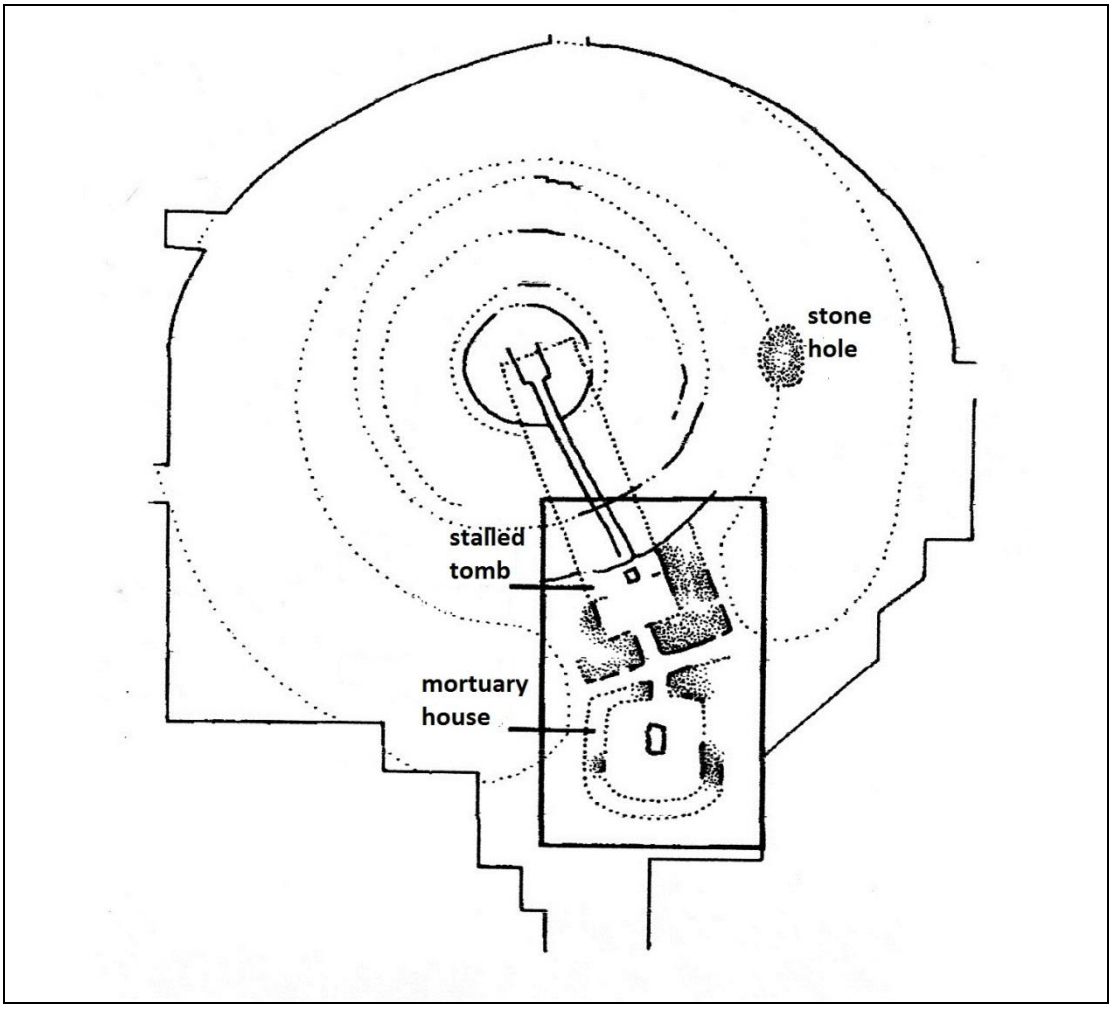


Fig. 6.10 Plan of the earliest structural features at Howe after Ballin-Smith (1994)

The linear arrangement of 16 postholes and 19 stakeholes under the Camster Long (Highland) chambered cairn precluded their interpretation as any form of domestic structure, and Masters (1997) suggested that they may represent timbers used in monument construction.

The preceding examples have focussed on sites where reasonably extensive evidence for structural features is found. At many sites, however, the structural evidence amounts to just a single posthole, or a few scattered stakeholes. It is not possible to determine the nature of the structures that these isolated features once formed, or the time depth that might have separated them from the monument.

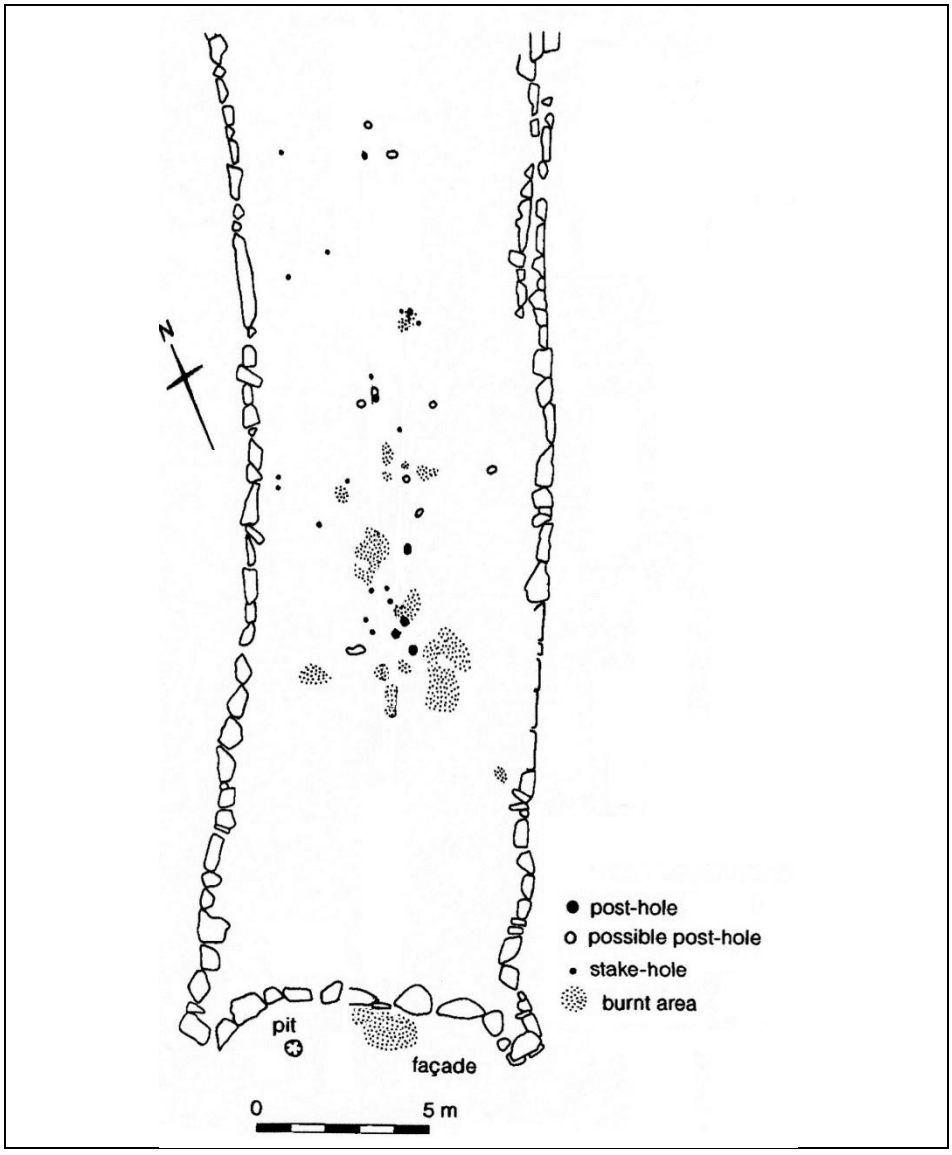


Fig. 6.11 Plan of pre-cairn features at Camster Long after Masters (1997)

The structural evidence beneath Neolithic monuments in Britain is diverse and sometimes difficult to interpret, but intriguing nonetheless as it suggests long-term continuity of land use and the exercise of deliberate choice to re-occupy a particular and perhaps significant place.

6.2.2.1 Timber Mortuary Structures

The remains of timber mortuary buildings are another form of structural evidence found beneath the monuments in this study. These structures are usually rectangular, and often constructed with a pair of sturdy posts. They were frequently burned down prior to the placement of the mound.

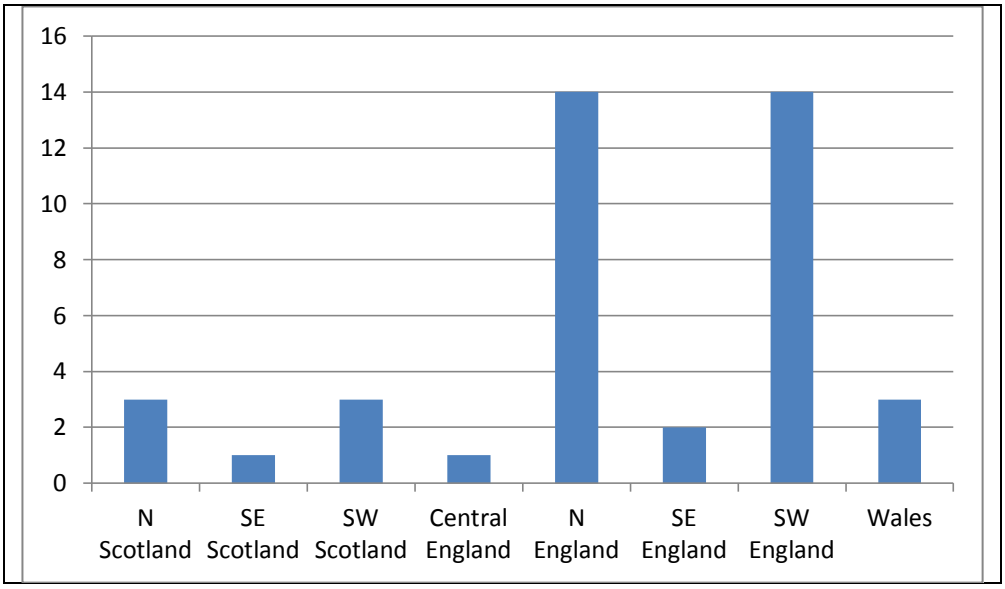


Fig. 6.12 Frequency of pre-monument timber mortuary structures

Occasionally, as at Nutbane (Hampshire), the remains of multiple timber structures are found. More than 40 postholes were identified in the forecourt at Nutbane, and these were interpreted as a series of mortuary structures associated with the barrow (Morgan 1959).

More than 40 sites in this study revealed evidence for pre-mound timber mortuary structures. The regional distribution for these structures is again concentrated in northern and southwest England (Fig. 6.12).

6.2.2.2 Standing Stones and Timber Posts

Standing stones are found beneath 13 Neolithic monuments in this study, although it is not always possible to determine whether they preceded the monument or were contemporary with it. At Lyneham Barrow (Oxfordshire), a large standing stone measuring 3.2 m in length was found below the northeast end of the mound (Conder 1895). It was certainly erected before the mound was constructed, as its base was buried 0.9 m into the original ground surface, but it is not clear whether it represents an earlier, pre-monument phase or, or whether its placement was part of the monument construction process. Similar uncertainties apply at Tinkinswood (Vale of Glamorgan) where three rows of upright stones were identified at the west end of the mound (Ward 1915; Ward 1916). Again, the stones had certainly been

placed into the old ground surface prior to the construction of the barrow mound, but their relationship with the monument is unclear. At Pentre Ifan (Pembrokeshire) a series of small holes, some single, some in pairs, was found extending in a line northward beyond the forecourt and chamber (Grimes 1948). These holes may have once held small standing stones – one such stone remained in position – but again their temporal relationship with the monument is not known. At Skelmore Heads (Cumbria), the axis of an alignment of four standing stones (two extant and two stumps) was approximately 15° different from that of the covering mound, hinting at a lack of association between the stone alignment and the mound (Powell *et al*. 1963). It is important, however to remember that there is no compelling reason to suppose that Neolithic mound-builders considered it necessary to match the alignments of various pre-existing elements within their monument sites.

At Bryn Celli Ddu (Anglesey), however, much clearer dating evidence has recently emerged for a series of timber posts that once stood at the entrance to the tomb. Pine charcoal from two of the postholes has been dated to 5990-5730 cal. BC (UB-6822; 6982±48 BP and UB-6823; 6968±47 BP) – a rather remarkable 3000 years prior to the construction of the tomb (Burrow 2010).[13] These Mesolithic posts, if indeed they are Mesolithic, have obvious parallels with the timber posts in the Stonehenge carpark discussed in Chapter 4, and the same caveats apply here.

At some sites (e.g. Bryn Celli Ddu (Hemp 1930), Port Charlotte (Argyll and Bute) (Harrington & Pierpoint 1980) and Maeshowe (Orkney) (Challands *et al.* 2005)), standing stones are found inside the chambers, suggesting that they were linked with the mortuary and ceremonial practices carried out in chambers. Similarly, timber posts are linked with mortuary deposits at Boghead Mound (Moray) and Launceston Down (Dorset), where they were considered to have been burial markers (Piggott & Piggott 1944; Burl 1984)

[13] Burrow notes that it is possible that the posts were constructed of bog wood, in which case the posts may have been contemporary with the tomb.

Standing stones are also sometimes found in close proximity to other monuments, although not below the mounds. A standing stone was located 3 m to the east of the Dunan Beag cairn in Arran, and at Unival on North Uist, a standing stone was found 6.9 m southwest of the cairn (Bryce 1909; Scott 1948). The chronological relationship between these stones and the monuments is not known.

6.2.3 Artefact Scatters and Occupation Debris

At many Neolithic monuments, deposits of flint, potsherds, animal bone and sometimes human bone, are found in various combinations and densities on the buried ground surfaces. Although these deposits are sometimes cited as evidence for prior use of the landscape, this interpretation can only be reliably applied to a small number of sites. At most sites, the deposits are more enigmatic and are more suggestive of activities that were contemporary with the monument rather than activities that preceded it.

Often the most straightforward interpretation of scatters of broken artefacts is that they represent nothing more than the activities of the makers and users of the monuments. This was the interpretation at Grindale Barrow 1 (Humberside) and at Nymspfield (Gloucestershire), where potsherds, flint, animal bone and human bone were found in the top 25 mm of the chamber floors (Clifford 1938a; Manby 1980). At Tulloch of Asserby B (Highland), Corcoran (1966) noted that the potsherds scattered on the old ground surface were fresh and unabraded, leading him to conclude that they had not lain on the old ground surface for long and were likely associated with monument construction.

It is easy to envisage that during the construction and use of any Neolithic monument, workers would have used flint tools, sharpened them when they became dull and tossed them on the ground when they broke. Pottery might have been used for food or drink, and animal bones might represent the remains of workers' meals, or perhaps ceremonial feasts. The fragments of discarded bones, broken pottery and flint might then have become trodden into the ground or swept

into ditch fills and forgotten. In the absence of structural evidence for pre-monument activities, this is often the most credible explanation for the artefact scatters. (In contrast, at some sites the ground surface appears to have been cleaned of all artefacts and other material. This will be discussed further below).

Fig. 6.13 West Kennet Long Barrow, Wiltshire silhouetted against the skyline

At a number of sites, deposits of broken pottery, flints and bone are found encased in a matrix of dark earth, variously described as 'dark', 'sticky', or 'unctuous'. These 'dark soil' deposits were discussed at length in Chapter 5. Dark soil deposits are often characterised as domestic occupation debris that was brought to the monument from a settlement site elsewhere. At West Kennet (Wiltshire), for example, Piggott (1958) attributed a layer of black, greasy earth containing flint tools, flakes and animal bones to re-deposited occupation soil (Fig. 6.13). At Midtown of Pitglassie (Aberdeenshire), a layer of grey-black sticky soil containing Earlier Neolithic potsherds was found on the ground surface and Shepherd suggested that the material had been deliberately imported from elsewhere (1996:44). Shepherd considered the possibility that the material derived from an *in situ* occupation, but notes that the monument is situated on a ridge, making it an unlikely location for a domestic settlement. She further notes that 'the

confinement of the deposited material within the limits of the monument at Pitglassie also argues for its deliberate importation and placement' (1996:44).

At Willerby Wold (North Yorkshire), imported occupation debris may have been incorporated into the monument in a different way. A grey soil containing numerous potsherds, fine charcoal, animal bone and a single human bone was located, not on the original ground surface, but in the mound matrix at the east end. Manby (1963) interprets this as occupation debris scraped off the ground and deliberately incorporated into the mound. The Green Low (Derbyshire) mound contained artefactual material and human bones, and occupation debris was also scattered in the forecourt area (Manby 1965).

Potential connections between deliberate deposits of occupation material and practices associated with farming have been suggested at a number of sites. At Giants' Hills 2 (Lincolnshire), analysis of the pre-barrow soil suggested that some form of pre-monument cultivation had taken place at the site, leading the excavators to conclude that the artefact-filled buried soil may have derived from manuring (Evans & Simpson 1991).

Paul Ashbee also linked the occupation soil with farming activities, noting that 'chambered cairns on Scilly, and related structures elsewhere, are seen as not primarily for the burial of the dead but as repositories for occupation earth, sometimes leavened with human remains, which reflect a non-material approach to the problems of soil fertility' (1976:11). The available evidence for farming and cultivation on the buried ground surfaces below Neolithic monuments is discussed below.

Whatever the source of the 'dark' occupation soils, it is clear that these deposits represent activities associated with the use of the monument itself, rather than an earlier occupation or settlement.

At just a handful of sites, artefact scatters on the old ground surfaces can be more reliably interpreted as the residue of earlier, pre-monument occupation. This interpretation most often applies at sites where the artefacts are associated with

structural features such as postholes, hearths or pits. Ascott-Under-Wychwood (Oxfordshire) provides one of the best known examples of this combination of evidence (Benson & Whittle 2006). Extensive pre-monument domestic activity in the Earlier Neolithic was indicated by the presence of hearths, pits, postholes, and a large midden, along with substantial deposits of potsherds, animal bone, flints and fragments of stone axes. Even earlier activity was suggested by at least two Mesolithic occupations – the first and most substantial from an 8th millennium cal. BC occupation and a more ephemeral occupation in the 5th millennium cal. BC – and by the presence of an artefact-filled pit below the midden, which was separated from it by a developed soil profile. In this case, it is clear that the site was extensively used for centuries before the long barrow was constructed and the scatters of artefactual debris are one of the elements that lead to this conclusion. Similarly at Gwernvale, extensive structural evidence, combined with artefact scatters and deposits, clearly indicates that this site was the locale for a substantial pre-monument occupation (Britnell & Savory 1984).

At Port Charlotte (Argyll and Bute), no structural features were located but the extent of the artefactual deposits, together with their location under the 'clean' old ground surface, strongly suggests pre-monument settlement activity (Harrington & Pierpoint 1980). More than 2,000 flints were found, along with deposits of charcoal, hazelnut shells, and sheep bones. At Bryn yr Hen Bobl (Anglesey), a clay layer beneath a terrace feature contained potsherds, flint, polished stone axe flakes, burnt and unburnt bone and charcoal and was interpreted as a Neolithic occupation surface (Hemp 1935:180; Piggott 1954). Later investigators, however, suggested that the lack of structural evidence and hearths argues against such an interpretation and it is more likely that the artefacts represent a foundation deposit for the terrace (Gresham 1985; Leivers *et al.* 2001).

The difficulty of interpreting these scattered deposits is exemplified at Cairnderry (Dumfries and Galloway), where a scatter of heavily patinated Earlier Neolithic flints, pitchstone flakes and potsherds was found around the chambered cairn. While the excavators suggest this material may represent a brief earlier occupation

of the site, they noted that it is also possible that the materials were brought to the site from elsewhere, or that the occupation was contemporary with monument construction (Cummings and Fowler 2007).

6.2.4 Cultivating the Land

One of the long accepted hallmarks of the Neolithic 'package' is agriculture, and evidence for farming activities at monumental sites is sometimes proposed. The best example of pre-monument cultivation evidence is, of course, the South Street long barrow (Wiltshire), where a criss-cross pattern of ard marks was scored into the sub-soil beneath the pre-barrow soil (Fig. 4.7). The soil marks represent multiple ploughing episodes, and stratification in the soil profile and its uneven surface indicate that the ploughing was followed some time later by tillage with hoes or spades (Ashbee *et al*. 1979:282). All of this cultivation evidence was fortuitously preserved by the placement of the later mound. The potential significance of pre-barrow plough marks sparked a lively debate in the literature, with Rowley-Conwy (1987) arguing that the evidence from a number of prehistoric sites in Denmark supports a ritual explanation for ard marks beneath monuments (more commonly found in Continental Europe). Kristiansen (1990) countered that the bulk of the evidence indicates that the marks are the remnants of routine cultivation practices, which have simply been fortuitously preserved by the later construction of the mound.

As noted in Chapter 4, Fussell's Lodge (Wiltshire) is the only other site where possible traces of cultivation were identified on the buried ground surface (Morgan & Ashbee 1958). However, in a later publication one of the original excavators suggested that the markings were more likely to be the result of a natural soil phenomenon (Ashbee 1966).

At other sites, various forms of indirect evidence suggest that farming activity may have taken place. Soil analysis at Giant's Hills 2 (Lincolnshire) and Kilham (Humberside) indicated that the pre-barrow soils at both sites may have been

cultivated at some time prior to barrow construction (Manby 1971; Evans & Simpson 1991), and the disturbed nature of the soil beneath Whitehorse Hill suggested the possibility that it had been ploughed (Miles *et al.* 2003). A thick soil beneath the chambered cairn at Callanish (Western Isles) was interpreted as an agricultural soil (Ashmore 1981). At Pitnacree (Perth and Kinross), the old ground surface was up to 0.3 m thick in places, and contained potsherds, flints and pebbles. The artefacts and pebbles were set at an angle in the soil, probably as a result of mechanical disturbance, and this taken together with the soil thickness, suggests the possibility of early cultivation (Coles & Simpson 1965).

Charred cereal grains were recovered from the buried soil at Gwernvale (Powys), providing clear evidence for at least the consumption of cultivated grains. Pollen analysis has indicated that farming was occurring in the vicinity of Howe (Orkney), Easton Down (Wiltshire), Horslip (Wiltshire) and Trefigneth (Anglesey). The presence of quern fragments provides indirect evidence for plant cultivation at Kemp Howe (Humberside), Camster Long (Highland), Giant's Grave (Somerset), Giant's Grave South (Dorset) and Lanhill (Wiltshire).

Taken as a whole, direct evidence for pre-barrow cultivation in Britain is rare. The indirect evidence, however – pollen analysis, quern fragments and soil disturbances – might suggest that in some cases, farming was taking (or had taken) place in the vicinity of monuments. This certainly occurred in Ireland, at Céide Fields, Co. Mayo, where megalithic tombs had been constructed among a pattern of Neolithic field systems, which were then preserved under a layer of blanket peat (Caulfield *et al.* 1998). The evidence for farming at barrows and chambered cairns in Britain, while admittedly sparse, might suggest that similar practices were taking place in some parts of Britain.

6.2.5 Sacred Groves and Tree-throw Pits: Natural Places Beneath the Mounds

In Chapter 3, the idea that natural places in the landscape might have held a special significance for Neolithic communities was discussed. There is an extensive literature on potential relationships between monuments and such enduring landscape features as mountains and coasts, but links with less permanent features – such as clearings and groves – are often conjectured but are more difficult to demonstrate. There is some evidence from buried ground features, however, that monuments may indeed have marked natural places such as tree-throws or groves.

Tree-throws are created when a tree is uprooted as a result of wind or storms, leaving a large amorphous pit in the ground and opening the woodland canopy to create a clearing. Evans *et al.* (1999) demonstrated that tree throws were utilised during the Mesolithic and Neolithic, perhaps as intermittent short-term shelters. It is possible, therefore that such places, like other natural places in the landscape, might attract a significance that lingered in social memory. Features that are likely tree throws were found beneath at least three monuments in this study – King Barrow and Easton Down, both in Wiltshire and Ascott-Under-Wychwood in Oxfordshire (Whittle *et al.* 1993; Benson & Whittle 2006; Darvill 2006:79). A small Mesolithic flint assemblage was found in and around the tree throw at Ascott-Under-Wychwood, suggesting that it may have been in use some time prior to construction of the long barrow.

At the Charlecote long barrow in Warwickshire, a group of features interpreted as tree root holes formed a circle 19 m in diameter, with a 5 m opening on the north side (Fig. 6.14) (Ford 2003). Together they gave the appearance of a clump of trees with a central clearing. As few additional root holes were found under the barrow, Ford suggests it is possible that the clump of trees may have been a 'significant feature of the landscape' (Ford 2003:7).

It is rare to find archaeological evidence for impermanent landscape features such as groves or clearings, although they may well have played important practical and symbolical roles in Neolithic life. It is interesting to speculate that the natural grove

or clearing at Charlecote may have been a place of significance for the local Neolithic community, which was later marked with the placement of a monument.

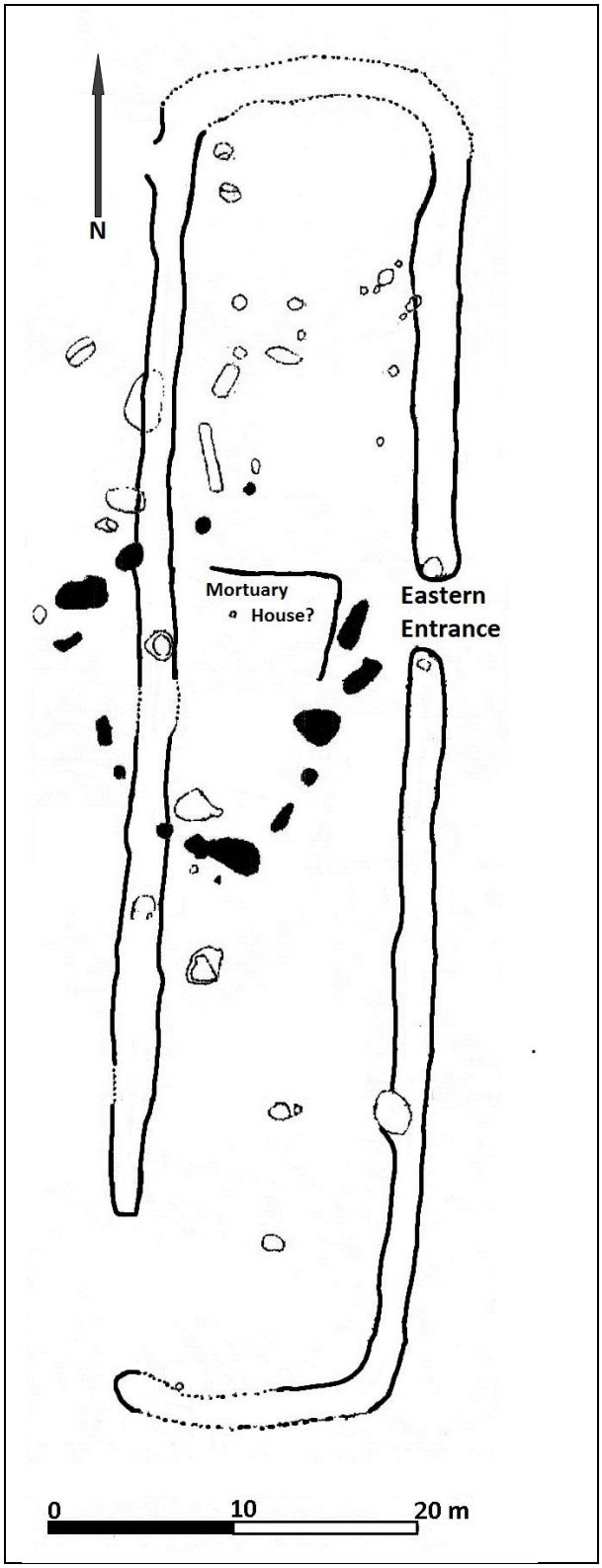


Fig. 6.14 Plan of Charlecote Long barrow with the possible tree holes shown in black, after Ford (2003).

It is possible that a similar tree grove may have existed at the Nutbane long barrow in Hampshire. The Neolithic buried soil beneath the monument was clearly identified as a 'dark brown densely-textured soil', and the excavator reported that 'below this surface were several pre-Neolithic tree holes filled with red clay' (Morgan 1959:20). No further information is provided about the tree holes and nor do they appear on the site plan, but the brief description suggests that the trees had been deliberately removed and the holes filled with clay, sometime prior to the construction of the first structures at Nutbane. If the trees had simply rotted *in situ*, one would expect the holes to be filled with the humic debris of the decaying tree trunk.

Similarly, at Buck's Head (Gloucestershire) the roots or stumps of 'a considerable quantity' of trees were found below the mound, along with signs of burning (Dorington 1881:133). Could this represent a tree grove that was removed by fire prior to barrow construction? In the absence of any further information, it is of course not possible to know, but It is interesting to speculate that these trees, and the trees at Notgrove, may also have represented places of special significance and that the later monuments marked those places in the landscape that had been visited for centuries before.

6.2.6 The Deep Past – Indications of Mesolithic Activity at Neolithic Monuments

Perhaps the most intriguing evidence for pre-monument activity is that which links Neolithic monuments to much earlier Mesolithic activity. Indeed, the extensive Mesolithic assemblages at sites such as Ascott-Under-Wychwood, Hazleton North and Gwernvale are often cited as evidence that certain special places in the landscape retained their significance over time, and continued to be visited and honoured long after the reason for their original significance had faded from memory (Allen & Gardiner 2002; Mercer 2004). A striking example of this phenomenon is the cluster of Mesolithic postholes found during excavation for a car park at Stonehenge, discussed in Chapter 4, which preceded the first phase of

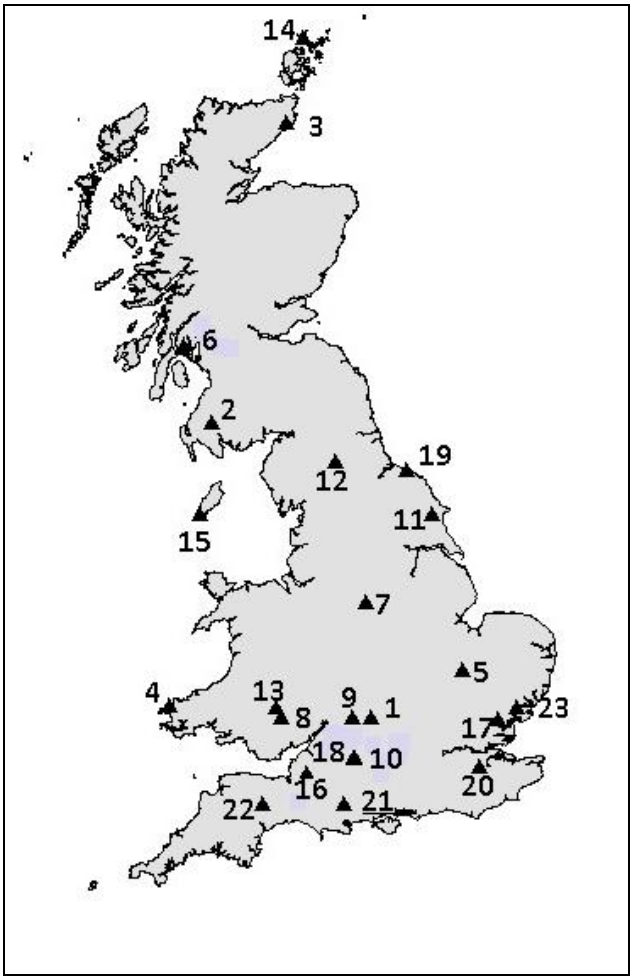
Stonehenge by more than 4,000 years (Vatcher & Vatcher 1973b). There are other examples of Mesolithic activity at large communal Neolithic sites such as causewayed enclosures and cursus monuments. A scatter of Mesolithic flints along the route of the Dorset Cursus, Mesolithic pits at the Stanwell cursus and a posthole under the inner south cross-dyke bank at the Hambledon Hill causewayed enclosure all indicate much earlier activity (O'Connell 1990; Johnston 1999; Mercer & Healy 2008).

At long barrows and chambered cairns, however, the evidence for Mesolithic activity on the land beneath the monuments of the Neolithic is relatively scarce. Only twenty-one sites in this study revealed any suggestion of a Mesolithic presence and in most cases, the evidence consisted of just a small number of flints on the buried ground surfaces.

Although there are only a few sites with evidence for Mesolithic activity, they are found in all areas of Britain, from Point of Cott in the north to Tiverton in the south and from Carreg Sampson in the west to The Chestnuts in the east (Fig. 6.15). In a few cases, the Mesolithic evidence is extensive, suggesting long-term use of the land perhaps centuries before the Neolithic monument was built. At the Chestnuts long barrow in Kent, a large assemblage of more than 2,000 Mesolithic flints was found on the ground surface and in the mound (Alexander 1961). Although there were no Mesolithic features beneath the mound, Mesolithic hearths and hundreds of flint tools were found in the surrounding fields. It is clear that this place was important and extensively used by Mesolithic communities. Similarly, a large assemblage of Mesolithic flints was found on the ground surface and in the mound material at Middle Hurth in Durham (Coggins & Fairless 1997). The excavators suggest that the flints derived from a Mesolithic campsite which was disturbed when the barrow builders scraped the topsoil from the ground surface to create the barrow mound. At the Ascott-Under-Wychwood long barrow in Oxfordshire, at least two episodes of pre-barrow Mesolithic land use occurred, one in the eighth millennium cal. BC and the other in the fifth millennium cal. BC (Benson & Whittle 2006). The earlier occupation was the most substantial and although no features

were identified, worked flints including microburins, notched blades, flakes and cores were found across the site. Evidence for the later Mesolithic occupation consisted of a small flint assemblage, and radiocarbon dates from associated animal bone and charcoal yielded dates in the fifth millennium cal. BC.

At other sites, however, the evidence for Mesolithic activity amounts to just a small scatter of flints, and any links between that material and the later Neolithic monuments are tenuous at best. At Carreg Sampson , Thickthorn Down and Pen y Wyrlod Long Cairn (Powys) the pre-barrow Mesolithic material consists of a single microlith, while at other sites such as Bargrennan, Horslip, Camster Long, Tiverton, and Priddy Long Barrow, just a handful of Mesolithic flints were found. It is more difficult in these cases to argue that the Mesolithic material hints at connections with the later Neolithic monument.



1. Ascott-Under-Wychwood
2. Bargrennan
3. Camster Long
4. Carreg Sampson
5. Foulmire Fen
6. Glecknabae
7. Green Low
8. Gwernvale
9. Hazleton North
10. Horslip
11. Kilham
12. Middle Hurth
13. Pen y Wyrlod
14. Point of Cott
15. Port St Mary
16. Priddy
17. Rivenhall
18. South Street
19. Street House
20. The Chestnuts
21. Thickthorn Down
22. Tiverton
23. Tye Field

Fig. 6.15 Distribution of Neolithic monuments with evidence for Mesolithic activity

It has been suggested that links to the past may have been maintained in a general sense through natural features such as clearings or tree-throw pits and by the presence of artefact scatters, animal bones and other debris on the ground surface (Whittle 2010). Lambrick proposes a similar explanation for the Mesolithic material at the Rollright Stones in Oxfordshire:

> The evidence does not necessarily indicate direct continuity of settlement activity, but rather the re-exploitation of areas which had already been opened up to some degree and perhaps remained linked into an infrastructure of tracks, watering places, clearings and areas of more open woodland. (Lambrick 1988:111)

These ideas will be discussed more fully below in a discussion on the evidence for intentionality in site re-use, but other explanations have also been proposed for such apparently long-term site use.

One such alternative explanation was proposed by Evans and Hodder (2006:190) for the presence of Mesolithic flints along with Earlier Neolithic artefacts on the pre-barrow surface at the Foulmire Fen long barrow in Cambridgeshire. They argue that this assemblage could be considered evidence for a transitional occupation – one in which the pre-barrow settlers were utilizing both Mesolithic and Neolithic technologies. This is an interesting observation and one which allows for the possibility of technological overlap in the early centuries of the Neolithic. As Barber points out: 'the simple equation of pre-cairn with pre-Neolithic, i.e. Mesolithic, is redolent of the idea that Mesolithic assemblages were, literally, one day replaced by Neolithic assemblages' (1997b:66). The notion of transitional assemblages would not of course apply everywhere – at Green Low (Derbyshire), the Mesolithic flints were very heavily patinated, indicating a long period of deposition and therefore considerable temporal separation from the Neolithic material (Manby 1965).

Masters (1997:170) suggests that the Mesolithic flints found at Camster Long (Highland) may represent a later use of Mesolithic knapping technology, in this case as a way to maximise a scant resource. He argues that the available flint nodules in the vicinity of Camster were sufficiently small as to make microlithic knapping

necessary and since there was no other evidence to suggest a Mesolithic context, it is most likely that the microliths were knapped by later people.

These possibilities offer alternate ways of explaining the presence of Mesolithic material at Neolithic monuments. However, another explanation for the presence of Mesolithic material, especially when it constitutes only a few flint tools or flakes, is that it is simply the result of random chance. Much of the British landscape was populated for thousands of years by Mesolithic hunters and gatherers who made, used, dropped and threw away countless stone tools and flakes as they followed familiar pathways across the landscape over decades and centuries. It is entirely conceivable that one or two would show up almost anywhere one chose to look. Mesolithic flints are still being found in the landscape today, after thousands of years of farming, building, road construction, gravel mining and other activities that have robbed the earth of its archaeological deposits. It is not difficult to imagine that the density of Mesolithic artefacts on the Neolithic landscape would have been very high indeed. In fact, it is perhaps surprising that more Neolithic sites do not contain some evidence of an earlier Mesolithic presence.

Despite the limited evidence for pre-monument Mesolithic activity, the idea that certain places in the landscape were re-visited and re-used again and again over time is suggested by the fact that some of the sites where Mesolithic evidence was found also revealed evidence of pre-monument Neolithic activity, e.g. Point of Cott (Orkney), Priddy (Somerset), Gwernvale (Powys) and Ascott-Under-Wychwood (Oxfordshire). At Hazleton North (Gloucestershire), the Mesolithic and Neolithic artefacts and features were separated spatially, as well as temporally (Saville 1990). Such long-lived and repeated re- use of particular landscape locations implies that, at least in some cases, deliberate choices were made to remember, to visit and to commemorate places of special significance.

6.2.7 An Absence of Evidence

This study focuses on the nature and extent of pre-monument features and deposits found at Neolithic monuments across Britain. In a study of this kind, however, it is important to remember the maxim that 'absence of evidence is not evidence of absence'. This is true of course of all archaeological research, but the disparity between sites where features or deposits were reported, and those where they may have been present but were not reported, is great and so it is worth taking a moment to reflect on potential explanations and implications.

Approximately 580 excavated chambered cairns, long barrows and round barrows in Britain have been excavated to a greater or lesser extent, but information on the buried ground surfaces is available for only 300 sites.[14] Of the remaining 280 sites, at least 100 are unpublished, while 175 were published, but the reports contain no information on the buried land surfaces. In some cases, the lack of information may simply reflect the absence of any features or deposits to report, but that cannot be assumed in all cases. It is entirely possible, in fact probable, that pre-monument features and deposits were present at a higher number of sites than are identified here. A variety of factors may have led to the evidence for such activity going unreported:

- Buried features or deposits were present on the ground surfaces, but were not looked for, noticed or recognised by the excavator. As discussed in Chapter 2, antiquarian excavators, for the most part, were looking for human remains and artefacts, and so would have missed sub-monument features that were located outside the primary burial areas. One example of a site where pre-monument features were missed during an early excavation is the Camster Long chambered cairn in the Highland region. The first excavation in 1866 recovered human remains and artefacts from the

[14] The numbers are necessarily approximate due to uncertainties in some of the available information, and to the difficulties inherent in attempting to unify and classify such diverse and often unique archaeological data. Nonetheless, these approximations are provided in order to place the pre-monument evidence in context.

chamber floors, but during the second excavation in 1976-1980, extensive artefactual debris and structural features were found under the tail of the cairn (Anderson 1868; Masters 1997). It is also worth remembering that early excavation methods were not as refined as they are today, and ephemeral features such as stakeholes may have gone unnoticed by even the most conscientious antiquarian.

- Buried features or deposits were present on the ground surface and were recognised, but not reported. In early excavations, a scatter of hazelnut shells or a patch of discoloured soil may not have been viewed as significant or worthy of mention.
- Buried features or deposits were present on the ground surface, but only in unexcavated parts of the monument and so not seen by the excavator. The focus on chambers in many antiquarian excavations, for example, would have resulted in buried ground surfaces in other parts of the monument going unexamined. Similarly, in the case of small-scale trial excavations, features and deposits may lie undetected under other parts of the monument.
- There were no buried features or deposits on the ground surface.

So while we can say with certainty that one or more features or deposits on the buried ground surfaces were present at 300 sites, it is not possible to determine with equal certainty the number of sites at which they were absent.

In contrast to sites where evidence may have been present but was not identified or reported, there are also numerous examples of modern excavations where evidence for sub-monument features was specifically sought, and not found. At Pipton, Powys, 'the forecourt was paved…with small slabs…pressed here and there into the stiff clay of the prepared surface. The whole of this surface was closely examined, without success, in the hope of finding ritual pits' (Savory 1956b:33). Wymer examined the pre-mound surface at Lambourn, Berkshire, and noted 'the lack of postholes or other disturbances of the old turf line show there were no substantial [pre-mound] structures on the site' (Wymer 1966:4). At Belshiel Law,

Northumberland, Newbigin noted 'there were no chambers, cists, postholes, not even a fragment of carbonised wood on the old ground surface' (Newbigin 1936:301). There are numerous other examples – sub-monument features were specifically sought and not found at Swale's Tumulus, Brackley, Cashtal Yn Ard, Alfriston, Cairnderry and others (Fleure & Neely 1936; Scott 1956:29; Briscoe 1957; Drewett 1975; Cummings & Fowler 2007). These examples make it clear that while sub-monument features may have been missed at some sites, there are many sites at which they were simply not present.

6.3 Making Meaning – Decoding the Pre-Monument Features and Deposits

In the previous section, various types of features and deposits on the pre-monument ground surfaces at Neolithic sites were discussed and evaluated. In this section, potential interpretations and conclusions will be drawn from the evidence in an effort to answer the research questions posed in Chapter 2.

As with many things 'Neolithic', it is difficult to be certain about the interpretation of these fragmentary and disassociated remains. In many cases, the buried features and deposits are related to monument construction and use, and reflect activities carried out by the monument builders. At other sites, there is convincing evidence for earlier pre-monument activity, suggesting that the location was significant in some way, and that the significance was recognised over a lengthy time period. At many other sites, even when some pre-monument activity was indicated, it is much more fleeting and ephemeral, and it is not as clear that the re-use of the site was deliberate. In this section, an assessment of the nature and duration of the pre-monument activity will be presented, along with a discussion on the likelihood that the re-use of the land was intentional.

6.3.1 Pre-Monument Occupants and Barrow Builders

One of the key research questions this study seeks to address is whether or not the buried features and deposits might represent an earlier use of the ground upon which the monument was built. The challenge of positively identifying pre-monument activity is that the residue of such activity would look very much like the residue of activity associated with the construction and use of the monument. In both cases, people would need tools to work with, vessels to hold food and drink, fires for warmth, light and cooking and perhaps a temporary structure in which to sleep or take shelter from the rain. In the absence of clearly defined stratigraphy or radiocarbon dates, the archaeological signature of these activities is the same whether they were carried out many years before a monument was built, or during its construction.

The national survey and regional case studies all suggest, however, that many of the buried features and deposits can likely be attributed to the barrow builders, and not to earlier occupants. The buried features provide an intriguing glimpse into everyday activities carried out at the monuments – trodden floors in the chambers at South Yarrows North and South (Highland) mark the places that the monument users walked (Anderson 1866a) and broken hazelnut shells on the ground at Giant's Hills 1 (Lincolnshire) evoke images of labourers cracking and eating them as they worked (Phillips 1935a). Much of the buried evidence relates directly to funerary practices – fires, mortuary pits, graves, timber posts, and standing stones are all likely linked to the burial and commemoration of human remains.

It is often difficult to establish a time depth for the pre-monument activity, and thus distinguish earlier activity from activity related to the barrow builders, but depending on the availability of organic material or artefacts, various methods can be employed to establish site chronology.

Artefact typology, of course, is useful in identifying Mesolithic activity and thus establishing chronological separation from the monument, but is rarely useful in differentiating between separate periods of Neolithic activity. Pottery typologies

are temporally-specific, but the presence of Earlier Neolithic potsherds can as easily be attributed to the monument builders as to earlier inhabitants, and Later Neolithic potsherds are often interpreted as evidence of a later or secondary use of the monument.

At several sites, radiocarbon dates are associated with pre-monument material and in those cases a determination can often be made of the degree of temporal separation between the earlier activity and monument construction/use activity. At Beckhampton Road, several charcoal patches were found at a depth of 5-7 cm below the unbroken turf line at the west end of the mound. Three of the spreads were approximately 30 cm in diameter but the fourth was much larger, measuring 4.5 m in length and 1.2 m in width. It lay obliquely across the long axis of the barrow, and beneath it were five stakeholes. The stakeholes did not contain any charcoal, so they must have pre-dated the fire. A piece of oak charcoal from the large charcoal patch produced a radiocarbon date of 4346-3665 cal. BC (NPL-138; 5200±160 BP), while a piece of antler found on top of the old ground surface produced a date of 3370-2905 cal. BC (BM-506b; 4467±90 BP) (Ashbee *et al.* 1979), indicating a potentially significant time lapse between the two periods of activity.

Recently, the radiocarbon dates at several Neolithic long barrows in southern England were re-interpreted using a Bayesian framework to postulate chronologies for the sites (Bayliss *et al.* 2007a; Bayliss *et al.* 2007b; Bayliss *et al.* 2007c; Meadows *et al.* 2007; Whittle *et al.* 2007a; Whittle & Bayliss 2007; Whittle *et al.* 2007b; Wysocki *et al.* 2007). The radiocarbon dates from Ascott-under-Wychwood suggested that the pre-barrow activity was episodic from the Mesolithic, ending around 3940–3765 cal. BC (95% probability) and that the time lapse between the pre-monument activity and construction of the monument was 35–215 years (95% probability) (Bayliss *et al.* 2007a).

At some sites sufficient time had elapsed for a turf line to develop between the traces of the earlier activity and the later monument, leading to the obvious conclusion that the activity pre-dated the monument by a considerable time. This was the case at Thickthorn Down (Dorset), where three pits were sealed by an

unbroken turfline beneath the barrow (Drew & Piggott 1936). Similarly, the shell midden below the Glecknabae chambered cairn (Bute) was separated from the monument by a dark soil layer (Bryce 1904), which could represent a decayed turf line. The difficulty with this type of evidence lies in establishing a connection between the long-buried earlier features and the later monument.

At the Lanhill Barrow (Wiltshire) a pit was discovered beneath the ground surface over which the revetment wall of the barrow had been built (the wall had been destroyed before excavation) (King 1966). The pit was attributed to pre-monument activity based on its position underneath the wall, although it is possible that the barrow builders may have dug the pit and then built over it when it was no longer needed.

All of the chronological indicators described are useful, but rely on specific kinds of material and conditions which are often not present. These methods are also not helpful for distinguishing between periods of activity that might only be separated by centuries or decades, or which might not be separated at all. At many sites it is simply not possible to determine whether features relate to an earlier pre-monument phase, or to monument construction and use. Smith grappled with this dilemma in relation to the excavation of Trefignath (Anglesey):

> Firstly, [the Phase 1 finds] could reflect occupation of the knoll of an entirely domestic kind having nothing to do with funerary activity. Secondly, they could reflect the activities of the tomb builders.... In my view the Period I assemblage at Trefignath derives material from both kinds of activity. (Smith & Lynch 1987:13)

In the absence of stratigraphic or other dating evidence, all we can say with certainty about the buried features and monuments is that activity did occur in that place prior to the placement of the monument.

6.3.2 Long-Term Dwelling, Short-Term Camping or Just Passing Through?

It has often been suggested that Neolithic monuments in Britain may have been constructed on the sites of former dwellings or settlements, with the implication that the pre-monument activity was of a domestic nature and of relatively long duration. In other parts of Europe, there is strong evidence to support this practice. At the Cairon long mound in France, a megalithic tomb was constructed directly on top of a rectangular house structure (Laporte & Tinévez 2004). Similarly at Ballyglass, Co. Mayo, a house structure is overlain by a megalithic tomb (Ó Nualláin 1972). The review of the evidence for structural features above however demonstrates that convincing evidence of pre-monument structures that might be termed dwellings is rare in Britain. Most structural features represent light, temporary structures, while at many sites no structures at all were indicated. It must be borne in mind, however that Neolithic settlement evidence in Britain is very limited, so it is difficult to draw useful comparisons between the postholes, pits and hearths found at settlement sites and those found on the ground surfaces beneath monuments. An attempt to do so was made in Chapter 4, with a comparison of the size and contents of pits found under monuments in the West Country region with those found at settlement sites. The comparison yielded interesting differences between them, indicating that perhaps the activities that resulted in the pits at monument sites were not of the same 'domestic' nature as at settlement sites. In any event, it would seem that there is very little evidence for the type of structures that could be termed 'domestic' under Neolithic monuments.

In terms of the duration of occupation, in almost all cases where some evidence for prior activity exists, it suggests a temporary, brief occupation – a few dropped tools, a small fire or two, the remains of some meals and perhaps a broken pot. This is the type of material that would be left after a short occupation or even several short occupations, but not what would be expected at a locale that was visited time and time again.

At Camster Long (Highland), the pre-monument activity was interpreted as a temporary occupation. The hearths were irregular and insubstantial and the postholes and stakeholes could not be identified as any specific form of structure. In addition, the flaked stone assemblage consisted mainly of debitage, suggesting that that knapping was done on site but the finished tools then taken elsewhere (Masters 1997).

Similarly at Boghead Mound (Moray), Burl suggests that there was no evidence for long-term settlement on the site. The artefact scatters and stakeholes suggest 'that only a handful of people squatted there, perhaps seasonally, for a few years before abandoning the area' (Burl 1984:53). Similar assessments were made at Trefignath (Anglesey) and Cairnderry (Dumfries and Galloway) (Smith & Lynch 1987; Cummings & Fowler 2007).

There are of course a number of sites where lengthy and repeated occupation was clearly indicated. Gwernvale, Ascott-Under-Wychwood, and Hazleton North among others all demonstrate convincing evidence that they were significant places in the landscape long before the monuments were built, and that people returned to those sites again and again, even after lengthy periods of abandonment.

6.3.3 Inferring Intentionality – Were the Landscapes Deliberately Chosen for Re-use?

This study has demonstrated that pre-monument features and deposits lie on the ground surfaces beneath many Neolithic monuments in Britain and that, in some cases, these deposits are the residue of an earlier phase of activity at the site. An important question, however, is whether the placement of the later monument was linked to the earlier activity or if in fact the juxtaposition of the monument and earlier features was simply a result of random chance. The fact that evidence for pre-mound activity is found under barrows does not necessarily imply a causal link between the earlier features and the later monument. The landscapes of Neolithic Britain had been occupied for millennia and it is not inconceivable that specific

locales within the landscape would be randomly reused over time. Should we interpret these small preserved landscapes simply as random sections of the landscape fortuitously sealed and preserved by monument construction? Or does the earlier activity have a direct connection with the subsequent choice of that location for the construction of the monument? Do these traces of earlier activity indicate that the locations chosen for monuments were already significant and therefore deliberately chosen by the monument builders?

If we assume for a moment that the monument placement was indeed intentional, it suggests that the locale was a significant place, imbued with meaning, history and memory. This is not an unlikely supposition – as discussed in Chapter 3, ethnographic analogy from around the world has demonstrated the significance of landscape to traditional societies and we can infer that it is at least possible that similar significance applied in Neolithic Britain.

An intentional placement of the monument implies that the location of the earlier activity was remembered, perhaps through the telling and re-telling of local histories and myths, possibly supplemented by visual cues in the landscape. Oral history and story-telling is also known through ethnography to maintain cultural history, but it is likely that specificity is increasingly lost over time, making it less likely that certain places might be specifically remembered over centuries without visual cues. Bradley (2003) notes that studies of oral histories have demonstrated that stories become unstable within 100-200 years. Visual landscape cues would aid in remembering – these cues might include the continuing visibility of the features themselves, the proximity to pathways or clearings, or changes to the vegetation caused by the earlier use, which set the site apart from neighbouring ground. This is not to say that special places would not be remembered through oral histories, myths or legends, but considering the sometimes lengthy gaps in site re-use, it is more plausible to suggest that the physical space was also recognizable in some way.

Pre-mound features and deposits would remain visible in the landscape for a relatively short period of time – the likelihood of them remaining visible over

centuries is remote. David Field suggests that early pits, such as the Mesolithic pits at Kilham (Humberside) long barrow, may have remained visible in the landscape for a very long time: 'Centuries later such partially silted or backfilled pits would have been visible as earthworks and, together with the scatter of patinated artefacts, recognised as the remnants of human behaviour' (Field 2006:77). Alan Saville, however, argues that 'there are limits to the time for which former occupation sites would remain visible if unused' (1990:254-55). He suggests that even 100 years – or three generations – might be too long. It seems most unlikely that the insubstantial pre-monument features found at most sites would have remained visible for very long in a landscape of low shrubs, grass and deciduous trees. Small pieces of flint would soon be buried beneath leaf fall or work their way to the base of clumps of grass or shrubs, to remain all but invisible. Pits, if they had been left open, would soon infill with falling leaves, rubble, sand and vegetation. Duncan Garrow dug an experimental pit during his PhD research at Cambridge University and within three years it was no longer visible on the ground surface (Garrow 2006). It stretches the bounds of reason to imagine that such features would be visible in 20 years time, let alone after centuries or, in the case of Mesolithic material, millennia.

If the residues of earlier activity did not remain visible on the ground surface, cultural memories may have been sustained through other visual memory prompts. As discussed above, permanent changes to local vegetation caused by repeated re-use of a site would create a visually distinctive place in the landscape, set apart from the surrounding ground (Allen & Gardiner 2002). Such small clearings or groves would invite continued re-use and their significance would thus be confirmed and remembered, even though their original meanings might be lost in time. Saville cautions that vegetation changes that occur as a result of occupation would have to have been maintained by successive occupations, without a lengthy gap in between, as vegetative re-growth would likely have been 'dense and obscuring' (1989a:262). A gap of several hundred years would be too long to maintain a distinctive difference in vegetation.

As a visual landscape memory prompt, it is also worth considering the enduring nature of pathways. Repeated journeys to hunting grounds, meeting places, or sources of water or flint create well-worn tracks through the landscape. Vegetation is repeatedly trampled and the ground hardens with wear until nothing will grow on it, ensuring the ongoing visibility and continued use of the pathway. Even if places are forgotten or the exact location of something is mixed up or blurred – was it by this tree or that tree? – the pathways remain. This might explain why certain places in the landscape could be remembered and re-used many hundreds of years after the initial use – the place itself may not endure but the pathway does.

It is possible, therefore, that significant places were remembered, re-visited and re-used over time, and perhaps eventually a monument was built as a permanent marker. However, the possibility that the features and deposits are beneath the barrows as a result of random chance must also be considered and indeed, at some sites, it is the most economical explanation for the evidence. This particularly applies to sites where only a small number of Mesolithic flints were found beneath later monuments. It is unlikely that one or two microliths would have remained visible for very long, and the presence of such a small assemblage does not imply a settlement large enough or lengthy enough to effect a permanent clearing in the landscape. If the location was a socially significant one that attracted repeated visits, one would expect to find more than a scattering of small worked flints. It is likely that for sites with very ephemeral pre-monument features, the selection of the same locale for a later monument is merely a coincidence.

We are left with the possibility either that the pre-monument activity led directly to the placement of the monument, or that the features buried beneath the mound are there simply as a result of coincidence. There is a third option, however, which is linked to the first in that it suggests a deliberate re-use of landscape locations, but in this case the re-use is based solely on the attributes of that particular location, and not on previous use or specific cultural histories that are linked to the place. This might be referred to as the 'great minds think alike' interpretation. The site may have particular views, or a close proximity to fresh water, hunting grounds, or

trade routes, or have any number of other attributes which are not recoverable today, but which led a series of small communities to visit it again and again. The difficulty with this option of course is that in many cases it is archaeologically invisible. Alan Saville reached this conclusion on considering the locations of Gwernvale (Powys), Ascott-Under-Wychwood (Oxfordshire) and Hazleton North (Gloucestershire), where evidence for prolonged use was found. He remarked that none of the sites seemed to offer:

> ...any particular advantage of location. None of these locations is topographically distinct in terms of prominence or slope; the locations are not situated at changes in soil type or geology (except Gwernvale which lies at the edge of a terrace – Britnell 1984); they are not adjacent to permanent water supplies; nor do they offer lithic resources other than for cairn building. (Saville 1989a:262)

Saville goes on to suggest that the advantage of these landscapes may have simply been that they had already been cleared.

Intentionality is a difficult concept to 'see' in the archaeological record. While the features, deposits and artefacts are undisputed proof that, for example, people occupied land, built a structure or dropped a tool, they cannot tell us *why* it was so. There is significant variation in the nature and quantity of the buried features and deposits beneath the monuments and like most Neolithic explanations, we must not expect a 'one size fits all' answer. Regional variation, individual agency and the unique attributes of each site will have played a role in its on-going use and re-use. At some sites, the re-use was based on the social significance of the land, at others it was based on functional convenience, and at others it was just chance.

6.3.4 Erasing the Past?

As discussed in Chapter 2, one of the aims of this study has been to examine the potential significance of place in the Neolithic landscape and the instances in which significant places were visited, remembered and eventually commemorated by the

placement of a monument. In an interesting contrast to this notion of the commemoration of place and preservation of cultural links with the past, the ground at some Neolithic monuments was burned, stripped of turf or overlaid with imported material, thus effectively 'erasing' any physical trace of past activity. This practice was discussed in Chapter 4 and there is no need to reiterate the points made there, except to note that the practices of turf stripping, burning the ground or laying down clean imported clay or sand were not restricted to the West Country region.

Burning of the ground surface occurred at approximately 80 sites in all regions of Britain, and in some cases the burning was so intense as to leave scorched, reddened sand and stones and sometimes large quantities of ash and charcoal. This was the case at Boghead Mound (Moray), where 'at some time a fierce fire was lit ... creating such intense heat that the sand was burnt a deep red, even white, over an irregular area...' (Burl 1984:53). Similarly, the stripping of turf prior to monument construction was carried out in all regions but was less common, occurring (or possibly occurring) at 38 sites across Britain.

The presence of a 'floor' of sand or clay was noted at approximately 30 sites, and more than half of these were found in Scotland. At Calf of Eday Long in Orkney, Calder notes:

> The floor consisted of a layer of blue clay lying on the natural buff-coloured clay subsoil. It may be mentioned that the whole foundation of the cairn seemed to rest on the blue layer, the material of which, it is understood, does not occur nearer than the south end of Eday. (Calder 1937:122).

A related practice is that of 'cleaning' the ground surface of any artefacts or bone fragments. Describing the passage floor at Barclodiad y Gawres (Anglesey), the excavators remarked that 'flecks of charcoal were very rare and the floor had a remarkably clean appearance' (Powell & Daniel 1956:3). Special effort appears to have been taken at Dyffryn Ardudwy (Gwynedd) as well, where Powell noted 'the absence of hearths, and ash scatter and the whole cleanliness of the forecourt area is especially to be noted' (Powell 1973:12) This is in sharp contrast to the sites discussed above where potsherds, flint flakes, bones, and other material are found

scattered on the ground surfaces, along with deposits of charcoal and ash. Cleaning the ground and removing the residue of past activity signify a particular desire for purification and decontamination – a desire that is very different from a concern with preserving, remembering and commemorating the past.

Burning, turf stripping, cleaning the ground and laying down a clean floor all have the effect of removing or hiding any material or markings that may have been created by earlier users of the site, and these actions can be interpreted in one of two ways. On one hand, they may represent nothing more than practical and efficient methods of clearing vegetation and creating level ground upon which to construct the monument. Fire is an efficient tool to clear vegetation quickly and with a minimum of manual labour, while turf stripping would have the effect of levelling uneven ground to some extent.

On the other hand, they might represent actions designed to erase the past – to remove physical traces of past activity and to cleanse and purify the ground before the monument was placed upon it. The use of fire in particular implies a ritual purification, while layers of imported material such as sand or clay provide a clean, untainted surface upon which to construct the monument. This was discussed in Chapter 4 where it was noted that these practice are inconsistent with a desire to commemorate earlier activity, and instead seem designed to eradicate all traces of the past.

The next and final chapter will bring together the analyses presented in this and the preceding chapters in order to draw inferences and conclusions about the meaning of the buried features and deposits on the ground surfaces and their implications for the nature of land use and the significance of place in Neolithic Britain.

7. Conclusion

7.1 Monuments in Place

This study has been undertaken from the perspective that place was important in Neolithic Britain. Landscapes were intimately known and inseparable from the history and cultural practices of the occupants. They were socialised landscapes and it follows that certain places were significant and important to local communities. This importance might have stemmed from the distant past and been incorporated in myth and legend or it might have related to more recent history – the place where a battle was won, a shaman's vision occurred, or a child was born. The significance of a place might also be linked to nearby mountains, rivers, or coasts which were important in local cosmologies.

In these lived landscapes, the decision on where to place a monument must have been carefully considered and a crucial part of the construction process. Building a monument was a huge undertaking involving many people, thousands of hours of labour and a skill set that was new to the people of the Neolithic. More importantly, the social significance of the monuments themselves cannot be overstated. For the first time, people had the knowledge, the ability and the will to come together as a group to create structures that changed their world, both literally and figuratively. The decision on where to place these structures within the physical and mythological landscape must have been inextricably linked with the overriding cosmology that led to their construction.

It is impossible now to recover the specific significance of places in the Neolithic, but clues in the landscape or within the monuments themselves can provide hints as to the motivations that might have led to the selection of a particular site for monument construction. For example, views of distant mountains or nearby coasts might suggest the cosmological importance of those topographical features to the monument builders. This study has looked to the buried ground surfaces beneath the monuments to answer key questions related to the placement of the monuments in the landscape:

- What can the features and deposits on the ground surfaces beneath the monuments reveal about pre-monument land use?
- What can they tell us about the activities of the monument builders and their predecessors?
- Are those activities linked to the selection of the site for a monument?

Several key themes have emerged from this study and they are outlined below.

7.2 Pit Practices

Pits are the most common feature on the buried ground surfaces beneath the barrows and chambered cairns in Britain and are found with varying frequency at sites in all regions. The majority of pre-monument pits appear to be the work of the barrow builders, rather than earlier occupants, and many are linked to funerary activities. These include grave pits and other, more enigmatic, pits found in association with mortuary deposits. Pit contents at monuments are meagre and structured deposition is rare – in fact, in many pits nothing was found except earth, stones and rubble.

Pits linked to pre-monument activity were identified at 29 sites, most often in conjunction with other evidence of prior activity. Aside from Ascott-Under-Wychwood and Kilham, these pits contained few artefacts and left no clues as to their original purpose.

Although the pits themselves are generally not instructive as to their purpose and origins, both regional case studies demonstrated significant differences in pit digging and depositional practices between monument and non-monument sites. In the West Country region, pits were common on pre-monument ground, but a comparison of their contents with pits at non-monument sites demonstrated that a significantly higher percentage of pits at non-monument sites contained artefacts, bones and other material. The majority of pits under monuments in this region, like the rest of the country, were empty, and those that were not contained few artefacts. The pits at long barrow sites also displayed more variation in size than the non-monument pits. These disparities suggest that pits at monuments were created for different purposes

than those at non-monument sites – possibly a separation of the domestic and ritual – with important implications for studies of Neolithic pits.

In southwest Scotland, unlike the West Country region, pits were rare, indeed much rarer than in other regions of Britain. They were found at only six sites, and only the pit at Brackley was indisputably related to an earlier occupation. Pits are not in short supply at other Neolithic sites in southwest Scotland, so their absence at chambered cairn sites implies that the activities carried out there did not require the use of pits. This too has implications for the study of Neolithic pits and their use in domestic and ritual contexts.

7.3 Regional Patterns

One of the aims of the regional case studies was to enable the evidence from the buried ground surfaces to be examined on a smaller scale in order to determine whether distinctive patterns could be identified. Local variations in patterns of pit digging and deposition were noted above, but regional variation in funerary and ceremonial practices was also identified.

In southwest Scotland, no dug graves were reported at any of the sites under study. Dug graves are not common at chambered cairns in Scotland as a whole – indeed only three graves (two at Quanterness and one at Quoynesss) were reported. This is in contrast to sites in England, particularly Northern England, where the use of dug graves is significantly more common. The lack of pits in general in southwest Scotland indicates that pits did not play a role in mortuary practices in that region, unlike the West Country region where pits were common in mortuary contexts.

Although graves and pits were rare or nonexistent at chambered cairns in southwest Scotland, the introduction of dark soil was an almost universal practice. The presence of dark soil is far less common in other parts of the country, and indicates a regional focus on the use of this material at chambered cairns. Clearly it played a role in funerary practices – perhaps one that was fulfilled by pits in other regions.

In addition to regional differences in practices and activities, it is equally important to recognise that much of the variation we see in the evidence can be attributed to the actions of individual agents – people making choices, creating new ways of doing, new ways to build and use their monuments. For example, at most monuments any surviving traces of former activity were left on the ground surface – so the old ground surface might be littered with the charcoal residues of fires, broken pieces of pot and flint debitage. At a small number of sites, however, the ground was purified and sanitised by burning, turf stripping or simply clearing the traces of past use from the ground. The practice of cleansing the ground prior to monument construction is one example of the ways in which individual agency or local preference might have guided the practices associated with monument construction and use.

These regional and individual differences demonstrate that although Neolithic monuments share morphological and other similarities, the ways in which they were used were governed by local, and perhaps individual, priorities and preferences. Local and individual choice has led to much of the diversity apparent in the Neolithic record today.

7.4 Pre-Monument Site Use

The national survey of pre-monument features and deposits revealed that more than half of the published sites contained features or deposits on the buried ground surfaces. Most of these can be attributed to the builders and users of the monuments and reveal a range of activities – pits were dug and filled, flints were struck and used, pots were possibly made and used and definitely broken, meals were consumed, and in some cases crops were (or had been) cultivated nearby. This is the debris of Neolithic life and it reminds us that the monuments that dominate Neolithic studies were created, used, worshipped and abandoned by people, and it is those people we seek to study.

In addition to the material traces left by the monument builders, at least 80 sites across the country had some possible or probable evidence of earlier occupants (See Appendix C). The evidence did not suggest extensive domestic occupation – there

were only a few sites, e.g. Maeshowe, where structural features that may have been houses were found. (The lack of evidence for domestic structures must always be considered in context– settlement evidence is lacking almost everywhere in Britain, not just under the monuments). Whether or not we can say people actually 'lived' on the site, the postholes, stakeholes, hearths and artefact scatters found on the buried ground surfaces provide definite evidence that people were present there at some time prior to the placement of the monument.

Determining the time depth of the earlier occupations can be difficult, but in most cases the evidence suggests an Earlier Neolithic time frame. Mesolithic activity is less common, but at sites such as Ascott-Under-Wychwood (Oxfordshire), Gwernvale (Powys) and Port St Mary (Isle of Man), the evidence confirms that Mesolithic people occupied the landscape on which the monuments were later located, often for a lengthy period of time. This is not to say however that those occupations were deliberately and meaningfully linked to the later barrow construction, but that possibility cannot be ruled out.

There is an important implication of a continuity of land use from the Mesolithic into the Neolithic. If such continuity existed, it would have been based on oral history, cultural memory, shared pathways and an intimate knowledge of the history and legends of the land. Such continuity suggests strong links between the Mesolithic and Neolithic people – perhaps an indigenous local Neolithic population that carried the history and cultural memory of their Mesolithic ancestors. This has implications of course for the nature of the Mesolithic-Neolithic transition in Britain. The alternative scenario – and the one that fits more closely with current models of the transition – is that immigrant Neolithic communities began visiting and commemorating places of long-standing indigenous significance. Given that these new communities had no cultural or historical links with the indigenous population, this suggests that the value placed on these sites by the Neolithic communities was based on factors other than cultural significance or landscape myth and legend. It must be considered that the selection of such sites for the construction of monuments may have been coincidental or based on factors unrelated to the earlier use.

7.5 Re-using Places

One of the central questions in this study is whether or not earlier activity led to the later construction of monuments. The evidence from beneath the mounds indicates that at least in some cases, the memory of significant places used in the past lingered in local legend, eventually resulting in the placement of a monument.

It is widely known that throughout prehistory (and history, for that matter) important landscape sites have been repeatedly re-used, altered, re-invented, but always maintained. The widespread re-use of Neolithic monuments in the Bronze Age and Iron Age is well-known (Hingley 1999), and in those cases the monuments were modified and adapted to meet new ritual or ceremonial requirements. John Gale (2003) notes that Church Henge in Dorset (one of the Knowlton Henges) was adapted as an Early Bronze Age cemetery with the addition of 170 round barrows, and in the Early Medieval period a Christian chapel was placed on the site. He suggests that this is an example 'of the power of places to act as focal centres for gathering long after their original purpose and function has been forgotten' (2003:19-20).

It seems likely that certain places in the Neolithic landscape maintained a similar power, and drew people over decades and centuries, even though the original users had long since been forgotten. The significance of place remains – the physical features of the landscapes remain unchanged, but the meanings and myths attached to them change over time, as stories are told and re-told, events are forgotten and new events occur. What was once known as an important campsite near a fishing river may later be remembered for a terrible flood in which many lives were lost, and then as a place where special herbs grow in profusion.

The construction of a monument on such a place represented a new way to mark the land, and to create a visible and dramatic testament to the importance of the site. As Bradley (1993:5) points out 'monument building is a way of establishing or enhancing the significance of particular locations'. The enduring nature of Neolithic monuments

has ensured that many of these significant locations are still marked in the landscape today.

7.6 Concluding Remarks

This thesis has placed the formerly anecdotal and site-specific evidence for pre-monument activity onto a firmer factual footing by systematically examining all of the available evidence in both regional and national contexts. Through a comprehensive review of excavation data from sites across the country over the past 150 years, it has been demonstrated that a range of practices and activities were carried out on the land surfaces beneath the monuments. Much of the activity was connected with the monument itself but some can be attributed to earlier occupation, suggesting that significant places in the landscape may have been remembered, re-visited and re-worked over decades and centuries.

The methodology used herein demonstrates the usefulness of the extensive body of archaeological literature for investigating new research questions and re-examining old ones. This research also makes a useful contribution to the discourse on Neolithic landscapes and offers new insights into the landscape locations of Neolithic monuments – a topic often approached from a phenomenological perspective. This work complements other landscape approaches by focussing on how one aspect of local landscape knowledge – the memory of prior occupation or events – might have been instrumental in deciding the location of later monuments.

This emphasis in this work has been on the significance of place in the Neolithic world, and how that significance might be recognised today, albeit through the lens of the intervening six thousand years. The traces of Neolithic life that are preserved on the buried landscapes tell the story of the people who built and used the monuments, and in some cases, of those who came before.

Appendix A Site Database

A-1 Site Database on CD

The Site Database consists of the records of 582 Neolithic monuments, stored on a Microsoft Access 2007 database. It is provided on a compact disc at the back of this thesis in two formats:

1) Microsoft Access 2007 Database

   This is a relational database – a collection of related tables of data that can be accessed and manipulated in a variety of ways. A brief review of the features and components of the database is outlined below.

   Tables

   All of the data are stored in tables. The main table of site data is labelled **SITE DESCRIPTION,** and supplementary information is included in six additional tables: **ANIMAL BONE, POTTERY, STONE, RADIOCARBON DATES**, **EXCAVATION RECORDS** and **PIT DESCRIPTION.** Tables consist simply of rows and columns of data and are not the best format to use for viewing and analysing data. For those purposes, Forms and Queries work best.

   Forms

   Forms are used to display and enter the data from the tables so that it is more accessible and easier to view. The best way to view the data for individual sites in this database is on the **Site Information Form**, where all of the data relating to each file is displayed. Data can be filtered to display only sites that meet specific criteria, searches can be run to identify particular information and the data can also be sorted by any field.

Queries

Queries are analytical tools that can be used to retrieve data from any or all of the related tables based on a particular set of criteria. No queries or reports are included with this version of the database.

2) PDF Version

All of the data are presented in a report format in PDF. The sites are ordered alphabetically by site name and the search function in Adobe Reader can be used to locate a particular site or other type of information. This format will permit access to all of the available information, but does not allow for any manipulation of the data.

A-2 Description of Site Database Fields

In this section, all of the fields in the Site Database are described and explained for purposes of clarity. [15]

1. Site Identification & Location The data in this section was obtained from the National Monuments Records databases, supplemented with information from published literature.	
Site Name	Archaeological sites acquire names in a variety of ways, both formal and informal, and it is not uncommon for a site to have more than one name. Folk names such as Kill Barrow (Wiltshire) or Whispering Knights (Oxfordshire) are intriguing (and often very old), but more often sites are simply named after the parish or place in which they are located, e.g. Addington Long Barrow in Addington, Kent or the Smerrill Moor round cairn on Smerrill Moor in Derbyshire. In Scotland, Wales and Cornwall, many sites have Scottish Gaelic, Welsh or Cornish folk names. Sites that have not been named in this informal way are sometimes identified in gazetteers or regional site inventories by a county/parish/number sequence. For example, an unnamed chambered round barrow located in the Gloucestershire parish of Swell is identified as Swell 2 (O'Neil & Grinsell 1960). In addition to any informal site name, each site is assigned a monument number by the national monument authorities (RCAHMS, RCAHMW and RCAHME, providing an official and unique site name. The site names in this database are those which are in common use, most often the names that are used in the excavation reports and related literature.
Alternate Name	Any additional name(s) by which a site is known
County	The use of county names in Britain is confusing owing to successive changes in boundaries and definition. Historic county boundaries

[15] In all fields, where information was not provided in the published literature, the abbreviation *np* is used to indication that information was not provided.

	have been recognised for centuries, but in 1972, legislation was introduced creating 'local government areas' that were also referred to as counties, and the confusion was compounded with the passing of the Lieutenancies Act in 1997 which created yet another set of 'county' boundaries. In this database, the *County* field contains the county name listed on the NMR, and this varies depending on the country. Pastscape currently uses the 1972 county boundaries for English sites (but is working on converting to the 1997 data). In Scotland, Canmore uses the 1997 county names, but also provides the former district and county names. Coflein uses both the current Unitary Authority (Council) and the 'Old County' for the Welsh sites.
District	The term *District* is used generically to record additional geographic information from the NMR databases. For English sites, it reflects the 'District' indicated on the Pastscape records, while for the Scottish sites, it is the 'Former Region' and for the Welsh sites it is the 'Old County'. Historic county names are included where possible to aid site identification, as they are often referenced in older literature.
Parish	For English and Scottish sites, the parish name listed on the NMR is entered in this field. Parish boundaries have also changed over time, however, so in some cases the parish name used in the database may not match the name that appears in a published report or in the name of the site. Coflein records do not include a parish name, so for Welsh sites the *Community* name listed on the Coflein record is entered in this field.
Island-Region	This field is used to record smaller sub-regions such as islands or peninsulas – e.g. Arran or Cranborne Chase.
Study Region	The country was divided into eight regions for the purposes of analysis. A map of the regions can be found in Chapter 6 and in Appendix B.
Grid Reference	This field records the Ordnance Survey National Grid Reference (NGR). NGRs are provided by all three NMR agencies in formats ranging from four figures to ten figures,

	depending on the precision of the site location information. The NGR recorded in this field was then used as the basis for site mapping in the ArcGIS mapping program.
Unique Identifying Number	Every site in the National Monuments Records is assigned a unique identifying number (NMR), which was also used as the primary key in this database. In England and Scotland the NMR is a number/letter combination based on the National Grid; e.g. the NMR for the Hanging Grimston Long Barrow is SE 86 SW 3. A separate numbering system is in use in Wales, where the unique identifying number is called a National Primary Record Number (NPRN).

2. Site Description

In this section, basic typological and descriptive details were recorded for each site. No effort was made to record all of the morphological characteristics of the sites; the aim was to simply identify general site information for the purposes of classification and analysis. Most of this information was obtained from excavation reports.

Site Type	This field records the site type designated in the NMR. This is not always straightforward. Some sites are classified as more than one type, either because of uncertainty and lack of information, or because the site was modified over time from one monument type to another. The Street House Long Cairn in Cleveland, for example, is classified as both a long cairn and a mortuary enclosure. If more than one site type is indicated, this field records the first site type and the *Alternate Site Type* field records the second.
Site Sub-type	This field records a more detailed classification of the general site type, e.g. Clyde cairn, Cotswold-Severn tomb. In most cases, this information is obtained from the published site inventories or excavation reports.
Alternate Site Type	Records any additional site type, as noted above.

Orientation	Records the directional orientation of the mound or structure.
Dimensions (Width, Length and Diameter)	This field records the length, width, and diameter of the monument in metres. This data was converted from imperial measurement when necessary. In some cases there is a discrepancy between the dimensions listed by the excavator, in published inventories and by the NMR. Occasionally this is due to inaccurate measurement or recording, but more often it can be explained by changes in the shape of the monument itself due, for example, to the effects of ploughing and erosion. In these cases, the dimensions provided by the excavator are used. None of the measurements were taken by the author and all should be taken as approximate. Imperial measurements have been converted by the author to metric and it s worth noting that in some cases, conversion to metric measurements may create distortions or false impressions of precision.
Elevation	This data was entered from the NMR or published literature wherever it was provided. The NMRs for England do not generally include this information, but it is more commonly available for sites in Scotland and Wales. When it was not provided in the NMR or literature, an estimate was made using www.nearby.org.uk (to convert the National Grid Reference) and *GoogleEarth™* (to obtain the elevation data).
Disturbance and Re-Use	This field records whether there was any evidence that the site had been disturbed prior to excavation, either by natural processes or by human or animal activity. It also records whether there is evidence that the site was re-used after its initial period of use. Many Neolithic sites were modified, adopted, re-defined and re-used by later groups. The evidence for monument re-use might include the insertion

	of secondary burials or the presence of artefacts from later periods (e.g. Roman coins). The Painsthorpe 118 round barrow in North Yorkshire, for example, contained at least fifteen secondary inhumations and cremations (Mortimer 1905). Evidence for monument re-use also includes structural alterations to the original monument, such as the addition of a bowl barrow at the northeast end of the Culliford Tree Long Barrow in Dorset (Warne 1866).
Status	This field records the status of the site for the purposes of this research project. In this field, '1' indicates that the site has been excavated and published and '2' indicates that the site has been excavated but no published excavation report is available.
Landscape Setting	This field records the landscape setting of the sites, if it was provided in the literature.

3. Excavation and Publication

This section includes details of the site excavation, including the date of excavation, relevant publications, excavation methods and post-excavation analyses. This information was obtained from excavation reports or related publications.

Excavation Number	Where multiple excavations have occurred at a single site, this field records the order in which they occurred.
Excavation Date	The year in which the site was excavated, if known.
Excavation Report	This field records a brief reference to the publication details for the excavation report(s).
Extent of excavation	It is important to distinguish excavations on the basis of their extent, since it impacts on the analysis of the evidence recovered in excavation. The presence or absence of features on the buried land surface is more significant on sites that have been totally excavated than on those which have only been trial trenched. Most often this is an *estimate* of the

	extent of excavation, based on the published data. The estimates have been divided into the following categories: **Trial** (excavation consisted only of trial trenches) **Partial** (less than half of the site excavated. Many early excavations concentrated on burial chambers or the centres of monuments; in most cases these are classified as partial excavations.) **Extensive** (more than half of the site excavated) **Full (**total site excavated) **Unknown (**not enough information provided to estimate excavation extent)
Excavation Report	This field records the availability of a written report on the site excavation. **No written report** (no formal record of the excavation) **No published report** (but site data available in archives / grey literature) **Published report available** **Interim report only**
Information on Buried Land Surface (BLS)	This field records an assessment of the quality and quantity of information provided in the excavation report on the nature of the ground surface beneath the monument. **None**: no information at all on the buried land surface is provided; these sites have been effectively excluded from the data analysis phase of the project. **Minimal**: at least some level of information on the buried land surface is provided; many sites were not suitable for all aspects of data analysis because of the limited amount of information provided. **Adequate:** a sufficient level of information is provided to ensure a reasonably complete picture of the buried land surface. **Extensive**: extensive data and plans are provided, detailing

	the nature of the buried land surface; generally only applies to sites which have been extensively excavated under modern conditions and reported in detail.
References	These fields list full publication details of the excavation reports and related literature.

4. Post-Excavation Analysis

This sections records details of any post-excavation analyses.

Soil Analysis	This is a Yes/No field; it records whether soil analysis was done as part of the post-excavation analysis. This information may assist in determining whether there is variation in the nature of buried land surfaces on different soil types.
Radiocarbon Dates	This field records whether radiocarbon samples were obtained from the site. Further details are recorded in the *Radiocarbon Dates Subform*.
Environmental Analysis	This is a Yes/No field; it records whether pollen, molluscan or other environmental analyses were carried out as part of the excavation and post-excavation work.
Geology	This field records the nature of the underlying bedrock, which may assist in determining whether there is variation in the nature of buried land surfaces in different geological environments.

5. Ground Surface Treatment

This section records information on various deposits or other treatments of the ground surface, along with the general location of the evidence in relation to the monument itself. The location is recorded as either a specific section of the monument (e.g. passage) or, in the case of most earthen barrows, a cardinal direction from the centre of the monument.

Fire	Records the presence of burnt earth, reddened soil or other evidence of *in situ* burning on the ground surface. The crematorium trenches found in many Yorkshire barrows, for example, provide extensive evidence for in situ burning. Finds of scattered charcoal or ash deposits, however, are recorded in the 'hearth 'category.
Turf clearance	Records whether there is evidence for the removal of underlying turf prior to monument construction. Greenwell (1877) noted evidence for turf removal at the Kepwick Moor long barrow in North Yorkshire, when he wrote that there was 'no layer of dark mould overlying the sandy soil, such as would naturally have been found if the old surface had been left intact.' (*ibid.* p. 510)
Cultivation evidence	This field was originally designed to record the presence of agricultural features such as ard marks; during the data collection phase it was expanded to include other indications of cultivation, e.g. pollen analysis, soil analysis.
Pavement/floor	This field records the presence of a laid 'floor' beneath any part of the monument, and includes floors of slab, clay, sand, ash/charcoal, pebbles or 'dark soil'.
Dark Soil	This field records the presence of deposits or layers of dark soil.

6. Ground Surface Features

This section records information on the types of features or other evidence found on the land surface beneath the monument, along with the general location of the evidence in relation to the monument itself. The location is recorded as either a specific section of the monument (e.g. passage) or, in the case of most earthen barrows, a cardinal direction from the centre of the monument.

Postholes	The number and location of postholes are recorded here**.** In some cases, the distinction between postholes and pits is unclear. The terminology of the excavator is used here,

	although it is recognised that there may be some inconsistency in the description and classification of these features.
Stakeholes	This field records the number and location of stakeholes beneath the monument.
Pits and Graves	The presence and number of pits, scoops and graves are recorded here. These are found relatively frequently beneath Neolithic monuments, and so a considerable amount of detail was collected and recorded. This data is reported in the *Pit Information Sub-Form* (see below).
Hearths	The presence and number of hearths on the ground surface are recorded here. The term is used loosely to include small patches of burning or small charcoal spreads on the ground surface – it does not imply a formal built structure. This field does not include extensive firing of the ground surface, which is recorded instead in the *Fire* field described above.
Timber structure	The presence of a timber structure within a monumental site is often suggested by large amounts of charred wood, stakeholes, and/or postholes. This is a Yes/No field which records the excavator's interpretation of any of these features as representing a timber structure.
Other features	This field records features on the ground surface that are not recorded elsewhere, including crematorium flues, shell middens, and areas identified as occupation layers. For example, beneath the Hilton chambered cairn in Bute, excavators found postholes set into a cobbled floor, and a hearth and more postholes were found just to the southeast of the cairn (Marshall 1976). This field records the excavator's interpretation of these features as an occupation layer, but the features themselves, such as the postholes or pits, are also recorded in the appropriate fields as listed above.

7. Artefacts /Human Remains /Other Material Found on the Ground Surface

This section records small finds and other remains which were found on the buried ground surface. Material found in contexts unrelated to the ground surface such as chamber fills or mound material is not recorded here. (There is considerable ambiguity in many written reports; in those cases a 'best guess' approach was taken to recording the finds). The aim of this section is to record general information on the nature of the material found on the original ground surface, not to create a comprehensive listing of all artefactual remains. Therefore, most fields are simply Yes/No fields, with limited additional information. Pottery finds, for example, are recorded simply as a 'yes' in the pottery field, together with a list of the pottery types, if known. No information on the number or sizes of sherds, types of decoration or other details are recorded here. The find categories are as follows, with additional recorded information in brackets:

Inhumations (number, if known); Cremations (number, if known); Fragmentary human remains, burnt; Fragmentary human remains, unburnt; Plant remains; Animal remains (species, if available); Pottery (type, if available); Flaked Stone (type, if available); Polished Stone (type, if available); Quartz; Marine shells/pebbles/sand; Charcoal/ash Dark soil; Other finds = all finds not listed above.

8. Notes

In this section, notes on the nature of the site and the buried ground surface were recorded. In most cases, these are taken directly from the published sources. The aim of keeping these notes was to provide additional background information during the analysis phase.

9. Pit Information Sub-Form

This section records details on the pits and graves found at the site, including the dimensions of the pit(s), the pit location, and contents.

10. Stone Artefacts Sub-Form

This section records the type of stone artefact(s) found at the site.

11. Animal Bone Sub-Form

This section records the type of animal bone found at the site.

12. Pottery Sub-Form

This section records the type of pottery found at the site.

13. Radiocarbon Dates Sub-Form

This section records details of any radiocarbon dates, including the lab reference number, the radiocarbon determination in years BP, the sample type and the sample context. Calibrated dates are not included here.

This section should not be viewed as an exhaustive list of radiocarbon dates. Radiocarbon dates that were not related to the buried ground surface, or were linked with later site use are not recorded here.

Appendix B Site Inventory

This Appendix contains a brief listing of each site in the study, including location, references and the types of buried features and deposits found at each site. The sites are listed by region, as shown in Fig. B-1.

For each region, a distribution map is provided of all sites in order to demonstrate the density of sites in the region.

Fig. B-1 Map of regions used in regional analyses

B-1. Northern Scotland

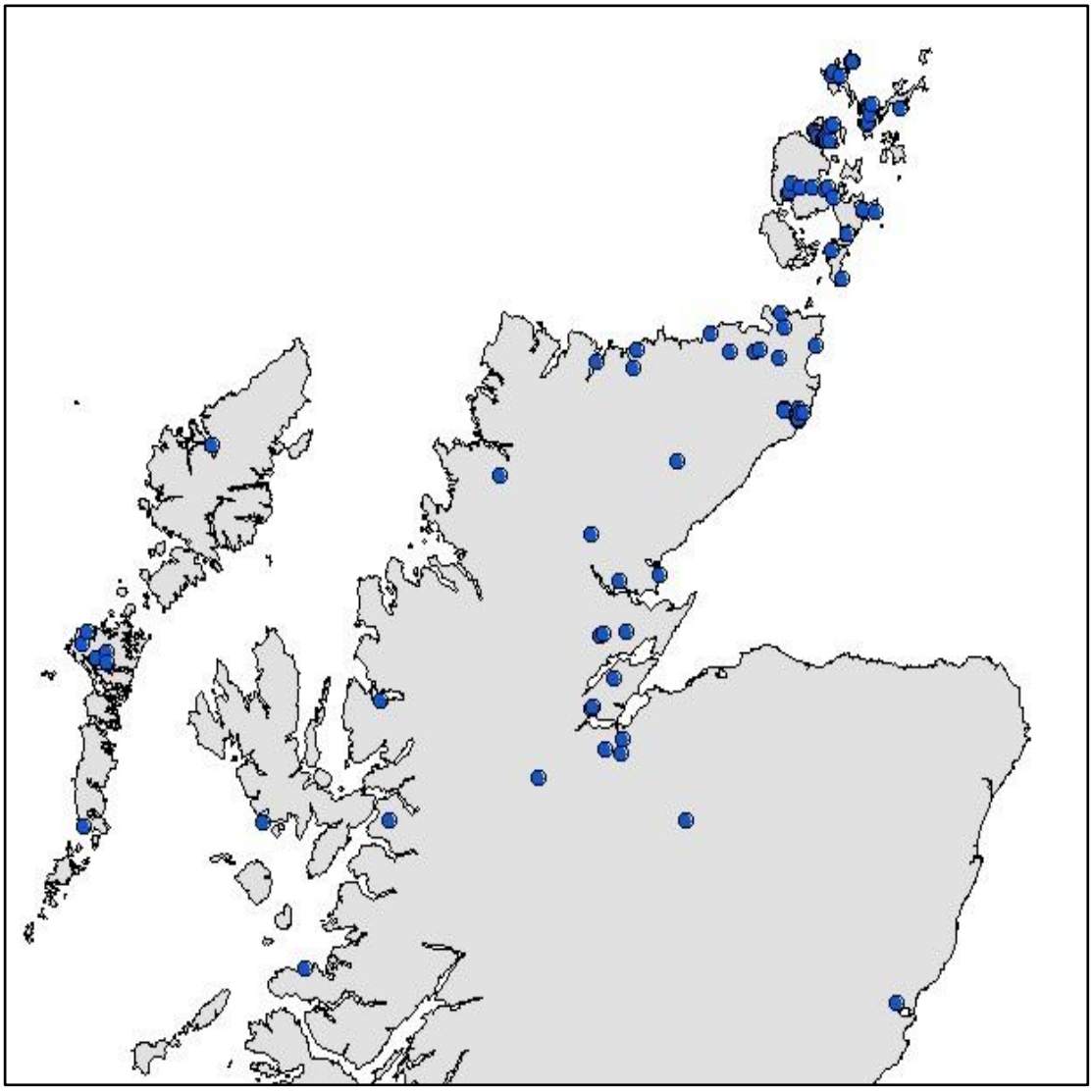


Fig. B-2 Distribution of excavated Neolithic chambered cairns in Northern Scotland

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Achaidh	no	Highland	1909	extensive	(Curle 1910)
Airidh Nan Seilicheag	no	Western Isles	1910s	partial	(Beveridge 1999 [1911])
Ardvreck	no	Highland	1925	partial	(Cree 1928)
Avielochan West	dark soil deposit	Highland	1909	extensive	(Cash 1910)
Balvraid	no	Highland	1965	extensive	(Corcoran 1965a; 1965b)
Barpa Langass	dark soil deposit	Western Isles	1880?	unknown	(Beveridge 1999 [1911])
Bigland Round	pit - external	Orkney	1938	unknown	(Renfrew 1979)
Blackhammer	no	Orkney	1936	extensive	(Callander & Grant 1937)
Bookan	pits (2), ground preparation	Orkney	1861 2002	trial	(Petrie 1863; Card 2005)
Burray	no	Orkney	1863	unknown	(Anderson 1886:290-291)
Cairn of Heathercro	no	Highland	1900	partial	none
Calf of Eday Long	dark soil deposit, ground preparation	Orkney	1936	partial	(Calder 1937)
Calf of Eday NW	no	Orkney	1855	unknown	(Farrer 1857b; Petrie 1863)
Calf of Eday SE	ground preparation	Orkney	1937	partial	(Calder 1938)
Callanish	occupation area, cultivation, stone circles and row	Western Isles	1850s 1980s	partial	(Matheson 1859; Ashmore 1984; forthcoming)
Camster Long	occupation area, potsherd scatter, stakeholes , hearth	Highland	1866 1968 1973 1980	extensive	(Anderson 1868; 1869b; 1869a; 1886; Masters 1997)
Camster Round	dark soil deposit	Highland	1865 1966	partial	(Anderson 1866a; 1866b; 1886; Cruden 1967)
Carn Fionntairneach	no	Highland	1848	total	none
Carn Glas	no	Highland	1906 1956	extensive	(Woodham & Woodham 1957)
Carn Na Feinne	no	Highland	1876	unknown	none
Carn Righ	no	Highland	1865	partial	(Anderson 1872)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Cladh Aindreis	hearth, pits (2)	Highland	2007	trial	(Richardson & Cobb 2006; 2007)
Clettraval	paved path, dark soil deposit	Western Isles	1930s	partial	(Scott 1935)
Cnoc na Ciste	no	Highland	1895	partial	none
Corrimony	no	Highland	1952	extensive	(Piggott 1955)
Crantit	no	Orkney	1998	partial	(Ballin-Smith 1999a; 1999b)
Curquoy	no	Orkney	1860	unknown	none
Cuween Hill	ground preparation	Orkney	1901	extensive	(Charleson & Turner 1902)
Druidtemple	no	Highland	1952	trial	(Piggott 1955)
Earl's Cairn	no	Highland	1903	partial	none
Eday Manse	no	Orkney	1821	unknown	none
Embo	ground preparation	Highland	1960	extensive	(Henshall & Wallace 1963)
Fiscary	dark soil deposit	Highland	1891	partial	(Kerr 1892)
Fordhouse	postholes, pits	Angus	1997	extensive	(Peterson 1994; Peterson *et al.* 1995; Peterson & Proudfoot 1996; Peterson 1997; Peterson & Proudfoot 1997; Proudfoot 1999)
Garrywhin	ash/charcoal layer	Highland	1866	extensive	(Anderson 1868; 1869b; 1869a; 1886)
Geirisclett	posthole, hearth (2)	Western Isles	c. 1900, 1997	partial	(Beveridge 1999 [1911]; Dunwell *et al.* 2003)
Giant's Grave (Shetland)	no	Shetland	1866	partial	(Hunt 1866)
Hill of Dale	no	Shetland	1935	partial	(Bryce 1940)
Holm of Papa Westray North	pit	Orkney	1849, 1854, 1983	partial	(Petrie 1857; Ritchie 1982)
Holm of Papa Westray South	no	Orkney	1849	partial	(Thomas 1852)
Howe	stone structures	Orkney	1982	total	(Ballin-Smith 1994)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Hoxa Hill	no	Orkney	1869	extensive	none
Huntersquoy	hearth	Orkney	1936	extensive	(Calder 1938)
Hurnip's Point	no	Orkney	1990s	trial	(Hunter 1993)
Isbister	no	Orkney	1958, 1978, 1987	partial	(Ritchie 1959; Hedges 1983; 1984; Smith 1989a)
Islesburgh	no	Shetland	1959	partial	(Calder 1963:45-47)
Kenny's Cairn	pits	Highland	1866	partial	(Anderson 1866b; 1869b; 1872; 1886)
Kierfea Hill	no	Orkney	1940	unknown	none
Kilcoy South	pit	Highland	1957, 1997	extensive	(Woodham 1956; Woodham & Woodham 1957; 1958; MacGregor & Loney 1997)
Kinbrace Burn	no	Highland	1909?	unknown	none
Kinchyle of Dores	pit - mortuary	Highland	1952	trial	(Piggott 1955; Lisowski 1957)
King's Head Cairn	dark soil deposit	Highland	1850s	unknown	(Maclean 1886:335-336)
Knowe of Craie	pit	Orkney	1941	unknown	(Davidson & Henshall 1989)
Knowe of Lairo	no	Orkney	1940s	partial	(Grant & Wilson 1943)
Knowe of Ramsay	fire	Orkney	1935	extensive	(Callander & Grant 1936)
Knowe of Rowiegar	no	Orkney	1937	unknown	none
Knowe of Yarso	fire	Orkney	1934	extensive	(Callander & Grant 1935)
Leaval	no	Western Isles	1999	partial	(Cummings & Sharples 2005)
Lower Dounreay	no	Highland	1928	extensive	(Edwards 1929)
Maeshowe	Four standing stones, posthole, structure?	Orkney	1861, 1955 1974, 1991	partial	(Stuart 1864; Childe 1955; Renfrew 1979; Challands *et al.* 2005; Richards 2005)
March Cairn	no	Shetland	1949	partial	(Calder 1963:37-40)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
McCole's Castle	dark soil deposit	Highland	1853, 1865	partial	(Rhind 1854; Anderson 1868; Stuart 1868; Anderson 1886)
Midhowe	no	Orkney	1933	extensive	(Callander & Grant 1934)
Muckle Heog East	dark soil deposit	Shetland	1865	partial	(Hunt 1866; Tate 1866:339-342)
Ormiegill North	dark soil deposit	Highland	1865	partial	(Anderson 1866a; 1866b; 1868; 1886)
Pettigarth's Field	no	Shetland	1938	unknown	none
Pierowall Quarry	no	Orkney	1981	partial	(Sharples 1984)
Point of Cott	Mesolithic activity, pit and slot feature	Orkney	1985	extensive	(Barber 1997b)
Quanterness	grave pit (2), pit	Orkney	1805, 1974,	partial	(Barry 1975 [1805]:98-101; Renfrew 1979)
Quoyness	grave pit	Orkney	1867, 1952	partial	(Farrer 1868; Childe 1952)
Rattar East	no	Highland	1968	trial	none
Rudh' An Dunain	dark soil deposit, posthole	Highland	1932	extensive	(Scott 1932; 1934)
Sandyhill Smithy	fire, ground preparation	Orkney	1937	extensive	(Calder 1938)
Setter	no	Orkney	1998	unknown	(Downes 1998)
Sgarbach	no	Highland	1928	trial	none
Shean Stemster	stone setting	Highland	1904	partial	(Davidson & Henshall 1991)
Shieldaig	no	Highland	1984	unknown	none
Skelpick Long	no	Highland	1867	partial	(Horsburgh 1868)
South Yarrows North	trodden floor	Highland	1865	partial	(Anderson 1866a; 1866b; 1868; 1869a; 1886)
South Yarrows South	trodden floor	Highland	1865	partial	(Anderson 1866a; 1866b; 1868; 1869a; 1886)
Taversoe Tuick	dark soil deposit	Orkney	1898, 1937	extensive	(Turner 1903; Grant 1939)
The Howie	no	Orkney	1929	partial	none

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
The Ord North	pits (2+), hearths (2+)	Highland	1967	partial	(Sharples 1981)
The Ward	no	Shetland	1865	unknown	(Tate 1866)
Tomfat Plantation	hearths (3)	Highland	1963	extensive	(Woodham & Woodham 1963)
Tongue House	no	Highland	1866	partial	(Horsburgh 1868)
Trowie Knowe	dark soil	Shetland	1904	partial	(Abercromby 1905)
Tulach An T'sionnaich	no	Highland	1963	extensive	(Corcoran 1966; Sharples 1986)
Tulloch of Assery A	fire	Highland	1961	extensive	(Corcoran 1966; Sharples 1986)
Tulloch of Assery B	fire, artefact scatter	Highland	1961	partial	(Corcoran 1966; Sharples 1986)
Unival	standing stone, fire	Western Isles	1935	extensive	(Scott 1948)
Unstan	dark soil deposit	Orkney	1884	extensive	(Clouston 1885)
Vinquoy Hill	pit	Orkney	1857	unknown	(Petrie 1863; RCAHMS 2011)
Warehouse East	no	Highland	1853, 1865	partial	(Rhind 1854; Anderson 1866a; 1886)
Warehouse North	no	Highland	1853, 1865	extensive	(Rhind 1854; Anderson 1866a; 1886)
Warehouse South	no	Highland	1853, 1865	partial	(Rhind 1854; Anderson 1866a; 1866b; 1886)
Westness	no	Orkney	1933	trial	(Grant 1934)
Wideford Hill	ground preparation	Orkney	1849, 1935	total	(Thomas 1852; Kilbride-Jones 1973)
Withebeir	no	Orkney	1855	unknown	(Farrer 1857a)
Woodhead Round	no	Highland	1817	extensive	none

Table B-1 Buried features and deposits at excavated sites in N Scotland

B-2. Southeast Scotland

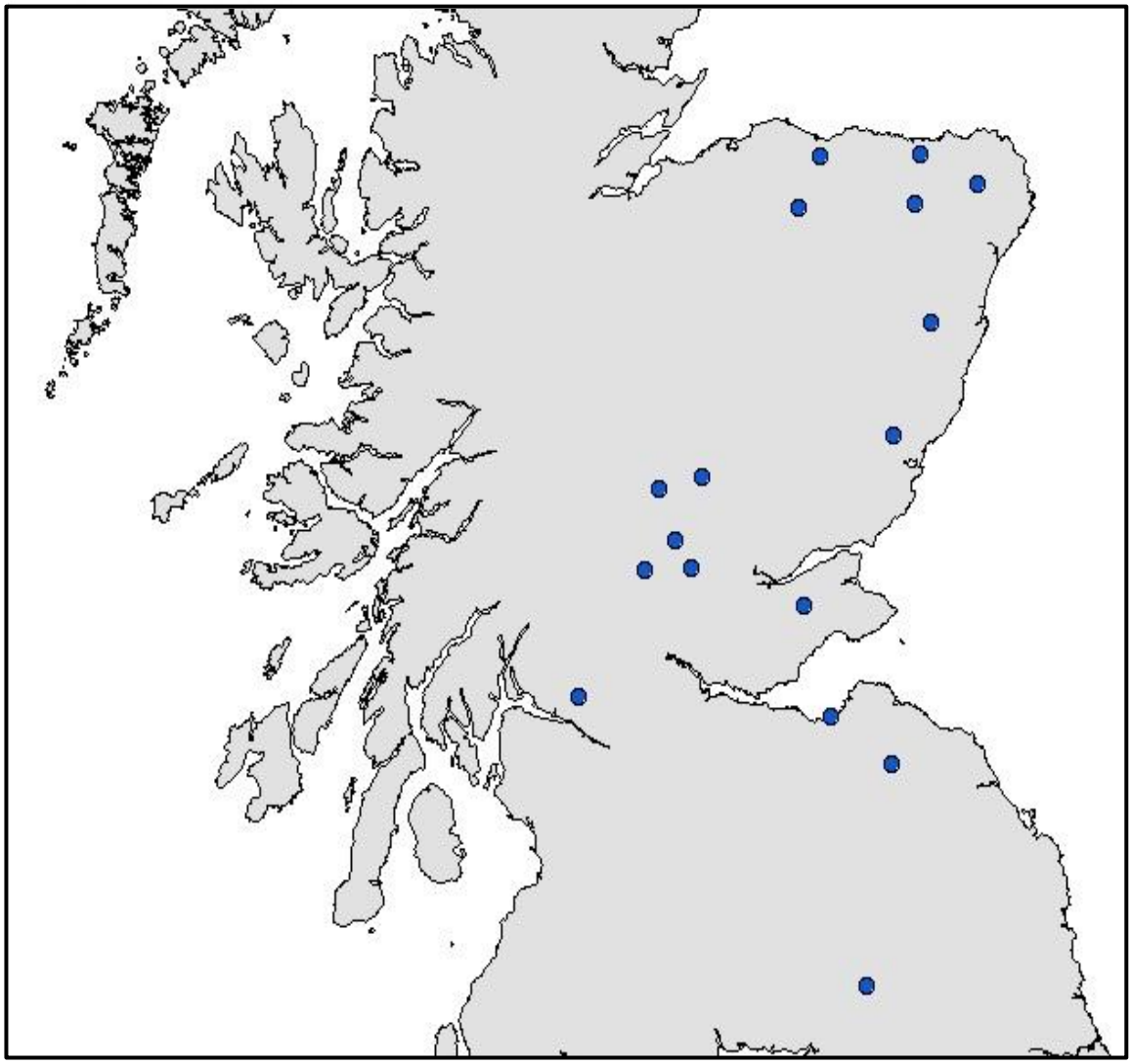


Fig. B-3 Distribution of excavated Neolithic chambered cairns and barrows in SE Scotland

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Annsmuir South	none	Fife	1870	partial	(Brodie 1872)
Atherb	none	Aberdeenshire	1890	unknown	(Milne 1892)
Boghead Mound	occupation area, pits, , cultivation	Moray	1973	extensive	(Burl 1984)
Cairnfield Muir	none	Fife	1870	unknown	(Brodie 1872)
Clach Na Tiompan	ground preparation	Perth & Kinross	1954	partial	(Henshall & Stewart 1955)
Cultoquhey	none	Perth & Kinross	1957	partial	none
Dalladies	timber structure	Aberdeenshire	1970	extensive	(Piggott 1972; Piggott 1973)
East Finnercy	occupation area, pit, hearths	Aberdeenshire	1925 , 1952	partial	(Atkinson 1952; Leivers *et al.* 2000)
Gownie Farm	hearth	Moray	1890	partial	(Anderson 1891)
Hill of Foulzie	dark soil deposit	Aberdeenshire	1902	partial	(Gordon 1901-2)
Kindrochat	none	Perth & Kinross	1930	partial	(Childe 1930; Childe 1931)
Langknowe	none	Scottish Borders	1850	partial	none
Midtown of Pitglassie	pits, postholes, occupation debris	Aberdeenshire	1978	extensive	(Shepherd 1996)
Mutiny Stones	none	Scottish Borders	1871, 1924	partial	(Elliot 1872; Craw 1925)
Pass of Keltnie	none	Pert h& Kinross	1837	unknown	none
Pitnacree	cultivation, ground preparation?, postholes	Perth& Kinross	1964	extensive	(Coles & Simpson 1965)
Port Seton	none	East Lothian	1883	unknown	none
Stockie Muir	none	Stirling	1800s	unknown	(Nimmo 1880)

Table B-2 Buried features and deposits at excavated sites in SE Scotland

B-3. Southwest Scotland

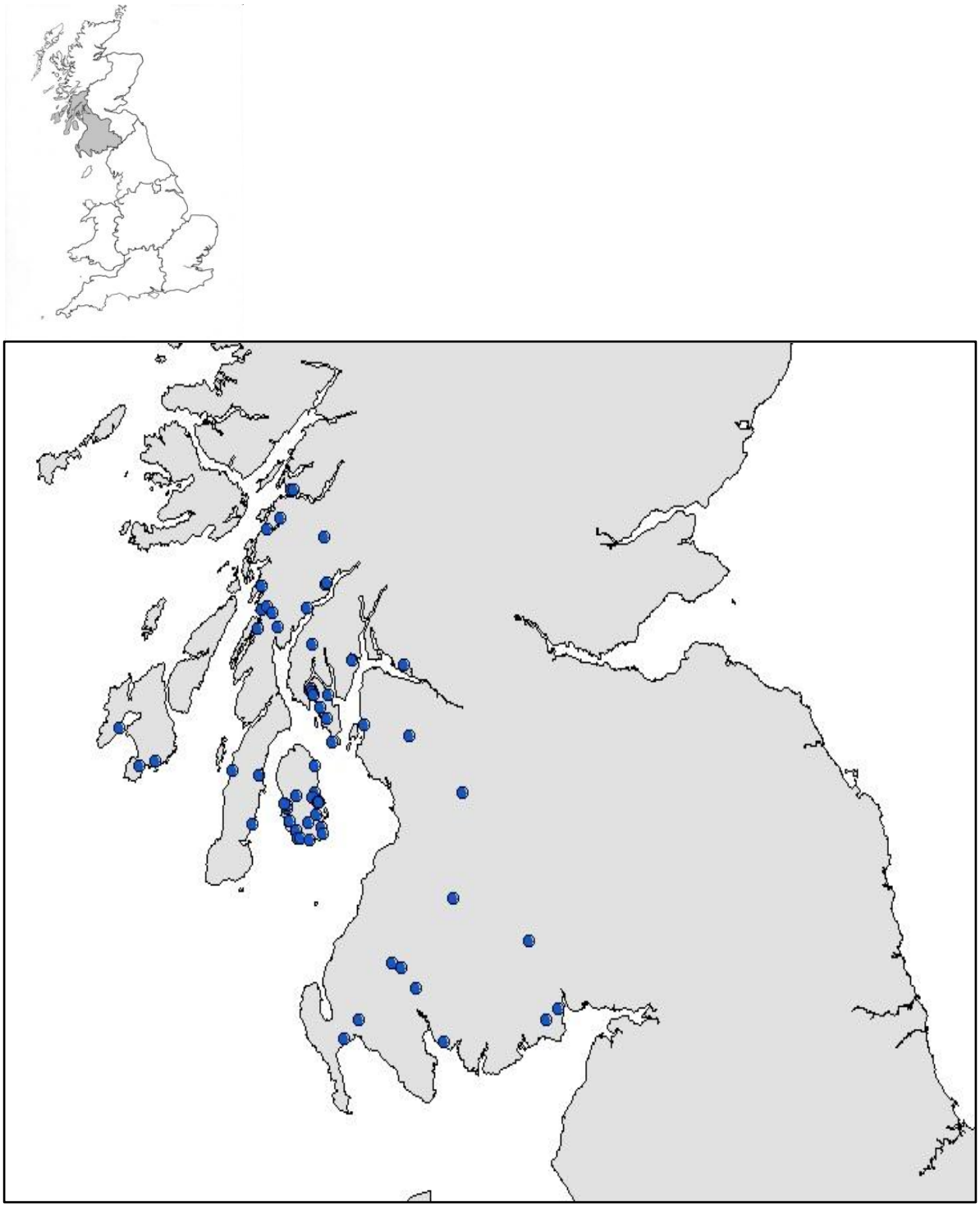


Fig. B-4 Distribution of excavated Neolithic chambered cairns in SW Scotland

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Achnacree (Carn Ban)	no	Argyll and Bute	1871	partial	(Smith 1872)
Achnacreebeag	3 charcoal spreads	Argyll and Bute	1970	extensive	(Ritchie 1970)
Achnagoul I	no	Argyll and Bute	1871	partial	(Phene 1873)
Ardachearanbeg	no	Argyll and Bute	1930	unknown	none
Ardnacross II	no	Argyll and Bute	1976	unknown	(Scott 1958; 1971; 1972a; 1972b; 1973b; 1974; 1975; 1976; 1977; 1978; 1979; 1980)
Ardnadam	no	Argyll and Bute	1904	partial	(Bryce 1909)
Auchoish	no	Argyll and Bute	1931	partial	(Craw 1932)
Ballynaughton	no	Argyll and Bute	1902	partial	(Bryce 1902)
Bargrennan	Mesolithic and EN activity; hearth	Dumfries &Galloway	1949 2005	partial	(Piggott & Powell 1949; Cummings & Fowler 2007)
Barmore Wood	hearths; 2 stakeholes?	Argyll and Bute	1965	partial	(Scott 1963; 1964a; 1965; 1973a)
Baroile	no	Argyll and Bute	1929	partial	(Craw 1930)
Beacharra	dark soil	Argyll and Bute	1892, 1961	partial	(Bryce 1902; Scott 1964b)
Bicker's Houses	dark soil	Argyll and Bute	1903	partial	(Bryce 1904)
Brackley	pits, timber post	Argyll and Bute	1953	partial	(Scott 1956)
Brodick	no	North Ayrshire	1800s	unknown	none
Cairnderry	flint/potsherd scatter	Dumfries &Galloway	2004	partial	(Cummings & Fowler 2007)
Cairnholy I	hearths, potsherd scatter, woodland clearance	Dumfries &Galloway	1949	extensive	(Piggott & Powell 1949)
Cairnholy II	hearth	Dumfries &Galloway	1949	partial	(Piggott & Powell 1949)
Carmahome	no	North Ayrshire	1924	partial	(Mann 1925)
Carn Ban	charcoal layer	North Ayrshire	1902	partial	(Bryce 1903)
Carnbaan	no	Argyll and Bute	1833	partial	(Mackinlay 1859; Bryce 1904)
Clach An T'sagairt	no	Argyll and Bute	1920	unknown	none
Clachaig	dark soil	North Ayrshire	1900	partial	(Bryce 1902)
Cragabus	dark soil	Argyll and Bute	1901	partial	(Bryce 1902)
Crarae	pits, trodden floor, artefact scatter	Argyll and Bute	1957	partial	(Scott 1961)
Cuff Hill	dark soil	North Ayrshire	1863, 1874	extensive	(Patrick 1872; Love 1876)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Dalineun	hearth(4), dark soil, secondary pit	Argyll and Bute	1971	partial	(Ritchie 1972)
Dippen	no	North Ayrshire	1800s	unknown	(McArthur 1861; Bryce 1902)
Drannandow	dark soil	Dumfries &Galloway	1922	extensive	(Edwards 1923)
Dunan Beag	dark soil	North Ayrshire	1909	partial	(Bryce 1909)
Dunan Mor	dark soil	North Ayrshire	1909	partial	(Bryce 1909)
East Bennan	dark soil	North Ayrshire	1908	partial	(Bryce 1909)
Fleuchlarg	no	Dumfries &Galloway	1937	partial	none
Gartnagreanoch	no	Argyll and Bute	1929	partial	(Craw 1930)
Giant's Graves North	charcoal layer	North Ayrshire	1902	partial	(Bryce 1903)
Giant's Graves South	no	North Ayrshire	1902	partial	(Bryce 1903)
Glecknabae	Mesolithic shell midden	Argyll and Bute	1903	extensive	(Bryce 1904)
Glenrickard	no	North Ayrshire	1861	unknown	none
Glenvoidean	occupation area, extensive burning	Argyll and Bute	1971	extensive	(Marshall & Taylor 1977)
Haco's Tomb	hearth (2)	North Ayrshire	1954	extensive	(Aitken & Marshall 1957)
Hilton	postholes, hearth, cobbled floor, cultivation	Argyll and Bute	1975	total	(Marshall 1976)
Kilchoan	areas of burninhg	Argyll and Bute	1864	partial	(Mapleton 1866)
Knockdoon	no	Dumfries &Galloway	1880s	unknown	none
Little Dunagoil	no	Argyll and Bute	1969	total	(Scott 1969b)
Lochhill	timber structure	Dumfries &Galloway	1971	total	(Masters 1973b)
Michael's Grave	dark soil	Argyll and Bute	1903	partial	(Bryce 1904)
Mid Gleniron I	stone setting, pit/posthole, hearth, standing stones?	Dumfries &Galloway	1966	extensive	(Corcoran 1964; 1968; 1969)
Mid Gleniron II	hearths (2)	Dumfries &Galloway	1966	extensive	(Corcoran 1968; 1969)
Moinechoill	no	North Ayrshire	1902	partial	(Bryce 1903)
Monamore	hearths (21)	North Ayrshire	1902, 1961	partial	(Bryce 1903; Mackie 1964)
Nether Largie South	dark soil	Argyll and Bute	1864	partial	(Greenwell 1866)
Oscar's Grave	dark soil	North Ayrshire	1901	partial	(Bryce 1902)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Port Charlotte	artefact scatter, pits (2), standing stone, hearth	Argyll and Bute	1979	extensive	(Pierpoint & Harrington 1976; Newall 1978; Pierpoint & Harrington 1978; Harrington & Pierpoint 1980)
Portsonachan	no	Argyll and Bute	1925		none
Sannox	no	North Ayrshire	1909	partial	(Bryce 1909)
Serpent Mound	no	Argyll and Bute	1871	partial	(Phene 1892; Callander 1928)
Slewcairn	timber mortuary structure, 5 standing stones	Dumfries &Galloway	1975	extensive	(Masters 1973a; 1974; 1975)
The King's Cairn	no	Dumfries &Galloway	1928	extensive	(Curle 1930)
The Law	no	East Ayrshire	1922	partial	none
Torlin	dark soil	North Ayrshire	1850s, 1896, 1900	partial	(McArthur 1861; Duncan 1897; Bryce 1902)
Tormore 1	dark soil	North Ayrshire	1900	partial	(Bryce 1902)
Tormore 2	no	North Ayrshire	190?	partial	(Bryce 1909)
Tormore Farm	no	North Ayrshire	1909	unknown	none
Walton Farm	no	Argyll and Bute	1954	Trial	(Scott 1954; Scott 1955)
Watch Hill	no	Argyll and Bute	1903	partial	(Bryce 1904)

Table B-3 Description of buried features and deposits at excavated sites in SW Scotland

B-4. Northern England and the Isle Of Man

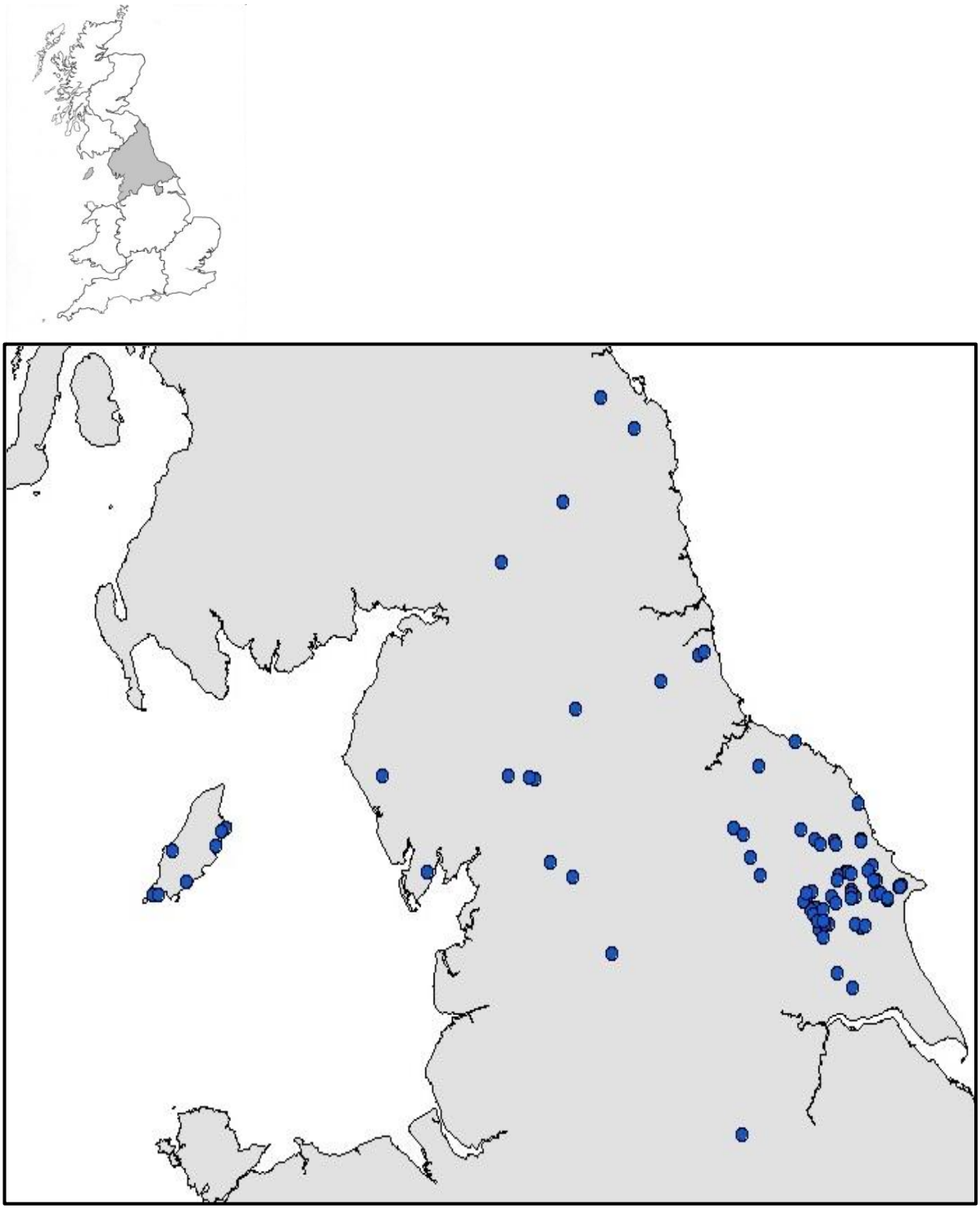


Fig. B-5 Distribution of excavated Neolithic chambered cairns and barrows in N England and the Isle of Man

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Aldro 175	none	N Yorkshire	1849 1874	partial	(Proctor 1854; Mortimer 1905:74)
Aldro 177	none	N Yorkshire	1853 1872	partial	(Proctor 1854; Mortimer 1905:73)
Aldro 88	mortuary pit	N Yorkshire	1867	extensive	(Mortimer 1905:58-62)
Aldro 94	paired mortuary pits	N Yorkshire	1867	extensive	(Mortimer 1905:82)
Ayton Eastfield	mortuary structure	N Yorkshire	1849 1960	extensive	(Conyngham 1849; Vatcher 1961b; 1961a)
Ballafayle	none	Isle of Man	1926	partial	(Kermode 1928)
Ballaharra	postholes, 3 pits, hearths	Isle of Man	1971	partial	(Cregeen 1978)
Ballakelly	none	Isle of Man	1865	unknown	(Gale & Darvill 1998)
Bellshiel Law	grave pit	Northumb.	1935	partial	(Newbigin 1936)
Bent's Hill	none	Cumbria	1873	partial	(Greenwell 1877:387-388)
Black Hill Low	3 standing stones	N Yorkshire	1930	partial	(Raistrick 1931; Butterfield 1938)
Blansby Park 1	2 pits	N Yorkshire	1961	extensive	(Rutter 1973)
Brandon	1 mortuary pit, 1 grave pit	Durham	1904	partial	none
Bridlington	13 pits surrounding a central grave pit	Humberside	1857	partial	(Davies 1889)
Broom Ridge	none	Northumb.	1858	partial	(Greenwell 1862)
Callis Wold 100	grave pit	Humberside	1867	partial	(Mortimer 1905:158-159)
Callis Wold 275	paired mortuary pit/ postholes	Humberside	1892 1975	full	(Mortimer 1905:161-163; Coombs 1976)
Cashtal Yn Ard	dark soil deposit	Isle of Man	1885 1932	extensive	(Jewitt 1885; Fleure & Neely 1936)
Chatton Sandyford	pit - grave?, hearth	Northumb.	1966	extensive	(Jobey 1968)
Copt Hill	timber structure, paired mortuary pits	Tyne and Wear	1877	extensive	(Trechmann 1914; Young 1985)
Cowlam 277	grave pit	Humberside	1892	extensive	(Mortimer 1905:340-341)
Cowlam 57	pit, grave pit	Humberside	1867	extensive	(Greenwell 1877:214-221)
Craven Round Cairn	none	N Yorkshire	unknown	unknown	unknown
Cropton 1	5 grave pits	N Yorkshire	1851	partial	(Bateman 1978 [1861]:227-228)
Cropton 2	none	N Yorkshire	1850	partial	(Bateman 1978 [1861]:211-212)
Crosby Garrett 174	none	Cumbria	1873	partial	(Greenwell 1877:388-391)
Dinnington St. John's	none	S Yorkshire	1862 1977	unknown	(Rolleston 1868)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Duggleby Howe	shaft grave, grave pit	N Yorkshire	1890	extensive	(Mortimer 1893; Mortimer 1905:23-30; Kinnes *et al.* 1983; Loveday 2002)
East Gilling	none	N Yorkshire	1867 1985	extensive	(Greenwell 1877:550-553; Wilson 1988)
East Heslerton	timber structure, postholes and stakeholes	N Yorkshire	1862 1962	extensive	(Greenwell 1877:488-489; Vatcher & Vatcher 1965a)
Elf Howe	grave pit	N Yorkshire	1800s	extensive	(Greenwell 1877:271-272)
Esh's Barrow	2 pits, fire	N Yorkshire	1866 1868	extensive	(Greenwell 1877:205-208; Hicks 1969)
Garton Slack 134	2 large external pits	Humberside	1870	partial	(Mortimer 1905:246-247)
Garton Slack 137	grave pits (2)	Humberside	1870	extensive	(Mortimer 1905:262)
Garton Slack 79	none	Humberside	1866	extensive	(Mortimer 1905:241-243)
Garton Slack 80	pre-monument pits (2) grave pits (3)	Humberside	1866	extensive	(Mortimer 1905:235-237)
Garton Slack 81	pit, grave pit, fire	Humberside	1867	extensive	(Mortimer 1905:238-241)
Giant's Grave	ground preparation	N Yorkshire	1936; 1960	extensive	(Bennett 1937)
Givendale	fire	N Yorkshire	1864	partial	(Greenwell 1877:484-487)
Great Ayton Moor Cairn 'G'	none	N Yorkshire	1960	extensive	(Hayes 1967)
Great Ayton Moor Cairn 'H'	none	N Yorkshire	1960	extensive	(Hayes 1967)
Great Ayton Moor Chambered Cairn	3 pits	N Yorkshire	1960	extensive	(Hayes 1967)
Grindale Barrow 1	pit, artefact scatter, timber structure	Humberside	1972	extensive	(Manby 1980)
Hanging Grimston	post setting / timber structure	N Yorkshire	1868	partial	(Mortimer 1905:102-105)
Hedon Howe	none	N Yorkshire	1893	extensive	(Mortimer 1905:346-350)
Helperthorpe	5 post/stone holes	N Yorkshire	1866, 1868	extensive	(Greenwell 1877:53, 489; Mortimer 1905:333-335)
Heslerton VI	pits (2), mortuary pit (1)	N Yorkshire	1865	partial	(Greenwell 1877:142-145)
Heslerton-on-the-Wolds	pits (3)	N Yorkshire	1851, 1865	extensive	(Greenwell 1877:145-146; Bateman 1978 [1861]:230-231)
High Easton Barrow	posthole	Humberside	1972	extensive	(Manby 1980)
Huggate Wold 224	grave pit, fire	Humberside	1882	partial	(Mortimer 1905:300-301)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Huggate Wold 230	grave pit	Humberside	1882	partial	(Mortimer 1905:307-308)
Kelleythorpe II	grave pit, fire	Humberside	1851, 1872	extensive	(Londesborough 1852; Mortimer 1905:271-283)
Kemp Howe	pre-monument pits (3)	Humberside	1968, 1878	extensive	(Mortimer 1905:336-338; Brewster 1968; 1969)
Kepwick Moor	ground preparation	N Yorkshire	1868	partial	(Greenwell 1877:509-510)
Kilburn	mortuary pits (3)	N Yorkshire	1869	extensive	(Greenwell 1877:501-505)
Kilham Long Barrow	Mesolithic flint scatter, pits, hearths, cultivation	Humberside	1868; 1971	extensive	(Greenwell 1877:553-556; Manby 1976)
King Orry's Grave	hearth, flint scatter	Isle of Man	1954	partial	(Cubbon 1971)
Lamb Crag	none	Cumbria	1953	partial	(Richardson 1975)
Langton 2	mortuary pits (2)	N Yorkshire	1865	extensive	(Greenwell 1877:136-140)
Ling Howe	none	Humberside	1984	partial	none
Market Weighton	grave pits (4), mortuary pit, fire	Humberside	1866	partial	(Greenwell 1877:505-509)
Meayll Circle	none	Isle of Man	1911	unknown	(Kermode & Herdman 1914)
Middle Hurth	Mesolithic flint	Durham	1978	partial	(Coggins & Fairless 1997)
Monklands A	none	N Yorkshire	unknown	partial	(Kirk 1911)
Murton Moor	none	N Yorkshire	1880	unknown	none
Painsthorpe 118	grave pits (2)	N Yorkshire	1868	extensive	(Mortimer 1905:125-129)
Painsthorpe 99	grave pit	Humberside	1867	partial	(Mortimer 1905:122-123)
Pickering (7 Miles East)	grave pit	N Yorkshire	1851	partial	(Bateman 1978 [1861]:221-222)
Port St Mary	Mesolithic occupation	Isle of Man	1888	extensive	(Swinnerton 1889-94)
Raiset Pike	timber structure?, grave pit, mortuary pit, fire, ground preparation	Cumbria	1864	partial	(Greenwell 1877:510-513)
Raisthorpe Manor	grave pit	N Yorkshire	1891 1965	extensive	(Mortimer 1905:18; Brewster 1966)
Riggs 16	none	N Yorkshire	1864	partial	(Mortimer 1905:177)
Rookdale	none	N Yorkshire	1852	partial	(Wardell 1853)
Rudston 66a	none	Humberside	1870	extensive	(Greenwell 1877:253-257)
Rudston 66b	none	Humberside	1870	extensive	(Greenwell 1877:256-257)
Rudstone	6 pits	Humberside	1860	extensive	(Greenwell 1877:497-501)
Sampson's Bratful	none	Cumbria	1950s	unknown	none

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Seamer 1	timber structure	N Yorkshire	1849? 1960	partial	(Conyngham 1849 ?; Simpson 1961b; 1961a)
Seamer Moor	none	N Yorkshire	1865	unknown	none
Seamer Moor 2	none	N Yorkshire	1860s	unknown	none
Sherburn 7	mortuary (?) pit/postholes (3), grave pit	N Yorkshire	1866	extensive	(Greenwell 1877:146-147)
Sherburn 8	paired mortuary pits, grave pit	N Yorkshire	1866	extensive	(Greenwell 1877:147)
Skelmore Heads	4 standing stones	Cumbria	1928 1957	extensive	(Powell *et al.* 1963)
South Side Mount	grave pit, fire, dark soil	Humberside	1800s	extensive	(Greenwell 1877:257-262)
Street House Long Cairn	pits, Mesolithic flint	Cleveland	1981	extensive	(Vyner 1984)
Towthorpe 18	pre-monument pit, grave pit	N Yorkshire	1868	extensive	(Mortimer 1905:9-11)
Warden Law	grave pit	Tyne & Wear	1911	partial	(Trechmann 1914)
Warter 254	grave pit	Humberside	1882	partial	(Mortimer 1905:320-321)
Westow	fire (cremation)	N Yorkshire	1865	partial	(Greenwell 1877:490-497)
Whitegrounds	none	N Yorkshire	1968	total	(Brewster 1984)
Willerby Wold	pits, stakeholes, dark soil deposit,	N Yorkshire	1850; 1960	extensive	(Greenwell 1877:487-490; Manby 1963; 1967)
Willie Howe	grave pit	Humberside	1887	partial	(Greenwell 1890)
Wold Newton 284	4 pits - mortuary enclosure?	Humberside	1894	extensive	(Mortimer 1905:350-352)

Table B-4 Buried features and deposits at excavated sites in N England

B-5. Central England

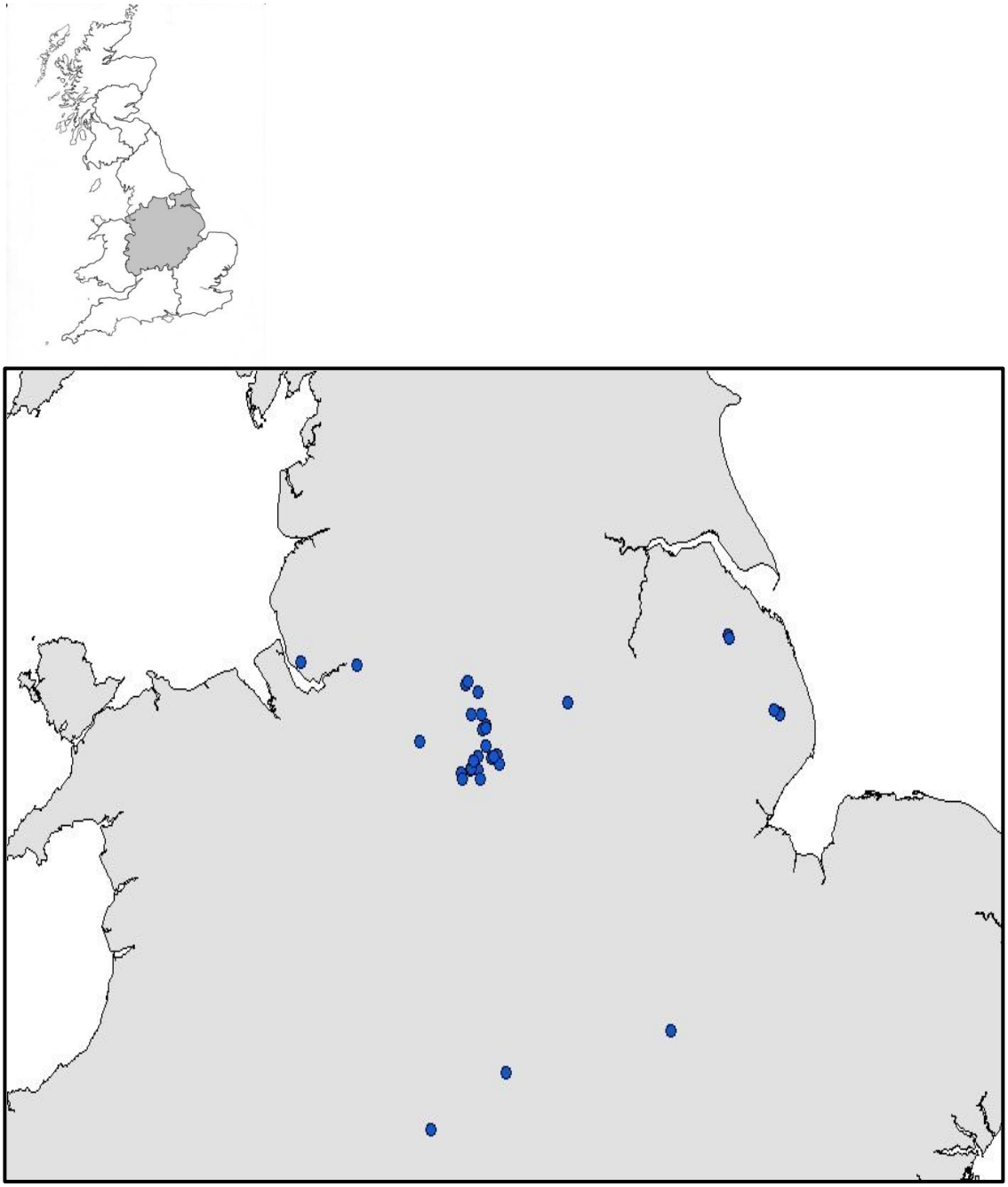


Fig. B-6 Distribution of excavated Neolithic barrows and chambered cairns in C England

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Ash Hill	Pit (external)	Lincolnshire	1986	trial	(Phillips 1989)
Bole Hill	none	Derbyshire	1843, 1859	partial	(Bateman 1848:47-48; 1978 [1861]:104-105)
Bostern	none	Derbyshire	1845	unknown	(Bateman 1848:70-71)
Bredon Hill	pit (grave), ground preparation	Hereford & Worcester	1963	partial	(Thomas 1965)
Bridestones	hearth	Cheshire	1936-37	partial	(Dunlop 1938)
Brown's Low	none	Staffordshire	1846, 1850	extensive	(Bateman 1978 [1861]:168-169)
Brushfield Hough	none	Derbyshire	1924	unknown	none
Charlecote	tree circle, turf mortuary structure, postholes, ground preparation	Warwickshire	1967	full	(Ford 2003)
Cranford	fire (cremation)	Cheshire	1931, 1934	partial	(Armstrong 1933-36; Grealey 1976)
Five Wells	none	Derbyshire	1846, 1899	extensive	(Bateman 1848; Ward 1901)
Giants' Hills 1	pit, postholes, occupation debris	Lincolnshire	1934	extensive	(Phillips 1935a)
Giants' Hills 2	occupation debris?, timber structure, cultivation, mortuary pits (2)	Lincolnshire	1976	full	(Evans & Simpson 1991)
Green Low	artefact scatter, Mesolithic flint	Derbyshire	1843, 1964	extensive	(Bateman 1848:44; Manby 1965)
Grub Low	fire (mortuary)	Staffordshire	1849	partial	(Bateman 1978 [1861]:147-148)
Harborough Rocks	pit	Derbyshire	1889	partial	(Ward 1890)
Harrod Low	none	Derbyshire	1700s	unknown	(Bray 1783:239)
Hoe Hill	none	Lincolnshire	1984	trial	(Phillips 1989)
Lid's Lowe	none	Derbyshire	1845	unknown	(Bateman 1848:84)
Liff's Low	occupation area, pits, stakeholes	Derbyshire	1843, 1984	partial	(Bateman 1848:41-43; Barnatt 1996)
Long Low	none	Staffordshire	1851	partial	(Carrington 1864; Bateman 1978 [1861]:144-147)
Minning Low	none	Derbyshire	1843,1851, 1974	partial	(Bateman 1848:39-40; 1978 [1861]:54,82; Marsden 1982)
Pea Low	none	Staffordshire	1845, 1848	partial	(Bateman 1848:76-77; 1978 [1861]:121)
Perryfoot	none	Derbyshire	1874	unknown	(Pennington 1874)

Redlands Farm	pit	Northants	1989	extensive	(Moore & Jackson 1990)
Ringham Low	none	Derbyshire	1847, 1855	extensive	(Bateman 1848:103; 1978 [1861]:93-97)
Smerrill Moor	dark soil	Derbyshire	1857	partial	(Bateman 1978 [1861]:102)
Spellow Hills	none	Lincolnshire	unknown	unknown	none
Stonesteads	fire	Staffordshire	1849	partial	(Bateman 1978 [1861]:131)
Stoney Low	none	Derbyshire	1843	unknown	(Bateman 1848:113)
The Calderstones	none	Merseyside	1789	unknown	none
Tideslow	standing stone, pit (grave), charcoal deposit	Derbyshire	1969	partial	(Radley & Plant 1971)
Upper Haddon Moor	none	Derbyshire	1844	unknown	(Bateman 1848:56-57)
Whitwell	none	Derbyshire	1989	full	none

Table B-5 Buried features and deposits at excavated sites in Central England

B-6. Southeast England

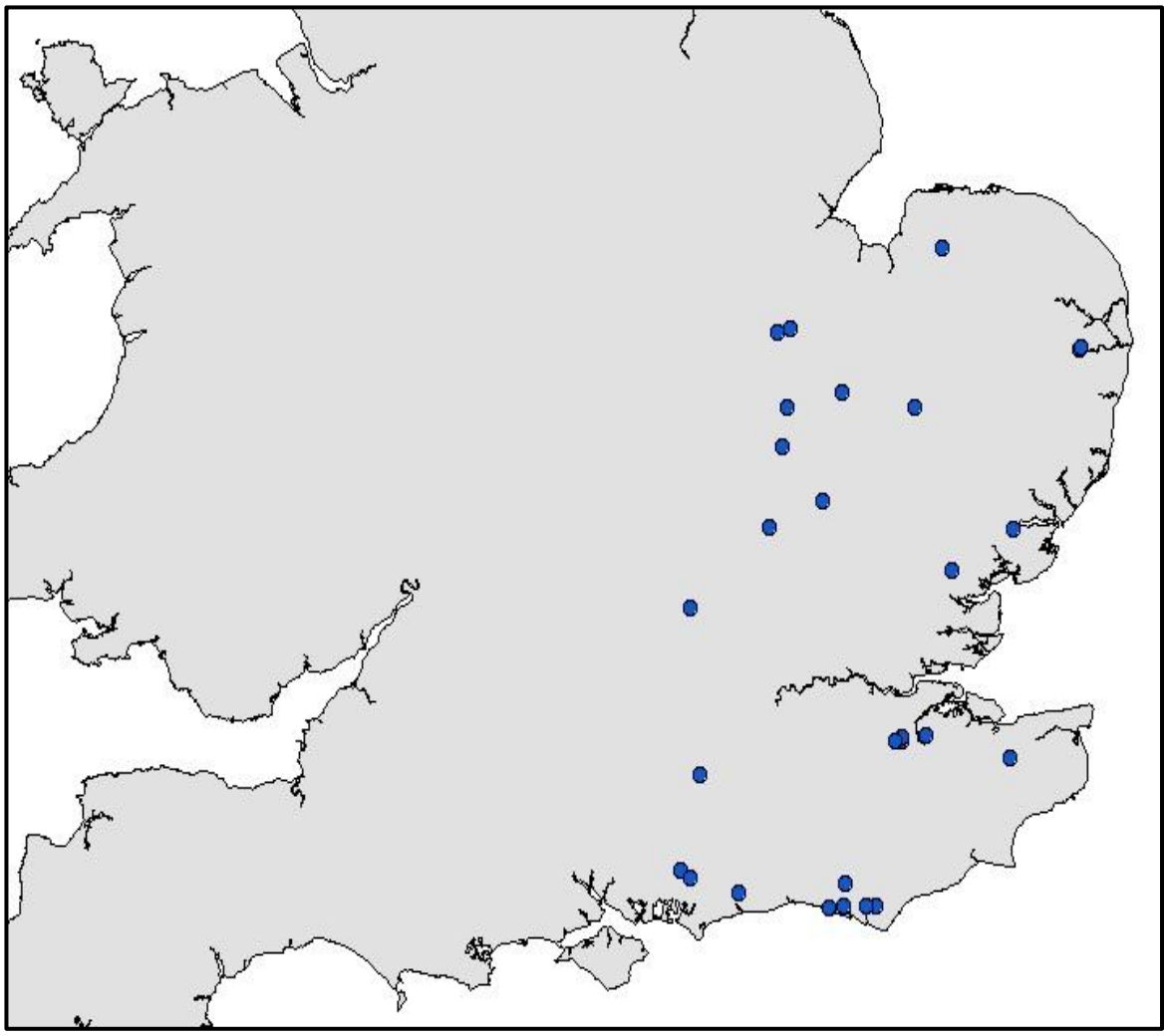


Fig. B-7 Distribution of excavated Neolithic barrows and chambered cairns in SE England

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Addington	none	Kent	1800s	unknown	(Petrie 1880)
Badshot Lea	posthole	Surrey	1936	partial	(Keiller & Piggott 1939)
Beacon Hill	none	East Sussex	1862	extensive	(Turner 1863)
Bevis's Thumb	none	West Sussex	1980	trial	(Drewett *et al.* 1981)
Bevis's Tomb	none	West Sussex	1832	partial	none
Brampton	pits (2)	Cambridgeshire	1991	extensive	(Malim 1990)
Broome Heath	none	Norfolk	1858	partial	(Chester 1859)
Camel's Humps	none	East Sussex	unknown	unknown	none
Coldrum	none	Kent	1856,1910, 1928	partial	(Bennett 1913; Filkins 1928)
Eynesbury	pits (2)	Cambridgeshire	1997	partial	(Ellis 2004)
Fengate Depot	none	Cambridgeshire	1992	trial	(Evans 1994)
Foulmire Fen	Meso and Neo artefacts; timber structure	Cambridgeshire	1986	extensive	(Evans & Hodder 2006)
Hunter's Burgh	none	East Sussex	unknown	unknown	none
Julliberrie's Grave	pit; ground preparation	Kent	1936, 1937	partial	(Jessup 1937; 1939)
Kit's Coty House	none	Kent	1790s, 1956	partial	(Douglas 1793; McCrerie 1956)
Knocking Knoll	none	Bedfordshire	1856	unknown	none
Long Burgh	none	East Sussex	1767	partial	none
Money Burgh	none	East Sussex	1800	unknown	none
Orton Longueville	pits (3)	Cambridgeshire	1979-82	extensive	(Mackreth 1983)
Rivenhall	Mesolithic flints	Essex	1986	trial	(Buckley *et al.* 1988)
Stoughton Down NW	none	West Sussex	1980	trial	(Drewett *et al.* 1981)
Stoughton Down SE	none	West Sussex	1980	trial	(Drewett *et al.* 1981)
Swale's Tumulus	occupation debris	Suffolk	1954	partial	(Briscoe 1957)
The Chestnuts	Mesolithic flint concentration	Kent	1957	extensive	(Alexander 1961)
Therfield	2 mortuary pits	Hertfordshire	1855, 1935	partial	(Phillips 1935b)
Therfield Heath 4	none	Hertfordshire	1856	unknown	(Nunn 1855)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation Extent	References
Tye Field	activity area; postholes; stakeholes; pits; Meso flints	Essex	1963, 1971	partial	(Shennan *et al.* 1985)
West Rudham Common	pits (2); pits - mortuary (2); fire (mortuary)	Norfolk	1937, 1938	extensive	(Sainty *et al.* 1938; Hogg 1940)
Whiteleaf Hill	timber structure, postholes, stakeholes, pit, artefact scatter	Buckinghamshire	1939	partial	(Childe & Smith 1954)
Yarmouth Road	postholes (2); pits (4)	Norfolk	2001	partial	(Robertson 2003)

Table B-6 Buried features and deposits at excavated sites in SE England

B-7. Southwest England[16]

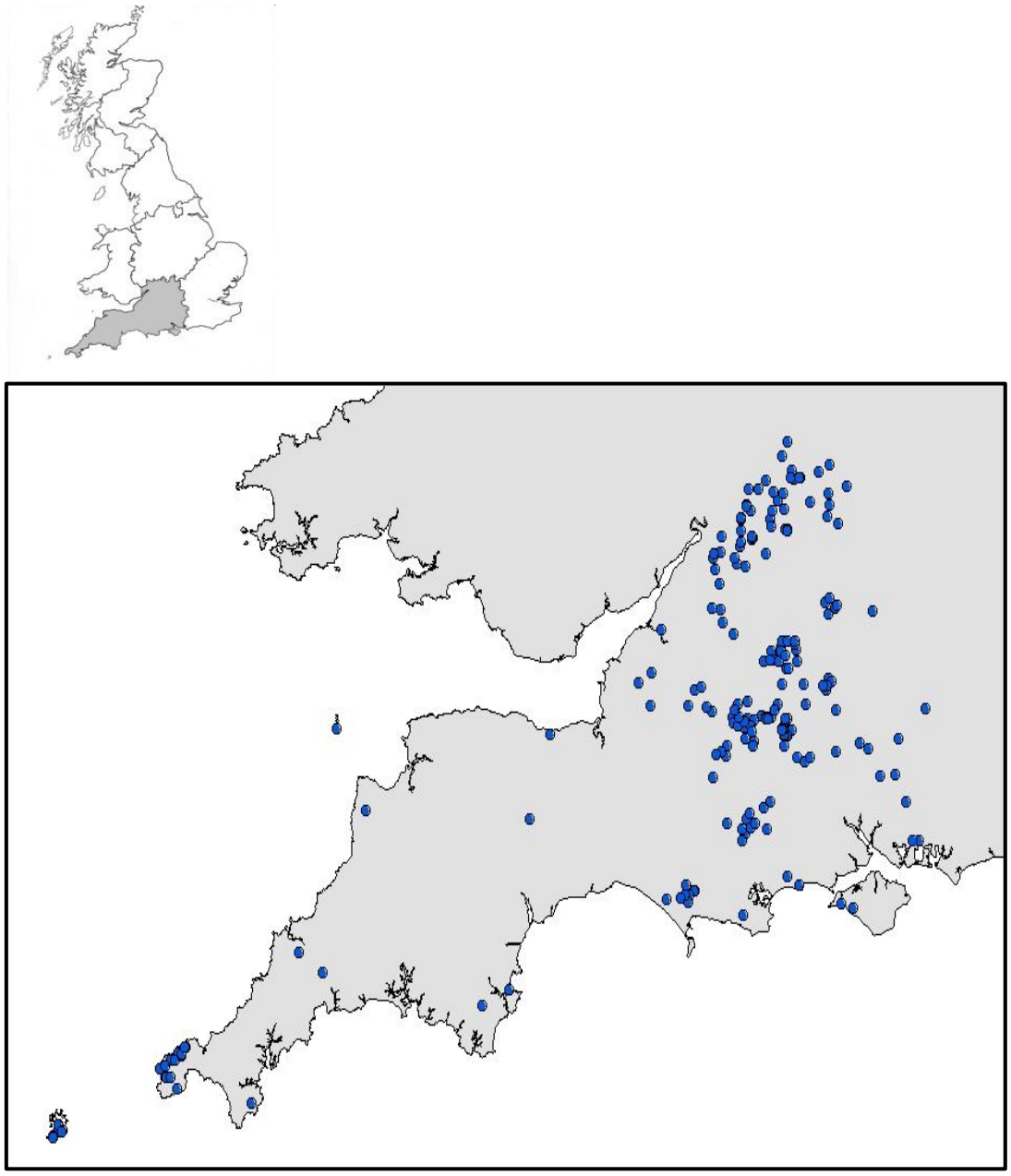


Fig. B-8 Distribution of excavated Neolithic barrows and chambered cairns in SW England

[16] This region includes the West Country case study area, which consists of the counties of Dorset, Somerset and Wiltshire.

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Ablington Beehive Chamber	none	Gloucestershire	1925, 2002	partial	(Passmore 1934a; Derham 2002)
Adam's Grave	none	Wiltshire	1860	unknown	(Thurnam 1869a:203, 230)
Adlestrop Hill	none	Gloucestershire	1936, 1938	extensive	(Gardiner 1935; 1936; Donovan 1938)
Afton Down	none	Isle of Wight	1817	unknown	(Grinsell & Sherwin 1941)
Alington Avenue	flint scatters, trampled ground	Dorset	1987	partial	(Davies *et al.* 2002)
Alton 13	none	Wiltshire	1937	unknown	none
Amesbury 14	dark earth	Wiltshire	1808, 1867	partial	(Colt Hoare 1812:206; Thurnam 1869a:180)
Amesbury 42	2 stakeholes; flint knapping; dark soil	Wiltshire	1983	trial	(Richards 1990)
Arn Hill	standing stone	Wiltshire	1802	partial	(Colt Hoare 1812:65)
Ascott-Under-Wychwood	Mesolithic and Earlier Neolithic occupation	Oxfordshire	1969	full	(Benson & Whittle 2006)
Avening Barrow	none	Gloucestershire	1806	unknown	none
Avenis Barrow	none	Gloucestershire	1875	unknown	(Jowett Burton 1925)
Ballowall Barrow	pits(2)	Cornwall	1874	extensive	(Borlase 1878; 1886)
Bant's Carn	none	Isles of Scilly	1899, 1976	trial	(Ashbee 1976)
Battlegore	none	Somerset	1931	extensive	(Gray 1931)
Beckhampton Road	hearths and stakeholes	Wiltshire	1867, 1964	full	(Thurnam 1869a:180; Ashbee *et al.* 1979)
Belas Knap	none	Gloucestershire	1865, 1930	extensive	(Lawrence 1866; Berry 1929; 1930)
Bevis's Grave	none	Hampshire	1815, 1976	unknown	(Butler 1817)
Bisley Barrow	none	Gloucestershire	1863	unknown	(Paine 1912)
Blackheath	none	Wiltshire	1810	partial	(Colt Hoare 1812:44-45)
Blandford Race Down	dark soil	Dorset	1840?	partial	(Warne 1866)
Bokerley 3	none	Dorset	1800s	unknown	none
Bosporthennis	none	Cornwall	1872	partial	(Borlase 1872:66-69)
Bowl's Barrow	flint knapping; mortuary pit	Wiltshire	1801, 1866	partial	(Colt Hoare 1812:87-88; Cunnington 1889)
Bown Hill	none	Gloucestershire	1863	partial	(Paine & Witchell 1865)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Bratton Down	none	Wiltshire	1810, 1866	partial	(Colt Hoare 1812:55; Thurnam 1869a:192-193)
Broadsands	hearths	Devon	1958	partial	(Radford 1958)
Buck's Head	fire, tree roots	Gloucestershire	1880	partial	(Dorington 1881)
Burn Ground	potsherd scatter; ground preparation	Gloucestershire	1940-1	full	(Grimes 1960)
Buzza Hill	dark soil	Isles of Scilly	1752	partial	(Borlase 1769; Borlase 1966 [1756])
Camp Barrow N	none	Gloucestershire	1860	unknown	none
Chapel Carn Brea	stone-lined trench	Cornwall	1879	extensive	(Borlase 1886)
Chedworth 1	none	Gloucestershire	1941	extensive	(Grimes 1960)
Cheltenham 1	none	Gloucestershire	1832	partial	(Witts 1880)
Cheltenham 2	none	Gloucestershire	1845	partial	(Gomonde 1846)
Chettle	none	Dorset	1767	partial	none
Chettle I	none	Dorset	1727?, 1776	unknown	none
Choseley Farm	none	Hampshire	1933	partial	none
Chun Quoit	pit - grave?	Cornwall	1871	partial	(Borlase 1872)
Chute	none	Wiltshire	1934	partial	(Passmore 1942)
Coberley	none	Gloucestershire	1800's	unknown	(Bird 1876)
College Plantation	none	Gloucestershire	1882	unknown	(Witts 1884a)
Conquer Barrow	none	Dorset	1970-1	trial	(Wainwright 1979)
Cop Heap	grave pit	Wiltshire	1809	partial	(Colt Hoare 1812:67-68)
Corton	paired mortuary pits	Wiltshire	1801-04	partial	(Lambert 1806; Allen & Gardiner 2004)
Cow Common Long	none	Gloucestershire	1874, 1868	partial	(Rolleston 1876)
Crawley	none	Oxfordshire	1857, 1864	partial	(Akerman 1857; Thurnam 1869a:175)
Crippets	none	Gloucestershire	1700s	unknown	(Rudder 1986 [1779])
Crouch Hill	none	Dorset	1922, 1969	partial	(Gray 1922; Cunliffe 1987)
Devil's Den	none	Wiltshire	1921	trial	(Passmore 1922)
Druid Stoke	none	Avon	1913, 1983	partial	(Were 1913; Smith 1989b)
Dry Heathfield	grave pit	Gloucestershire	1845, 1860	partial	(Gomonde 1846; Bird 1876)
Easton Down	cultivation?; stakeholes	Wiltshire	1857, 1991	partial	(Thurnam 1869a:180; Whittle *et al.* 1993)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Ell Barrow	none	Wiltshire	1867	unknown	(Thurnam 1869a:180,196)
Ende Burgh	none	Wiltshire	1900	unknown	(Stone 1937)
Eyford Hill	none	Gloucestershire	1874	extensive	(Rolleston 1876; Greenwell 1877)
Fairy's Toot	none	Avon	1799	unknown	(Bulleid 1941)
Fifield Long Barrow	none	Oxfordshire	1934	partial	(O'Neil 1960)
Figheldean 31	mortuary pit	Wiltshire	1864	partial	(Thurnam 1869a:180, 184, 197-198)
Fittleton 5	none	Wiltshire	1851	partial	(Cunnington 1896)
Forty Acre Plantation	none	Dorset	1881	partial	none
Fromefield	none	Somerset	1965	trial	(Vatcher & Vatcher 1973a)
Fussell's Lodge	cultivation, pits; postholes; flint knapping; dark soil	Wiltshire	1957	extensive	(Ashbee 1966)
Gatcombe Lodge	none	Gloucestershire	1870	partial	(Playne 1871)
Giant's Caves	hearths (4)	Wiltshire	1932, 1962	partial	(Passmore 1934b; Corcoran 1970)
Giant's Grave [Hampshire]	none	Hampshire	1910	unknown	none
Giant's Grave [Somerset]	pit; flint knapping	Somerset	1909	partial	(Wickham 1912)
Giant's Grave [Wilts]	none	Wiltshire	1865	partial	(Thurnam 1869a:180, 182, 194)
Giant's Grave South [Dorset]	causewayed enclosure; pit; cultivation?; posthole	Dorset	1977	full	(Mercer & Healy 2008)
Gray's Down	none	Avon	1815	unknown	none
Great Barrow	none	Dorset	1958	trial	(Field 1962)
Grey Mare and Her Colts	none	Dorset	1800s	unknown	none
Halangy Down Lower	none	Isles of Scilly	1929	unknown	none
Hand in Hand Flint Cairn	none	Dorset	1984	partial	(Bowden & Tingle 1984)
Handley 26	none	Dorset	1800s, 1894	partial	(Colt Hoare 1812:242; Pitt Rivers 1898)
Handley 27	none	Dorset	1800s, 1894	partial	(Colt Hoare 1812:242; Pitt Rivers 1898)
Hatfield Barrow	fire - cremation?	Wiltshire	1807	partial	(Colt Hoare 1812:6)
Hazleton North	Mesolithic & Neolithic occupation	Gloucestershire	1979-82		(Saville 1990)
Hazleton South	none	Gloucestershire	1980	trial	(Saville 1990)
Herringston Barrow	none	Dorset	1880	unknown	none

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Hetty Pegler's Tump	none	Gloucestershire	1821, 1854	partial	(Thurnam 1854; Clifford 1966)
Heytesbury	mortuary pit; dark soil	Wiltshire	1800	partial	(Colt Hoare 1812:71-72)
Hoar Stone [Gloucestershire]	none	Gloucestershire	1806	partial	(Freston 1812)
Hoar Stone [Oxford]	none	Oxfordshire	1842, 1956	trial	(Case 1958)
Holdenhurst	hearths, pit	Dorset	1936	extensive	(Piggott 1937)
Horslip	activity area; pits (9)	Wiltshire	1959	extensive	(Ashbee *et al.* 1979)
Horton	none	Avon	1844	unknown	none
Horton Down	none	Wiltshire	1863	unknown	(Thurnam 1869a:180)
Houghton Down	none	Hampshire	1895	unknown	none
Hut Barrow	none	Cornwall	unknown	unknown	none
Jackbarrow	pit	Gloucestershire	1875, 1937	trial	(Clifford 1937)
Kill Barrow	none	Wiltshire	1865	partial	(Thurnam 1871:297)
King Barrow	pit	Wiltshire	1810	partial	(Colt Hoare 1812:72-73)
King's Play Down	posthole/stoneholes (3)	Wiltshire	1907	extensive	(Cunnington 1909b)
Kingston Deverill	timber mortuary structure; postholes	Wiltshire	1964	full	(Harding & Gingell 1986)
Kittern Hill	none	Isles of Scilly	1790s	unknown	none
Knook 5	mortuary pit; dark soil	Wiltshire	1801	partial	(Colt Hoare 1812:86)
Knook Barrow	mortuary pit	Wiltshire	1801, 1866	partial	(Colt Hoare 1812:83; Thurnam 1869a:180, 191-192)
Lamborough Banks	none	Gloucestershire	1854	partial	(Lysons 1865)
Lamborough Lane	none	Hampshire	1800s, 1932	trial	(Milner 1944)
Lambourn	pit/posthole	Berkshire	1964	partial	(Wymer 1966; 1970)
Lanhill Barrow	flint scatter; pit	Wiltshire	1855, 1909, 1936, 1963	partial	(Thurnam 1857b; Cunnington 1909a; Keiller & Piggott 1938; King 1966)
Launceston Down (B13)	postholes - mortuary	Dorset	1938	extensive	(Piggott & Piggott 1944)
Lesquite Quoit	postholes; pit	Cornwall	1973	partial	(Miles & Trudgian 1976)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Longbury Barrow	ground preparation	Dorset	1802, 1855, 1952	partial	(Warne 1866; Farrar 1954)
Longstones Barrow	none	Wiltshire	1850s	unknown	(Merewether 1851)
Lugbury	stone setting; grave pit	Wiltshire	1821, 1855	extensive	(Colt Hoare 1822; Thurnam 1857a)
Lundy	dark soil	Devon	1851	partial	(Chanter 1877)
Luton Down	none	Dorset	1896	partial	none
Lyneham Barrow	standing stone; pit; fire	Oxfordshire	1894	partial	(Conder 1895)
Maiden Bradley 8A	none	Wiltshire	1804	partial	(Colt Hoare 1812:34, 47)
Manton Down	none	Wiltshire	1952	full	none
Millbarrow	pits; postholes; dark soil	Wiltshire	1863, 1989	partial	(Thurnam 1869a:201; Whittle 1994)
Monkton Down	none	Wiltshire	1849	partial	(Merewether 1851)
Moody's Down SE	mortuary pit; dark soil	Hampshire	1940	full	(Grimes 1960)
Moss Hill	none	Oxfordshire	1852	unknown	none
Mulfra Quoit	pit	Cornwall	1749	partial	(Borlase 1769)
N of Robin Hood's Ball	none	Wiltshire	1984	unknown	none
Netheravon 6	none	Wiltshire	1865	partial	(Cunnington 1914b)
Norton Bavant 13	none	Wiltshire	1866	partial	(Thurnam 1869a:182, 194-195, 198)
Notgrove	3 pits; hearth; fire; ground preparation	Gloucestershire	1881, 1935	extensive	(Witts 1883; Clifford 1936)
Nutbane	pit; fire; hearth; mortuary enclosure;	Hampshire	1957	extensive	(Morgan 1959; Vatcher 1959)
Nympsfield	postholes, pits, hearths; fire; ground preparation	Gloucestershire	1862, 1937, 1974	partial	(Buckman 1865; Clifford 1938a; Saville 1979)
Oak Piece	none	Gloucestershire	1916	unknown	none
Obadiah's Barrow	none	Isles of Scilly	1901	extensive	none
Oldbury Hill	2 grave pits	Wiltshire	1864	partial	(Cunnington 1872; 1886)
Orchardleigh	hearth; pit	Somerset	1920	extensive	(Gray 1921; 1929)
Park Farm Barrow	timber structure?; postholes, grave pit	Berkshire	1979	trial	(Richards 1986-90)
Pawton Quoit	none	Cornwall	1870s	unknown	none

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Pimperne	none	Dorset	1800s	unknown	none
Pinkwell	pits (2)	Gloucestershire	1856, 1996	partial	(Akerman 1859; Marshall 1996; 1997)
Pitcherwell Copse	none	Gloucestershire	pr1876	partial	none
Pole's Wood East	none	Gloucestershire	1875-6	extensive	(Greenwell 1877:524-541)
Pole's Wood South	none	Gloucestershire	1874	partial	(Greenwell 1877:521-524)
Porth Hellick Down	none	Isles of Scilly	1900	unknown	none
Portsdown	none	Hampshire	1816	uiknown	none
Preston Grange	none	Hampshire	1893	unknown	none
Priddy	activity area; pit; ground preparation; hearths	Somerset	1928	extensive	(Dobson 1931; Lewis 2002)
Querns Barrow	none	Gloucestershire	1800's	partial	(Buckman & Newmarch 1850)
Randwick	none	Gloucestershire	1883	partial	(Witts 1884b)
Ritson Barrow	none	Devon	1799	partial	(Cranch 1885)
Salakee Down	none	Isles of Scilly	1942	extensive	(Grimes 1960)
Sale's Lot	2 grave pits; occupation debris; postholes (7)	Gloucestershire	1963-4	extensive	(O'Neil 1966)
Saltway Barn	pit	Gloucestershire	1940	full	(Grimes 1960)
Shalbourne 5	none	Wiltshire	?	unknown	none
Shalbourne 5A	none	Wiltshire	?	unknown	none
Sheep Down	none	Berkshire	1943	trial	(Smith 1945)
Shepherd's Shore	grave pit; dark soil	Wiltshire	1914	partial	(Cunnington 1927)
Sherrington	pit	Wiltshire	1804, 1856	partial	(Lambert 1806; Thurnam 1869a:180)
Shipham 3	none	Somerset	1924	extensive	(Read 1924)
Silver Barrow	none	Wiltshire	1801	unknown	none
Snowshill 1	none	Gloucestershire	1850	unknown	none
South Street	cultivation	Wiltshire	1964-7	full	(Ashbee *et al.* 1979)
South Wonston N	none	Hampshire	1945, 1986	unknown	none
Southlawn Barrow	none	Oxfordshire	1872	unknown	none
Sperris Quoit	trampled ground?; pit; fire	Cornwall	1954	partial	(Thomas & Wailes 1967)
Stockton Barrow	mortuary pit	Wiltshire	1800-1810	partial	(Colt Hoare 1812:107)

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
Stonehill Down	none	Dorset	1800s	unknown	(Warne 1866)
Stoney Littleton	pit alignment	Avon	1816, 2000	partial	(Colt Hoare 1821; Donovan 1977; Thomas 2003)
Swell 2	hearth?	Gloucestershire	1874	partial	(Greenwell 1877:446-447)
Telegraph Hill	none	Hampshire	1968	unknown	none
Temple Bottom	none	Wiltshire	1861	partial	(Lukis 1864)
The Longstone	none	Isle of Wight	1850, 1956	trial	(Beaumont 1856; Hawkes 1957)
The Soldier's Grave	grave pit	Gloucestershire	1937	extensive	(Clifford 1938b)
The Waste	none	Gloucestershire	1800s	unknown	none
Thickthorn Down	timber posts; pits (3); flint knapping	Dorset	1933	full	(Drew & Piggott 1936; Bradley & Entwistle 1985)
Thorny Down	none	Wiltshire	1979	unknown	none
Three Brothers of Grugith	grave? Pit	Cornwall	1872	partial	(Borlase 1872)
Tidcombe Hill	none	Wiltshire	1750, 1845	unknown	(Willis 1787)
Tilshead 7	dark soil	Wiltshire	1863	partial	(Lukis 1864; Thurnam 1869a; Cunnington 1914b)
Tilshead Lodge	dark soil	Wiltshire	1804, 1865	partial	(Thurnam 1869a:180,182,184,196; Cunnington 1914b)
Tilshead Old Ditch	mortuary pit; dark soil	Wiltshire	1802, 1865	partial	(Colt Hoare 1812:90-91; Thurnam 1869a:191; Cunnington 1914b)
Tinhead Barrow	none	Wiltshire	1865	partial	(Thurnam 1869a:180, 194-195)
Tiverton	Mesolithic activity; pit	Devon	1985	extensive	(Smith 1990)
Tolcreeg Barrow	none	Cornwall	1963	partial	(Pool 1964)
Tow Barrow	potsherd scatter	Wiltshire	1914	unknown	(Crawford 1920)
Tregaseal Barrow	none	Cornwall	1879	partial	(Borlase 1886)
Tregiffian Barrow	occupation debris; postholes; cultivation	Cornwall	1871, 1968, 1973	partial	(Borlase 1872; Dudley 1968; Apsimon 1972; Apsimon 1973)
Warminster 6	grave pit	Wiltshire	1810, 1867	partial	(Colt Hoare 1812:66; Thurnam 1869a)
Wayland's Smithy	occupation area; timber posts; pits; fire; postholes	Oxfordshire	1920, 1963	extensive	(Peers & Smith 1921; Atkinson 1965; Whittle 1991)
West Barrow	none	Gloucestershire	1700	extensive	none

Site Name	Buried Features / Deposits	County	Excavation Date	Excavation extent	References
West Kennet	potsherd scatter; dark soil	Wiltshire	1859, 1956	extensive	(Thurnam 1860b; Piggott 1962)
West Lanyon Quoit	none	Cornwall	1700s	partial	(Hitchins 1803)
West Tump	fire	Gloucestershire	1880	partial	(Witts 1881)
West Woods	dark soil	Wiltshire	1880	partial	(Passmore 1923)
Westbury 7	none	Wiltshire	1810	unknown	(Colt Hoare 1812:54)
Whispering Knights	none	Oxfordshire	1983	trial	(Lambrick 1988)
White Barrow	dark soil	Wiltshire	1810	partial	(Colt Hoare 1812:91)
Whitehorse Hill	cultivation?; ground preparation	Oxfordshire	1858, 1993	partial	(Miles *et al.* 2003)
Whitesheet Downs	cremation pit	Wiltshire	1807	partial	(Colt Hoare 1812:41-42)
Willersey I	none	Gloucestershire	1884	partial	(Witts 1885)
Wilsford 30	none	Wiltshire	1808	partial	(Colt Hoare 1812:206)
Wilsford 34	none	Wiltshire	1866	extensive	(Cunnington 1914b)
Windmill Tump	pits; postholes; stone setting	Gloucestershire	1863, 1939, 1988	partial	(Lysons 1863; Clifford & Daniel 1940; Saville 1989b)
Winterborne Came 18b	none	Dorset	1800s	extensive	(Warne 1866)
Winterborne St Martin 34b	none	Dorset	1840	partial	(Sydenham 1844)
Winterborne St Martin 43	grave pit	Dorset	1903	partial	(Gray & Prideaux 1905)
Winterbourne Stoke 1	3 mortuary pits	Wiltshire	1863	partial	(Thurnam 1864:140-145; Cunnington 1914b)
Winterbourne Stoke 35a	none	Wiltshire	1864	partial	(Thurnam 1869b)
Winterbourne Stoke 44	pits; ground preparation	Wiltshire	1959	extensive	(Green & Rollo-Smith 1984)
Winterbourne Stoke 53	2 mortuary pits; fire	Wiltshire	1800-1810	partial	(Colt Hoare 1812:117)
Woodford G2	posthole	Wiltshire	1963	extensive	(Harding & Gingell 1986)
Woolley Barrow	hearth (2)	Cornwall	1976	trial	(Higginbotham 1977)
Wor Barrow	2 mortuary pits	Dorset	1893-4	full	(Pitt Rivers 1898)
Wotton Under Edge II	none	Gloucestershire	1780	unknown	none
Zennor Quoit	dark soil	Cornwall	1881	unknown	(Grenfell 1880-4)

Table B-7 Buried features and deposits at excavated sites in SW England

B-8. Wales

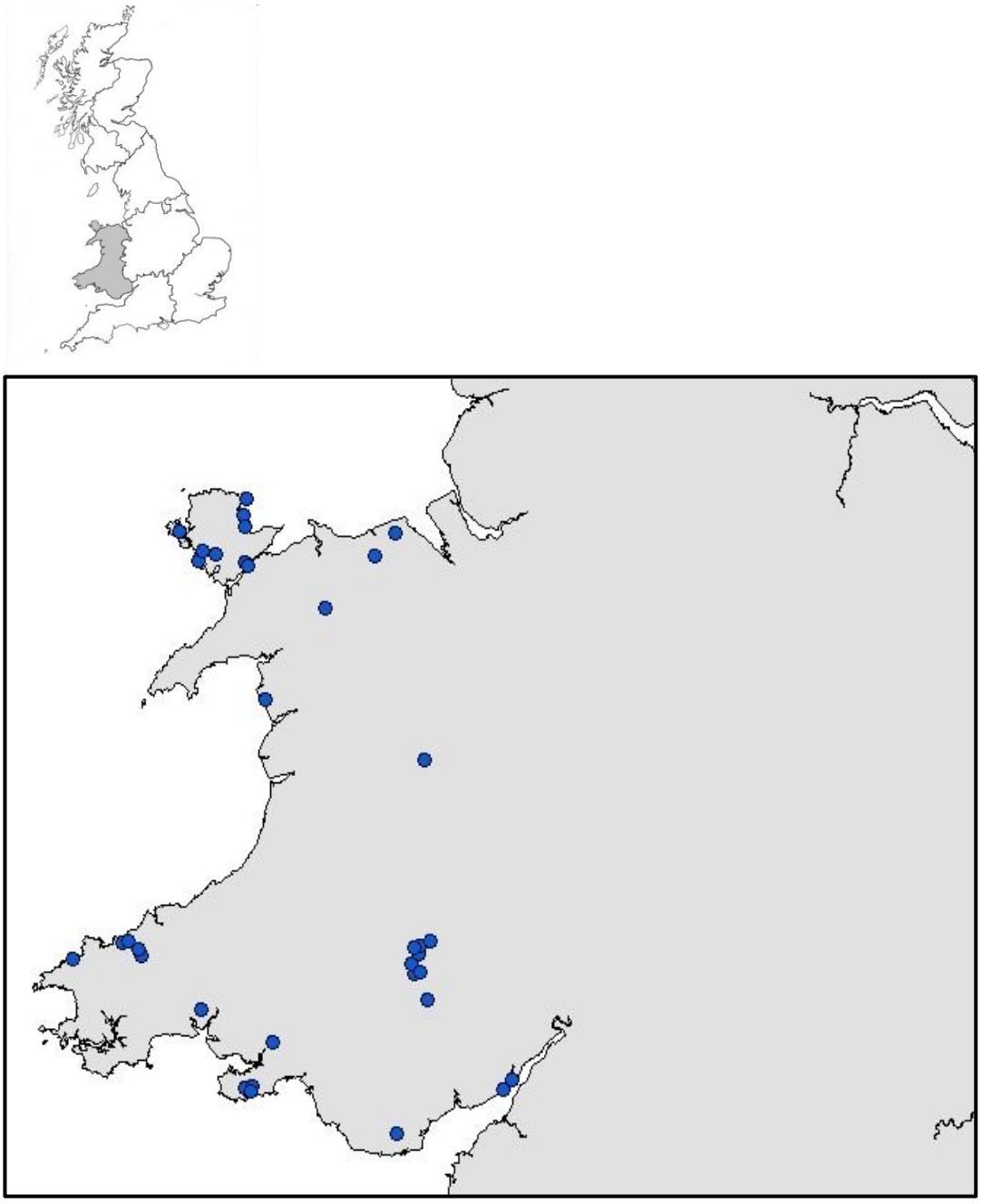


Fig. B-9 Distribution of excavated Neolithic barrows and chambered cairns in Wales

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Barclodiad y Gawres	hearth	Anglesey	1953	extensive	(Powell & Daniel 1956)
Bedd yr Afanc	none	Pembrokeshire	1939	unknown	(Grimes 1939a)
Bryn Celli Ddu	postholes, hearths, pits	Anglesey	1865, 1920s	extensive	(Hemp 1930; 1931; O'Kelly 1969)
Bryn yr Hen Bobl	occupation area, stone setting, hearth, pits	Anglesey	1935	extensive	(Hemp 1935; Leivers *et al.* 2001)
Capel Garmon	postholes, 3 pits, ground preparation	Conwy	1927, 1989	partial	(Hemp 1927; Yates & Jones 1991)
Carreg Sampson	Mesolithic flint	Pembrokeshire	1968	partial	(Lynch 1975)
Cefn Bryn	none	Swansea	1939	extensive	(Williams 1940)
Cefn Drum	pit	Swansea	1990s	partial	(Kissock & Phillips 2000)
Cerrig-y-Gof	none	Pembrokeshire	1810	unknown	(Fenton 1811)
Coetan Arthur	stone setting, ring cairn?	Pembrokeshire	1980	extensive	(Barker 1992)
Din Dryfol	postholes, 4 pits, ground preparation	Anglesey	1970	extensive	(Smith & Lynch 1987)
Dyffryn Ardudwy	pit, post/stonehole	Gwynedd	1970s	extensive	(Powell 1973)
Ffostyll North	none	Powys	1921	partial	(Vulliamy 1922a; 1923)
Ffostyll South	none	Powys	1923	partial	(Vulliamy 1922a; 1923)
Glyn	none	Anglesey	1800s	unknown	none
Gop Cairn	none	Flintshire	1887	partial	(Boyd Dawkins 1901; 1902)
Gwernvale	Meso and Neo occupation	Powys	1800, 1978	extensive	(Britnell & Savory 1984)
Heston Brake	none	Monmouthshire	1888	partial	(Bagnall-Oakley 1888)
Little Lodge	none	Powys	1929	partial	(Vulliamy 1929)
Lligwy	pit	Anglesey	1909	extensive	(Baynes 1909)
Lower Luggy	pit, postholes	Powys	1994	trial	(Gibson 2000)
Mynydd Troed	ground preparation	Powys	1966	trial	(Crampton & Webley 1966)
Pant y Saer	fire, ground preparation, pit, stone setting	Anglesey	1875, 1932	extensive	(Williams 1875; Scott 1933)
Parc Le Breos Cwm	artefact scatter	Swansea	1869, 1961	partial	(Lubbock 1870; Lubbock & Douglas 1871; Lubbock *et al.* 1887; Daniel 1937; Whittle & Wysocki 1998)

Site Name	Buried Features/Deposits	County	Excavation Date	Excavation Extent	References
Pen y Wyrlod Cairn	structure?, pit, Mesolithic flint	Powys	1972	partial	(Britnell & Savory 1984)
Pen y Wyrlod Barrow	dark soil	Powys	1921	partial	(Morgan 1921; Vulliamy 1922b)
Penmaen Burrows	none	W Glamorgan	1893	unknown	(Morgan 1894)
Pentre Ifan	standing stone, postholes, 9 pits	Pembrokeshire	1937	extensive	(Grimes 1948)
Pipton	pit, ground preparation	Powys	1950	extensive	(Savory 1956b)
Thornwell Farm	none	Monmouthshire	1991	unknown	none
Tinkinswood	stone rows, ground preparation	Vale of Glamorgan	1914	extensive	(Ward 1915; 1916)
Trefignath	artefact scatter, timber posts, cultivation	Anglesey	1979	full	(Smith & Lynch 1987)
Twlc y Filiast	pits, postholes, ground preparation	Carmarthenshire	1953	partial	(Savory 1956a)
Ty Isaf	none	Powys	1938	extensive	(Grimes 1939b)
Ty Newydd	hearth, dark soil	Anglesey	1935	partial	(Phillips 1936)
Tyddyn Bleiddyn	none	Denbighshire	1869	partial	(Boyd Dawkins 1870)

Table B-8 Buried features and deposits at excavated sites in Wales

Appendix C Sites with possible or probable evidence for pre-monument activity

Site Name	County	Buried Features/Deposits	References
Ascott-Under-Wychwood	Oxfordshire	Mesolithic and Earlier Neolithic occupation	(Benson & Whittle 2006)
Bargrennan	Dumfries /Galloway	Mesolithic and EN activity; hearth	(Piggott & Powell 1949; Cummings & Fowler 2007)
Beckhampton Road	Wiltshire	hearths and stakeholes	(Thurnam 1869a:180; Ashbee *et al.* 1979)
Black Hill Low	N Yorkshire	3 standing stones	(Raistrick 1931; Butterfield 1938)
Boghead Mound	Moray	occupation area, cultivation, pits	(Burl 1984)
Bowl's Barrow	Wiltshire	flint knapping; mortuary pit	(Colt Hoare 1812:87-88; Cunnington 1889)
Brackley	Argyll and Bute	pits, timber post	(Scott 1956)
Bryn Celli Ddu	Anglesey	postholes, hearths, pits	(Hemp 1930; 1931; O'Kelly 1969)
Bryn yr Hen Bobl	Anglesey	occupation area, stone setting, hearth, pits	(Hemp 1935; Leivers *et al.* 2001)
Buck's Head	Gloucestershire	fire, tree roots	(Dorington 1881)
Cairnderry	Dumfries /Galloway	flint/potsherd scatter	(Cummings & Fowler 2007)
Cairnholy I	Dumfries /Galloway	hearths, potsherd scatter, woodland clearance	(Piggott & Powell 1949)
Callanish	Western Isles	occupation area, cultivation, stone circles and row	(Matheson 1859; Ashmore 1984; forthcoming)
Camster Long	Highland	occupation area, potsherd scatter, stakeholes , hearth	(Anderson 1868; 1869b; 1869a; 1886; Masters 1997)
Capel Garmon	Conwy	postholes, 3 pits, ground preparation	(Hemp 1927; Yates & Jones 1991)
Carreg Sampson	Pembrokeshire	Mesolithic flint	(Lynch 1975)

Site Name	County	Buried Features/Deposits	References
Charlecote	Warwickshire	tree circle, turf mortuary structure, postholes, ground preparation	(Ford 2003)
Dalladies	Aberdeenshire	timber structure	(Piggott 1972; Piggott 1973)
Din Dryfol	Anglesey	postholes, 4 pits, ground preparation	(Smith & Lynch 1987)
Duggleby Howe	N Yorkshire	shaft grave, grave pit	(Mortimer 1893; Mortimer 1905:23-30; Kinnes *et al.* 1983; Loveday 2002)
East Finnercy	Aberdeenshire	occupation area, pit, hearths	(Atkinson 1952; Leivers *et al.* 2000)
Easton Down	Wiltshire	cultivation?; stakeholes	(Thurnam 1869a:180; Whittle *et al.* 1993)
Foulmire Fen	Cambridgeshire	Meso and Neo artefacts; timber structure	(Evans & Hodder 2006)
Fussell's Lodge	Wiltshire	cultivation, pits; postholes; flint knapping; dark soil	(Ashbee 1966)
Giant's Grave South [Dorset]	Dorset	causewayed enclosure; pit; cultivation?; posthole	(Mercer & Healy 2008)
Giants' Hills 1	Lincolnshire	pit, postholes, occupation debris	(Phillips 1935a)
Giants' Hills 2	Lincolnshire	occupation debris?, timber structure, cultivation, mortuary pits (2)	(Evans & Simpson 1991)
Glecknabae	Argyll and Bute	Mesolithic shell midden	(Bryce 1904)
Glenvoidean	Argyll and Bute	occupation area, extensive burning	(Marshall & Taylor 1977)
Green Low	Derbyshire	artefact scatter, Mesolithic flint	(Bateman 1848:44; Manby 1965)
Gwernvale	Powys	Meso and Neo occupation	(Britnell & Savory 1984)
Hanging Grimston	N Yorkshire	post setting / timber structure	(Mortimer 1905:102-105)
Hazleton North	Gloucestershire	Mesolithic & Neolithic occupation	(Saville 1990)
Hilton	Argyll and Bute	postholes, hearth, cobbled floor, cultivation	(Marshall 1976)
Horslip	Wiltshire	activity area; pits (9)	(Ashbee *et al.* 1979)

Site Name	County	Buried Features/Deposits	References
Howe	Orkney	stone structures	(Ballin-Smith 1994)
Kemp Howe	Humberside	pre-monument pits (3)	(Mortimer 1905:336-338; Brewster 1968; 1969)
Kilham Long Barrow	Humberside	Mesolithic flint scatter, pits, hearths, cultivation	(Greenwell 1877:553-556; Manby 1976)
Lanhill Barrow	Wiltshire	flint scatter; pit	(Thurnam 1857b; Cunnington 1909a; Keiller & Piggott 1938; King 1966)
Liff's Low	Derbyshire	occupation area, pits, stakeholes	(Bateman 1848:41-43; Barnatt 1996)
Lochhill	Dumfries /Galloway	timber structure	(Masters 1973b)
Lugbury	Wiltshire	stone setting; grave pit	(Colt Hoare 1822; Thurnam 1857a)
Lyneham Barrow	Oxfordshire	standing stone; pit; fire	(Conder 1895)
Maeshowe	Orkney	Four standing stones, posthole, structure?	(Stuart 1864; Childe 1955; Renfrew 1979; Challands *et al.* 2005; Richards 2005)
Mid Gleniron I	Dumfries /Galloway	stone setting, pit/posthole, hearth, standing stones?	(Corcoran 1964; 1968; 1969)
Middle Hurth	Durham	Mesolithic flint	(Coggins & Fairless 1997)
Midtown of Pitglassie	Aberdeenshire	pits, postholes, occupation debris	(Shepherd 1996)
Millbarrow	Wiltshire	pits; postholes; dark soil	(Thurnam 1869a:201; Whittle 1994)
Nutbane	Hampshire	pit; fire; hearth; mortuary enclosure;	(Morgan 1959; Vatcher 1959)
Orchardleigh	Somerset	hearth; pit	(Gray 1921; 1929)
Orton Longueville	Cambridgeshire	pits (3)	(Mackreth 1983)
Pen y Wyrlod Cairn	Powys	structure?, pit, Mesolithic flint	(Britnell & Savory 1984)
Pentre Ifan	Pembrokeshire	standing stone, postholes, 9 pits	(Grimes 1948)
Pitnacree	Perth and Kinross	cultivation, ground preparation?, postholes	(Coles & Simpson 1965)
Point of Cott	Orkney	Mesolithic activity, pit and slot feature	(Barber 1997b)

Site Name	County	Buried Features/Deposits	References
Port Charlotte	Argyll and Bute	artefact scatter, pits (2), standing stone, hearth	(Pierpoint & Harrington 1976; Newall 1978; Pierpoint & Harrington 1978; Harrington & Pierpoint 1980)
Port St Mary	Isle of Man	Mesolithic occupation	(Swinnerton 1889-94)
Priddy	Somerset	activity area; pit; ground preparation; hearths	(Dobson 1931; Lewis 2002)
Sale's Lot	Gloucestershire	occupation debris; postholes (7)	(O'Neil 1966)
Skelmore Heads	Cumbria	4 standing stones	(Powell *et al.* 1963)
South Street	Wiltshire	cultivation	(Ashbee *et al.* 1979)
Sperris Quoit	Cornwall	trampled ground?; pit; fire	(Thomas & Wailes 1967)
Street House Long Cairn	Cleveland	pits, Mesolithic flint	(Vyner 1984)
Swale's Tumulus	Suffolk	occupation debris	(Briscoe 1957)
The Chestnuts	Kent	Mesolithic flint concentration	(Alexander 1961)
Thickthorn Down	Dorset	timber posts; pits (3); flint knapping	(Drew & Piggott 1936; Bradley & Entwistle 1985)
Tideslow	Derbyshire	standing stone, charcoal deposit	(Radley & Plant 1971)
Tinkinswood	Vale of Glamorgan	stone rows, ground preparation	(Ward 1915; 1916)
Tiverton	Devon	Mesolithic activity; pit	(Smith 1990)
Tow Barrow	Wiltshire	potsherd scatter	(Crawford 1920)
Trefignath	Anglesey	artefact scatter, timber posts, cultivation	(Smith & Lynch 1987)
Tregiffian Barrow	Cornwall	occupation debris; postholes; cultivation	(Borlase 1872; Dudley 1968; Apsimon 1972; Apsimon 1973)
Tulloch of Assery B	Highland	artefact scatter	(Corcoran 1966; Sharples 1986)
Tye Field	Essex	activity area; postholes; stakeholes; pits; Meso flints	(Shennan *et al.* 1985)

Site Name	County	Buried Features/Deposits	References
Wayland's Smithy	Oxfordshire	occupation area; timber posts; pits; fire; postholes	(Peers & Smith 1921; Atkinson 1965; Whittle 1991)
West Kennet	Wiltshire	potsherd scatter; dark soil	(Thurnam 1860b; Piggott 1962)
Whitehorse Hill	Oxfordshire	cultivation?; ground preparation	(Miles *et al.* 2003)
Whiteleaf Hill	Buckinghamshire	timber structure, postholes, stakeholes, pit, artefact scatter	(Childe & Smith 1954)
Willerby Wold	N Yorkshire	pits, stakeholes, dark soil deposit,	(Greenwell 1877:487-490; Manby 1963; 1967)
Windmill Tump	Gloucestershire	pits; postholes; stone setting	(Lysons 1863; Clifford & Daniel 1940; Saville 1989b)

Table C-1 Sites with Possible or Probable Pre-monument Activity

Appendix D Pit Chronology Data (Chapter 6)

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Aldro 88	1			●			N England
Aldro 94	1			●			N England
Aldro 94	2			●			N England
Ascott Under Wychwood	1					●	SW England
Ascott Under Wychwood	2					●	SW England
Ascott Under Wychwood	3					●	SW England
Ascott Under Wychwood	4					●	SW England
Ash Hill Long Barrow	1	●					Central England
Ballaharra	1			●			N England
Ballaharra	2			●			N England
Ballaharra	3			●			N England
Ballowall Barrow	1		●				SW England
Ballowall Barrow	2		●				SW England
Bargrennan	1		●				SW Scotland
Bargrennan	2		●				SW Scotland
Bargrennan	3		●				SW Scotland
Bellshiel Law	1			●			N England
Bigland Round	1	●					N Scotland
Blansby Park 1	1			●			N England
Blansby Park 1	2			●			N England
Boghead Mound	1		●				SE Scotland
Boghead Mound	2				●		SE Scotland
Boghead Mound	3				●		SE Scotland
Boghead Mound	4					●	SE Scotland
Boghead Mound	5					●	SE Scotland
Boghead Mound	6					●	SE Scotland
Boghead Mound	7					●	SE Scotland
Boghead Mound	8					●	SE Scotland
Boghead Mound	9					●	SE Scotland
Boghead Mound	10					●	SE Scotland
Boghead Mound	11					●	SE Scotland
Boghead Mound	12					●	SE Scotland
Boghead Mound	13					●	SE Scotland
Boghead Mound	14					●	SE Scotland
Boghead Mound	15					●	SE Scotland
Boghead Mound	16					●	SE Scotland
Boghead Mound	17					●	SE Scotland

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Bookan	1			●			N Scotland
Bookan	2			●			N Scotland
Bowl's Barrow	1			●			SW England
Brackley	1					●	SW Scotland
Brackley	2			●			SW Scotland
Brampton	1		●				SE England
Brampton	2		●				SE England
Bredon Hill	1			●			Central England
Bridlington Round Barrow	1			●			N England
Bridlington Round Barrow	2			●			N England
Bridlington Round Barrow	3			●			N England
Bridlington Round Barrow	4			●			N England
Bridlington Round Barrow	5			●			N England
Bridlington Round Barrow	6			●			N England
Bridlington Round Barrow	7			●			N England
Bridlington Round Barrow	8			●			N England
Bridlington Round Barrow	9			●			N England
Bridlington Round Barrow	10			●			N England
Bridlington Round Barrow	11			●			N England
Bridlington Round Barrow	12			●			N England
Bridlington Round Barrow	13			●			N England
Bryn Celli Ddu	1					●	Wales
Bryn Celli Ddu	2	●					Wales
Bryn Celli Ddu	3			●			Wales
Bryn Celli Ddu	4			●			Wales
Bryn Celli Ddu	5					●	Wales
Bryn yr Hen Bobl	1				●		Wales
Bryn yr Hen Bobl	2				●		Wales
Bryn yr Hen Bobl	3				●		Wales
Bryn yr Hen Bobl	4				●		Wales
Bryn yr Hen Bobl	5				●		Wales
Cairnholy I	1				●		SW Scotland
Callis Wold 100	1			●			N England
Callis Wold 275	1			●			N England
Callis Wold 275	2			●			N England
Camster Long	1					●	N Scotland
Capel Garmon	1					●	Wales
Capel Garmon	2					●	Wales
Capel Garmon	3					●	Wales
Capel Garmon	4					●	Wales
Capel Garmon	5					●	Wales
Carreg Sampson	1			●			Wales
Cefn Drum	1		●				Wales

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Chapel Carn Brea	1				●		SW England
Chatton Sandyford	1			●			N England
Chun Quoit	1			●			SW England
Cladh Aindreis	1	●					N Scotland
Cladh Aindreis	2	●					N Scotland
Cop Heap	1			●			SW England
Copt Hill	1			●			N England
Copt Hill	2			●			N England
Corton Long Barrow	1			●			SW England
Corton Long Barrow	2			●			SW England
Cowlam 277	1			●			N England
Cowlam 57	1			●			N England
Cowlam 57	2			●			N England
Crarae	1			●			SW Scotland
Crarae	2			●			SW Scotland
Cropton 1	1			●			N England
Cropton 1	2			●			N England
Cropton 1	3			●			N England
Cropton 1	4			●			N England
Cropton 1	5			●			N England
Dalineun	1		●				SW Scotland
Din Dryfol	1	●					Wales
Din Dryfol	2	●					Wales
Din Dryfol	3	●					Wales
Din Dryfol	4	●					Wales
Dry Heathfield Barrow	1			●			SW England
Duggleby Howe	1			●			N England
Duggleby Howe	2			●			N England
Dyffryn Ardudwy	1			●			Wales
Dyffryn Ardudwy	2			●			Wales
East Finnercy	1					●	SE Scotland
Easton Down	1				●		SW England
Elf Howe	1			●			N England
Esh's Barrow	1		●				N England
Esh's Barrow	2				●		N England
Esh's Barrow	3				●		N England
Eynesbury	1		●				SE England
Eynesbury	2				●		SE England
Figheldean 31	1			●			SW England
Fordhouse	1	●					N Scotland
Fordhouse	2	●					N Scotland
Fordhouse	3	●					N Scotland
Fordhouse	4			●			N Scotland

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Foulmire Fen	1			●			SE England
Foulmire Fen	2			●			SE England
Fussell's Lodge	1			●			SW England
Fussell's Lodge	2			●			SW England
Fussell's Lodge	3			●			SW England
Fussell's Lodge	4					●	SW England
Fussell's Lodge	5					●	SW England
Fussell's Lodge	6					●	SW England
Garton Slack 134	1			●			N England
Garton Slack 134	2			●			N England
Garton Slack 137	1			●			N England
Garton Slack 137	2			●			N England
Garton Slack 80	1			●			N England
Garton Slack 80	2				●		N England
Garton Slack 80	3				●		N England
Garton Slack 80	4			●			N England
Garton Slack 80	5			●			N England
Garton Slack 81	1		●				N England
Garton Slack 81	2				●		N England
Garton Slack 81	3		●				N England
Garton Slack 81	4			●			N England
Giant's Grave [Somerset]	1	●					SW England
Giant's Grave South [Dorset]	1			●			SW England
Giants' Hills 1	1					●	Central England
Giants' Hills 2	1			●			Central England
Giants' Hills 2	2			●			Central England
Glenvoidean	1				●		SW Scotland
Great Ayton Moor Chambered Cairn	1			●			N England
Great Ayton Moor Chambered Cairn	2				●		N England
Great Ayton Moor Chambered Cairn	3				●		N England
Grindale Barrow 1	1			●			N England
Handley 27	1				●		SW England
Hanging Grimston	1			●			N England
Harborough Rocks	1				●		Central England
Helperthorpe	1			●			N England
Helperthorpe	2			●			N England
Helperthorpe	3			●			N England
Helperthorpe	4			●			N England
Helperthorpe	5			●			N England
Heslerton VI	1				●		N England
Heslerton VI	2				●		N England

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Heslerton VI	3			●			N England
Heslerton-on-the-Wolds	1			●			N England
Heslerton-on-the-Wolds	2			●			N England
Heslerton-on-the-Wolds	3			●			N England
Heytesbury	1			●			SW England
Holdenhurst	1				●		SW England
Holm of Papa Westray North	1			●			N Scotland
Horslip Long Barrow	1				●		SW England
Horslip Long Barrow	2				●		SW England
Horslip Long Barrow	3				●		SW England
Horslip Long Barrow	4				●		SW England
Horslip Long Barrow	5				●		SW England
Horslip Long Barrow	6				●		SW England
Horslip Long Barrow	7				●		SW England
Horslip Long Barrow	8				●		SW England
Horslip Long Barrow	9					●	SW England
Howe	2		●				N Scotland
Huggate Wold 224	1			●			N England
Huggate Wold 230	1			●			N England
Jackbarrow	1	●					SW England
Julliberries Grave	1			●			SE England
Kelleythorpe II	1		●				N England
Kemp Howe	1					●	N England
Kemp Howe	2					●	N England
Kemp Howe	3					●	N England
Kenny's Cairn	1			●			N Scotland
Kilburn	1			●			N England
Kilburn	2			●			N England
Kilburn	3			●			N England
Kilcoy South	1			●			N Scotland
Kilham Long Barrow	1				●		N England
Kilham Long Barrow	2					●	N England
Kilham Long Barrow	3				●		N England
Kilham Long Barrow	4				●		N England
Kilham Long Barrow	5				●		N England
Kilham Long Barrow	6				●		N England
Kilham Long Barrow	7					●	N England
Kilham Long Barrow	8					●	N England
Kilham Long Barrow	9					●	N England
Kilham Long Barrow	10					●	N England
Kilham Long Barrow	11					●	N England
Kilham Long Barrow	12					●	N England
Kilham Long Barrow	13					●	N England

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Kilham Long Barrow	14					●	N England
Kilham Long Barrow	15					●	N England
Kilham Long Barrow	16					●	N England
Kilham Long Barrow	17					●	N England
Kilham Long Barrow	18					●	N England
Kilham Long Barrow	19					●	N England
Kinchyle of Dores	1			●			N Scotland
King's Play Down	1			●			SW England
King's Play Down	2			●			SW England
King's Play Down	3			●			SW England
Knook 5	1			●			SW England
Knook Barrow	1			●			SW England
Knowe of Craie	1				●		N Scotland
Lambourn	1				●		SW England
Langton 2	1			●			N England
Langton 2	2			●			N England
Langton 2	3		●				N England
Lanhill Barrow	1					●	SW England
Lesquite Quoit	1				●		SW England
Liff's Low	1					●	Central England
Liff's Low	2					●	Central England
Liff's Low	3			●			Central England
Lligwy	1			●			Wales
Lower Luggy	1				●		Wales
Lugbury	1			●			SW England
Lyneham Barrow	1					●	SW England
Maeshowe	1					●	N Scotland
Market Weighton	1			●			N England
Market Weighton	2			●			N England
Market Weighton	3			●			N England
Market Weighton	4			●			N England
Market Weighton	5			●			N England
Mid Gleniron I	1				●		SW Scotland
Mid Gleniron I	2				●		SW Scotland
Mid Gleniron I	3				●		SW Scotland
Midtown of Pitglassie	1		●				SE Scotland
Midtown of Pitglassie	2					●	SE Scotland
Midtown of Pitglassie	3					●	SE Scotland
Midtown of Pitglassie	4					●	SE Scotland
Midtown of Pitglassie	5					●	SE Scotland
Midtown of Pitglassie	6					●	SE Scotland
Midtown of Pitglassie	7					●	SE Scotland
Midtown of Pitglassie	8			●			SE Scotland

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Midtown of Pitglassie	9			●			SE Scotland
Midtown of Pitglassie	10			●			SE Scotland
Midtown of Pitglassie	11				●		SE Scotland
Midtown of Pitglassie	12				●		SE Scotland
Midtown of Pitglassie	13				●		SE Scotland
Midtown of Pitglassie	14				●		SE Scotland
Midtown of Pitglassie	15				●		SE Scotland
Midtown of Pitglassie	16				●		SE Scotland
Millbarrow	1					●	SW England
Millbarrow	2				●		SW England
Millbarrow	3					●	SW England
Millbarrow	4					●	SW England
Millbarrow	5					●	SW England
Millbarrow	6					●	SW England
Millbarrow	7					●	SW England
Moody's Down Southeast	1			●			SW England
Mulfra Quoit	1	●					SW England
Notgrove Long Barrow	1			●			SW England
Notgrove Long Barrow	2			●			SW England
Notgrove Long Barrow	3			●			SW England
Nutbane	1					●	SW England
Nympsfield	1			●			SW England
Nympsfield	2			●			SW England
Nympsfield	3				●		SW England
Oldbury Hill	1			●			SW England
Oldbury Hill	2			●			SW England
Orchardleigh	1				●		SW England
Orton Longueville Barrow 2	1					●	SE England
Orton Longueville Barrow 2	2		●				SE England
Orton Longueville Barrow 2	3		●				SE England
Painsthorpe 118	1			●			N England
Painsthorpe 118	2			●			N England
Painsthorpe 99	1			●			N England
Pant y Saer	1			●			Wales
Pant y Saer	2			●			Wales
Park Farm Barrow	1			●			SW England
Pen y Wyrlod Long Cairn	1					●	Wales
Pentre Ifan	1			●			Wales
Pentre Ifan	2			●			Wales
Pentre Ifan	3			●			Wales
Pentre Ifan	4			●			Wales
Pentre Ifan	5			●			Wales
Pentre Ifan	6				●		Wales

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Pentre Ifan	7					●	Wales
Pentre Ifan	8				●		Wales
Pentre Ifan	9				●		Wales
Pickering (7 Miles East)	1			●			N England
Pinkwell	1			●			SW England
Pinkwell	2			●			SW England
Pipton	1				●		Wales
Point of Cott	1			●			N Scotland
Point of Cott	2					●	N Scotland
Port Charlotte	1			●			SW Scotland
Port Charlotte	2			●			SW Scotland
Priddy Long Barrow	1					●	SW England
Quanterness	1			●			N Scotland
Quanterness	2			●			N Scotland
Quanterness	3	●					N Scotland
Quanterness	4		●				N Scotland
Quoyness	1			●			N Scotland
Raiset Pike	1			●			N England
Raiset Pike	2			●			N England
Raisthorpe Manor	1			●			N England
Redlands Farm	1				●		Central England
Rudstone	1				●		N England
Rudstone	2				●		N England
Rudstone	3				●		N England
Rudstone	4				●		N England
Rudstone	5				●		N England
Rudstone	6				●		N England
Sale's Lot	1			●			SW England
Sale's Lot	2			●			SW England
Saltway Barn	1			●			SW England
Seamer 1	1			●			N England
Shepherd's Shore	1			●			SW England
Sherburn 7	1			●			N England
Sherburn 7	2			●			N England
Sherburn 7	3			●			N England
Sherburn 7	4			●			N England
Sherburn 8	1			●			N England
Sherburn 8	2			●			N England
Sherburn 8	3			●			N England
Sherrington Long Barrow	1				●		SW England
South Side Mount Barrow	1			●			N England
South Street Long Barrow	1		●				SW England
Sperris Quoit	1					●	SW England

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Stockton Barrow	1			●			SW England
Street House Long Cairn	1					●	N England
Street House Long Cairn	2					●	N England
Swale's Tumulus	1			●			SE England
Swale's Tumulus	2			●			SE England
Swale's Tumulus	3			●			SE England
The Ord North	1			●			N Scotland
The Ord North	2			●			N Scotland
The Soldier's Grave	1			●			SW England
Therfield	1			●			SE England
Therfield	2			●			SE England
Thickthorn Down	1					●	SW England
Thickthorn Down	2					●	SW England
Thickthorn Down	3					●	SW England
Three Brothers of Grugith	1			●			SW England
Tideslow	1			●			Central England
Tilshead Old Ditch	1			●			SW England
Tiverton Long Barrow	1				●		SW England
Towthorpe 18	1			●			N England
Towthorpe 18	2		●				N England
Towthorpe 18	3			●			N England
Trefignath	1	●					Wales
Tregiffian Barrow	1		●				SW England
Tregiffian Barrow	2		●				SW England
Twlc y Filiast	1			●			Wales
Twlc y Filiast	2			●			Wales
Twlc y Filiast	3			●			Wales
Tye Field	1	●					SE England
Tye Field	2	●					SE England
Tye Field	3		●				SE England
Vinquoy Hill	1			●			N Scotland
Warden Law	1			●			N England
Warminster 6	1			●			SW England
Warter 254	1			●			N England
West Rudham Common	1				●		SE England
West Rudham Common	2				●		SE England
West Rudham Common	3			●			SE England
West Rudham Common	4			●			SE England
West Tump	1			●			SW England
Whiteleaf Hill	1					●	SE England
Whitesheet Downs	1			●			SW England
Willerby Wold	1					●	N England
Willerby Wold	2			●			N England

Site Name	Pit #	Uncertain	Secondary	Contemporary	Pre-Monument or Contemporary	Pre-Monument	Region
Willie Howe	1			●			N England
Windmill Tump	1			●			SW England
Windmill Tump	2			●			SW England
Winterborne St Martin 43	1			●			SW England
Winterbourne Stoke 1	1			●			SW England
Winterbourne Stoke 1	2			●			SW England
Winterbourne Stoke 1	3			●			SW England
Winterbourne Stoke 44	1			●			SW England
Winterbourne Stoke 44	2				●		SW England
Winterbourne Stoke 53	1			●			SW England
Winterbourne Stoke 53	2			●			SW England
Wold Newton 284	1			●			N England
Wold Newton 284	2			●			N England
Wold Newton 284	3			●			N England
Wold Newton 284	4			●			N England
Wor Barrow	1			●			SW England
Wor Barrow	2			●			SW England
Yarmouth Road	1	●					SE England

Table D-1 Chronology of Sub-Monument Pits

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