

SOLENT THAMES RESEARCH FRAMEWORK RESOURCE ASSESSMENT

THE NEOLITHIC AND EARLY BRONZE AGE

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1. Introduction

1.2 The nature of the evidence

It is often claimed that linear projects such as pipelines or major roads provide a novel perspective on the past. They cannot represent a 'random sample' of archaeological observations because each element does not have the same chance of being selected. Instead, their course is essentially arbitrary and bears no obvious relationship to the geography of any particular period. For that reason the results of monitoring these developments are often surprising, and it is those surprises that provide a stimulus for rethinking archaeological orthodoxies. Regions prove to have been settled where few sites had been known before; rich burials are found outside the small concentrations on which the literature had been based; new kinds of monument are revealed and familiar forms occur in unfamiliar settings. It is not the most obvious way of conducting research, but sometimes the results of this work offer a perspective out of which new approaches to the past can develop.

The same should be true of the Regional Research Assessments, of which this publication is an example. They are concerned with regions of the country which have been selected on the basis of modern administrative arrangements. They lack any real geographical unity, and the relationships between their component parts may well have changed over time. On the other hand, like the road schemes that have done so much to widen the scope of prehistoric archaeology, the process of bringing together what is known about these areas of land can be remarkably productive.

As it happens, the area selected for the Solent Thames Research Assessment has many of these advantages. Like the building of pipelines, it makes archaeologists think harder about some areas that have not played a major part in writings about prehistory - the Isle of Wight, for example, or the Buckinghamshire Chilterns. Quite by chance, it also avoids a region whose monuments have been

over-emphasised in accounts of prehistoric Britain. It is an important challenge to write about the Neolithic period without discussing Hambledon Hill, Stonehenge, Avebury and Durrington Walls, just as it is important to think about an early Bronze Age which does not depend on the rich burials found on the Dorset and Wiltshire chalk. Not only does the Solent Thames corridor avoid these famous groups of monuments, it covers an area in which certain kinds of structure seem to be rare or absent. Causewayed enclosures are unusual outside the Thames Valley and southern Cotswolds; long barrows of classic form are not represented across the entire study area; henges are uncommon or take unusual forms; rich early Bronze Age cemeteries are the exception rather than the norm. That may not be an impediment to research, for it can be argued that, within the wider context of British prehistory, developments in the heart of earlier prehistoric Wessex were altogether exceptional. A framework of more general application may depend on fieldwork in other regions, in particular the major river valleys and the North Sea coast (Bradley 2007).

A few basic points need to be made at the outset. Some of these observations apply to the entire prehistoric sequence; others are specific to the period between 4000 and 1500 BC which provides the subject of this chapter.

1.2 *Inherited landscapes and Neolithic and early Bronze Age land use*

1.2.1. It is no longer satisfactory to suppose that the earlier prehistoric landscape was covered by a continuous canopy of trees (Allen and Gardiner 2009). By the beginning of the Neolithic period some areas had been modified by burning - both deliberate and accidental - and others by natural events, especially storms (Brown 1997). The vegetation cover will also have been affected by the activities of wild animals, by the ecological preferences of different kinds of woodland, and during the Neolithic period by such practices as coppicing and pollarding. There was greater variation than is generally supposed and recent research in Cranborne Chase and on the Yorkshire Wolds suggests that certain areas of chalk downland may never have been covered by primary forest in the way that is commonly supposed (French *et al.* 2007; Allen and Scaife 2007). That is especially important because both these regions contain an unusual concentration of Neolithic monuments. By contrast, there is little to suggest the existence of comparable environments in the study area (Robinson 1992; *in press*; Field 2004; 2008). In the Thames Valley, in particular, but also on the Chilterns, the Berkshire Downs and in Hampshire tree cover was extensive (*ibid.* ; Hey *et al.* *in press*).

1.2.2. The pattern of prehistoric activity cannot be reconstructed on the basis of modern land use. There are areas that provide evidence of continuous occupation, for example the Thames

gravels (Barclay *et al.* 1996), while there are others that show signs of intensive activity in certain phases and little evidence of occupation in others. The character of the local soils has changed significantly. The clay with flints which caps the chalk was intensively used in the Mesolithic and Neolithic periods but was less densely settled during later phases. Similarly, the heathland soils of the New Forest and perhaps the Hampshire Greensand saw a peak of activity during the Bronze Age but since then they seem to have been regarded as marginal land (Field 2008; Bradley and Fraser 2010).

1.2.3. The increase in the number of palaeoenvironmental datasets improves the resolution at which we can look at landscapes and land-use at the site to regional scale (Allen 1997; Allen and Gardiner 2009) and we can now start to re-address some key questions surrounding the presence and use of ‘farmed’ produce versus the presence of a wholly farming economy. The Neolithic may partly be defined by the presence of farming activities, but Neolithic communities may have had a risk-averse strategy which involved hunting and gathering as well as farming (Jones 2000; Moffett *et al.* 1989; Robinson 2000). In addition, the use of domesticated animals does not require a sedentary lifestyle. The issue of the economy of how these communities became largely, or wholly, based around a domesticated food supply requires further study.

1.2.4. While there may be some relationship between the extent of open ground and the choice of certain regions for monument building, it is not correct to use the frequency of earthwork structures to estimate the intensity of occupation in any part of the study area. The construction of such monuments certainly required a significant labour force, but its members could have been drawn from a wider region. Elsewhere in England, some monument complexes are associated with evidence of nearby settlement, but there are others where it is absent (Bradley 2006, chapter 2). In the same way, it is incorrect to suppose that areas which lack large concentrations of field monuments were less intensively occupied. Within the Solent Thames corridor, some of the greatest concentrations of worked flints come from the chalk downland around Basingstoke and from the Chilterns where the density of monuments is unusually low (Gardiner 1984; 1988; Holgate 1988; Field 2004). Moreover, current work on the dating of Neolithic long barrows and enclosures suggests that they could have been constructed during quite specific phases and that they were often short lived (Whittle, Barclay *et al.* 2007). Thus their occurrence may prove to be the exception rather than the rule.

1.2.5. Some of the changes to the natural environment which took place during or after this period have severely biased the archaeological record. In major river valleys like that of the Thames occupation sites and some of the smaller monuments have been buried beneath later deposits of alluvium (Robinson 1992; Evans 1992; Parker and Robinson 2003). Others were

preserved because they occupied the hollows left by former channels and escaped destruction by the plough. On the chalk there is another source of bias, for not only has much of the original topsoil been lost by erosion, this process had led to the accumulation of deep deposits of hill wash on the valley floors. Recent work in Sussex and Kent has shown that these had buried some of the elusive living sites of the Neolithic and Early Bronze Age (Allen 2005; Allen and Scaife 2007). Similar evidence has been identified on the Chilterns and it is probable that the same process happened in other parts of the study area (Evans 1972; Evans and Valentine 1974).

1.2.6. Archaeologists still assign a special status to the archaeology of the chalk. That needs careful consideration. It is true that it is an area with an unusual density of field monuments, but this is only partly due to developments during the prehistoric period. To a large extent the prominence of chalkland monuments is the result of later land use. These structures escaped some of the destructive activities that affected their lowland counterparts. For example, it is often supposed that early Bronze Age burial mounds were sited in prominent positions, yet their overall distribution is most obviously related to important valleys, as it is on the Isle of Wight (Tomalin 1991). The earthworks on the hills have escaped the damage experienced by barrows on the lower ground, and yet it is often the case that a distribution of standing mounds gives way to one of ring ditches. They are discovered by different methods and sometimes they are treated as different kinds of monuments.

1.2.7. The survival of so many earthworks on the high downland introduces yet another bias, for it is often supposed that they were located along 'ridgeways': long distance paths extending between major groups of monuments. The antiquity of these routes is very doubtful. Their course is not reflected by later prehistoric field systems and land boundaries, suggesting that such features as the Berkshire Ridgeway or the Icknield Way did not exist until long after the period discussed here (Harrison 2003). Instead it seems as if the main communications were along the valleys and around the coast. It is likely that rivers were often more significant than land routes. That would certainly help to explain the distribution of major monument complexes beside the Thames, for they are often at confluences (Barclay *et al.* 1996). One interpretation of this evidence is these structures were built where they were particularly accessible.

1.2.8. The traditional emphasis on the Wessex chalk has overlooked the possibility that it was simply the upland component of an enormous territory (or territories), extending along the river valleys to the Channel coast. The importance of the river gravels is widely accepted - and has been since the development of archaeological air photography. In addition to their obvious attraction as places of animal aggregation, valleys would have provided resources such as reeds, coppice carr woodland, muds, clays, sands and gravels used for potting clays and temper,

flooring, walling, roofing and lining features, matting and basketry, and a number of these items would probably have been removed and utilised elsewhere. On the other hand, the significance of the Hampshire Basin has been largely overlooked. Not only does it contain concentrations of earlier prehistoric finds, recent research has shown that many of the most distinctive artefacts of the Neolithic period have been discovered near to the coast of Hampshire, Dorset and West Sussex (Field 2004; 2008). The same applies to some exceptional early Bronze Age burials. Their distribution is not limited to the rivers discharging into the English Channel, but there are problems in investigating parts of the surrounding area, for it is difficult to identify subsoil features in the local brickearths, nor do they respond well to aerial reconnaissance. It is worth remembering that this is the part of the study area with the easiest access to the monuments on the chalk. The same was surely true of the Isle of Wight where too much fieldwork remains unpublished.

1.2.9 Recent work in Langstone Harbour and at Bouldner Cliff and Wootton-Quarr on the Isle of Wight (Allen and Gardiner 2000; Momber 2000; Tomalin *et al.* forthcoming) reinforces and amplifies the evidence of deeply buried peat sequences in Southampton and Portsmouth harbours that has been known for some time (Godwin and Godwin 1940; Godwin 1945; Everard 1954). The Mesolithic rapid sea-level rise of *c* 100 m had a profound effect on the landscape and the availability of resources, and subsequent coastal attrition has removed or submerged parts of the Neolithic landscape, some of which survive in the current sub-tidal and submarine landscape. Just as work on the Severn Estuary and the South Wales coastline has demonstrated the presence of important and unique archaeological evidence (structures, economic and landscape development evidence and very human histories including the presence of the footprints of children), there is good reason to believe that comparable data exist on the Solent fringes.

1.2.10. Questions of prehistoric geography suggest another observation. For a long time the prehistory of southern England has been written using models devised for the archaeology of Wessex. But where did Wessex end? Was its northern limit along the Berkshire Downs where the Bronze age barrow cemetery at Lambourn is very similar to those on Salisbury Plain, or did it reach as far as the River Thames where the monuments at Radley Barrow Hills share similar characteristics? It is worth considering whether such monuments were typical or exceptional. In the same way, it is certainly tempting to compare the major groups of sites at Dorchester-on-Thames and Stanton Harcourt with similar concentrations of henges and round barrows on the Wessex chalk, but this is to overlook a vital difference. Enclosures like Durrington Walls, Marden or Mount Pleasant are associated with enormous numbers of artefacts and animal bones. In the superficially similar monuments of the Thames Valley they do not occur. Nor are they found at Avebury. Although the latter site is located on the chalk, it is at the headwaters of the

River Kennet and directly linked to the Thames by this major tributary. Perhaps it might be wiser to think in terms of two related but largely autonomous areas and to study each in its own terms.

1.2.11. The archaeology of the Chilterns raises a similar problem. To the south this area is obviously related to the archaeology of the Middle Thames, but to the north it overlooks an extensive tract of lower ground which extends beyond the county of Buckinghamshire, and thus outside the study area. In some phases its archaeology has close connections with that of the East Midlands. As in many other cases, it is impossible to discuss the earlier prehistory of the Solent Thames region without transgressing its boundaries.

1.3 Chronology

Finally, it is essential to make proper use of current chronologies. Unfortunately, the most detailed sequence applies to only one area: the Upper Thames and the Cotswolds (Whittle, Barclay *et al.* 2007). No doubt it will play a part in future research, but at present this model should not be used across a larger region; indeed, a different phasing is already proposed for the Avebury area. Otherwise the period labels applied to earlier prehistory are rather unsatisfactory and say more about the development of the discipline than they do about the material being studied (Whittle and Bayliss 2007).

It is not quite clear when the Neolithic period began or when the Mesolithic ended. Nor has it been demonstrated that the artefact assemblages to which these terms refer were actually used together. At present the Mesolithic/Neolithic transition may have happened by 4000 BC or as late as 3800 BC (Whittle 2007). That has important implications for the rate of change. Early Neolithic ceramics were undecorated, and certain styles of pottery and monuments can be assigned to a Middle Neolithic phase, but that scheme does not extend to surface flintwork which provides one of the main clues to the distribution of settlement.

There have been changes in the dating of Neolithic pottery and it is now known that Peterborough Ware was used during the Middle Neolithic period; before it had been assigned to the Late Neolithic. That has important implications for the classification and chronology of field monuments. The Late Neolithic period saw the end of that ceramic tradition and its gradual replacement by Grooved Ware. It is possible to identify the flint artefacts of the Late Neolithic but the same technology continued with little modification into the early metal age, so that once again different categories of material cannot be dated with the same amount of precision.

The problem does not end with the first use of metalwork. It would be logical (and consistent with Continental usage) to talk of a Copper Age associated with the first use of Beaker pottery, but British archaeologists have taken a different course, writing either of a 'metal-using Neolithic' or assigning this phase, quite inappropriately, to an 'Early Bronze Age'. Finer subdivisions have been suggested on the basis of Beaker pottery and the classification of the oldest metal artefacts, but these schemes need finer resolution through radiocarbon dating. The first use of bronze followed at about 2200 BC, and the period between then and the beginning of the middle Bronze Age is subdivided on the basis of the artefacts found in burials and hoards. Such work requires further refinement, as there is practically no absolute dating evidence for the graves of the Wessex Early Bronze Age. In any case it is hard to apply such schemes to surface finds or to discoveries of domestic sites.

As a result of these difficulties, the account that follows must be expressed in very general terms. Except where more exact information is available it will distinguish between just three periods: an earlier Neolithic which combines the early and middle phases and ran from about 4000 to 3300 BC or a little later; a late (here later) Neolithic period extending to about 2200 BC; and an early Bronze Age which lasted until the middle of the 2nd millennium BC.

2 The earlier Neolithic

2.1 Landscape, settlement and land use

The earliest Neolithic settlement: transitions

Although the study area extends down to the English Channel coast, there is little evidence for how the Neolithic period began or for the respective roles of indigenous hunter gatherers and immigrants from the Continent. Even so, enough is known to establish that cereals, domesticated livestock and fine pottery had all been introduced from the European mainland (Whittle and Cummings 2007). The remains of cereals are mostly found towards the beginning of the Neolithic period, and wild plant foods, particularly hazelnuts, are more common during subsequent phases (Hey *et al.* in press). Wild animals, however, contributed little to the diet, and some species may have been hunted for their pelts (Serjeantson 2006, 119-21).

There are certain areas in which it is possible to compare the distributions of artefacts belonging to both Mesolithic and Neolithic traditions. The clearest evidence probably comes from the Kennet Valley where there is evidence for a long Mesolithic sequence (Hey *et al.* in press). The local environment had been modified by burning, and it seems possible that salmon fishing was important

as well as the hunting of large game. Although the river rises in the heart of the Avebury complex, the distributions of diagnostic Mesolithic and Neolithic material only partially overlap (Richards 1978; Whittle 1990). In particular, there is less Neolithic evidence than one might expect from the valley between Hungerford and the confluence of the Kennet and the Thames (Ford 1987a). This may form part of a wider pattern as fieldwork across the Dorset border in Cranborne Chase suggests that the distribution of earlier Neolithic artefacts and monuments complemented that of late Mesolithic rod microliths. A similar pattern has been postulated in the Windrush Valley and part of the Middle Thames Valley (Barclay 2000; 2007).

In other cases artefacts belonging to both traditions are found together, but it is impossible to tell whether they were used simultaneously. That is true on the clay with flints which mantles areas of the Hampshire chalk, and the same applies to the evidence from sites in some of the major river valleys, such as Eton Rowing Lake on the Thames or Chesham on the Colne (Gardiner 1988; Holgate 1988; Hey and Barclay 2007; Allen *et al* in prep.). Unless deeply stratified deposits like those in the Fenland can be found it will be difficult to make much use of this evidence. A suitable site was recorded in the 1930s in the Newtown Estuary on the Isle of Wight (IWCAHES 2000). In any case a radiocarbon chronology is essential. One site where this has been achieved is the chambered cairn at Ascott-under-Wychwood which had been built over a land surface with successive episodes of Mesolithic and Neolithic occupation (Benson and Whittle 2007).

Resource exploitation

It is clear that land was being cleared from the beginning of this period, although there is insufficient environmental evidence from the study area to shed much light on this process. On the other hand, small-scale excavations on the Hampshire/Wiltshire border have located extensive groups of flint mines at Easton Down and Martin's Clump (Barber *et al.* 1999). They were producing axes suitable for felling trees. Much less is known about these complexes than their well-known equivalents on the South Downs where the main period of production was during the earlier Neolithic. Martin's Clump has one radiocarbon date from the very beginning of this period, but the only date from Easton Down spans the middle and late Neolithic periods and its reliability has been questioned. There is not enough evidence to establish the chronology of the complex as a whole. It has been claimed that there were other flint mines at Peppard Common in south Oxfordshire (Peake 1913), but here it seems more likely that a medieval chalk quarry had been dug through a surface scatter of Neolithic artefacts, a situation which also applies to claims of mines on Pitstone Hill, Buckinghamshire (Barber *et al.* 1999, 2, 79). Railway construction in the early 20th century at High Wycombe, was also said to have uncovered flint mines along with an antler pick, but this was not borne out by recent work (Palmer 2004, 7).

2.2 *Occupation sites and structures*

It is commonly supposed that evidence of earlier Neolithic settlement is difficult to identify. To some extent this is true, as some of the excavated assemblages are very small. Moreover, much of the relevant material may have been deposited in pits when a living site was abandoned, making it particularly difficult to locate from surface finds; that was particularly true during the middle Neolithic phase (Thomas 1999; Pollard 1999; Lamdin-Whymark 2008). Such pits can be found in isolation or as clearly-defined clusters. They may also be scattered over an extensive area of land. It is hard to interpret these patterns which presumably reflect differences in the duration and intensity of occupation, although it is clear from radiocarbon dating that certain preferred locations were returned to several times. On the other hand, large scale field survey has been quite successful in establishing the extent of Neolithic settlement in a number of different areas. That is particularly true around the Goring Gap in the Thames Valley where the mapping of artefacts in the modern ploughsoil has documented a progressive expansion in the settled area, extending from the land beside the river onto the lower slopes of the Chilterns (Ford 1987b). More evidence has been recovered by surface collection around the confluence of the Thames and the Ock, in East Berkshire, the Avon and Meon valleys and again on the west Berkshire Downs (Abingdon Area Archaeological Society; Ford 1987a; Richards 1978; Field 2008). They are consistent with the broader patterns identified in studies of provenanced museum and private collections by Julie Gardiner and Robin Holgate (Gardiner 1988; Holgate 1988).

Recent fieldwork in two areas has added a new dimension to these studies. The first is the Middle Thames near to Eton. At Eton Rowing Lake it seems that earlier Neolithic settlement took place close to the river, but in this case it was documented not by a small flint scatter or a group of pits, but by extensive middens which included large quantities of artefacts and faunal remains (Allen *et al.* 2004). Smaller foci were certainly identified nearby, one of them where arrowheads were being made (Lamdin-Whymark 2008). Again such discoveries raise the question of whether certain places were occupied more intensively, or for longer periods, than others. It may be significant that until these deposits were found by excavation, the densest surface scatters of earlier Neolithic artefacts came from the sites of causewayed enclosures. There is at least one such monument near to the middens at Eton Rowing Lake, so the similarity between such deposits may be more than a coincidence. Indeed, given the dating evidence from such monuments, the activities associated with the earliest middens may be the precursors of those associated with enclosures (Bradley 2006; Lamdin-Whymark 2008).

Another important field project took place on Quarr Beach on the Isle of Wight where ephemeral timber structures are still preserved in the intertidal zone. They probably result from specialised

activities rather than sedentary occupation and include the remains of three timber trackways and those of a possible fish trap located in a palaeochannel (Tomalin *et al.* forthcoming).

Such evidence is exceptional. In discussing earlier Neolithic settlement it is usual to distinguish between three widespread phenomena: occupation sites characterised by pits; those where occupation debris had accumulated on a land surface; and the few examples where traces of buildings survive. That may be inappropriate, for it is clear that even where pits or tree holes were filled with a carefully selected group of material it had probably been collected from a midden (Evans *et al.* 1999; Lamdin-Whymark 2008). In an initial phase these deposits were usually placed in the hollows left by fallen trees, but in later phases pits were used in a similar way. They may have been dug for the purpose. It is important to establish why some middens were left intact whilst others were dispersed. Guttman (2005) has suggested that this happened because they were reused as cultivation plots. In the same way, the striking absence of houses from settlement sites in the study area can be interpreted in more than one way. It may provide evidence of a mobile pattern of settlement in which few places were occupied continuously or for long, but it is also possible that the domestic buildings did not make use of uprights bedded in the subsoil. The discovery of a plank-built trackway in Somerset which dates from the beginning of this phase may be relevant here (Coles and Coles 1986).

The structural evidence from the study area is meagre, but it gives the same impression of diversity. There was at least one timber structure beneath the cairn at Ascott-under-Wychwood on the Cotswolds (Benson and Whittle 2007), as there was at the comparable site of Hazleton North in Gloucestershire (Saville 1990). These were accompanied by middens. The excavated features at Ascott allow more than one interpretation. They may either represent two small buildings with a hearth in between them, or the excavated postholes might mark the positions of the end walls of a rectangular structure 9 m long and 4 m wide; that is suggested by the distribution of artefacts on the site. On the other hand, traces of a larger building of a kind more familiar in Ireland and Western Britain have been found on the Thames floodplain at Yarnton (Hey *et al.* in prep.). It was so substantial - it measured about 20 m by 14 m - that similar features would have been recognised on other sites if they had occurred. The Yarnton 'house' may have been a domestic dwelling, but, like the large timber halls of this phase in Scotland, it was associated with a limited number of artefacts. It also included a small amount of cremated bone. A slightly later structure, perhaps belonging to the end of the 4th millennium cal BC, has recently been identified at Horton, Berkshire. It was *c* 8 m by 5 m, and defined by a wall trench in which uprights and the traces of plank walling could be discerned (Alistair Barclay pers. comm.)

2.3 *Ceremony, ritual and religion*

The domestic site at Ascott-under-Wychwood was buried beneath a chambered cairn (Benson and Whittle 2007). That connection is important for the monuments of earlier Neolithic date are complex structures. There are three kinds to consider. They probably appeared in the study area in the following order: first, long barrows and related monuments; then causewayed enclosures; and, finally, cursuses. Their distributions are not the same. The mounds are found across most parts of the Solent Thames region, but causewayed enclosures and cursuses are mainly a feature of the Thames, its tributaries and the southern edge of the Cotswolds. The contrast should not be exaggerated, as causewayed enclosures are common in Sussex, Wiltshire and Dorset, and cursuses and related monuments occur on the Wessex chalk.

Funerary monuments

The long mounds show considerable diversity. Properly speaking, they can be divided between barrows on the chalk and the river gravels, and cairns on the Oxfordshire Cotswolds. Other structures, like that at Holdenhurst on the Channel coast, were partly built out of turf. Although the forms of the mounds range from sub-oval monuments to long rectangular structures, their building was often the last event in a lengthy sequence (Field 2006; Bradley 2007. 54-9). The wooden structures concealed beneath them are very varied, and the same is true to a lesser extent of the megalithic chambers identified on Cotswolds and the Berkshire Downs (Darvill 2004).

Some of the best excavated structures are actually the most problematical. The Holdenhurst long barrow did not include a mortuary structure apart from a slight oval mound (S. Piggott 1937), whereas the example at Nutbane was preceded by a sequence of large timber buildings (Mallet Morgan 1959). In this case the finished monument was set on fire: a practice more common in Northern Britain. The megalithic tombs are almost as diverse. The cairn at Ascott-under-Wychwood was constructed in a series of bays and underwent some modification before it was completed (Benson and Whittle 2007). The deposits of human remains were enclosed within side chambers of quite modest proportions and accumulated over a period of between three and five generations. Wayland's Smithy was a more massive trapezoidal monument with a considerable forecourt bounded by tall standing stones (Whittle 1991). They provided access to a set of transepted chambers conceived on an equally extravagant scale. An unusual feature is that it overlay the remains of a smaller oval barrow with a mortuary structure defined by two split tree trunks. In this case the deposits of human remains had accumulated over a single generation. On the Cotswolds the equivalents of these early timber structures could be the portal tombs of the Whispering Knights and the Hoar Stone, neither of which may have covered by a cairn (Lambrick 1988). Little is known about the contents of these stone chambers, but Ascott-under-Wychwood was associated with the bones of about twenty people whose remains had been treated in a variety of different ways. Some

were introduced to the monument as intact bodies, but other corpses were incomplete. The timber monument at Wayland's Smithy was significantly later in date (Whittle, Bayliss and Wysocki 2007). It housed the remains of about fourteen people who had been placed there as intact bodies; few of the bones from the megalithic tomb on the same site now survive. In neither case do the burials seem to have acknowledged any differences of status, although it is clear that only a small section of the population can be represented by the finds from such monuments. At both Wayland's Smithy and Ascott-under-Wychwood at least one, and possibly more, of the people buried had been killed by an arrow.

Wayland's Smithy illustrates another important point, for the earliest mound was built between forty and a hundred years after the burials were deposited (*ibid.*). Although an entire monograph has been devoted to the long barrows of Hampshire (RCHME 1979), they had little in common until their use came to an end. It was only then that a mound or cairn was built to 'close' these sites. Moreover, the distinctive structures that were often concealed beneath them can also be found in isolation, although this is rarely acknowledged. It is probably true of rectangular ditched enclosures, like the example at Dorchester-on-Thames which was associated with a human jaw, and of the distinctive structures in which other human remains were deposited (Whittle *et al.* 1992). An isolated example was identified at Radley Barrow Hills (Barclay and Halpin 1999), and another was inside an insubstantial enclosure at New Wintles Farm in the Upper Thames (Kenward 1982). There were Neolithic graves that may never have been accompanied by a mound, like the small cemetery outside the Abingdon causewayed enclosure (Barclay and Halpin 1999) or two other flat graves found during excavation at Eton Rowing Lake (Allen 2000).

Not all the mortuary monuments were long barrows or long cairns. Oval barrows were at least as important and may have had a wider distribution than is apparent without excavation. Such structures had a lengthy history and were often defined on three sides by a ditch which was later extended to close off access to the monument. Again they occur in a variety of different sizes, from the ephemeral oval mounds found at sites like Radley Barrow Hills to more considerable earthworks. A U-ditched barrow at Horton in the Middle Thames was later enclosed by ring ditch associated with Peterborough Ware (Ford and Pine 2003), whilst the recently re-excavated site at Whiteleaf on the Chilterns was probably associated with a timber structure comparable to that at Wayland's Smithy (Hey *et al.* 2007). Again it was not buried immediately, and the barrow was not built over it for another hundred years. That earthwork was rebuilt several centuries later towards the end of the middle Neolithic period. Other monuments of this type covered shallow graves, sometimes those of intact bodies accompanied by distinctive artefacts. A variant of the oval barrow is an earthwork enclosure at Freshwater on the Isle of Wight (Tomalin 1980). It shares its characteristic ground plan but in this case no mound was constructed.

The study area also contains the sites of a number of Neolithic round barrows. The best known example is at Linch Hill Corner in the Upper Thames where a single body was accompanied by grave goods similar to those from the oval mound at Barrow Hills (Grimes 1960). Other examples are recorded at Mount Farm, Berinsfield, Wallingford in Oxfordshire, Park Farm, and Lambourn in Berkshire (Lambrick and Hayden forthcoming; Moorey 1984; Richards 1986-90). Other examples may occur on the Chilterns (Dyer 1961), and there may have been one at Winnall Down in Hampshire (Fasham 1982). It is likely that similar monuments once existed across most of the study area, although they have seldom been recognised. That has happened for two reasons. Some examples have been wrongly identified as 'hengiform enclosures': the sites of circular earthworks allied to the henge monuments of the later Neolithic period. In some cases it seems more likely that the ditch enclosed a mound. Sites have also been dated to that phase because they are associated with Peterborough Ware, a style of pottery which is now known to have developed during the later 4th millennium BC. Neolithic round barrows had a shorter history than was once supposed, and in England there is no convincing evidence that they were employed for burials between about 3000 BC and the Beaker period (Bradley 2007, chapter 3). It is likely that round and oval barrows originated at much the same time as the classic long mounds and long cairns, but it remains a possibility that in southern England they were used after the building of the larger mortuary monuments had lapsed.

How were all these structures related to other features of the landscape? Their relationship to the settlement evidence is very varied. There are certainly cases in which substantial monuments were created within the domestic landscape. If the chambered cairn at Ascott-under-Wychwood was built over an earlier occupation site, the old land surface beneath Wayland's Smithy had been tilled (Benson and Whittle 2007; Whittle 1991, 92). There are also cases in which prominent mounds, like the recently identified example at Uffington in Oxfordshire (Miles *et al.* 2003), may have overlooked more distant areas of settlement. On the chalk individual monuments were often situated along the heads or flanks of valleys overlooking lower ground. Their distribution sometimes follows the springline. But all these examples relate to the 'classic' forms of monuments that are still preserved on the downland and the Cotswolds. They are massive structures associated with substantial ditches or quarries. The remains of such monuments would be easy to identify from the air or by geophysical survey, and yet their distribution rarely extends down into the river valleys. There are a few examples in the Upper Thames (Hey *et al.* in press), but they are quite exceptional. Otherwise the lower ground contains a much wider variety of monuments, including smaller mounds and enclosures, oval or U-ditched barrows, round barrows and ring ditches (Bradley 2007, 78-87). Most of them have been identified as a result of excavation on the gravels, and it is likely that they were more common than presently appears. It seems quite possible that they were also more closely integrated into the settled landscape - perhaps it was only the larger structures that had to be viewed from a distance

It is often suggested that the distribution of long barrows was closely allied to that of causewayed enclosures, but this is another case in which the evidence from the Wessex chalk has been treated as the norm. It is certainly true that there are such enclosures around the edges of the main concentrations of long barrows in Sussex, Dorset and Wiltshire, but this does not seem to have happened in Hampshire or on the Chilterns. Nor is a similar pattern clearly recognisable on the Cotswolds. Instead, the distribution of causewayed enclosures extends along the Thames and its tributaries, with significant gaps between the main concentrations of monuments (Oswald *et al.* 2001). If these enclosures are connected with mortuary monuments, then they are probably the small oval and circular structures associated with inhumation burials. The closest connection between the two types is probably at Abingdon where the Radley oval barrow was one of a pair built alongside an older causewayed enclosure. Like that enclosure, the excavated monument was associated with carefully placed deposits of antler and human bone (Bradley 1992). The primary burials were of two adults associated with an arrowhead, a polished knife and a belt ornament.

Ceremonial monuments

In fact the Abingdon causewayed enclosure is the only example in the Solent Thames corridor to have been excavated on any scale. Even this work poses problems, for none of the excavations took place recently. Leeds (1927; 1928) examined the site before it was generally accepted that the distribution of such monuments extended beyond the chalk, and Avery's work was conducted and published on the premise that this was an occupation site (Avery 1982). It is possible to recognise some features that Abingdon shares with more recently investigated sites - the presence of inhumation burials and disarticulated human bones, the lavish consumption of meat, the deposition of considerable deposits of cultural material in its inner ditch - but the work was not on a sufficient scale to permit a fuller discussion. At one time it seemed possible that its earthworks were constructed in sequence - first a causewayed ditch associated with deposits of cultural material, and then a continuous defensive barrier enclosing a larger area (Case 1956; Bradley 1986) - but this hypothesis was based on analogy with monuments in other regions and is not supported by radiocarbon dating (Bradley 1986). Still less can be said about similar enclosures at Gatehampton (Allen 1995) and Eton Wick (Ford 1991-3) where the excavation merely confirmed the Neolithic character of the monuments. The latter site is chiefly of interest because of its proximity to the middens at Eton Rowing Lake. The small scale of the fieldwork carried out at these sites needs to be redressed in the future.

Both long barrows and causewayed enclosures form parts of broader traditions with their origins in Continental Europe. That is not true of cursus monuments or bank barrows, which were first built in Scotland. The earliest examples were contemporary with causewayed enclosures in the south, but

those found in the study area are significantly later in date (Barclay and Bayliss 1999). In some parts of the country cursuses or bank barrows cut across the sites of older causewayed enclosures, but in the Solent Thames corridor these different kinds of earthwork were generally located in different areas (Barclay *et al.* 2003; Loveday 2006). Although both groups could be close to the Thames and its tributaries, cursuses seem to have been built in the gaps in the distribution of existing enclosures. The classification of these earthworks has created difficulties. All are elongated monuments which generally take the form of long rectangular or oval enclosures with an internal bank, but the unusually narrow example at North Stoke (Case 1982) was probably a bank barrow with a central spine of excavated gravel - there would not have been enough room for an open space within it. In fact the remains of an axial bank can be recognised on aerial photographs of the site.

The cursus monuments of the study area tend to be found in groups, although it is not clear whether they were all used at the same time. At Drayton it seems possible that two of these monuments were built end to end on either side of a stream (Barclay *et al.* 2003), but in other cases they ran roughly parallel to a major watercourse or approached it at right angles. Thus the Dorchester-on-Thames cursus approaches the River Thame but it may also be aligned on the midwinter sunrise (Bradley and Chambers 1988). A new cursus was discovered in 2009 in a quarry at Wolverton, Milton Keynes (Sandy Kidd pers. comm.). None of the monuments attains the exceptional length of the Dorset or Rudston cursuses, nor is the modest bank barrow at North Stoke of similar length to the recently excavated example at Stanwell in the Middle Thames.

Rather than causewayed enclosures, cursuses are associated with oval barrows, with U-ditched barrows or enclosures and with smaller rectangular earthworks, all of which seem to be related to the tradition of long mounds. The Drayton cursus is found with one of the few conventional long barrows on the river gravels and points towards an excavated site associated with earlier Neolithic pottery at Corporation Farm, Abingdon (Barclay *et al.* 2003). This has been interpreted an early henge but may have been another oval barrow. In fact the precise relationship between these features varies from site to site. An individual monument may be aligned on an older enclosure, as happened at Dorchester-on-Thames and North Stoke (Whittle *et al.* 1992; Case 1982); it may incorporate existing monuments in its path, for example at Dorchester-on-Thames and perhaps the nearby site at Stadhampton; or other mounds may be built beside it, reflecting its long axis. The clearest examples of this pattern are found at Drayton and Benson (Barclay *et al.* 2003).

It is difficult to say much about the roles played by these extraordinary structures even though a substantial length of the Dorchester-on-Thames cursus has been stripped and smaller excavations have taken place at Drayton and Lechlade. Few artefacts have been found on these sites and until comparatively recently it was assumed, quite wrongly, that they were built during the later Neolithic

period. That was partly because it had been difficult to find suitable samples for radiocarbon dating. Bank barrows may be interpreted as massively extended long mounds, and cursuses perhaps stood in a similar relationship to the elongated enclosures associated with mortuary monuments. It is certainly true that their main association is with human remains. Few of these have been found, and even fewer have been directly dated, but disarticulated fragments of human bone are associated with the monuments at Dorchester-on-Thames and Drayton (Whittle *et al.* 1992; Barclay *et al.* 2003). Still more important is the way in which these structures seem to be integrated with Neolithic funerary monuments of kinds described earlier in this chapter. Although cursuses are often described as processional avenues, not all of them are provided with entrances and this interpretation may be incorrect. Alternatively, they may originally have been open, and the terminals were added later to 'close' these monuments (Barclay and Harding eds. 1999; Bradley 2007, 66). The problem needs investigating by targeted excavation.

The areas around the causewayed enclosures and cursuses include a number of pits whose contents had apparently been selected from middens, but in the Middle Thames Valley there is also evidence for the purposeful deposition of artefacts in the river itself. Some of them may have accompanied human remains (Bradley 1998; Lamdin Whymark 2008). The main artefacts selected for this purpose were axeheads, often of non-local origin, and vessels of Peterborough Ware. This practice continued during the later Neolithic period.

3. The later Neolithic

3.1 Landscape, settlement and land use

It is not always easy to synchronise the chronology of Neolithic monuments with that of flintwork. Still more rarely is it possible to harmonise the dating of this material with the currency of particular pottery styles. Nevertheless the results of fieldwalking still provide some indications of the changing pattern of settlement.

Field surveys and studies of older collections show that a greater area of the landscape was occupied during this phase (Holgate 1988; Gardiner 1988). Recent work in Langstone Harbour suggests that more use was also being made of specialised environments (Allen and Gardiner 2000), and the same may be true on the Isle of Wight where ephemeral wooden structures were still being built in the intertidal zone at Quarr and at Pelhamfields Beach (Tomalin *et al.* forthcoming). At the same time, there are indications that certain areas were being more intensively occupied during this phase. One

was almost certainly the clay with flints which was both an important focus of settlement and a significant source of lithic raw material. The density of surface finds increased and so did their diversity. No longer are settlements marked by small scatters of worked flints. Instead domestic debris spreads over a more extensive area. To some extent this is due to different cultural practices for there is less reason to believe that the remains of middens were buried when occupation ceased (Lamdin-Whymark 2008). Even so it seems likely that occupation sites were larger and that settlement was more sustained.

Environmental evidence from across the region suggests that more extensive settlement nevertheless took place within a wooded landscape with a mosaic of small and shifting clearings (Field 2008; Robinson in press). Even on the Yarnton floodplain, which had seen repeated use since the early Neolithic, woodland prevailed and middle Neolithic clearings seem to have become revegetated (Hey *et al.* in press). Exceptions to this pattern were found around some major monument complexes, such as the Devil's Quoits at Stanton Harcourt where snails from the henge ditches showed grazed grassland at this time (Evans 1995); pollen from a fen between the Abingdon causewayed enclosure and Radley oval barrow indicates a similar situation here (Parker 1999). One interesting outcome of recent work on charred plant remains at both Yarnton and the Eton Rowing Course, is a reduction in charred cereals on these sites (Robinson in press), correlating with more widespread evidence from pit deposits of continued reliance on woodland plants in the later Neolithic (Moffet *et al.* 1989; Robinson 2000). Animal bone assemblages, on the other hand, indicate the importance of domestic animals, principally cattle. The, as yet, small number of studies of lipids in pottery suggests an increase in the presence of animal fats and fewer dairy products (Copley *et al.* 2003).

3.2 Occupation sites and structures

Unfortunately, there is little structural evidence to relate to these general trends. The main information is still provided by the contents of pits, some of which were carefully organised on their deposition in the ground (Thomas 1999; Lamdin Whymark 2008). This is a particular feature of those associated with Grooved Ware and is most apparent in the vicinity of monuments (Barclay 1999; Bradley 2006), although the distribution of later Neolithic pits extends into areas like the Vale of Aylesbury where monumental earthworks have yet to be found. Few intact surfaces have been preserved, although it did happen at a number of sites on the Isle of Wight where a large number of artefacts were preserved beneath later mounds (Alexander *et al.* 1960; Tomalin 1980). There is similar evidence from the Bronze Age round barrow at Bishop's Waltham in Hampshire and from similar sites on the Berkshire Down (Ashbee 1957; Richards 1986-90). Only one domestic building can be attributed to this phase. This is a sub-rectangular structure at Yarnton in the Upper Thames which was associated with Grooved Ware (Hey *et al.* in press; in prep.). There is comparable

evidence from recent excavations at Durrington Walls, but in Cranborne Chase there are small circular buildings of the same date; it is not clear whether the use of round houses was a new development, as a small ring of post holes at Yarnton dates from about 3600 BC (Barrett *et al.* 1991; Hey *et al.* in press; in prep.). Later Neolithic buildings were often insubstantial, and the same applies to those of the Beaker ceramic phase which seem to have been equally ephemeral. Their remains are usually marked by small concentrations of stake holes, like those at Snail Down in Wiltshire. None is recorded from the Solent Thames corridor, but pits associated with Beaker pottery are widely distributed.

3.3 Ceremony, ritual and religion

The archaeology of this period is characterised by discontinuity. The forms of the major monuments do not seem to be directly related to those of the previous phase, nor are they always found in the same areas. Moreover, the Grooved Ware tradition which is usually associated with the construction and use of henges seems to have originated in Northern Britain and possibly in Ireland (Harding 2003; Bradley 2007, 116-32).

The significance of these points is not always appreciated, perhaps because the field archaeology of the Wessex chalk has distorted prehistorians' perceptions of its wider context. For example, it is often asserted that causewayed enclosures were the direct precursors of henge monuments. That seems most unlikely as there is an interval of perhaps five hundred years between the uses of these traditions in the south. Moreover, the two kinds of enclosures actually have little in common apart from an approximately circular outline. The last diminutive earthworks in the older tradition seem to be exactly circular, but they still possessed internal banks and were employed in the same ways as their predecessors. One example was the earthwork at Stonehenge, which has lent its name to a style of prehistoric architecture to which it does not belong. In the Solent Thames corridor its closest counterpart may be a small enclosure at Radley (Oswald *et al.* 2001). It is known only from crop marks and remains unexcavated.

There seems no reason to postulate the continuous development of enclosures in southern England when the earliest henges have been identified in Northern Britain where they developed together with Grooved Ware. Both were adopted in lowland England at a later date, although it is unlikely that enormous monuments such as Mount Pleasant and Durrington Walls were among the first to be built there (Bradley 2007, 116-32). Even in Wessex it is clear that smaller henges predate these massive structures. So do the earliest deposits of Grooved Ware.

The evidence from the Wessex chalk is deceptive in yet another way for it has been used to emphasise the spatial continuity between causewayed enclosures and major henges. There are problems with this scheme, for the distances between supposedly successive monuments actually vary greatly and this interpretation was put forward before it was recognised that cursuses were used in between the latest causewayed enclosures and the construction of henges. Nevertheless it had been tempting to postulate a process of social evolution extending throughout the Neolithic period and even into the Early Bronze Age. That attractive notion must be abandoned.

There is no such evidence from the study area. Here there are at least three major henges, all of them in the Upper Thames (Barclay *et al.* 1996); a fourth may have been identified beneath the city of Oxford (Steve Ford pers. comm.). None corresponds to the site of a causewayed enclosure, but one is located beside an older cursus. Moreover even these henges are smaller than the well known examples on the Wessex chalk, the only exception being the group of earthwork enclosures at Knowlton. Moreover, the henges identified in the Thames Valley lack some of the principal associations of the well known examples on the downland. They are not accompanied by large circular mounds like those at Knowlton, Marden or Silbury Hill, nor is there any evidence of nearby palisaded enclosures such as those at West Kennet or Greyhound Yard, Dorchester, Dorset. Two of the sites in the study area have been excavated on a large scale and did not enclose enormous timber structures of the type found in Dorset, Wiltshire or south-west England (Whittle *et al.* 1992; Barclay *et al.* 1995). Not only are these monuments of a rather different kind, none has been discovered in the remaining parts of the Solent Thames corridor where later Neolithic monuments appear to be rare or absent. The same applies to the region east of the study area. Possible henges have been suggested on the South Downs in Sussex, but none is convincing, and only a single example is clearly documented in Kent.

One of the Oxfordshire monuments, Big Rings at Dorchester-on-Thames, is even more distinctive (Whittle *et al.* 1992; Loveday 1999). Like Condicote on the Gloucestershire Cotswolds, it was defined not by one ditch but by two, and in this case the earthworks were widely spaced. This unusual procedure can only be paralleled among the henge monuments of north-east England, again emphasising the point that this tradition was not of local origin (Harding 2003). The sequence of monuments at Dorchester-on-Thames has further implications, for the enclosure of Big Rings was built alongside a major cursus. There is no evidence of a causewayed enclosure in the vicinity.

The Dorchester-on-Thames cursus had led between a series of pre-existing earthworks, including an oval ditched enclosure and the likely remains of a round barrow. This alignment faced the midwinter sunrise and seems to have retained its importance for several hundred years (Bradley and Chambers

1988). During the later Neolithic period a series of small circular monuments was built in its path and others were constructed just outside it. Despite the lapse of time, they shared its orientation. Most of these structures had a single entrance, but their perimeters were defined in a variety of different ways. Some were surrounded by ditches; some were probably circles of pits, although this has been questioned (Gibson 1992); and in at least one case there was a ring of massive upright posts. Individual examples were rebuilt, but it is not clear how many of them were used simultaneously. Even so, it is probably correct to compare them with the features of a henge. There was a similar pit circle on the nearby site at Mount Farm (Lambrick and Hayden in press).

When the monuments at Dorchester-on-Thames went out of use they provided the focus for deposits of cremated human bone (Atkinson *et al.* 1951). That evidence has been misunderstood in an attempt to relate these sites to the archaeological sequence at Stonehenge. The cremations were located in the upper fillings of the ditches and post sockets, and do not appear to have occurred in primary contexts. For that reason it is illogical to describe the monuments as ‘enclosed cremation cemeteries’.

The major henge at Dorchester-on-Thames is the site of Big Rings, excavated in the 1950s and published after an almost unprecedented delay in 1992 (Whittle *et al.* 1992). This site poses problems, for the excavation report claims that it was of Beaker date. Of course that might be correct, but the section drawings of ditch raise the possibility that only the secondary filling of this earthwork was excavated; the primary levels may not have been identified - a common occurrence on the river gravels. This monument incorporated a smaller circular enclosure in one of its entrances and instituted a new alignment for the complex. There was no sign of any post or stone setting inside it.

The Big Rings has some features in common with the other extensively excavated henge, the Devil's Quoits at Stanton Harcourt (Barclay *et al.* 1995). Again the first excavator did not recognise the lower filling of the ditch, although he did identify the sockets for a single ring of monoliths inside the enclosure (Grimes 1960). Subsequent work by Margaret Gray not only established the true scale of the earthwork perimeter, it also found a small circular post setting in the centre of the monument. In this case, it was possible to suggest that the earthwork predated the adoption of Beaker ceramics. There is nothing to show whether the bank and ditch were the first structures on this site. Whilst that sequence is widely assumed, it has been questioned by recent research and in some cases it is demonstrably incorrect (Bradley 2007, 130). In the same way, it is usually supposed that timber structures were earlier than those of stone, but it is perfectly possible that both these elements were combined in a single architectural scheme. Close to Devil's Quoits there were other monuments, whose dating remains uncertain, but one of them was a post circle not unlike the Later Neolithic structures associated with the cursus at Dorchester-on-Thames (Barclay 1995). There was also a

circular ditched enclosure comparable to a small henge, and a series of pits containing Peterborough Ware and Grooved Ware.

Similar features are found at another site, Radley Barrow Hills, which was first used during the earlier Neolithic period. Here two oval barrows and a series of Neolithic burials had been located close to a causewayed enclosure (Barclay and Halpin 1999). In this case the earliest pit deposits are those associated with Grooved Ware, suggesting a hiatus of several hundred years between the first generations of monuments at Radley and those of the later Neolithic. When activity resumed, at least one new structure was built there. This was another small circular enclosure. It was associated with deposits of antler and with pottery in the Grooved Ware tradition, and in many respects it compares with the miniature henges at Stanton Harcourt and Dorchester on-Thames. Perhaps their distribution will extend into other regions of the study area, but apart from a segmented ring ditch at Green Park, Reading, and a few examples on the Wessex chalk, this has yet to happen (Brossler *et al.* 2004). Such monuments are difficult to identify - still less, to date - without total excavation, but it is possible that they really were more common in the north of the study area. Small monuments of similar character are often found in the Midlands and East Anglia and it is conceivable that they belong to a regional tradition that rarely extended far into the Solent Thames corridor. That remains to be established in future work.

One of the pits at Barrow Hills included a bone point made from the ulna of a white-tailed eagle, and part of a Grooved Ware vessel decorated with two opposed spirals (Barclay and Halpin 1999). That provides another indication of the cultural connections between the study area and Northern Britain, for the same design has been identified in a variety of other media in the west of Scotland, Orkney, Anglesey and even in the Boyne Valley north of Dublin (Barclay 1999). A further set of long distance connections is illustrated by the movement of non-local artefacts to different parts of the study area. They consist of axeheads, most of them originating from quarries in highland Britain (Bradley and Edmonds 1993). They are quite common in the study area, although there are larger concentrations of such material around the major ceremonial centres of Wessex. In the study area they come from three different contexts. A small number have been discovered in pits together with later Neolithic artefacts, but others are chance finds. A significant proportion of the imported objects come from the River Thames in Berkshire and Buckinghamshire (Holgate 1988; Bradley 1998). The latter group lacks much dating evidence, but it does seem as if such artefacts were distributed over greater distances during the later Neolithic period. The areas where they had been made include Cornwall, Cumbria, North Wales and the East Midlands.

Yet another long distance connection may also be relevant here. This concerns the Rollright Stones on the Oxfordshire Cotswolds (Lambrick 1988). The form of this monument is unusual as the

monoliths are closely spaced and define a circular enclosure with a single clearly defined entrance. In both respects this site is very different from the Devil's Quoits. The distinctive configuration of the Rollright Stones has features in common with a number of monuments in northern England which are assumed to be of later Neolithic date. This has not been demonstrated by excavation, but one reason for stressing the exotic character of the Cotswold monument is that its layout is very similar to that of the Swinside stone circle in Cumbria. Just as the henges at Dorchester-on-Thames and Condicote may refer to structures found in north-east England, the Rollright Stones represent another monument of exotic type.

3.4 Beaker settlement and the end of the Neolithic

Such long distance connections anticipate a still more drastic development. This was the appearance of Beaker pottery and the earliest metalwork: an assemblage with its origins in Continental Europe (Clarke 1970).

This is not the place to rehearse the complex arguments concerning the interpretation of Beakers and their associations, for that is a problem that extends far beyond the confines of the study area. It is quite possible that this material was first introduced by immigrants, but the only way of showing this unambiguously is through the isotopic analysis of human teeth. This method has certainly suggested the 'Amesbury Archer' was one such migrant, but it is necessary to take this approach to a large sample of human remains before any conclusion can be reached. Fortunately, this work is now in progress (The Beaker Isotope Project, University of Sheffield). Similar analysis of isotopes can also address the issue of the distance over which animals were grazed, traded and brought to ceremonial sites. The movement of people often forms only part of a more complex pattern of alliance and exchange and it seems improbable that the introduction of Beakers was any exception: if portable artefacts were moving over longer distances, that may have been true of marriage partners as well. Some combination of these different ideas might explain why the new kinds of material culture are so often associated with regions and even monuments that were important during the Grooved Ware phase. It does not follow that these developments were entirely peaceful. One of the people buried at Barrow Hills had probably been killed by an arrow, and archery equipment and daggers often feature among the grave goods of this period.

In the Solent Thames corridor the earliest Beakers can be associated with copper artefacts and gold ornaments. Their appearance marks the inception of a new tradition of inhumation burial associated with small round barrows and with flat graves, but some of these were close to existing monuments (Garwood 2007). It may be no accident that the richly furnished burial at Amesbury was near to a

Grooved Ware pit circle and not far from Woodhenge and Durrington Walls. In the same way, the earliest metalwork in the Upper Thames was associated with burials at Radley Barrow Hills, whilst there were others near to the Devils' Quoits (Barclay and Halpin 1999; Barclay *et al.* 1995). Yet another rich grave was associated with a round barrow immediately outside the north entrance of Big Rings, Dorchester-on-Thames (Whittle *et al.* 1992). Of course that simple equation does not apply to every case. A burial at Chilbolton in the Test valley contained gold ornaments like those at Barrow Hills but it was not associated with an older monument (Russell 1990). In fact there may have been considerable regional variation. Whilst the early Beaker graves in the Upper Thames could be located close to structures with an established significance, their counterparts in the Stonehenge area seem to have been set apart from the monument itself.

That is very striking as Beaker pottery was perhaps associated with the first stone building on that famous site (Cleal *et al.* 1995). Its occurrence there forms part of a more general pattern, for ceramics of this kind were not only deposited in a number of Wessex henges, their distribution could even echo that of the existing deposits of Grooved Ware and other artefacts within these monuments. The same idea may be relevant to the interpretation of Big Rings where a significant deposit of Beaker material was found in the enclosure ditch (Whittle *et al.* 1992). As suggested earlier, it may not date the original construction of the monument and could have been placed there during a later phase. The same was perhaps the case at Condicote on the Gloucestershire Cotswolds (Saville 1983).

4. The early Bronze Age

As mentioned earlier, the definition of this period presents certain difficulties, if only because metal artefacts are found in such a limited number of contexts. Copper was alloyed with tin from approximately 2200 BC and from that period onwards other parts of the archaeological record began to change significantly. Although Beaker pottery remained in use, it was supplemented, and eventually replaced, by new ceramic styles. Round barrows became much more conspicuous features of the landscape and sometimes developed into entire cemeteries. At the same time, henge monuments gradually went out of use.

4.1 Landscape, settlement and land use

Few of these changes are clearly reflected in the settlement evidence from this phase, which is remarkably meagre. Beaker pits are quite widely distributed but provide less evidence of structured deposition than those associated with Grooved Ware (Lamdin Whymark 2008). There are

comparatively few pits associated with other early Bronze Age ceramic styles, and only occasionally can the lithic scatters of this period be distinguished from those of the later Neolithic, the main difference being the presence of small thumbnail scrapers and the use of barbed and tanged arrowheads (Gardiner 1988; Barclay *et al.* 1996). The greatest concentration of the latter type is in the area around Bournemouth and Christchurch which was originally in Hampshire but now forms part of Dorset (Field 2008).

There is little structural evidence from this period. Excavation at Yarnton has identified the position of a small round house associated with sherds of Biconical Urn, and there were a series of post holes of similar date at Easton Lane on the Hampshire chalk (Hey *et al.* in prep.; Fasham *et al.* 1989). Another settlement associated with round houses was at Gore Down, Chale on the Isle of Wight (Dunning 1932). One reason why such settlements have been so difficult to find is because the remains of domestic buildings were relatively slight. This is certainly suggested by a small stake-built structure preserved beneath an early Bronze Age round barrow at Shrewton in Wiltshire (Green and Rollo-Smith 1984). Another possibility is that settlements were increasingly located in valleys where their remains might be buried beneath substantial deposits of hill wash. This has been demonstrated at a series of sites on the South Downs (Allen 2005), and there is no reason why a similar situation could not have occurred more widely. Early Bronze Age deposits were preserved at Charnham Lane, Hungerford, in the Kennet Valley, and the early Bronze Age house was found at Yarnton beneath a layer of alluvium (Ford 2002; Hey *et al.* in prep.).

In three cases there are suggestions of more specialised activities. Recent fieldwork has recorded the remains of ephemeral timber structures on the foreshore of the Isle of Wight (Tomalin *et al.* forthcoming). Those at Fishbourne Beach and Quarr Beach have radiocarbon dates during this period. So do the burnt mounds at Little Marlow in Buckinghamshire which belong to an enigmatic class of field monument that is usually dated to the Later Bronze Age (Richmond *et al.* 2006). Their function is still in doubt, and they may have been employed for cooking, as open air saunas or for a variety of industrial activities. The last of these specialised activities was the deposition of elaborate artefacts in the Thames and its tributaries. This continued during the early Bronze Age, but now the offerings included metalwork that might otherwise have been placed in graves (Bradley 1998). That is a special feature of the closing years of this period.

4.2 Ceremony, ritual and religion

The rarity of domestic sites is especially frustrating since so many burial mounds survive from this period, either as standing mounds or as ring ditches in cultivated land. Even so, it is clear that the

settled area expanded. There are large numbers of round barrows in the New Forest, a region where there is little indication of sustained Neolithic activity. The same is true of the Hampshire Greensand (Field 2008; Bradley and Fraser 2010). Both regions had been occupied during the Mesolithic period, but may have been used less intensively since that time. There are indications that the sites of some of these barrows had recently been cleared of woodland and that the local soils were unable to sustain a long period of settlement. One example was Ascot in Berkshire where a bell barrow sealed a series of spade furrows associated with cereal pollen (Bradley and Keith-Lucas 1975). Again the site had not been used for long before the monument was built. With the exception of a mound on Beaulieu Heath in Hampshire which contained an amber necklace (C M Piggott 1943), few artefacts are associated with these earthworks (Bradley and Fraser 2010). The Milton Keynes/Upper Ouse area provides another example where there is only limited evidence of Neolithic activity but an upsurge in Bronze Age sites.

As the evidence from these two areas shows, the distribution of burial mounds is by no means confined to the uplands, although few mounds remain intact on the lower ground. For example, all the standing mounds on the Isle of Wight are on the higher downland, but even here their distribution emphasises the importance of lowland areas - they are most often found around the heads of coombes close to the spring line (Tomalin 1991 and 1996). Air photography suggests that in the Solent Thames corridor other barrows were built in the valleys but have since been destroyed. The large groups of burial mounds at Lambourn on the Berkshire Downs or at Burghclere on the Hampshire chalk occupy just this position. They are probably chance survivals of what was once a more general pattern.

At one time it was supposed that the main groups of early Bronze Age barrows were located in 'ritual landscapes' from which everyday activities were excluded. There is no evidence for this proposition which is influenced by an outmoded conception of ritual. Field survey on the West Berkshire Downs provides no support for this assumption (Richards 1978; 1986-90; Gaffney and Tingle 1989, chapters 5 and 6). The great barrow cemetery at Lambourn is not only located close to a spring, it is found in an area with a considerable quantity of worked flint. The same is true of other major cemeteries. Large scale gravel extraction in the Upper Thames suggests a similar pattern in which pits containing domestic artefacts are found near to major groups of burials, but do not extend right up to them (Barclay *et al.* 1996).

The distribution of these monuments has other implications which are not always recognised. That is because the contents of early Bronze Age graves are analysed for evidence of social status. That is not necessarily wrong, but this procedure often takes place at the expense of spatial analysis. It is easy enough to suppose that graves containing metalwork are indications of high status, but the

spacing of the individual barrow groups does not support the suggestion of an overarching social hierarchy of the kind associated with a 'chiefdom'. Some mounds do seem to have been genuinely isolated and others have been found in pairs, but just as often they occur in groups which may be regarded as cemeteries (Bradley 2007, chapter 3). These clusters of funerary monuments are usually located not far from one another. This point was originally made in a study of the ring ditches along the River Ouse (Green 1974) , but its implications have still to be taken seriously. The spacing of these groups of monuments suggests that most of them belonged to local communities of no great size (Case 1986). Any distinctions between them may have been minor and quite short-lived.

There are two important exceptions to this argument, and both concern burial mounds that were either particularly elaborate or covered exceptional groups of artefacts. They are particularly common in the vicinity of older monuments. That has long been accepted for the great concentrations of round barrows near to Stonehenge, Avebury, Knowlton and Mount Pleasant, but it is just as true of examples in the Thames valley and on the Berkshire Downs. The small area around Stonehenge contained a particular concentration of linear cemeteries which seem to have developed towards the end of this period (Woodward and Woodward 1996; Garwood 2007). There are at least two further examples in the study area, the first at Radley Barrow Hills, where it was aligned on the position of the Abingdon causewayed enclosure, and the other at Lambourn, where the cemetery was orientated on an older long barrow (Barclay and Halpin 1999; Richards 1986-90; Woodward 2000). The Lambourn cemetery was excavated many years ago and the results are difficult to interpret (Case 1956), but it is clear that the cemetery at Radley had an exceptional range of contents. Not only did it begin with the early Beaker flat graves mentioned earlier, the burials were associated with more metalwork than any other group recorded on the Thames gravels (Garwood 1999). A large barrow cemetery may also have formed around the Oxford henge.

Another complex burial was found at Stanton Harcourt, where it was associated with largest of all the round barrows that developed around the Devil's Quoits (Harden and Treweeks 1945). Again this site was used over a lengthy period and its role as a cemetery may have started with a series of Beaker graves, one of them of exceptional complexity. Such finds emphasise another important point. There do seem to have been significant variations in the sizes of different mounds. This has wider implications. The richer burial mounds around Stonehenge tend to be larger than the others, and were usually constructed on higher ground (Peters 2000). There are hints of a similar distinction among the excavated ring ditches on the Upper Thames gravels, and the same idea may help to explain the distinctive ridgetop siting of some of the round barrows on the Chilterns and of others on isolated hilltops overlooking the Vale of Aylesbury (Dyer 1961). The prominent positions of such monuments may have added to their visual impact.

If these arguments are correct, the study area may contain not one series of early Bronze Age burials but two. The simpler and smaller mounds appear in clusters that may have formed the cemeteries of local communities. These were fairly regularly spaced across the chalk and the river gravels, and their construction does not seem to have made extravagant demands on human labour. Nor were the offerings provided for the dead exceptionally elaborate ones. That was not always the case with the second group of burials. They involved a variety of different types of mounds and were often located, not in relation to nearby settlement areas, but the ceremonial centres of the recent past. They can include a wider variety of grave goods, and it seems likely that they were the burial places of people who did not live in the immediate area. If there was a social elite during the early Bronze Age, this is where evidence for its existence should be sought.

Unfortunately, this outline over-simplifies a number of issues. Few of the barrows were the burial places of a single individual. Where the remains of a mound survive it often contains a number of separate graves, some of which may even have been reused; an outstanding example is a recently excavated barrow at Gayhurst Quarry in Buckinghamshire (Chapman 2007). There could be further burials outside the monuments altogether. In the linear cemetery at Radley Barrow Hills the axis of the cemetery was reflected by a row of urned cremation burials that would never have been discovered in a less ambitious excavation (Barclay and Halpin 1999). The investigation of ring ditches often obscures these points simply because so many deposits have been lost. That can also happen because the barrow ditches are only sampled. Still more evidence is overlooked when barrows are excavated piecemeal and the areas in between them are neglected. The potential of these areas is amply demonstrated by work on the gravels of the study area which is locating an increasing number of flat graves. The first to be identified were associated with Beaker pottery, but now it is becoming clear that they extend throughout this period. They can also be found on the chalk. For example, at Easton Lane in Hampshire there were several pits containing inhumations and cremations associated with Collared Urns (Fasham *et al.* 1989).

Where mounds have been well preserved and well excavated - a rare occurrence in the Solent Thames corridor - it is clear that some of them developed incrementally, so that their outward appearance is no guide to their internal structure. The largest barrows can encapsulate the remains of smaller monuments, and often the earthworks cover the site of what was once a flat cemetery. In one sense the building of barrows was really a process that was undertaken intermittently; the 'finished' form of the monument was simply the state that it had reached when that process was discontinued (Woodward 2000). In another sense, like the long barrows considered earlier, the building of a round barrow was sometimes a way of 'closing' activity on a particular site (Last 2007). It is as important to work out the details of those processes as it is to classify the end results. Again that can only have happened where monuments survive above ground.

Even where there is evidence that the people who built these barrows had a particular design in view, it is important to acknowledge the evidence for regional variation. In practice most studies of these earthworks have been influenced by the typology developed by Grinsell for well preserved monuments on the Wessex chalk, but he himself acknowledged that this scheme does not work well among the neighbouring barrows of the New Forest (Grinsell 1938-40). Case (1963) has also attempted to classify the monuments of the Upper Thames on the basis of their ground plans and the patterns of silting in their ditches. His scheme differs from that of Grinsell, but that is no reason to reject either of these classifications. What is perhaps more significant is the way in which specialised types of barrow which are a special feature of the Wessex chalk are occasionally found in more distant areas. That certainly applies to the cemetery at Lambourn on the West Berkshire Downs and it probably applies to the levelled monuments at Radley Barrow Hills. In such cases the forms of the mounds might have signified long distance connections as effectively as the objects buried in the grave. It is surely significant that such monuments should be a particular feature of these sites, for there are not many others in the study area. In Hampshire, however, Tomalin has suggested that there were smaller concentrations between the Beaulieu and Lyminster Rivers and in the headwaters of the Test and the Meon (Tomalin 1996).

There are a few indications of other sources of variation among what might seem to be a homogeneous distribution of earthwork mounds. Sometimes the grave itself was incorporated in an elaborate timber structure, as happened at two sites on Beaulieu Heath (C M Piggott 1943) or on the earlier site at Chilbolton (Russell 1990). The body might have been placed in an elaborate tree trunk coffin like that at Bishop's Waltham (Ashbee 1957). Other coffins have been identified at Barrow Hills, and possible traces of biers have been recognised there and at Dorchester-on-Thames (Barclay and Halpin 1999; Whittle *et al.* 1992). Corpses could also have been cremated on a pyre that made extravagant demands on fuel. This was a particular feature of the later early Bronze Age, and the remains of pyres were probably found in the excavation of Cassington Barrow 6 in the Upper Thames valley (Leeds 1936) - an unusual monument that can perhaps be compared with the disc barrows found on the chalk. Round barrows were not only places where the dead were buried; they were also where they were commemorated. This is often difficult to document, but there are some important exceptions. Many sites were originally enclosed by a ring of wooden posts or stakes, and there were sometimes several concentric circles of uprights. They have been identified during excavations on the West Berkshire Downs (Richards 1986-90), but such features have a much wider distribution. Two of the most convincing were at Arretton Down and Newbarn Down on the Isle of Wight (Alexander *et al.* 1960). At Charnham Lane, Hungerford, a related monument was defined by a circle of pits with a burnt area at its centre (Ford 2002). In this case no barrow had been built, but this structure was associated with an Aldbourne Cup: a kind of pottery which is otherwise peculiar to

burials. Even where barrows were built they were not just for the dead. At Buckskin in Hampshire one of those monuments was constructed over a low platform of turf (Allen *et al.* 1995). It was enclosed by a setting of stakes and seems to have provided a kind of stage on which food could be prepared and consumed. Here there was evidence of bonfires and placed deposits of animal bones. At Gayhurst Quarry in Buckinghamshire a barrow ditch was filled with cattle bones. In this case selected limbs had been transported to the site. Butchery marks were absent, suggesting that carcasses had been left to decay naturally (Chapman 2007). They might have been sacrifices rather than the residue of feasts. Similar evidence might easily be missed by partial excavation or by the investigation of levelled monuments.

There are two broader issues that must also be considered here: the chronology of these monuments and their connections with other areas.

There were three main trends in the development of these mounds over time. The first has been mentioned already and is undoubtedly the simplest: certain barrows increased in size. Beaker graves were covered by a small circular mound, if they were covered at all, whereas some of the barrows built towards the end of the early Bronze Age were enormous. The second trend is a change in the burial rite, from an initial emphasis on inhumation to a greater use of cremation. That has important implications for the interpretation of the objects found with the dead. Inhumation burials usually contain a series of intact offerings; some of the items deposited with a cremation burial may have passed through the pyre, and others could have been totally destroyed. The final point is apparent from the analysis of Barrow Hills and comparable studies in Wessex and Sussex. The linear cemeteries at Lambourn and Radley are exceptional in a region with much less structured groups of burial mounds (although a third example may be partly buried beneath modern houses in North Oxford), but they are also unusual in relation to a wider region, for this rather rigid design is mainly found close to Stonehenge. It may have facilitated processions through the burial ground (Garwood 1999), but it is clear that it was one of the last developments to take place before the construction of round barrows slowed down in the later second millennium BC.

That introduces a final point. How far is it appropriate to compare the round barrows of the study area with the famous examples on the Wessex chalk? It is all too easy to focus on the richly furnished graves at the expense of their wider context. Perhaps it is the very fact that there are so few precise equivalents for practice in Wessex that lends those few examples their special character. Otherwise the smaller, less formal clusters of monuments with their rather stereotyped grave assemblage have more in common with sites in the Midlands and East Anglia than with the areas further to the south. Indeed, the great deposit of cattle bones around the barrow at Gayhurst Quarry recalls a similar find from a mound at Irthlingborough in Northamptonshire rather than any example in Wiltshire or

Dorset. In that respect the evidence of early Bronze Age round barrows recalls the evidence of later Neolithic monuments in the study area.

Two important points remain to be considered: the absolute chronology of early Bronze Age artefacts in the study area; and the evidence they provide for long distance contacts. The first topic requires much more research, for despite the prominent part played by burials in central southern England in general accounts of this period, their dating is not particularly secure and depends very largely on comparison with the archaeology of other regions, some of them in Britain and Ireland, and others in Continental Europe (Garwood 2007). To some extent the problem would be resolved through the direct dating of cremated bone: a method which has revolutionised the study of prehistoric Scotland but which has hardly been attempted in southern England. A reluctance to employ this method has held back studies of the local Bronze Age.

4.3 External contacts

Reference to Continental Europe introduces one final issue, for it would be unwise to overlook the growing importance of the south coast during this period. This seems to have been far more than the lowland periphery of Wessex, and isolated finds from barrows and metalwork hoards along the English Channel suggest that yet another important axis may have been forming at this time. It extended well beyond the Solent Thames corridor to run from Cornwall to Kent and certainly incorporated the Isle of Wight where two important hoards have been found (S. Piggott 1947). The burials themselves extend from Rillaton in south-west England to Ringlemere in Kent, but only the burials from Portsdown Hill in Hampshire fall within the artificial limits of the present study area. In a recent monograph Stuart Needham (2006) has referred to this network as the beginnings of a 'Channel Bronze Age'. It was an axis that would increase in importance during later phases, but even in its early beginnings its significance must not be underestimated.

4.4 An early Bronze Age postscript

There is little to indicate significant change in land use and settlement patterns through the early Bronze Age. A greater emphasis on domestic activities may be implied by the increasing frequency of burnt stone deposits and features such as waterholes. Cultivation appears to increase, as does the presence of cereals on site. Fields defined by ditches are phenomena belonging to the middle and late Bronze Age, however, as are most post-built roundhouses associated with waterholes and other domestic features.

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