

Lower/Middle Palaeolithic (Berkshire)

Dr Robert Hosfield, January 2007

1. Introduction

This resource assessment summarises the Palaeolithic archaeology of Berkshire, including the palaeogeographical context (principally the evolution of the Middle Thames during the Middle and Late Pleistocene), the geochronological framework (summarising the terrace models of Bridgland (e.g. 1994), and the principal findspots and sites from the Lower and Middle Palaeolithic periods. For a comprehensive list of sites and findspots the reader is directed to Wymer (1999), Wessex Archaeology (1996), and the SMR records for East and West Berkshire, while Wymer (1968) provides further details on many of the Lower and Middle Palaeolithic sites and findspots discussed below.

2. Landscape and Topography

2.1 Present Geography

The landscape of Berkshire can be contrasted between the lowlands associated with its major rivers and the higher chalk downlands. Large parts of the county are dominated by the low-lying floodplains and terraces of the river Thames and its tributaries (principally the Kennet, the Loddon, and the Blackwater). In the west of the county the Thames flows south-eastwards out of Oxfordshire, through the narrow Goring gap (one of the narrowest parts of an otherwise generally broad river valley). Consequently the majority of western Berkshire is instead dominated by the River Kennet valley (which joins the Thames to the east of Reading). The Kennet's floodplain is limited on either side by steep slopes, rising to the county boundary with Hampshire to the south (the highest part of the county, including Walbury Hill at 297m) and up to the Berkshire Downs to the north. The Downs are characterised by smaller valleys, draining into the Rivers Lambourn, Pang, and their tributaries (Blake 1903: 5-6, White 1907: 1-4).

In the east of the county the majority of the land lies to the south of the river Thames, which forms the county's northern boundary (although at Reading and Slough the county does now include land to the north of the river). Beyond the floodplains of the Thames and its southbank tributaries the land rises to the southern county boundaries with Hampshire and Berkshire (Dewey and Bromehead 1915: 1-4).

Of particular importance to its Palaeolithic occupants may have been the chalk downlands (known locally as the Berkshire Downs) that run through the county, linking the Chiltern Hills to the north and the Marlborough Downs to the west. Within Berkshire the downlands reach as far east as the suburbs of modern Reading and run to the western border of the county. At its north-east extreme, the downland faces across the Goring Gap to the Chilterns, on the other side of the River Thames. In the south-west of the county the Downs have a gentle dip slope facing south into the

valley of the River Kennet. The highest stretch of the downs runs east along the Berkshire/Hampshire border on the opposite (southern) side of the River Kennet from the Berkshire Downs. The scarp slope is to the north, facing down into the valley of the Kennet (White 1907: 1-4).

The solid geology in the north-west and west of the county is dominated by Cretaceous Chalk, which runs down the Thames Valley from Goring to Pangbourne, and also underlies the Berkshire Downs (Blake 1903: 7). Fringing the Chalk along its south-eastern boundary, and essentially running east to west as a narrow band, are the clays (typically found in the upper part of the formation) and sands of the Reading Beds (Blake 1903: 32). In the vicinity of Reading outlier exposures of the Reading Beds are also found to both the north and south of the River Thames, for example at Emmer Green to the north, and at Upper Basildon, Ruscombe, and from Tilehurst through to Reading to the south (Blake 1903: 15-23). Further to the west, the Reading Beds are frequently capped by London Clay, although between Newbury and Enborne the fluvial gravels are underlain by the former (White 1907: 47-64).

The solid geology in the south and south-east of the county is dominated by London Clay. In the Reading area there are also outlier exposures of the clay to the north and south of the Thames, for example at Emmer Green to the north and Tilehurst to the south (Blake 1903: 43-44). Further to the west, it is found both to the north and the south of the Kennet (White 1907: 65-70). Within the main areas of the London Clay there are also localised patches, particularly towards the south and south-east of the county, of the sands and clays of the Lower Bagshot Beds (at Crookham, Cold Ash, and Bucklebury Common for example (Blake 1903: 53-58, White 1907: 71-75)), and the Bracklesham Beds and the Upper Bagshot Beds, most notably at Finchampstead (Blake 1903: 58-59).

2.2 Rivers

The key rivers in Berkshire are the Thames (flowing west to east, via the Goring Gap, Reading, Maidenhead and Windsor) and its principal tributary the Kennet (flowing west to east through Newbury to Reading). Other rivers of significance include other tributaries of the Thames: the Pang (flowing west to east through Pangbourne where it confluences with the Thames), and the Loddon and the Blackwater, flowing south to north into Reading where they confluence with the Thames (Blake 1903: 5-6).

2.3. Major Urban Areas

The key urban areas in Berkshire are the towns of Newbury in south-west Berkshire, Reading in central Berkshire, and Maidenhead and Windsor in the east of the county.

3. Pleistocene Background and Palaeogeography

3.1 Pleistocene Contexts

The key Pleistocene contexts in Berkshire are (after Wymer 1995) fluvial terrace deposits (dominated by river gravels and sands) associated with the major Pleistocene river system (the Thames and its tributaries). Such deposits are associated with a

number of different river terrace landforms (see Section 3.3 below for further details). However there are smaller areas of additional Pleistocene contexts for Palaeolithic artefacts in Berkshire, including clay-with-flint deposits (predominantly found on the chalk downlands), solifluction and/or head deposits, and brickearths (typically a mixture of loessic silts, clays, and very fine sands).

3.2 Palaeo-Zones

For ease of discussion in the following sections Berkshire is here divided up into four major palaeo-zones as follows:

Zone 1: North-West Berkshire (the Thames valley upstream of Reading and the Berkshire Downs region between the northern county boundary and the northern edge of the Kennet valley)

Zone 2: East Berkshire (the Thames valley between Reading and Windsor)

Zone 3: South-West Berkshire (the Kennet valley from Newbury to Reading)

Zone 4: South-East Berkshire (the Loddon and Blackwater valleys)

3.3 Pleistocene history

While the following discussion is primarily restricted to Berkshire, reference is also made to the surrounding counties (e.g. Oxfordshire, Wiltshire, Hampshire and Surrey) where appropriate. Particular focus is given below to the Thames (and its tributaries), whose deposits form the principal context for much of Berkshire's Lower and Middle Palaeolithic archaeology.

The Thames between Pangbourne and Slough (and especially downstream of Reading; Zone 2) shows a complex evolution, with a series of river diversions and captures. One of the principal markers of this history is the Ancient Channel between Caversham and Henley-on-Thames. This abandoned valley, lying at c. 45m above the present level of the Thames, represents the course of the river during the late Anglian (MIS-12), after it had ceased to flow through the Vale of St. Albans. While further downstream at Bourne End the river had already been forced southwards (into its current drainage), the Thames between Reading and Henley-on-Thames continued to flow along the line of its original drainage during late MIS-12. Nonetheless the Ancient Channel terrace (the Black Park Terrace) is the first post-diversion terrace, and follows the Winter Hill Terrace (which did flow through the Vale of St. Albans (Wymer 1999: 50).

After the abandonment of the Ancient Channel at the end of the Anglian glaciation (MIS-12), the Thames remained within its current valley, with a relatively limited southward migration resulting in the extensive removal of earlier terrace deposits as the river incised c. 30m, down from the Boyn Hill Terrace to the present floodplain level. By contrast the southbank tributaries (the Kennet, Loddon and Blackwater) have all shifted their positions since the deposition of the Boyn Hill and Lynch Hill terraces (Wymer 1999: 58). This resource assessment follows the reconstruction of Wymer (1999: Fig. 17; Figure 1 here), in suggesting that in the post-Anglian period the proto-Loddon and proto-Kennet joined near Englefield and flowed through the

Pang Gap, while the proto-Blackwater flowed separately and joined the Thames near Shiplake–Henley-on-Thames. This model does seem to explain the terrace remnants in and around Reading in the most parsimonious way (see Wymer 1999: 59 for a fuller discussion of these and other, related, points):

The two large spreads of Lynch Hill Gravel, respectively to the west of Reading and between Early and Woodley on the east of the town, are aligned in different directions and therefore could presumably not have been deposited by a single river. Rather it seems likely that the former resulted from the proto-Loddon and the latter from the proto-Blackwater (Figure 1; Wymer 1999: 59).

The Lynch Hill Gravel spread to the west of Reading is on both sides (i.e. north and south) of the high ground of Prospect Park. Only a river flowing to the south could have deposited the gravel on the south side of the park, such as the proto-Loddon, flowing to meet the proto-Kennet at Englefield. The gravel on the north side of the park may reflect a diversion of the proto-Loddon towards the Thames during the latter half of MIS-8 (Wymer 1999: 59).

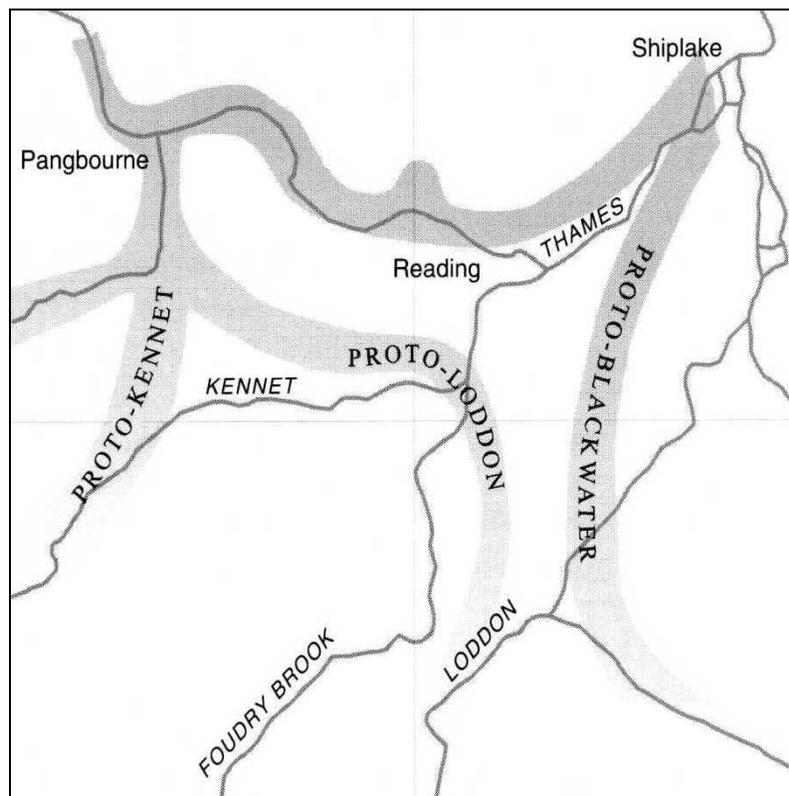


Figure 1: Possible courses of rivers in the Reading area after the abandonment of the Thames from its ancient channel between Caversham and Henley during the Hoxnian Stage (Wymer 1999: Fig. 17)

However it should be noted that there are several other published interpretations for river diversion in the Reading area (Clarke and Dixon 1981, Gibbard 1982, Sealy and Sealy 1956, Thomas 1961), and Wymer (1999: Table 7) provides a summary of the alternative models. There have also been contrasting geochronological models discussing the ages of the Middle Thames terraces (e.g. Bridgland 1994, Bridgland

1996, Gibbard 1985), and this report follows Bridgland (1994, 1996, 1998) in assigning the Boyn Hill terrace to MIS-10 (with its basal gravels possibly extending back to late MIS-12) and the Lynch Hill terrace to MIS-10/9/8 (i.e. towards the end of the Lower Palaeolithic). Below these terraces are the Taplow Gravel, Kempton Park Gravel, and Shepperton Gravel, which Bridgland (1994: Table 1.1) assigns to MIS-8 (the basal Taplow Gravel), MIS-6 (the Taplow and basal Kempton Park gravels), MIS-5d (the upper Taplow (at Reading) and the Kempton Park (at Slough) gravels), and MIS-4–2 (the Shepperton gravel). The palaeogeographical evolution of the Middle Thames during the later Middle and Late Pleistocene is summarised in Figure 2.

Downstream of Reading to Maidenhead the Thames has essentially followed its current route for much of the later Middle and Late Pleistocene, although beyond the latter point the river followed a more northerly route via Slough to Richmond and Hammersmith, prior to the deposition of the Kempton Park Gravel during the early Devensian, after which time the Thames followed its modern course throughout its middle reaches.

Although much of the evolutionary history of the southern tributaries of the Thames (the Blackwater–Loddon–Whitewater, Wey, Mole and Wandle; Zone 4) lies beyond the southern borders of Berkshire (and therefore beyond the remit of this section of the assessment), mention should be made of large spreads of high level gravels in the north Surrey–south Berkshire area and which relate to the early and late Anglian. During the late Anglian the Wey–Blackwater was flowing towards Windsor, while there are spreads of the later Lynch Hill and Boyn Hill gravels in the vicinity of Wokingham which may be Blackwater deposits (although Gibbard (1979: 37) mapped them as plateau gravels).

The ‘modern’ Kennet (which arises in Wiltshire and then flows in an easterly direction through Berkshire; Zone 3) has deposited spreads of gravel upstream of Hungerford, and distinct low terrace features below Hungerford and at Newbury (at 6m and 12m above the floodplain (Richards 1897)). The modern valley is small in comparison to that cut by the late Anglian river which deposited major sheets of high level gravels (e.g. the Silchester Stage gravels). The late Anglian river was described by Wooldridge and Linton (1955: 62) as the Thames–Kennet, and was a precursor of the modern Kennet, flowing through the Pang Gap where it was presumably confluent with the Thames. During MIS-11 the river still flowed through the Pang Gap, but was a much more minor river. Subsequently however the Kennet has cut a wide and steep-sided gorge between Woolhampton and Theale (Wymer 1999: 88). The Kennet terraces to the west of Reading have most recently been mapped by Chartres et al. (1976), who suggested 5 distinct terraces (after Wymer 1999: 89):

High Terrace Remnants: c. 52m above the present river.
The Hamstead Marshall Terrace: c. 47m above the river.
The Kintbury Terrace: c. 12–15m above the river.
The Thatcham Terrace: c. 10m above the river.
The Beenham Grange Terrace: c. 2–3m above the river.

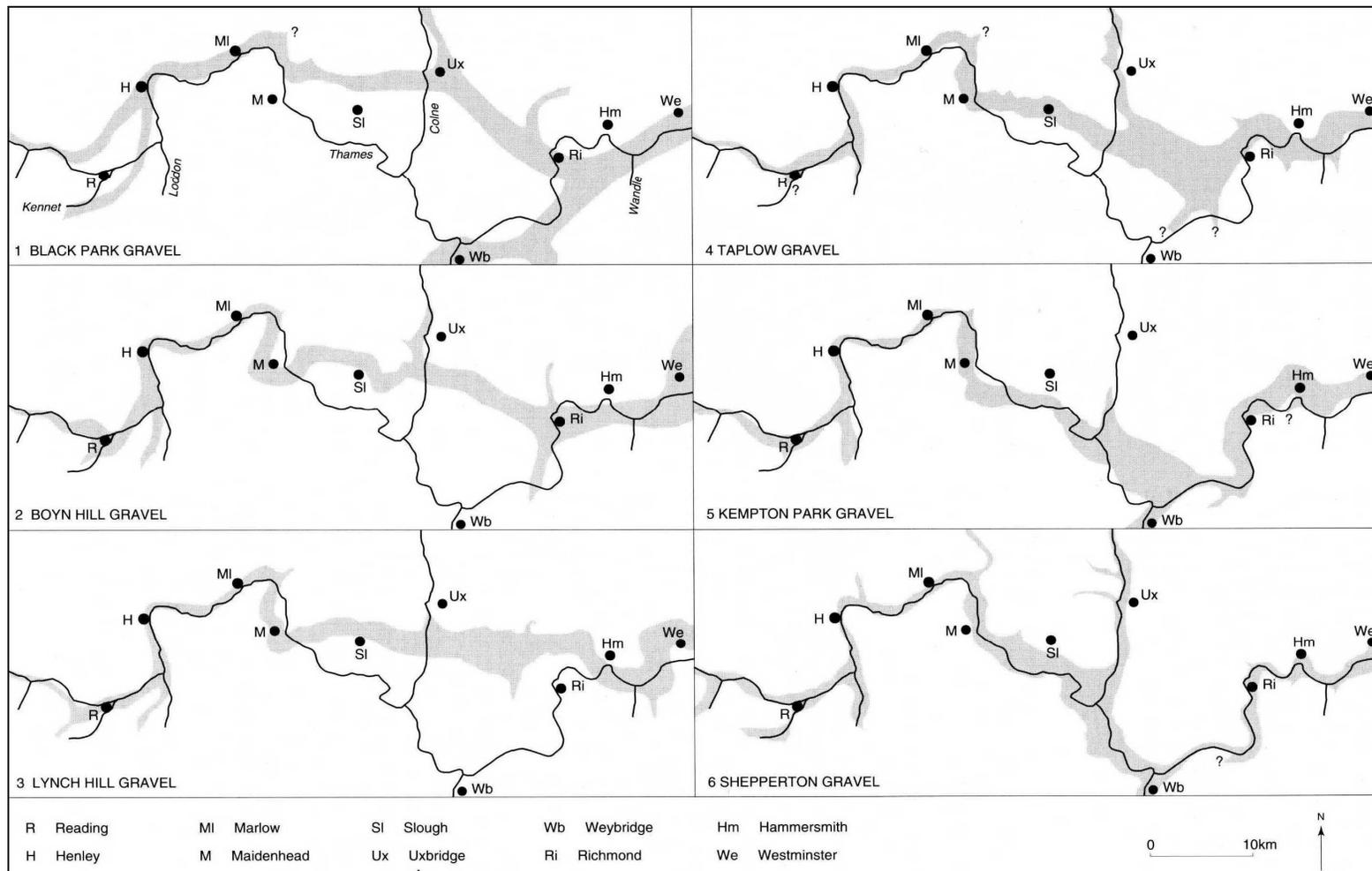


Figure 2: Palaeogeographical evolution of the Middle Thames. The grey tone areas indicate the approximate course of the river and its major tributaries at each stage, superimposed over the present course (Wymer 1999: Fig. 10)

Hawkins (1926, 1943) suggested that the Kennet was diverted from its earlier course through the Pang Gap relatively recently, probably during the Devensian (i.e. MIS-5d–2), with river capture as the mechanism by which the river came to pass through the Coley Gap in Reading and join the Thames to the east of the town (as it does today).

4. Lower/Middle Palaeolithic Resource

4.1 Overview

It is important to emphasise, with particular reference to the Lower and Middle Palaeolithic, that the use of the term ‘sites’ in this discussion refers primarily to locations where Palaeolithic artefacts have been found. These may not always reflect actual sites of ancient activity, since the artefacts are frequently in secondary context (typically, although not always, river terrace deposits), and were often exposed through gravel extraction and/or other types of development.

The following discussion also limits itself to the broad picture based on the accumulated evidence from major sites and individual findspots over the years, summarised by Wymer (1968, 1999) and Wessex Archaeology (1993, 1996). Although the major sites are mentioned below, every site/findspot is not individually discussed and for a full and comprehensive list the reader should refer to these sources.

The Thames terrace deposits in Berkshire have provided evidence for Lower Palaeolithic activity associated with both the Anglian and post-Anglian periods, although these age estimates are of course dependent upon current understanding and interpretation of the evolution of the river Thames (see above). The earliest evidence for a Palaeolithic occupation in Berkshire is associated with the pre-Anglian and Anglian (MIS-12) Caversham Ancient Channel deposits between Reading and Henley-on-Thames (Zone 2). Following the Anglian glaciation there is abundant artefactual evidence for hominin activity in the Hoxnian/Wolstonian complex. The artefacts are principally associated with the fluvial terrace deposits of the Thames between Reading and Maidenhead (Zone 2), although there are also small numbers of artefacts associated with both fluvial and clay-with-flint deposits in the other zones. Finally, evidence of a British Mousterian presence (i.e. MIS-5d through 3) is extremely limited in Berkshire, as indeed it is throughout the Middle Thames Valley (Wessex Archaeology 1996: 111), and is restricted to a very small number of possible flat-butted cordate/bout coupé handaxes (see below for further details).

Palaeolithic sites/findspots in Berkshire are concentrated in the east of the county, where Lower and Middle Palaeolithic material is mostly associated with the Middle Pleistocene terrace deposits in and around Reading (including Caversham) and Maidenhead (Zone 2). This rich record reflects both the archaeology from the very southern fringes of the late Anglian Ancient Channel between Reading and Henley, and the general richness of the Boyn Hill and Lynch Hill terraces in Reading and its immediate vicinity, and further east around Maidenhead and Slough. There are a series of large findspots associated with these deposits, primarily reflecting large-scale commercial aggregates extraction and extensive pits such Grovelands Pit and

Cannoncourt Pit and Cooper's Pits. There are also smaller concentrations of findspots (although these tend to represent relatively few artefacts) in the south of the county, around Newbury and the Kennet valley (Zone 3), and in the south-east of the county where they are associated with the modern rivers Blackwater and Loddon (Zone 4). The much smaller numbers of findspots associated with chalk and/or clay-with-flints are principally found in the vicinity of the Kennet valley in the south of the county (Zone 3), and between Pangbourne and Basildon to the west of Reading (Zone 1). In west Berkshire generally there are relatively few Palaeolithic sites and findspots, with the majority dating (on the basis of terrace deposit associations and/or typology) to the Lower Palaeolithic. The predominant character of the record is one of small finds, typically of a few artefacts from gravel working, small developments (e.g. housing foundations) or surface finds.

It should also be noted that there appears to be a relationship between the principle Thames/tributary confluences (i.e. those with the proto-Loddon, Kennet and Blackwater) and the locations of site/findspot concentrations. This probably reflects both taphonomic factors in relation to derived artefact re-deposition, and the appeal of such locales for hominins, perhaps as foci for communication and movement (Wymer 1999: 46).

4.2 Site Distribution

4.2.1 Zone 1: North-West Berkshire

Anglian & Pre-Anglian: Occasional finds from this zone have been suggested to support the notion of a late Anglian (or earlier) occupation, although the interpretation of the origins of the material remains controversial. The Gerrards Cross Gravel (capping the 100–105m OD plateau at Tilehurst, west of Reading) has yielded handaxes from several locations, but while claims have been made for artefacts from the gravel their physical condition is suggestive of surface derivation and therefore a younger age (Wymer 1999: 52).

Hoxnian/Wolstonian complex: There are also findspots associated with the clay-with-flint deposits on the chalk downlands in this area (Scott-Jackson 2006). These all consist of single or small numbers of artefacts, and are principally found between Pangbourne–Basildon to the east of Reading. The condition of many of the artefacts (mostly handaxes) from Basildon (including Upper Basildon) and Pangbourne suggests that they are surface finds (Wymer 1968: 121-122), presumably associated with the clay-with-flints deposits.

British Mousterian: There are no finds from this zone that can be unequivocally associated with the British Mousterian period.

4.2.2 Zone 2: East Berkshire

Anglian & Pre-Anglian: The ‘Ancient Channel’ (Black Park Terrace gravel) between Caversham and Henley is a key source of Palaeolithic findspots, and while some of the major sites (defined in terms of quantities of artefacts) lie within Oxfordshire (e.g. Highlands Farm Pit and Kennylands Gravel Pit), there are others within Berkshire that lie at the southern end of the channel (e.g. Farthingworth Green, Caversham (Talbot 1925: 73, Treacher, Arkell, and Oakley 1948: 130 & 139, Wymer 1968: 132-133); and the Emmer Green area, including Black Horse Pit (Treacher, Arkell, and Oakley 1948: 130, Wymer 1968: 132-133). With general reference to the Ancient Channel findspots (i.e. including the Oxfordshire sites) it is notable that these artefacts are likely to date to a late period of the Anglian glacial (perhaps reflecting climatic amelioration), since the artefacts are in a relatively fresh condition and concentrated in large numbers (suggesting a local origin in both time and space), while the absence of any artefacts in the earlier Winter Hill terrace gravels in this area (dating to the early part of the Anglian glacial) suggests that the Black Park artefacts were not derived from either the Winter Hill gravel or earlier, pre-Anglian, land surfaces (Wymer 1999: 50-51). However, the potential of higher and older terrace deposits to yield artefacts in future should not be discounted, particularly in light of the increasingly early dates for hominin activity in Britain (e.g. Parfitt et al. 2005).

It is also notable that the Black Park Gravel artefacts from the ‘Ancient Channel’ show a diverse range of technologies, including cores and flakes and relatively crude and refined handaxes. Since the channel cuts through flint-bearing chalk along its length this would not appear to reflect variations in raw material availability and/or quality, but may instead reflect different tool-making traditions (e.g. Wenban-Smith 1998, Wenban-Smith et al. 2006) or other factors such as a shared technological repertoire (i.e. one encompassing both core and flake working and handaxes) which was differentially expressed at different times and places (e.g. Ashton and McNabb 1994, Ashton et al. 1994, McNabb and Ashton 1992, 1995).

Hoxnian/Wolstonian complex: A key area of the post-Anglian Lower Palaeolithic record in Berkshire is the Thames valley between Reading and Maidenhead, with a rich artefact resource associated with the Boyn Hill and Lynch Hill terrace deposits. Wymer (1999: 58) has highlighted the attractions of the Reading area as including the confluences of several rivers and “the varied nature of the surrounding landscape, with old gravel-covered terraces to the north and west, and the valley of the Thames giving access to Chalk downland at one end and steep-sided gorges at the other”. In light of the well developed terrace chronology for the Middle Thames it seems appropriate to discuss the major sites (selected for inclusion here principally on the basis of quantities of material) by terrace unit:

Key Boyn Hill sites in the Reading area include the Kidmore Road gravel pit or Smith’s Pit, Caversham (Treacher, Arkell, and Oakley 1948: 130 & 139, Wymer 1968: 146-148), and Toots Farm, Caversham (one of the richest sites for palaeoliths in the valley, with approximately one third of its handaxe sample in Reading Museum described as ‘sharp’ or ‘mint’ by Wymer (Treacher 1904, Wymer 1968: 137-142). Caversham generally has produced a large quantity of material most likely originating from Boyn Hill Terrace deposits (Wessex Archaeology 1996: 58).

Lynch Hill Terrace sites of particular note from eastern Berkshire include Grovelands Pit, Reading, where it was suggested that there was a difference in condition between

the handaxes ('waterworn') and the flake and core ('sharp') components (Evans 1897: 591, Peake 1931: 218-219, Stevens 1881: 3-7, Treacher 1904: 18, Wymer 1968: 152-158); various pits (e.g. Prior's Pit, with some of the artefacts apparently *in situ*) in the Ruscombe area (Evans 1897: 592, Peake 1931: 224, Treacher 1896: 39-43, Wymer 1968: 183-184 & 186); Danefield Pit, Cookham Rise, Cookham, with a significant number of cleavers (Wymer 1968: 214-215); Cannoncourt Farm Pit and Cooper's Pits, Maidenhead, distinctive for the quantity of handaxes (perhaps more than 2,000 (Wessex Archaeology 1996: 66-67)), the large proportion of sharp and near-mint handaxes, suggestive of a minimally disturbed local site (Wymer 1968: 221), and the several large pointed handaxes, including the largest in the UK (Harding, Bridgland, and Madgett 1991, Lacaille 1940, Treacher 1896: 18, Wymer 1968: 221-225); and Bakers Farm Pit, Slough (Head 1955: 151, Lacaille 1940, Lacaille 1960: 337, Wymer 1968: 239-241).

Lower Palaeolithic artefacts (primarily small numbers of handaxes) have also been recovered from the lower and younger Taplow Terrace in eastern Berkshire (and in one or two instances from the modern floodplain), although unsurprisingly not in the same numbers as from the higher terraces discussed above, and from which they have presumably been derived in at least some cases, as indicated by their rolled and abraded states (Wessex Archaeology 1996: 106).

It is stressed however that not all of the Lower Palaeolithic material from Berkshire is associated with river terrace deposits. In some cases this may simply reflect inaccuracies in deposit mapping, for example the deposits exposed by Roebuck Pit, Tilehurst (Reading) had been mapped as chalk, although gravel and brickearth were subsequently recorded (Wessex Archaeology 1996: 52). In other cases however there are findspots associated with other deposits: very small numbers of artefacts have been reported from the fillings of solution hollows in Lynch Hill Terrace gravels at Remenham, near Henley; and also from the brickworks at Pinkney's Green, Maidenhead (the artefacts seemingly originating from either the unstratified gravels and/or the brickearth capping the Reading Clay (Wymer 1968: 226).

The quantity of material from the Middle Thames in eastern Berkshire clearly offers the potential for a range of research questions to be pursued. Wymer (1999: 59-60) notes for example that the Boyn Hill and Lynch Hill terrace deposits between Reading and Henley-on-Thames have yielded a wide variety of Palaeolithic artefact types, including chopper-cores (at Denton's Pit and Grovelands Pit), Levallois flakes (*in situ* at Denton's Pit), pointed and ovate handaxes (Denton's Pit and Grovelands Pit), finely made flake tools and large cores (Grovelands Pit), and finely made handaxes (McIlroy's Pit and Toot's Pit, Caversham). Such variability could potentially be explored in terms of a range of factors including raw material quality, technological strategies (as and where these can be appropriately detected from the 'finished' artefacts), chronological patterning between the two terraces, and the degree of integrity (in terms of artefact derivation) of specific assemblages. With regards to overall patterning in the Lower Palaeolithic record, Ashton and Lewis (2002) have recently explored demographic trends in the Middle Thames region, using the artefact record as a proxy for population and modelling its Pleistocene formation and historical discovery. Wessex Archaeology (1996: 114) also stressed the need for improved understanding of artefact dispersal and the formation of secondary context

assemblages, and (where possible) direct, multi-disciplinary, investigation of primary context deposits.

It should also be noted that although the majority of artefacts show evidence of transportation and are therefore thought to be in secondary context (this is especially true for the majority of the Boyn Hill Terrace findspots, whose palaeoliths tend to be dispersed and well rolled (Wessex Archaeology 1996: 110)), there is also evidence of *in situ* material. This evidence includes some of the artefacts from Prior's Pit which may be embedded in the Reading Clay lying immediately beneath a layer of Lynch Hill Gravel (Wymer 1999: 60). Moreover, in some cases artefacts only show a relatively small amount of evidence for fluvial transportation (e.g. Cannoncourt Farm Pit), suggesting that they are not far removed from primary context). Finally, it is unfortunate that faunal remains are relatively rare from these terraces in Berkshire: one of the few sites associated with the Boyn Hill and Lynch Hill terraces to have yielded significant quantities of mammalian remains is Grovelands (Wymer 1999: 60), with species including mammoth, straight-tusked elephant, rhinoceros, horse and red deer, while Wymer (1968: 60) noted that some of the remains were said to be 'in association' with flakes and handaxes, in sand about two feet from the base of the gravel.

Although Wymer (1999: 80) notes that the Thames valley has no evidence for "fully-developed" Levallois technology prior to the latter stages of MIS-8, he also acknowledges that Levallois artefacts (and *bout coupé* handaxes: see comments below) do occur in the Lynch Hill Gravels of the Middle Thames and could therefore be earlier than this date (although their physical condition tends not to support this (Wessex Archaeology 1996: 110)). That said however, the Levallois record of this zone (and of Berkshire generally) is a relatively limited one with only small numbers of finds in the Reading area (with none, unsurprisingly, associated with the Ancient Channel deposits). These include Levallois flakes and a core from the Taplow Gravel deposits exposed in the Sonning Railway Cutting (Wymer 1968: 172-173), and two Levallois flakes found within the Lynch Hill Gravel at Denton's Pit (Wymer 1968: 151-152). Similarly small numbers were also found in association with Lynch Hill Gravel at Cannoncourt Farm and Cooper's Pits (Maidenhead) and Bakers Farm Pit (Slough).

Perhaps the most significant finds are a core from Butts Hill, Woodley (which Wymer (1999: 80) suggests to be "approaching" a prismatic blade core) and the Levallois artefacts from the Ruscombe-Twyford area, including a group of flakes struck from carefully prepared prismatic cores or single platform cores (*ibid*: 80 & Fig. 26). The condition of the Ruscombe Levallois flakes supports the likelihood that they are near-surface finds which post-date the deposition of the Lynch Hill Terrace (Wymer 1968: 187). Further to the east, two Levallois flakes from the pits at Langley Marish, Slough have been assigned to brickearth deposits which cap the Taplow Gravel (Wymer 1968: 238-239), unfortunately the age of the brickearth is uncertain.

British Mousterian: One of the few finds from this zone which can potentially be assigned to the Mousterian is a single handaxe from Summerleaze Gravel Pit at Maidenhead. The handaxe is of the *bout coupé* type and may be associated with mammoth remains (tusk and molar fragments), but its recovery from the reject stockpile raises some doubts about its exact provenance (especially as the gravel from

several other pits was being screened at the site at the time of its finding). The pit is located in the Floodplain Gravel, although Wessex Archaeology (1996: 67 & 111) suggested that the deposits might be the Kempton Park Gravels. Wymer (1999: Map 13) also lists a Middle Palaeolithic handaxe (bout coupé) find from Taplow which appears to lie just within the eastern boundary of the county.

4.2.3 Zone 3: South-West Berkshire

Pre-Anglian: Small artefact findspots from this part of Berkshire support a late Anglian (or earlier) occupation. At Hamstead Marshall (west of Newbury) handaxes have been found within the Silchester Gravel. These gravels have been correlated with both the Winter Hill Gravels (Arkell 1947) and the Black Park Gravel (Bridgland 1994, Gibbard 1985), and the Hamstead artefacts therefore provide further evidence of an Anglian (or potentially a pre-Anglian) occupation (Wymer 1999: 52), as do other finds from Wash Common and Greenham.

Hoxnian/Wolstonian complex: In south-western Berkshire there are a small number of findspots (predominantly individual handaxe finds) associated with the Kennet (e.g. at Newbury), and probably dating to between MIS-11 and MIS-8. The limited evidence for occupation is perhaps surprising in light of the major site of Knowle Farm, Little Bedwyn, Wiltshire (located in Head deposits within a side valley of the Kennet), but may reflect a paucity of discovery opportunities (e.g. few gravel exposures or few active collectors) and/or extensive cold-climate solifluction resulting in re-working of the terrace deposits and the dispersal of any artefact concentrations (Wymer 1999: 88-89). Wymer notes that there may be further material that remains unknown within 'grey collections', but generally concludes that "there is nothing to indicate that much has been lost". There are also a small number of findspots related to the Kintbury and Thatcham terraces, but the chronological affinities of these small numbers of artefacts are currently uncertain.

Findspots associated with clay-with-flint deposits are also found on the chalk downlands in this area. These consist of small numbers of artefacts, and are principally found between Hungerford and Newbury. There are also small findspots associated with other deposits including solifluction gravels and 'plateau' gravels, all of uncertain age.

There are three possible Levallois flakes associated with the Kennet at Hungerford (Folly Pit) and Newbury, although the age of this material is uncertain (Wymer 1968: 108-109).

British Mousterian: Wymer (1999: Map 13) records no Middle Palaeolithic (i.e. bout coupé) handaxe finds from this zone, but the West Berkshire SMR (MWB14412) does make reference to a flat-butted cordate handaxe, in rolled and stained condition, from Abbot's Pit at Sulhamstead. On the basis of typology it is possible that the artefact is of Mousterian age, although further investigations would be required to confirm this as the location of the pit is said to be uncertain in the SMR record. There is no other evidence for Mousterian material in this zone.

4.2.4 Zone 4: South-East Berkshire

Pre-Anglian: Although there are deposits of Anglian age in this zone, presumably associated with the drainages of the proto-Blackwater and/or the proto-Loddon, there does not appear to be any findspots or artefacts (Wymer 1999: Map 15) that have been recovered from those deposits (terrace 7 in the model of Clarke and Dixon 1981).

Hoxnian/Wolstonian complex: The few findspots from this zone are mainly found in the vicinity of Wokingham (although a handaxe has also been recovered further to the south at Crowthorne), and typically yield single handaxe finds. It is probable that the terrace remnants around Wokingham relate to the flow of the proto-Blackwater (see above for further discussion of this point), with terraces 4–6 thought to be similar in age to the Boyn Hill and Lynch Hill terraces (Clarke and Dixon 1981).

British Mousterian: Wymer (1999) records no Middle Palaeolithic (*bout coupé*) handaxe finds from this area.

5. Summary

The Palaeolithic of Berkshire is dominated, both in numerical terms and with regard to wider significance, by its Lower Palaeolithic archaeology. The Middle Thames valley provides an extremely well studied framework for the many significant assemblages, and although the majority of the material is in secondary context (a common problem in the British Lower Palaeolithic), the richness of the record has provided, and continues to provide, an opportunity for extensive research into the typological and technological patterning evident within the lithic industries of the period. At the same time, there are also key resources for the earlier part of the Middle Palaeolithic, in particular the apparent occurrence of Levallois artefacts within the Lynch Hill Terrace deposits.

6. Future research priorities

6.1 Research questions

- Does the artefactual material from Berkshire provide evidence relevant to the debate concerning the status of British handaxe and core and flake assemblages?
- Can the Levallois material from non-terrace gravel deposits (e.g. brickearths) be reliably dated (e.g. using new techniques such as AAR (amino-acid ratio) and OSL (optically stimulated luminescence))?
- What are the absolute geochronological ages of the fluvial terraces of the Thames and its tributaries?
- Can key deposits (including brickearths and/or other sediments associated with primary context archaeology) be re-located and re-investigated using modern, multi-disciplinary techniques?

6.2 Specific projects

- Independent geochronological testing of terrace chronology models (principally for zone 2, but also for zones 3 and 4), including use of AAR and OSL techniques, either through specific re-investigations of remnant deposits or PPG16-funded work in light of development activity.
- Re-examination of key artefact assemblages from zone 2 (e.g. artefacts from the Black Park, Lynch Hill and Boyn Hill terraces) with specific reference to techno-typological variability and those factors which may explain it: including raw material quality, knapping strategies and/or 'cultural' knapping traditions, and spatial/chronological contrasts.
- Re-examination of key artefact assemblages from zone 2 with specific reference to techno-typological variability and the degree of integrity (in terms of artefact derivation) of specific assemblages (e.g. the suggestion for the Grovelands Pit material that there was a difference in condition between the handaxes ('waterworn') and the flake and core ('sharp') components).
- Modelling of artefact dispersal and the formation of secondary context assemblages, with particular (but not exclusive) reference to the fluvial deposits and assemblages of zone 2 (see also bullet point above).
- Direct, multi-disciplinary, investigation of primary context deposits (if and when such deposits are newly identified and/or re-located).

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Table 1: Berkshire Lower/Middle Palaeolithic resource summary

<i>Palaeo-zone</i>		<i>Fluvial complex</i>	<i>Colluvial /solifluction</i>	<i>Clay-with-flint /residual</i>	<i>Aeolian</i>
1. North-West Berkshire	<i>Site presence</i> *	X	0	X	0
	<i>Key sites</i> **	-	-	-	-
2. East Berkshire	<i>Site presence</i>	XXX	X	X	X (Brickearth)
	<i>Key sites</i>	Roebuck Pit (MTV-1/67); Farthingworth Green Gravel Pit (MTV-1A/9); Smiths Pit (MTV-1A/20); Toots Farm (MTV-1A/28); Grovelands Pit (MTV-1A/52); Danefield Pit (MTV-2/8); Cannoncourt Farm Pit & Cooper's Pits (MTV-2/17); Bakers Farm Pit (MTV-2/45);	Remenham (MTV-1/31)	-	-
3. South-West Berkshire	<i>Site presence</i>	X	X	X	0
	<i>Key sites</i>	Hamstead Marshall	-	-	-
4. South-East Berkshire	<i>Site presence</i>	X	0	- (Clay-with-flint)	0
	<i>Key sites</i>	-	-	-	-

<i>* Site presence</i>	
-	NA, no deposits in zone
0	No sites known
x	Few or very few sites, none of them prolific

xx Moderately common sites, one/some of them prolific

xxx Common sites, often prolific

**** Key sites — Just list them by name, ideally with their Southern/English Rivers Project map-name and find-spot ID**

