

PALAEOLITHS FROM THE THAMES HEADWATERS IN GLOUCESTERSHIRE AND NORTH WILTSHIRE

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ABSTRACT

The aim of this paper is to stimulate research into the region of the Thames headwaters in Gloucestershire and north Wiltshire, which is regarded as having been only sporadically visited during the Palaeolithic due to its distance from sources of flint and other suitable lithic materials. Conventional opinions on raw material procurement and transportation in the Upper Thames are considered, and it is suggested that research into the headwaters might challenge these. The Lower and Middle Palaeolithic resource of the region is reviewed, with previously unpublished material added, and it is suggested that current and potential resources are greater than previously expected. In view of this review, raw material provisioning in the region is reassessed and alternative sources of material proposed.

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INTRODUCTION AND BACKGROUND

The aim of this paper is to stimulate Lower and Middle Palaeolithic research into the large and topographically diverse region of the Thames headwaters in Gloucestershire and north Wiltshire. Headwaters in Oxfordshire are not covered as they have been substantially researched and written about by others (Hardaker 2008). The focus is, therefore, on a region often thought of as so peripheral, and so sporadically visited, during the Palaeolithic, that Wymer (1999: 58) simply covers it by the comment ‘there are only a few known individual finds of hand-axes, although this would have been a direct and easy route to the Cotswold Hills’.

Any absence of evidence for Palaeolithic presence in the region may be more due to sporadic visitation by researchers than by early hominins. Hosfield *et al.* (2008) comment on the paucity of Palaeolithic research in Gloucestershire, and Saville regards the Palaeolithic and Mesolithic as ‘Cinderella’ periods for archaeology in the county, where ‘we are little further forward than in 1984’ (2006: 239). Descriptions of both periods still primarily rely on single chapters within regional syntheses by Saville (1984) and Darvill (1987, 2006). Similar comments about a lack of Palaeolithic research might also be made about north Wiltshire beyond the well-researched area of Avebury and the Marlborough Downs, and about South Gloucestershire and Bristol (Saville 2006: 240), although a research framework for that area has now been produced (Bates & Wenban-Smith 2005). This lack of research could be due to the perception that only a small number of stray finds might be expected from the Thames headwaters, owing to their distance from suitable lithic resources.

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Gamble discusses the relationship of hominin movements to raw material availability and, when proposing that most lithic procurement was ‘local’ (1999: 125–127, 205–210), refers to Féblot-Augustins’ (1997) survey of sites in Europe, which suggests that the average maximum distance for raw material transportation was 28km during the Lower Palaeolithic and 38km during the Early Middle Palaeolithic. With specific reference to the UK, MacRae (1988) explores the use of ‘local’ materials in southern England. However, MacRae’s paper is predominately about the Upper Thames river terraces near Oxford and the use of quartzite as an alternative to flint (1988: 123), not a study of material transfer distances *per se*. MacRae proposes that hominins travelled up the Thames past the Goring Gap, and ‘when the flint ran out’ they increasingly used local hard rocks, particularly quartzite, for tool manufacture (*ibid*: 124). He also mentions that, up until 1988, only eight flint handaxes had been found further upstream in the Thames headwaters (some over 80km from the Goring Gap), and suggests that this low number was due to an inadequacy of search (*ibid*: 126). However, MacRae does not discuss the possible source of their raw material. The subject of flint shortage above the Goring Gap is also discussed by Ashton (2001), who suggests that variation in handaxe form can be explained by raw material availability. Although Ashton uses the well researched site of Wolvercote as his example, other Oxfordshire sites such as Stanton Harcourt and Yarnton/Cassington are also 40km or so away from the chalk of the Chilterns (Lee 2001: 58), and regarded as locations close to the maximum range for flint transportation (MacRae 1988; Wymer 1999; Lee 2001; Hardaker 2001, 2003, 2004, 2006, 2008). This perceived limitation on flint transportation has led to further extensive research and discussion on the alternative use, within Oxfordshire, of quartzite from the Northern Drift (MacRae 1988; Buckingham *et al.* 1996; Ashton 2001; Hardaker 2001, 2003, 2004, 2008).

Researchers such as Hardaker might, therefore, be expected to suggest that quartzite, being in closer proximity than flint, was also employed in the Upper Thames above Oxfordshire. However this has not been the case, and Hardaker has argued that flint handaxes are found at Latton near Cirencester, because it is too far away from the Northern Drift for quartzite to be used (2001: 194). On the other hand, Hardaker also suggests that a flint cleaver found at nearby South Cerney was sourced from the Chilterns over 80km away, because of the lack of any local flint (2006: 75). These apparently contradictory views might suggest that hominins intentionally selected flint over quartzite for transportation into Gloucestershire and north Wiltshire, indicating a degree of prior knowledge, planning, and perhaps, social organisation (Hallos 2005). Derek Roe (pers. comm.) makes two observations about the issue. Firstly, as quartzite is difficult to work and a less than desirable choice of material, it was perhaps only employed expediently, close to its source in the Northern Drift. Secondly, that the hominins who travelled to the Thames headwaters beyond Oxfordshire may not have been aware of the Northern Drift as a source of lithic material, and had to depend on supplies of flint, with the Chilterns, near the Goring Gap, the most obvious source. Both Hardaker and Roe seem to accept that sometimes flint was transported great distances, but leave open the question of the frequency. The possibility of alternative sources of flint or other lithic material, closer to the Thames headwaters, does not seem to have been considered by any of the above researchers.

Research into the Thames headwaters therefore has the potential to inform and question conventional opinions on lithic choice, procurement, and transportation, due to the region’s unique position of having some evidence for hominin presence, but no obvious local source of high quality lithic material. With a relatively small number of finds this region may, in the past, have seemed to have little to offer Lower and Middle Palaeolithic studies, historically focused on large assemblages and areas of abundance. However, there is now a greater recognition of the importance of areas, such as the Thames headwaters, where evidence for

hominin presence is rare (English Heritage 1998: 7; Hosfield & Chambers 2004: 319, 321 & 329). As well as perhaps meeting English Heritage's 'value' criterion in this respect, the presence of flint artefacts, in a region where flint or other suitable tool-making materials are also rare, may meet another of English Heritage's 'value' criteria by providing new information on resource exploitation (English Heritage 1998: 7).

Apart from the archaeology, the Pleistocene geomorphology of the Thames headwaters also appears to be comparatively under-researched (Goudie & Parker 1996: 1–3). Most studies cover the entire Upper Thames and are concerned with the history of the proto-Thames/Evenlode and the Northern Drift, the subsequent beheading of the Thames, and the chronology of its river terraces (Briggs *et al.* 1985; Bridgland 1994; Wymer 1999). Unfortunately these have virtually nothing to say about, and sometimes seem to have little relevance to, the river system upstream of the Windrush/Evenlode–Thames confluence (*cf.* Goudie & Parker 1996). For example, the river system upstream of the Evenlode–Thames confluence, prior to the beheading of the proto-Thames/Evenlode, is thought of as 'but a tributary' by Hardaker (2008). Whiteman & Rose on the other hand (1997: 330 & fig. 2a), appear to suggest that it may have been part of a much larger river system which crossed the present day lower Severn valley from Wales, and was associated with the subsequent formation of the Bristol Avon. Watts *et al.* (2005) and Lane *et al.* (2008) discuss evidence for the flexural uplift of the Cotswolds, possibly during the Late Anglian and early post-Anglian, which may have substantially affected subsequent drainage patterns. Studies of the development of the Thames headwaters and their relationship to the Bristol Avon, Lower Severn, and Warwickshire Avon are, perhaps, of greater relevance to the Lower and Middle Palaeolithic archaeology of the region than studies which characterise the entire Upper Thames solely in terms of the river within Oxfordshire. The latter are too often reflected in archaeological syntheses (MacRae 1998; Wymer 1999).

The Upper Thames in Gloucestershire and north Wiltshire needs to be considered in its own distinctive and diverse way, initially by a review of the current archaeological resource in the region.

THE LOWER & MIDDLE PALAEOLITHIC RESOURCE

Twenty-one artefacts have now been recovered from the Thames headwaters in Gloucestershire and north Wiltshire, all of them Lower and Middle Palaeolithic handaxes, and all bar one made from flint. No quartzite artefacts have been found. This can be compared to eight mentioned by MacRae in 1988, although the increase in numbers has not been due to any proactive searching since then (MacRae 1988: 126). The chance recoveries of eight handaxes from a quarry at Latton, Wiltshire, and one from Moreton-in-Marsh, have added significantly to the regional resource in recent years. Older finds have also been uncovered; by Hardaker (2006) and, whilst researching this paper, by the author who uncovered another handaxe from Latton and one from Hankerton, Wiltshire. Although a flake tool, initially regarded as a palaeolith, was found on high ground at Elkstone not far from the source of the River Churn, it is discounted by Saville as having no definite typological attribution (1984: 65–66).

The following details of individual handaxes update and expand on information contained in Saville (1984) and Darvill (1987, 2006) by utilizing published and unpublished sources, and by providing selected photographs, particularly of the previously unpublished ones. Table 1 provides brief individual data and, to indicate their spatial relationships, lists the findspots in

geographical order from west to east in the eastern and Cotswold Water Park areas of the region, and from north to south in the northern area. Where possible, metric data was obtained from published sources and artefact holders, or taken by the author. Figure 1 indicates the general locations of the findspots within the region.

<i>Findspot Reference</i>	<i>Handaxe Type</i>	<i>Weight (gm)</i>	<i>Length (mm)</i>	<i>Breadth (mm)</i>	<i>Thickness (mm)</i>	<i>Holding Reference</i>
Hankerton	Pointed?	133	90	58	26	Wiltshire Heritage Mus. DZSWS: 1980.6
Pool Keynes	Pointed	519	150	90	50	Bristol F3920
South Cerney 1	Cleaver	?	183	113	41	B. Beveridge (private)
South Cerney 2	Ovate	213	101	66	32	Corinium 1976/19
South Cerney 3	Pointed	73	73	45	27	Corinium 1976/204
South Cerney 4	Pointed	336	147	75	36	Corinium 1976/363
Latton 1	Ovate	231	108	79	30	N.M.S. 2001.143/1
Latton 2	Ovate	152	95	63	29	N.M.S. 2001.143/2
Latton 3	Pointed	625	137	97	47	N.M.S. 2001.144/1
Latton 4	Ovoid	350	105	82	41	N.M.S. 2001.144/2
Latton 5	Pointed	112	75	61	26	N.M.S. 2001.144/3
Latton 6	Cleaver	455+	98+	104	47	N.M.S. 2001.144/4
Latton 7	Pointed	89	78	50	30	N.M.S. 2001.144/5
Latton 8	Pointed	182	97	70	33	N.M.S. 2001.144/6
Latton 9	Pointed	119	103	55	22	K. Scott (private)
Latton Lands	Pointed	?	86	69	30	Not known
Meysey	Pointed	570	156	98	42	Gloucester A3124
Hampton						
Fairford	Pointed	72	79	58	18	Corinium 1976/364
Lechlade	Sub- Cordate	153	86	69	30	B.M. 1938.10-9.1
Moreton-in- Marsh	Cordiform	112	86	65	21	Cotswold Archaeology
Bourton-on-the- Water	Cleaver	?	165	?	?	Ashmolean 1963:1396

Table 1: Summary of palaeoliths from the Thames headwaters

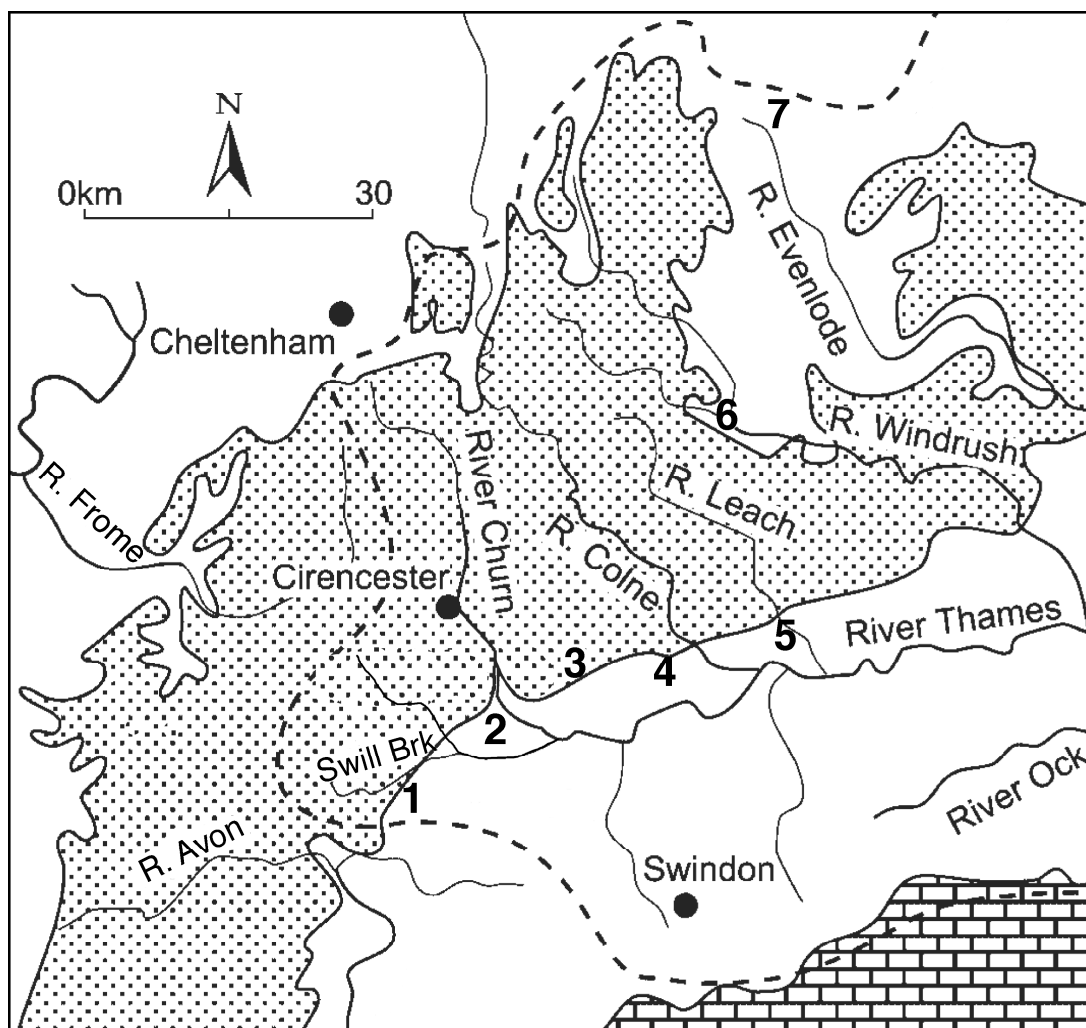


Figure 1: Location of Sites in the Thames headwaters catchment area (after Lewis et al. 2006). Key to Sites: 1. Hankerton; 2. Poole Keynes, South Cerney, Latton and Latton Lands; 3. Meysey Hampton; 4. Fairford; 5. Lechlade; 6. Bourton-on-the-Water; 7. Moreton-in-Marsh.

THE EASTERN HEADWATERS

Hankerton

An incomplete chert handaxe (Figure 2), found at Brook Farm, Hankerton, Wiltshire (ST 968 913), has never been fully published, only mentioned in syntheses. Perhaps this is why it has been incorrectly attributed as to having come from the headwaters of the Bristol Avon rather than the Thames (*pace* Bates & Wenban-Smith 2005).

Originally accessioned and reported as just a fragment (Anon. 1982), museum records now describe it as possibly an ovate with a large flake missing from one edge (although part of a pointed tip also appears missing), and with a smooth surface caused by waterborne rolling. Bates & Wenban-Smith (2005) follow the original report, and also propose that it may have been found on bedrock near the junction of oolitic limestone and Oxford clay and be derived from a degraded terrace remnant. Derek Roe (pers. comm.) suggests that this handaxe's nature and raw material seems reminiscent of the Acheulian industry from Chapel Pill Farm, Abbots Leigh in the valley of the Bristol Avon (Lacaille 1954), the possible implication of which will be discussed later. Rather than being a very remote find in the Bristol Avon

headwaters, this handaxe is less than 15km away from the majority of other finds in the Thames headwaters. The nearest handaxe found downstream on the Bristol Avon system is from Sutton Benger, Wiltshire, 17km to the south, and made from good quality flint (Arkell 1944; Bates & Wenban-Smith 2005).

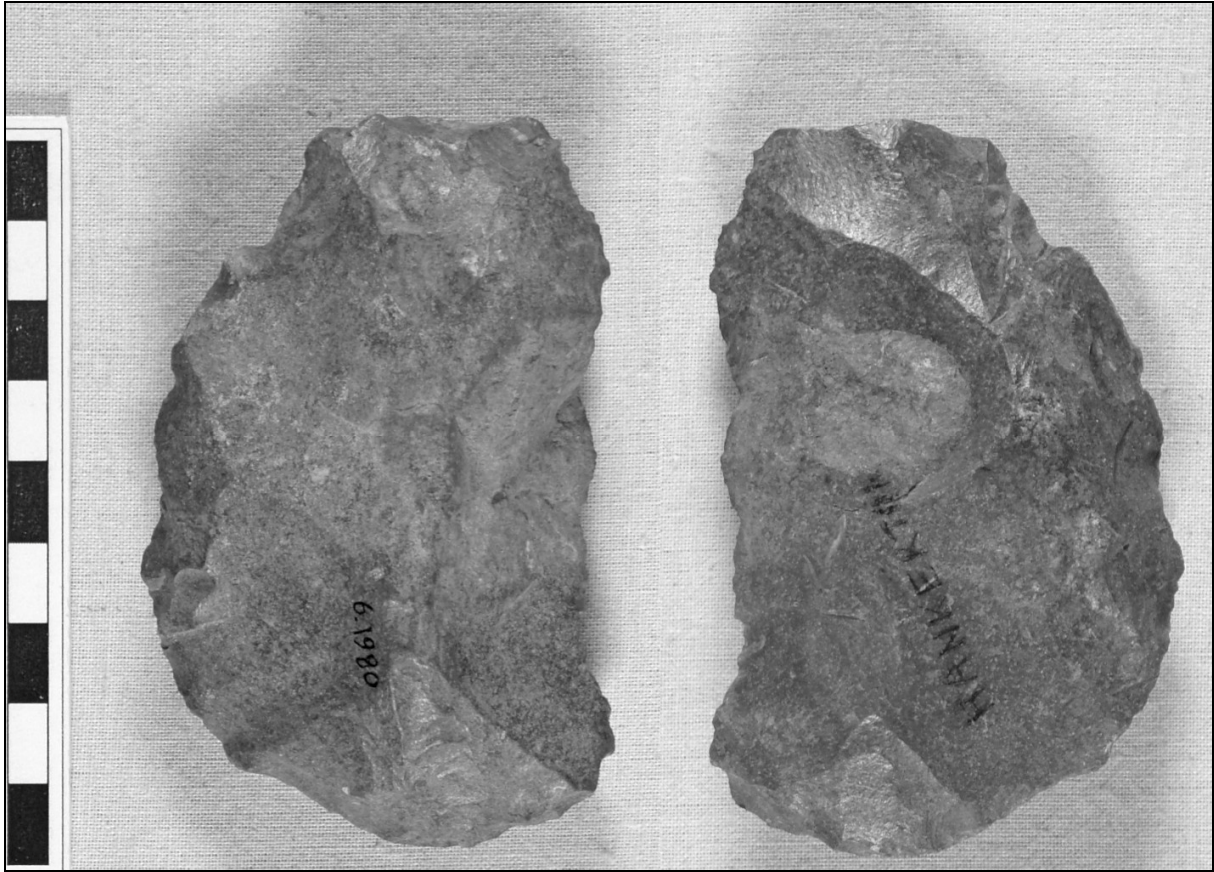


Figure 2: Chert handaxe from Brook Farm, Hankerton

It has now been established that the handaxe was found by Professor Andrew Goudie of Oxford University and a graduate student, whilst they were looking for possible glacial deposits from the Northern/Plateau Drift (Goudie, pers. comm.; Goudie & Parker 1996: 39). The location of the findspot is just to the north of a brook that flows north-eastwards into the Swill Brook, then into the Thames. Although the direction of watercourses in the area have almost certainly changed during, and since, the Middle Pleistocene, they almost all originated, and have remained, as ‘consequent’ streams running generally eastwards from the Cotswold dip slope (Green 1992; Whiteman & Rose 1997). Several kilometres to the south of Hankerton, the upper Bristol Avon and its main tributary, the Tetbury Avon, still run eastwards until past Malmesbury, Wiltshire, ‘as if belonging to the Thames drainage system’ (Green 1992: 6).

The Cotswold Water Park Area

Fifteen handaxes have been recovered from Pool Keynes, South Cerney, Latton and Latton Lands, all in the western and central sections of an area designated as the Cotswold Water Park, where massive gravel extraction has been undertaken for over fifty years (Waterpark 2008). A further three handaxes come from Meysey Hampton, Fairford, and Lechlade in the eastern section of the Water Park, but only the last was recovered as a result of gravel

extraction. Quarry workers, fossil hunters, palaeontologists and dog walkers, rather than archaeologists, have been the collectors of handaxes from the area, and it is impossible to know how many more may still be sitting in private hands.

Although archaeological contractors have been employed by the aggregate industry for some years, no Palaeolithic artefacts have been recovered through this mechanism, probably because planning interventions in Gloucestershire have not required watching briefs during gravel extraction in the area (Mullin 2005: 38). The research agenda in Mullin does not appear to recognise the potential Palaeolithic resource in the area (*ibid*: 57, 68, 70), or the risk to it unless greater mitigation strategies are employed (English Heritage 1998). The Palaeolithic of the area is not reasonably well understood (*pace* Mullin 2005: 70), and Allen *et al.* (1997) do not discuss the Palaeolithic, or recognise the depositional influence of the high gradient River Churn in this area (*ibid*: 115; Lewis *et al.* 2001: 345; 2006: 203). Symptomatic of the lack of awareness of the Palaeolithic potential of the area, a recent heritage study for the Cotswold Water Park Society, covering its entire designated area in Gloucestershire and north Wiltshire, records only six handaxe finds compared to the eighteen discussed here (Oxford Archaeology 2005).

Pool Keynes

Grinsell (1966) briefly recorded a large pointed and unrolled handaxe which was found during gravel working in the floodplain between the Swill Brook and the Thames near Pool Keynes (SU 012946).

The following handaxes from South Cerney, Latton, and Latton Lands come from Pleistocene fluvial sediments beneath the Floodplain Terrace (Northmoor Member of the Upper Thames Formation) in the area of the Churn–Thames confluence (Lewis *et al.* 2001, 2006), and are better associated with deposition by the River Churn than the Thames. There has been long term dispute as to which of the two rivers should be properly regarded as the source of the Thames, and the current nomenclature for these rivers may be limiting perception of the extent of the movement of prehistoric hunter-scavengers-gatherers in this area.

South Cerney 1–4

A large flint cleaver ‘South Cerney 1’ (c. SU 057965) is described by Hardaker (2006), who sees it as the ‘twin’ of another found at Cassington/Yarnton in Oxfordshire just over 50km away. Hardaker assumes that, as suitable flint is not available locally, the material of both must have originated from the Chilterns. Although he mentions that cleavers, especially large ones, are rare in this part of Britain (*ibid*: 75), ‘Latton 6’ of possibly larger size was found less than 2km away. One was also found at Bourton-on-the-Water (O’Neil 1965) and Hardaker (2008) records yet another from Standlake in Oxfordshire. Whilst still small in number, cleavers might occur as frequently in the Thames headwaters as further downstream (Ranov 2001: 107).

Whitehead (1979) reports finding ‘South Cerney 2’ (SU 061966), a very symmetrical plano-convex ovate made from good quality black chalk flint, described as being well executed with highly resolved edge working (Figure 3). It was examined by Professor F.W. Shotton, who suggested that the maker wished to remove the nodular excrescence on the otherwise flat face, but was unable to do so. This prompts the question of whether manufacture was carried out locally from a transported nodule or blank, or whether the maker accepted that the finished

handaxe was ‘fit for purpose’ and worth transporting. The handaxe was found in a thin seam of current-bedded gravel between bedrock and Jurassic solifluction gravel, and in its horizon was a vertebrate assemblage suggested as mid-Devensian, consisting of *Mammuthus primigenius* (including complete tusks), *Coelodonta antiquitatis*, *Equus ferus* or *spelaesus*, and Bovidae gen. et spec. indet.

‘South Cerney 3’ (c. SU 0696), which has never been previously published, is a small asymmetrical handaxe made on a flake, found by chance in a gravel pit (Figure 4). An unpublished draft catalogue for the Corinium Museum suggests its similarity to some of the pointed, plano-convex handaxes of the Wolvercote Channel industry (Tyldesley 1986). This similarity is interesting in view of Ashton’s comments on the Wolvercote industry mentioned above and, if this handaxe can be associated with those from Wolvercote, possibly dates it to OIS 9 (Ashton 2001: 200).

Viner (1978) recorded Corinium Museum’s accession of the large, patinated, and slightly rolled pointed handaxe ‘South Cerney 4’ (c. SU 068968; Figure 5). It was found during gravel extraction just over 0.5km away from the Latton ones below.

Latton 1–9 and Latton Lands

Lewis *et al.* (2006) provide the first comprehensive study of a Palaeolithic site in the region. The grid reference of SU 081965 given for Latton is on the south-eastern edge of the entire site complex, but the horizon of ‘Association A’ (*ibid*: 183), employed to correlate the environmental and artefactual evidence, is located at c. SU 074970 in Latton North. The earliest mammalian and artefactual evidence recorded is attributed to late OIS 7, and compared to that from a similar horizon at Dix Pit, Stanton Harcourt (Buckingham *et al.* 1996; Scott 2001; Scott & Buckingham 2001). Eight handaxes are mentioned, although only one was found *in situ* from ‘Association A’ (Lewis *et al.* 2006: 196). It is possible that further handaxes were removed from Latton between 1997 and 2002 in addition to the one mentioned below, as the site was quite well known for its fossils and regularly explored (*ibid*: 196; Stott 2003). Stott provides an interesting alternative, and perhaps more imaginative, interpretation of the recoveries from Latton, including the suggestion that the handaxes were made from local flint, possibly by Neanderthals.

Roe describes the eight handaxes (Lewis *et al.* 2006: 198) and sees some general parallels with others downstream, particularly from Stanton Harcourt and Berinsfield in Oxfordshire. He also suggests that a fuller evaluation and report of the handaxes still needs to be made. Whilst they cannot be considered a single assemblage, some general observations on the collection may be made from Roe’s synthesis. Typologically, four are pointed, one of which is possibly a large ficron with cortex and a thin orange banding comparable to ‘bull-head’ flint, and with the smallest one being made on a flake. Three are ovate/ovoids of varying quality of workmanship and material, and there is one-half of what appears to be a cleaver, perhaps originally c. 200mm long. Most are only slightly abraded. Although they are broadly correlated with a date of MIS 7, Roe mentions that some of these handaxe types were also found in MIS 8 gravels beneath the Lynch Hill Terrace in the Middle Thames (Lewis *et al.* 2006: 197). The eight handaxes, together with some of the fossil bone from the site, are currently held by the Natural Sciences Department of the National Museum of Scotland (A. Saville pers. comm.).



Figure 3: 'South Cerney 2'



Figure 4: 'South Cerney 3'



Figure 5: 'South Cerney 4'



Figure 6: Fairford

In addition to the above, another pointed handaxe, ‘Latton 9’ (Figure 7) was a surface find made during the filming of a television programme at the site in 2002 (K. Scott pers. comm.). It has yet to be examined.

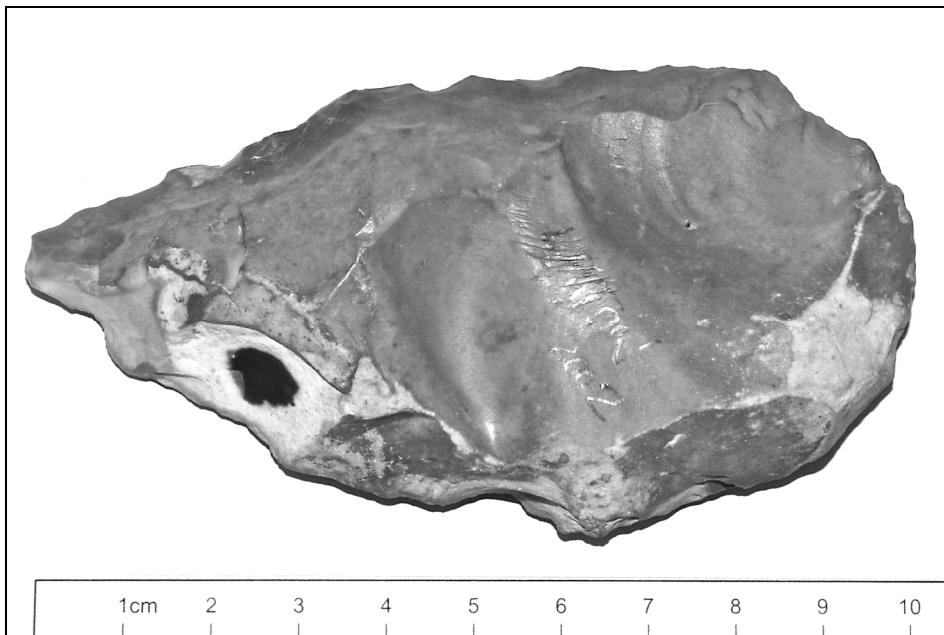


Figure 7: ‘Latton 9’

The author has so far been unable to trace the whereabouts of a rolled and patinated pointed handaxe thought to be from nearby Latton Lands (c. SU 085961), which was recovered from gravel during a watching brief on road construction (Mudd *et al.* 1999: 1, 15, fig. 7.3.24). Although shaped differently from ‘South Cerney 2’, Darvill suggests, without further explanation, that their contexts and ages may be comparable (2006: 14).

Meysey Hampton

In 1942, a large handaxe (Figure 8) was found 1.5m deep in valley gravels at Villars Farm, Meysey Hampton (c. SU 120998), perhaps near an unnamed watercourse which runs down to the Thames 4km away. Although Saville (1984: 65) provides a photograph and Darvill (1987: 19) an illustration, neither provide further details. Gloucester City Museum’s accession record simply describes it as being slightly convex with symmetrical edges, with a broken point, and some secondary flaking. The flint is grey with white patina, slightly stained yellow-brown in places, and with a patch of cortex remaining on one side near the butt. On inspection, there also appears to be a tranchet finish on one face.

Fairford

A very small handaxe made on a flake, and with a well developed spinal ridge (Figure 6), is believed to have been collected during development work at RAF Fairford in 1973 (c. SU 1598), but the exact circumstances of the find are unknown. The unpublished draft catalogue for the Corinium Museum mentioned earlier suggests that this handaxe’s shape and the knapping technique used are reminiscent of the Wolvercote Acheulian industry, possibly dating it to OIS 9.

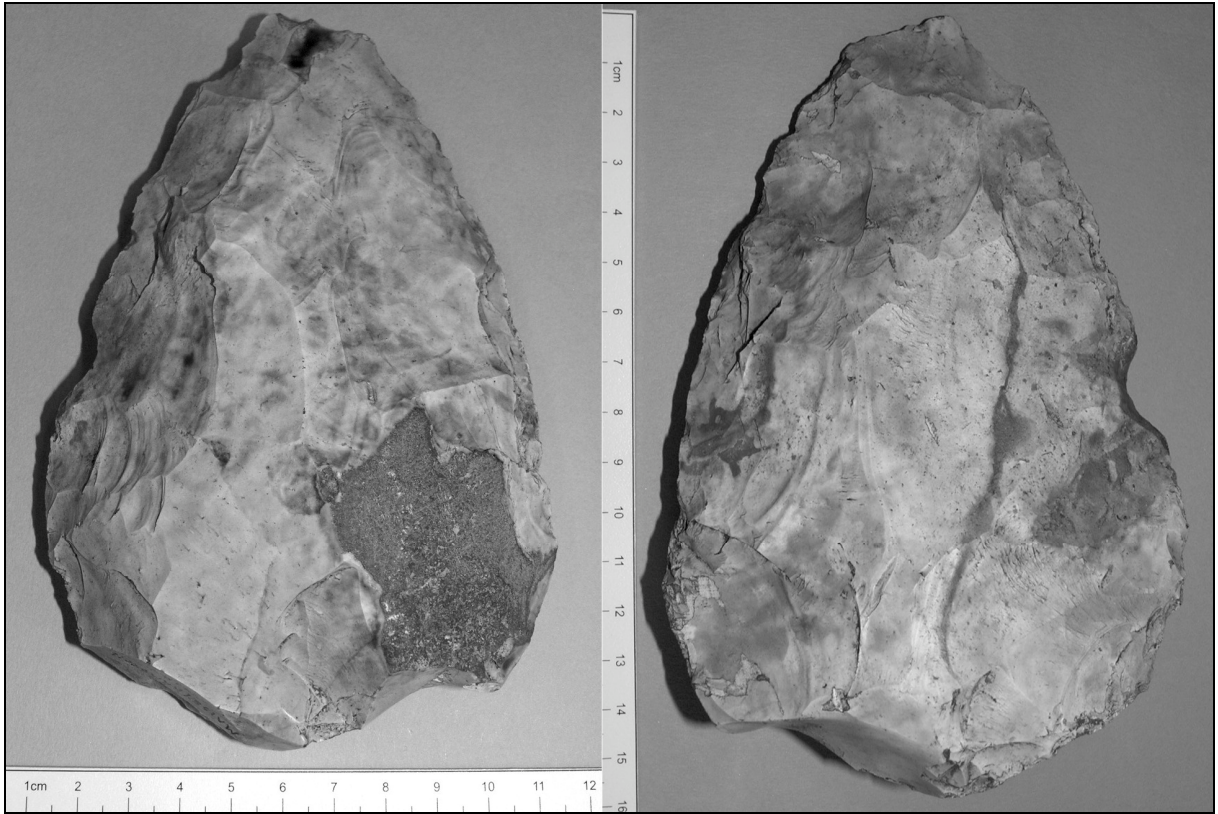


Figure 8: Meysey Hampton

Lechlade

A sub-cordate handaxe was found in 1938 in a gravel pit near the River Leach (c. SP 217007), to the north-east of Lechlade (Clifford 1939). It is described as a sub-triangular handaxe made on a flake, with bright ochreous patina and little lustre, a cutting-edge all round, zigzag at the base, with the sides regular and almost straight. Recorded at the time as late Acheulian, and considered ‘*Acheul V*’ by Arkell (1947: 220), it is regarded as borderline and potentially, or possibly, Mousterian by Saville (1984) and Darvill (1987) respectively. All of these authors have noted its resemblance to a handaxe found at Barnwood, near Gloucester in the Severn valley. More recently, Oxford Archaeology described it without qualification as Mousterian (2005). After a brief examination of the handaxe whilst providing information for this paper, Nick Ashton and Roger Jacobi of the British Museum have an open mind about its age, and point out that, although it has a flattish butt, it is also slightly thick, and similar handaxes are found in the Lower Palaeolithic (N. Ashton pers. comm.). Jacobi also comments that the degree of staining on it suggests it to be earlier rather than later (R. Jacobi pers. comm.).

The Northern Headwaters

Moreton-in-Marsh

The most recently published handaxe find comes from Blenheim Farm, Moreton-in-Marsh (c. SP 208328), in the valley of the River Evenlode. It was an unstratified find, recovered during excavations of a four hectare site by Cotswold Archaeology prior to housing development. The report (McSloy 2008: 21), which incorporates information provided by Roger Jacobi, describes it as a small cordiform handaxe in sharp condition, with bluish yellow patina, and

made from a cobble of yellow brown flint or fine-grained chert, probably from river gravel. It is possibly a 'late' handaxe of Mousterian affinity.

Darvill (2008: 54) discusses the wider context, suggesting that it was made locally from a flint cobble derived from deposits of the Oadby Member (OIS 10) of the Moreton Drift (Sumbler 2001). He also proposes that the handaxe may be connected with the presence of hunter-gatherer groups near the southern end of the pro-glacial Lake Harrison during OIS 6, c. 120,000 BP, or during the early Ipswichian, OIS 5e (*cf.* Ashton & Lewis 2002). The most important point made by Darvill (2008) is that this handaxe points to the possibility of other similar finds being made in the area. Both quartzite 'Bunter' pebbles from the Northern Drift and flints, some large, from the Moreton Drift (Wolston Formation) are found in this area.

Bourton-on-the-Water

The large flint cleaver from Bourton-on-the-Water has already been mentioned above (O'Neil 1965). Conflicting locations for the find are reported, with Wymer (1968: 84) giving it as Hoveringham's Gravel Pit (c. SP 175205), and with Darvill (1987: 21) and Saville (1984: 75) giving it as the Santhill Gravel Pit (c. SP 178191). It is hoped that this cleaver can be fully examined and compared to the other cleavers from the region once the Ashmolean Museum in Oxford opens its doors again for research in 2010.

RAW MATERIAL PROVISIONING IN THE THAMES HEADWATERS

Whilst the total number of handaxes in the Thames headwaters is regarded as small, it is perhaps easy to ignore the subject of, or make assumptions about, raw material provisioning. Typological parallels, which may or may not be valid, have been drawn with handaxes found outside the region, particularly with those from the well-known sites of Stanton Harcourt, Berinsfield, Wolvercote and Cassington in Oxfordshire. These parallels might be seen by some, for example Hardaker (2006), as proxy indicators to the location of, and routes taken from, sources of raw material, and in support of conventional opinion that palaeoliths found in the region represent just an occasional 'one further step beyond' (Wymer 1999; Ashton 2001; Hardaker 2006). With the increased number of handaxe finds described above, a greater concentration on them in the Cotswold Water Park area, 'different' palaeoliths being found near the region's periphery, and an appreciation that the Palaeolithic potential may not have been fully realised, the subject of raw material provisioning in the Thames headwaters deserves further attention. It is also increasingly difficult to maintain that the headwaters, particularly those close to the Upper Thames valley, were only sporadically visited during the Palaeolithic. The evidence for more frequent hominin presence would appear to challenge conventional opinion on lithic transportation and/or sources of raw material, and some initial observations are now offered on the subject.

The Palaeolithic resource shows that fifteen flint handaxes have been recovered relatively close to each other in the western and central Cotswold Water Park area, including nine from one gravel pit. This area is some 40km further on from the Oxfordshire sites mentioned above, with the total distance for flint transportation via a river route from the 'flint-rich' Chilterns of over 80km. Although not a single assemblage, they could be treated as a cohesive group that provides a record of persistent hominin behaviour over time (Stern 1993; Wenban-Smith 2004: 49–51). The group consists of pointed handaxes (60%), ovates (27%) and cleavers (13%), and range from 73mm to c. 200mm in length, with 60% over 100mm. Pointed forms average 105mm in length, ovates 102mm, and cleavers possibly 190mm. Conventional

opinion would suggest that all are likely to have originated from Chiltern flint. However, Roe describes one large handaxe as having banding comparable to ‘bull-head flint’, and makes a reference to the Lynch Hill Terrace near Reading (Lewis *et al.* 2006: 197–198). This might be taken to suggest that its source could be bullhead flint from the more distant Reading Beds. It would be interesting to learn whether Ashton, McNabb and White’s ‘raw material models’, or McPherron’s ‘reduction model’ could be applied to this group of handaxes (Ashton 2001; Ashton & White 2003; McPherron 2003).

There is, however, a possible alternative source of flint for some handaxes from the Thames headwaters which appears not to have been previously considered. From several locations around the headwaters near Cirencester, the chalk escarpment of the Marlborough Downs may be seen less than 25km south-south-eastwards. At least during the MIS 7 interglacial, the area away from any marshland around the Churn–Thames confluence is likely to have been extensive open grassland (Scott 2001; Scott & Buckingham 2001; Lewis *et al.* 2006), enabling good visibility and easy access to the Marlborough Downs, and its relatively plentiful source of flint (Wymer 1999: 179). The author’s attention was drawn to this possibility whilst researching the palaeoliths and eoliths in Gloucester City Museum, discovered by H.G.O. Kendall (1866–1928) around Hackpen Hill on the downs (Weston 2008). The Palaeolithic of Avebury and the surrounding downs is discussed by Scott-Jackson (2000, 2001, 2005), who also points out the significance of high-level clay-with-flints in the area, and suggests that the hilltops and edges of the downlands would be useful places to watch the movement of animals (and other hominins) in the valleys below (2001: 38). However, as mentioned earlier, little, if any, Palaeolithic research has been conducted on the adjoining Upper Thames and Bristol Avon valleys in north Wiltshire, or on any relationship between the lowlands and the uplands. It is also worth remembering that during the Mesolithic and Neolithic chalk flint, and some chert, was regularly transported from north Wiltshire to the Cotswolds, and this may have also occurred to some extent during the Palaeolithic.

Wymer (1999: 46) proposes that, at least between OIS 11 to OIS 8 (*ibid.*: 4), hominin communication and movement centred primarily on main river/tributary confluences, and secondly on the proximity of a chalk hinterland. It might be suggested that, by re-ordering the emphasis on these two factors, hominin movements in the Upper Thames may not have been so linear, or so closely linked to the river system as conventionally perceived. Hominin mobility in the region may have consisted of ‘multiple individual movements’ (Close 2000: 49), between sources of raw material and sources of food. Hosfield (2008) comments on the particular importance of the Berkshire Downs to the Palaeolithic occupants of that region, and echoes Wymer in discussing the relationship between sites/findspots and Thames/tributary confluences, although to some extent these relationships may also reflect taphonomic factors of assemblage formation in secondary contexts. The Chilterns, Berkshire Downs and Marlborough Downs form an almost continuous chalk hinterland to the Upper Thames valley, with the main river running no more than 30km distant from them. During favourable environmental conditions this hinterland could have provided a continuous source of tool replenishment for a mobile population. This hypothesis, and the suggestion that some of the handaxes found in the Thames headwaters may have come from the Marlborough Downs, requires further consideration.

The above leads on to discussion of the chert handaxe found at Hankerton, close to the low-level watershed between the Thames and Bristol Avon river systems. As mentioned above, Roe notes possible parallels between the Hankerton handaxe and the chert handaxes found at

Chapel Pill Farm, Abbots Leigh in the lower Bristol Avon. These handaxes are said to be made of ‘local’ greensand chert from the Warminster–Westbury area (Roberts 1988: 220), although that source is over 40km from Abbots Leigh. The Hankerton handaxe was found a similar distance from the Warminster–Westbury area but, as mentioned above, the Marlborough Downs could provide a closer source of greensand chert, particularly from around Devizes less than 30km away. With the flint handaxe found at Sutton Benger on the Avon, mentioned above, also probably being sourced from the Marlborough Downs, there is the intriguing possibility of a hominin route between the Thames and Bristol Avon systems based on the continuous proximity of lithic materials and waterways. The distance between these two river systems is far less than the 20km corridor between the Kennet and Hampshire Avon and the Bristol Avon, which is suggested as a possible route for hominin movement by Wymer (1999: 181).

The central and northern Thames headwaters in Gloucestershire highlight different issues regarding hominin presence and material procurement, especially since evidence is currently sparse. The excellent work of Hardaker has illustrated hominin presence and the use of local quartzite and other materials in the Thames headwaters in Oxfordshire (2008) and this work could, perhaps, be extended into Gloucestershire. Darvill’s (2008) discussion on flint from the Moreton Drift suggests that, during some periods of the Palaeolithic, flint tools might also have been carried down the River Evenlode or southwards into the Cotswolds. The flint cleaver found at Bourton-on-the-Water might well be explained by long-distance transportation up the River Windrush, but the presence of flint handaxes in the Severn Valley nearer to the west, and others further north in the lower Warwickshire–Worcestershire Avon (Saville 1984: 66), leaves open the possibility of other alternative sources of raw material.

Reflecting generally on the subject of artefact/raw material transfers throughout the Upper Thames, it might be suggested that Gamble’s references (1999: 125–127, 205–210) to Féblot-Augustins’ survey (1997), and linking it to MacRae’s work (1988), provides a misleading picture of the absolute material transfer distances that may have occurred in the region. The reasons for this are Gamble’s focus on primary context sites and the ‘procurement distances’ from them, and his use of the term ‘local’ solely in that context (1999: 125–127, 205–210). However, Gamble also regards resource exploitation transfers of up to 100km as being ‘local’ and within hominin ‘landscapes of habit’ (*ibid*: 88), and this use of the term ‘local’ might be more appropriate to apply to MacRae’s work, and the secondary context data which predominates in the Upper Thames. Gamble effectively creates a dual, and perhaps confusing, definition of the term ‘local’, which he more fully describes elsewhere — ‘The dimensions of these local hominin networks can be established from archaeological data by the distances over which raw materials were commonly transferred. From both Pleistocene and Holocene data these transfers indicate maximum distances of 80–100kms and from a site perspective a radius of movement of some 40km ... within the area of the local hominid network it is not possible to differentiate between local and exotic raw materials ... everything is local and I would suggest that we drop such terms from our lithic vocabularies. What we are seeing is the optimisation of provisioning strategies relative to the affordances offered by stone to a mobile, dextrous animal’ (Gamble 1995: 22). Féblot-Augustins’ approach is also based on raw material procurement distances from ‘sites’ (1997), which is again questionable in relation to the Upper Thames. However, when employing the same approach in respect of the Aquitaine Basin, Féblot-Augustins (1993) comments on its limitations, and the differences with an alternative approach used in central Europe based on raw material movements from ‘sources’ (*ibid*: 226–227). Survey results from these two different approaches would appear to be consistent with Gamble’s dual use of the term ‘local’, with maximum transfer distances of

100km for source exploitation, and of 40km for procurement ranges from primary context sites. In view of this, any chalk flint found in the Upper Thames region could be regarded as 'local' and within a hominin 'landscape of habit'. Although primarily concerning the Late Middle Palaeolithic, Féblot-Augustins' discussion on the possible causes of interregional differences in raw material provisioning and mobility strategies (1993; Close 2000) is also interesting in relation to possible hominin practices in the Upper Thames region during the Lower and Middle Palaeolithic.

CONCLUSION

The aim of this paper has been to stimulate Lower and Middle Palaeolithic research into the Thames headwaters in Gloucestershire and north Wiltshire. It has illustrated that little research has been done in recent years due a lack of recognition of the current and potential resources in the region, and endeavours to help rectify this by providing up-to-date details of that resource, including previously unpublished information. It also suggests that, as far as the Cotswold Water Park area is concerned, a potentially valuable resource may be lost unless planning policies are reviewed.

Whilst acknowledging that artefact numbers are still relatively small, the increasing body of evidence from the Thames headwaters deserves closer attention. Initial consideration of the current resource challenges conventional opinions on raw material procurement and transportation in the region, and suggests possible alternative raw material sources and procurement strategies. It is generally proposed that the region offers the scope to inform wider debates between researchers on the sourcing of flint, and the role of quartzite and other non-flint tools in the Thames Valley.

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