Buckinghamshire
Later Bronze Age and Iron Age
Historic Environment Resource Assessment
Sandy Kidd      June 2007

Nature of the evidence

The Sites and Monuments Records for Buckinghamshire and Milton Keynes attributes 1622 records (monuments and find spots) to the Iron Age and a further 144 records to the Middle or Late Bronze Age representing about 9.4% of total SMR records. Also, many formally undated cropmark sites probably actually date to the Bronze Age or Iron Age. In addition evidence for the survival of putatively prehistoric landscapes into modern times needs to be considered (see landscape section).

Later prehistoric sites have been recognised in Buckinghamshire since the 19th century with useful summaries of the state of knowledge at the beginning of the twentieth century being provided by the Royal Commission for Historical Monuments and Victoria County History. Essentially knowledge was restricted to a few prominent earthwork monuments and a handful of distinctive finds, mostly from the Chilterns and Thames (Clinch, 1905; RCHME, 1912 & 1913). By 1955 Jack Head was able to identify a concentration of Iron Age hillforts, settlement sites and finds along the Chiltern scarp along with a few sites (mainly hillforts) on the dipslope and a scattering of sites along the Thames. A few of these sites, notably Bulstrode and Cholesbury Camps and an apparently open settlement on Lodge Hill, Saunderton had been investigated by trial trenching (Head, 1955, 62-78). By 1979 it was possible to draw upon a wider range of evidence including modern excavations, aerial photography and environmental archaeology referring to sites in the Ouse valley as well as the Chilterns, open settlements as well as hillforts and evidence for extensive open grassland environments from the Bronze Age onwards (Reed, 1979, 35-41). Since the 1970s there has been a dramatic rise in information available for these periods resulting largely from excavations in advance of development and therefore focussed in areas of development pressure: primarily Milton Keynes but also in the Thames Valley and around Aylesbury. Away from these areas there have been fewer opportunities for new discoveries, although gas and water pipelines have provided useful “transects” across the countryside.

There are many factors affecting the recovery of archaeological information in Buckinghamshire. For the later prehistoric period, key factors are the restriction of extensive areas of free-draining soils conducive to the formation of cropmarks to the extreme north and south of the county in the valleys of the Ouse, Thames and their larger tributaries. For most of rest of the county, aerial photography has had more limited application, although there have been some positive results on limestone outcrops, for example around Bierton/Hulcott. Fieldwalking surveys have been carried out in the Vale of Aylesbury (Dalwood and Platell, 1988 and unpublished information in Bucks SMR); Chess Valley (Stainton, 1995) and Whittlewood (Jones, 2002), but unfortunately they have produced mixed or poor results for later prehistoric periods. Iron Age pottery scatters were found by the County Museum surveys around Aylesbury and Haddenham but neither the Chess Valley nor Whittlewood surveys found much evidence for this period despite recovering significant evidence for Roman occupation. The reasons for this disparity are not entirely clear but it is doubtful that it reflects a real paucity of pre-Roman occupation
in the Chess Valley or Whittlewood. Rather, it is suspected that a major factor is the fragile nature of later prehistoric pottery, which means that only sites under active plough erosion are detectable whereas Roman pottery is more durable in the ploughsoil. To back this up, there is at least one instance of a Romano-British pottery scatter proving on excavation to have substantive later prehistoric phases (Aston Clinton Bypass Site B). On most geologies geophysical survey is a more reliable non-intrusive evaluation technique for this period, although some surveys on the Thames Valley gravels have given disappointing results (e.g. Taplow to Dorney Pipeline Site A).

A total of 28 substantive open area excavations of Middle Bronze Age to Late Iron Age date have been conducted (see appendix 1) ranging from mid-1960s research excavations on Ivinghoe Beacon through the work of the Milton Keynes Archaeology Unit in the 1970s and 80s to recent developer-funded investigations. These provide the main body of information for the period: so far 15 have been fully published, whilst a further 10 are progressing towards publication. Unfortunately, three excavations (Prebendal, Aylesbury and Furzton and Westbury-by-Shenley in Milton Keynes) have only published interim notes with no provision for full publication. Later prehistoric material has also been found on numerous evaluations, watching briefs and excavations focussed on other periods.

Chronology

The chronology of later prehistoric Buckinghamshire is problematic. The dating of most sites still rests on ceramic typology as few produce other dateable finds. The take up of radiocarbon dating remains partial being used on only about 40% of open area excavations with between 2 and 4 dates per site. This appears to be partly explained by a shortage of suitable dateable materials but also reflects perceptions that the method has limited value due to the flat calibration curve in the earlier 1st millennium BC and in some cases overly constrained resources. The only other scientific dating method yet used in the county for this period is a single incidence of Optically Stimulated Luminescence (OSL) dating on a stabilisation layer in one of the hillfort ditches at Taplow Court.

Unfortunately, the county’s ceramic typology and its absolute chronology remain distinctly woolly, a situation not helped by the lack of locally based researchers and the county’s geographical location straddling the divides between the Ouse river catchment, the Chilterns and the Thames Valley. For Milton Keynes and North Bucks recent studies have generally referred to David Knight’s framework (Knight 1984 and 2002) of five ceramic phases starting with Deverel-Rimbury (mid-late second millennium BC) then Post Deverel-Rimbury plainwares (early 1st millenium BC) then Late Bronze Age/Early Iron Age styles (8th to 5th/3rd centuries BC) then Earlier La Tene styles (5th/3rd centuries BC to early 1st century AD) and finally Late La Tene (“Belgic”) wheelmade pottery appearing alongside the earlier handmade tradition from the mid 1st century BC. For the Chilterns, Saunder’s thirty-five year old framework of three pre-Belic phases has not advanced significantly due to a lack of investigation (Saunders, 1971), although it broadly correlates with Knight’s schema. The forthcoming publications of the later prehistoric phases of the Dorney Rowing Lake, Maidenhead and Windsor Flood Alleviation Scheme and Taplow Court should provide an up to date statement for the Middle Thames Valley in Buckinghamshire.

Problems with chronology arise from the rarity of chronologically distinctive ceramic forms and decorative treatments, particularly in the early La Tene (broadly Middle Iron Age) ceramic phase with many sites defying close dating (e.g. Bancroft phase 2a). Changes in fabric composition have also been correlated with chronology with
the suggestion that, at least along the Chiltern scarp and Vale of Aylesbury, Late Bronze Age/Early Iron Age predominantly flint-tempered fabrics are replaced by sand (quartz) temper in the Early/Middle Iron Age then greg temper in Late Iron Age. Nevertheless, the potential pitfalls of such an approach are illustrated by the Vicarage Site, Bierton where flint-tempered handmade pottery appears to be contemporary with Late La Tène ceramics (Allen, 1986). Where radiocarbon dates have been obtained from materials closely associated with distinctive ceramics the results can challenge typological dating as at Aston Clinton Bypass site B where a supposedly Late Bronze Age cremation urn was associated with a date of 1440-1290 Cal BC (RPS, 2005). Radiocarbon dates from an occupation deposit behind the rampart at Ivinghoe Beacon produced a wide range of dates in the earlier 1st millennium BC (Green, 1981) associated with an assemblage typical of post Deverel-Rimbury plainwares – however, recalibration suggests that the 3 dates need not be as inconsistent as first thought with some overlap evident in the 8th century BC (further dates and statistical analysis are clearly needed to resolve the chronology of this key site). At present it would be unwise to rely solely on ceramic dating where other methods can be applied and wider use of radiocarbon dating would be advisable despite the restrictions imposed by the calibration curve plateau.

Inheritance

Many later prehistoric sites produce evidence for earlier activity but this is usually restricted to small numbers of struck flint, or occasionally isolated features such as the Neolithic pit at Coldharbour Farm, Aylesbury (Bonner and Parkhouse, 1997). Such associations are presumably merely coincidental. Of potentially greater significance is the evidence for pre-hillfort occupation at Ivinghoe Beacon and Taplow Court. The hillfort on Ivinghoe Beacon encompasses a presumably earlier Bronze Age round barrow and seems to have been built over a Bronze Age open settlement (Brown, 2001; Cotton and Frere, 1968). A geophysical survey has been interpreted as suggesting that the hillfort was (deliberately?) built around a long enclosure or mound (Gover, 2000), however this interpretation is questionable and difficult to reconcile with the 1960s excavation (Barker, Brown and McOmish, 2003). Cropmarks adjacent to the nearby Cheddington hillfort suggest the possible presence of another long enclosure, mound or cursus (unpublished aerial photograph in Bucks SMR). Excavations at Taplow Court indicate occupation during the later Mesolithic and again during the early Bronze Age (Allen and Wymark, 2000). Burnt mounds, a distinctive feature of the Neolithic and Bronze Age found adjacent to the rivers Misbourne and Thames, continue into the later Bronze Age, notably at Little Marlow where they have been interpreted as a sauna (Richmond et al, 2006). Secondary inhumations in barrows also continued into the later Bronze Age (Green, 1974, barrow MK 13) A final question relates to the extent to which the open landscape characteristic of this period was inherited from the earlier Bronze Age as might be suggested by the pollen sequence from Little Marlow (Richmond et al, 2006) and molluscs from barrows in the Ouse and Ouzel valleys at Milton Keynes (Green, 1974).

Landscape and land use

General patterns of records for this period show the strongest concentrations of later Bronze Age finds along the Icknield Belt, in the Ouse Valley at Milton Keynes and in the Middle Thames. Elsewhere there are a scattering of records, particularly on the Chiltern dip-slope and in the Bernwood area west of Aylesbury. Records for the Iron Age show similar general patterns but in the north, especially around Milton Keynes, there is a strong growth in the settlement record from the middle Iron Age in contrast
to the Chilterns and Thames where if anything sites seem to be less common than before.

There can be little doubt that the Buckinghamshire landscape had been extensively cleared of woodland by the middle/late Iron Age, indeed there are reasons to believe that this had been the case since the later Bronze Age and perhaps in places even earlier (see Inheritance). The evidence for this statement comes both from environmental data (molluscs and pollen) and also from the construction of field systems, droveways and the large-scale land-division represented by the Chiltern Grims Ditch.

Where undertaken, molluscan analyses consistently indicate open grassland environments: from deposits attributed to the later Bronze Age on Pitstone Hill (Evans, 1966); throughout the period at the Aston Clinton Bypass Site B (RPS, 2005); in the early Iron Age at Coldhardbour, Aylesbury (Bonner and Parkhouse, 1997); in the middle Iron Age at Bancroft (Williams and Zeepvat, 1994) and on the Stoke Hammond Bypass (Edgeworth, 2006). The limited pollen data available supports this general picture: at Ivinghoe Beacon on the Chiltern scarp a buried soil beneath the late Bronze Age/early Iron Age rampart indicated grassland with some oak/pine woodland but no cereal cultivation; a middle Iron Age buried soil on claylands at Woodham also produced an open landscape assemblage, possibly indicative of arable but without cereal pollen (Farley et al, 1984) and an open arable and grassland landscape was recorded in the late Iron Age/early Roman period at Mill Close, Caldecote (MK) (Zeepvat, Roberts and King, 1994). The Little Marlow pollen sequence has cereals and arable weed pollen alongside grasses and also a beech-hazel-oak woodland presumably reflecting a pollen catchment spanning the Thames and Chiltern dip-slope(Richmond et al, 2006). The appearance of beech at Little Marlow, both as pollen and fuel, and also at Taplow (Coleman and Collard, 2005) suggests that Chiltern beech woods could have originated during 1st millennium BC. Large quantities of mature timber would have been required for construction during the later Bronze Age/early Iron Age of timber-revetted hillfort ramparts as at Ivinghoe Beacon (Cotton and Frere, 1968) and Taplow Court (Allen and Wymark, 2000) and for large roundhouses such as that found at Bancroft (Williams and Zeepvat, 1994). The disappearance of this generous (profligate?) use of timber from the middle Iron Age may be significant as may the rarity of woodland animals (pig and deer) in most bone assemblages.

Middle/Late Bronze Age ditched field systems have been found in the Thames Valley at Dorney Rowing Lake (Allen & Mitchell, 2001) and in the Colne Valley at The Lea, Denham (Coleman et al, 2004). They form part of a wider Thames Valley pattern (Yates, 1999) but no such systems have yet been recognised further north in the county. At Dorney the ditches had been infilled but the (presumably hedged) fields seem to have continued in reorganised form into the Iron Age mirroring the interpretation emerging from Heathrow Terminal 4 (T. Allen, pers comm), however at Denham the site may have been abandoned until the Roman period.

In the Chilterns, linear earthworks collectively known as Grims Ditch form a major land boundary running for c 27.5km between Bradenham and Pitstone. Grim’s Ditch comprises an outer bank and inner ditch forming three discontinuous arcs on the high ground between the Saunderton and Wendover gaps; again between the Wendover and Berkhamsted gaps and on Pitstone Hill (there is also a fourth small section on Berkamsted Common, Herts). The Pitstone section may in reality be an entirely separate monument as it is comprised of curvilinear lengths of double-earthwork following the hill’s contours rather than the single earthwork straight segments which make up the other arcs. The monument has been subject to a detailed condition
survey supplemented by limited geophysical survey and small-scale excavation (Thorn, 1997; Network Archaeology, 1998 & 1999). Five trial trenches have been cut: one on the western arc at Lacey Green (Network Archaeology, 2003); two on the central arc (Davis, 1981) and two on Pitstone Hill (Davis 1981; Davis and Evans, 1984). All except the trench at Lacey Green have produced small fragments of Iron Age pottery. One of the trenches on Pitstone Hill produced a molluscan assemblage indicate of open grassland whilst the Lacey Green trench unexpectedly found a waterlogged ditch fill but the limited scope of the investigation precluded full characterisation of the deposit. Unfortunately the only substantial excavation (on the A41 Berkhamsted Bypass in Hertfordshire) has not been published but is believed to have indicated a single-phase monument of possible early Iron Age date. Grim’s Ditch has sometimes been interpreted as a tribal boundary but functionally the western and central arcs can probably best be understood as having been constructed in open countryside to constrain and contain herds driven up the minor dry tributary valleys running up from the Wye and Chess respectively from straying onto (or being poached from) the Chiltern scarp. Several other smaller linear earthworks are known on the Chiltern scarp, notably at Whiteleaf Hill (Hey, forthcoming; Wise, 1991), these are presumed to be later Bronze Age/early Iron Age local territorial boundaries by analogy with “cross ridge dykes” found in the eastern Chilterns (Bryant and Burleigh, 1995). Extensive earthwork survey in the Ashridge estate on the Bucks/Herts border has identified a number of small enclosures and settlements set within irregularly shaped fields with associated droveways and dykes apparently of late Iron Age/Roman date (Morris and Wainwright, 1995). This exceptional survival is in need of full publication and indicates the wider potential of Chiltern woods and commons to preserve landscape-scale earthworks more typical of upland locations. Another feature of the Chiltern landscape which may have its origins in this period is the co-axial pattern of trackways still evident in the modern landscape (see transport and communications below).

North of the Chiltern scarp evidence for pre-Roman land-division comes mainly from excavation supplemented by limited aerial photography. Inevitably the former is biased towards the foci of growth at Milton Keynes and, to a lesser degree, around Aylesbury. The results of twenty years research by the Milton Keynes Archaeological Unit showed that during the later prehistoric period settlements become easier to identify, more numerous, substantial and permanent and were found across the whole study area in a wide diversity of locations, including on heavy clay soils. Stock enclosures and droveways together with a preponderance of cattle bones indicated a strong pastoral element to the economy with sites on the heavy clays perhaps specialising in this niche (Williams, 1993). This general model may well be more broadly applicable to Buckinghamshire, at least north of the Chiltern scarp. A number of early and/or middle Iron Age sites have both ditched trackways (interpreted as droveways) and one or more apparently non-settlement enclosures probably for stock management: Aston Clinton Bypass Site B (RPS, 2005); Coldharbour Farm, Aylesbury (Bonner and Parkhouse, 1997); Stoke Hammond Bypass Northern Link Road (Edgworth, 2006); Stoke Hammond Bypass Site A (Moore et al, forthcoming); Pennyland (Williams, 1993) and Wavendon Gate (Williams, 1993). Land use between settlements is harder to glean but where large-scale monitoring of topsoil stripping has been undertaken for pipelines or roads there has been little indication of extensive ditched field systems. However, occasional discoveries of apparently isolated Iron Age linear ditches in the Vale of Aylesbury on excavations aimed at other periods is suggestive of a more structured landscape (e.g. Dinton, Princes Risborough). The suggestion that an extensive co-axial pattern of trackways existed across north Buckinghamshire also needs to be borne in mind in this context (see transport and communications below).
By the late Iron Age changes are apparent with the creation of large rectilinear ditched enclosures, interpreted as paddocks or “closes”, as seen at Bancroft (Williams and Zeepvat, 1994); Coldharbour Farm (Bonner and Parkhouse, 1997) and perhaps Bierton (Allen, 1979).

Finally, it should be noted in passing that Buckinghamshire has relatively few pit alignments compared to adjacent Bedfordshire and Northamptonshire: only eight are recorded most in the Milton Keynes area and none in the Chilterns or South Bucks. Pit alignments at Gayhurst (Zeepvat, 2002), Olney (Webley, 2007) and Stoke Hammond (Edgeworth, 2006) have been dated to the late Bronze Age/early Iron Age but the one at Fenny Lock was attributed to the middle Iron Age (Ford and Taylor, 2001). Apart from “Grim's Ditch” on Pitstone Hill, multiple-ditch linear boundaries are not a recognised feature of the county.

Turning to evidence of agricultural production, there are now a significant number of studied animal bone assemblages (20 from 16 sites) with over 75 fragments identifiable to species. The largest assemblages are from Ivinghoe Beacon (2094 frags – late Bronze Age); Pennylands (1282 frags – middle Iron Age) and Bierton (1411 frags – late Iron Age). There is surprisingly little correlation between assemblage size and area excavated as the Ivinghoe Beacon and Bierton excavations covered only 0.15 to 0.12 hectares respectively whereas excavations covering several hectares on similar geologies have typically produced assemblages in the 100s of identifiable fragments. There are no strong chronological trends and no published assemblages south of the Chiltern scarp, partly as key sites are not yet published but also because the acidic gravels of the Thames are not so conducive to bone survival. Cattle and sheep are the primary components of all reported bone assemblages. Cattle are the most common species in all but four of the assemblages with a frequency between 30% and 70%. In half the assemblages cattle outnumber all other species put together. The prevalence of mature cattle in the middle Iron Age at Bancroft has been held to indicate the prevalence of meat and dairy production (Holmes and Rielly, 1994); at Wavendon Gate traction was considered their main purpose (Dobney and Jaques, 1996). Sheep are the second most common species varying from 10% to 60% with most in the region 25% to 35%. Only one assemblage is sheep-dominated, the rest are of mixed composition. Sheep at Bancroft and Bierton were kept for meat and wool production (Holmes and Rielly, 1994) but the assemblage at Pennyland was thought not to represent a self-sustaining flock (Holmes, 1993). The secondary species, horse and pig, are also of interest. Pig usually occurs at under 10% frequency but four assemblages are above this: late Iron Age Bancroft only marginally so but middle Bronze Age Walton Lodge (19.5%); late Bronze Age Bancroft (30.5%) and late Iron Age Bierton (22%) are markedly above the norm. High proportions of pig may indicate a specialised site function (see social below). Horse also normally occurs at low frequencies but there are six sites between 10% and 26%, all of middle/late Iron Age date and all in the Milton Keynes area, hinting perhaps that the Ouzel valley was used for horse as well as cattle ranching. Other animals combined rarely comprise more than 5% of an assemblage, and often much less. Dog, red and roe deer are present in small numbers, birds and amphibians occasionally, fish not at all. Certainly hunting played a negligible role in food procurement and it is arguable that the extreme rarity of wild foods indicates the operation of a taboo, or the impoverishment of natural environments. A single aurochs atlas from late Bronze Age/early Iron Age Bancroft is amongst the latest recorded prior to the species’ extinction (Holmes and Rielly, 1994).
Table: Composition of animal bone assemblages.

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<th>Primary component</th>
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<td>Cattle dominated</td>
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<td>Cattle/Sheep</td>
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<td>Aston Clinton Site A (LBA/EIA)</td>
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<td>Pitstone Hill (EIA)</td>
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<td>Aston Clinton Site B (LBA/EIA)</td>
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<td>Kingsmead South (MIA)</td>
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<td>Bancroft (MIA)</td>
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<td>Coldharbour Farm (EIA)</td>
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<td>Pennyland (MIA)</td>
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<td>Aston Clinton Site B (EIA)</td>
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<td>Pig &gt; 10%</td>
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<td>Bierton (LIA)</td>
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<td>Bancroft (LBA)</td>
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<td>Horse &gt;10%</td>
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<td>Wavendon Gate (LIA)</td>
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<td>Stoke Hammond Bypass</td>
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<td>Mill Close, Caldecotte (LIA)</td>
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<td>Stoke Hammond Bypass</td>
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<td>Site ABC (M/LIA)</td>
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<td>Pig and Horse</td>
<td>both &gt; 10%</td>
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Carbonised plant remains provide evidence for arable production. Spelt wheat is normally the dominant cereal as recorded in the middle/late Bronze Age at Taplow Court; at middle Iron Age Pennyland and late Iron Age Aston Clinton Site B and Wavendon Gate. An important exception is Bierton where bread wheat dominates on this distinctive late Iron Age site. Unfortunately absolute frequencies of carbonised grain are rarely recorded but some sites (e.g. Coldharbour Farm; Stoke Hammond Bypass N.Link; Stoke Hammond Bypass Site ABC; Furzton) have very low levels and may not be producer sites — other evidence supports a primarily pastoral function (see above). Barley and oats are secondary components of some assemblages, pea and flax were recorded at Pennyland.

Social organisation

Reconstruction of social organisation for prehistoric periods is notoriously conjectural and it is perhaps not the role of a “resource assessment” to speculate too far on such matters given the rarity of published studies. The main local works remain Green’s pioneering study relating early-middle Bronze Age burial, territories and population in the Milton Keynes area (Green, 1974) and David Knight’s study of the Iron Age in the Nene and Ouse Basins, which drew upon Milton Keynes material (Knight, 1984). The published synthesis of the work of the Milton Keynes Archaeology Unit (Croft and Mynard, 1993) is noticeably reticent on such questions. For the northern Chilterns (an area extending into the Eastern Region), Bryant has suggested that the even distribution of hillforts is consistent with a storage/redistribution model and that the size of individual forts correlates with the productivity of their local territories (Bryant, 1995).

From a national perspective, later prehistoric Buckinghamshire has been viewed as part of an “Eastern Zone” together with the rest of the Thames Valley, East Anglia and the East Midlands (Cunliffe, 1981, 523-548). At the end of the Bronze Age Cunliffe identifies a peak of bronze hoarding in the Ewart Park phase followed by the collapse of the prestige goods economy. Key features of this zone at the late Bronze Age/early Iron Age transition are seen as the deposition of weapons in rivers; construction of ring-forts and perhaps greater emphasis on control of land. Later in the early/middle Iron Age scattered farmsteads and villages seem to be the norm and it is suggested that only along the Chiltern ridge is their much evidence for
centralisation of power and a developed sense of territori­ality. From the 2nd century BC European contacts become noticeable and by the 1st century BC coinage indicates that Buckinghamshire had become the westernmost part of the expanding Catuvellaunian “state”. Richard Bradley has also placed Buckinghamshire within a wider “Thames Valley” region (Bradley, 1984) but neither author was able to draw upon much specific evidence from the county as their work pre-dates the publication of the major Milton Keynes excavations.

What can be said is that in the later Bronze Age/early Iron Age there is evidence for social hierarchy and tension in the form of elaborate roundhouses (Bancroft), defended sites, conspicuous deposition of weaponry and other fine metalwork, a “cult of the head” and possible feasting. Such a pattern would be consistent with the existence of a warrior-priestly elite driven by status rivalry to favour population increase and the extensification and intensification of agricultural production. By the middle Iron Age much of this status rivalry evidence has reduced or disappeared entirely but agricultural extensification and intensification continued, at least in the north of the county, with an emphasis on cattle ranching and in the Milton Keynes area, perhaps horse ranching too. The situation in the south is less clear as some earlier field systems appear to have been abandoned and middle Iron Age settlements are less common. There is little evidence for settlement nucleation and none for craft specialisation, elsewhere seen as characteristic of this period (Bradley, 1982, 131), rather there appears to be a dispersed pattern of farmsteads displaying a restricted material culture. The late Iron Age sees significant changes related to the incorporation of Buckinghamshire into the territory of the Catuvellauni. Once again there is evidence for social differentiation, this time principally in the burial record. There is also some increase in the diversity of material culture and changes to the organisation of settlements. The site at Bierton is of special interest for its unique (for Buckinghamshire) combination of imported ceramics, early use of bread wheat, possible rectangular buildings and occurrence of pig bones. It is presumably a high-status site and may even betoken the arrival of a non-local nobility but suggestions that it could approach the scale of an oppidum (Farley, 1995) have not been borne out by recent investigations. Ironworking in the Chilterns might indicate the emergence of some craft specialisation in the late Iron Age but its scale is unclear and as yet seems more likely to be a subsidiary “cottage industry”.

Settlement

Settlements in this period are conventionally be­divided into hillforts, open, enclosed and agglomerated (or aggregated) forms (e.g, Cunliffe, 1991, 213-218).

The term “hillfort” is here used loosely of any later prehistoric enclosure of defensive-scale regardless of size and location. Seventeen “hillforts” can be identified with confidence whilst a further five possible examples are known. Over the past thirty years hillforts have been discovered at a rate of very roughly one per decade and further discoveries are therefore to be expected. Unsurprisingly levels of investigation are variable. Of the confirmed sites, three (Aylesbury, Ivinghoe Beacon (Cotton and Frere, 1968) and Taplow Court) have seen significant open area excavation whilst Ivinghoe Beacon, Pulpit Hill (Princes Risborough) and West Wycombe Hill have benefited from English Heritage analytic earthwork surveys; six have had extensive geophysical survey, mainly due to the efforts of John Gover, five have been trial trenching and eight subject to a watching brief (see appendix 2). Hillforts in the Chilterns and along the Thames are noticeably better understood than those in north Buckinghamshire, which are essentially uninvestigated. The sites occur in a range of sizes, the smallest enclosing about 1 hectare (Pulpit Hill, West...
Wycombe Hill), the largest 8.5 hectares (Bulstrode Camp). A number of groupings can be suggested on topographical groups: Thameside; Chiltern dipslope; Chiltern scarp Vale outcrops and valley forts along the Ouse.

The county has two important examples of early hillforts, at Ivinghoe Beacon and Taplow Court. The former is well known and cited as an example of the use of a late Bronze Age/early Iron Age timber box rampart (Cunliffe, 1991, 316). However, doubts remain over the dating and form of the rampart (Green, 1981) which has been interpreted as a later addition to an unenclosed late Bronze Age settlement, slight earthwork remnants of which are thought to extend down the hill to the north and include a possible midden (Brown, 2001). Numerous bronze artefacts of Ewart Park and Wilburton phase were found during the 1960s excavation (Cotton and Frere, 1968) to which can now be added a complete sword of Wilburton phase (Marshall and Northover, 2003). Taplow Court has provided a complex defensive sequence the full publication of which is awaited. However it seems that a palisaded enclosure of middle or late Bronze Age date was succeeded in the late Bronze Age by a V-profiled defensive ditch up to 2.6m deep and that by an Early Iron Age U-profile defensive ditch up to 2.8m deep (Allen and Wyman, 2000). Boddington is another possibly early hillfort to judge by surface finds (Thorn and Gething, 1996) whilst the small c 100m diameter roughly circular earthwork at Whelpley Hill, Ashley Green looks like a possible later Bronze Age/early Iron Age “ringfort” (Gover, 2000). The hillforts at Aylesbury (Farley, 1986), Cholesbury (Kimble, 1933) and Danesfield, Medmenham (Keevil and Campbell, 1991) were occupied during the middle Iron Age but only at Cholesbury did occupation continue in some form into the late Iron Age. The nature and scale of internal occupation is nowhere clear due to the limited internal areas investigated and somewhat disappointing results from geophysical survey. The finds from Ivinghoe Beacon and Taplow Court indicate domestic occupation on a significant scale but in contrast trenching at Cholesbury (Kimball, 1983) and Bulstode Camps (Fox, 1924) on the Chiltern dipslope produced relatively few finds. In the north of the county, the 3.5 hectare univallate hillfort Danesborough on the Brickhill ridge was trial trenched in the 1920s producing “Early Iron Age” and Romano-British pottery (Berry, 1926). Near Buckingham there are two distinctive “valley forts”, one alongside the River Ouse at Maids Moreton and the other next to its tributary the Padbury Brook, as well as a third possible example at Steeple Claydon. These valley forts are similar circular/oval univallate structures c 200-250m in diameter and are probably related to one-another. Unfortunately in the absence of any investigation their date and function remains a matter of conjecture – it is not even certain that they belong to this period! The lack of hillforts between Aylesbury and the Ouse valley may well be more apparent than real as a hillfort is suspected at Brill and others may be present hidden beneath ridge and furrow or later villages - “Bury” placenames (e.g. Soulbury, Westbury) are suggestive.

Middle/Late Bronze Age settlements are rare but one is known at Walton, Aylesbury (Ford, Howell and Taylor, 2004; Dalwood and Dillon, 1989) where a cluster at least five post built roundhouses is associated with Deverel-Rimbury and later pottery. At Bancroft a large and structurally complex roundhouse stood alone except for an adjacent 4-post structure and hollow (Williams and Zeepvat, 1994). The discovery on the Taplow Thames Water Pipeline of a dense cluster of late Bronze Age/Early Iron Age pits (Site A) is particularly interesting in view of the site’s proximity to Taplow Court. Several other sites have produced less substantial evidence for occupation (mainly small numbers of pits and pottery) in the late Bronze Age/early Iron Age notably Aston Clinton Bypass Sites A and B; Stoke Hammond Bypass Site ABC; Stone Nurses Home and Fenny Lock (MK). Overall the evidence for the later Bronze Age and earliest Iron Age is still very limited but some hilltop sites were occupied, although their defences may not have been built ab-initio. Settlement
occurred elsewhere on open sites often in locations occupied in later periods but many sites lack coherent building plans – perhaps these were once like Walton but the shallower features having been lost to the plough, unlike Walton which was preserved beneath a Saxon and medieval village. The Bancroft roundhouse, probably dating to the end of this period, almost certainly had a specialised function – presumably some combination of communal, ceremonial or high-status. That such a building should occur apparently in isolation is of interest.

Turning to the Iron Age proper, enclosed settlements in the classic sense of single farmsteads contained within a ditch and embankment are actually rather rare in Buckinghamshire. The best example is at Dorney Rowing Lake Area 16 where a 35m square enclosure containing a single roundhouse was occupied from the later middle Iron Age to at least the 3rd century AD. Quantities of decorated ceramics and a Kentish potin coin hint at high status inhabitants (Allen and Welsh, 1998). Trenching of a 35x45m middle Iron Age enclosure at Ravenstone in the Ouse valley revealed three pits, a posthole, a hollow and domestic finds suggestive of a settlement function (Mynard, 1970). Elsewhere, although small ditched enclosures are commonplace they form elements within an essentially open unenclosed settlement pattern. Most such enclosures have been interpreted as for stock due to the lack of identifiable structures within them; and even where ring gullies are found within enclosures they often seem not to be contemporary with them as at Wavendon Gate. Some sites, notably Pennyland and North Furzton in Milton Keynes, are characterised by clusters of these small enclosures whereas at other sites, such as Aston Clinton Bypass Site B and Coldharbour Farm (Aylesbury), the enclosures are found alongside droveways. A distinctive example of such a stock enclosure is the “banjo” enclosure excavated at Wavendon Gate (Williams et al, 1996). Another possible banjo enclosure survived as an earthwork on Whaddon Chase until the last century (Berry and Bradbrook, 1911) but a cropmark previously interpreted as a banjo at Lake End Road West, Taplow could not be identified during excavation (Foreman, 1998, 29). A few settlements lack enclosures altogether, as at Bancroft where in the middle Iron Age fifteen roundhouses were found in a linear arrangement of three discrete clusters – the layout is reminiscent of The Lodge at Crick in Northamptonshire (Chapman, 1995). A similar pattern is found at the recently excavated settlement at Tattenhoe Park, which has at least 21 roundhouses plus 4-post structures initially open but later with shallow boundary ditches inserted (Taylor, 2006).

Whilst it is notoriously difficult to estimate settlement population sizes, with the possible exceptions of Bancroft and Tattenhoe Park there seems no reason to believe that any non-hillfort settlement so far excavated in Buckinghamshire need represent more than a single farmstead occupied presumably by an extended family. What is clear, however, is that these sites are present in large numbers in a wide range of locations: on hilltops, plateaus and valley floors and on chalk, clay, gravel and limestone geologies. There are hints that variations in settlement morphology may relate to variations in function and the large-scale organisation of landscape. In particular correlation with environmental evidence allows the tentative identification of pastoral settlements exploiting the north Bucks claylands in contrast to mixed agricultural settlements found in the river valleys.

Built environment

The ground plans of many buildings of the later Bronze Age and Iron Age have been excavated in Buckinghamshire but few have added significantly to wider knowledge of the limited repertoire of built forms used in this period. Essentially most building remains can be interpreted either as roundhouses or some form of 4 post structure.
By far the most significant individual building is the large late Bronze Age/early Iron Age roundhouse excavated at Bancroft where an exceptionally large (18.6m diameter) roundhouse of three post-rings surrounded by a drainage gully was associated with structured deposits of late Bronze Age ceramics, a saddle quern and pig bones (Williams and Zeepvat, 1994). The structure is reminiscent of the large roundhouses sometimes found within late Bronze Age/early Iron Age ringforts (Cunliffe, 1991, 39-41). Smaller and simpler roundhouses (typically 8-12m diameter) are the dominant built form throughout the period although the normal form of their construction changes from post-built in the later Bronze Age to definition by pennanular or semi-circular gullies often without any postholes in the Iron Age. These gullies are interpreted as for drainage around putatively earth-walled structures – it is worth reflecting that most such buildings would be invisible if the gully were to be omitted or cut too shallow to survive later plough truncation.

Some early/middle Iron Age sites (e.g. Aston Clinton Site B, Bancroft, Coldharbour Farm and Hartigans) also have small numbers of small 4-post structures normally interpreted as raised granaries, although other functions are entirely feasible. A four-poster set within a ring ditch at Aston Clinton Site A may have had a ritual function (see below).

Pits are present on most sites of this period but their numbers and forms are highly variable. Most sites have less than about 20 pits per phase but a few sites (Coldharbour Farm, Pennyland, Taplow pipeline Site A) have clusters of large numbers of pits: 84 at Pennyland and hundreds at the other sites. The function of individual pits is often hard to ascertain but storage is often cited ("classic" large beehive grain storage pits are rare but one was found at Aston Clinton Site B and a cluster of 24 at Pitstone Hill (Waugh, 1968, 235-249)), clay-lined pits observed at several Milton Keynes sites may be for water storage, wells and waterholes are occasionally noted throughout the period.

Few buildings of late Iron Age date have yet been recognised in the county but at Berton a possible rectangular structure defined by wall trenches was described by the excavator (Allen, 1986) and another possible 5x9.5m rectangular post-built structure can be identified on the published plan (fig 8). Mention should also be made of an apparently unique slightly sunken 4x3m rectangular limestone structure found at Downs Barn, Milton Keynes of uncertain function (Last, 2001).

Ceremony, ritual and religion

It is widely recognised that with the demise of Neolithic/early Bronze Age traditions of ceremonial and burial monuments, discrete ritual monuments and cemeteries become something of a rarity until the reappearance of formal burial rites in the late Iron Age. Ritual and ceremony can, however, sometimes be recognised in "disposal patterns" and the disposition of structures but often such recognition must be tentative. In a society probably dominated by a melange of beliefs, superstitions, taboos and habitual conservative patterns of behaviour it should not be too much of a surprise to find blurred boundaries between sacred and profane.

From the middle Bronze Age formal cemeteries become rare but cremation remained a significant burial rite, sometimes the cremated remains were placed in an urn but many were either buried loose or in an a bag now long decayed. A small cemetery of c15 Deverel-Rimbury urned cremations is known from Stokenchurch (SMR 1737). More typically, small numbers of cremations have been found dotted about within the Bronze Age fields at The Lea, Denham and Dorney Rowing Lake. Other sites have
produced small numbers of possible later prehistoric cremations, for example at Aston Clinton Site B four apparently middle Bronze Age cremations appeared to follow the line of the later Iron Age droveway hinting at earlier origins for this routeway (RPS, 2005).

No cremations can yet be assigned to the early or middle Iron Age, although this may change with more routine radio-carbon dating of isolated unurned cremations. Indeed no formal burials of any kind can be confidently attributed to this period, and only one or two of the so-called “pit burials” recognised elsewhere have yet been found in Buckinghamshire. At Asprey’s, Olney, a crouched adolescent inhumation firmly radiocarbon dated to the middle Iron Age was inserted into a largely silted-up pit of the early Iron Age pit alignment (Webley, 2007). Another crouched inhumation of an infant apparently in a pit alignment was reported by an evaluation at Stoke Hammond but could be relocated on excavation (Bonner, 1996; Edgworth, 2006).

Late Iron Age cremation burials of Aylesford-Swarling style are known from Bancroft (Williams and Zeepvat, 1994), Bledlow (Collard and Parkhouse, 1993), Fleet Marston (Cox, 1997) and Wards Combe, Ivinghoe (Dunnett, 1972). At Bancroft a cluster of 17 cremations were found spanning the early to late 1st century AD each accompanied by domestic pottery, animal bone and metal items. The other sites may well be similar but have been less intensively investigated: Wards Combe is of special interest in that the cremation burials lie within an earlier pennanular enclosure (see below). Welwyn style burials have been found at Dorton (Farley, 1983) and possibly Aston Clinton (Bucks SMR 0043); the former producing a fine Late La Tene mirror. None of these burials need be earlier than the early-mid 1st century AD and some are likely to be post-conquest. They reflect the county’s incorporation into the emerging Catuvellaunian “kingdom” – the absence of such burials (so far at least) from the south of the county may be significant, perhaps reflecting a shifting frontier with the Atrebates (Cunliffe, 1991, 151).

Ritual activities associated with water were important during the later Bronze Age and have long been recognised in the deposition of metal artefacts and human remains in the Thames (Bradley, 1984). Bronze Age river finds (mainly spear-heads, swords, rapiers, socketed axes and sickles) have been recorded from at least ten locations along the Thames (Bucks SMR) with a particular concentration at Taplow (Clinch, 1905). Iron Age river finds are less common but include a sword, spearheads and iron bars. Excavation of a former Thames channel at Dorney Rowing Lake has shown that complete pots, human and animal skulls and other bones were being placed on sandbanks within the river in a location traversed by a sequence of wooden structures (Allen, 1998). The evidence is reminiscent of Flag Fen and the River Witham and presumably reflects some form of water cult related to a sacred river. At Dorney timber structures continued to be built in the river channel into the middle Iron Age but whether ritual deposition continued here so long is as yet unclear. Evidence for ritual deposition in other Buckinghamshire rivers is elusive, although the find of a Wilburton sword from the bank of the Ouse at Newport Pagnell may be comparable (MK SMR 7070).

Three possible “shrines” can be recognised: at Aston Clinton Bypass Site A (RPS, 2005), Prebendal Court, Aylesbury (Farley, 1986) and Wards Combe, Ivinghoe (Dunnett, 1972). In each case the structural evidence is ambiguous but sufficiently unusual to raise suspicions, which are supported by the treatment of human and animal remains. At Aston Clinton Bypass Site A the principal structure A1 comprises four posts set within a pennanular ditch (8.4m diameter), nearby pits contained a deposit of concertina pots and a skull radio-carbon dated to 1430-1270 cal BC and thought to be already ancient when deposited. The proximity to a possible Welwyn-
style burial noted above may not be coincidental. The main structure may be compared to an early Bronze Age ring ditch and four post at Area 16 Dorney The Aylesbury “shrine” attributed a late Bronze Age/early Iron Age date lay within the hillfort, but may actually pre-date the defences. It comprised a large deposit of articulated animal bone (mostly lamb) accompanied by five partial human skeletons and two articulated sheep/goat skeletons. A large fire was evident and many bones were burnt. A decapitated human skull was found in the bottom of the hillfort ditch. Wards Combe is a 50m diameter pennanular enclosure with external bank at the head of a dry valley in what is today a remote Chiltern wood. Trenching dated the enclosure to the early/middle Iron Age with fills containing human bone. Within the enclosure were three Aylesford-Swarling style cremations, two of pre-Roman date and a pit with undated horse burials. What exactly each of these sites represent is open to debate: in principle such sites could equate to the temple or sacred grove of a god; a place for cremation or excarnation; sacrifice or execution places; the display of war trophies; the veneration of ancestors or any combination of these. A fourth site, Downs Barn in Milton Keynes, has been suggested as having a ritual function due to the presence of an unusual stone structure of late Iron Age date (Last, 2001). In this writer’s opinion the evidence is insufficient to attribute any function to this admittedly enigmatic feature. Finally, mention should be made of the Roman period shrine attributed to the sky-god Taranis at Wavendon Gate (Williams et al, 1996). The nature of this shrine, essentially a water-filled pit overlooked by a wooden wheel-icon, is entirely rustic and native in its character and quite probably simply the latest phase of a pre-Roman cult indicated by the discovery of pre-Roman miniature votive wheels in its vicinity.

Votive objects are few and far between but, in addition to the wheels noted above, mention should be made of a late Bronze Age/early Iron Age stone phallus from Taplow Pipeline Site A and an amulet made from a trepanned human cranium found at Ivinghoe Beacon.

The unusual form of the large roundhouse at Bancroft has been noted above. Together, the patterning of artefacts around it, presence of distinctive pottery (including rare “concertina” vessels - for which the only other Bucks findspot is Aston Clinton Site A), and the prevalence of pig bones, invites speculation as to its function, although the excavators note that the presence of much of this material within construction postholes may indicate it was collected from an earlier midden rather than being contemporary with the building’s use. On balance, whilst a ritual function is possible an associated with high status feasting seems more strongly indicated, although of course the two functions need not have been entirely distinct.

A complete Wilburton sword found at Ivinghoe Beacon (Marshall and Northover, 2003) is hardly likely to be a casual loss and may be interpreted either as a displayed trophy or votive deposition.

Finally, the extreme rarity of remains of wild animals and domestic birds has been noted above. It seems possible that this negative evidence reflects a taboo on the consumption of certain creatures in the manner reported by Caesar: “Hares, fowl and geese they think it unlawful to eat, but rear them for pleasure and amusement” (Caesar, nd).

Warfare, defences and military installations

Evidence for warfare comes from weaponry, defensive sites and skeletal evidence but Buckinghamshire does not add much to the wider picture in this respect. Most Buckinghamshire hillforts have only a single rampart and, as far as we know, simple
gateways. Only Bulstrode, Cholesbury, Pulpit Hill, Taplow Court and West Wycombe Hill have double ramparts, and at Cholesbury these are incomplete. The only hillfort to produce plausible evidence for warfare is Taplow Court where the final phase timber-laced rampart was burnt and slighted in the early Iron Age. Some form of head-cult was practised (see above) - this may well be related to endemic warfare. That "heroic" behaviour and conflict was part of life in this period can hardly be doubted but there is little physical evidence for large-scale warfare.

Material culture

The material culture of later prehistoric Buckinghamshire is part of the common culture of lowland Britain. Finds reported to the Portable Antiquities Scheme include 24 of possible Bronze Age date, including a gold penannular ring, and 40 of possible Iron Age date, mainly late Iron Age coins and brooches.

Middle/Late Bronze Age metal work has been found across the county in the form of isolated finds, a few hoards and site finds. Summaries have been published for Bronze spearheads (Farley, 1972) and sickles (Farley, 1991). Hoards of socketed axes and other items have been recorded at New Bradwell (Clinch, 1905, 183) and Aylesbury (Farley, 1973). Finds from the River Thames have been noted above. However, the most spectacular hoard was found at Monkston (MK) in 2000 – 2 gold torcs and 3 gold bracelets of late Bronze Age date were found placed within a ceramic vessel of the Post-Deverel Rimbury plainware tradition dated 1150-800BC. This is the first unequivocal association between a gold hoard and pottery in the British middle to late Bronze Age (Needham, 2002). Further investigation revealed no evidence of other Bronze Age activity on the site, although a contemporary gold bracelet had been found nearby some years previously. The ends of the torcs had been worn but not repeatedly clasped and unclasped suggesting that they may have been worn permanently. Late Bronze Age gold bracelets have also been found at Waddesdon and at The Lee in the Chilterns (Bucks SMR).

Most excavated sites have few artefacts other than pottery but the 1960s excavation at Ivinghoe Beacon produced 23 bronze items (sword fragments, razor, rings, pins and an armlet), 5 saddle querns, 6 loomweights, 7 bone pins/needles, 11 spindlewhorls and 4 personal items. The metalwork from Ivinghoe is attributed to the Ewart Park type, to which must be added a more recent metal detector find of a complete Wilburton type sword (Marshall and Northover, 2003). Bronze Age metalwork has also been reported from the hillforts at Boddington, Taplow Court and Danesfield, Medmenham. The open settlement at Walton Lodge has produced a similar range of artefacts to Ivinghoe Beacon but in smaller numbers, including a shale armlet possibly from Dorset (Dalwood et al, 1989). Interestingly there was also a concentration of loomweights (19) from Taplow Court but only one from the large roundhouse at Bancroft. Special mention should be made of the rare finds of wooden artefacts from the Thames at Dorney Rowing Lake, including a middle Bronze Age ard tip (Allen and Welsh, 1998).

With the end of metal hoarding, the early/middle Iron Age is notably poor in distinctive artefacts. Excavated sites are generally even less productive than those of the later Bronze Age with most producing no more than a handful of metal objects, saddle querns, loomweights, spindlewhorls, pin/needles and personal items. Other notable site finds include clay oven plates and a cover from Wavendon Gate and a sword from Pennyland. Some substantially excavated sites have produced no non-ceramic finds at all. Non-site finds (other than pottery) are very rare and their context uncertain as exemplified by a fine red deer antler comb from Stanton Low – presumably from a site destroyed by mineral extraction (Britnell, 1972). Pottery is
mostly plain or very simply adorned with finger-tip decoration. Incised decoration with white inlay in the Chinnor-Wandlebury style (Cunliffe, 1991, 75-76) is present in early Iron Age contexts but rare. Ceramic forms change from carinated/tripartite vessels in the early Iron Age to slack profiles in the middle Iron Age. There has been no study of the actual use of pottery, which has been treated almost exclusively as a chronological and cultural marker.

The earliest coin found in Buckinghamshire is a 4th century BC gold stater of Phillip of Macedon found in High Wycombe. The circumstances of its disposal, and indeed whether it reached Buckinghamshire in antiquity, are entirely unknown. Apart from this “exotic”, the earliest coins are Gallo-Belgic A staters dated to late 2nd century BC and only found south of the Icknield Way. Later issues are found across the whole county and indicate that by the 1st century BC Buckinghamshire formed part of the Catuvelaunian tribal territory. Coins of Addedomaros (c 40-30 BC) have a concentration in South Buckinghamshire (Curteiss, 1997). Three late Iron Age coin hoards are recorded in Buckinghamshire from Whaddon and Westbury in the north and a small early find from Chepping Wycombe. The Whaddon hoard ploughed up in 1849 amounted to at least 400 and maybe as many as 2000 uninscribed coins found 400m north-east of the Norbury “banjo” enclosure on Whaddon Chase. The Westbury hoard comprised 39 Trinovantian staters (SMR 6254). Interestingly Westbury and Whaddon both lie close to the Roman road from Magiovinium to the nucleated settlement at Kings Sutton (Northants) which also passes the Roman temple at Thornborough, Rainsborough hillfort and a prolific Iron Age coin findspot at Evenley (Northants) – the Roman road appears to be following a pre-Roman routeway, possibly one of ritual significance. A Kentish potin coin from Dorney Rowing Lake may be indicative of trade along the river.

Late La Tene metalwork has been found in the form of a sword from the Thames at Amerden (nr Taplow) (Clinch, 1905, 186) and a mirror from the Welwyn style burial at Dorton (Farley, 1983).

As noted above, late Iron Age (“Belgic”) material culture only really becomes evident in the early 1st century AD with the introduction of wheel-turned ceramics, brooches and new burial styles. Imported Gallo-Belgic pottery has only been found at Bierton (Allen, 1986) whilst amphorae accompanied the Welwyn style burials.

Craft, trade and industries

Direct evidence for craft and industry is sparse and almost entirely restricted to metalworking. A possible crucible and slag indicated small-scale bronzeworking at Bancroft in the late Bronze Age/early Iron Age whilst middle/late Iron Age crucibles are reported from Tattenhoe Park. The most substantial (but still limited) excavated evidence for iron smelting and smithing comes from Aston Clinton Bypass Site B where one localised area produced 3.9kg tap slag, forge bottoms, hammerscale and roasted ore from late Iron Age contexts. At Cholesbury hillfort three small “smelting hearths” were found (Kimball, 1933). Pennyland, Taplow Pipeline Site A and a few other sites have produced small amounts of smithing slag. There are two crucibles from Stoke Hammond Bypass Site F. Of potentially greater significance are the growing discoveries of iron bloomery slag within Chiltern woodlands, notably at Ashridge (Morris and Wainwright, 1995), Bellingdon (Bucks SMR 1230) and Pigotts Wood (John Morris, pers comm). Much of this activity is imprecisely dated and may well be Roman, but the finds from Cholesbury indicate the potential for earlier activity.
Trade has not been studied in any detail in Buckinghamshire, although occasional non-local “imports” are noted in site reports. Examples include a possible continental early Ewart Park bracelet at Taplow Court; a possible Dorset shale armlet from Walton Lodge and greensand querns from the Weald at both these sites. Decorated pottery and a Kentish potin coin from Dorney Rowing Lake have been related to trade along the river (see above). In the late Iron Age, coins and, rarely, ceramics were imported from the continent.

Transport and communications

The Later Bronze Age and Iron Age saw the first widespread use of wheeled transport, for both agricultural and high-status/military purposes. There will also have been a need to move herds between grazing grounds necessitating local networks of trackways. The Thames was an important navigable waterway as well a potential obstacle. Trade appears to have been mostly limited to high-status goods such as metalwork (see trade above), and may have taken the form of gift-exchange embedded in high-status social relationships so there was probably no need for sophisticated long-distance communications systems involving the movement of large numbers of people or bulky goods. Evidence for transport and communications in Buckinghamshire takes the form of excavated trackways (see landscape above); landscape archaeology evidence for trackway networks and preserved remains of wooden boats, “bridges” and other structures from the Thames.

The “Icknield Way” is central to the debate about prehistoric trackways in Southern England. Supposedly this prehistoric route ran along the chalk escarpment from Wessex to East Anglia but recent re-assessment has cast doubt on this traditional interpretation (Harrison, 2003). The excavation at Aston Clinton Site B notably found that the “Icknield Way” recorded on the enclosure map can be no earlier than middle Saxon, and may be a post-medieval creation (RPS, 2005). Whilst it could be contended that the prehistoric routeway might have been more a loosely defined “zone of movement” there is a fundamental problem that such a zone both lacks material evidence and would cut across the emerging pattern of territories defined by regularly spaced hillforts, trackways and cross-ridge dykes running perpendicular to the Chiltern scarp – in the absence of centralised authority movement along such a putative routeway would surely have involved numerous awkward local negotiations.

In an ambitious paper published in 1993, Edward Bull drew attention to a “bi-axial” pattern of roads and trackways surviving to the present day across the Chilterns and north Buckinghamshire which he suggested pre-dated the Roman road network and might be Bronze Age, or even Neolithic, in origin akin to co-axial field systems recognised elsewhere (Bull, 1993). Subsequently, similar networks have been noted in the Hertfordshire Chilterns extending into Buckinghamshire (Williamson, 2002). Partial support for the “Bull hypothesis” comes from the Buckinghamshire Historic Landscape Characterisation Project (Green and Kidd, 2006) which identified extensive “co-axial fields” surviving in the Buckinghamshire Chilterns into modern times, mostly between Aylesbury and Chesham. Furthermore, excavation at Aston Clinton Site B found a “lost” trackway of Iron Age origin running along an historic parish boundary perpendicular to the Chilterns on the same alignment as this system. The great depth of many holloways running down the Chiltern scarp may reflect origins as prehistoric drove roads. Whether the “Bull hypothesis” is more generally applicable to the Chilterns or can legitimately be extended as far north as the Ouse is not yet clear.

The use of the Thames for river transport is suggested by traded goods found at Dorney Rowing Lake (see above) and 19th century discoveries of log boats attributed
to the Bronze Age at Marlow and Wooburn (Clinch, 1905). Excavation of a former Thames channel at Dorney Rowing Lake revealed a series of waterlogged wooden structures of middle Bronze Age, early Iron Age and middle Iron Age date comprising six bridges and two possible jetties. The purpose of the bridges appears to have been to link a river island to the bank, although as noted above ritual activities seem to be involved too (Allen, 1998), such features may have been commonplace along the river. The status of a waterlogged wooden structure found in the 19th century at Hedsor Wharf and interpreted as a “pile dwelling” (Clinch, 2005) is uncertain – it may actually have been the remains of the documented medieval Hedsor Wharf. As yet nothing equivalent has been found in the Buckinghamshire sections of the Ouse or Thame valleys, although a pre-Roman ford was noted crossing the Padbury Brook at Thornborough (Johnson, 1975) and may be part of a longer-distance route (see material culture above).

Legacy

It is clear that the landscape of Buckinghamshire was intensively settled and farmed by the end of the Iron Age. There is little evidence for Roman military activity in the county and the area seems to have fallen under their control with little disruption to this pattern. Many late Iron Age sites continued to be occupied into the Roman period, and indeed beyond. Villas were constructed at both Bierton and Bancroft whilst most of the other excavated sites continued in use as farmsteads, albeit with ongoing changes to their layout. This continuity suggests that pre-conquest patterns of land management (and perhaps ownership?) continued into the Roman period. Evidence from the Roman nucleated sites is variable: Fleet Marston has some mid 1st century occupation which probably pre-dates the conquest (Cox, 1997) whilst at Magiovinium a pre-conquest field system was found on a different alignment to Watling Street and the later fields (Neal, 1987). In contrast there is little evidence for Roman occupation of hillforts, except at Danesborough. Early Roman cremation rites (e.g. Bancroft, Thornborough and Wendover) developed from the Aylesford-Swarling culture indicating a continuity of belief also found with the worship of “Taranis” at Wavendon Gate.

Much longer-term legacies can also be suggested by the survival of the co-axial patterns of trackways of the Chilterns into modern times, by the re-use of hillforts in the medieval period (Kidd, 2004) and perhaps even by the evidence for supposed Roman or earlier origins for early medieval multiple estates (Reed, 1979, 71-77).

Conclusion /Agenda (first thoughts!)

There is now a substantial body of useful information on later prehistoric sites in Buckinghamshire, much of which is either published or approaching publication within the next few years. It is possible now to identify what is commonplace and thereby to recognise the more exceptional or unusual when it appears. It is possible to at least begin comparative studies both within the county and beyond. In defining agenda for the future it will be important to build on this existing knowledge base, identifying how new sites can add to this existing knowledge, although in many cases such an assessment can only be reliably made at the post-exavation assessment stage. As well as better focussing development-led investigations, it would also be desirable to find ways to examine landscape-scale research issues and to redress biases created by patterns of modern development. As we move beyond a paradigm of basic “discovery” it may prove advantageous (and indeed increasingly necessary to justify interventions) to develop more structured testable models and hypotheses. Specific agenda for Buckinghamshire:
1. Chronology: Unsupported artefactual dating should not be relied upon - scientific dating should be de-rigeur where appropriate material exists.

2. Survey: Extensive geophysical survey backed up by trial trenching appears the most reliable method for evaluation of greenfield sites, although some geologies are more reliable than others for geophysics. Predictive modelling of site condition may be useful in predicting areas with higher potential for good preservation.

3. Hillforts: We need to better understand the number of these sites, their function and chronology. Specifically, the verification of possible but as yet unconfirmed hillforts by trial trenching; research into pre-hillfort occupation (e.g. Ivinghoe; Cheddington), complex defensive sequences (e.g. Taplow Court) and landscape context (e.g. Cholesbury). The hillforts of north Bucks have hardly been investigated at all - the valley forts of the Ouse would benefit from geophysical survey and trial excavation. The publication of the Prebendal site, Aylesbury is a priority in view of its ritual evidence. The re-use of the many of these sites in the medieval period is also of interest.

4. Settlement: Later Bronze Age/earliest Iron Age settlement sites are still fairly rare and are a priority for investigation. For all periods settlements in the Chilterns and north-west Buckinghamshire are under-represented compared to other parts of the county. For all periods, sites with minimal or no plough truncation and/or waterlogged deposits should be considered for preservation in-situ or, failing that, intensive excavation as they are most likely to advance knowledge of structures, environment and economy – whether typical or atypical. Plough truncated sites (the norm) need to be evaluated to determine whether they conform to a recognised local “norm” and, if so, sampled and reported in a consistent and comparable manner with clear quantification of all classes of evidence. “Unusual” sites whether indicated by scale, structures (e.g. settlement enclosure ditches), finds or environmental evidence would warrant special attention. Fragmented sites and isolated features tend to be lesser value – it follows that every effort should be made to prevent artificial fragmentation of investigations by developers.

5. Landscape: When and how are bounded landscapes created across the county? Do the later Bronze Age fields in south Bucks survive into the Iron Age, and if not what replaces them. When were the Chiltern dykes constructed? Publication of Ashridge landscape survey should be a priority along with LIDAR survey of Chiltern woodlands to see if similar landscapes exist elsewhere.

6. Routeways: The co-axial landscape of the Chilterns merits further investigation to determine its origins, extent and relationship to hillforts, settlement and linear earthworks. The status of the Icknield Way needs further examination.

7. Rivers: The use of the Middle Thames for trade as well as ritual deposition warrants further investigation to determine how typical are the finds from Dorney Rowing Lake. The possibility of similar deposits in the Thame, Ouse and their tributaries should be considered.

8. Industry: The origins, nature and scale of the Chiltern ironworking industry need to be established.

9. Trade: The current very weak understanding of local trade networks could benefit from a review of the evidence and potential.

10. Economy: There is a need to enforce consistent, adequate and representative environmental sampling, not just targeting “rich” deposits to provide comparable data-sets for analysis. Existing data suggests that for animal bone significant inter-site patterning can be detected even at modest sample sizes – is this borne out by more rigorous analysis? Can we recognise specific strategies for extensification or intensification of production? Can analysis of lipid residues in pottery provide independent evidence of diet?
11. Environment: Where was the woodland? Does clearance pre-date settlement of the claylands? Can any woodland sites be recognised? Is there evidence for pre-Roman alluviation or colluviation caused by clearance or cultivation?

12. Ritual and Burial: What is the true nature of the early/middle Iron Age "shrines"? How common are sites of this type and where are they found? Are there Aylesford-Swarling burials in south Bucks? If not then what is the local burial rite? What is the significance of the Iron Age coin hoards of the Upper Ouse Valley – how do they relate to other sites in the area in Bucks and Northants?

13. Social: Can we clearly recognise a hierarchy of sites in the later Bronze Age/early Iron Age? Is the absence of social hierarchy in the middle Iron Age more apparent than real? Are high status late Iron Age sites (cf. Bierton) different from those which graft late Iron Age material culture on to an essentially culturally middle Iron Age community?

14. Conservation Management: Most of Buckinghamshire’s hillforts are protected by scheduling in part or whole as are the surviving earthworks of Grims Ditch and several other linear earthworks in the Chilterns. In contrast only one non-hillfort settlement (Lodge Hill, Bledlow) and the ritual site at Wards Combe are scheduled, and they are very old designations not meeting modern standards. The priority should be to identify mechanisms to schedule a more representative sample of Buckinghamshire sites and to update scheduling where new information has come to light – for example at Taplow Court where only the Saxon barrow and church is scheduled, not the rest of the hillfort they were sited within! The main management issues are the prevalence of trees on many Chiltern hillforts with consequent potential for wind-throw damage and reconciling public access with conservation. Some key sites (e.g. Cheddington hillfort; Norbury “banjo” enclosure) are still under cultivation.
### Appendix 1: Open Area Excavations with significant later Bronze Age/early Iron Age components

<table>
<thead>
<tr>
<th>Published</th>
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<tbody>
<tr>
<td><strong>Site</strong></td>
</tr>
<tr>
<td>Bancroft</td>
</tr>
<tr>
<td>Caldecotte (Mill Close)</td>
</tr>
<tr>
<td>Chilton Grove</td>
</tr>
<tr>
<td>Coldharbour Farm, Aylesbury</td>
</tr>
<tr>
<td>Downs Barn, Milton Keynes</td>
</tr>
<tr>
<td>Penny Lock, Milton Keynes</td>
</tr>
<tr>
<td>Hartigans, Milton Keynes</td>
</tr>
<tr>
<td>Ivinghoe Beacon</td>
</tr>
<tr>
<td>Pennyland, Milton Keynes</td>
</tr>
<tr>
<td>Stoke Hammond Bypass – Northern Link</td>
</tr>
<tr>
<td>Stone Nurses Home</td>
</tr>
<tr>
<td>Walton Lodge, Aylesbury</td>
</tr>
<tr>
<td>Walton, The Orchard</td>
</tr>
<tr>
<td>Wavendon Gate</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Publication in preparation</th>
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</thead>
<tbody>
<tr>
<td><strong>Site</strong></td>
</tr>
<tr>
<td>Aston Clinton Bypass Site A</td>
</tr>
<tr>
<td>Aston Clinton Bypass Site B</td>
</tr>
<tr>
<td>Dorney Rowing Lake Area 15</td>
</tr>
<tr>
<td>Dorney Rowing Lake Area 16</td>
</tr>
<tr>
<td>Kingsmead South, Milton Keynes</td>
</tr>
<tr>
<td>Lots Hole, Maidenhead &amp; Windsor Flood Alleviation Scheme</td>
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<tr>
<td>Stoke Hammond Bypass – Site ABC</td>
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<tr>
<td>Taplow Court</td>
</tr>
<tr>
<td>Taplow Pipeline Site A</td>
</tr>
<tr>
<td>Tattenhoe Park, Milton Keynes</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Unpublished backlog (unfunded)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Site</strong></td>
</tr>
<tr>
<td>North Furzton Site A</td>
</tr>
<tr>
<td>Prebendal, Aylesbury</td>
</tr>
<tr>
<td>Westbury-by-Shenley</td>
</tr>
</tbody>
</table>
Appendix 2: “Hillforts”

Confirmed:

West Wycombe
Taplow
Seven Ways Plain (Burnham)
Pulpit Hill (Risborough)
Padbury
Medmenham (Danesfield)
Medmenham (Bolbec)
Maids Moreton
Ivinghoe Beacon
Danesborough (MK)
Cholesbury
Cheddington
Bulstrode (G.Cross)
Boddington (Wendover)
Aylesbury
Whelply Hill, Ashley Green

Possible:

Sherrington Church
Long Crendon
Desborough (Wycombe)
Claydon (tbc)
Brill
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